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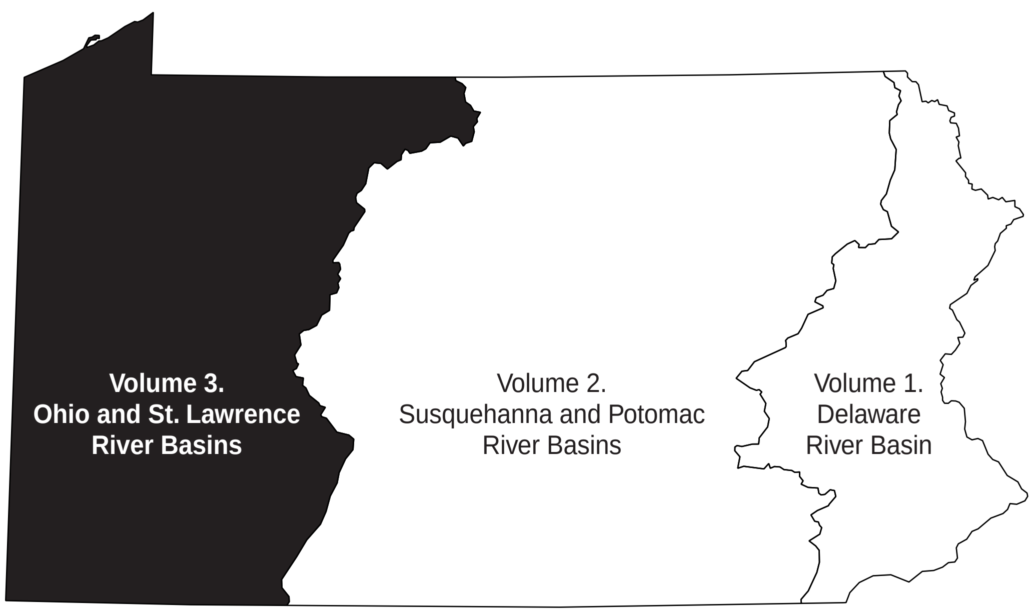
Water Resources Data Pennsylvania Water Year 2005

Volume 3. Ohio and St. Lawrence River Basins

By Raymond W. Siwicki and Lonnie J. Fekula

Water-Data Report PA-05-3



Prepared in cooperation with the Pennsylvania Department of Environmental Protection, the Pittsburgh District of the U.S. Army Corps of Engineers, and with other State, municipal, and Federal agencies.

U.S. DEPARTMENT OF THE INTERIOR

GALE A. NORTON, *Secretary*

U.S. GEOLOGICAL SURVEY

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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 3 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; Lonnie J. Fekula, Acting Chief, Pittsburgh Project 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 the data, and who typed, edited, and assembled the report. In addition to the author, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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13. ABSTRACT *(Maximum 200 words)*

Water resources data for the 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 3 contains (1) discharge records for 61 continuous-record streamflow-gaging stations, 6 partial-record stations and 28 special study and miscellaneous streamflow sites; (2) elevation and contents records for 11 lakes and reservoirs; (3) water-quality records for 6 lakes and reservoirs; (4) water-quality records for 22 gaging stations and 35 ungaged streamsites; (5) water-level records for 22 ground-water network observation wells. Site locations are shown in figures throughout the report. 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 1 and 2, 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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CONTENTS

CONTENTS--Continued

ILLLUSTRATIONS

TABLES

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, (b) biological, (e) elevation, gage heights, or contents.]

OHIO RIVER BASIN

[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

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

OHIO RIVER BASIN--Continued

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

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

GROUND-WATER RECORDS

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)
OHIO AND ST. LAWRENCE RIVER BASINS			
Newell Creek near Port Allegany	03008000	7.79	1966-78
Potato Creek at Smethport	03009680	160	1975-95
Allegheny River at Larabee	03010000	530	1921 1926-39
Kinzua Creek at Dewdrop	03012000	171	1909-16
Allegheny River at Kinzua Dam	03012550*	2,180	1936-91
Jackson Run near North Warren	03015280	12.8	1963-78
Allegheny River at Warren	03015310*	3,131	1989-94
Tionesta Creek at Sheffield	03016500	128	1942-46
South Branch Tionesta Creek at Barnes	03017000	85.3	1942-46
Tionesta Creek at Lynch	03017500*	233	1938-79
Tionesta Creek at Mayburg	03018000	307	1942-46
Tionesta Creek at Butler Bridge (near Nebraska)	03018500	420	1919-23
Tionesta Creek at Nebraska	03019000	469	1910-11 1924-40
Tionesta Creek at Tionesta Dam	03020000*	479	1941-91
Oil Creek near Rouseville	03021000	315	1910-32
West Branch French Creek near Lowville	03021410	52.3	1975-93
French Creek at Carters Corners	03021500	208	1910-71
French Creek near Union City	03021520*	221	1972-91
Little Conneauttee Creek near McKean	03021700	3.60	1961-78
French Creek at Venango	03022000*	597	1939-46
French Creek at Saegerstown	03022500	629	1921-39
Woodcock Creek at Blooming Valley	03022540*	31.1	1975-95
Woodcock Creek at Woodcock Creek Dam	03022554*	45.6	1975-91
Cussewago Creek near Meadville	03023000	90.2	1911-38
French Creek at Carlton	03023500	998	1908-25

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS—Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Sugar Creek at Wyattville	03024500	153	1910-16
Sugar Creek at Sugarcreek	03025000*	166	1933-79
Patchel Run near Franklin	03025200	5.69	1965-78
E. Branch Clarion River at E. Branch Clarion River Dam	03027500*	73.2	1949-91
Clarion River at Johnsonburg	03028500*	204	1946-95
Clarion River at Ridgway	03029000*	303	1941-53
Toms Run at Cooksburg	03029400	12.6	1960-78
Clarion River near Clarion	03030000	930	1919-23
Clarion River at Callensburg	03030852*	1,163	1979-85
Clarion River at St. Petersburg	03031000	1,246	1942-53,1974-75
Big Run near Sprankle Mills	03031950	7.38	1964-81
Allegheny River near Rimer	03033000	8,389	1939-45
Stump Creek at Cramer	03033500	22.1	1942-46
Mahoning Creek at Dayton	03035000	321	1921-40
Mahoning Creek at Mahoning Creek Dam	03036000*	344	1939-91
Crooked Creek at Creekside	03037000	67.6	1942-46
South Branch Plum Creek at Five Points	03037350	33.3	1996-98
South Branch Plum Creek at Willet	03037500	30.0	1942-46
Crooked Creek at Crooked Creek Dam	03039000*	278	1910-91
Clear Run near Buckstown	03039200	3.68	1965-78
Stony Creek at Hollsopple	03039500	244	1937-40
North Fork Bens Creek at North Fork Reservoir	03039925	3.45	1985,1988-98
Little Conemaugh River at East Conemaugh	03041000*	183	1939-95
Little Yellow Creek near Strongstown	03042200	7.36	1961-78,1987-88
Yellow Creek near Penn Run	03042250	50.4	1964-67
Blacklick Creek at Blacklick	03043000	390	1908-51
Conemaugh River at Tunnelton	03044000*	1,358	1940-91
Loyalhanna Creek at New Alexandria	03045500	265	1920-23,1926-40
Loyalhanna Creek at Loyalhanna Dam	03047000*	292	1940-91
Kiskiminetas River at Avonmore	03047500	1,723	1908-37

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS—Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Deer Creek near Dorseyville	03049646	27.0	1996-98
Monongahela River at Point Marion	03063000	2,720	1937-55
Stony Fork Tributary near Gibbon Glade	03070420	0.93	1977-95
Stony Fork near Elliottsville	03070455	7.44	1977-85
Monongahela River at Greensboro	03072500	[a]4,367	1939-95
Georges Creek at Smithfield	03072590	16.3	1964-78
Tenmile Creek near Clarksville	03072840	133	1969-79
South Fork Tenmile Creek at Jefferson	03073000	180	1932-95
Dunlap Creek at Allison	03074000	33.1	1943-51
Lick Run at Hopwood	03074300	3.80	1967-78
Youghiogheny River at Youghiogheny River Dam	03077500*	436	1940-91
Big Piney Run near Salisbury	03078500	24.5	1932-70
Poplar Run near Normalville	03082200	9.27	1962-78
Green Lick Run at Green Lick Reservoir	03083000	3.07	1942-79
Abers Creek near Murrysville	03084000	4.39	1949-93
Turtle Creek at Trafford	03084500	55.9	1921-52
Monongahela River at Braddock	03085000	7,337	1939-2004
Big Sewickley Creek near Ambridge	03086100	15.6	1968-78
Shenango River near Turnersville	03100000	152	1912-22
Sugar Run at Pymatuning Dam	03101000	8.59	1934-55
Shenango River near Jamestown	03102000	181	1920-34
Pymatuning Creek near Orangeville	03103000	169	1914-23,1926-63
Shenango River at Sharpsville	03103500*	584	1938-91
Shenango River at Sharon	03104000	608	1910-38
Shenango River at New Castle	03104500*	792	1910-11,1913-34
Cool Spring Creek near Jackson Center	03104580	13.0	1962-68
Harthegig Run near Greenfield	03104760	2.26	1969-81
Neshannock Creek at Eastbrook	03105000	228	1918-23
Wolf Creek near Slippery Rock	03106140	86.6	1977-82
Ohio River at Montgomery Island Dam	03108500	[b]22,960	1941-51

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS—Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Brush Run near Buffalo	03111150	10.3	1961-78,1983-85
Enlow Fork near West Finley	03111585	38.1	1979-85
Raccoon Creek near West Springfield	04213040	2.53	1969-94

***** Currently operated as a partial-record station.
[a] Formerly published as 4,407.
[b] About.

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 are used to identify the record type: SC (specific conductance); pH; Temp (water temperature); Sed (sediment concentration and discharge).

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record (water years)
OHIO AND ST. LAWRENCE RIVER BASINS				
Brokenstraw Creek at Youngsville	03015500	321	Sed	1969-70
Oil Creek at Rouseville	03020500	300	Sed	1971-72
Clarion River at Cooksburg	03029500	807	Sed	1971-73
Redbank Creek at St. Charles	03032500	528	Sed	1969-70,1977-79
Beaver Run near Troutville	03033222	2.21	Sed	1980-81
East Branch Mahoning Creek near Big Run	03033225	29.6	Sed	1979-81
Stonycreek River at Ferndale	03040000	451	Sed	1978-79
			Temp	1978-79,1997-98
			SC,pH	1997-98
Loyalhanna Creek at Kingston	03045000	172	Sed	1970-77
Allegheny River at New Kensington	03049625	11,500	SC	1975-81
			Temp	1975-81,1997-98
			Sed	1977-79
Stony Fork Tributary near Gibbon Glade	03070420	0.93	Sed,Temp,SC,pH	1978-88
Stony Fork near Elliotsville	03070455	7.44	Sed,Temp,SC,pH	1978-85
Whiteley Creek near Kirby	03072670	5.95	Sed	1979-82
Castile Run at Clarksville	03073030	6.21	Sed	1980-81
Champion Run at Melcroft	03082120	13.8	Sed	1986-87
Poplar Run near Normalville	03082190	8.83	Sed,Temp,SC,pH	1986-88
Indian Creek at White Bridge	03082237	91.2	Temp,SC,pH	1986-87
Monongahela River at Braddock	03085000	7,337	Temp	1973-79,1997-98
			SC	1973-75
			Sed	1973-79
Enlow Fork near West Finley	03111585	38.1	Sed	1980-85

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 3, contains: (1) discharge records for 61 continuous-record streamflow-gaging stations, 6 partial-record stations, and 28 special study and miscellaneous streamflow sites; (2) elevation and contents records for 11 lakes and reservoirs; (3) water-quality records for 6 lakes and reservoirs; (4) water-quality records for 22 streamflow gaging stations and 35 ungaged streamsites; (5) water-level records for 22 ground-water network observation 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-04-3." 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 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 annually 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 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.

Allegheny County Airport Authority, Kent G. George, Executive Director.
Allegheny County Sanitary Authority, Arletta Scott Williams, Executive Director.
Harmony Water Authority, David Szakelyhidi, Chairman.
Indiana County Municipal Services Authority, Michael Duffalo, Executive Director.

COOPERATION--Continued

New York State Department of Environmental Conservation, Dennis M. Sheehan, Acting Commissioner.

Federal Energy Regulatory Commission Licensee:
Reliant Energy, Mid-Atlantic Power

The following Federal agency assisted in the data-collection program by providing funds or services: Corps of Engineers, U.S. Army, Pittsburgh District.

The following organizations aided in collecting records: Allegheny Power Service Corp. and Latrobe Municipal Authority.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Streamflows in the Upper Ohio and St. Lawrence River Basins during water year 2005 were normal. The annual measured streamflow was 95 percent of the median of the 1971-2000 annual mean streamflow at the Ohio River index gaging station, Oil Creek at Rouseville, Pa (station 03020500).

The monthly mean streamflow (fig. 1) was below normal for the months of March, May, and June, normal for the months of October, November, February, April, and July through September, and above normal for the months of December and January . For the purposes of this analysis, an above normal streamflow is defined as flow greater than the long-term 75 percent flow, and below normal streamflow is less than the long-term 25 percent flow.

The period of above normal streamflow beginning in July 2003 appears to have returned to statistical normality during the 2005 water year; starting in October. Seven months of the water year had normal stream flow. With the exception of January, the streamflow during other months were just slightly above or below normal. January streamflow was much above normal due to rapid snow melt caused by warm weather and rainfall.

A comparison of the monthly and yearly mean streamflow during the 2005 water year with that of the 1971-2000 reference periods for Oil Creek at Rouseville, Pa., is shown in figure 1.

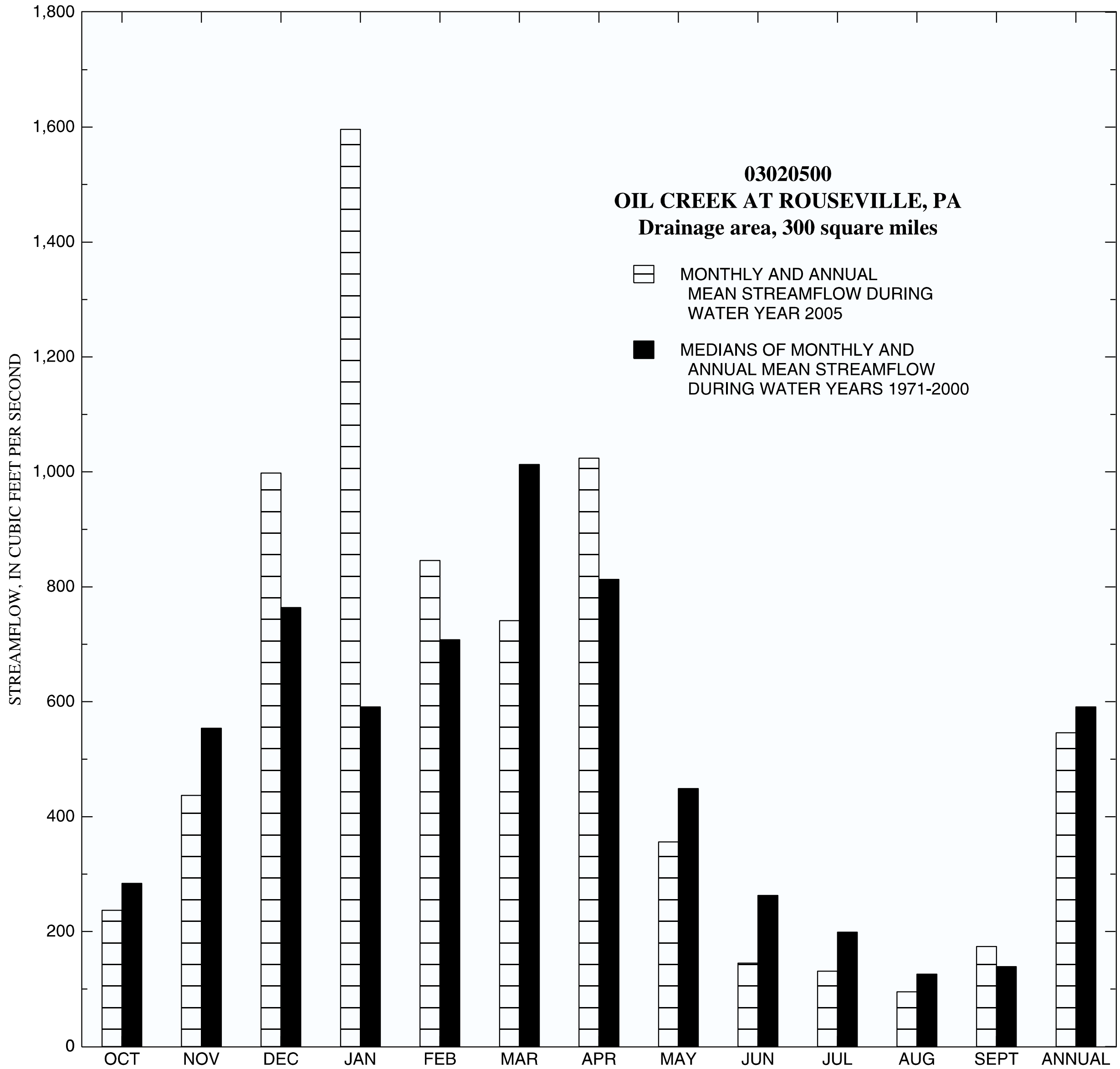

Figure 1.--Comparison of monthly and annual mean streamflow during water year 2005 with the medians of monthly and annual mean streamflow during water years 1971-2000.

SUMMARY OF HYDROLOGIC CONDITIONS

Ground Water

During the 2005 water year, ground-water levels reached annual lows in most observation wells during the summer of 2005. Ground-water levels in observation wells reached annual highs in 10 observation wells during January 2005 and in four observation wells during April 2005. Water levels during the 2005 water year for 14 network wells were averaged by season and compared to the long-term water level for these seasons (fig. 2). Long-term water levels were calculated from records ranging from 23 to 68 years in length.

Water year 2005 was characterized by having above average precipitation during January and below average precipitation in June and September in most areas of western Pennsylvania. The departure of precipitation above normal, for example in Pittsburgh in Allegheny County was 3.4 inches in January 2005. Because of this excess precipitation and subsequent above normal ground-water recharge in many areas of western Pennsylvania, water levels throughout the winter were generally normal, above normal or much-above normal. In Allegheny County, the precipitation deficit for the months of June and September was 2.6 inches.

In the fall of the 2005 water year, seasonal water levels were much-above normal in four wells, above normal in five wells, and normal in five wells (fig. 2). These water levels of normal, above normal, and much-above normal were partly a result of above normal ground-water recharge from a precipitation surplus of 6.85 inches from the remnants of Hurricane Frances and Hurricane Ivan during September of 2004. During the winter of 2005, water levels were much-above normal in five wells, above normal in two wells, and normal in seven wells. Water levels were much-above normal in three wells, above normal in one well, normal in seven wells, below normal in two wells, and much-below normal in one well during the spring. Because of the deficit precipitation in June and September and subsequent below normal ground-water recharge, six of the 14 wells dropped to a lower category of water-level status during the summer when compared to the spring levels. During the summer, water levels were above normal in three wells, normal in five wells, below normal in five wells, and much-below normal in one well.

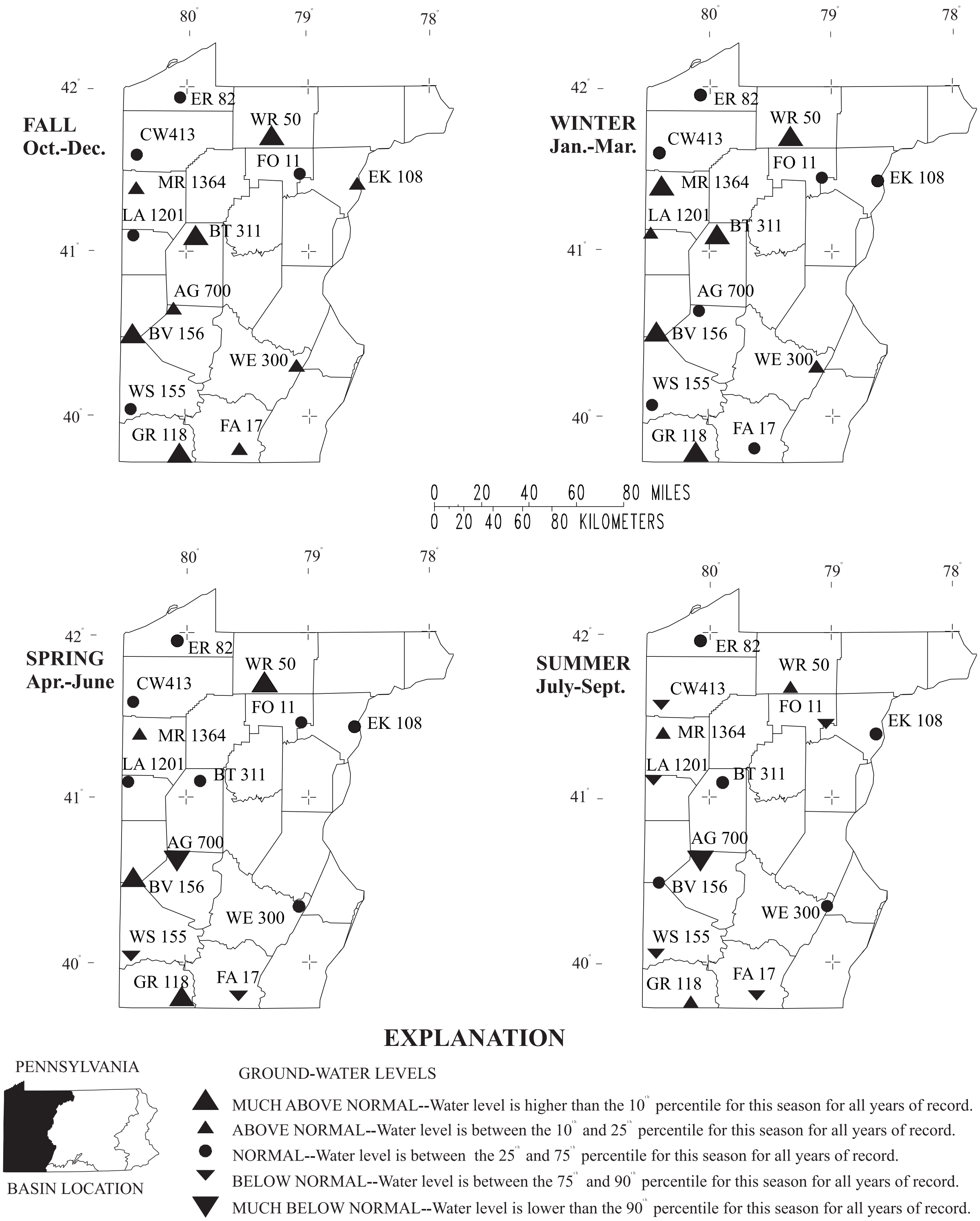

Figure 2.--Relation between 2005 seasonal mean ground-water levels and long-term mean ground-water levels *[Seasonal percentile values were determined by ranking the average monthly water levels for each month in the season from highest to lowest for all years of record and averaging the ranks for the 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 in the Colorado and Columbia River Basins was reduced to a few index stations 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 data for streamflow stations, and ground-water-level data. The location of these stations and wells are shown in figures throughout the report. 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 stations 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 *03020500*, includes a 2-digit part number "*03*" plus a 6-digit downstream-order number "*020500*." The part number designates major river basins; for example, part "*03*" is the Ohio and St. Lawrence River Basins.

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. 3).

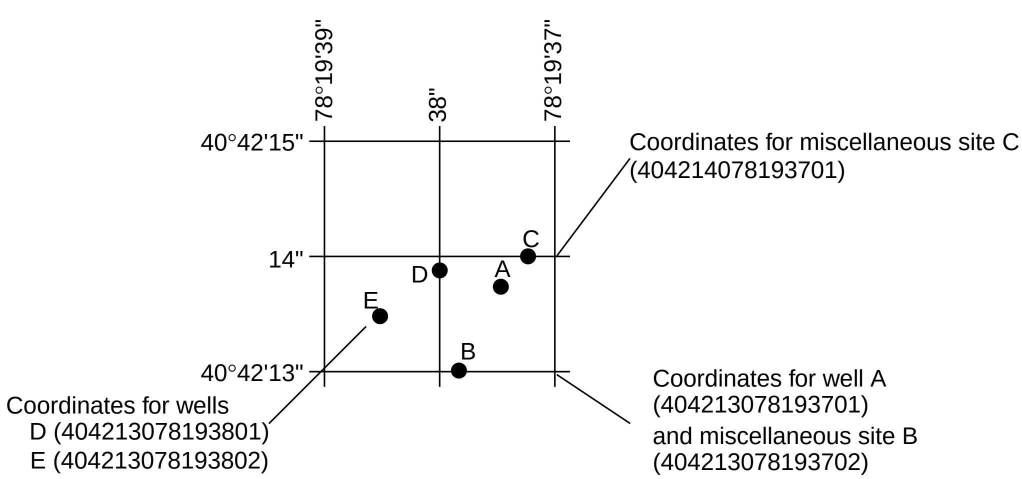

Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

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. 4-5) 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 4-5.

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 in 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. 4).

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.

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

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”)

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.

Watershed (See “Drainage basin”)

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.”

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.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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

Section E. Subsurface Geophysical Methods

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

Section F. Drilling and Sampling Methods

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

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3–A1.*General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.
3–A2.*Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.
3–A3.*Measurement of peak discharge at culverts by indirect methods,* by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.
3–A4.*Measurement of peak discharge at width contractions by indirect methods,* by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.
3–A5.*Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.
3–A6.*General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.
3–A7.*Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.
3–A8.*Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.
3–A9.*Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.
3–Al0.*Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
3–A11.*Measurement of discharge by the moving-boat method,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.
3–A12.*Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.
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3–A19.*Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.
3–A20.*Simulation of soluble waste transport and buildup in surface waters using tracers,* by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.
3–A21*Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

3–B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.
3–B2.*Introduction to ground-water hydraulics, a 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–B8.*System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

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

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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

Section B. Surface Water

4–B1.*Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.
4–B2.*Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.
4–B3.*Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

5–A1.*Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.
5–A2.*Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.
5–A3.*Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 p.

5–A4.*Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.
5–A5.*Methods for determination of radioactive substances in water and fluvial sediments,* by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 p.
5–A6.*Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

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

Book 6. Modeling Techniques

Section A. Ground Water

6–A1.*A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.
6–A2.*Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.
6–A3.*A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.
6–A4.*A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.
6–A5.*A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI book 6, chap. A5. 1993. 243 p.
6–A6.*A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction,* by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A6. 1996. 125 p.
6–A7.*User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002.
77 p.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

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

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

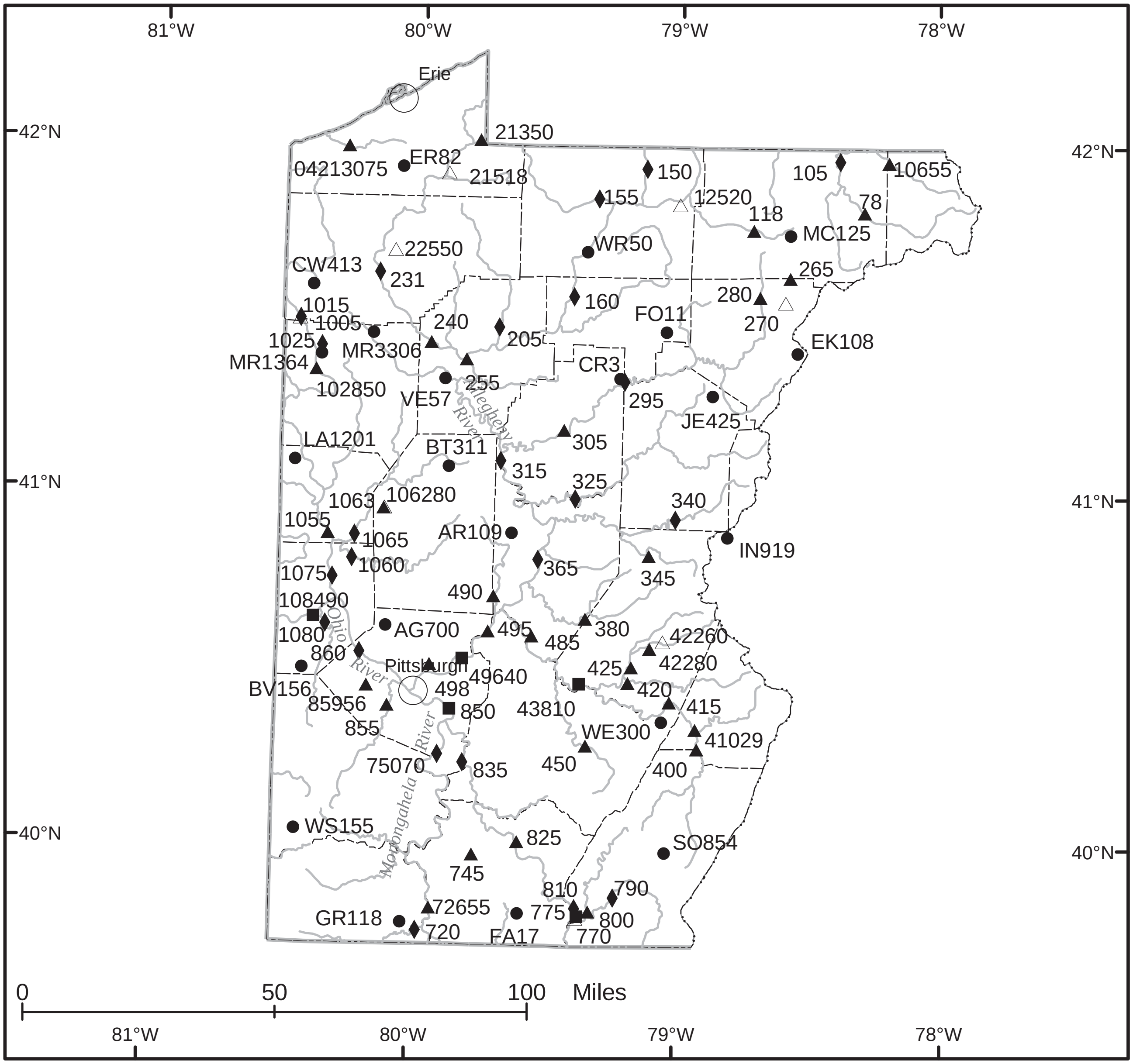
Section B. Instruments for Measurement of Discharge

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

Book 9. Handbooks for Water-Resources Investigations

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

9–A1.*National field manual for the collection of water-quality data: Preparations for water sampling,* by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
9–A2.*National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
9–A3.*National field manual for the collection of water-quality data: Cleaning of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
9–A4.*National field manual for the collection of water-quality data: Collection of water samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
9–A5.*National field manual for the collection of water-quality data: Processing of water samples,* edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.
9–A6.*National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.
9–A7.*National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.
9–A8.*National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.
9–A9.*National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.



EXPLANATION

▲ Streamflow station

△ Lake

♦ Streamflow and water-quality station

■ Water-quality station

● Observation well

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 03041000 is shown as 410, and station number 03105940 is shown as 105940).

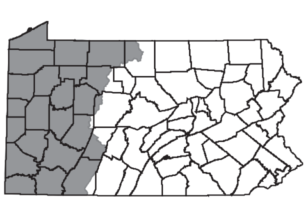
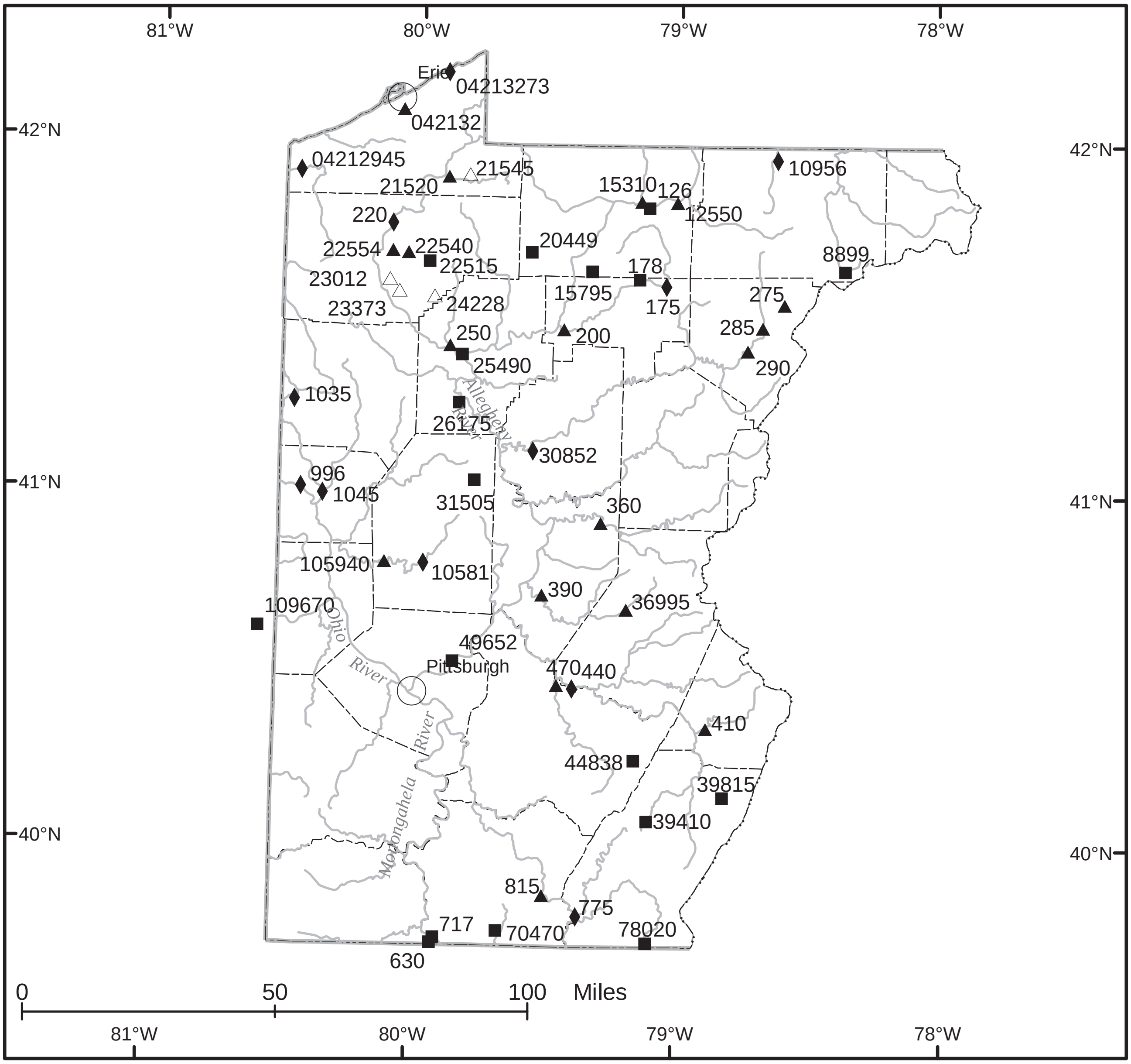
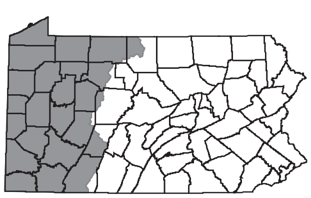


Figure 4.--Location of continuous-record data-collection stations and network observation wells.





EXPLANATION

▲ Streamflow station

△ Lake

♦ Streamflow and water-quality station

■ 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 03041000 is shown as 410, and station number 03105940 is shown as 105940).

Figure 5.--Location of partial-record data-collection stations.

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

****

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.
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.

****

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

(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
84218 --Erie County Health Department

(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
84218 --Erie County Health Department

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 STATION RECORDS

OHIO RIVER MAIN STEM

03007800 ALLEGHENY RIVER AT PORT ALLEGANY, PA

LOCATION.--Lat 41°49'07", long 78°17'35", McKean County, Hydrologic Unit 05010001, on right bank 40 ft upstream from bridge on U.S. Highway 6 at Port Allegany, 1.1 mi upstream from Twomile Creek, 1.4 mi downstream from Allegheny Portage Creek, at mile 285.5.

DRAINAGE AREA.--248 mi^2.

PERIOD OF RECORD.--October 1974 to current year. Discharge measurements obtained by U.S. Army Corps of Engineers March 1971 to October 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,454.88 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972 reached a stage of at least 17.5 ft, discharge, 21,700 ft^3/s, from U.S. Army Corps of Engineers discharge measurement. Actual peak discharge may have been greater.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 14	1700	*4,730	*11.24	Apr. 3	0900	3,610	10.03

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	211	101	1750	421	e321	e228	2430	360	88	104	41	444
2	195	117	1750	363	e297	e217	2910	331	80	133	38	213
3	182	237	1500	442	e277	e208	3510	323	84	91	35	141
4	168	223	1130	978	e253	e200	2690	298	100	78	32	106
5	157	311	884	880	e249	e195	2020	272	86	181	30	86
6	146	301	698	1030	e225	e192	1640	257	97	295	28	72
7	135	303	682	1020	e201	e204	1470	251	166	395	26	63
8	128	290	740	962	e209	539	1260	242	108	342	26	56
9	122	269	616	873	e297	373	985	226	88	326	26	52
10	118	248	841	757	734	e347	791	215	84	241	25	47
11	113	240	1260	665	616	e323	658	205	98	198	24	43
12	108	231	1390	856	526	e304	560	192	83	167	25	39
13	105	212	1260	1870	464	e288	497	175	75	142	25	37
14	104	194	993	4360	437	e273	442	180	72	137	44	35
15	106	183	776	3530	605	262	395	192	89	122	32	33
16	123	178	641	2050	767	256	349	168	109	108	27	33
17	115	171	554	1420	712	246	318	157	96	108	25	47
18	103	168	473	1010	629	247	294	145	86	109	22	42
19	227	161	439	e699	549	248	273	135	81	90	25	35
20	172	171	332	e534	486	304	261	130	72	77	31	34
21	129	175	370	e470	468	357	285	127	67	69	33	32
22	119	160	348	e445	417	351	245	118	62	67	25	29
23	108	154	1390	e440	369	423	321	116	59	62	21	27
24	102	185	1800	e430	321	423	385	132	53	55	20	27
25	107	370	1370	e410	306	437	374	129	51	55	18	26
26	98	348	1040	e400	286	443	372	108	49	54	17	63
27	93	363	815	e385	249	480	388	98	48	80	17	115
28	89	994	653	e375	e235	853	381	111	69	65	27	60
29	88	1090	561	e350	---	1470	363	128	282	54	35	88
30	106	1030	475	e345	---	1850	371	106	128	47	98	108
31	116	---	442	e333	---	2040	---	98	---	43	751	---
TOTAL	3993	9178	27973	29103	11505	14581	27238	5725	2710	4095	1649	2233
MEAN	129	306	902	939	411	470	908	185	90.3	132	53.2	74.4
MAX	227	1090	1800	4360	767	2040	3510	360	282	395	751	444
MIN	88	101	332	333	201	192	245	98	48	43	17	26
CFSM	0.52	1.23	3.64	3.79	1.66	1.90	3.66	0.74	0.36	0.53	0.21	0.30
IN.	0.60	1.38	4.20	4.37	1.73	2.19	4.09	0.86	0.41	0.61	0.25	0.33

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	272	452	529	456	528	825	894	495	362	204	191	243
MAX	964	1018	1082	1119	1572	1730	2006	1127	1484	598	1230	1226
(WY)	1991	1997	1978	1998	1976	1979	1993	1996	1989	1977	2003	1977
MIN	31.2	39.7	150	78.2	98.0	326	359	142	48.5	28.5	15.0	20.7
(WY)	1983	1999	1999	1981	1980	1993	1976	1985	1991	1991	1999	1991

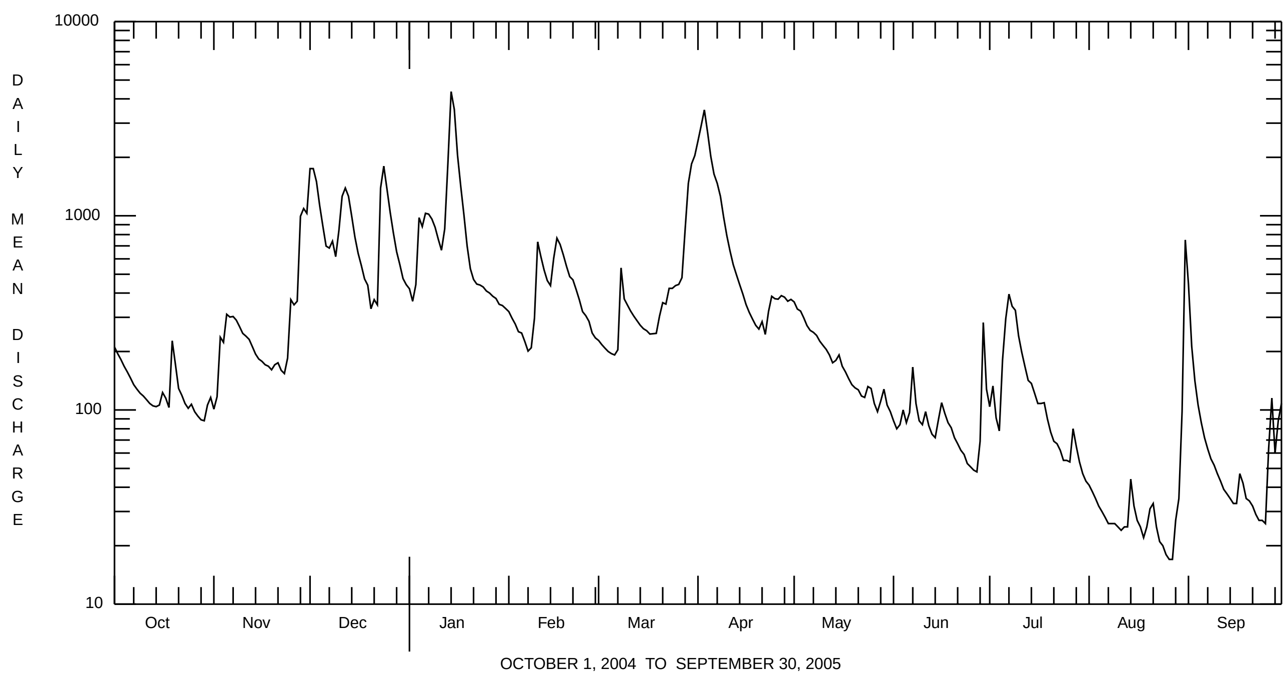
e Estimated.

OHIO RIVER MAIN STEM

03007800 ALLEGHENY RIVER AT PORT ALLEGANY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005	
ANNUAL TOTAL	211236		139983			
ANNUAL MEAN	577		384		453	
HIGHEST ANNUAL MEAN					670	1994
LOWEST ANNUAL MEAN					275	2001
HIGHEST DAILY MEAN	5880	Sep 18	4360	Jan 14	8860	Jan 20 1996
LOWEST DAILY MEAN	47	Jul 11	17	Aug 26,27	5.4	Sep 5 1999
ANNUAL SEVEN-DAY MINIMUM	58	Jul 6	21	Aug 22	6.4	Aug 31 1999
MAXIMUM PEAK FLOW			4730	Jan 14	**a**12600	Jan 19 1996
MAXIMUM PEAK STAGE			11.24	Jan 14	**b**15.37	Jan 19 1996
INSTANTANEOUS LOW FLOW			16	Aug 27	5.1	Sep 6 1999
ANNUAL RUNOFF (CFSM)	2.33		1.55		1.83	
ANNUAL RUNOFF (INCHES)	31.69		21.00		24.83	
10 PERCENT EXCEEDS	1380		968		1030	
50 PERCENT EXCEEDS	316		209		250	
90 PERCENT EXCEEDS	107		36		48	

a From rating curve extended above 6,700 ft^3/s.
b From peak-stage indicator.



OHIO RIVER MAIN STEM

03010500 ALLEGHENY RIVER AT ELDRED, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°57'48", long 78°23'11", McKean County, Hydrologic Unit 05010001, on right bank at site of former highway bridge, 600 ft upstream from bridge on State Highway 346, 1,000 ft upstream from Knapp Creek, 0.5 mi north of Eldred, at mile 267.8.

DRAINAGE AREA.--550 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,416.53 ft above National Geodetic Vertical Datum of 1929.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 5,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 15	1500	*8,110	*16.17	Apr. 4	0900	6,160	14.45

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	494	286	2700	1230	e740	e588	4090	931	216	221	98	1820
2	447	260	3660	1050	e653	e556	4620	827	194	258	94	644
3	420	539	3630	1190	e613	e528	5400	800	185	227	89	359
4	384	604	2960	2850	e574	e482	6070	758	220	173	81	250
5	356	816	2220	2880	e547	e456	5390	686	220	228	76	197
6	329	838	1730	2680	e534	e467	4550	633	213	788	71	166
7	305	735	1580	3010	e547	541	3670	603	389	916	68	141
8	285	691	2080	2620	e627	1400	2980	582	318	652	65	130
9	267	633	1790	2520	1240	1190	2350	540	229	692	63	120
10	255	580	2020	2100	2310	1020	1880	506	204	508	63	113
11	245	544	2290	1830	2120	e945	1550	474	336	399	63	105
12	236	526	2480	2180	1820	e847	1300	448	356	333	63	98
13	225	497	2400	3840	1540	e773	1140	412	271	283	64	93
14	220	450	2110	5510	1380	e692	1010	394	221	245	71	89
15	220	414	1700	7830	1710	e635	891	472	230	232	90	85
16	239	398	1400	6850	2090	e608	785	440	299	209	73	83
17	264	387	1280	4980	2090	608	708	378	308	229	61	85
18	239	375	1110	3280	1680	634	657	350	255	231	56	96
19	409	366	1050	2160	1410	614	611	324	231	201	55	91
20	617	366	878	1990	1340	769	579	305	211	165	67	83
21	388	408	1160	1590	1200	1030	652	295	188	145	75	79
22	324	388	1380	1240	1140	943	589	279	170	135	75	76
23	296	354	2510	e1150	1010	1110	752	263	157	132	59	72
24	276	355	4070	e1130	863	1120	990	277	146	122	53	69
25	282	683	4090	e1090	802	1160	930	309	135	113	49	68
26	270	813	3030	e1050	788	1180	899	271	130	116	47	110
27	251	725	2110	e1030	649	1280	856	235	126	192	45	333
28	236	1430	1580	e992	e617	1860	861	227	127	209	46	214
29	228	2410	1550	e952	---	2990	807	323	423	146	58	176
30	261	2050	1240	e879	---	3460	838	280	369	120	108	327
31	312	---	1170	e813	---	3760	---	240	---	106	1410	---
TOTAL	9580	19921	64958	74496	32634	34246	58405	13862	7077	8726	3456	6372
MEAN	309	664	2095	2403	1166	1105	1947	447	236	281	111	212
MAX	617	2410	4090	7830	2310	3760	6070	931	423	916	1410	1820
MIN	220	260	878	813	534	456	579	227	126	106	45	68
CFSM	0.56	1.21	3.81	4.37	2.12	2.01	3.54	0.81	0.43	0.51	0.20	0.39
IN.	0.65	1.35	4.39	5.04	2.21	2.32	3.95	0.94	0.48	0.59	0.23	0.43

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	452	826	1092	1055	1093	1869	2040	1181	779	429	285	352
MAX	1894	3175	2390	3359	3250	4697	5314	3273	6490	3893	2336	2340
(WY)	1991	1951	1973	1952	1976	1945	1940	1943	1972	1942	2003	1977
MIN	41.6	62.0	55.1	87.3	213	728	385	292	109	57.8	43.4	34.6
(WY)	1965	1965	1961	1961	1980	1993	1946	1985	1991	1966	1957	1959

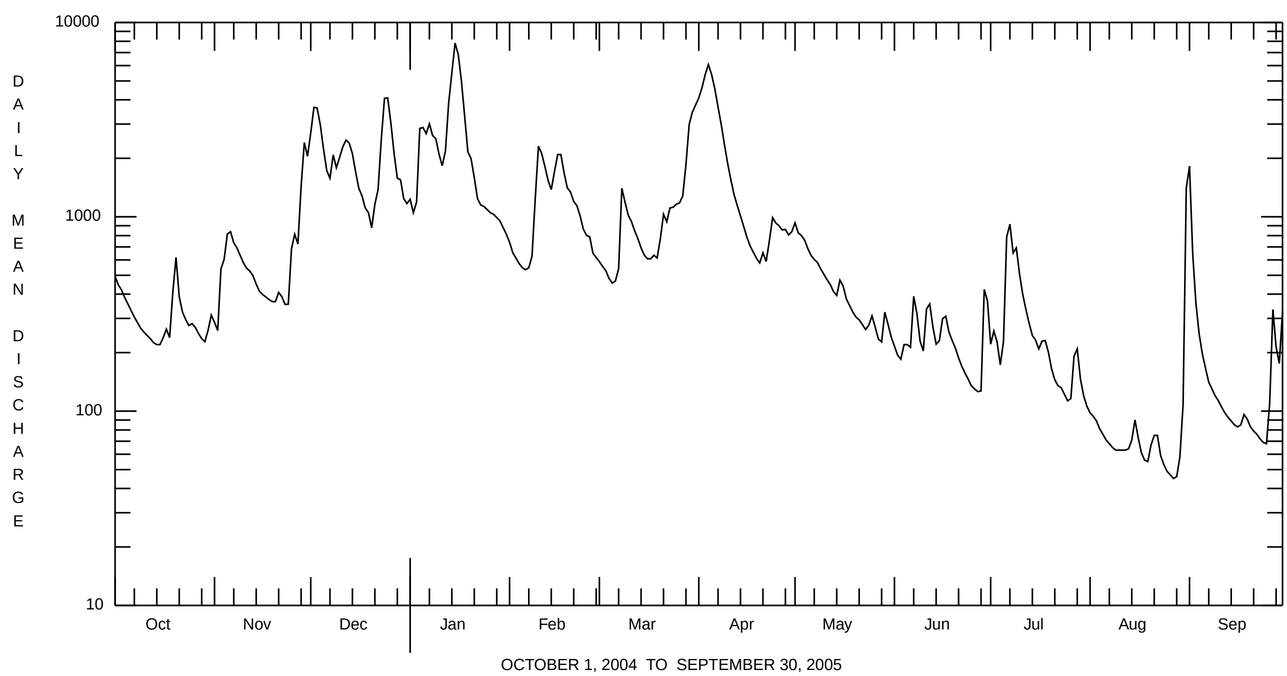
e Estimated.

OHIO RIVER MAIN STEM

03010500 ALLEGHENY RIVER AT ELDRED, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	481598		333733			
ANNUAL MEAN	1316		914		953	
HIGHEST ANNUAL MEAN					1475	1972
LOWEST ANNUAL MEAN					631	1962
HIGHEST DAILY MEAN	7990	Sep 19	7830	Jan 15	55700	Jun 23 1972
LOWEST DAILY MEAN	112	Jul 11,12	45	Aug 27	16	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	130	Jul 6	51	Aug 23	20	Sep 1 1999
MAXIMUM PEAK FLOW			8110	Jan 15	**a**65400	Jun 23 1972
MAXIMUM PEAK STAGE			16.17	Jan 15	**b**29.05	Jun 23 1972
INSTANTANEOUS LOW FLOW			44	Aug 27	15	Sep 6 1999
ANNUAL RUNOFF (CFSM)	2.39		1.66		1.73	
ANNUAL RUNOFF (INCHES)	32.57		22.57		23.54	
10 PERCENT EXCEEDS	3220		2300		2280	
50 PERCENT EXCEEDS	814		506		527	
90 PERCENT EXCEEDS	269		90		86	

a From rating curve extended above 21,000 ft^3/s on basis of slope-area measurement at gage height 27.6 ft.
b From floodmark.



03010500 ALLEGHENY RIVER AT ELDRED, 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 276-323.

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													
01...	1045	1028	9813	287	9.9	7.2	7.1	98	97	11.0	32	8.7	2.5
JAN 2005													
12...	1345	1028	9813	1930	13.4	6.8	6.6	73	71	2.6	22	6.0	1.7
MAR													
15...	1215	1028	9813	E635	13.2	6.6	7.2	78	81	.3	25	6.7	2.0
MAY													
03...	1215	1028	9813	803	11.7	7.7	7.3	71	72	8.2	24	6.5	1.8
JUL													
26...	0945	1028	9813	114	6.7	7.0	7.6	111	106	22.9	37	10.2	2.8
SEP													
07...	1100	1028	9813	139	7.6	7.5	7.5	104	101	18.2	35	9.8	2.6

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
01...	26	8.0	54	<2	<.020	.14	<.040	.01	.022	.30	2.0	<200	<10
JAN 2005													
12...	13	8.6	42	16	<.020	.52	<.040	.02	.022	.51	1.2	420	<10
MAR													
15...	16	8.9	62	4	<.020	.50	<.040	.01	.011	.57	1.0	<200	<10
MAY													
03...	15	9.0	52	10	.030	.32	<.040	<.01	.016	.38	--	<200	<10
JUL													
26...	32	8.0	84	18	.040	.06	<.040	.02	.032	.25	--	<200	20
SEP													
07...	27	9.7	74	4	.020	.18	<.040	.02	.036	.38	--	<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					
01...	470	<1.0	60	<50	<10
JAN 2005					
12...	730	<1.0	60	<50	<10
MAR					
15...	400	<1.0	60	<50	<10
MAY					
03...	360	<1.0	50	<50	<10
JUL					
26...	620	1.0	170	<50	20
SEP					
07...	800	<1.0	170	<50	<10

OHIO RIVER MAIN STEM

03010500 ALLEGHENY RIVER AT ELDRED, 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	10/26/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	6
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Plauditus	2
Ephemerellidae	
Attenella	4
Heptageniidae	
Stenonema	17
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taenionema	4
Taeniopteryx	28
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Nigronia	1
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	1
Micrasema	1
Hydropsychidae	
Cheumatopsyche	17
Hydropsyche	2
Hydroptilidae	
Hydroptila	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Dubiraphia	4
Optioservus	1
Stenelmis	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	15
Empididae (DANCE FLIES)	
Hemerodromia	3
Simuliidae (BLACK FLIES)	
Simulium	1
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	113
Total Taxa	22

OSWAYO CREEK BASIN

03010655 OSWAYO CREEK AT SHINGLEHOUSE, PA

LOCATION.--Lat 41°57'42", long 78°11'54", Potter County, Hydrologic Unit 05010001, on right bank 200 ft upstream from bridge on State Highway 44 at Shinglehouse and 0.7 mi upstream from Honeoye Creek.

DRAINAGE AREA.--98.7 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,460.34 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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)
Dec. 23	2000	1,040	7.93	Apr. 3	0600	1,240	8.41
Jan. 14	1500	*2,440	*10.48				

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	73	28	537	189	e156	e100	775	160	28	28	12	188
2	66	29	551	165	e154	e95	955	147	27	29	12	89
3	60	80	499	194	e154	e92	1210	136	28	23	13	53
4	55	72	400	360	e153	e89	906	126	32	20	11	38
5	51	106	334	367	e152	e86	683	113	28	33	9.9	29
6	47	103	275	411	e152	e85	560	104	e36	200	9.3	24
7	44	106	266	396	e154	e85	502	100	e50	148	8.7	21
8	40	101	290	368	e178	e182	432	95	e38	224	8.7	19
9	39	92	265	332	219	246	352	88	34	207	8.7	17
10	37	85	362	302	297	211	298	81	31	127	8.1	15
11	36	81	480	270	258	170	258	77	29	82	7.9	14
12	34	77	512	366	251	138	228	71	27	59	8.4	13
13	33	70	472	889	225	128	203	63	26	46	10	12
14	33	63	386	2120	211	120	182	64	24	38	9.9	12
15	34	59	320	1440	258	112	161	70	30	33	8.5	11
16	37	58	273	750	280	105	140	59	37	30	7.7	12
17	35	57	243	512	264	103	126	54	30	32	7.1	13
18	32	55	211	395	251	105	115	50	28	31	6.6	12
19	74	53	196	e321	233	108	106	46	26	25	8.2	11
20	49	59	176	e252	212	146	102	44	23	21	11	11
21	37	57	256	e207	205	184	111	42	22	20	8.6	10
22	35	53	247	e189	187	180	91	41	20	19	7.2	9.3
23	31	51	547	e187	168	202	121	38	19	18	6.9	9.6
24	31	57	782	e187	144	210	153	42	18	16	6.8	9.4
25	32	98	577	e189	141	216	161	40	17	15	6.5	8.7
26	30	99	433	e183	124	214	173	36	16	16	6.3	30
27	29	109	348	e173	e110	226	179	33	15	27	6.5	42
28	28	274	303	e171	e105	321	178	36	17	21	8.2	20
29	28	322	248	e164	---	483	171	38	73	16	9.0	53
30	30	331	214	e159	---	587	170	32	33	14	29	43
31	30	---	203	e157	---	633	---	30	---	13	325	---
TOTAL	1250	2885	11206	12365	5396	5962	9802	2156	862	1631	606.7	849.0
MEAN	40.3	96.2	361	399	193	192	327	69.5	28.7	52.6	19.6	28.3
MAX	74	331	782	2120	297	633	1210	160	73	224	325	188
MIN	28	28	176	157	105	85	91	30	15	13	6.3	8.7
CFSM	0.41	0.97	3.66	4.04	1.95	1.95	3.31	0.70	0.29	0.53	0.20	0.29
IN.	0.47	1.09	4.22	4.66	2.03	2.25	3.69	0.81	0.32	0.61	0.23	0.32

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	90.2	152	188	168	194	283	310	173	122	72.6	65.8	75.7
MAX	331	371	361	399	561	517	755	489	612	264	437	452
(WY)	1991	1997	2005	2005	1976	1979	1993	1996	1989	2003	2003	1977
MIN	8.35	9.35	28.7	27.0	41.2	120	131	50.8	6.28	7.69	7.12	6.08
(WY)	1992	1999	1999	2001	1987	1981	1976	1993	1993	1993	1991	1991

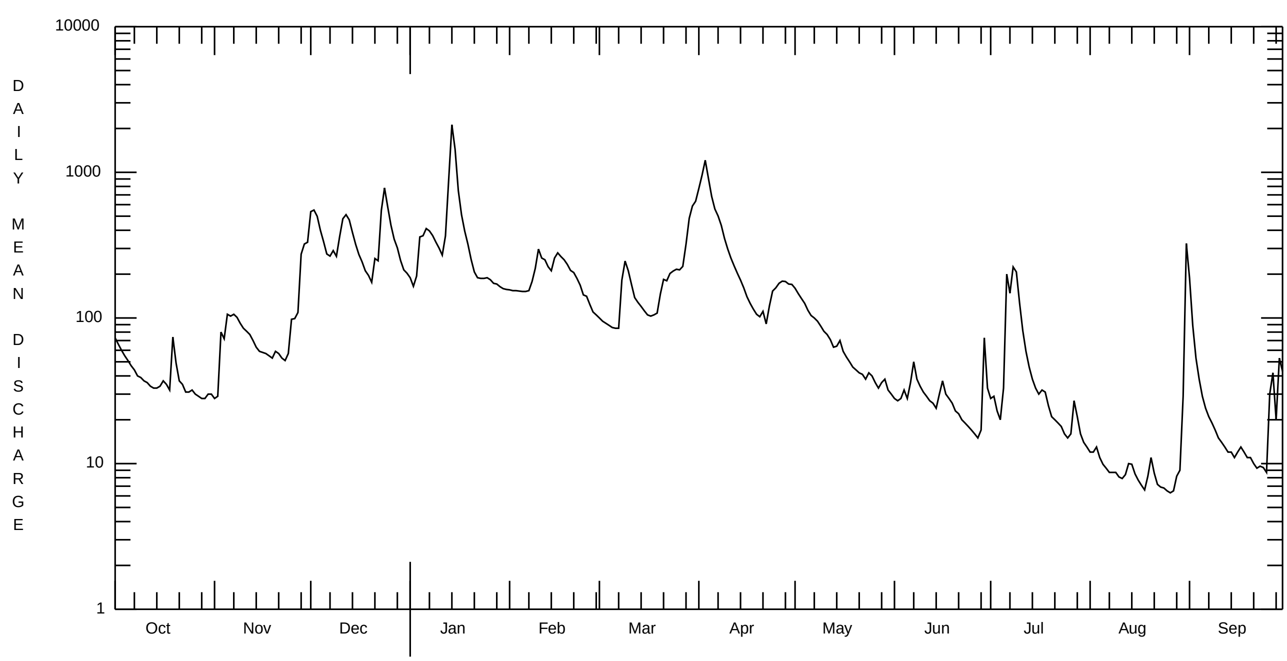
e Estimated.

OSWAYO CREEK BASIN

03010655 OSWAYO CREEK AT SHINGLEHOUSE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005	
ANNUAL TOTAL	76093		54970.7			
ANNUAL MEAN	208		151		157	
HIGHEST ANNUAL MEAN					231	2004
LOWEST ANNUAL MEAN					85.0	2001
HIGHEST DAILY MEAN	1890	Sep 18	2120	Jan 14	3270	Jun 21 1989
LOWEST DAILY MEAN	18	Jul 11	6.3	Aug 26	3.2	Sep 13 1989
ANNUAL SEVEN-DAY MINIMUM	20	Jul 6	6.9	Aug 22	4.1	Aug 31 1999
MAXIMUM PEAK FLOW			2440	Jan 14	**a**4660	Jan 19 1996
MAXIMUM PEAK STAGE			10.48	Jan 14	**b**12.74	Jan 19 1996
INSTANTANEOUS LOW FLOW			6.0	Aug 26,27	3.2	Sep 13 1989
ANNUAL RUNOFF (CFSM)	2.11		1.53		1.59	
ANNUAL RUNOFF (INCHES)	28.68		20.72		21.67	
10 PERCENT EXCEEDS	435		355		358	
50 PERCENT EXCEEDS	115		81		88	
90 PERCENT EXCEEDS	34		12		15	

a From rating curve extended above 2,600 ft^3/s.
b From peak-stage indicator.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

KINZUA CREEK BASIN

03011800 KINZUA CREEK NEAR GUFFEY, PA

LOCATION.--Lat 41°45'59", long 78°43'08", McKean County, Hydrologic Unit 05010001, in Allegheny National Forest, on right bank 130 ft upstream from bridge on U.S. Highway 219, 0.2 mi upstream from Wintergreen Run, 1.0 mi downstream from Pine Run, and 1.5 mi west of Guffey.

DRAINAGE AREA.--38.8 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, published as "*at Tallyho*," water years 1959-65. October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Dec. 23	1800	879	5.06	July 5	1700	*1,570	*6.09
Jan. 14	0600	1,260	5.68	Aug. 31	0600	539	4.35
Apr. 2	1400	706	4.73				

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	37	24	275	112	e70	e52	443	75	21	34	16	168
2	34	28	210	91	e70	e52	572	63	19	34	15	60
3	33	63	168	159	112	e53	501	61	20	26	14	32
4	30	52	141	343	96	e54	354	57	22	24	13	24
5	29	90	123	202	79	e53	310	52	20	388	12	20
6	28	65	107	246	72	e52	250	49	25	311	12	18
7	25	54	114	232	60	51	210	48	35	177	12	16
8	24	49	136	204	60	110	180	45	25	164	12	15
9	23	45	111	174	95	80	147	41	22	131	11	14
10	23	42	118	150	117	71	124	38	81	100	11	14
11	22	39	112	136	99	e65	106	33	114	77	10	13
12	21	38	103	258	74	e62	91	31	55	60	10	12
13	21	35	99	544	76	e60	81	29	39	49	10	11
14	21	32	88	936	68	e58	72	36	36	40	13	10
15	25	30	78	449	118	e55	63	53	59	34	11	10
16	29	29	77	e208	145	50	56	36	70	32	10	10
17	27	29	68	e159	118	51	51	31	60	44	9.7	11
18	26	29	65	e143	e93	44	47	28	51	41	9.4	10
19	74	29	61	e132	e84	42	45	27	48	28	10	9.4
20	46	32	59	e122	e79	57	46	26	39	23	14	9.1
21	34	38	113	e119	e72	69	56	26	34	20	11	8.7
22	30	32	89	e119	e69	59	47	24	33	19	9.8	8.4
23	27	29	472	e117	e65	70	81	26	26	18	9.3	8.8
24	27	37	356	e118	e62	65	77	28	26	16	8.7	8.6
25	26	61	210	e117	e60	63	71	26	26	17	8.0	8.3
26	24	48	160	e112	e59	66	67	24	25	24	7.9	54
27	23	41	134	e107	e55	78	61	22	26	92	7.9	34
28	22	135	139	e92	e51	161	56	29	29	43	8.2	17
29	23	112	102	e89	---	280	52	28	100	24	8.1	39
30	25	93	89	e86	---	329	66	24	49	19	16	31
31	26	---	105	e79	---	401	---	22	---	17	386	---
TOTAL	885	1460	4282	6155	2278	2813	4383	1138	1235	2126	716.0	704.3
MEAN	28.5	48.7	138	199	81.4	90.7	146	36.7	41.2	68.6	23.1	23.5
MAX	74	135	472	936	145	401	572	75	114	388	386	168
MIN	21	24	59	79	51	42	45	22	19	16	7.9	8.3
CFSM	0.74	1.25	3.56	5.12	2.10	2.34	3.77	0.95	1.06	1.77	0.60	0.61
IN.	0.85	1.40	4.11	5.90	2.18	2.70	4.20	1.09	1.18	2.04	0.69	0.68

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	47.0	82.4	105	83.3	89.3	136	137	84.6	68.8	35.8	30.2	40.1
MAX	137	166	281	199	251	269	289	182	272	99.8	126	154
(WY)	1991	1971	1984	2005	1976	1979	1994	1989	1989	2003	1980	1977
MIN	6.69	15.3	32.6	19.8	18.4	61.6	67.9	23.8	9.49	6.29	4.96	5.16
(WY)	1992	1992	1990	1981	1987	1970	1976	1985	1991	1991	1991	1991

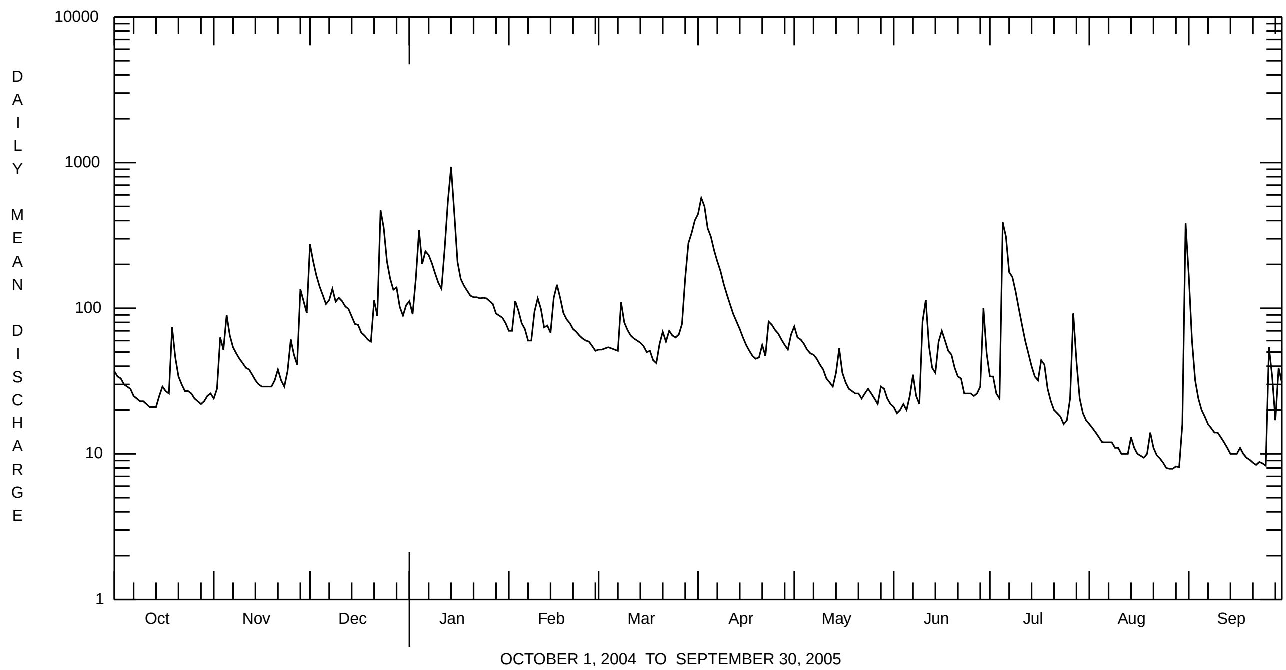
e Estimated.

KINZUA CREEK BASIN

03011800 KINZUA CREEK NEAR GUFFEY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	35420		28175.3			
ANNUAL MEAN	96.8		77.2		78.1	
HIGHEST ANNUAL MEAN					113	1984
LOWEST ANNUAL MEAN					49.2	2001
HIGHEST DAILY MEAN	777	Sep 9	936	Jan 14	2120	Jun 23 1972
LOWEST DAILY MEAN	14	Jul 11	7.9	Aug 26,27	2.2	Sep 30 1995
ANNUAL SEVEN-DAY MINIMUM	17	Jul 6	8.3	Aug 23	3.3	Sep 10 1991
MAXIMUM PEAK FLOW			**a**1570	Jul 5	**a**5220	Jun 22 1972
MAXIMUM PEAK STAGE			6.09	Jul 5	**b**8.99	Jun 22 1972
INSTANTANEOUS LOW FLOW			7.9	Aug 25-29	2.0	Jul 29 1978
ANNUAL RUNOFF (CFSM)	2.49		1.99		2.01	
ANNUAL RUNOFF (INCHES)	33.96		27.01		27.35	
10 PERCENT EXCEEDS	198		159		169	
50 PERCENT EXCEEDS	76		49		51	
90 PERCENT EXCEEDS	26		12		12	

a From rating curve extended above 1,300 ft^3/s on basis of slope-area measurement at gage height 8.33 ft.
b From peak-stage indicator.



CONEWANGO CREEK BASIN

03015000 CONEWANGO CREEK AT RUSSELL, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°56'17", long 79°08'00", Warren County, Hydrologic Unit 05010002, on left bank of highway bridge on SR 957 at Russell, 0.5 mi upstream from Akeley Run, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--816 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October, November 1939, published in WSP 1305.

REVISED RECORD.--WSP 1083: 1936 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,221.77 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 10, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since November 1949 by Chautauqua Lake (station 03013946). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 10.9 ft from floodmark, discharge, 14,600 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	682	1110	2900	3460	e1220	1340	4040	2240	267	187	164	1910
2	461	1030	3460	3790	e1150	1310	4520	2130	249	178	149	1600
3	411	1470	3240	4510	e1110	1250	5090	2020	241	172	138	1090
4	388	1890	2970	5660	e1070	1200	5400	1830	225	168	131	616
5	370	2330	2520	6090	e1050	1220	5830	1630	212	168	126	399
6	347	2440	2190	6400	e1030	1200	6160	1120	204	201	123	299
7	329	2260	2150	6640	e1110	1320	6090	831	198	217	120	248
8	317	1870	2540	6160	1770	2690	6270	764	196	223	114	216
9	304	1480	2520	5540	3170	2710	6690	701	179	214	114	201
10	286	1280	2560	4910	3480	2410	6670	644	190	193	125	192
11	274	1190	2630	4330	3150	2210	6240	558	256	183	142	183
12	266	1110	2600	4210	2720	1870	5620	510	228	177	155	176
13	263	1050	2570	5330	2230	1580	4870	453	190	171	158	170
14	257	1000	2470	6420	1940	1350	4050	435	168	165	170	162
15	256	963	2270	6960	2830	1240	3180	600	169	159	192	160
16	256	937	2070	6920	3500	1230	2380	801	216	150	182	163
17	264	927	1930	6490	3550	1200	1780	793	319	177	165	419
18	420	920	1830	5860	3320	1200	1520	763	318	242	150	1230
19	1310	920	1780	5050	2840	1200	1400	685	273	237	140	1060
20	1810	930	1540	4650	2390	1580	1340	630	232	200	145	632
21	1700	1050	1530	3810	2120	2400	1470	584	202	179	165	417
22	1440	1120	1630	2880	2010	2370	1400	551	185	169	171	322
23	1230	1010	3290	2360	1880	2750	2470	528	167	162	157	298
24	1100	900	4510	2120	1700	2630	3080	417	154	152	143	288
25	1050	1160	e3970	e1960	1560	2430	3050	360	144	152	140	313
26	1050	1690	e3580	e1830	1500	2550	2850	335	136	158	140	458
27	998	1650	e3260	e1680	1380	2850	2660	313	134	190	140	1120
28	858	1860	e2890	e1560	1340	3310	2440	303	134	201	140	1150
29	945	2270	e2530	e1450	---	3670	2140	312	174	221	140	982
30	1020	2150	e2330	e1360	---	3830	2050	303	195	213	153	1020
31	1180	---	2630	e1290	---	3960	---	284	---	184	760	---
TOTAL	21842	41967	80890	131680	58120	64060	112750	24428	6155	5763	5152	17494
MEAN	705	1399	2609	4248	2076	2066	3758	788	205	186	166	583
MAX	1810	2440	4510	6960	3550	3960	6690	2240	319	242	760	1910
MIN	256	900	1530	1290	1030	1200	1340	284	134	150	114	160
CFSM	0.86	1.71	3.20	5.21	2.54	2.53	4.61	0.97	0.25	0.23	0.20	0.71
IN.	1.00	1.91	3.69	6.00	2.65	2.92	5.14	1.11	0.28	0.26	0.23	0.80

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	855	1588	2125	2049	2098	3130	2823	1407	877	484	419	620
MAX	3276	4070	4261	4986	5320	6715	6503	4016	2926	2142	2391	3891
(WY)	1991	1986	1978	1998	1976	1945	1947	1943	1986	1986	1977	1977
MIN	66.1	119	111	215	533	1344	353	296	177	108	82.4	79.9
(WY)	1964	1961	1961	1961	1963	1960	1946	1985	1949	1963	1954	1941

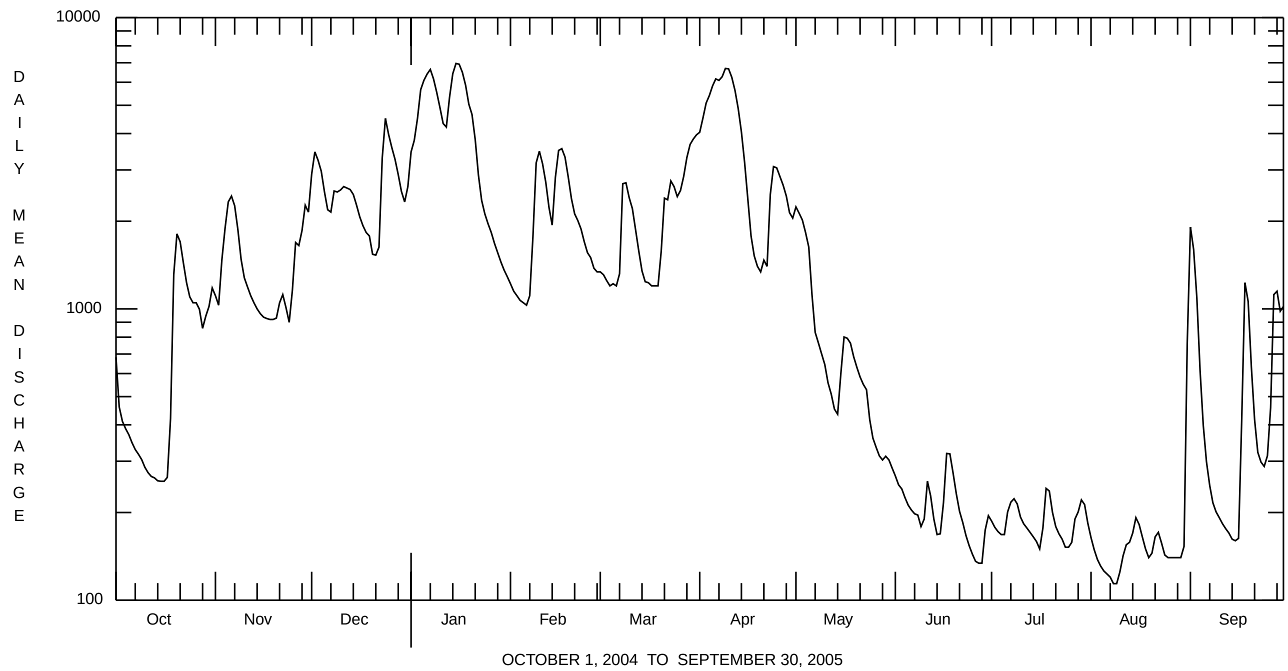
e Estimated.

CONEWANGO CREEK BASIN

03015000 CONEWANGO CREEK AT RUSSELL, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	725907		570301			
ANNUAL MEAN	1983		1562		1536	
HIGHEST ANNUAL MEAN					2151	2004
LOWEST ANNUAL MEAN					915	1999
HIGHEST DAILY MEAN	7010	Mar 8	6960	Jan 15	14700	Jan 10 1998
LOWEST DAILY MEAN	236	Sep 7	114	Aug 8,9	57	Oct 17 1960
ANNUAL SEVEN-DAY MINIMUM	262	Oct 11	122	Aug 4	59	Oct 12 1960
MAXIMUM PEAK FLOW			7030	Jan 15	**a**14900	Jan 10 1998
MAXIMUM PEAK STAGE			8.12	Jan 15	**b**10.88	Jan 10 1998
ANNUAL RUNOFF (CFSM)	2.43		1.91		1.88	
ANNUAL RUNOFF (INCHES)	33.09		26.00		25.58	
10 PERCENT EXCEEDS	4430		3820		3800	
50 PERCENT EXCEEDS	1480		1110		1010	
90 PERCENT EXCEEDS	338		163		163	

a From rating curve extended above 13,000 ft^3/s.
b From peak-stage indicator.



CONEWANGO CREEK BASIN

03015000 CONEWANGO CREEK AT RUSSELL, 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 276-323.

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													
17...	1345	1028	9813	922	12.5	7.6	7.8	266	249	5.0	100	31.8	5.8
JAN 2005													
19...	1440	1028	9813	5030	13.7	7.0	7.7	191	169	.0	69	20.8	4.2
MAR													
23...	1130	1028	9813	2730	12.3	7.2	7.7	224	227	2.6	74	22.7	4.2
MAY													
25...	1005	1028	9813	368	7.6	7.5	7.9	296	302	15.3	110	33.8	5.6
JUL													
26...	1405	1028	9813	152	6.2	7.7	8.0	370	383	25.5	140	43.4	7.9
SEP													
07...	1040	1028	9813	251	5.8	7.7	7.6	280	289	19.5	100	31.6	6.0

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
17...	84	12.0	146	6	.050	.53	<.040	.04	.045	.82	3.3	<200	<10
JAN 2005													
19...	55	10.7	132	4	.030	.56	<.040	.02	.024	.82	3.3	340	<10
MAR													
23...	58	10.3	174	30	.080	.75	<.040	.01	.054	.98	3.2	880	<10
MAY													
25...	92	13.1	192	8	.110	.74	<.040	.04	.057	1.1	--	<200	<10
JUL													
26...	115	16.5	232	6	.090	.70	<.040	.06	.095	1.1	--	210	<10
SEP													
07...	69	29.3	204	24	.080	.67	<.040	.06	.082	1.3	--	460	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					
17...	450	<1.0	70	<50	<10
JAN 2005					
19...	480	<1.0	20	<50	<10
MAR					
23...	1190	1.5	70	<50	<10
MAY					
25...	420	<1.0	110	<50	<10
JUL					
26...	360	<1.0	240	<50	20
SEP					
07...	920	1.0	230	<50	<10

CONEWANGO CREEK BASIN

03015000 CONEWANGO CREEK AT RUSSELL, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected 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	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	2
Hydrobiidae	
Amnicola	2
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Pisidium	1
Sphaerium	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	3
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Baetis	26
Caenidae	
Caenis	1
Heptageniidae	
Stenacron	1
Stenonema	2
Isonychiidae	
Isonychia	1
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	34
Hydropsyche	19
Psychomyiidae	
Psychomyia	1
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
Petrophila	1

CONEWANGO CREEK BASIN

03015000 CONEWANGO CREEK AT RUSSELL, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/11/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	4
Stenelmis	10
Psephenidae (WATER PENNIES)	
Psephenus	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	32
Simuliidae (BLACK FLIES)	
Simulium	2
Total Organisms	157
Total Taxa	24

BROKENSTRAW CREEK BASIN

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°51'09", long 79°19'03", Warren County, Hydrologic Unit 05010001, on right bank 150 ft downstream from bridge on Main Street at Youngsville, 500 ft upstream from Matthews Run, and 3.7 mi upstream from mouth. Records include flow of Matthews Run.

DRAINAGE AREA.--321 mi^2, including that of Matthews Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1305. Flow of Matthews Run included in records since October 1938.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1083: 1913 (M). WSP 1275: 1920, 1932, 1936. WSP 1305: 1910-15, 1928-29.

GAGE.--Water-stage recorder. Datum of gage is 1,186.92 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1933, nonrecording gage at site 150 ft upstream at datum 2.00 ft higher. Oct. 1, 1933 to June 15, 1939, nonrecording gage at site 150 ft upstream, and June 16, 1939 to Sept. 30, 1961, water-stage recorder at present site, both at datum 1.00 ft higher.

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

PEAK DISCHARGES 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)
Jan. 4	0300	5,090	7.77	Jan. 14	0400	*8,190	*9.85

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	181	245	2000	2060	e269	428	1360	1120	153	92	83	1050
2	176	247	2220	2140	e251	401	2770	892	143	85	73	603
3	179	628	1730	2640	e242	364	3330	832	150	80	70	241
4	170	652	933	4360	e233	359	2840	749	151	77	65	147
5	158	1100	673	3320	e233	363	2540	621	142	83	61	111
6	151	933	587	2840	e246	359	3050	512	137	119	58	91
7	145	568	703	2620	324	453	3020	459	128	89	55	78
8	139	423	1240	1990	848	1290	2670	422	119	82	53	71
9	134	342	1280	1410	1900	1150	1620	379	113	81	52	67
10	129	298	1330	1110	2000	787	935	340	119	75	51	63
11	125	270	1300	1020	1280	644	717	317	281	71	84	60
12	123	252	1110	2130	871	506	593	293	187	69	102	56
13	120	232	968	5490	615	459	517	278	142	66	76	54
14	120	209	835	7160	692	377	455	290	126	66	89	52
15	131	198	701	4130	2050	369	407	478	250	64	116	49
16	153	192	584	2000	2520	374	373	433	274	168	86	51
17	144	188	604	1070	2010	349	346	338	434	1250	68	56
18	138	191	523	e694	1150	363	326	292	399	699	60	57
19	272	190	532	e611	813	370	309	263	241	288	57	52
20	351	209	379	e551	703	726	306	249	184	167	57	50
21	252	284	442	e505	701	1350	386	231	153	122	56	47
22	202	296	458	e473	748	1180	390	215	138	104	53	46
23	177	244	2400	e450	669	1440	1170	204	126	98	50	93
24	187	251	2650	e431	529	1290	1590	210	114	88	48	96
25	260	404	2090	e403	511	1040	1190	208	107	104	47	72
26	225	515	1400	e385	491	1100	921	189	103	135	46	672
27	190	420	767	e371	405	1300	1200	175	99	258	45	1050
28	171	763	539	e353	440	1900	1280	184	100	231	52	655
29	168	974	576	e334	---	2340	900	191	103	160	56	581
30	270	665	518	e316	---	2110	913	172	98	116	63	563
31	308	---	1080	e288	---	1710	---	158	---	95	1060	---
TOTAL	5649	12383	33152	53655	23744	27251	38424	11694	5014	5282	2992	6934
MEAN	182	413	1069	1731	848	879	1281	377	167	170	96.5	231
MAX	351	1100	2650	7160	2520	2340	3330	1120	434	1250	1060	1050
MIN	120	188	379	288	233	349	306	158	98	64	45	46
CFSM	0.57	1.29	3.33	5.39	2.64	2.74	3.99	1.18	0.52	0.53	0.30	0.72
IN.	0.65	1.44	3.84	6.22	2.75	3.16	4.45	1.36	0.58	0.61	0.35	0.80

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2005, BY WATER YEAR (WY)

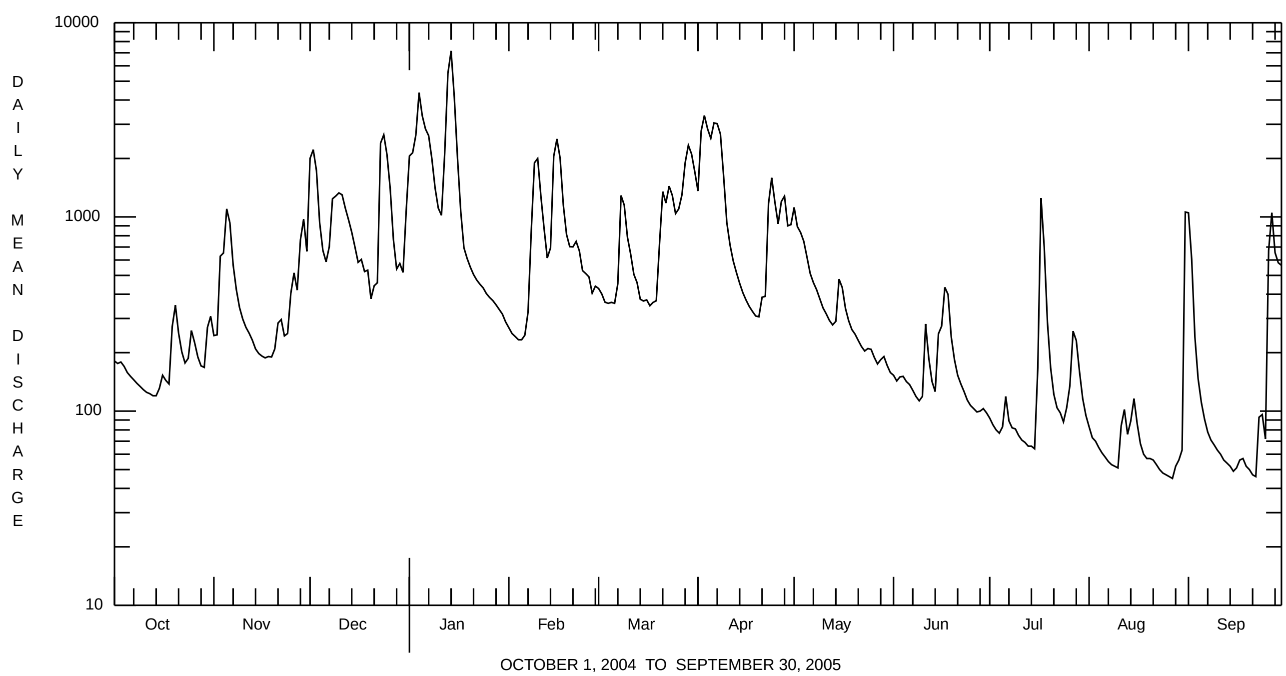
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	314	619	761	795	769	1240	1024	611	377	236	180	236
MAX	1413	1817	1724	2459	2248	2851	2715	1528	1535	1039	994	1428
(WY)	1991	1986	1978	1913	1976	1936	1947	1943	1928	1986	1956	1977
MIN	31.7	57.3	85.9	124	161	297	251	135	62.0	37.8	32.3	31.6
(WY)	1932	1931	1961	1918	1987	1915	1946	1934	1934	1934	1934	1936

e Estimated.

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1910 - 2005	
ANNUAL TOTAL	305706		226174			
ANNUAL MEAN	835		620		596	
HIGHEST ANNUAL MEAN					929	2004
LOWEST ANNUAL MEAN					307	1931
HIGHEST DAILY MEAN	8360	Sep 9	7160	Jan 14	14000	Mar 25 1913
LOWEST DAILY MEAN	91	Jul 11	45	Aug 27	19	Oct 14 1934
ANNUAL SEVEN-DAY MINIMUM	115	Jul 5	49	Aug 22	24	Oct 11 1934
MAXIMUM PEAK FLOW			8190	Jan 14	**ab**18000	Mar 25 1913
MAXIMUM PEAK STAGE			9.85	Jan 14	14.20	Mar 25 1913
INSTANTANEOUS LOW FLOW			43	Aug 27	**c**19	Oct 14 1934
ANNUAL RUNOFF (CFSM)	2.60		1.93		1.86	
ANNUAL RUNOFF (INCHES)	35.43		26.21		25.23	
10 PERCENT EXCEEDS	2100		1600		1440	
50 PERCENT EXCEEDS	493		309		308	
90 PERCENT EXCEEDS	152		67		67	

a From rating curve extended above 9,400 ft^3/s.
b About.
c Minimum observed.



BROKENSTRAW CREEK BASIN

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, 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 276-323.

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													
16...	1345	1028	9813	192	14.9	8.7	8.4	223	203	4.9	98	29.8	5.7
JAN 2005													
19...	0815	1028	9813	694	14.7	7.3	7.9	155	158	.0	66	19.4	4.2
MAR													
23...	0900	1028	9813	1400	12.8	8.0	7.6	127	131	2.6	48	14.1	3.0
MAY													
25...	0745	1028	9813	213	9.9	7.4	8.1	229	233	11.3	99	30.5	5.5
JUL													
25...	1335	1028	9813	112	10.2	8.4	8.6	249	255	23.5	110	31.6	6.6
SEP													
07...	0820	1028	9813	79	8.4	7.3	8.1	254	262	17.0	110	34.5	6.6

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
16...	82	10.8	138	<2	<.020	.85	<.040	<.01	.013	.94	2.1	<200	<10
JAN 2005													
19...	52	11.2	106	<2	.040	.94	<.040	.01	.012	1.1	1.7	<200	<10
MAR													
23...	36	8.5	108	12	.040	.64	<.040	.03	.036	.79	2.4	600	<10
MAY													
25...	87	11.4	122	2	.020	.76	<.040	<.01	.018	1.1	--	<200	<10
JUL													
25...	97	12.6	174	18	.040	.52	<.040	.01	.018	.64	--	<200	<10
SEP													
07...	94	15.7	170	10	.040	.65	<.040	.02	.028	1.1	--	<200	<10

Date (01045)	Iron, water, unfltrd recover -able, µg/L (01051)	Lead, water, unfltrd recover -able, µg/L (01055)	Manganese, water, unfltrd recover -able, µg/L (01067)	Nickel, water, unfltrd recover -able, µg/L (01092)	Zinc, water, unfltrd recover -able, µg/L
NOV 2004					
16...	200	<1.0	<10	<50	10
JAN 2005					
19...	240	<1.0	10	<50	<10
MAR					
23...	840	<1.0	40	<50	<10
MAY					
25...	250	<1.0	20	<50	<10
JUL					
25...	190	<1.0	20	<50	<10
SEP					
07...	250	<1.0	20	<50	<10

BROKENSTRAW CREEK BASIN

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, 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
Nematoda (NEMATODES)	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	7
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Baetis	13
Caenidae	
Caenis	2
Ephemerellidae	
Dannella	7
Heptageniidae	
Leucrocuta	4
Stenacron	3
Stenonema	29
Isonychiidae	
Isonychia	1
Leptophlebiidae	
Paraleptophlebia	1
Polymitarcyidae	
Ephoron	4
Tricorythidae	
Tricorythodes	1
Plecoptera (STONEFLIES)	
Nemouridae	1
Perlidae	
Acroneuria	4
Agnetina	5
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	1
Hydropsychidae	
Cheumatopsyche	7
Hydropsyche	9
Psychomyiidae	
Psychomyia	1

BROKENSTRAW CREEK BASIN

03015500 BROKENSTRAW CREEK AT YOUNGSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/11/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	32
Stenelmis	10
Psephenidae (WATER PENNIES)	
Psephenus	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	17
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	170
Total Taxa	28

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°34'15", long 79°24'29", Forest County, Hydrologic Unit 05010003, on right bank at downstream side of bridge on State Highway 127 at West Hickory, 0.6 mi upstream from Siggins Run, 0.8 mi downstream from East Hickory Creek, at mile 158.9.

DRAINAGE AREA.--3,660 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-96-3: 1995(M).

GAGE.--Water-stage recorder. Datum of gage is 1,059.90 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1941, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since November 1949 by Chautauqua Lake (station 03013946), since October 1965 by Allegheny Reservoir (station 03012520) 39 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	5590	3720	9950	11600	5630	5820	12300	9260	1890	2410	1950	6460
2	4820	3570	16700	12200	5530	5100	15100	8800	1860	2390	1910	5720
3	3090	4530	20300	13900	5310	4820	16400	8560	1890	2350	1870	3870
4	2980	5160	21300	19500	4830	4840	16200	8290	1910	2340	2100	2870
5	2910	6330	20200	17100	4680	4680	18100	7880	1850	2410	2110	2350
6	2860	7160	18500	17100	3970	4620	21100	7280	1880	2440	2380	2090
7	2830	7140	14400	18100	3380	4680	24200	5870	1880	2440	2390	2520
8	2830	6500	13000	18100	4210	6960	25300	4870	1800	2470	2360	2760
9	3490	6000	12900	16400	7880	7540	24200	4180	1780	2480	2330	3030
10	3500	5610	13000	15900	9340	7150	23200	3420	1770	2450	1380	2960
11	3480	5430	13500	16700	8120	6490	21800	3240	1920	2430	1260	2890
12	3440	5320	14900	18600	6950	5990	17100	3140	1960	2430	1290	2800
13	3410	5180	15900	26000	5930	5530	12700	3010	1790	2440	1620	2750
14	3380	5060	15300	28100	5480	5110	11400	3080	1700	2450	2430	2700
15	3430	4890	14500	26900	7890	4760	8920	3670	1830	2450	2400	2620
16	3440	4170	12600	27400	10000	4070	7350	3780	1930	2490	2230	2590
17	3390	4140	10500	25500	9640	3910	5980	3680	2150	3540	2140	2530
18	3420	4960	8360	23200	8570	3240	5450	3540	2570	3860	1870	3430
19	4290	5710	7630	18500	10900	3150	4630	3390	2610	2970	1910	3990
20	5240	5760	6690	18100	11000	3690	4510	3310	2460	2760	1990	3390
21	5260	5940	6270	16500	10800	5900	4680	3260	2350	2630	1850	2910
22	4950	6000	6710	14100	11500	6010	4690	3140	2280	2550	1820	2620
23	4610	5900	11100	13300	11500	6820	6010	2530	1940	2560	2310	2770
24	4420	5800	15300	14400	10800	6970	8300	2230	1880	2640	2330	2980
25	4380	6210	16200	12900	10600	6320	9370	2090	1860	2560	2280	2890
26	4330	6850	18700	12800	10100	6200	9380	2000	2420	2180	2530	4530
27	4170	6680	21200	12500	7780	6710	9530	1950	2440	2520	2540	5870
28	3230	6280	18900	12000	6550	8080	9560	2000	2490	2380	2770	4670
29	3260	7170	15400	9550	---	10000	8850	2050	2450	1950	2710	3920
30	3570	6710	13700	7820	---	12600	8680	1980	2440	1840	2760	3440
31	3800	---	10100	6360	---	12800	---	1940	---	1760	5750	---
TOTAL	117800	169880	433710	521130	218870	190560	374990	127420	61980	77570	69570	100920
MEAN	3800	5663	13990	16810	7817	6147	12500	4110	2066	2502	2244	3364
MAX	5590	7170	21300	28100	11500	12800	25300	9260	2610	3860	5750	6460
MIN	2830	3570	6270	6360	3380	3150	4510	1940	1700	1760	1260	2090
CFSM	1.04	1.55	3.82	4.59	2.14	1.68	3.42	1.12	0.56	0.68	0.61	0.92
IN.	1.20	1.73	4.41	5.30	2.22	1.94	3.81	1.30	0.63	0.79	0.71	1.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

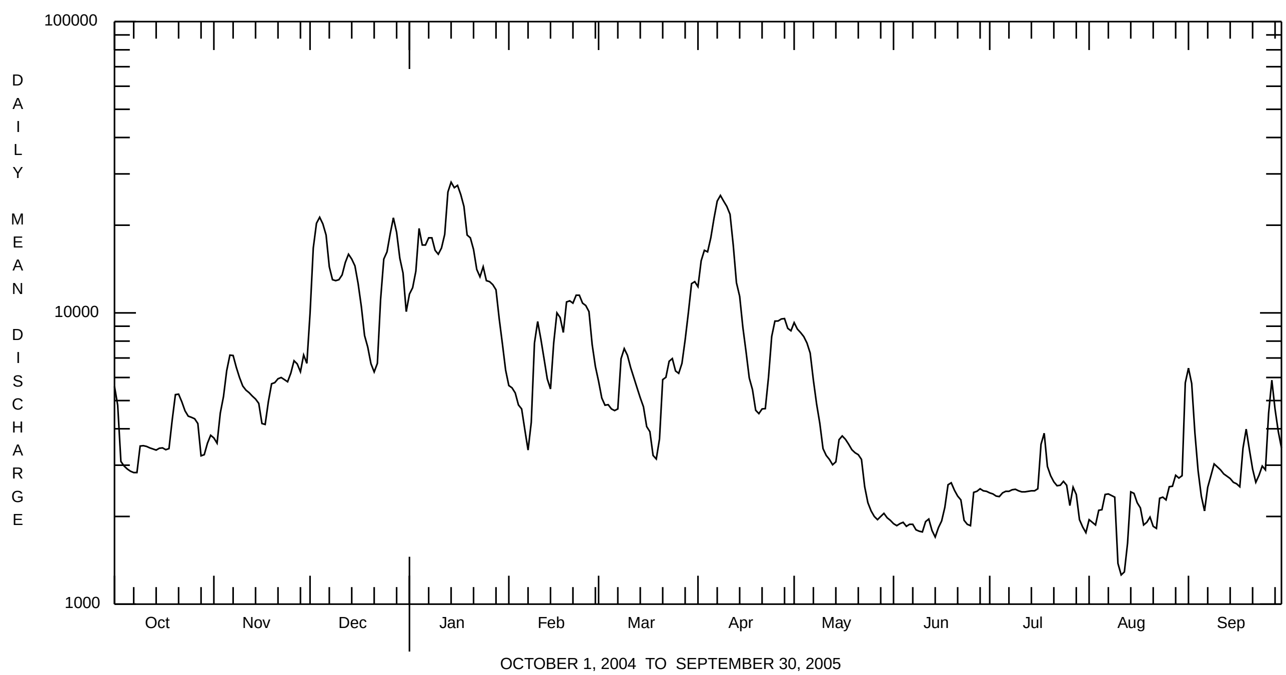
MEAN	4095	6518	8702	8585	8083	11830	11750	7612	4780	3130	2424	2947
MAX	15890	17070	17950	21260	18970	29740	25970	20020	14730	15430	10160	15690
(WY)	1991	1993	1978	1952	1990	1945	1947	1943	1989	1972	1977	2004
MIN	324	659	581	844	1725	3378	2255	1333	1430	597	490	449
(WY)	1964	1961	1961	1961	1963	1969	1946	1985	1949	1955	1954	1955

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL TOTAL	3255710		2464400			
ANNUAL MEAN	8895		6752		6697	
HIGHEST ANNUAL MEAN					9859	2004
LOWEST ANNUAL MEAN					3963	1999
HIGHEST DAILY MEAN	30100	Sep 9	28100	Jan 14	90800	Mar 8 1956
LOWEST DAILY MEAN	1510	Jul 4	1260	Aug 11	272	Oct 15 1963
ANNUAL SEVEN-DAY MINIMUM	1590	Jul 2	1800	Aug 10	276	Oct 14 1963
MAXIMUM PEAK FLOW			30200	Jan 14	**a**101000	Mar 8 1956
MAXIMUM PEAK STAGE			9.54	Jan 14	**b**17.20	Mar 8 1956
ANNUAL RUNOFF (CFSM)	2.43		1.84		1.83	
ANNUAL RUNOFF (INCHES)	33.09		25.05		24.86	
10 PERCENT EXCEEDS	18900		16000		15500	
50 PERCENT EXCEEDS	6360		4670		4370	
90 PERCENT EXCEEDS	2620		1990		1150	

a From rating curve extended above 99,300 ft^3/s.
b Maximum gage height, 17.83 ft., Jan. 25, 1964 (backwater from ice).



OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, 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 276-323.

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													
17...	1210	1028	9813	4130	10.9	8.0	7.6	180	184	8.5	62	18.9	3.6
JAN 2005													
12...	1320	1028	9813	17400	13.5	7.1	7.6	128	133	3.5	42	12.6	2.5
MAR													
22...	1200	1028	9813	6000	14.0	7.5	7.4	188	195	3.5	61	18.8	3.5
MAY													
24...	0845	1028	9813	2200	9.8	7.4	8.0	194	199	14.0	64	19.9	3.5
JUL													
25...	1110	1028	9813	2600	10.1	7.9	8.0	148	154	24.0	48	14.1	3.2
SEP													
06...	1310	1028	9813	2100	11.2	7.7	8.2	171	178	22.0	61	18.5	3.6

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
17...	48	9.2	120	2	.020	.30	<.040	.01	.026	.47	2.6	<200	<10
JAN 2005													
12...	32	9.4	110	4	.030	.48	<.040	.03	.025	.51	2.2	330	<10
MAR													
22...	45	10.5	120	8	.030	.65	<.040	.03	.026	.82	2.7	350	<10
MAY													
24...	48	10.5	114	4	<.020	.28	<.040	.01	.014	.49	--	<200	<10
JUL													
25...	40	9.3	122	14	<.020	.26	<.040	.02	.025	.36	--	200	<10
SEP													
06...	44	13.8	116	2	.030	.26	<.040	.02	.038	.53	--	<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					
17...	190	15.8	20	<50	90
JAN 2005					
12...	550	3.7	50	<50	<10
MAR					
22...	560	<1.0	50	<50	<10
MAY					
24...	110	<1.0	30	<50	<10
JUL					
25...	290	<1.0	50	<50	<10
SEP					
06...	320	<1.0	60	<50	<10

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, 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	3
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
Amnicola	4
Physidae	
Physa	4
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	48
Tubificida	
Tubificidae	3
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	3
Plauditus	5
Ephemerellidae	
Serratella	1
Heptageniidae	
Stenonema	16
Isonychiidae	
Isonychia	19
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Pteronarcyidae	
Pteronarcys	1

OHIO RIVER MAIN STEM

03016000 ALLEGHENY RIVER AT WEST HICKORY, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/11/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	5
Glossosomatidae	
Protoptila	2
Helicopsychidae	
Helicopsyche	1
Hydropsychidae	
Cheumatopsyche	5
Hydropsyche	4
Leptoceridae	
Oecetis	1
Limnephilidae	
Pycnopsyche	1
Psychomyiidae	
Psychomyia	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	3
Stenelmis	6
Psephenidae (WATER PENNIES)	
Psephenus	11
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	42
Tipulidae (CRANE FLIES)	
Antocha	2
Total Organisms	197
Total Taxa	27

LAKES AND RESERVOIRS IN ALLEGHENY RIVER BASIN

03012520 ALLEGHENY RESERVOIR.--Lat 41°50'17", long 79°00'15", Warren County, Hydrologic Unit 05010001, in Allegheny National Forest, at control house at Kinzua Dam on Allegheny River, 3 mi upstream from Hemlock Run, and 7 mi east of Warren. DRAINAGE AREA, 2,180 mi^2. PERIOD OF RECORD, October 1965 to current year. Prior to October 1966 published as Allegheny River Reservoir. GAGE, water-stage recorder. Datum of gage is sea level. Reservoir is formed by a concrete gravity dam with a gated spillway and with an earthfill section, rockfaced, at right side. Storage began during construction and reservoir acted as retention basin from October 1965 to December 1966. Dam became operational in January 1967. Reservoir first reached minimum pool elevation during period of construction. Capacity, 1,180,000 acre-ft between elevations 1,205.0 ft (invert of low level sluices) and 1,365.0 ft (full pool). Dead storage is 128 acre-ft. Minimum pool elevation, 1,240 ft (capacity, 24,240 acre-ft). Winter low-water pool elevation, 1,292 ft (capacity, 239,780 acre-ft). Summer low-water pool elevation, 1,328 ft (capacity, 572,610 acre-ft). Storage to summer pool normally occurs during period April to May. Depletion of low-water storage for augmenting flow in Allegheny River normally occurs during period July to December. Figures given herein represent total contents. Reservoir is used for flood control, low-flow augmentation and water-quality control of Allegheny River and downstream rivers, power generation, and recreation. Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,121,120 acre-ft June 27,1972, elevation, 1,362.20 ft; minimum (after first filling), 113,310 acre-ft Jan. 26, 1968, elevation 1,268.68 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

03013946 CHAUTAUQUA LAKE.--Lat 42°09'23", long 79°23'39", Chautauqua County, N.Y., Hydrologic Unit 05010002, 6 ft east of lake shore, 30 ft south of the intersection of Pauline Ave. and Lakeside Ave., 950 ft southeast of the ferry landing, at Bemus Point, N.Y. DRAINAGE AREA, 189 mi^2. PERIOD OF RECORD, November 1949 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Dec. 21, 1956, non-recording gage at site near mouth of Big Inlet at datum 1,300.00 ft above National Geodetic Vertical Datum of 1929. Dec. 21, 1956 to Sept. 30, 1975, water-stage recorder at site at outlet of Muddy Creek at datum 1,300.00 ft above National Geodetic Vertical Datum of 1929. Lake is regulated at outlet by Warner Dam. Capacity of lake not determined; area of water surface, 20.98 mi^2. Figures of change in contents computed from surface area multiplied by change in stage.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 1,311.23 ft, Mar. 5, 1976; minimum, 1,306.20 ft, Dec. 16, 1998.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,309.69 ft, Apr. 8, 9; minimum, 1,306.98 ft, Nov. 25.

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)
	03012520 Allegheny Reservoir			03013946 Chautauqua Lake		
Sept. 30	1,325.59	544,080	---	1,308.19	--	--
Oct. 31	1,317.37	454,260	+1,460	1,307.71	--	-104
Nov. 30	1,311.82	399,330	-923	1,307.22	--	-110
Dec. 31	1,300.66	302,220	-1,580	1,308.41	--	+259
CAL YR 2003	--	--	-333	--	--	-4.0
Jan. 31	1,301.98	312,760	+171	1,308.01	--	-87
Feb. 29	1,304.87	336,870	+419	1,307.77	--	-58
Mar. 31	1,318.80	469,130	+2,150	1,308.25	--	+104
Apr. 30	1,329.19	587,130	+1,980	1,308.49	--	+54
May 31	1,328.74	581,620	-90	1,308.15	--	-74
June 30	1,327.95	572,010	-162	1,307.96	--	-43
July 31	1,323.82	523,780	-784	1,307.70	--	-57
Aug. 31	1,317.55	456,120	-1,100	1,307.93	--	+50
Sept. 30	1,321.70	500,210	+741	1,308.09	--	+36
WTR YR 2004	--	--	-60	--	--	-1.8

OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°28'54", long 79°41'44", Venango County, Hydrologic Unit 05010003, on right bank 100 ft downstream from bridge on State Highway 8, about 300 ft upstream from Cherrytree Run, and 1 mi north of Rouseville. Records include flow of Cherrytree Run.

DRAINAGE AREA.--300 mi^2, including that of Cherrytree Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to current year.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1053: 1936-37(M), 1943(M).

GAGE.--Water-stage recorder. Datum of gage is 1,028.32 ft above National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, 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. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 4	0500	5,160	7.21	Jan. 14	0500	*6,560	*7.98

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	253	349	2240	1520	e298	449	713	986	154	84	88	756
2	242	295	2270	988	e278	414	3020	687	144	74	76	282
3	251	891	1080	2290	e258	386	3500	652	147	67	70	163
4	230	648	774	4550	e248	393	1980	551	157	64	64	117
5	189	1180	639	2330	e244	420	2410	480	144	83	59	95
6	180	800	548	2960	e253	363	2850	432	141	83	53	82
7	169	548	605	3350	e294	462	1800	398	128	71	50	73
8	163	438	1360	1920	e763	1350	1350	370	116	67	47	66
9	157	364	990	1530	2040	798	936	339	109	67	48	64
10	152	324	1190	1210	1920	589	764	319	106	60	46	58
11	148	299	1120	1110	1050	542	639	319	380	57	48	53
12	144	282	956	3250	802	450	552	291	173	54	50	50
13	143	266	895	5600	671	437	501	259	133	51	48	48
14	147	242	821	5500	747	348	445	329	123	50	58	46
15	167	224	691	2560	2780	346	397	618	195	48	76	44
16	244	279	626	1350	2300	360	358	482	261	48	67	44
17	183	274	598	e916	1520	329	332	356	224	491	53	48
18	160	263	542	e682	963	362	318	311	215	328	46	48
19	330	247	537	e609	764	385	302	279	168	187	44	45
20	319	252	380	e577	686	885	297	264	142	132	99	45
21	236	336	555	e536	741	1340	325	248	125	100	102	41
22	205	303	522	e512	837	906	306	234	114	90	74	40
23	185	262	2240	e488	708	1390	714	232	106	77	56	80
24	229	260	3200	e472	563	1450	890	239	97	66	48	118
25	468	467	1210	e447	559	1110	751	225	90	160	44	75
26	306	466	912	e423	516	1070	717	206	86	194	42	631
27	247	382	669	e407	408	1080	1150	182	92	428	41	935
28	209	727	644	e375	476	1300	974	198	94	341	45	316
29	207	870	718	e363	---	1370	696	207	100	186	48	329
30	553	577	493	e338	---	1050	733	186	94	131	59	425
31	517	---	910	e313	---	846	---	167	---	108	1200	---
TOTAL	7333	13115	30935	49476	23687	22980	30720	11046	4358	4047	2949	5217
MEAN	237	437	998	1596	846	741	1024	356	145	131	95.1	174
MAX	553	1180	3200	5600	2780	1450	3500	986	380	491	1200	935
MIN	143	224	380	313	244	329	297	167	86	48	41	40
CFSM	0.79	1.46	3.33	5.32	2.82	2.47	3.41	1.19	0.48	0.44	0.32	0.58
IN.	0.91	1.63	3.84	6.14	2.94	2.85	3.81	1.37	0.54	0.50	0.37	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	254	504	687	689	730	1084	929	597	382	236	174	216
MAX	1260	1560	1784	2385	2124	2574	1958	1706	1491	1118	786	1491
(WY)	1991	1986	1978	1937	1976	1936	1940	1953	1989	2003	1980	2004
MIN	34.5	65.0	80.9	108	158	400	266	129	75.2	38.3	38.8	34.5
(WY)	1964	1992	1961	1984	1987	2000	1935	1934	1934	1934	1934	1934

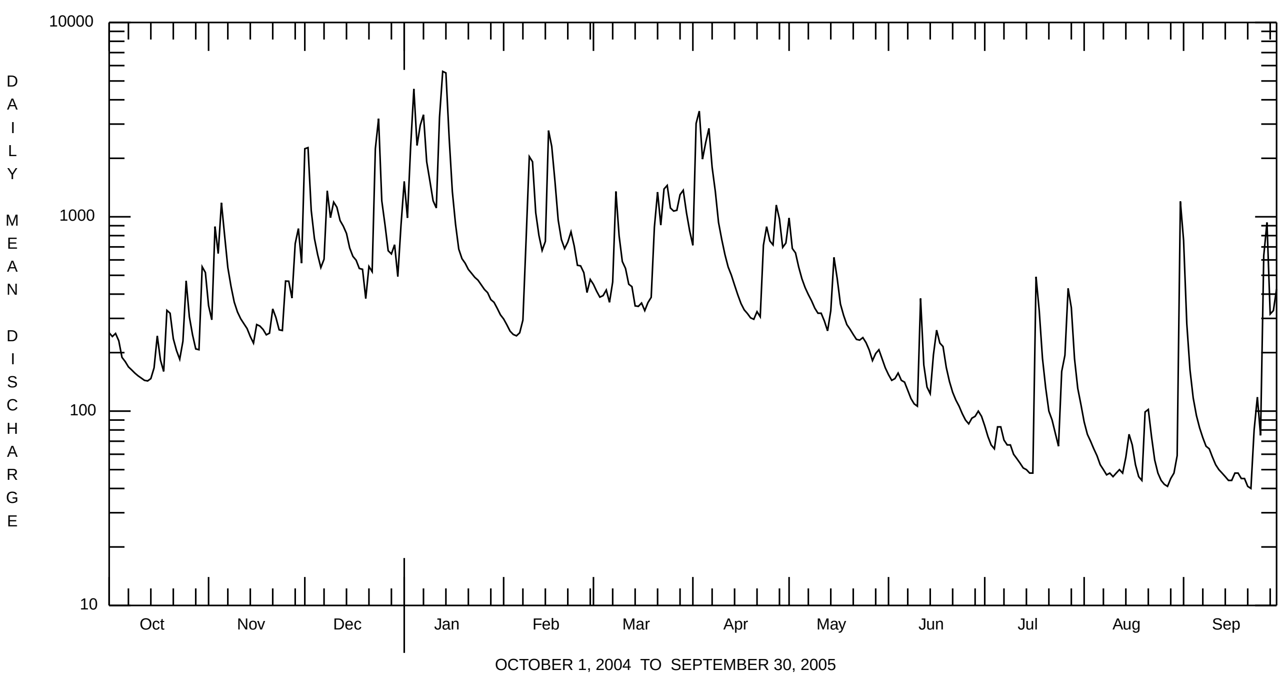
e Estimated.

OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL TOTAL	283168		205863			
ANNUAL MEAN	774		564		539	
HIGHEST ANNUAL MEAN					836	2004
LOWEST ANNUAL MEAN					303	1962
HIGHEST DAILY MEAN	12100	Sep 9	5600	Jan 13	16300	Jan 22 1959
LOWEST DAILY MEAN	117	Jul 11	40	Sep 22	23	Jul 26 1934
ANNUAL SEVEN-DAY MINIMUM	151	Oct 8	44	Sep 16	24	Sep 2 1934
MAXIMUM PEAK FLOW			6560	Jan 14	**a**21000	Jan 22 1959
MAXIMUM PEAK STAGE			7.98	Jan 14	11.97	Jan 22 1959
INSTANTANEOUS LOW FLOW			39	Sep 21-23	**b**16	Oct 12 1993
ANNUAL RUNOFF (CFSM)	2.58		1.88		1.80	
ANNUAL RUNOFF (INCHES)	35.11		25.53		24.42	
10 PERCENT EXCEEDS	1480		1250		1220	
50 PERCENT EXCEEDS	468		324		296	
90 PERCENT EXCEEDS	191		58		62	

a From rating curve extended above 15,000 ft^3/s.
b Result of abnormal diversion.



03020500 OIL CREEK AT ROUSEVILLE, 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 276-323.

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													
22...	1330	1028	9813	297	12.9	8.0	8.5	167	166	8.0	63	18.7	3.9
MAR 2005													
17...	1015	1028	9813	306	14.2	7.2	7.8	168	174	1.4	60	18.1	3.6
MAY													
18...	1100	1028	9813	314	11.9	8.8	8.6	157	160	12.6	57	16.8	3.7
JUL													
20...	1050	1028	9813	135	8.8	7.8	8.2	196	204	25.0	71	21.5	4.2
SEP													
21...	1035	1028	9813	41	9.6	8.0	8.0	287	289	18.0	110	31.8	7.3

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004													
22...	55	<.2	10.1	88	2	<.020	.25	<.040	<.01	<.010	.54	2.7	<200
MAR 2005													
17...	47	<.2	11.6	114	12	.030	.61	<.040	<.01	.019	.65	1.6	<200
MAY													
18...	50	<.2	10.8	132	4	<.020	.22	<.040	.01	.015	.39	--	<200
JUL													
20...	60	<.2	15.9	146	8	.030	.08	<.040	.03	.036	.27	--	<200
SEP													
21...	98	<.2	12.4	194	<2	<.020	<.04	<.040	.02	.036	.10	--	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004								
22...	<10	<1.00	240	<1.0	<10	<50	<10	<5
MAR 2005								
17...	<10	<1.00	230	<1.0	20	<50	<10	<5
MAY								
18...	<10	<1.00	330	<1.0	20	<50	<10	<5
JUL								
20...	<10	<1.00	460	<1.0	50	<50	10	<5
SEP								
21...	<10	<1.00	150	<1.0	30	<50	<10	<5

OIL CREEK BASIN

03020500 OIL CREEK AT ROUSEVILLE, 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	10/12/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	6
Baetis	3
Plauditus	4
Caenidae	
Caenis	1
Ephemerellidae	
Ephemerella	8
Serratella	6
Heptageniidae	
Stenacron	3
Stenonema	4
Isonychiidae	
Isonychia	8
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Taeniopterygidae	
Taeniopteryx	3
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	6
Helicopsychidae	
Helicopsyche	1
Hydropsychidae	
Cheumatopsyche	12
Hydropsyche	7
Leptoceridae	
Ceraclea	1
Oecetis	1
Uenoidae	
Neophylax	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	4
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	60
Simuliidae (BLACK FLIES)	
Simulium	1
Tipulidae (CRANE FLIES)	
Antocha	5
Total Organisms	149
Total Taxa	24

FRENCH CREEK BASIN

03021350 FRENCH CREEK NEAR WATTSBURG, PA

LOCATION.--Lat 42°00'55", long 79°46'58", Erie County, Hydrologic Unit 05010004, on right bank at downstream side of bridge on Tanner Road, 1,200 ft east of State Highway 474, 1.1 mi west of Pennsylvania-New York border, 1.5 mi northeast of Wattsburg, and 2.4 mi above confluence with West Branch French Creek.

DRAINAGE AREA.--92.0 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,304.84 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark).

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 1	0300	*3,080	*8.51	Apr. 7	0800	2,960	8.38
Jan. 13	0700	2,860	8.28				

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	36	106	1090	2200	e95	e101	582	347	34	13	16	522
2	35	178	897	679	e93	e97	1370	258	31	12	14	123
3	38	581	307	1440	e92	e95	1170	289	33	11	12	63
4	36	303	203	1710	e89	e94	506	252	34	10	11	44
5	33	767	203	603	e86	e93	773	175	31	11	10	34
6	32	295	189	678	e93	e96	1800	141	29	10	9.2	27
7	30	170	193	888	e114	e176	2690	121	27	9.6	8.4	23
8	30	125	458	430	e414	745	1860	114	23	9.6	7.7	20
9	33	101	376	316	848	410	1040	98	20	9.0	7.2	22
10	30	88	458	297	533	252	484	88	27	8.5	17	18
11	27	79	391	281	267	195	311	81	38	7.9	87	16
12	26	72	333	1160	211	161	218	73	22	7.5	45	14
13	26	65	305	2510	157	137	174	66	20	7.1	36	13
14	31	58	271	1940	254	119	148	93	18	7.3	46	12
15	39	56	252	608	1240	115	127	331	28	6.8	39	11
16	45	56	229	302	1040	109	113	148	94	45	28	21
17	59	56	223	211	407	106	102	99	138	137	20	46
18	124	58	199	e182	215	109	95	80	70	58	16	31
19	315	58	192	e164	211	113	90	68	46	37	16	21
20	204	87	138	e150	190	347	104	61	36	25	13	17
21	119	152	171	e138	204	456	227	57	30	18	15	15
22	88	104	167	e128	235	336	169	52	26	20	13	14
23	69	82	1160	e121	197	474	1180	51	22	21	11	44
24	119	85	1710	e118	166	322	642	53	19	17	9.7	48
25	127	315	593	e115	149	271	403	52	17	21	9.8	32
26	87	253	347	e112	e131	367	477	47	15	27	8.3	289
27	69	178	228	e109	e116	575	1000	43	14	96	7.4	353
28	58	493	179	e102	e106	1240	449	42	18	74	8.6	116
29	67	384	177	e101	---	1230	250	44	17	38	7.8	235
30	224	195	172	e100	---	799	276	42	15	25	16	234
31	194	---	1790	e98	---	795	---	38	---	19	1040	---
TOTAL	2450	5600	13601	17991	7953	10535	18830	3504	992	818.3	1605.1	2478
MEAN	79.0	187	439	580	284	340	628	113	33.1	26.4	51.8	82.6
MAX	315	767	1790	2510	1240	1240	2690	347	138	137	1040	522
MIN	26	56	138	98	86	93	90	38	14	6.8	7.2	11
CFSM	0.86	2.03	4.77	6.31	3.09	3.69	6.82	1.23	0.36	0.29	0.56	0.90
IN.	0.99	2.26	5.50	7.27	3.22	4.26	7.61	1.42	0.40	0.33	0.65	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2005, BY WATER YEAR (WY)

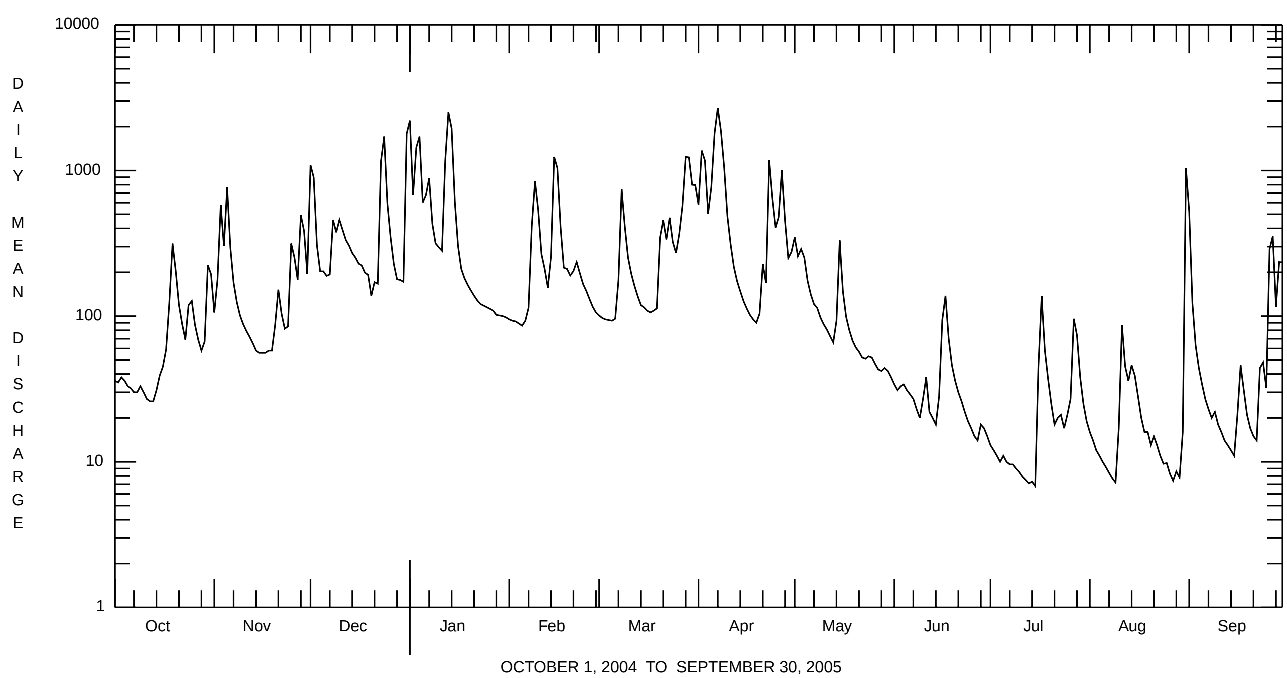
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	156	294	314	263	311	434	340	168	117	76.6	81.2	126
MAX	375	669	547	624	792	779	628	473	477	379	272	563
(WY)	1982	1986	1978	1998	1976	1979	2005	2004	1986	2004	1977	1977
MIN	13.3	31.0	81.2	79.3	75.9	139	157	38.2	14.6	6.58	5.93	4.84
(WY)	1992	1992	1990	1977	1987	2000	1976	1985	1991	1999	1991	1995

e Estimated.

03021350 FRENCH CREEK NEAR WATTSBURG, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005	
ANNUAL TOTAL	108010		86357.4			
ANNUAL MEAN	295		237		223	
HIGHEST ANNUAL MEAN					323	2004
LOWEST ANNUAL MEAN					136	1999
HIGHEST DAILY MEAN	3900	Sep 9	2690	Apr 7	**e**4900	Jan 19 1996
LOWEST DAILY MEAN	24	Jul 3	6.8	Jul 15	1.7	Aug 18 1999
ANNUAL SEVEN-DAY MINIMUM	29	Oct 7	7.7	Jul 9	2.4	Aug 14 1999
MAXIMUM PEAK FLOW			3080	Jan 1	**a**6350	Sep 14 1979
MAXIMUM PEAK STAGE			8.51	Jan 1	11.95	Sep 14 1979
INSTANTANEOUS LOW FLOW			6.2	Jul 15,16	1.5	Jul 31 1999**b**
ANNUAL RUNOFF (CFSM)	3.21		2.57		2.42	
ANNUAL RUNOFF (INCHES)	43.67		34.92		32.90	
10 PERCENT EXCEEDS	771		597		531	
50 PERCENT EXCEEDS	132		99		105	
90 PERCENT EXCEEDS	39		14		17	

a From rating curve extended above 4,500 ft^3/s.
b Also Aug. 18, 19, 1999.
e Estimated.



FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°37'57", long 80°09'35", Crawford County, Hydrologic Unit 05010004, on left bank 30 ft upstream from bridge on Mercer Street at Meadville, 300 ft downstream from Mill Run, 2,600 ft downstream from Cussewago Creek, at mile 30.5.

DRAINAGE AREA.--788 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,058.83 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to October 27, 1989, water-stage recorder at site 2,300 ft upstream at different datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since October 1971 by Union City Reservoir 43 mi upstream, serving as a retarding basin, and since January 1974 by Woodcock Creek Lake (station 03022550) 9.0 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge 25,800 ft^3/s April 1947, gage height, 17.05 ft; maximum gage height 17.60 ft, January 1959 (backwater from ice), site and datum then in use.

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	668	1420	3600	e4460	e1060	1340	2670	3000	372	184	289	2150
2	513	1270	5510	e5740	e956	1240	4030	2670	343	163	237	1670
3	482	2110	4240	7200	e859	1100	6630	2540	309	150	200	1290
4	471	2800	3410	9400	e785	1100	6260	2350	309	141	173	979
5	446	3760	2570	9200	e746	1120	6330	2110	321	134	156	609
6	417	3570	2150	7790	e724	1150	7620	1900	303	132	140	361
7	394	2780	2010	7760	e804	1510	8760	1720	279	134	128	268
8	364	2150	2250	7300	e2020	3430	8200	1570	257	130	119	229
9	341	1790	2450	5930	4150	3380	6960	1410	239	121	112	204
10	325	1520	2680	4970	4510	2720	5640	1170	245	114	109	184
11	315	1230	3180	4230	3770	2410	4420	953	467	110	110	174
12	325	1010	3250	5790	3100	1870	3510	782	386	105	173	158
13	339	869	3200	9210	2440	1730	2910	685	307	116	235	146
14	339	793	3080	11300	2520	1340	2490	713	302	188	258	136
15	498	736	2770	10300	5420	1190	2180	1410	320	163	281	128
16	711	749	2480	7890	6370	1140	1970	1740	360	158	271	127
17	664	748	2320	5460	5440	1080	1850	1340	530	414	208	129
18	597	725	2120	3810	3990	1110	1770	1000	776	825	169	204
19	1300	727	2000	3250	2960	1240	1670	760	677	706	148	288
20	1810	780	1630	2950	2530	2430	1600	643	445	464	161	223
21	1560	1030	1540	e2620	2510	4050	1610	567	341	343	164	178
22	1260	1160	1590	e2260	2740	3620	1620	512	290	282	153	153
23	1020	1040	3340	e2100	2610	3990	2350	497	254	238	139	221
24	1280	922	6000	e2040	2250	4010	3590	506	233	226	123	254
25	2010	1230	5450	e1940	1970	3540	3550	506	213	585	115	323
26	1790	1860	4200	e1820	1860	3260	3630	485	204	767	110	869
27	1420	1950	e3520	e1760	1490	3140	4590	446	189	718	110	2230
28	1080	2020	e2940	e1660	1420	3490	4720	431	179	841	132	1810
29	913	2550	e2570	e1540	---	3810	3770	426	173	785	120	1430
30	1330	2210	e2270	e1380	---	3440	3080	425	197	564	165	1520
31	1610	---	e2900	e1200	---	3000	---	400	---	378	1070	---
TOTAL	26592	47509	93220	154260	72004	72980	119980	35667	9820	10379	6078	18645
MEAN	858	1584	3007	4976	2572	2354	3999	1151	327	335	196	622
MAX	2010	3760	6000	11300	6370	4050	8760	3000	776	841	1070	2230
MIN	315	725	1540	1200	724	1080	1600	400	173	105	109	127
CFSM	1.09	2.01	3.82	6.31	3.26	2.99	5.08	1.46	0.42	0.42	0.25	0.79
IN.	1.26	2.24	4.40	7.28	3.40	3.45	5.66	1.68	0.46	0.49	0.29	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

MEAN	1048	1743	2125	2409	2147	2573	2586	1623	885	582	516	888
MAX	3181	3205	3693	4976	4190	4555	4023	3664	2659	1836	1771	3704
(WY)	1991	1997	2004	2005	1990	2004	1994	2004	1989	2003	2000	2004
MIN	104	154	510	815	757	1313	1556	451	155	134	81.3	52.6
(WY)	1992	1992	1999	2001	1993	2000	1995	1993	1991	1998	1998	1991

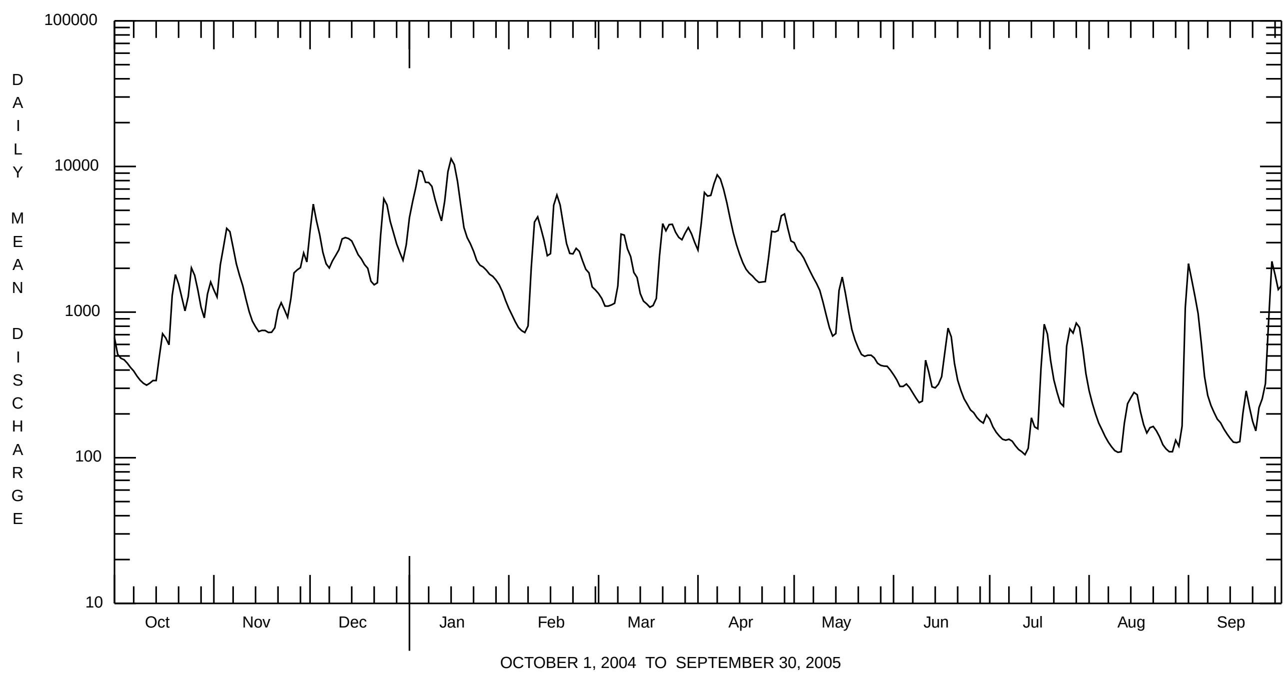
e Estimated.

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	863879		667134			
ANNUAL MEAN	2360		1828		1590	
HIGHEST ANNUAL MEAN					2597	2004
LOWEST ANNUAL MEAN					824	1999
HIGHEST DAILY MEAN	16600	Sep 10	11300	Jan 14	16600	Sep 10 2004
LOWEST DAILY MEAN	271	Sep 7	105	Jul 12	37	Sep 22 1991
ANNUAL SEVEN-DAY MINIMUM	335	Oct 8	119	Jul 7	42	Sep 19 1991
MAXIMUM PEAK FLOW			**a**11800	Jan 14	**a**17400	Sep 10 2004
MAXIMUM PEAK STAGE			13.73	Jan 14	16.35	Sep 10 2004
INSTANTANEOUS LOW FLOW			99	Jul 13	37	Sep 22 1991
ANNUAL RUNOFF (CFSM)	3.00		2.32		2.02	
ANNUAL RUNOFF (INCHES)	40.78		31.49		27.42	
10 PERCENT EXCEEDS	4720		4210		3620	
50 PERCENT EXCEEDS	1820		1190		1100	
90 PERCENT EXCEEDS	475		162		139	

a From rating curve extended above 11,400 ft^3/s.



03023100 FRENCH CREEK AT MEADVILLE, 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 276-323.

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													
15...	1445	1028	9813	730	12.5	7.5	7.8	261	265	4.5	110	33.3	5.9
JAN 2005													
10...	1310	1028	9813	4930	12.5	7.3	7.7	158	164	2.5	58	17.6	3.4
MAR													
16...	1415	1028	9813	1140	13.7	7.8	7.9	258	260	2.4	96	29.4	5.5
MAY													
17...	1400	1028	9813	1310	10.5	7.8	8.1	218	222	14.0	88	27.2	4.9
JUL													
19...	1415	1028	9813	710	7.0	7.7	8.1	251	261	26.0	100	31.0	6.3
SEP													
20...	1425	1028	9813	220	8.5	7.9	8.2	336	338	22.0	140	40.6	8.3

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
15...	91	12.1	146	4	.040	.71	<.040	.01	.022	.92	3.1	<200	<10
JAN 2005													
10...	47	9.9	126	18	.030	.64	<.040	.03	.031	.81	3.0	610	<10
MAR													
16...	79	12.9	162	<2	.040	1.05	<.040	.02	.024	1.2	2.1	<200	<10
MAY													
17...	77	10.3	144	8	<.020	.44	<.040	.01	.026	.73	--	230	<10
JUL													
19...	83	16.7	176	14	.040	.60	<.040	.03	.088	.96	--	660	90
SEP													
20...	118	17.3	210	<2	.100	.24	<.040	.02	.046	.55	--	<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					
15...	390	<1.0	50	<50	<10
JAN 2005					
10...	940	1.1	30	<50	<10
MAR					
16...	450	<1.0	60	<50	<10
MAY					
17...	500	<1.0	40	<50	<10
JUL					
19...	1060	1.4	140	<50	60
SEP					
20...	380	<1.0	70	<50	<10

03023100 FRENCH CREEK AT MEADVILLE, 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	10/06/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	7
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Ephemerellidae	
Serratella	38
Ephemeridae	
Ephemera	1
Heptageniidae	
Stenacron	2
Stenonema	48
Isonychiidae	
Isonychia	29
Potamanthidae	
Anthopotamus	12
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	2
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	1
Hydropsychidae	
Cheumatopsyche	18
Hydropsyche	1
Macrostemum	1
Philopotamidae	
Chimarra	4
Polycentropodidae	
Neureclipsis	1
Psychomyiidae	
Psychomyia	1

FRENCH CREEK BASIN

03023100 FRENCH CREEK AT MEADVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/06/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Dubiraphia	1
Optioservus	2
Stenelmis	1
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	2
Empididae (DANCE FLIES)	
Hemerodromia	2
Total Organisms	179
Total Taxa	23

FRENCH CREEK BASIN

03024000 FRENCH CREEK AT UTICA, PA

LOCATION.--Lat 41°26'15", long 79°57'22", Venango County, Hydrologic Unit 05010004, on right bank at downstream side of bridge on SR 3017 at Utica and 2,000 ft upstream from Mill Creek.

DRAINAGE AREA.--1,028 mi^2.

PERIOD OF RECORD.--August 1932 to current year.

REVISED RECORDS.--WSP 743: Drainage area. WSP 823: 1936 (M). WSP 1275: 1933, 1936.

GAGE.--Water-stage recorder. Datum of gage is 1,019.44 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1933, nonrecording gage at same site and datum. Nov. 27, 1933 to Nov. 29, 2001, water-stage recorder at same site and datum. From Nov. 29, 2001, water-stage recorder 120 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since July 1970 by Union City Reservoir (station 03021518) 50 mi upstream, serving as a retarding basin, and since January 1974 by Woodcock Creek Lake (station 03022550), 25 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1912, 15.7 ft in March 1913, discharge about 36,000 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	1060	1720	3900	6400	e1430	1840	3280	3810	521	268	445	2060
2	813	1510	5350	7310	e1310	1700	5380	3490	483	241	369	2000
3	729	2220	4930	7840	e1210	1540	7010	3220	441	213	316	1460
4	687	3070	4120	10300	e1140	1540	7270	3030	419	200	279	1190
5	648	3900	3390	10700	e1110	1540	7150	2740	423	208	246	871
6	599	4080	2810	11300	e1090	1530	7720	2460	416	211	226	566
7	559	3420	2660	9970	e1150	1850	8700	2220	387	189	206	392
8	483	2770	2940	9270	2430	3850	9090	2030	359	184	191	324
9	447	2300	3050	7740	4720	4130	8010	1820	329	188	180	291
10	430	1960	3290	6400	5100	3570	6510	1570	309	165	172	260
11	418	1640	3710	5600	4560	3180	5240	1300	409	155	171	247
12	407	1380	3820	7460	4000	2590	4330	1130	518	137	172	226
13	427	1190	3800	9700	3330	2360	3660	992	422	138	241	199
14	444	1080	3710	12500	3350	1950	3170	1030	364	159	325	186
15	591	1000	3420	12600	5820	1690	2780	1550	510	220	343	175
16	860	964	3110	10800	6720	1520	2480	2110	546	202	368	167
17	866	973	2920	7610	6380	1460	2280	1770	567	543	332	165
18	755	942	2710	5370	5110	1490	2170	1370	834	808	270	160
19	1200	936	2550	4430	4040	1670	2060	1090	941	891	234	253
20	1930	974	2220	3970	3440	2730	1970	945	703	713	219	296
21	1830	1160	1920	3590	3330	4420	2030	841	519	530	235	237
22	1510	1330	2040	3330	3540	4290	1980	752	433	418	227	196
23	1240	1280	3920	3090	3440	4480	2720	734	383	358	213	228
24	1420	1180	6090	e2860	3080	4900	3970	749	341	313	197	253
25	2130	1390	6180	e2670	2660	4400	4180	719	313	554	181	311
26	2130	1980	5280	e2480	2530	4040	4280	705	290	942	170	715
27	1760	2270	4650	e2300	2100	3830	4900	666	291	1130	163	2080
28	1390	2360	3970	e2070	1920	3960	5280	630	263	1050	170	2200
29	1180	2850	3370	e1870	---	4280	4580	625	251	987	183	1670
30	1440	2710	2940	e1760	---	4060	4040	598	241	838	187	1630
31	1850	---	3890	e1590	---	3630	---	571	---	592	823	---
TOTAL	32233	56539	112660	194880	90040	90020	138220	47267	13226	13745	8054	21008
MEAN	1040	1885	3634	6286	3216	2904	4607	1525	441	443	260	700
MAX	2130	4080	6180	12600	6720	4900	9090	3810	941	1130	823	2200
MIN	407	936	1920	1590	1090	1460	1970	571	241	137	163	160
CFSM	1.01	1.83	3.54	6.12	3.13	2.82	4.48	1.48	0.43	0.43	0.25	0.68
IN.	1.17	2.05	4.08	7.05	3.26	3.26	5.00	1.71	0.48	0.50	0.29	0.76

e Estimated.

03024000 FRENCH CREEK AT UTICA, 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	1276	2220	2800	2621	2878	3580	3150	1850	1255	858	733	1015
MAX	3954	6309	6029	6286	6394	5778	5101	4326	4659	2629	3297	4504
(WY)	1991	1986	1978	2005	1976	1977	1994	2004	1986	1987	1980	2004
MIN	121	176	583	869	629	1622	1655	452	209	192	112	71.7
(WY)	1992	1992	1999	1977	1987	2000	1976	1985	1991	1995	1991	1995

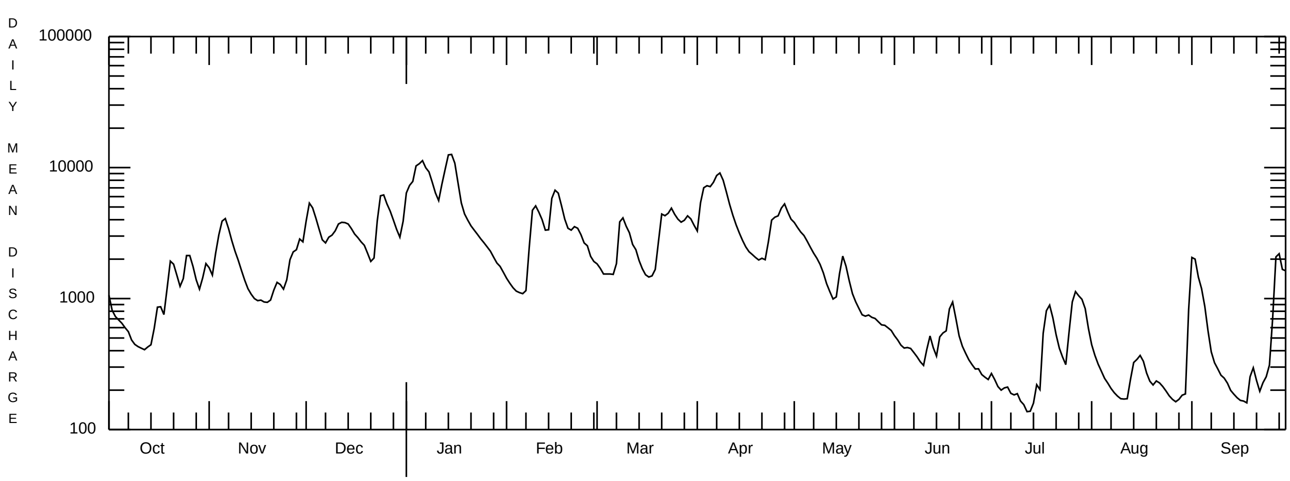
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	1035103		817892			
ANNUAL MEAN	2828		2241		2014	
HIGHEST ANNUAL MEAN					3065	2004
LOWEST ANNUAL MEAN					1044	1999
HIGHEST DAILY MEAN	15300	Sep 11	12600	Jan 15	18100	Feb 21 1981
LOWEST DAILY MEAN	406	Sep 7	137	Jul 12	60	Sep 15 1991
ANNUAL SEVEN-DAY MINIMUM	437	Oct 8	161	Jul 8	67	Sep 7 1995
MAXIMUM PEAK FLOW			13100	Jan 14	18400	Feb 21 1981
MAXIMUM PEAK STAGE			9.78	Jan 14	11.64	Feb 21 1981
ANNUAL RUNOFF (CFSM)	2.75		2.18		1.96	
ANNUAL RUNOFF (INCHES)	37.46		29.60		26.62	
10 PERCENT EXCEEDS	5610		5160		4530	
50 PERCENT EXCEEDS	2180		1510		1380	
90 PERCENT EXCEEDS	702		224		238	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	695	1506	2238	2590	2713	3915	3147	1684	953	555	408	440
MAX	3744	3983	4471	7284	5894	7359	6688	4160	3717	2015	1907	2148
(WY)	1946	1971	1951	1937	1938	1964	1947	1956	1947	1967	1956	1958
MIN	69.5	183	227	403	523	1768	575	349	124	77.1	77.8	80.4
(WY)	1964	1954	1961	1961	1934	1937	1946	1934	1934	1934	1954	1954

SUMMARY STATISTICS	WATER YEARS 1933 - 1973	
ANNUAL MEAN	1751	
HIGHEST ANNUAL MEAN	2539	1956
LOWEST ANNUAL MEAN	1146	1934
HIGHEST DAILY MEAN	23000	Mar 6 1964
LOWEST DAILY MEAN	45	Sep 1 1933
ANNUAL SEVEN-DAY MINIMUM	48	Aug 27 1933
MAXIMUM PEAK FLOW	**a**23800	Mar 7 1964
MAXIMUM PEAK STAGE	**b**13.2	Mar 7 1964
INSTANTANEOUS LOW FLOW	43	Jul 30 1934
ANNUAL RUNOFF (CFSM)	1.70	
ANNUAL RUNOFF (INCHES)	23.15	
10 PERCENT EXCEEDS	4370	
50 PERCENT EXCEEDS	940	
90 PERCENT EXCEEDS	147	

a From rating curve extended above 20,700 ft^3/s.
b From floodmark in gage well.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

FRENCH CREEK BASIN

LAKES AND RESERVOIRS IN FRENCH CREEK BASIN

03021518 UNION CITY RESERVOIR.--Lat 41°55'13", long 79°53'59", Erie County, Hydrologic Unit 05010004, in tower at left center of Union City Dam on French Creek, 1.4 mi upstream from South Branch French Creek, and 3.2 mi northwest of Union City. DRAINAGE AREA, 220 mi^2. PERIOD OF RECORD, July 1970 to current year. GAGE, water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers bench mark). Reservoir is formed by earthfill dam with sidehill, concrete-lined spillway completed September 1971. Dam became operational in July 1970. Usable capacity 47,650 acre-ft between elevation 1,210.00 ft (invert of inlet of conduit) and 1,278.00 ft (crest of spillway). No dead storage. Figures given herein represent usable contents. Reservoir is used for flood control only. Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD (1970-2004).--Maximum contents, 34,840 acre-ft, Feb. 21, 1981, elevation, 1,271.80 ft; minimum, 0.0 acre-ft, Aug. 31, 1995, elevation, 1,211.08 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

03022550 WOODCOCK CREEK LAKE.--Lat 41°41'50", long 80°06'06",Crawford County, Hydrologic Unit 05010004, in tower on right center and 200 ft upstream from center line of Woodcock Creek Dam on Woodcock Creek, 2.8 mi southeast of Saegerstown and 3.5 mi upstream from mouth. DRAINAGE AREA, 45.6 mi^2. PERIOD OF RECORD, January 1974 to current year. GAGE, water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers benchmark). Lake is formed by a rolled earth embankment with an impervious core. Storage began in January 1974. Total storage 20,000 acre-ft between elevation 1,138 ft inlet invert and 1,209 ft crest of spillway. Figures given herein represent usable contents. Lake is used for flood control and recreation. Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD (1974-2004).--Maximum contents, 12,690 acre-ft, June 13, 1986, elevation, 1,198.18 ft; minimum (after first filling) 676 acre-ft, Nov. 1, 1984, elevation, 1,159.82 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

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)
	03021518 Union City Reservoir			03022550 Woodcock Creek Lake		
Sept. 30	1,216.33	52	---	1,181.24	5,020	---
Oct. 31	1,224.84	601	+8.9	1,177.14	3,750	-21
Nov. 30	1,232.06	1,720	+19	1,172.42	2,590	-19
Dec. 31	1,239.08	3,640	+31	1,167.92	1,730	-14
CAL YR 2004	--	--	-8.1	--	--	-0.23
Jan. 31	1,221.78	324	-54	1,166.93	1,570	-2.6
Feb. 28	1,222.02	342	+0.32	1,165.89	1,410	-2.9
Mar. 31	1,250.99	8,980	+140	1,179.69	4,510	+50
Apr. 30	1,250.90	8,920	-1.0	1,182.73	5,530	+17
May 31	1,216.15	48	-144	1,181.35	5,050	-7.8
June 30	1,215.15	30	-0.3	1,180.96	4,920	-2.2
July 31	1,216.45	55	+0.41	1,180.40	4,740	-3.1
Aug. 31	1,221.59	309	+4.1	1,178.84	4,250	-8.0
Sept. 30	1,227.01	882	+9.6	1,179.61	4,480	+3.9
WTR YR 2005	--	--	+1.2	--	--	-0.75

OHIO RIVER MAIN STEM

03025500 ALLEGHENY RIVER AT FRANKLIN, PA

LOCATION.--Lat 41°23'22", long 79°49'14", Venango County, Hydrologic Unit 05010003, on right bank at upstream side of Eighth Street bridge on U.S. Highway 322 at Franklin, 1,000 ft downstream from French Creek, at mile 124.4.

DRAINAGE AREA.--5,982 mi^2.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site since April 1905 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 743: Drainage area. WSP 783: 1913 (M). WSP 1003: 1920 (M). WSP 1305: 1926 (M), 1928-29 (M). WSP 1385: 1920, 1932.

GAGE.--Water-stage recorder. Datum of gage is 955.84 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 16, 1932, nonrecording gage, and Sept. 16-30, 1932, water-stage recorder, at present site at datum 2.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since December 1940 by Tionesta Lake, since November 1949 by Chautauqua Lake (station 03013946), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), and since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, 1865 reached a stage of 25.0 ft, and that of Mar. 26, 1913 a stage of 24.6 ft, from graph based on gage readings, discharges about, 200,000 ft^3/s and 190,000 ft^3/s, respectively, from rating curve extended above 111,000 ft^3/s. Maximum discharge since at least 1864 is that of Mar. 17, 1865.

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	8390	7130	e15900	19900	8840	10300	20300	16600	3620	3310	2630	8460
2	7160	6730	28000	21900	8240	9200	28600	15600	3510	3200	2620	8590
3	5860	8590	30500	25700	8030	8520	35600	14800	3470	3090	2290	7300
4	5050	10000	30200	39000	7850	8250	31500	14200	3480	3030	2330	5930
5	5010	12500	28600	35000	7730	7800	34500	13400	3190	3090	2500	4440
6	4910	13700	25800	37800	7240	7540	36000	12400	3030	3410	2500	3040
7	4750	12900	20300	39100	6770	7860	38500	10600	2890	3130	2650	2740
8	4290	11700	20100	35800	8330	12900	40400	8880	2690	3070	2610	2940
9	4440	10500	20700	33300	16000	14900	38000	7630	2710	3230	2560	3120
10	4690	9510	21000	29600	20000	13700	35000	6770	2850	3050	2330	3200
11	4620	8620	21500	29700	18200	12800	31800	6210	3870	2980	1520	3100
12	4570	8080	22600	36300	16200	11500	26400	6050	3450	2930	1460	3030
13	4650	7540	23000	51600	13800	10600	20200	5830	3090	2920	1670	2950
14	4750	7250	22400	56000	12400	9500	17500	6100	2960	2900	2190	2870
15	5100	7060	21300	e43000	19300	8790	14400	7360	3190	2780	2820	2810
16	5470	6560	19200	e43800	23400	7890	12300	8170	3740	2850	2630	2770
17	5330	6300	17000	e40800	23100	7000	10400	7670	3640	4110	2480	2750
18	5210	6590	14300	e37100	19600	6710	9420	7200	4160	5100	2270	2790
19	6310	7570	13000	e29600	18700	6660	8500	6740	4530	4430	2020	3790
20	7820	7900	11100	27700	18800	8790	8030	6460	4190	3710	2240	3850
21	8170	8410	10600	25700	18300	13200	8180	6240	3810	3300	2180	3370
22	7640	8560	10400	22000	18700	13900	8170	5990	3500	3030	2090	3010
23	7060	8470	15600	20400	17900	14700	9770	5380	3160	2930	2180	2990
24	7150	8250	28700	19800	16600	16800	14200	4740	2690	2980	2640	3280
25	7740	9050	26200	19700	15700	15600	16000	4120	2590	3250	2580	3320
26	7500	10100	27200	17800	15200	14600	16600	3740	2670	3530	2610	4880
27	7000	10800	29700	16700	13000	14500	17700	3750	3110	4150	2710	8870
28	6090	10700	28700	16500	11300	15700	18500	3790	3200	4250	2700	7990
29	5420	13000	24000	14900	---	18300	16900	3880	3120	3760	2780	6650
30	6670	e10700	21100	12100	---	20600	15600	3780	3370	3170	2900	6690
31	7350	---	16500	10200	---	21200	---	3930	---	2820	6170	---
TOTAL	186170	274770	665200	908500	409230	370310	638970	238010	99480	103490	77860	131520
MEAN	6005	9159	21460	29310	14620	11950	21300	7678	3316	3338	2512	4384
MAX	8390	13700	30500	56000	23400	21200	40400	16600	4530	5100	6170	8870
MIN	4290	6300	10400	10200	6770	6660	8030	3740	2590	2780	1460	2740
CFSM	1.00	1.53	3.59	4.90	2.44	2.00	3.56	1.28	0.55	0.56	0.42	0.73
IN.	1.16	1.71	4.14	5.65	2.54	2.30	3.97	1.48	0.62	0.64	0.48	0.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5602	9992	13490	13940	13590	20710	19320	12230	7426	4566	3371	3849
MAX	22900	26030	33270	41420	32340	49850	49920	30070	24820	21440	13830	26180
(WY)	1991	1986	1928	1937	1976	1936	1940	1943	1989	1972	1977	2004
MIN	515	771	1125	1732	2929	6383	4203	2554	1106	555	414	435
(WY)	1931	1931	1961	1961	1963	1969	1946	1985	1934	1934	1930	1930

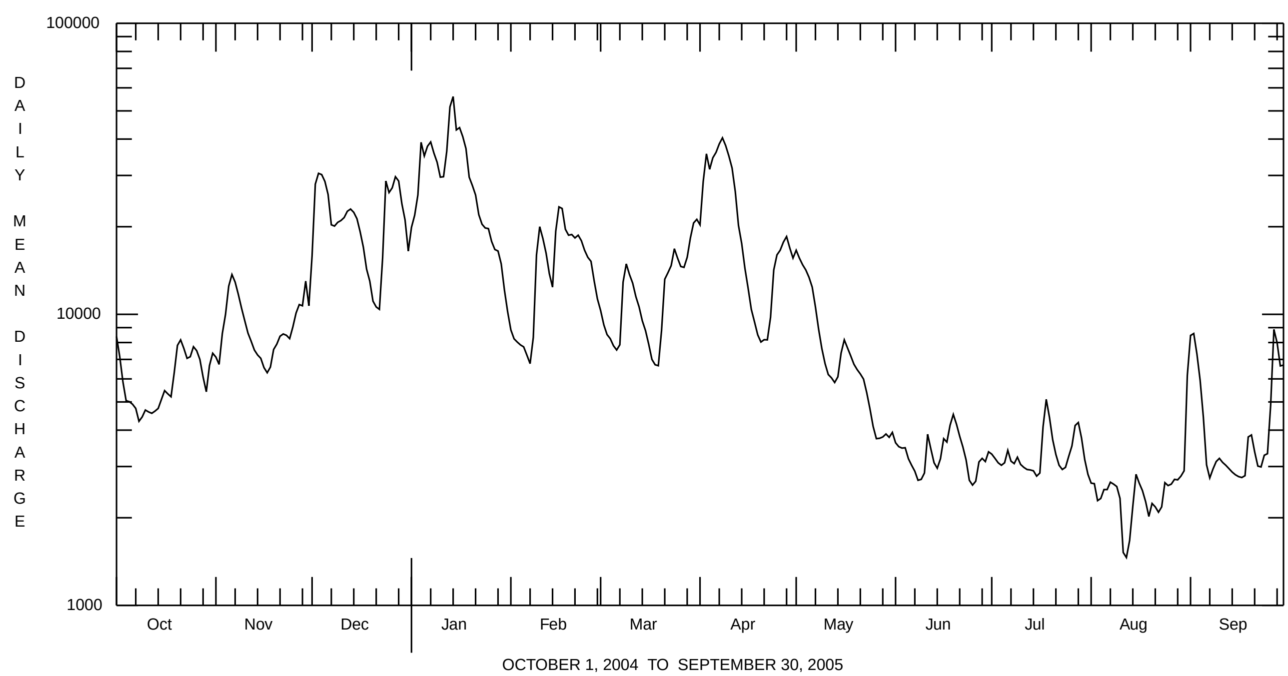
e Estimated.

OHIO RIVER MAIN STEM

03025500 ALLEGHENY RIVER AT FRANKLIN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1915 - 2005	
ANNUAL TOTAL	5497670		4103510			
ANNUAL MEAN	15020		11240		10660	
HIGHEST ANNUAL MEAN					16480	2004
LOWEST ANNUAL MEAN					6482	1931
HIGHEST DAILY MEAN	58300	Sep 9	56000	Jan 14	130000	Mar 13 1920
LOWEST DAILY MEAN	2710	Jul 9	1460	Aug 12	335	Aug 21 1930
ANNUAL SEVEN-DAY MINIMUM	2990	Jul 3	2050	Aug 8	351	Aug 17 1930
MAXIMUM PEAK FLOW			58100	Jan 14	**a**138000	Mar 13 1920
MAXIMUM PEAK STAGE			13.13	Jan 14	**b**20.65	Mar 13 1920
INSTANTANEOUS LOW FLOW			1440	Aug 11,12		
ANNUAL RUNOFF (CFSM)	2.51		1.88		1.78	
ANNUAL RUNOFF (INCHES)	34.19		25.52		24.21	
10 PERCENT EXCEEDS	29900		26300		25200	
50 PERCENT EXCEEDS	11400		7730		6760	
90 PERCENT EXCEEDS	5040		2780		1470	

a From rating curve extended above 111,000 ft^3/s.
b Maximum gage height observed, 26.0 ft, Feb. 27, 1917 (backwater from ice), also Feb. 26, 1926 (backwater from ice).



03026500 SEVENMILE RUN NEAR RASSELAS, PA

LOCATION.--Lat 41°37'52", long 78°34'37", McKean County, Hydrologic Unit 05010005, on right bank 300 ft upstream from highway bridge, 600 ft upstream from Fivemile Run, and 3.2 mi northeast of Rasselas.

DRAINAGE AREA.--7.84 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,690.73 ft above National Geodetic Vertical Datum of 1929.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 200 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 14	0400	*304	*4.17	No other peak greater than 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	5.8	4.2	64	14	e5.4	e7.7	62	13	3.5	2.4	1.1	11
2	5.4	4.9	47	13	e4.9	e7.3	73	12	3.1	2.2	1.0	3.8
3	5.1	9.6	36	26	e4.5	e7.1	57	13	3.5	2.0	0.95	2.4
4	4.7	8.7	28	53	e4.1	e7.0	47	12	3.6	1.9	0.89	2.0
5	4.3	12	23	36	e3.8	e6.8	44	11	3.1	6.1	0.92	1.6
6	3.9	9.8	20	45	e3.5	e6.7	38	10	4.2	9.3	0.91	1.4
7	3.7	9.0	24	43	e3.4	e7.1	32	9.6	4.2	5.2	0.91	1.2
8	3.5	8.3	33	41	e3.4	25	27	9.0	3.1	4.2	0.86	1.1
9	3.3	7.7	26	35	e12	19	23	8.3	2.8	4.2	0.87	1.0
10	3.3	7.2	28	29	24	18	19	8.1	5.6	3.0	0.81	0.90
11	3.1	6.8	26	26	18	13	16	7.2	14	2.7	0.72	0.88
12	3.1	6.6	23	38	14	13	14	6.6	9.2	2.4	0.66	0.80
13	3.1	6.0	21	71	13	11	12	6.0	6.0	2.3	0.72	0.81
14	3.1	5.5	17	150	13	11	11	6.6	5.2	2.1	0.82	0.76
15	3.6	5.2	15	58	21	11	10	8.2	7.6	2.0	0.75	0.74
16	4.3	5.1	13	42	28	8.3	8.9	6.3	9.2	2.1	0.71	0.78
17	3.5	4.9	12	33	25	8.3	8.4	5.8	7.4	3.0	0.62	1.0
18	3.4	4.8	11	26	21	8.0	8.1	5.3	6.3	3.3	0.50	0.82
19	12	4.6	11	e21	19	7.9	7.1	5.0	5.7	2.3	0.81	0.70
20	7.6	5.0	13	e18	15	11	6.9	4.8	5.0	2.0	1.5	0.78
21	5.9	5.2	13	e18	e14	13	7.7	4.7	4.3	1.8	0.97	0.79
22	5.4	4.7	9.7	e17	e13	12	6.8	4.6	3.9	1.8	0.77	0.78
23	4.9	4.4	59	e16	e12	15	14	4.8	3.5	1.7	0.68	0.65
24	4.8	6.4	45	e14	e11	14	12	5.3	3.1	1.5	0.66	0.67
25	4.7	12	33	e12	e9.8	13	12	4.8	2.8	1.6	0.59	0.68
26	4.4	9.1	25	e9.8	e9.0	14	12	4.1	2.7	1.6	0.56	5.0
27	4.1	8.1	20	e7.5	e8.4	16	12	4.3	2.5	2.3	0.61	3.8
28	3.7	25	21	e7.0	e8.0	36	12	6.9	2.5	1.8	0.91	1.6
29	3.8	21	15	e6.5	---	63	11	6.0	3.2	1.4	0.79	4.8
30	5.2	17	13	e6.0	---	63	13	4.5	2.5	1.2	1.5	3.2
31	4.7	---	15	e5.9	---	68	---	3.9	---	1.2	33	---
TOTAL	141.4	248.8	759.7	937.7	341.2	541.2	636.9	221.7	143.3	82.6	58.07	56.44
MEAN	4.56	8.29	24.5	30.2	12.2	17.5	21.2	7.15	4.78	2.66	1.87	1.88
MAX	12	25	64	150	28	68	73	13	14	9.3	33	11
MIN	3.1	4.2	9.7	5.9	3.4	6.7	6.8	3.9	2.5	1.2	0.50	0.65
CFSM	0.58	1.06	3.13	3.86	1.55	2.23	2.71	0.91	0.61	0.34	0.24	0.24
IN.	0.67	1.18	3.60	4.45	1.62	2.57	3.02	1.05	0.68	0.39	0.28	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2005, BY WATER YEAR (WY)

MEAN	7.94	14.3	17.3	15.0	16.5	28.1	28.5	17.4	11.7	5.54	5.50	6.43
MAX	29.7	49.5	35.9	56.4	49.9	70.8	70.6	47.8	74.0	26.0	32.8	39.7
(WY)	1971	1986	1978	1952	1976	1964	1970	1953	1989	1992	1956	1987
MIN	0.32	0.66	0.94	1.55	2.22	9.85	11.2	4.05	1.14	0.50	0.52	0.28
(WY)	1965	1965	1961	1961	1987	1993	1976	1985	1991	1991	1966	1964

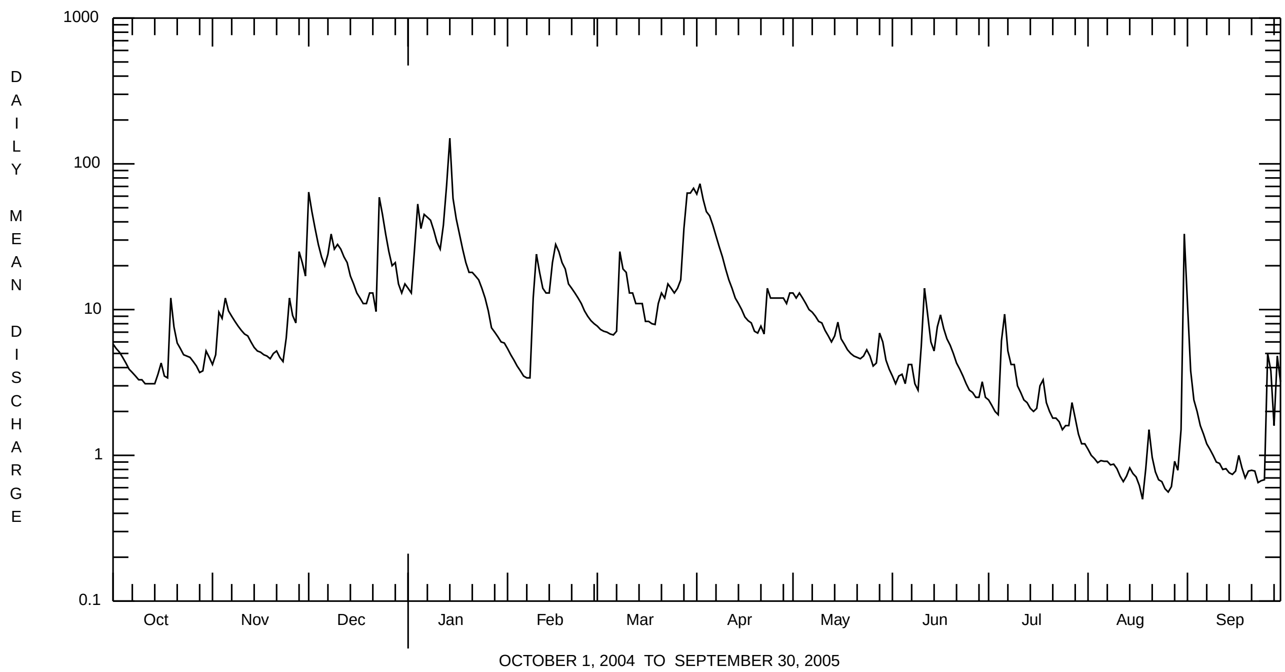
e Estimated.

CLARION RIVER BASIN

03026500 SEVENMILE RUN NEAR RASSELAS, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1952 - 2005	
ANNUAL TOTAL	6428.1		4169.01			
ANNUAL MEAN	17.6		11.4		14.5	
HIGHEST ANNUAL MEAN					21.1	1984
LOWEST ANNUAL MEAN					8.92	2001
HIGHEST DAILY MEAN	182	Sep 9	150	Jan 14	465	Jun 20 1989
LOWEST DAILY MEAN	1.4	Jul 11	0.50	Aug 18	0.07	Sep 21 1955
ANNUAL SEVEN-DAY MINIMUM	2.0	Jul 5	0.68	Aug 12	0.14	Sep 16 1955
MAXIMUM PEAK FLOW			304	Jan 14	**a**2300	Sep 13 1987
MAXIMUM PEAK STAGE			4.17	Jan 14	5.30	Sep 13 1987
INSTANTANEOUS LOW FLOW			0.35	Aug 25	0.07	Sep 21 1955
ANNUAL RUNOFF (CFSM)	2.24		1.46		1.84	
ANNUAL RUNOFF (INCHES)	30.50		19.78		25.06	
10 PERCENT EXCEEDS	37		26		32	
50 PERCENT EXCEEDS	11		6.4		8.2	
90 PERCENT EXCEEDS	3.7		0.91		1.0	

a From rating curve extended above 600 ft^3/s on basis of slope-area measurement at gage height 4.60 ft and contracted-opening measurement at gage height 5.02 ft.



CLARION RIVER BASIN

03027000 EAST BRANCH CLARION RIVER LAKE

LOCATION.--Lat 41°33'35", long 78°35'40", Elk County, Hydrologic Unit 05010005, at control tower at East Branch Clarion River Dam on East Branch Clarion River, 1.7 mi northeast of Glen Hazel, and 7.5 mi upstream from confluence with West Branch Clarion River.

DRAINAGE AREA.--72.4 mi^2 (figure from U.S. Army Corps of Engineers).

PERIOD OF RECORD.--June 1952 to current year. Prior to October 1970 published as "East Branch Clarion River Reservoir".

GAGE.--Water-stage recorder. Datum of gage is sea level (U.S. Army Corps of Engineers bench mark).

REMARKS.--Lake is formed by an earthfill dam rock-faced. Dam completed in 1952. Controlled storage began in June 1952. Capacity, 83,300 acre-ft between elevations 1,555 ft (sill of outlet gates) and 1,685 ft (full pool). Minimum pool elevation, 1,555 ft (capacity, 1,000 acre-ft). Winter low-water pool elevation, 1,651 ft (capacity, 45,600 acre-ft). Summer low-water pool elevation, 1,670 ft (capacity, 65,300 acre-ft). Storage to summer pool normally occurs during period Mar. 1 to Apr. 30. Depletion of low-water storage for augmenting flow in Clarion River occurs normally during period June to October. Figures given herein represent total contents. Lake is used for flood control, for low-flow augmentation of Clarion River and downstream rivers, and for recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 85,010 acre-ft, June 24, 1972, elevation, 1,685.55 ft; minimum, 850 acre-ft, Nov. 9, 1957, elevation, 1,553.00 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

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	1,654.38	48,746	---
Oct. 31	1,648.37	43,173	-90.6
Nov. 30	1,648.66	43,432	+4.4
Dec. 31	1,651.08	45,632	+35.8
CAL YR 2004	--	--	0
Jan. 31	1,650.05	44,687	-15.4
Feb. 28	1,653.89	48,274	+64.6
Mar. 31	1,659.30	53,635	+87.2
Apr. 30	1,669.16	64,339	+180
May 31	1,668.81	63,937	-6.5
June 30	1,664.53	59,159	-80.3
July 31	1,656.84	51,152	-130
Aug. 31	1,644.20	39,563	-188
Sept. 30	1,632.18	30,246	-157
WTR YR 2005	--	--	-25.6

CLARION RIVER BASIN

03028000 WEST BRANCH CLARION RIVER AT WILCOX, PA

LOCATION.--Lat 41°34'31", long 78°41'33", Elk County, Hydrologic Unit 05010005, on right bank 20 ft downstream from bridge on Township Route 359 at Wilcox, 100 ft downstream from Wilson Run, and 0.1 mi upstream from Penn Central Railroad bridge.

DRAINAGE AREA.--63.0 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,502.02 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 18, 1953, nonrecording gage at site 20 ft upstream at same datum. Nov. 18 to Dec. 8, 1953, 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. U.S. Army Corps of Engineers 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)
Dec. 1	1200	1,140	4.41	Apr. 2	1400	1,190	4.48
Dec. 23	1600	1,140	4.41	Aug. 31	0600	1,240	4.56
Jan. 14	0600	*2,440	*6.26				

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	58	33	641	136	e73	e86	647	122	24	29	12	126
2	53	41	498	121	e71	e82	827	116	24	25	11	55
3	49	87	386	240	e68	e78	660	116	34	21	10	36
4	45	71	294	510	e63	e78	528	109	33	19	10	28
5	42	106	236	387	e60	e78	465	102	27	128	9.5	23
6	39	89	196	492	e60	e78	410	94	42	125	8.9	19
7	36	85	215	446	e60	e82	361	91	39	62	e8.9	17
8	33	82	254	434	e72	218	306	87	26	101	e8.6	16
9	32	77	212	365	e119	156	253	80	23	82	e8.5	15
10	31	71	240	305	221	e121	217	71	101	56	e8.2	13
11	29	68	227	264	180	e115	193	67	142	46	e8.1	12
12	30	66	210	402	177	e108	169	60	66	39	e8.2	11
13	32	59	193	678	159	e102	149	54	49	32	e8.3	10
14	27	53	164	1580	172	e97	131	60	44	28	e13	9.5
15	32	50	146	727	263	e92	114	86	60	26	e11	9.3
16	36	49	129	487	294	93	105	58	59	39	e9.9	10
17	30	48	123	369	271	88	93	51	45	56	e9.7	11
18	30	48	110	278	241	85	85	48	39	40	e8.8	9.4
19	102	46	106	e222	215	88	78	44	34	27	e10	12
20	53	52	77	e165	195	127	75	41	29	21	e14	14
21	41	51	116	e141	e164	152	81	40	27	21	e12	e8.6
22	36	46	101	e127	e149	130	71	38	25	20	e11	e8.3
23	33	43	508	e119	e133	162	136	39	22	17	e9.9	e8.6
24	33	66	404	e111	e119	163	113	41	20	16	e9.3	e8.5
25	32	108	312	e104	e109	161	114	38	18	19	e8.8	e8.3
26	31	86	254	e100	e101	164	112	32	16	22	e8.1	67
27	29	82	200	e94	e94	178	119	29	21	38	e8.0	35
28	28	245	190	e91	e89	302	112	49	25	22	e8.8	15
29	31	207	162	e87	---	482	100	42	89	16	e9.1	39
30	44	197	137	e84	---	574	125	31	37	13	19	23
31	37	---	140	e78	---	646	---	26	---	13	509	---
TOTAL	1194	2412	7181	9744	3992	5166	6949	1962	1240	1219	809.6	677.5
MEAN	38.5	80.4	232	314	143	167	232	63.3	41.3	39.3	26.1	22.6
MAX	102	245	641	1580	294	646	827	122	142	128	509	126
MIN	27	33	77	78	60	78	71	26	16	13	8.0	8.3
CFSM	0.61	1.28	3.68	4.99	2.26	2.65	3.68	1.00	0.66	0.62	0.41	0.36
IN.	0.71	1.42	4.24	5.75	2.36	3.05	4.10	1.16	0.73	0.72	0.48	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.8	125	154	132	143	241	246	145	95.5	58.4	51.4	58.7
MAX	236	390	311	319	448	494	483	369	417	252	249	294
(WY)	1982	1986	1978	1998	1976	1964	1970	2002	1972	1992	1956	2004
MIN	7.60	12.9	12.4	18.5	27.6	96.4	109	40.9	20.4	12.3	8.30	7.68
(WY)	1964	1965	1961	1961	1987	1969	1976	1985	1991	1955	1991	1955

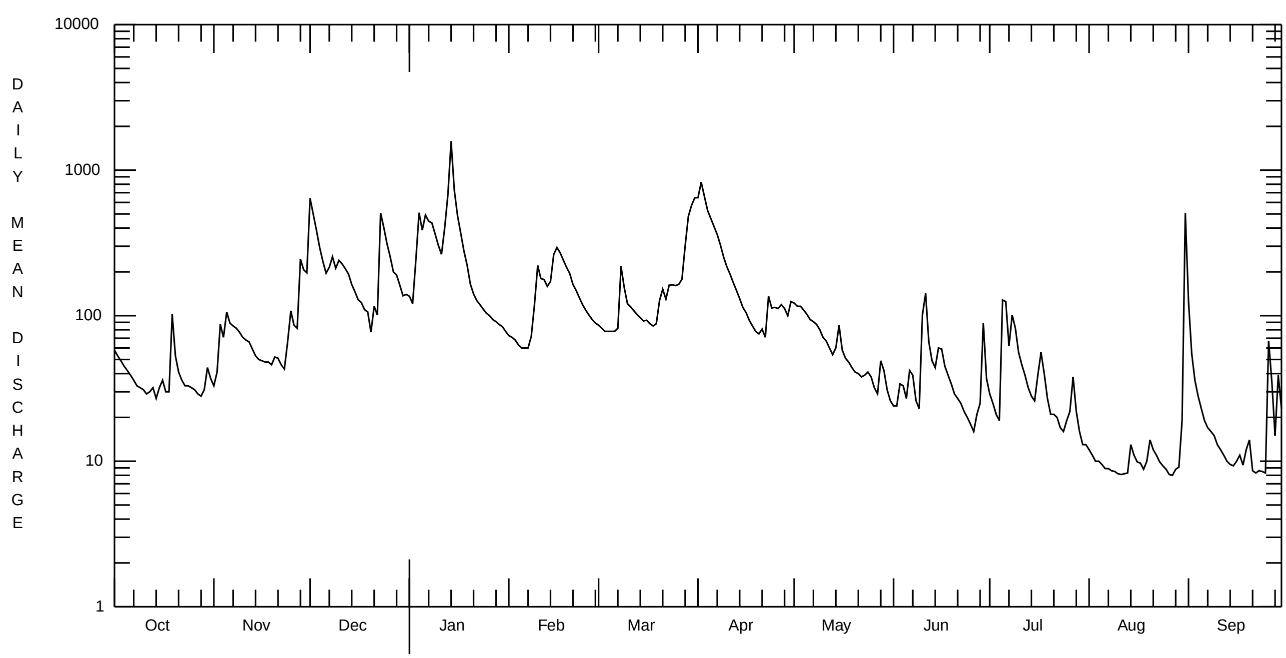
e Estimated.

CLARION RIVER BASIN

03028000 WEST BRANCH CLARION RIVER AT WILCOX, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1954 - 2005	
ANNUAL TOTAL	61066		42546.1			
ANNUAL MEAN	167		117		126	
HIGHEST ANNUAL MEAN					184	1956**a**
LOWEST ANNUAL MEAN					80.4	2001
HIGHEST DAILY MEAN	1720	Sep 9	1580	Jan 14	2870	Jun 23 1972
LOWEST DAILY MEAN	27	Sep 6,7	**e**8.0	Aug 27	4.5	Sep 21 1955
ANNUAL SEVEN-DAY MINIMUM	30	Oct 9	**b**8.4	Aug 7	5.2	Sep 16 1955
MAXIMUM PEAK FLOW			2440	Jan 14	**c**5590	Jan 19 1996
MAXIMUM PEAK STAGE			6.26	Jan 14	**d**10.23	Jan 19 1996
INSTANTANEOUS LOW FLOW			Unknown		4.2	Sep 21 1955
ANNUAL RUNOFF (CFSM)	2.65		1.85		2.01	
ANNUAL RUNOFF (INCHES)	36.06		25.12		27.26	
10 PERCENT EXCEEDS	356		267		288	
50 PERCENT EXCEEDS	108		68		75	
90 PERCENT EXCEEDS	39		11		15	

a Also 2004.
b Computed using estimated daily discharges.
c From rating curve extended above 3,000 ft^3/s.
d From peak-stage indicator.
e Estimated.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

CLARION RIVER BASIN

03029500 CLARION RIVER AT COOKSBURG, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°19'50", long 79°12'33", Clarion County, Hydrologic Unit 05010005, on right bank at downstream side of bridge on State Highway 36 at Cooksburg, 300 ft downstream from Toms Run, and 2.7 mi upstream from Cathers Run.

DRAINAGE AREA.--807 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October, November 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1305: 1939 (M). WDR PA-85-3: 1979 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,147.00 ft above National Geodetic Vertical Datum of 1929. Prior to May 17, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since June 1952 by East Branch Clarion River Lake (station 03027000) and at low flow by industrial plants above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1935, 19 ft, Mar. 17, 1936, from floodmarks, discharge, about 56,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 10,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 7	0145	13,400	10.71	Jan. 14	1500	*17,700	*12.05

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	2080	864	4820	1730	e950	1200	4070	1330	553	499	324	3340
2	2080	717	6790	1590	e900	1140	4360	1240	467	438	310	1410
3	2060	1000	4550	2220	e890	1020	5870	1130	465	449	299	862
4	846	1220	3550	7440	e930	950	4500	1040	636	366	296	644
5	804	1630	2870	6240	e980	922	4920	970	675	360	293	544
6	e777	1650	2400	8610	e1110	895	4230	911	549	989	286	470
7	e650	1360	2220	10600	e1300	921	3620	871	613	866	298	426
8	e645	1200	3040	7160	e3120	2410	3140	832	587	560	295	406
9	e635	1060	3000	6640	e3630	2320	2610	781	476	547	297	390
10	e500	955	3120	4980	e3310	1880	2200	727	438	572	294	387
11	e475	886	3130	4210	2540	1740	1900	689	588	449	290	360
12	e450	858	2910	4970	2120	1580	1650	649	760	398	285	337
13	e425	853	2650	7810	1840	1440	1460	591	508	368	286	338
14	e425	769	2370	14300	1760	1260	1320	611	441	349	306	308
15	e435	715	2040	9390	3500	1140	1180	796	498	333	313	298
16	e440	694	1800	6090	4230	1090	1070	859	779	327	296	310
17	e450	679	1650	4630	4090	1020	982	708	862	405	281	317
18	e458	612	1460	3660	3160	1020	923	599	669	532	275	366
19	646	595	1380	3120	2570	1030	872	549	570	497	329	322
20	1160	591	1230	2800	2240	1280	826	528	499	376	706	304
21	738	646	1000	2400	2150	1920	821	531	452	335	607	302
22	586	622	1180	2070	2190	1780	794	503	420	316	365	294
23	525	567	2390	e1780	1910	2010	1070	484	408	318	317	291
24	497	561	5850	e1480	1700	2670	1580	520	374	304	297	291
25	486	913	3500	e1330	1510	2550	1260	582	357	e298	295	287
26	464	1190	2900	e1220	1380	2460	1210	543	353	e429	287	357
27	440	973	2460	e1130	1230	2360	1160	464	339	600	288	795
28	425	1690	2150	e1090	1200	2930	1150	460	330	791	307	600
29	403	2990	1970	e1050	---	4680	1090	617	466	500	329	413
30	702	2170	1730	e1030	---	4920	1090	640	754	375	413	512
31	1170	---	1630	e1010	---	4380	---	624	---	330	4060	---
TOTAL	22877	31230	83740	133780	58440	58918	62928	22379	15886	14276	13924	16281
MEAN	738	1041	2701	4315	2087	1901	2098	722	530	461	449	543
MAX	2080	2990	6790	14300	4230	4920	5870	1330	862	989	4060	3340
MIN	403	561	1000	1010	890	895	794	460	330	298	275	287
CFSM	0.91	1.29	3.35	5.35	2.59	2.36	2.60	0.89	0.66	0.57	0.56	0.67
IN.	1.05	1.44	3.86	6.17	2.69	2.72	2.90	1.03	0.73	0.66	0.64	0.75

e Estimated.

CLARION RIVER BASIN

03029500 CLARION RIVER AT COOKSBURG, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2005, BY WATER YEAR (WY) (SINCE REGULATIOIN)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	776	1321	1797	1659	1761	2734	2571	1877	1195	797	651	683
MAX	2357	3906	3821	5654	4138	6185	4721	4314	5307	2565	2732	3117
(WY)	1991	1986	1978	1952	1976	1979	1994	2002	1972	1992	1994	2004
MIN	86.6	204	150	211	369	764	1217	566	325	139	117	109
(WY)	1952	1961	1961	1961	1987	1969	1976	1985	1999	1952	1952	1952

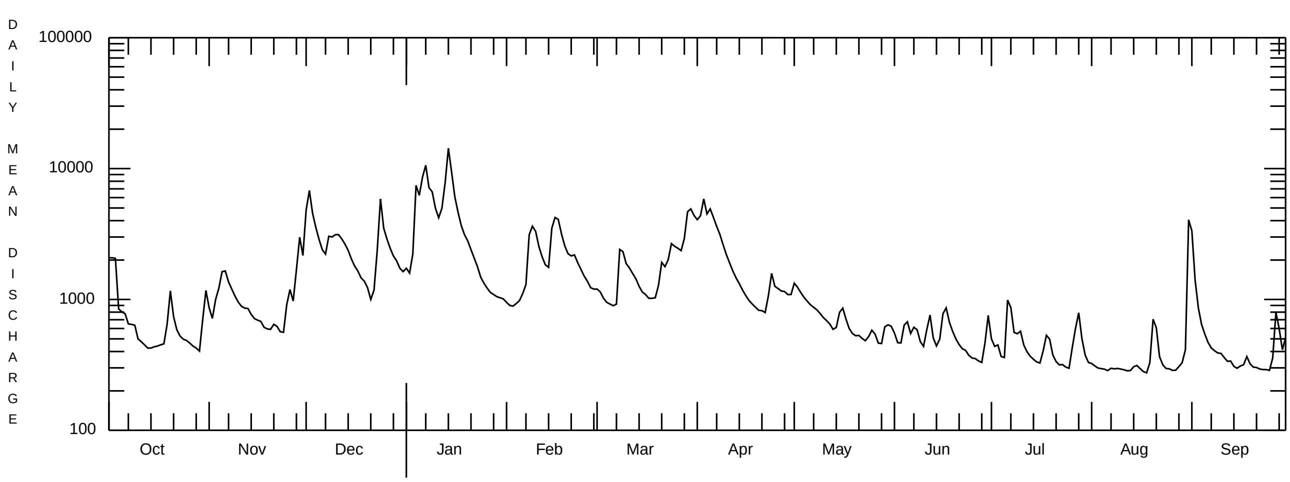
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1952 - 2005	
ANNUAL TOTAL	785560		534659			
ANNUAL MEAN	2146		1465		1483	
HIGHEST ANNUAL MEAN					2341	2004
LOWEST ANNUAL MEAN					912	2001
HIGHEST DAILY MEAN	15100	Mar 6	14300	Jan 14	43200	Jun 23 1972
LOWEST DAILY MEAN	361	Jul 4	275	Aug 18	59	Sep 14 1952
ANNUAL SEVEN-DAY MINIMUM	440	Jun 28	292	Aug 12	67	Sep 8 1952
MAXIMUM PEAK FLOW			17700	Jan 14	**a**53300	Jun 23 1972
MAXIMUM PEAK STAGE			12.05	Jan 14	**b**18.84	Jun 23 1972
INSTANTANEOUS LOW FLOW			272	Aug 18	57	Sep 14 1952
ANNUAL RUNOFF (CFSM)	2.66		1.82		1.84	
ANNUAL RUNOFF (INCHES)	36.21		24.65		24.98	
10 PERCENT EXCEEDS	4490		3400		3230	
50 PERCENT EXCEEDS	1510		862		916	
90 PERCENT EXCEEDS	587		318		298	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1951, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	590	1085	1475	1891	1961	3055	2969	1971	1154	579	288	348
MAX	2134	4241	3050	3962	3881	6815	6288	3965	2789	1765	580	1078
(WY)	1946	1951	1941	1950	1951	1945	1940	1943	1946	1942	1950	1945
MIN	113	170	337	417	764	1610	725	606	261	158	94.2	82.8
(WY)	1950	1950	1944	1944	1941	1949	1946	1941	1939	1949	1944	1943

SUMMARY STATISTICS	WATER YEARS 1939 - 1951	
ANNUAL MEAN	1444	
HIGHEST ANNUAL MEAN	2023	1951
LOWEST ANNUAL MEAN	953	1944
HIGHEST DAILY MEAN	24600	Dec 30 1942
LOWEST DAILY MEAN	43	Aug 30 1939
ANNUAL SEVEN-DAY MINIMUM	50	Aug 29 1939
MAXIMUM PEAK FLOW	32700	Jul 19 1942
MAXIMUM PEAK STAGE	14.96	Jul 19 1942
INSTANTANEOUS LOW FLOW	41	Aug 30 1939
ANNUAL RUNOFF (CFSM)	1.79	
ANNUAL RUNOFF (INCHES)	24.31	
10 PERCENT EXCEEDS	3350	
50 PERCENT EXCEEDS	793	
90 PERCENT EXCEEDS	140	

a From rating curve extended above 40,000 ft^3/s.
b From peak-stage indicator.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

03029500 CLARION RIVER AT COOKSBURG, 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 276-323.

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													
17...	1415	1028	9813	676	13.4	7.4	6.9	243	248	5.5	56	15.2	4.4
JAN 2005													
13...	0930	1028	9813	7960	12.3	6.8	7.2	110	114	5.0	32	8.4	2.8
MAR													
22...	0845	1028	9813	1800	12.9	7.0	7.2	200	208	2.9	46	12.4	3.8
MAY													
23...	1215	1028	9813	480	8.5	7.3	7.6	326	330	15.5	64	17.3	5.0
JUL													
27...	1230	1028	9813	536	7.5	7.5	7.8	344	355	25.0	61	17.3	4.3
SEP													
06...	1045	1028	9813	470	10.0	7.2	7.6	278	285	20.0	54	14.8	4.1

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, 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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
17...	20	64.1	204	12	<.020	.20	<.040	<.01	<.010	.33	3.1	<200	<10
JAN 2005													
13...	11	26.7	52	12	<.020	.29	<.040	.02	.021	.41	2.1	660	<10
MAR													
22...	13	47.2	130	6	.060	.42	<.040	.01	.019	.59	2.4	280	<10
MAY													
23...	27	92.7	206	<2	.070	.29	<.040	<.01	.021	.53	--	<200	<10
JUL													
27...	26	95.7	216	2	<.020	.22	<.040	.01	.025	.34	--	<200	<10
SEP													
06...	23	75.6	178	6	.030	.44	<.040	.01	.023	.71	--	<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					
17...	160	<1.0	90	<50	<10
JAN 2005					
13...	1080	1.9	250	<50	30
MAR					
22...	540	<1.0	240	<50	10
MAY					
23...	190	<1.0	90	<50	<10
JUL					
27...	320	<1.0	150	<50	10
SEP					
06...	310	<1.0	90	<50	<10

CLARION RIVER BASIN

03029500 CLARION RIVER AT COOKSBURG, 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	08/09/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	3
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	3
Baetis	2
Plauditus	4
Ephemerellidae	
Ephemerella	2
Serratella	2
Heptageniidae	
Stenonema	8
Isonychiidae	
Isonychia	6
Tricorythidae	
Tricorythodes	2
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	20
Hydropsychidae	
Cheumatopsyche	19
Hydropsyche	19
Macrostemum	4
Psychomyiidae	
Psychomyia	4

03029500 CLARION RIVER AT COOKSBURG, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

Date	08/09/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	7
Oulimnius	1
Stenelmis	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	5
Empididae (DANCE FLIES)	
Hemerodromia	1
Tipulidae (CRANE FLIES)	
Antocha	4
Total Organisms	123
Total Taxa	24

CLARION RIVER BASIN

03030500 CLARION RIVER NEAR PINEY, PA

LOCATION.--Lat 41°11'33", long 79°26'25", Clarion County, Hydrologic Unit 05010005, on left bank 0.2 mi downstream from hydroelectric plant of Reliant Energy, 2.3 mi northeast of Piney, 2.4 mi upstream from Piney Creek, and 3 mi southwest of Clarion.

DRAINAGE AREA.--951 mi^2.

PERIOD OF RECORD.--October 1944 to current year (monthly discharge only October 1944 to September 1947).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,002.06 ft above National Geodetic Vertical Datum of 1929 (Reliant Energy bench mark). Prior to Dec. 23, 1947, records from hydroelectric plant 0.2 mi upstream.

REMARKS.--Records fair except those for estimated daily discharges and those for period Aug. 1 to Sept. 30, which are poor. Flow regulated since 1924 by hydroelectric plant at Piney Dam 0.2 mi upstream, and since June 1952 by East Branch Clarion River Lake (station 03027000), combined capacity of reservoirs, 113,200 acre-ft. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Mar. 18, 1936 reached a discharge of 50,000 ft^3/s, as determined by Reliant Energy, elevation, 1,028.5 ft, at lower pool of dam.

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	1540	5980	1660	856	1340	4460	1600	844	779	203	3730
2	1090	1480	8500	2360	932	1300	4800	1630	711	632	531	1930
3	993	1320	5780	2780	1090	1310	6840	1450	713	596	442	520
4	1090	1730	4680	9840	891	1170	5210	1320	785	567	417	497
5	1160	1960	3660	8850	453	956	5870	1190	980	637	460	704
6	614	2390	3410	13300	505	766	4860	1170	869	1200	372	494
7	900	1380	3250	14300	1130	1110	4200	1090	765	1430	336	452
8	605	1490	3690	9570	808	2350	3620	1070	917	1040	328	545
9	495	1500	4070	8710	1540	3070	3020	1030	729	783	367	543
10	537	1550	4070	6950	3870	2490	2590	820	695	88	369	162
11	881	1320	4300	5520	3290	1740	2210	940	799	1170	370	164
12	969	1780	3990	6250	2640	2280	1920	813	1150	271	383	458
13	531	1080	3560	9120	2140	1620	1760	725	760	113	144	453
14	651	625	3410	14600	2300	1790	1580	810	607	445	175	533
15	547	797	3220	10400	4340	1140	1400	1050	650	459	386	509
16	693	757	2860	6760	5190	1250	1280	1100	1050	450	423	432
17	169	589	2180	5220	4740	1450	1230	910	1170	438	441	211
18	778	678	1930	4210	3710	1120	1110	824	997	418	e527	212
19	1240	777	2370	3340	2880	1300	1050	709	791	407	524	432
20	1270	806	2070	3160	2540	1300	1030	767	747	395	295	510
21	874	985	1350	2560	2730	2460	1010	708	656	388	602	424
22	1010	936	1310	1880	2450	2910	1010	701	649	374	543	428
23	1030	910	2710	1820	2530	2340	1190	671	755	219	524	453
24	178	923	7800	1750	1970	2450	1980	735	794	265	561	e404
25	1240	1150	4950	1700	1620	3180	1580	858	801	376	513	e430
26	713	1740	4030	1780	1570	2840	1500	726	801	427	517	e752
27	806	423	3550	1630	1620	2830	1460	662	416	806	276	733
28	458	1610	3190	1800	1650	3420	1550	652	598	995	276	832
29	595	3350	2940	1070	---	5040	1400	825	431	708	495	419
30	579	2950	3250	903	---	5330	1350	952	853	675	1140	430
31	1480	---	2960	849	---	4740	---	849	---	690	3790	---
TOTAL	25566	40526	115020	164642	61985	68392	74070	29357	23483	18241	16730	18796
MEAN	825	1351	3710	5311	2214	2206	2469	947	783	588	540	627
MAX	1480	3350	8500	14600	5190	5330	6840	1630	1170	1430	3790	3730
MIN	169	423	1310	849	453	766	1010	652	416	88	144	162
(†)	-90	+11	-10	+0.3	+68	+116	+179	-2.5	-93	-139	-180	-158

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	887	1574	2177	2120	2282	3279	3107	2230	1447	945	742	793
MAX	2743	5013	4611	6884	5775	6703	5186	5018	6354	3220	3096	4549
(WY)	1991	1986	1978	1952	1976	1964	1970	2002	1972	1992	1994	2004
MIN	40.2	82.5	184	244	527	881	1517	700	345	167	135	120
(WY)	1950	1950	1961	1961	1987	1969	1968	1985	1991	1952	1952	1951

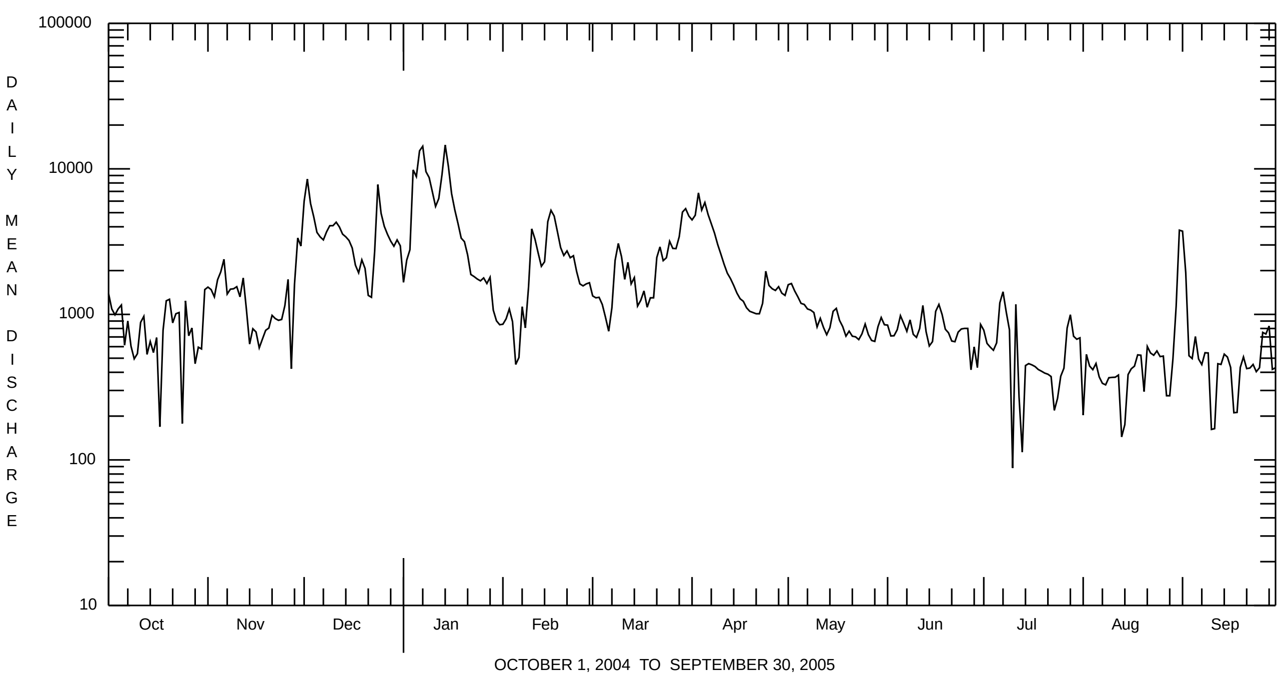
† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake and Piney Reservoir. Records of contents in Piney Reservoir furnished by Reliant Energy. Records of contents in East Branch Clarion River Lake furnished by U.S. Army Corps of Engineers.
e Estimated.

CLARION RIVER BASIN

03030500 CLARION RIVER NEAR PINEY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1948 - 2005	
ANNUAL TOTAL	972084		656808			
ANNUAL MEAN	2656	† -3.8	1799	† +3.9	1796	
HIGHEST ANNUAL MEAN					2821	2004
LOWEST ANNUAL MEAN					1092	2001
HIGHEST DAILY MEAN	29400	Sep 18	14600	Jan 14	51600	Jun 23 1972
LOWEST DAILY MEAN	167	Jul 3	88	Jul 10	11	Oct 1 1966
ANNUAL SEVEN-DAY MINIMUM	578	Jun 28	305	Aug 8	26	Oct 16 1949
MAXIMUM PEAK FLOW			20500	Jan 14	**a**74500	Jun 23 1972
MAXIMUM PEAK STAGE			13.83	Jan 14	**b**28.24	Jun 23 1972
10 PERCENT EXCEEDS	5260		4070		4070	
50 PERCENT EXCEEDS	1820		1050		1140	
90 PERCENT EXCEEDS	659		423		144	

† Change in contents, equivalent in cubic feet per second, in East Branch Clarion River Lake and Piney Reservoir. Records of contents in Piney Reservoir furnished by Reliant Energy. Records of contents in East Branch Clarion River Lake furnished by U.S. Army Corps of Engineers.
a From rating curve extended above 59,000 ft^3/s.
b From floodmark.



OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°06'02", long 79°40'53", Armstrong County, Hydrologic Unit 05010006, on right bank 500 ft downstream from bridge on State Highway 368 at Parker, 1.1 mi downstream from Clarion River, at mile 83.4.

DRAINAGE AREA.--7,671 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1932 to current year. Prior to October 1963, published as "*at Parkers Landing*." Gage height records collected at same site since 1885 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 845.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1932, U.S. Weather Bureau gages at different datums. Oct. 1-28, 1932, nonrecording gage at datum 27.00 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1924 by Piney Reservoir, since December 1940 by Tionesta Lake, since November 1949 by Chautauqua Lake (station 03013946), since June 1952 by East Branch Clarion River Lake (station 03027000), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), and since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, 1865 reached a stage of 29.4 ft, present datum, discharge, about 250,000 ft^3/s, from rating curve extended above 137,000 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	10700	8840	24300	21800	10600	13000	26600	19500	5020	4540	3830	13200
2	8920	8200	40500	25300	9660	11900	35800	18900	4680	4220	3310	11200
3	7810	8850	39800	30400	9680	10800	51900	17500	4530	4050	3500	8680
4	6440	11500	38500	55100	9320	10100	43200	16700	4570	3950	e2910	7070
5	6450	13800	35800	53500	8930	9760	46200	15500	4670	4060	e3120	5980
6	5910	16600	31400	67800	8480	9230	45100	14400	4420	5140	e3120	4820
7	5590	15700	26500	68500	8260	9750	46500	12900	4370	5010	e3310	3840
8	5580	13800	26200	54800	9150	18600	47500	10900	4140	4580	e3260	3760
9	4980	12700	27300	50500	18200	21000	44800	9470	3940	4240	3380	4030
10	5260	11500	27100	41500	27300	18300	40900	8450	3930	4300	3380	4180
11	5280	10400	28200	39400	25300	16500	37000	7540	5210	3710	3070	3770
12	5540	9780	28300	49000	21600	16000	31500	7290	5110	4390	2530	3690
13	5610	9650	28300	68600	18700	13500	24900	6970	4630	3610	2510	3900
14	5320	8260	27600	76400	16700	12400	20400	7270	4130	3590	2780	3820
15	5680	7850	26100	70600	27600	11200	17600	8890	4060	3770	3150	3830
16	5960	7700	23700	61500	32900	10500	14700	9980	4760	3770	3680	3720
17	6150	7070	21000	54000	32800	9020	12500	9360	5180	3980	3480	3640
18	5650	6950	18100	46500	27400	9120	11000	8620	5150	5520	3340	3400
19	7310	7900	16300	38800	23300	8880	10200	7990	5430	5710	3160	3710
20	8580	8850	14700	33800	23600	10400	9380	7640	5320	4820	3050	4620
21	9550	9250	12200	30900	23200	16300	9450	7410	4870	4330	3110	4460
22	8730	9640	12200	26500	23300	19000	9430	7080	4530	4080	3170	3980
23	8260	9580	16600	24000	22600	18700	10500	6710	4300	3890	3100	3850
24	7810	9560	39600	21500	20800	21900	16100	6220	4030	3600	3310	3970
25	8370	10300	33900	22500	18900	21600	18700	5850	3770	3820	3510	4120
26	8700	11500	32800	21200	18100	20000	19500	5350	3670	4350	3420	4590
27	8140	12200	34500	19700	16500	19000	20400	5030	3890	5070	3520	9220
28	7390	12400	33700	18700	14700	19800	21900	4900	3850	5930	3470	9350
29	6190	16700	29700	17500	---	24600	20200	5180	4030	5260	3440	8000
30	6220	17200	25800	14300	---	27300	18600	5220	3850	4620	3720	7240
31	8330	---	21100	12400	---	27900	---	5150	---	4150	8210	---
TOTAL	216410	324230	841800	1237000	527580	486060	782460	289870	134040	136060	105850	163640
MEAN	6981	10810	27150	39900	18840	15680	26080	9351	4468	4389	3415	5455
MAX	10700	17200	40500	76400	32900	27900	51900	19500	5430	5930	8210	13200
MIN	4980	6950	12200	12400	8260	8880	9380	4900	3670	3590	2510	3400
CFSM	0.91	1.41	3.54	5.20	2.46	2.04	3.40	1.22	0.58	0.57	0.45	0.71
IN.	1.05	1.57	4.08	6.00	2.56	2.36	3.79	1.41	0.65	0.66	0.51	0.79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7034	12350	17290	17820	17740	26250	24810	15680	9920	6256	4743	5446
MAX	28650	33760	38040	53560	40460	63020	58110	36220	35340	26090	16890	34760
(WY)	1991	1986	1978	1937	1976	1936	1940	1943	1989	1972	1994	2004
MIN	802	1655	1332	2111	3788	7746	5651	3610	1508	1069	1034	950
(WY)	1964	1961	1961	1961	1934	1969	1946	1934	1934	1934	1934	1936

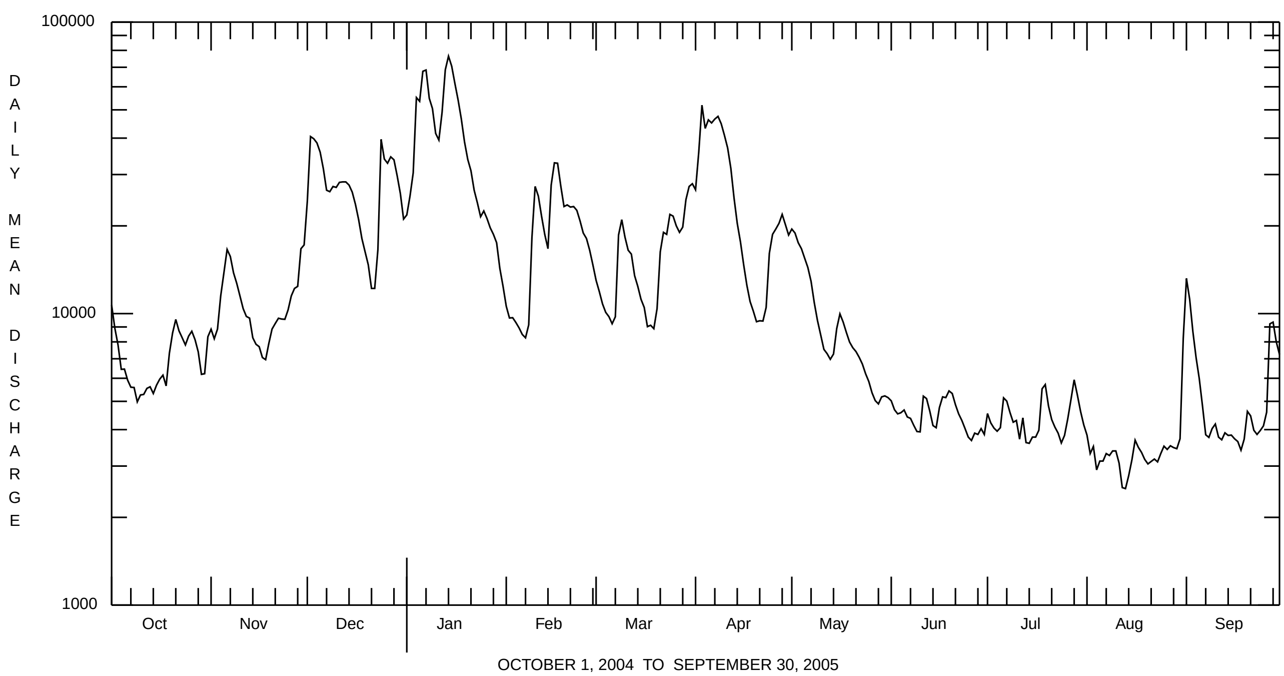
e Estimated.

OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL TOTAL	7147300		5245000			
ANNUAL MEAN	19530		14370		13760	
HIGHEST ANNUAL MEAN					21360	2004
LOWEST ANNUAL MEAN					8175	1934
HIGHEST DAILY MEAN	105000	Sep 18	76400	Jan 14	160000	Jan 22 1959
LOWEST DAILY MEAN	3560	Jul 9	2510	Aug 13	454	Jul 28 1934
ANNUAL SEVEN-DAY MINIMUM	4040	Jul 4	2970	Aug 9	508	Jul 25 1934
MAXIMUM PEAK FLOW			82900	Jan 14	**ab**175000	Jan 22 1959
MAXIMUM PEAK STAGE			14.74	Jan 14	**c**29.60	Jan 21 1959
INSTANTANEOUS LOW FLOW					409	Jul 30 1934
ANNUAL RUNOFF (CFSM)	2.55		1.87		1.79	
ANNUAL RUNOFF (INCHES)	34.66		25.44		24.36	
10 PERCENT EXCEEDS	39200		32800		32000	
50 PERCENT EXCEEDS	14800		9120		8950	
90 PERCENT EXCEEDS	5980		3710		2270	

a About.
b From rating curve extended above 137,000 ft^3/s.
c Backwater from ice.



OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, 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 276-323.

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)	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 unfltrd recoverable, mg/L (00916)
OCT 2004													
26...	1040	1028	9813	8570	2.0	9.0	7.2	7.6	238	237	12.0	76	20.9
NOV													
18...	1315	1028	9813	6650	4.0	14.3	8.1	7.8	220	222	8.5	77	21.3
DEC													
14...	1200	1028	9813	27600	3.0	12.2	6.8	7.6	144	149	4.0	48	13.7
JAN 2005													
26...	1130	1028	9813	21100	3.0	14.0	6.8	7.8	140	140	.5	47	13.9

Date	Magnesium, water, unfltrd recoverable, 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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)
OCT 2004													
26...	5.8	45	17.1	<.2	39.6	164	2	<.020	.27	<.040	.01	.017	.55
NOV													
18...	5.7	48	15.5	<.2	31.8	306	2	<.020	.26	<.040	<.01	.015	.43
DEC													
14...	3.4	33	10.8	<.2	16.2	110	16	.030	.42	<.040	.02	.020	.64
JAN 2005													
26...	2.9	32	12.4	<.2	13.4	100	8	.100	.57	<.040	.02	.023	.70

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coliform, M-FC 0.45uMF col/ 100 mL (31616)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)
OCT 2004													
26...	1.6	140	130	180	<4.0	<.20	<4	10	30	450	<1.0	<1.0	320
NOV													
18...	1.0	80	30	70	<4.0	<.20	<4	<4	120	270	<1.0	<1.0	220
DEC													
14...	1.0	60	30	240	<4.0	<.20	<4	<4	90	480	<1.0	<1.0	100
JAN 2005													
26...	.9	60	140	360	<4.0	<.20	<4	<4	210	520	<1.0	<1.0	40

Date	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)	Phenolic compounds, water, unfltrd µg/L (32730)
OCT 2004						
26...	350	8.0	8.5	<5.0	7.3	<5
NOV						
18...	230	<4.0	<4.0	<5.0	<5.0	8
DEC						
14...	130	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005						
26...	70	<4.0	<4.0	<5.0	6.4	<5

03031500 ALLEGHENY RIVER AT PARKER, 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 200 animal (approximate) subsamples.

Date	12/16/03
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	3
Nematoda (NEMATODES)	4
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	1
Mollusca	
Gastropoda (SNAILS)	2
Basommatophora	
Ancylidae	
Ferrissia	2
Hydrobiidae	1
Amnicola	6
Lymnaeidae	
Fossaria	10
Physidae	
Physa	34
Planorbidae	
Gyraulus	2
Planorbella	3
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Pisidium	15
Annelida	
Hirudinea (LEECHES)	1
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Enchytraeidae	11
Naididae	1
Tubificidae	162
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	35
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	53

OHIO RIVER MAIN STEM

03031500 ALLEGHENY RIVER AT PARKER, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	12/16/03
Benthic macroinvertebrate	Count
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	1
Caenidae	
Caenis	1
Ephemerellidae	
Ephemerella	24
Eurylophella	1
Ephemeridae	
Hexagenia	1
Heptageniidae	
Stenonema	2
Isonychiidae	
Isonychia	5
Plecoptera (STONEFLIES)	
Capniidae	
Allocapnia	1
Taeniopterygidae	
Taenionema	1
Taeniopteryx	2
Trichoptera (CADDISFLIES)	
Limnephilidae	
Pycnopsyche	3
Polycentropodidae	
Neureclipsis	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Dubiraphia	1
Hydrophilidae	
Berosus	1
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	
Probezzia	5
Chironomidae (MIDGES)	21
Empididae (DANCE FLIES)	
Chelifera	2
Total Organisms	419
Total Taxa	35

REDBANK CREEK BASIN

03032500 REDBANK CREEK AT ST. CHARLES, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°59'40", long 79°23'40", Armstrong County, Hydrologic Unit 05010006, on left bank 400 ft downstream from highway bridge on SR 1005 at St. Charles, 0.3 mi downstream from Leatherwood Creek, and 3 mi west of New Bethlehem.

DRAINAGE AREA.--528 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximums, water years 1910-18. October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. Figures of daily discharge for November 1920 to June 1921, published in WSP 523, are unreliable and should not be used.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1385: 1919, 1936-39. WDR PA-72-1: 1923 (M), 1926 (M), 1928 (M), 1936, 1937 (M), 1938 (M), 1943, 1945 (P), 1952 (M), 1953 (M), 1955 (M), 1956 (P), 1958 (M), 1959 (M), 1964, 1966 (M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 973.14 ft above National Geodetic Vertical Datum of 1929. Prior to July 10, 1940, nonrecording gage at site 500 ft upstream at datum 3.10 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 7,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Dec. 1	1815	10,500	10.99	Jan. 12	1800	8,190	9.90
Jan. 4	1015	11,300	11.32	Jan. 14	1230	8,480	10.04
Jan. 6	1745	*21,900	*14.93				

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	485	394	5580	1380	e310	e703	e1800	539	363	179	105	977
2	441	347	5920	828	e298	e646	e1720	482	314	162	90	479
3	425	505	4200	1540	e297	e602	e1960	419	299	182	80	249
4	409	665	2940	8900	e289	e559	e1950	376	386	161	76	165
5	366	1060	2380	7700	e276	e574	e2070	335	463	174	75	129
6	341	1010	1930	17500	e280	e595	e1640	303	388	589	75	107
7	311	769	1800	12200	e280	e710	e1260	282	971	508	70	92
8	297	648	2390	7850	e374	3060	e1040	267	695	295	72	82
9	285	559	2720	6140	1240	e1780	e820	244	480	311	73	75
10	275	e539	3220	4500	3480	e1410	e668	223	383	268	59	69
11	265	e515	3290	3630	2420	e1280	e593	206	342	196	57	66
12	256	433	2960	6410	1740	e1160	e534	190	305	161	54	62
13	250	389	2630	6260	1180	e987	e490	171	270	140	53	58
14	253	294	2050	7160	1470	e818	e429	260	245	127	51	53
15	e279	232	1240	5210	4200	e850	e389	424	227	119	65	56
16	e282	242	1050	3750	3690	e813	e359	485	277	130	71	51
17	e282	e250	977	2600	2950	e796	324	400	355	127	72	53
18	e354	e264	877	1970	2100	e784	297	340	306	184	66	75
19	686	e257	844	1570	1500	e850	281	308	265	215	62	65
20	902	e323	613	1450	1330	1120	277	314	224	157	66	76
21	598	410	530	935	e1250	e1920	286	315	198	137	67	65
22	439	406	755	623	e1170	1810	266	295	195	118	101	56
23	363	371	2240	568	e1100	1830	407	283	177	107	81	61
24	375	383	4670	529	e1030	2390	746	322	159	108	60	64
25	406	714	2840	e497	e934	2230	646	390	147	110	50	58
26	358	876	2150	e446	e880	1990	619	377	140	e108	46	94
27	321	710	1850	e394	e782	1770	597	334	132	e218	45	191
28	294	1500	1350	e355	e753	2400	544	312	122	326	54	174
29	291	2090	1630	e336	---	3610	497	438	178	234	58	155
30	343	1450	1510	e336	---	2980	492	459	204	167	80	160
31	393	---	1390	e323	---	2290	---	458	---	129	1040	---
TOTAL	11625	18605	70526	113890	37603	45317	24001	10551	9210	6147	3074	4117
MEAN	375	620	2275	3674	1343	1462	800	340	307	198	99.2	137
MAX	902	2090	5920	17500	4200	3610	2070	539	971	589	1040	977
MIN	250	232	530	323	276	559	266	171	122	107	45	51
CFSM	0.71	1.17	4.31	6.96	2.54	2.77	1.52	0.64	0.58	0.38	0.19	0.26
IN.	0.82	1.31	4.97	8.02	2.65	3.19	1.69	0.74	0.65	0.43	0.22	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	378	749	1093	1163	1204	1809	1497	1067	687	426	294	322
MAX	1385	2806	3151	4616	2707	5016	3337	2603	3887	2238	1498	2718
(WY)	1927	1922	1928	1937	1990	1936	1940	1919	1972	1996	1956	2004
MIN	40.3	50.9	75.9	96.8	179	358	367	180	123	61.1	33.5	29.2
(WY)	1931	1931	1961	1931	1934	1969	1925	1926	1936	1966	1930	1939

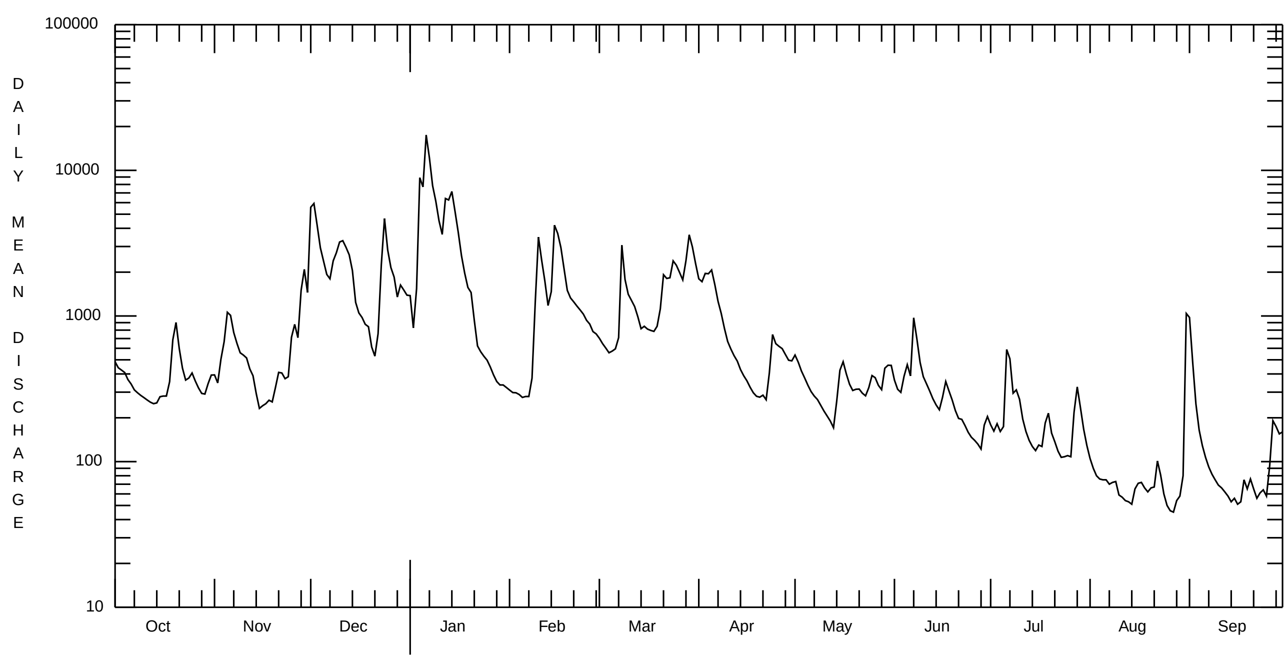
e Estimated.

REDBANK CREEK BASIN

03032500 REDBANK CREEK AT ST. CHARLES, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1919 - 2005	
ANNUAL TOTAL	563598		354666			
ANNUAL MEAN	1540		972		889	
HIGHEST ANNUAL MEAN					1607	2004
LOWEST ANNUAL MEAN					430	1934
HIGHEST DAILY MEAN	24700	Sep 18	17500	Jan 6	28100	Jul 19 1996
LOWEST DAILY MEAN	232	Nov 15	45	Aug 27	20	Sep 28 1922
ANNUAL SEVEN-DAY MINIMUM	**a**266	Oct 10	56	Aug 24	24	Aug 30 1939
MAXIMUM PEAK FLOW			21900	Jan 6	**b**66300	Jul 19 1996
MAXIMUM PEAK STAGE			14.93	Jan 6	**c**23.90	Jul 19 1996
INSTANTANEOUS LOW FLOW			43	Aug 27	**d**19	Oct 1 1918
ANNUAL RUNOFF (CFSM)	2.92		1.84		1.68	
ANNUAL RUNOFF (INCHES)	39.71		24.99		22.87	
10 PERCENT EXCEEDS	3380		2380		2120	
50 PERCENT EXCEEDS	855		386		468	
90 PERCENT EXCEEDS	357		75		84	

a Computed using estimated daily discharges.
b From rating curve extended above 35,000 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.
d Minimum observed.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

REDBANK CREEK BASIN

03032500 REDBANK CREEK AT ST. CHARLES, 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 276-323.

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													
18...	0830	1028	9813	E260	11.3	7.3	7.4	391	394	6.5	160	36.8	15.2
JAN 2005													
13...	1345	1028	9813	6100	12.3	6.8	7.4	184	188	6.0	67	16.2	6.4
MAR													
21...	1045	1028	9813	E1900	13.0	6.8	7.4	288	291	3.7	95	23.6	8.8
MAY													
19...	1030	1028	9813	310	8.7	7.4	7.6	395	399	15.4	170	39.0	16.7
JUL													
21...	1100	1028	9813	140	7.6	7.7	8.0	397	405	25.5	150	38.1	13.7
SEP													
22...	1030	1028	9813	56.2	8.6	7.7	7.0	582	594	19.0	200	51.7	18.3

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
18...	29	122	316	4	<.020	.43	<.040	<.01	.013	.52	1.3	<200	<10
JAN 2005													
13...	14	55.0	140	4	<.020	.58	<.040	.03	.024	.66	1.8	760	<10
MAR													
21...	16	76.4	240	22	.040	.66	<.040	.03	.039	1.4	1.7	1000	<10
MAY													
19...	27	132	260	2	.040	.34	<.040	<.01	<.010	.53	--	<200	<10
JUL													
21...	42	107	306	20	.030	.20	<.040	.03	.014	.27	--	600	<10
SEP													
22...	53	172	476	4	<.020	.22	<.040	<.01	<.010	.30	--	<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					
18...	340	<1.0	330	<50	<10
JAN 2005					
13...	1260	1.1	360	<50	30
MAR					
21...	1910	<1.0	440	<50	20
MAY					
19...	350	<1.0	90	<50	<10
JUL					
21...	320	<1.0	70	<50	20
SEP					
22...	110	<1.0	40	<50	10

REDBANK CREEK BASIN

03032500 REDBANK CREEK AT ST. CHARLES, 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	08/12/04
Benthic macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	6
Acentrella	10
Baetis	14
Heterocloeon	13
Heptageniidae	
Stenonema	7
Isonychiidae	
Isonychia	11
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Chauliodes	2
Trichoptera (CADDISFLIES)	
Brachycentridae	
Brachycentrus	10
Hydropsychidae	2
Cheumatopsyche	1
Hydropsyche	62
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	7
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	151
Total Taxa	17

MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°56'21", long 79°00'31", Jefferson County, Hydrologic Unit 05010006, on right bank 75 ft downstream from Williams Run, 1.8 mi upstream from bridge on Diamond Road at Sportsburg, 1.9 mi downstream from Sawmill Run, and 2 mi west of Punxsutawney.

DRAINAGE AREA.--158 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-87-3: 1977-86 (P).

GAGE.--Water-stage recorder. Datum of gage is 1,206.14 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to Oct. 1, 1946, at site 2.9 mi upstream at datum 13.30 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuations at low flow by mine pumpage into stream upstream of station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 15.6 ft, from floodmark at former site and datum, discharge, 12,500 ft^3/s, from rating curve extended above 5,500 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 6	1530	*8,390	*11.14	No other peak greater than 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	185	126	1270	285	e150	272	569	201	68	53	35	84
2	172	125	1240	259	e142	249	611	186	63	51	32	50
3	168	196	836	468	e132	221	858	178	63	44	31	38
4	152	222	609	1860	e129	205	847	172	83	40	29	32
5	141	292	465	1800	e128	205	920	163	83	107	29	30
6	133	246	391	6410	e126	200	779	157	76	111	28	29
7	128	228	381	3700	e134	259	663	149	79	67	27	28
8	124	207	541	2080	e183	979	545	145	73	59	30	28
9	118	186	467	1530	416	723	439	137	68	83	35	27
10	113	174	708	1090	981	556	372	131	67	64	29	27
11	110	165	733	927	659	464	325	126	75	52	27	26
12	106	182	668	1670	514	386	291	118	65	45	26	25
13	105	190	596	1470	402	326	267	109	62	42	25	25
14	105	163	495	1460	518	280	242	123	59	40	30	24
15	111	150	419	1120	1150	254	220	232	59	39	27	24
16	128	147	367	845	1040	244	200	178	63	38	32	24
17	110	144	340	680	838	231	188	141	68	46	35	24
18	103	143	309	511	635	238	180	129	65	54	29	29
19	360	140	300	444	466	262	171	119	61	47	32	27
20	282	150	244	e337	409	367	167	124	56	44	32	32
21	202	166	245	e283	440	563	172	121	53	38	28	32
22	175	155	257	e254	472	495	154	103	51	37	25	27
23	156	152	490	e232	401	517	229	99	48	36	24	28
24	155	173	663	e213	359	660	222	108	45	32	23	27
25	149	383	487	e202	333	599	214	109	42	49	22	26
26	131	345	426	e192	308	535	209	96	45	45	22	44
27	120	259	366	e186	270	473	194	75	44	171	23	63
28	108	539	311	e183	281	948	190	69	42	76	29	39
29	104	618	307	e172	---	1150	190	89	72	54	33	49
30	142	519	287	e164	---	883	195	77	67	43	67	57
31	143	---	278	e158	---	701	---	75	---	37	120	---
TOTAL	4539	6885	15496	31185	12016	14445	10823	4039	1865	1744	1016	1025
MEAN	146	230	500	1006	429	466	361	130	62.2	56.3	32.8	34.2
MAX	360	618	1270	6410	1150	1150	920	232	83	171	120	84
MIN	103	125	244	158	126	200	154	69	42	32	22	24
CFSM	0.93	1.45	3.16	6.37	2.72	2.95	2.28	0.82	0.39	0.36	0.21	0.22
IN.	1.07	1.62	3.65	7.34	2.83	3.40	2.55	0.95	0.44	0.41	0.24	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	119	223	328	349	404	561	467	330	212	154	110	110
MAX	394	715	769	1025	1013	1249	909	722	1210	855	670	878
(WY)	1987	1986	1973	1952	1975	1964	1994	1953	1972	1977	1956	2004
MIN	18.1	23.0	27.2	61.0	96.6	132	112	79.9	48.9	26.4	23.0	16.9
(WY)	1965	1999	1961	1961	1993	1969	1946	1941	1991	1988	1949	1964

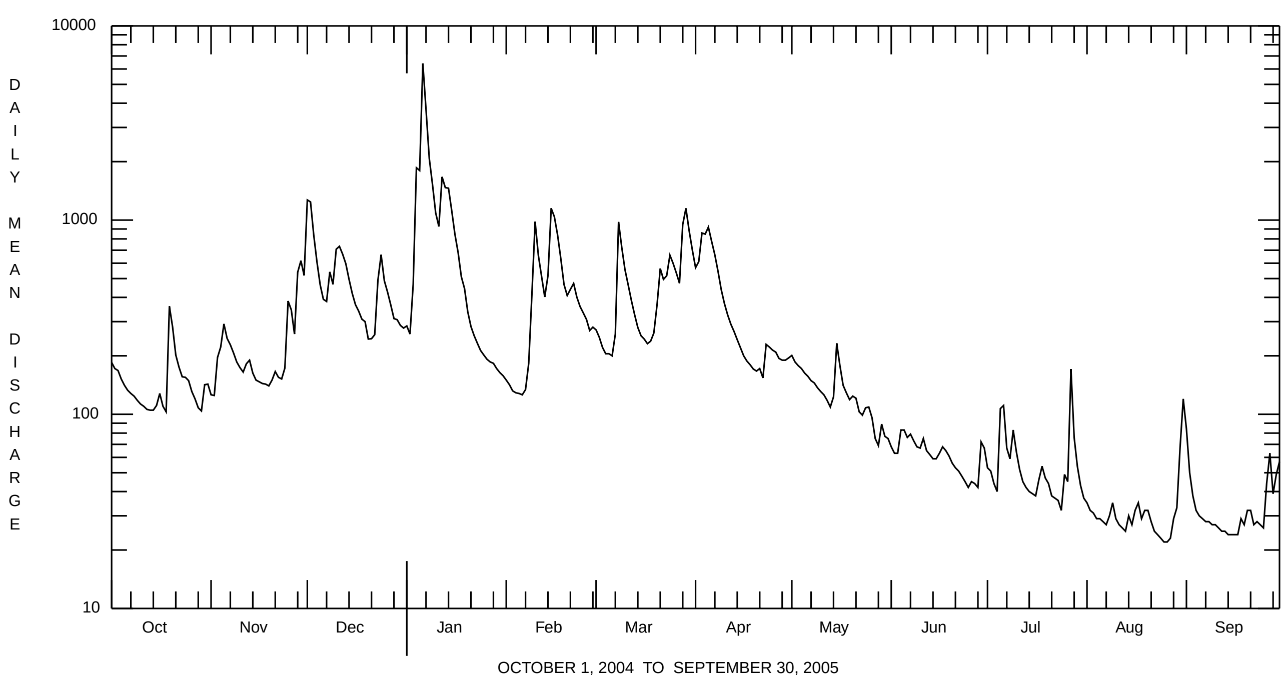
e Estimated.

MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	166415		105078			
ANNUAL MEAN	455		288		280	
HIGHEST ANNUAL MEAN					489	2004
LOWEST ANNUAL MEAN					177	1963
HIGHEST DAILY MEAN	10900	Sep 18	6410	Jan 6	13200	Jun 23 1972
LOWEST DAILY MEAN	94	Jul 11**a**	22	Aug 25,26	12	Oct 19 1939
ANNUAL SEVEN-DAY MINIMUM	110	Oct 9	24	Aug 21	13	Oct 14 1939
MAXIMUM PEAK FLOW			**b**8390	Jan 6	**b**20400	Jul 19 1996
MAXIMUM PEAK STAGE			11.14	Jan 6	**c**18.38	Jul 19 1996
INSTANTANEOUS LOW FLOW			22	Aug 24**d**	2.6	Sep 26 1939
ANNUAL RUNOFF (CFSM)	2.88		1.82		1.77	
ANNUAL RUNOFF (INCHES)	39.18		24.74		24.07	
10 PERCENT EXCEEDS	896		661		624	
50 PERCENT EXCEEDS	251		154		157	
90 PERCENT EXCEEDS	125		30		34	

a Also Sept. 7.
b From rating curve extended above 5,500 ft^3/s on basis of slope-area measurement at gage height 13.01 ft.
c From floodmark in gage well.
d Also Aug. 25-27, Sept. 16.



MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, 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 276-323.

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													
17...	1415	1028	9813	143	14.7	8.6	8.0	403	392	6.7	160	42.7	13.0
JAN 2005													
04...	1130	1028	9813	2100	11.1	6.7	7.3	162	160	6.6	60	15.7	5.0
MAR													
22...	1145	1028	9813	490	11.7	7.2	7.0	267	266	3.1	96	26.1	7.5
MAY													
19...	0945	1028	9813	120	9.1	7.7	7.8	403	407	12.3	160	41.2	12.7
JUL													
05...	1300	1028	9813	110	6.3	7.3	7.6	317	315	21.6	110	28.5	10.1
SEP													
13...	0915	1028	9813	24.7	6.0	7.7	8.0	583	608	19.0	220	59.8	16.2

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
17...	55	100	244	2	<.020	.87	<.040	.01	.025	.97	1.3	<200	<10
JAN 2005													
04...	20	36.2	114	128	.030	.79	<.040	.01	.107	1.3	3.7	3000	<10
MAR													
22...	29	64.7	192	6	.040	.85	<.040	.01	.022	.85	1.1	210	<10
MAY													
19...	56	114	300	<2	.020	.32	<.040	.02	.024	.43	--	<200	<10
JUL													
05...	50	70.3	346	70	.120	.89	<.040	.07	.194	1.5	--	7200	30
SEP													
13...	93	143	436	8	.040	.88	<.040	.13	.156	1.0	--	<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					
17...	380	<1.0	160	<50	<10
JAN 2005					
04...	8890	5.5	470	<50	50
MAR					
22...	810	<1.0	180	<50	10
MAY					
19...	480	<1.0	100	<50	<10
JUL					
05...	7860	9.1	300	<50	70
SEP					
13...	560	<1.0	130	<50	10

MAHONING CREEK BASIN

03034000 MAHONING CREEK AT PUNXSUTAWNEY, 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	08/12/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	2
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	5
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Plauditus	25
Caenidae	
Caenis	3
Heptageniidae	
Stenacron	1
Stenonema	3
Isonychiidae	
Isonychia	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Nigronia	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	5
Hydropsyche	15
Hydroptilidae	
Hydroptila	5
Psychomyiidae	
Psychomyia	1
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	87
Empididae (DANCE FLIES)	
Hemerodromia	2
Simuliidae (BLACK FLIES)	
Simulium	4
Total Organisms	165
Total Taxa	18

MAHONING CREEK BASIN

03034500 LITTLE MAHONING CREEK AT McCORMICK, PA

LOCATION.--Lat 40°50'10", long 79°06'37", Indiana County, Hydrologic Unit 05010006, on left bank 200 ft upstream from bridge on SR 4018 at McCormick, 1 mi west of Georgeville, 1.7 mi upstream from Ross Run, and 4 mi southeast of Smicksburg.

DRAINAGE AREA.--87.4 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,164.88 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Prior to May 10, 1940, nonrecording gage at site 200 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. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1600	*5,340	*12.04	No other peak greater than 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	66	81	869	123	e78	133	216	92	34	19	7.3	106
2	63	73	594	106	e75	117	283	78	28	14	6.6	79
3	108	143	377	205	e74	102	437	71	28	12	5.9	63
4	71	128	265	964	e72	e98	373	65	49	11	5.7	54
5	58	173	209	920	e71	e98	459	59	40	23	5.4	47
6	52	149	175	3910	e77	e90	333	55	42	30	5.6	43
7	49	130	186	1740	e80	e137	263	53	53	18	5.7	38
8	46	112	245	999	e150	764	218	51	36	14	15	34
9	44	97	201	675	e386	381	178	46	29	24	57	32
10	43	87	373	461	e629	270	153	43	25	15	17	33
11	42	81	365	453	337	226	133	41	24	12	10	31
12	39	101	300	896	246	191	114	39	22	10	8.2	29
13	39	109	263	620	192	158	106	34	19	14	7.5	28
14	40	86	215	745	361	134	94	40	17	26	11	24
15	44	77	180	483	750	121	83	76	17	16	14	24
16	55	73	163	354	496	117	75	53	17	13	12	23
17	48	71	149	278	362	113	69	42	20	35	20	21
18	43	69	133	214	257	130	66	38	18	23	15	14
19	302	68	133	195	190	146	61	34	16	13	10	7.8
20	165	82	98	193	170	210	58	43	14	11	23	26
21	110	104	145	155	274	316	87	46	13	21	36	26
22	90	88	136	e135	319	238	68	37	12	59	28	12
23	77	90	317	e122	243	252	116	36	11	27	25	11
24	82	115	332	e109	205	347	116	41	11	15	26	15
25	86	363	210	e96	183	267	125	39	10	19	26	10
26	67	270	182	e89	159	231	114	33	10	21	27	17
27	59	206	154	e84	133	204	101	29	9.7	23	30	51
28	55	348	137	e83	134	515	92	36	13	20	49	24
29	52	290	148	e83	---	503	87	54	28	12	60	29
30	136	228	122	e80	---	347	91	38	37	10	97	44
31	106	---	118	e79	---	269	---	44	---	8.6	118	---
TOTAL	2337	4092	7494	15649	6703	7225	4769	1486	702.7	588.6	783.9	995.8
MEAN	75.4	136	242	505	239	233	159	47.9	23.4	19.0	25.3	33.2
MAX	302	363	869	3910	750	764	459	92	53	59	118	106
MIN	39	68	98	79	71	90	58	29	9.7	8.6	5.4	7.8
CFSM	0.86	1.56	2.77	5.78	2.74	2.67	1.82	0.55	0.27	0.22	0.29	0.38
IN.	0.99	1.74	3.19	6.66	2.85	3.08	2.03	0.63	0.30	0.25	0.33	0.42

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	66.2	133	194	208	236	304	236	164	95.9	72.3	56.4	55.8
MAX	251	378	436	569	715	756	525	358	458	445	294	415
(WY)	1955	1986	1991	1952	1975	1963	1948	1956	1972	1977	1958	2004
MIN	3.39	9.36	21.8	26.2	42.7	59.0	48.7	20.5	9.10	4.71	3.85	2.33
(WY)	1964	1999	1961	1940	1993	1969	1946	1941	1949	1966	1957	1952

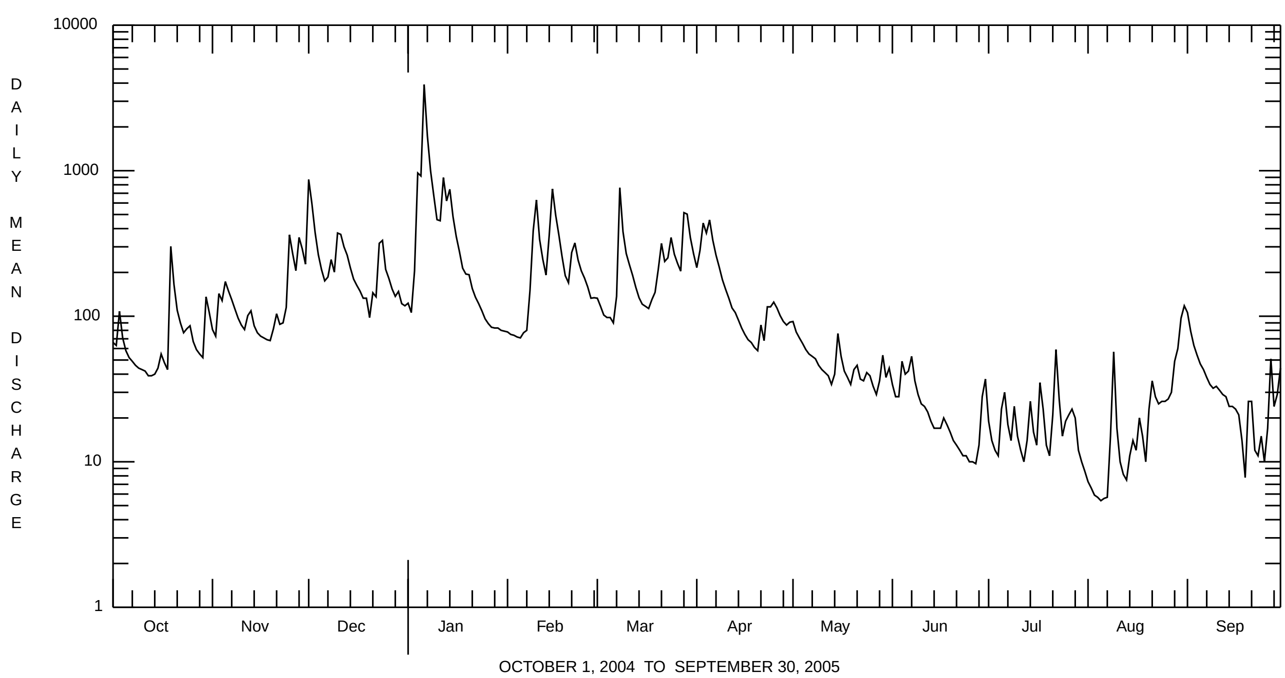
e Estimated.

MAHONING CREEK BASIN

03034500 LITTLE MAHONING CREEK AT McCORMICK, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	82871		52826.0			
ANNUAL MEAN	226		145		151	
HIGHEST ANNUAL MEAN					246	2004
LOWEST ANNUAL MEAN					92.2	1999
HIGHEST DAILY MEAN	5910	Sep 18	3910	Jan 6	5910	Sep 18 2004
LOWEST DAILY MEAN	33	Sep 7	5.4	Aug 5	0.40	Sep 28 1959
ANNUAL SEVEN-DAY MINIMUM	42	Oct 9	6.0	Aug 1	0.69	Sep 23 1959
MAXIMUM PEAK FLOW			5340	Jan 6	**a**10600	Jul 19 1996
MAXIMUM PEAK STAGE			12.04	Jan 6	**b**14.46	Jul 19 1996
INSTANTANEOUS LOW FLOW			5.3	Aug 5	0.30	Sep 28 1959
ANNUAL RUNOFF (CFSM)	2.59		1.66		1.73	
ANNUAL RUNOFF (INCHES)	35.27		22.48		23.55	
10 PERCENT EXCEEDS	440		335		356	
50 PERCENT EXCEEDS	120		76		75	
90 PERCENT EXCEEDS	51		14		9.4	

a From rating curve extended above 8,500 ft^3/s.
b From peak-stage indicator.



OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°49'13", long 79°31'54", Armstrong County, Hydrologic Unit 05010006, on right bank 600 ft upstream from dam at lock 7, 3,000 ft upstream from bridge on SR 1038 at Kittanning, 5.7 mi upstream from Crooked Creek, and 9.7 mi downstream from Mahoning Creek, at mile 45.8.

DRAINAGE AREA.--8,973 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1904 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 873: Drainage area. WSP 1305: 1906 (M), 1914, 1925. WSP 1435: 1936-37, 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 773.40 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Sept. 30, 1928, nonrecording gage at site 4,000 ft downstream at different datum. Oct. 1, 1934 to Apr. 19, 1939, nonrecording gage, Apr. 20, 1939 to Sept. 27, 1990, water-stage recorder at present site at different datum.

REMARKS.--No estimated daily discharges. Records good except those below 2,000 ft^3/s, which are poor. Sharp rises and drops in discharge during periods of low flow may be caused by hydroelectric power production. Flow regulated since 1924 by Piney Reservoir, since December 1940 by Tionesta Lake, since June 1941 by Mahoning Creek Lake, since November 1949 by Chautauqua Lake (station 03013946), since June 1952 by East Branch Clarion River Lake (station 03027000), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), and since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	12000	10000	26600	22300	12900	15300	30500	20800	5440	4080	3400	13500
2	10600	9570	45400	25400	11000	13900	34300	21000	4980	4060	2650	12200
3	9430	9820	45900	30100	10800	12200	57000	19400	4740	3650	2920	10400
4	7660	12600	43000	57100	10700	11100	50700	18400	4750	3530	2580	7780
5	7290	15200	39300	62700	10200	11200	51400	17200	4830	3910	2780	6110
6	7210	17900	34800	85900	9660	10900	50100	15800	4750	4050	3040	4880
7	6520	18200	29900	87300	9320	11200	50600	14500	5050	5860	2550	3400
8	6380	15600	27700	66800	10500	20700	51300	12500	4740	5240	2970	3060
9	5680	14400	30000	63900	17500	25600	49100	10800	4270	4560	2980	3630
10	5840	13100	30200	53800	31300	22800	44600	9660	4190	4170	2740	3570
11	5920	11800	32100	49300	31700	20800	40100	8610	5420	3240	2630	3280
12	6200	11200	31900	57400	26900	19600	35100	8070	5420	4190	1790	2530
13	6240	11100	31600	75400	23600	16700	28500	7720	4930	3230	1630	3290
14	5890	9660	30400	81200	20800	14900	23000	8280	4360	3100	1380	3390
15	6280	8970	28200	80200	31400	13600	20400	9670	4050	3410	2490	4060
16	6730	8950	26000	68300	38500	12500	17000	10200	4570	3380	3420	3160
17	6930	8290	23800	61400	39300	10900	14500	10600	5480	3460	2900	3050
18	6310	8000	21100	52200	33600	11000	12900	9510	5350	5010	2650	2820
19	8870	8670	18200	44700	26900	10800	12000	8680	5660	5750	2560	2690
20	10100	9790	16300	37600	25800	12300	11000	8280	5650	4710	2360	4310
21	11300	10200	11300	34400	25600	17700	10800	7990	5050	4310	2290	4170
22	10300	10700	15200	28200	26100	21800	10800	7590	4620	3850	2520	3520
23	9610	10600	15900	26700	25600	21300	11900	7300	4260	3430	2390	3380
24	9320	10700	39300	21800	23900	24600	16500	6810	4010	2970	2400	3310
25	9250	11600	38700	21400	22000	25900	20300	6400	3520	3440	2870	3650
26	10100	12900	35300	22400	20600	23900	21500	5810	3360	3770	2670	3720
27	9230	14200	35800	21500	19200	22700	21900	5230	3640	4690	2820	7720
28	8620	15200	35500	18500	16800	23000	23600	5130	3590	6060	2830	10400
29	7320	19100	31800	17700	---	28000	22600	5390	3780	5650	2660	9130
30	7290	20800	27400	16500	---	31300	20700	5710	3460	4560	3310	7810
31	9010	---	24400	15000	---	32500	---	5720	---	3910	6940	---
TOTAL	249430	368820	923000	1407100	612180	570700	864700	318760	137920	129230	86120	157920
MEAN	8046	12290	29770	45390	21860	18410	28820	10280	4597	4169	2778	5264
MAX	12000	20800	45900	87300	39300	32500	57000	21000	5660	6060	6940	13500
MIN	5680	8000	11300	15000	9320	10800	10800	5130	3360	2970	1380	2530
CFSM	0.90	1.37	3.32	5.06	2.44	2.05	3.21	1.15	0.51	0.46	0.31	0.59
IN.	1.03	1.53	3.83	5.83	2.54	2.37	3.58	1.32	0.57	0.54	0.36	0.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2005, BY WATER YEAR (WY)

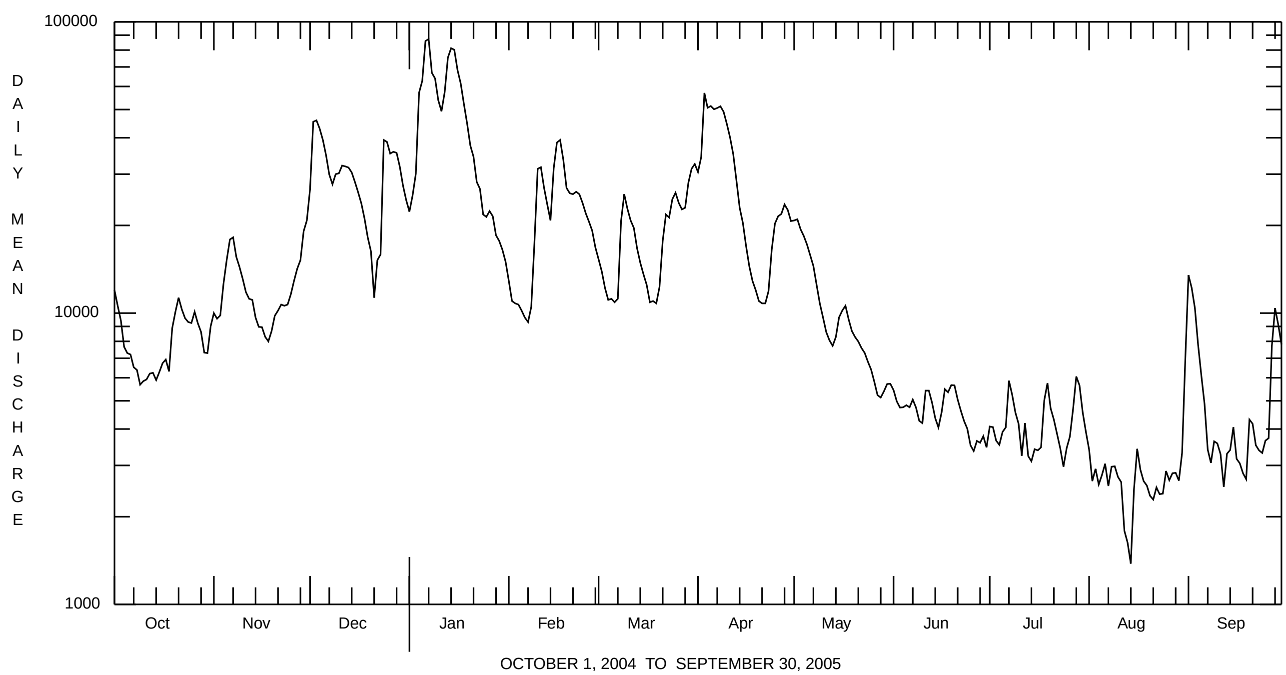
MEAN	8363	14090	19140	21090	20860	31780	27710	18470	11350	7104	5298	5964
MAX	31750	37830	55850	62840	45020	74110	66140	43650	40230	28200	19250	40250
(WY)	1991	1986	1928	1937	1990	1936	1940	1919	1989	1972	1977	2004
MIN	848	1155	1636	2752	4688	8342	6585	4860	2893	1511	1274	930
(WY)	1924	1909	1961	1961	1963	1969	1946	1941	1936	1966	1910	1909

OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1904 - 2005	
ANNUAL TOTAL	8195940		5825880			
ANNUAL MEAN	22390		15960		15910	
HIGHEST ANNUAL MEAN					24460	2004
LOWEST ANNUAL MEAN					10080	1999
HIGHEST DAILY MEAN	144000	Sep 18	87300	Jan 7	253000	Mar 26 1913
LOWEST DAILY MEAN	4180	Jul 4	1380	Aug 14	570	Sep 15 1913**a**
ANNUAL SEVEN-DAY MINIMUM	4790	Jul 4	2230	Aug 9	610	Sep 11 1913
MAXIMUM PEAK FLOW			102000	Jan 6	269000	Mar 26 1913
MAXIMUM PEAK STAGE			18.14	Jan 6	**b**30.70	Mar 26 1913
ANNUAL RUNOFF (CFSM)	2.50		1.78		1.77	
ANNUAL RUNOFF (INCHES)	33.98		24.15		24.10	
10 PERCENT EXCEEDS	44100		35400		37100	
50 PERCENT EXCEEDS	17200		10400		10100	
90 PERCENT EXCEEDS	6650		3240		2310	

a Also Sept. 16, 17, 1913.
b From floodmark, site and datum then in use.



03036500 ALLEGHENY RIVER AT KITTANNING, 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 276-323.

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...	1250	1028	9813	14400	11.6	7.4	7.6	208	210	9.5	74	21.0	5.3
JAN 2005													
25...	1230	1028	9813	20400	14.8	7.0	7.5	173	168	.5	61	16.4	4.9
MAR													
24...	1150	1028	9813	24600	13.5	7.7	7.7	207	212	4.2	70	19.3	5.3
MAY													
19...	1330	1028	9813	8580	9.5	7.7	7.8	220	224	17.2	78	21.6	5.9
JUL													
21...	0915	1028	9813	4460	8.5	8.5	8.0	249	345	25.1	93	26.2	6.8
SEP													
22...	1240	1028	9813	3780	7.5	7.5	7.1	236	244	25.0	71	20.0	5.1

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004													
09...	45	<.2	30.5	146	16	.020	.35	<.040	.02	.024	.63	3.7	260
JAN 2005													
25...	30	<.2	32.3	134	<2	.220	.59	<.040	.02	.011	.66	1.8	290
MAR													
24...	34	<.2	34.4	130	<2	.040	.65	<.040	.02	.018	1.1	1.9	250
MAY													
19...	39	<.2	41.6	138	10	.020	.30	<.040	.01	.017	.51	--	340
JUL													
21...	44	<.2	43.9	156	192	.030	.18	<.040	<.01	.108	.57	--	3000
SEP													
22...	43	<.2	35.9	182	<2	.030	.07	<.040	.01	.021	.20	--	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004								
09...	<10	<1.00	580	1.5	120	<50	<10	<5
JAN 2005								
25...	<10	<1.00	450	<1.0	180	<50	<10	<5
MAR								
24...	<10	<1.00	540	<1.0	220	<50	10	<5
MAY								
19...	<10	<1.00	570	<1.0	160	<50	<10	<5
JUL								
21...	10	<1.00	6780	7.4	1490	<50	50	<5
SEP								
22...	<10	<1.00	180	<1.0	60	<50	<10	<5

OHIO RIVER MAIN STEM

03036500 ALLEGHENY RIVER AT KITTANNING, 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	11/04/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	7
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
Amnicola	2
Physidae	
Physa	1
Planorbidae	
Menetus dilatatus	42
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	76
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Crangonyctidae	
Crangonyx	3
Gammaridae	
Gammarus	2
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenacron	5
Stenonema	1
Tricorythidae	
Tricorythodes	2
Trichoptera (CADDISFLIES)	
Hydroptilidae	
Hydroptila	1
Leptoceridae	
Oecetis	2
Polycentropodidae	
Neureclipsis	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Macronychus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	56
Total Organisms	207
Total Taxa	16

CROOKED CREEK BASIN

03038000 CROOKED CREEK AT IDAHO, PA

LOCATION.--Lat 40°39'17", long 79°20'56", Armstrong County, Hydrologic Unit 05010006, on right bank at downstream end of old bridge abutment at Idaho, 0.4 mi downstream from Keystone Generation Station, 1.5 mi downstream from Plum Creek, 1.8 mi upstream of bridge on SR 210, and 2.4 mi west of Shelocta.

DRAINAGE AREA.--191 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods published in WSP 1305.

REVISED RECORDS.--WSP 1385: 1938, 1945.

GAGE.--Water-stage recorder and concrete weir control. Datum of gage is 961.04 ft above National Geodetic Vertical Datum of 1929 (Baltimore and Ohio Railroad bench mark).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated to some extent since March 1968 by Keystone Lake 7 mi upstream, usable capacity, 22,010 acre-ft. Evaporation from operation of steam-electric plant 0.4 mi upstream, which began during July 1967, can amount to as much as 30 ft^3/s. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 18.6 ft, from floodmark, discharge, about 19,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 6	1830	*13,000	*15.85	Jan. 8	1430	2,610	6.57

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	105	85	1590	214	e100	290	416	213	52	41	29	51
2	110	80	1200	179	e105	258	550	181	37	32	54	12
3	177	145	699	333	e115	222	1100	161	47	34	51	33
4	115	145	481	1990	e120	195	1010	143	81	33	51	41
5	93	194	373	2230	e125	214	1080	127	59	39	46	30
6	81	169	317	9460	e140	229	747	116	62	39	43	42
7	74	149	329	5690	212	440	557	112	116	39	31	40
8	67	136	415	2290	335	1530	451	106	62	37	125	37
9	63	111	370	1490	642	845	362	90	41	50	90	29
10	62	99	666	911	1320	572	308	82	31	34	32	33
11	51	92	623	1150	700	480	271	87	127	44	28	42
12	55	132	545	2240	511	426	236	86	71	35	34	39
13	53	148	482	1400	399	356	211	57	49	44	44	37
14	55	112	407	1790	711	310	178	74	35	55	77	36
15	62	101	340	1120	1300	278	149	177	41	29	39	35
16	69	99	298	747	927	262	143	113	33	97	33	35
17	57	89	282	562	676	248	132	84	49	45	46	37
18	51	91	254	e395	494	257	129	66	44	50	26	34
19	440	91	257	e350	377	251	119	58	44	45	34	33
20	269	109	192	e300	338	276	116	76	30	37	41	55
21	194	130	205	e260	554	348	187	77	34	56	36	57
22	161	113	217	e230	606	322	138	58	34	91	32	38
23	137	120	477	e215	492	377	232	61	33	50	35	31
24	180	159	621	e185	421	537	252	78	20	40	31	34
25	205	454	433	e165	378	481	256	69	32	31	28	31
26	163	416	351	e150	332	434	227	54	46	40	32	35
27	134	341	292	e125	289	380	219	42	47	46	33	74
28	110	541	233	e110	289	707	197	68	46	51	38	45
29	109	488	243	e105	---	902	193	125	75	52	41	45
30	123	397	214	e100	---	636	209	76	32	63	44	72
31	113	---	213	e95	---	507	---	66	---	51	55	---
TOTAL	3738	5536	13619	36581	13008	13570	10375	2983	1510	1430	1359	1193
MEAN	121	185	439	1180	465	438	346	96.2	50.3	46.1	43.8	39.8
MAX	440	541	1590	9460	1320	1530	1100	213	127	97	125	74
MIN	51	80	192	95	100	195	116	42	20	29	26	12
CFSM	0.63	0.97	2.30	6.18	2.43	2.29	1.81	0.50	0.26	0.24	0.23	0.21
IN.	0.73	1.08	2.65	7.12	2.53	2.64	2.02	0.58	0.29	0.28	0.26	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	122	222	357	391	484	585	464	302	199	134	103	106
MAX	839	820	827	1180	1260	1340	1052	746	1072	987	549	1081
(WY)	1955	1986	1991	2005	1956	1994	1940	1989	1972	1956	1984	2004
MIN	7.15	23.8	33.5	59.7	120	83.9	85.1	38.0	25.3	13.9	11.3	6.07
(WY)	1953	1954	1961	1977	1980	1969	1946	1941	1949	1962	1942	1952

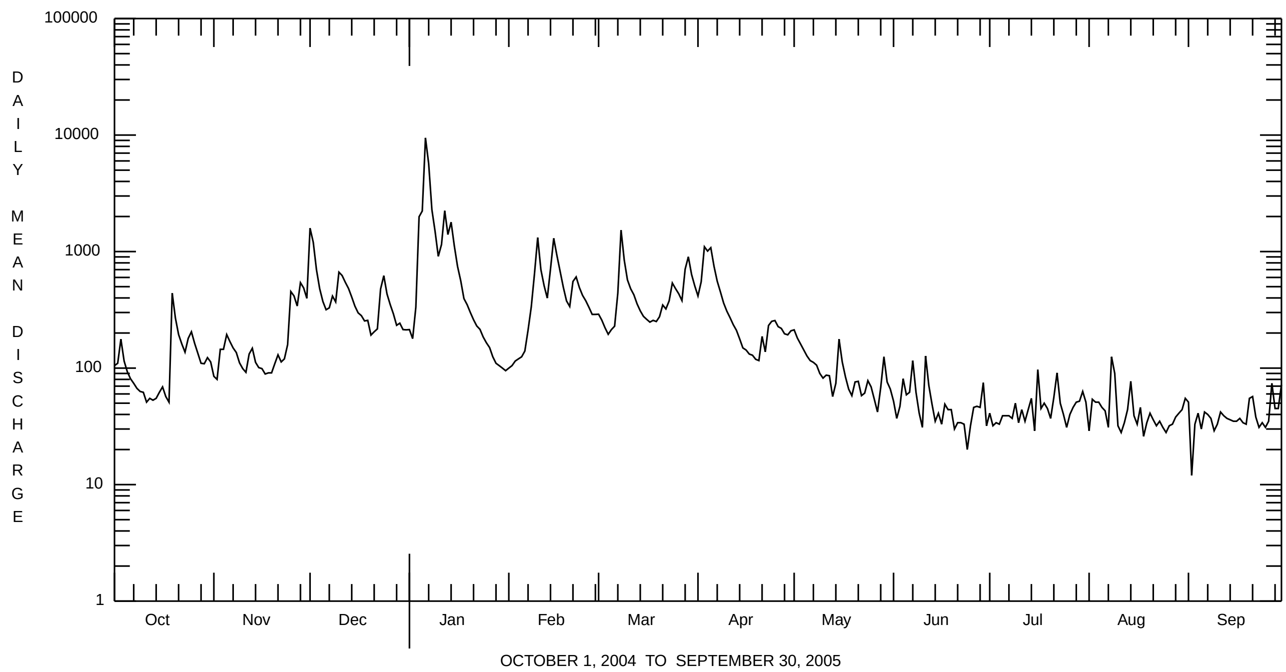
e Estimated.

CROOKED CREEK BASIN

03038000 CROOKED CREEK AT IDAHO, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	172458		104902			
ANNUAL MEAN	471		287		288	
HIGHEST ANNUAL MEAN					519	2004
LOWEST ANNUAL MEAN					148	1992
HIGHEST DAILY MEAN	17900	Sep 18	9460	Jan 6	17900	Sep 18 2004
LOWEST DAILY MEAN	42	Sep 6	12	Sep 2	**a**2.8	Oct 8 1939
ANNUAL SEVEN-DAY MINIMUM	57	Oct 9	32	Jun 19	4.1	Sep 19 1939
MAXIMUM PEAK FLOW			13000	Jan 6	**b**26400	Sep 18 2004
MAXIMUM PEAK STAGE			15.85	Jan 6	19.29	Sep 18 2004
INSTANTANEOUS LOW FLOW			9.8	Sep 2,3	2.4	Oct 8 1939
ANNUAL RUNOFF (CFSM)	2.47		1.50		1.51	
ANNUAL RUNOFF (INCHES)	33.59		20.43		20.49	
10 PERCENT EXCEEDS	920		586		685	
50 PERCENT EXCEEDS	236		116		129	
90 PERCENT EXCEEDS	81		34		24	

a 1.0 ft^3/s Oct. 22, 1966. Result of upstream pumping.
b From rating curve extended above 18,700 ft^3/s.



KISKIMINETAS RIVER BASIN

03040000 STONYCREEK RIVER AT FERNDALE, PA

LOCATION.--Lat 40°17'08", long 78°55'15", Cambria County, Hydrologic unit 05010007, on right bank 50 ft upstream from highway bridge at Ferndale, 0.4 mi downstream from Bens Creek, 1.2 mi upstream from Johnstown city limits, and 5.2 mi upstream from confluence with Little Conemaugh River.

DRAINAGE AREA.--451 mi^2.

PERIOD OF RECORD.--October 1913 to March 1936, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Monthly figures adjusted for storage and diversion for October 1918 to September 1921, published in WSP 503, 523, have been found in error and should not be used. Published as "*at Johnstown*" 1914-36, and as "*Stony Creek at Ferndale*" 1938-79. Gage-height records collected in this vicinity since 1885 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1915, 1918, 1923-26. WSP 1435: 1920-21, 1932, 1941 (M), 1943 (M), 1945-46 (M). WDR PA-78-3: 1977 (M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,184.06 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 19, 1936, nonrecording gage at site 3.5 mi downstream at different datum. Dec. 8, 1938 to Jan. 30, 1940, nonrecording gage at site 50 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation by mine pumpage and reservoirs and diversion above station; the four largest reservoirs have a combined capacity of 42,360 acre-ft. Figures of daily discharge do not include diversion from Stonycreek River and Quemahoning Creek Reservoir to plants of Bethlehem Steel Co., and from Mill Creek, Dalton Run, and North Fork Bens Creek Reservoirs for water supply of city of Johnstown. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	478	336	2100	577	e410	859	1910	524	292	150	111	131
2	426	337	2070	537	e400	794	2040	474	261	139	87	119
3	389	377	1460	648	e410	740	2300	434	286	123	85	103
4	356	361	1140	1560	e430	667	2070	403	346	120	80	86
5	311	583	964	4160	e440	672	2320	378	356	119	78	83
6	318	601	871	10600	e450	688	1850	360	277	114	77	80
7	298	504	961	5480	e460	1040	1550	354	304	112	87	75
8	281	438	1160	3750	688	2520	1360	346	260	163	700	78
9	259	382	1000	3090	1610	1750	1150	334	225	266	272	80
10	235	351	1630	2220	3100	1280	1000	305	436	167	154	68
11	221	339	1810	2140	1930	1120	896	291	1230	131	126	66
12	213	576	1510	4870	1360	1020	799	305	1230	111	112	73
13	207	788	1290	3190	1100	915	733	285	647	105	99	69
14	234	596	1110	3020	1250	824	668	288	457	125	93	65
15	262	502	959	2300	2410	692	615	356	372	123	90	93
16	325	472	844	1790	2160	603	565	312	338	234	106	140
17	305	454	790	1520	1730	645	533	274	340	234	114	142
18	246	448	710	1230	1370	690	510	253	288	219	106	146
19	430	453	697	e1100	1110	758	485	240	249	169	98	193
20	430	828	575	e990	1010	810	469	270	222	156	91	264
21	357	836	593	e890	1430	835	450	354	191	132	96	316
22	318	679	603	e780	1900	777	449	310	187	119	95	352
23	294	639	933	e730	1460	2190	740	311	173	112	82	351
24	384	708	1130	e660	1220	3040	688	502	165	108	76	358
25	461	1220	831	e600	1080	2090	562	471	155	121	75	350
26	379	1160	726	e560	976	1660	568	397	146	126	72	325
27	334	949	650	e500	880	1550	533	339	141	118	76	293
28	308	1230	577	e460	879	3800	494	364	134	108	122	282
29	293	1120	605	e440	---	7120	500	431	144	96	109	314
30	374	933	576	e430	---	3720	510	360	171	92	123	297
31	409	---	576	e420	---	2530	---	329	---	87	127	---
TOTAL	10135	19200	31451	61242	33653	48399	29317	10954	10023	4299	3819	5392
MEAN	327	640	1015	1976	1202	1561	977	353	334	139	123	180
MAX	478	1230	2100	10600	3100	7120	2320	524	1230	266	700	358
MIN	207	336	575	420	400	603	449	240	134	87	72	65
CFSM	0.72	1.42	2.25	4.38	2.66	3.46	2.17	0.78	0.74	0.31	0.27	0.40
IN.	0.84	1.58	2.59	5.05	2.78	3.99	2.42	0.90	0.83	0.35	0.32	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	248	430	678	783	1023	1612	1363	839	517	258	182	211
MAX	1514	2099	2162	1976	2575	3581	3426	1792	1773	874	1098	1449
(WY)	1977	1986	1973	2005	1986	1994	1993	1978	1972	1977	1979	1996
MIN	13.6	20.4	48.4	137	262	367	336	186	77.4	28.4	26.3	18.9
(WY)	1964	1954	1954	1977	1963	1990	1946	1941	1965	1965	1957	1943

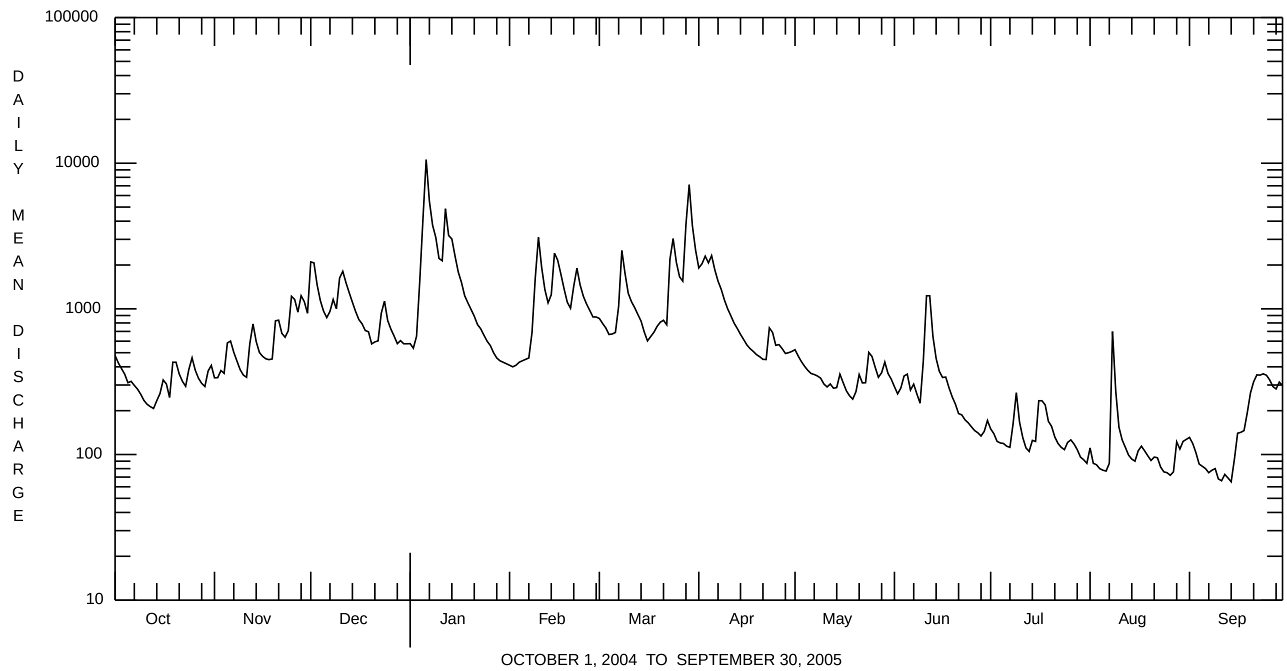
e Estimated.

KISKIMINETAS RIVER BASIN

03040000 STONYCREEK RIVER AT FERNDALE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	357568		267884			
ANNUAL MEAN	977		734		679	
HIGHEST ANNUAL MEAN					1072	2004
LOWEST ANNUAL MEAN					280	1954
HIGHEST DAILY MEAN	11600	Sep 18	10600	Jan 6	15900	Jun 23 1972
LOWEST DAILY MEAN	119	Sep 6	65	Sep 14	11	Sep 26 1959
ANNUAL SEVEN-DAY MINIMUM	152	Sep 1	71	Sep 8	12	Oct 5 1963
MAXIMUM PEAK FLOW			12400	Jan 6	**ab**59000	Mar 18 1936
MAXIMUM PEAK STAGE			10.58	Jan 6	**c**30.26	Mar 18 1936
INSTANTANEOUS LOW FLOW			39	Sep 14,15	**d**5.0	Sep 8 1929
ANNUAL RUNOFF (CFSM)	2.17		1.63		1.51	
ANNUAL RUNOFF (INCHES)	29.49		22.10		20.45	
10 PERCENT EXCEEDS	1860		1690		1610	
50 PERCENT EXCEEDS	583		430		340	
90 PERCENT EXCEEDS	212		106		62	

a From rating curve extended above 13,000 ft^3/s on the basis of slope-area and contracted-opening measurement of peak flow.
b About.
c From highwater mark, site and datum then in use.
d Minimum observed.



KISKIMINETAS RIVER BASIN

03041029 CONEMAUGH RIVER AT MINERSVILLE, PA

LOCATION.--Lat 40°20'29", long 78°55'34", Cambria County, Hydrologic Unit 05010007, on right bank at upstream side of Fourth Avenue bridge at Minersville, 4,000 ft downstream from confluence of Little Conemaugh River and Stonycreek River.

DRAINAGE AREA.--678 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 1,140 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by steel mills and reservoirs above station; the eight most effective reservoirs have a combined capacity of 51,850 acre-ft. 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	755	545	3310	e830	e640	1440	2830	808	453	256	245	223
2	681	530	3140	e770	e625	1330	3000	715	410	236	209	202
3	641	621	2370	1080	e620	1230	3320	661	446	216	202	184
4	592	591	1900	2670	e615	1090	2930	616	518	214	193	164
5	525	897	1620	e6130	e620	1120	3220	575	502	220	189	160
6	516	891	1470	e19000	e625	1130	2660	560	435	213	188	156
7	491	771	1600	8530	e640	1660	2290	558	451	207	192	149
8	473	688	1880	5680	1010	3800	2040	549	402	283	1320	145
9	456	610	1630	4510	2280	2630	1750	524	367	420	565	147
10	425	567	2520	3290	4570	2040	1540	495	516	283	318	137
11	403	549	2800	3120	2870	1810	1380	480	1560	233	256	130
12	388	935	2390	6520	2150	1650	1230	504	1640	212	225	140
13	383	1220	2100	4390	1780	1460	1130	466	879	196	201	135
14	436	923	1840	4510	1950	1290	1040	476	629	216	192	136
15	476	784	e1360	3390	3610	1120	943	620	515	231	186	134
16	591	736	e1200	2720	3260	959	864	527	463	358	211	198
17	553	697	e1130	2360	2690	984	816	462	477	446	224	202
18	467	687	e1020	e1780	2200	1050	779	428	413	376	195	208
19	760	687	e1000	e1580	1820	1150	741	402	369	304	182	249
20	722	1130	e810	e1420	1690	1250	721	446	338	275	179	319
21	608	1200	e850	e1280	2280	1330	748	545	305	245	183	365
22	546	1020	e870	e1120	2890	1230	716	483	300	247	177	394
23	513	962	e1370	e1070	2370	3270	1140	501	284	225	163	383
24	616	1060	e1560	e980	2030	4260	1060	709	269	208	154	392
25	696	1790	e1140	e930	1820	3010	886	696	255	245	153	384
26	594	1720	e1010	e900	1660	2470	878	592	244	243	150	381
27	538	1430	e920	e830	1480	2290	827	508	237	216	159	349
28	507	1940	e820	e750	1470	5060	769	571	246	221	232	322
29	491	1820	e860	e710	---	9500	757	690	288	220	195	375
30	610	1550	e820	e670	---	5270	784	558	300	252	209	358
31	653	---	e820	e645	---	3650	---	503	---	220	219	---
TOTAL	17106	29551	48130	94165	52265	71533	43789	17228	14511	7937	7666	7221
MEAN	552	985	1553	3038	1867	2308	1460	556	484	256	247	241
MAX	760	1940	3310	19000	4570	9500	3320	808	1640	446	1320	394
MIN	383	530	810	645	615	959	716	402	237	196	150	130

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	656	1282	1479	1839	1101	2769	2059	1658	1214	426	443	959
MAX	1101	2030	1895	3038	1867	3678	3489	2486	2605	672	688	2092
(WY)	2004	2004	2004	2005	2005	2004	2004	2002	2003	2004	2004	2004
MIN	315	829	991	615	828	1842	1460	556	484	252	181	210
(WY)	2003	2003	2003	2002	2003	2002	2005	2005	2005	2002	2002	2002

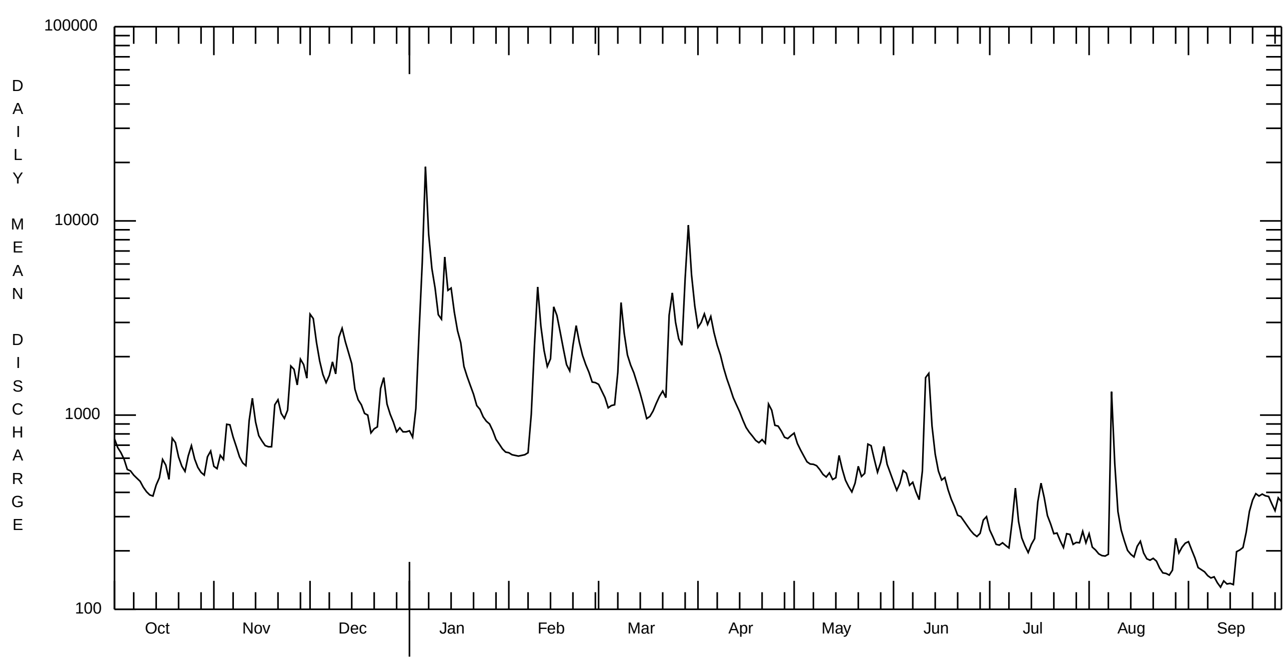
e Estimated.

KISKIMINETAS RIVER BASIN

03041029 CONEMAUGH RIVER AT MINERSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	582526		411102			
ANNUAL MEAN	1592		1126		1428	
HIGHEST ANNUAL MEAN					1753	2004
LOWEST ANNUAL MEAN					1126	2005
HIGHEST DAILY MEAN	17400	Sep 18	**e**19000	Jan 6	**e**19000	Jan 6 2005
LOWEST DAILY MEAN	285	Sep 6	130	Sep 11	127	Sep 9 2002
ANNUAL SEVEN-DAY MINIMUM	349	Sep 1	137	Sep 9	128	Sep 7 2002
MAXIMUM PEAK FLOW			22200	Jan 6	**a**25700	Sep 18 2004
MAXIMUM PEAK STAGE			**b**11.55	Jan 6	12.35	Sep 18 2004
INSTANTANEOUS LOW FLOW			**c**89	Sep 15	**c**89	Sep 15 2005
10 PERCENT EXCEEDS	3100		2640		2970	
50 PERCENT EXCEEDS	946		645		878	
90 PERCENT EXCEEDS	454		205		305	

a From rating curve extended above 22,700 ft^3/s.
b From outside gage (observed).
c Result of abnormal diversion. Unaffected minimum, 127 ft^3/s, Sept. 9, 2002.
e Estimated.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

KISKIMINETAS RIVER BASIN

03041500 CONEMAUGH RIVER AT SEWARD, PA

LOCATION.--Lat 40°25'09", long 79°01'35", Westmoreland County, Hydrologic Unit 05010007, on left bank at upstream side of bridge on State Highway 56 at Seward, 2.0 mi downstream from Findley Run, and 9 mi northwest of Johnstown.

DRAINAGE AREA.--715 mi^2.

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

REVISED RECORDS.--WDR PA-78-3: 1936 (M), 1977 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,076.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by steel mills and reservoirs above station; the eight most effective reservoirs have a combined capacity of 51,850 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 26.4 ft, from floodmarks, discharge, about 75,000 ft^3/s, by contracted-opening measurement at site 6.7 mi downstream, adjusted for inflow.

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	825	594	e3480	e880	e675	e1520	3220	869	e480	289	264	265
2	725	558	3490	e810	e660	e1400	3310	779	e430	268	238	239
3	679	683	2570	1040	e655	e1300	3760	704	e470	245	228	213
4	624	645	2030	2870	e650	e1150	3300	652	e550	237	219	191
5	558	974	1680	e6440	e655	e1180	3690	611	e530	255	216	183
6	539	987	1480	e20000	e660	e1190	3040	589	e460	242	216	179
7	516	857	1610	10200	e680	e1750	2600	583	e480	239	217	174
8	495	763	1980	6560	e1060	4100	2290	570	e430	322	e1390	168
9	480	667	1680	5240	e2390	2920	1940	548	e390	441	676	168
10	451	613	2620	3810	5160	2210	1660	517	e540	324	370	161
11	430	592	3030	3460	3210	1910	1460	499	e1650	271	299	150
12	417	935	2620	7300	2330	1730	1290	519	e1730	244	271	158
13	408	1300	2290	4960	1860	1500	1190	489	e930	230	238	155
14	455	1000	1960	5090	2030	1310	1080	489	e660	243	223	159
15	486	858	e1440	3860	4010	1160	988	641	e540	256	220	149
16	608	801	e1260	3050	3640	1010	907	550	e490	e380	241	209
17	577	e760	e1200	2640	2970	1030	851	482	e500	518	262	226
18	493	748	e1080	e1870	2380	1090	817	449	433	396	231	228
19	813	e730	e1060	e1660	1910	1180	773	424	392	333	212	260
20	794	e1160	e860	e1500	1720	1300	745	e470	365	306	207	324
21	652	e1230	e900	e1350	2330	1420	805	e580	337	272	211	368
22	587	e1040	e920	e1190	3160	1320	747	e510	328	281	203	407
23	550	e980	e1440	e1130	2550	3510	1160	e530	316	255	188	404
24	639	1090	e1650	e1040	2140	5030	1140	e750	300	236	178	413
25	759	1860	e1200	e985	1890	3520	971	e730	287	266	177	406
26	649	1850	e1060	e950	e1750	2840	959	e630	276	277	176	415
27	581	1490	e970	e880	e1560	2550	908	e540	269	248	183	388
28	545	2000	e860	e790	e1550	5390	841	e600	258	249	271	358
29	521	1940	e900	e750	---	10400	831	e730	321	247	232	408
30	634	e1610	e870	e710	---	6100	855	e590	348	e265	257	391
31	694	---	e870	e680	---	4190	---	e530	---	e250	261	---
TOTAL	18184	31315	51060	103695	56235	78210	48128	18154	15490	8885	8775	7917
MEAN	587	1044	1647	3345	2008	2523	1604	586	516	287	283	264
MAX	825	2000	3490	20000	5160	10400	3760	869	1730	518	1390	415
MIN	408	558	860	680	650	1010	745	424	258	230	176	149
CFSM	0.82	1.46	2.30	4.68	2.81	3.53	2.24	0.82	0.72	0.40	0.40	0.37
IN.	0.95	1.63	2.66	5.40	2.93	4.07	2.50	0.94	0.81	0.46	0.46	0.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	566	880	1300	1470	1834	2793	2395	1546	1045	652	487	516
MAX	2746	3076	3620	3625	3816	5524	5288	2871	3594	2527	1690	2475
(WY)	1977	1986	1973	1952	1971	1994	1993	1960	1972	1977	1979	1996
MIN	169	189	212	389	493	779	739	512	325	242	204	169
(WY)	1964	1939	1999	2000	1993	1990	1946	1941	1999	1965	2002	1959

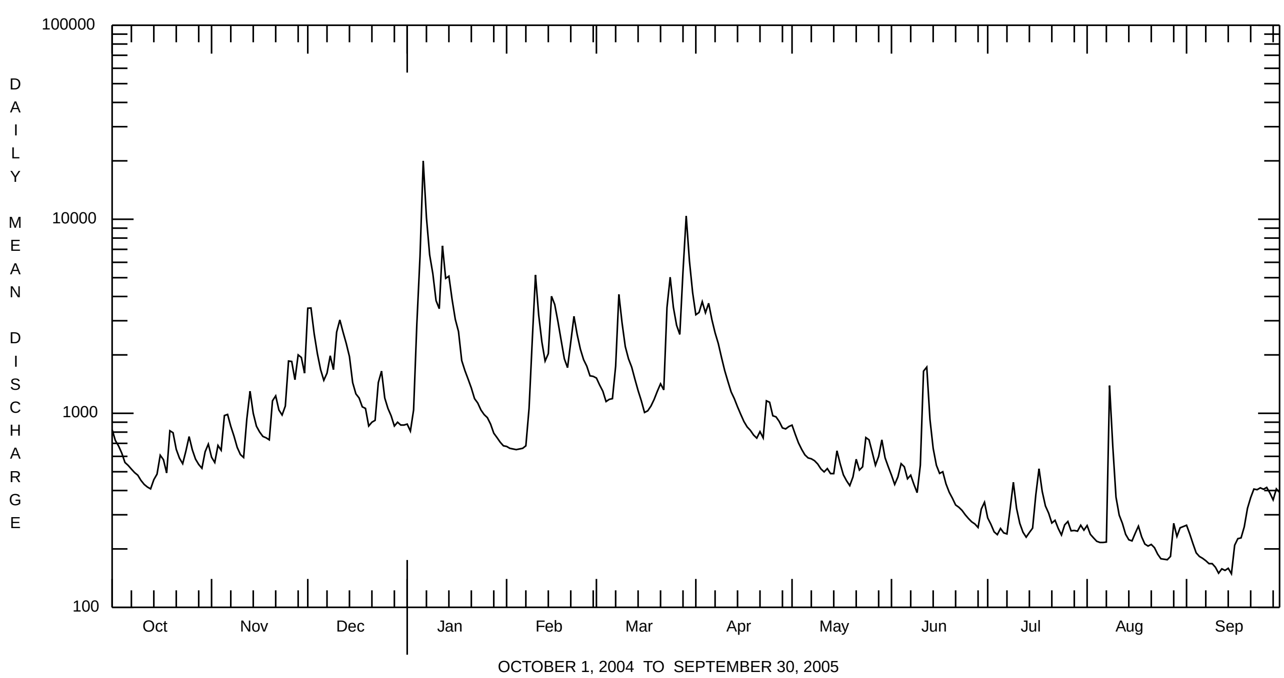
e Estimated.

KISKIMINETAS RIVER BASIN

03041500 CONEMAUGH RIVER AT SEWARD, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	613586		446048			
ANNUAL MEAN	1676		1222		1287	
HIGHEST ANNUAL MEAN					1838	2004
LOWEST ANNUAL MEAN					687	1954
HIGHEST DAILY MEAN	15600	Mar 6	**e**20000	Jan 6	40900	Jul 20 1977
LOWEST DAILY MEAN	326	Sep 6	149	Sep 15	105	Dec 28 1938**a**
ANNUAL SEVEN-DAY MINIMUM	388	Sep 1	157	Sep 9	111	Dec 26 1938
MAXIMUM PEAK FLOW			**b**23800	Jan 6	**c**115000	Jul 20 1977
MAXIMUM PEAK STAGE			Unknown		**d**27.06	Jul 20 1977
INSTANTANEOUS LOW FLOW			104	Sep 15	104	Sep 10 2002**f**
ANNUAL RUNOFF (CFSM)	2.34		1.71		1.80	
ANNUAL RUNOFF (INCHES)	31.92		23.21		24.46	
10 PERCENT EXCEEDS	3330		2890		2860	
50 PERCENT EXCEEDS	999		683		735	
90 PERCENT EXCEEDS	479		237		256	

a Also Dec. 29, 31, 1938.
b Estimated by hydrographic comparison.
c From rating curve extended above 23,000 ft^3/s on basis of slope-area measurement of peak flow.
d From highwater mark.
e Estimated.
f Also Sept. 15, 2005.



03042000 BLACKLICK CREEK AT JOSEPHINE, PA

LOCATION.--Lat 40°28'24", long 79°11'01", Indiana County, Hydrologic Unit 05010007, on right bank on upstream side of old concrete dam at Josephine, 0.9 mi upstream from Two Lick Creek, and 5 mi northeast of Blairsville.

DRAINAGE AREA.--192 mi^2.

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

REVISED RECORDS.--WSP 1385: 1952-54 (M). WDR PA-78-3: 1977 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 975.82 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 25, 1953, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation at low flow by mine pumpage above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,700 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1500	*10,600	*9.13	Feb. 10	0400	2,720	5.74
Jan. 12	0400	3,170	6.01				

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	173	111	1400	243	e115	403	652	295	120	e76	e50	60
2	152	103	1140	223	e110	352	690	243	104	e70	e48	51
3	158	143	774	318	e115	297	901	212	100	e60	e48	40
4	139	169	577	1490	e125	255	833	190	114	e58	e44	36
5	e125	241	461	1970	e130	279	1060	175	101	e56	e42	34
6	e115	265	394	8750	e140	267	830	165	97	e62	e42	34
7	e110	216	409	3670	e165	488	679	157	144	e60	e60	32
8	e108	192	540	2210	299	1590	583	149	103	e70	e290	31
9	e106	172	468	1540	727	881	496	139	88	e100	e120	31
10	e106	156	703	1080	1880	669	435	128	e75	e84	e71	31
11	e104	144	1060	1250	931	572	368	123	e130	e64	63	29
12	e102	176	824	2680	680	514	313	120	e95	e60	52	29
13	e110	292	679	1480	538	445	276	113	e75	e88	43	29
14	129	223	559	1510	746	377	244	118	e65	e86	39	28
15	150	188	443	1070	1630	321	216	178	e65	e68	37	28
16	168	174	370	831	1200	326	191	148	e80	e64	43	26
17	179	168	358	681	943	298	173	118	e85	e58	54	28
18	182	165	309	e525	705	321	164	96	e75	e60	48	26
19	271	163	308	e460	543	373	156	89	e65	e64	38	23
20	336	179	214	e390	505	446	157	98	e60	e66	33	22
21	240	204	241	e330	865	613	254	119	e62	e68	32	21
22	176	184	292	e260	1040	530	213	99	e60	e58	32	19
23	136	176	439	e215	798	1070	343	90	e58	e56	31	19
24	131	208	634	e190	640	1400	368	111	e58	e52	29	19
25	157	541	389	e180	561	979	388	191	e54	e52	29	19
26	150	452	339	e170	497	788	376	145	e54	e54	32	22
27	130	358	314	e155	424	647	317	113	e54	e60	32	30
28	119	510	247	e140	428	1030	266	144	e70	e50	36	30
29	110	515	295	e135	---	1480	249	258	e130	e46	37	29
30	112	400	258	e125	---	1050	269	177	e92	e42	49	32
31	118	---	240	e120	---	809	---	145	---	e46	55	---
TOTAL	4602	7188	15678	34391	17480	19870	12460	4646	2533	1958	1659	888
MEAN	148	240	506	1109	624	641	415	150	84.4	63.2	53.5	29.6
MAX	336	541	1400	8750	1880	1590	1060	295	144	100	290	60
MIN	102	103	214	120	110	255	156	89	54	42	29	19
CFSM	0.77	1.25	2.63	5.78	3.25	3.34	2.16	0.78	0.44	0.33	0.28	0.15
IN.	0.89	1.39	3.04	6.66	3.39	3.85	2.41	0.90	0.49	0.38	0.32	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	172	302	424	442	547	760	603	415	258	200	156	152
MAX	812	1113	1025	1109	1202	1615	1086	1009	1376	1114	581	595
(WY)	1977	1998	1973	2005	1956	1967	1993	1978	1972	1977	1958	1996
MIN	30.8	33.5	68.4	135	124	219	236	84.8	65.6	43.5	37.1	28.7
(WY)	1953	1954	1961	1956	1987	1969	1997	1986	1965	1965	1962	1998

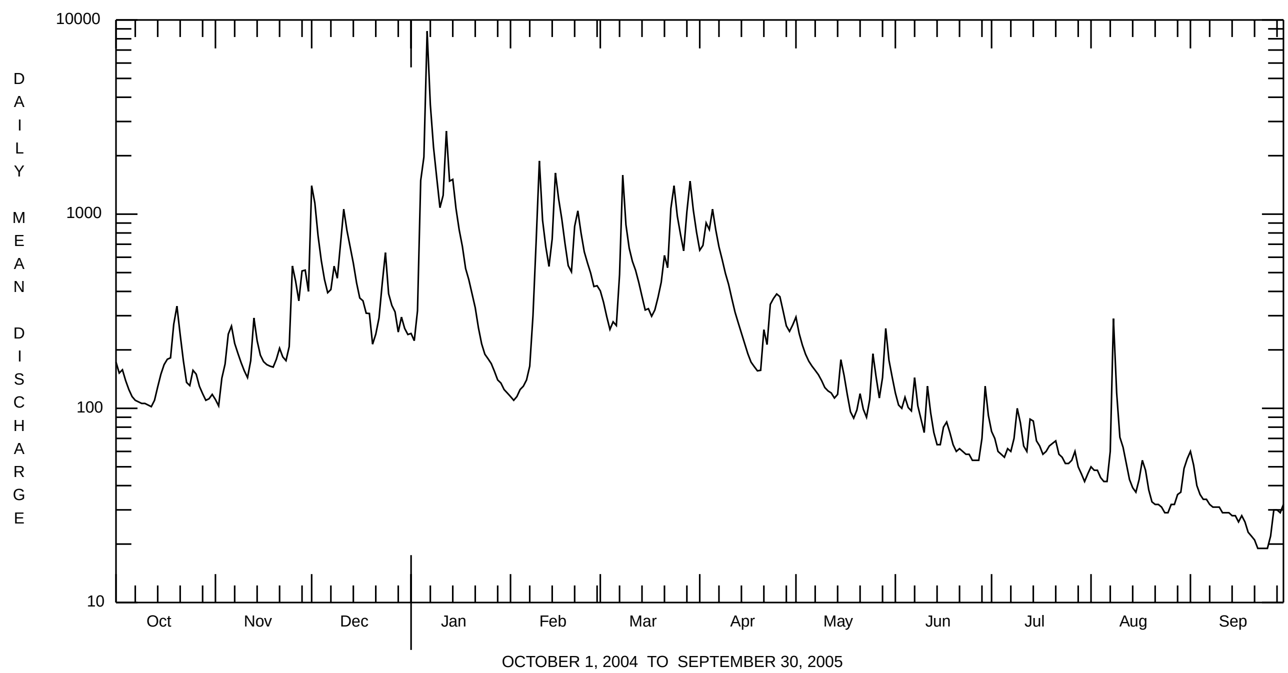
e Estimated.

KISKIMINETAS RIVER BASIN

03042000 BLACKLICK CREEK AT JOSEPHINE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1953 - 2005	
ANNUAL TOTAL	192925		123353			
ANNUAL MEAN	527		338		368	
HIGHEST ANNUAL MEAN					587	2004
LOWEST ANNUAL MEAN					242	1954
HIGHEST DAILY MEAN	7140	Jan 5	8750	Jan 6	22800	Jul 20 1977
LOWEST DAILY MEAN	**e**60	Sep 7	19	Sep 22-25	**e**15	Oct 13 1995
ANNUAL SEVEN-DAY MINIMUM	**a**89	Sep 1	20	Sep 20	20	Sep 20 2005
MAXIMUM PEAK FLOW			10600	Jan 6	**b**45700	Jul 20 1977
MAXIMUM PEAK STAGE			9.13	Jan 6	**c**19.89	Jul 20 1977
ANNUAL RUNOFF (CFSM)	2.75		1.76		1.92	
ANNUAL RUNOFF (INCHES)	37.38		23.90		26.07	
10 PERCENT EXCEEDS	1060		815		800	
50 PERCENT EXCEEDS	308		158		210	
90 PERCENT EXCEEDS	131		37		52	

a Computed using estimated daily discharges.
b From rating curve extended above 16,000 ft^3/s on basis of contracted-opening measurement at gage height 11.35 ft in gage well, 12.67 ft from outside floodmark and slope-area measurement at gage height 10.93 ft.
c From floodmark in gage well.
e Estimated.



KISKIMINETAS RIVER BASIN

03042260 YELLOW CREEK LAKE

LOCATION.--Lat 40°35'27", long 79°03'11", Indiana County, Hydrologic Unit 05010007, in gatehouse at right end of dam on Yellow Creek, at Yellow Creek State Park, and 3 mi southwest of Penn Run.

DRAINAGE AREA.--52.5 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (Pennsylvania Department of Environmental Protection bench mark).

REMARKS.--Lake is formed by an earthfill dam with concrete spillway. Storage began July 11, 1971. Usable capacity, 13,800 acre-ft between elevation 1,245.5 ft, sill of 4-foot and 1.5 foot outlet gates, and 1,280.00 ft (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation.

COOPERATION.--Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Conservation and Natural Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 24,100 acre-ft, July 20, 1977, elevation, 1,290.29 ft; minimum (after first filling), 2,810 acre-ft, Apr. 14, 1975, elevation, 1,261.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,160 acre-ft, Jan. 6, elevation, 1,283.73 ft; minimum, 11,120 acre-ft, Sept. 29 elevation, 1,276.70 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)
Sept. 30	1,279.68	13,510	---
Oct. 31	1,279.49	13,340	-2.8
Nov. 30	1,280.08	13,870	+8.9
Dec. 31	1,279.85	13,660	-3.4
CAL YR 2004	--	--	-.73
Jan. 31	1,279.64	13,480	-2.9
Feb. 28	1,280.09	13,880	+7.2
Mar. 31	1,280.50	14,250	+6.0
Apr. 30	1,279.86	13,670	-9.7
May 31	1,279.63	13,470	-3.3
June 30	1,279.30	13,170	+5.0
July 31	1,278.64	12,610	-9.1
Aug. 31	1,277.79	11,940	-11
Sept. 30	1,276.75	11,160	-13
WTR YR 2005	--	--	-3.2

KISKIMINETAS RIVER BASIN

03042280 YELLOW CREEK NEAR HOMER CITY, PA

LOCATION.--Lat 40°34'21", long 79°06'13", Indiana County, Hydrologic Unit 05010007, on left bank 0.3 mi upstream from Central Indiana County Water Authority dam, 0.4 mi upstream from Ferrier Run, which has been diverted, and 3.5 mi northeast of Homer City.

DRAINAGE AREA.--57.4 mi^2, excludes that of Ferrier Run.

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

REVISED RECORDS.--WDR PA-76-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since July 1971 by Yellow Creek Lake (station 03042260) 4.2 mi upstream. Discharges between the months of November and March include flow diverted from Ferrier Run due to channel modifications on Ferrier Run. High water diversion upstream into station from Ferrier Run since November 2004.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	e40	16	446	102	55	118	197	77	37	10	15	16
2	e38	15	456	96	55	108	187	76	32	8.5	16	15
3	e36	19	345	151	46	94	227	70	30	7.2	16	15
4	e34	25	254	544	43	82	234	64	31	6.7	16	15
5	e32	64	199	752	41	78	287	59	30	6.1	16	15
6	e30	59	173	2800	40	72	271	53	30	5.9	16	15
7	24	51	166	1680	42	86	230	49	30	6.0	16	15
8	22	45	168	872	66	240	192	44	27	12	20	15
9	19	54	168	625	137	280	167	40	24	20	16	15
10	18	64	224	424	342	238	139	37	22	18	15	15
11	16	60	302	388	324	200	119	33	19	17	15	15
12	14	89	300	652	257	177	102	31	18	16	15	15
13	13	94	259	539	201	152	88	31	16	26	15	15
14	13	62	219	481	223	126	77	29	14	16	15	15
15	13	54	178	377	379	109	66	33	12	15	15	15
16	14	49	159	291	369	96	56	33	11	15	16	15
17	13	52	150	227	322	88	49	31	11	16	16	14
18	14	60	142	179	251	84	44	29	11	16	16	12
19	29	57	134	159	194	83	40	26	11	16	16	13
20	35	113	115	148	170	89	37	26	11	15	16	13
21	33	123	105	136	217	113	44	27	11	16	15	13
22	26	76	103	118	281	124	47	25	10	16	15	13
23	22	53	143	109	262	154	58	24	9.4	15	15	14
24	21	85	165	107	222	241	64	25	8.4	15	15	14
25	20	176	154	95	191	254	72	27	7.5	15	15	14
26	20	160	148	84	168	228	78	28	6.9	15	15	14
27	19	151	135	81	139	195	79	26	6.9	16	15	14
28	19	159	113	79	125	230	75	29	6.7	16	15	13
29	15	160	111	78	---	315	73	39	13	15	15	15
30	15	153	106	70	---	295	74	40	11	15	15	14
31	16	---	100	55	---	243	---	40	---	15	15	---
TOTAL	693	2398	5940	12499	5162	4992	3473	1201	517.8	437.4	482	431
MEAN	22.4	79.9	192	403	184	161	116	38.7	17.3	14.1	15.5	14.4
MAX	40	176	456	2800	379	315	287	77	37	26	20	16
MIN	13	15	100	55	40	72	37	24	6.7	5.9	15	12
CFSM	0.39	1.39	3.34	7.02	3.21	2.81	2.02	0.67	0.30	0.25	0.27	0.25
IN.	0.45	1.55	3.85	8.10	3.35	3.24	2.25	0.78	0.34	0.28	0.31	0.28

e Estimated.

KISKIMINETAS RIVER BASIN

03042280 YELLOW CREEK NEAR HOMER CITY, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	52.0	96.1	136	133	159	203	159	116	76.8	60.0	34.4	43.1
MAX	186	303	254	403	374	447	264	358	324	443	144	216
(WY)	1978	1998	1973	2005	1981	1994	2004	1978	1972	1977	2004	2004
MIN	6.10	6.85	21.1	32.1	44.4	70.8	68.8	28.5	12.2	5.95	5.46	8.02
(WY)	1992	1999	1999	2000	1993	1990	1997	2001	1999	1971	1971	2002

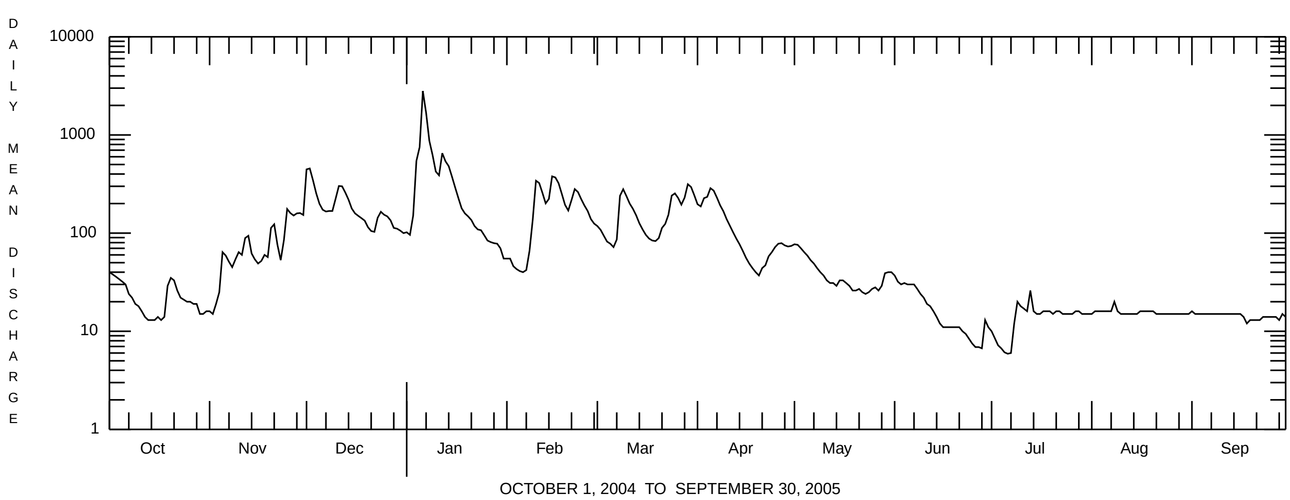
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1971 - 2005	
ANNUAL TOTAL	56418		38226.2			
ANNUAL MEAN	154		105		105	
HIGHEST ANNUAL MEAN					169	2004
LOWEST ANNUAL MEAN					64.2	1999
HIGHEST DAILY MEAN	2320	Sep 18	2800	Jan 6	7630	Jul 20 1977
LOWEST DAILY MEAN	13	Oct 13**a**	5.9	Jul 6	3.4	Jul 8 1971
ANNUAL SEVEN-DAY MINIMUM	13	Oct 12	7.2	Jul 1	3.6	Jul 22 1971
MAXIMUM PEAK FLOW			3370	Jan 6	**b**15000	Jul 20 1977
MAXIMUM PEAK STAGE			7.05	Jan 6	12.60	Jul 20 1977
ANNUAL RUNOFF (CFSM)	2.69		1.82		1.84	
ANNUAL RUNOFF (INCHES)	36.56		24.77		24.95	
10 PERCENT EXCEEDS	297		242		236	
50 PERCENT EXCEEDS	104		40		60	
90 PERCENT EXCEEDS	34		14		11	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1970, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.6	72.0	119	113	146	136	160	148	51.0	39.6	39.9	26.9
MAX	51.8	105	142	148	210	199	243	212	74.7	75.4	63.0	66.6
(WY)	1968	1968	1969	1969	1970	1970	1970	1968	1970	1969	1969	1970
MIN	7.87	43.9	102	90.8	112	46.4	62.7	103	25.5	7.11	13.0	5.34
(WY)	1969	1970	1968	1970	1969	1969	1968	1969	1969	1968	1968	1969

SUMMARY STATISTICS	WATER YEARS 1968 - 1970	
ANNUAL MEAN	89.4	
HIGHEST ANNUAL MEAN	104	1970
LOWEST ANNUAL MEAN	80.7	1969
HIGHEST DAILY MEAN	1100	Jan 31 1968
LOWEST DAILY MEAN	3.0	Jul 31 1968
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 18 1969
MAXIMUM PEAK FLOW	**c**1300	Jan 30 1968
MAXIMUM PEAK STAGE	**d**7.83	Jan 29 1970
INSTANTANEOUS LOW FLOW	1.4	Jul 19 1969
ANNUAL RUNOFF (CFSM)	1.56	
ANNUAL RUNOFF (INCHES)	21.16	
10 PERCENT EXCEEDS	213	
50 PERCENT EXCEEDS	50	
90 PERCENT EXCEEDS	8.0	

a Also Oct. 14, 15, 17.
b From rating curve extended above 4,100 ft^3/s on basis of computation of peak flow over dam, gage height 7.46 ft.
c About.
d Backwater from ice.



KISKIMINETAS RIVER BASIN

03042500 TWO LICK CREEK AT GRACETON, PA

LOCATION.--Lat 40°31'02", long 79°10'19", Indiana County, Hydrologic Unit 05010007, on right bank 0.8 mi upstream from highway bridge on road leading west from Graceton, 1.1 mi downstream from Tearing Run, 1.5 mi upstream from Cherry Run, and 8 mi northeast of Blairsville.

DRAINAGE AREA.--171 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 981.63 ft above National Geodetic Vertical Datum of 1929.

REVISED RECORDS.--WDR PA-78-3: 1977 (M).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation caused by mine pumpage and by sewage-disposal plant above station. Flow regulated since December 1968 by Two Lick Creek Reservoir 10 mi upstream, capacity, 16,240 acre-ft and since July 1971 by Yellow Creek Lake (station 03042260) 11 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	153	121	1430	175	e105	353	499	186	110	57	55	57
2	121	124	776	178	e100	310	588	157	86	53	53	57
3	113	143	653	370	e102	287	684	137	92	51	51	58
4	112	145	556	1320	e105	246	676	130	110	49	50	60
5	106	155	505	1690	e105	214	709	122	104	51	49	64
6	106	150	552	8270	e110	235	742	118	110	53	51	61
7	103	148	475	3700	e120	348	579	113	105	48	50	57
8	101	131	466	2130	195	699	470	125	101	53	206	57
9	100	124	449	1540	393	640	298	126	76	68	77	58
10	97	123	581	1090	955	574	260	123	67	63	55	57
11	94	115	620	1210	675	534	232	116	151	60	51	57
12	92	143	605	1780	585	500	223	118	76	57	48	58
13	106	132	567	1470	510	458	235	110	58	107	46	58
14	109	126	519	1600	682	403	207	100	53	67	48	58
15	116	123	427	989	1060	346	167	178	51	51	51	58
16	113	120	352	654	915	251	154	100	65	63	72	60
17	102	120	331	570	756	239	147	89	61	57	57	99
18	100	121	305	e465	571	223	141	84	54	58	52	59
19	251	121	220	e410	499	219	130	73	52	57	50	59
20	204	140	194	e345	469	258	129	82	50	54	50	77
21	146	134	195	e290	650	321	174	75	51	66	50	61
22	135	132	230	e215	767	375	174	72	50	58	48	59
23	131	134	454	e190	601	497	381	134	48	53	49	66
24	160	174	457	e170	551	586	225	109	48	51	55	62
25	142	280	429	e160	510	577	192	98	47	55	55	56
26	136	224	323	e150	476	539	182	78	49	57	56	80
27	130	204	277	e140	441	510	226	70	51	67	59	65
28	127	267	257	e130	392	674	171	110	52	54	59	56
29	126	300	224	e120	---	739	227	104	80	49	57	92
30	128	382	201	e115	---	656	297	117	63	50	62	56
31	124	---	181	e110	---	571	---	116	---	56	72	---
TOTAL	3884	4856	13811	31746	13400	13382	9519	3470	2171	1793	1844	1882
MEAN	125	162	446	1024	479	432	317	112	72.4	57.8	59.5	62.7
MAX	251	382	1430	8270	1060	739	742	186	151	107	206	99
MIN	92	115	181	110	100	214	129	70	47	48	46	56
(†)	-16	+22	-19	-1.1	+8.1	+12	-.50	+1.7	-7.0	-21	-20	-40

† Change in contents, equivalent in cubic feet per second, in Yellow Creek Lake and Two Lick Creek Reservoir. Records of contents in Two Lick Creek Reservoir furnished by Midwest Generation.

e Estimated.

03042500 TWO LICK CREEK AT GRACETON, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	147	258	362	380	429	529	431	308	228	184	125	153
MAX	466	689	722	1024	925	1230	832	695	1091	1161	450	739
(WY)	1977	1998	1973	2005	1986	1994	1984	2002	1972	1977	2003	2004
MIN	21.0	53.2	87.0	106	116	93.9	179	86.2	53.6	52.1	48.9	41.9
(WY)	1969	1992	1999	1983	1993	1969	1997	1986	1992	1993	1988	1995

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	174442		101758			
ANNUAL MEAN	477	† -1.4	279	† -7.7	294	
HIGHEST ANNUAL MEAN					522	2004
LOWEST ANNUAL MEAN					178	1969
HIGHEST DAILY MEAN	9610	Sep 18	8270	Jan 6	21900	Jul 20 1977
LOWEST DAILY MEAN	78	Sep 6	46	Aug 13	12	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	99	Sep 1	49	Jun 20	15	Oct 12 1968
MAXIMUM PEAK FLOW			**a**10100	Jan 6	**a**32000	Jul 20 1977
MAXIMUM PEAK STAGE			12.49	Jan 6	**b**18.65	Jul 20 1977
INSTANTANEOUS LOW FLOW			41	Sep 1	12	Oct 1 1968
10 PERCENT EXCEEDS	852		593		610	
50 PERCENT EXCEEDS	320		126		180	
90 PERCENT EXCEEDS	121		53		59	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1968, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	101	139	256	367	444	604	472	346	130	100	90.6	61.1
MAX	628	305	635	811	1093	1097	786	634	271	644	377	199
(WY)	1955	1960	1955	1952	1956	1963	1957	1966	1960	1956	1956	1962
MIN	14.2	23.6	50.1	118	176	234	167	99.7	42.3	25.2	16.9	15.9
(WY)	1964	1954	1961	1956	1963	1957	1968	1955	1965	1962	1957	1952

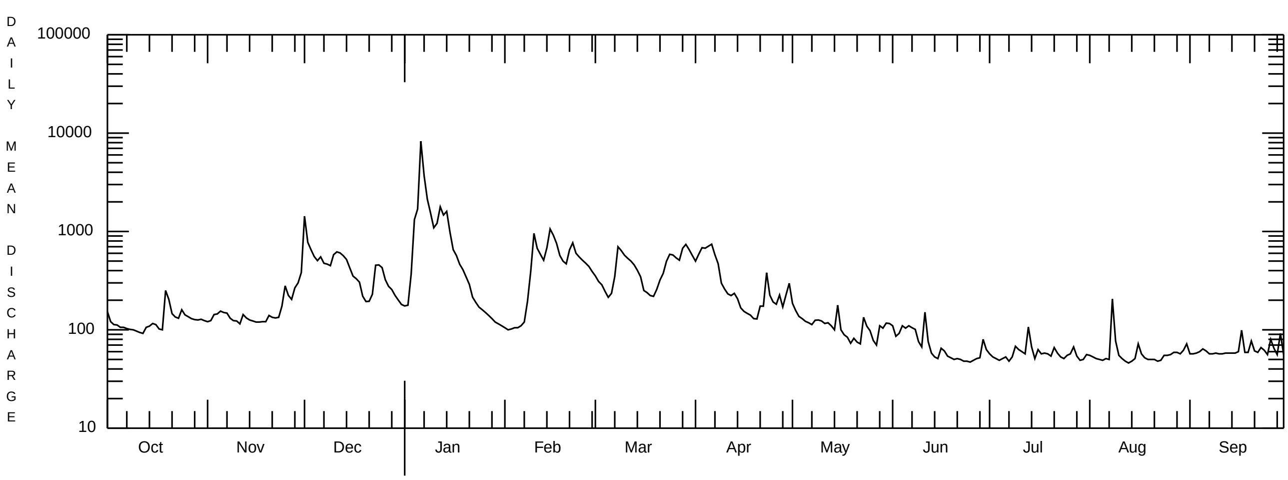
SUMMARY STATISTICS	WATER YEARS 1952 - 1968	
ANNUAL MEAN	259	
HIGHEST ANNUAL MEAN	415	1956
LOWEST ANNUAL MEAN	185	1954
HIGHEST DAILY MEAN	6800	Oct 16 1954
LOWEST DAILY MEAN	8.7	Sep 14 1952
ANNUAL SEVEN-DAY MINIMUM	12	Sep 6 1957
MAXIMUM PEAK FLOW	**c**12900	Oct 16 1954
MAXIMUM PEAK STAGE	12.71	Oct 16 1954
INSTANTANEOUS LOW FLOW	11	Sep 30 1968
ANNUAL RUNOFF (CFSM)	1.52	
ANNUAL RUNOFF (INCHES)	20.67	
10 PERCENT EXCEEDS	640	
50 PERCENT EXCEEDS	118	
90 PERCENT EXCEEDS	21	

† Change in contents, equivalent in cubic feet per second, in Yellow Creek Lake and Two Lick Creek Reservoir. Records of contents in Two Lick Creek Reservoir furnished by Midwest Generation.

a From rating curve extended above 7,800 ft^3/s on basis of slope-area measurement of peak flow and contracted-opening measurement at gage height 12.71 ft at site 1.6 mi upstream from gage, adjusted to gage site.

b From highwater mark.

c From rating curve extended above 4,500 ft^3/s on basis of contracted-opening measurement of peak flow at site 1.6 mi upstream from gage, adjusted to gage site.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

KISKIMINETAS RIVER BASIN

03043810 CONEMAUGH RIVER BELOW CONEMAUGH DAM, PA

LOCATION.--Lat 40°28'03", long 79°22'03", Indiana County, Hydrologic Unit 05010007, 50 ft downstream from face of Conemaugh Dam.

DRAINAGE AREA.--1,354 mi^2.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 2004 to current year.
pH: October 2004 to current year.
WATER TEMPERATURE: October 2004 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods Oct. 5-14, Jan. 18, 20, 25, 31, July 21, 27, 28, and Sept. 3, 5, 6, which are poor. Other interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,290 microsiemens, Aug. 31; minimum, 178 microsiemens, Jan. 10.
pH: Maximim 7.9, Aug. 3, 6, 9; minimum, 6.7, several days.
WATER TEMPERATURE: Maximum, 28.2°C, July 23; minimum recorded, 0.1°C, Jan. 23, 24.

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	421	384	411	594	589	592	481	455	475	351	348	350
2	420	405	413	593	588	591	474	281	422	357	345	351
3	430	404	413	592	586	591	281	251	260	381	352	370
4	464	430	452	592	585	591	268	253	261	386	368	376
5	---	---	---	593	586	590	275	268	272	393	361	383
6	---	---	---	595	592	594	277	275	276	378	361	374
7	---	---	---	595	583	590	278	276	277	375	291	341
8	---	---	---	587	570	580	279	277	278	291	194	246
9	---	---	---	582	571	577	279	276	278	194	178	182
10	---	---	---	581	572	577	278	278	278	184	178	180
11	---	---	---	572	537	560	279	278	279	194	182	188
12	---	---	---	547	537	543	282	275	280	203	194	198
13	---	---	---	543	537	540	286	281	283	213	203	208
14	---	---	---	556	539	547	289	286	288	240	213	226
15	710	670	688	564	554	561	293	289	291	240	230	237
16	707	694	701	566	560	564	296	293	295	230	222	224
17	702	689	696	563	549	556	299	296	297	235	224	229
18	707	679	691	549	514	531	299	297	298	---	---	---
19	738	707	733	514	486	494	298	295	297	---	---	---
20	736	720	730	507	495	504	297	295	296	---	---	---
21	722	680	697	507	505	506	296	293	295	344	296	321
22	687	676	682	508	502	507	294	290	292	373	344	359
23	676	664	669	513	507	509	292	282	289	388	373	382
24	664	632	641	513	496	507	294	291	292	389	379	385
25	638	613	627	508	497	504	322	294	302	---	---	---
26	617	605	615	504	486	497	383	322	343	397	382	389
27	619	614	616	491	486	489	420	383	411	429	397	411
28	624	614	619	486	479	483	405	355	370	440	422	433
29	615	608	612	484	476	482	356	353	354	449	440	446
30	608	591	600	484	477	482	354	352	353	448	433	443
31	596	590	595	---	---	---	355	349	352	487	434	458
MONTH	738	384	614	595	476	541	481	251	311	487	178	322

KISKIMINETAS RIVER BASIN

03043810 CONEMAUGH RIVER BELOW CONEMAUGH DAM, PA

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	507	487	498	357	348	356	263	240	253	473	451	465
2	508	488	501	360	351	356	303	263	276	474	455	467
3	500	492	496	367	357	361	304	293	300	477	469	475
4	497	485	494	369	357	363	300	282	289	478	471	475
5	521	497	508	372	359	368	316	300	311	482	467	476
6	535	510	528	374	367	372	313	290	305	493	476	486
7	544	533	538	435	373	401	292	287	288	502	472	495
8	545	536	540	449	415	427	306	292	302	497	483	491
9	550	526	539	468	414	454	322	306	314	494	481	489
10	552	505	534	414	331	359	329	322	326	498	489	494
11	505	328	425	340	330	336	329	320	326	494	479	490
12	328	268	279	352	339	344	331	325	328	495	484	490
13	312	269	288	366	351	360	334	327	332	506	494	499
14	334	312	323	374	362	370	346	327	335	519	495	512
15	337	325	331	379	370	374	369	345	355	553	496	538
16	327	304	323	380	363	372	381	345	364	583	552	566
17	304	278	288	385	369	379	432	381	407	584	565	578
18	290	279	285	410	384	388	464	432	446	565	547	556
19	311	290	306	473	410	454	480	459	467	561	547	554
20	317	311	315	483	465	474	490	464	474	570	561	565
21	326	311	320	481	466	475	482	457	465	595	565	580
22	351	325	339	481	463	473	477	457	469	645	595	619
23	381	347	365	473	441	453	523	464	499	645	632	639
24	347	338	342	446	430	438	510	499	506	647	628	638
25	344	338	340	433	329	391	513	499	507	640	629	635
26	346	341	344	329	291	298	509	475	494	634	611	624
27	346	343	345	306	293	299	494	473	483	618	610	614
28	354	339	349	314	305	309	499	484	491	615	588	609
29	---	---	---	313	270	300	486	477	484	611	601	606
30	---	---	---	270	226	243	482	465	474	603	589	595
31	---	---	---	240	226	232	---	---	---	589	570	581
MONTH	552	268	396	483	226	374	523	240	389	647	451	545

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	570	543	551	827	809	821	1020	1000	1010	1280	1240	1260
2	547	535	541	865	767	789	1040	1010	1020	1240	1190	1210
3	545	519	534	882	845	872	1060	1020	1030	1190	1140	1160
4	545	527	537	866	840	853	1060	1030	1050	1150	1120	1130
5	546	535	540	874	843	861	1110	1050	1090	1130	1110	1120
6	547	527	538	919	856	887	1110	1070	1090	1120	1110	1120
7	554	546	550	950	919	934	1100	1070	1090	1120	1100	1120
8	558	551	554	950	928	939	1100	1000	1050	1110	1090	1100
9	554	547	551	933	905	920	1110	1010	1070	1110	1090	1100
10	554	549	552	913	895	907	1090	937	1020	1100	1080	1090
11	563	553	558	999	902	957	937	795	850	1090	1070	1080
12	567	560	565	1010	991	1000	835	792	805	1080	1060	1070
13	569	559	566	999	952	988	847	815	830	1070	1040	1050
14	569	561	565	984	963	971	859	827	846	1100	1050	1080
15	562	525	542	964	912	930	906	843	881	1160	1080	1120
16	529	501	517	991	899	932	916	897	905	1170	1130	1150
17	541	497	518	1010	966	985	941	902	929	1180	1130	1160
18	548	541	545	971	936	953	956	929	945	1170	1140	1160
19	622	543	572	936	917	926	950	865	903	1170	1140	1160
20	649	622	638	927	907	919	933	880	906	1190	1140	1170
21	654	648	651	---	---	---	962	933	949	1180	1140	1160
22	655	650	653	927	917	921	970	953	960	1170	1110	1140
23	658	648	654	918	902	910	986	966	975	1130	1090	1120
24	656	635	647	904	854	888	984	957	969	1110	1070	1100
25	642	636	639	936	859	894	1030	982	1010	1110	1050	1080
26	666	637	652	938	914	927	1110	1020	1080	1050	1010	1030
27	671	648	658	---	---	---	1110	1090	1100	1060	1020	1040
28	664	631	656	---	---	---	1160	1110	1140	1060	967	1020
29	689	650	668	930	908	920	1220	1160	1200	1000	967	990
30	813	689	772	943	930	936	1270	1200	1250	993	951	976
31	---	---	---	1000	930	954	1290	1260	1270	---	---	---
MONTH	813	497	589	1010	767	918	1290	792	1010	1280	951	1110
YEAR	1290	178	594									

KISKIMINETAS RIVER BASIN

03043810 CONEMAUGH RIVER BELOW CONEMAUGH DAM, PA

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

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	6.8	6.8	6.8	7.0	7.0	7.0	7.2	7.1	7.2	6.9	6.8	6.9
2	6.8	6.8	6.8	7.0	7.0	7.0	7.1	7.0	7.0	6.9	6.8	6.9
3	6.8	6.8	6.8	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.8	6.9
4	6.8	6.7	6.8	7.0	7.0	7.0	7.1	7.0	7.1	6.8	6.8	6.8
5	6.8	6.7	6.7	7.1	7.0	7.1	7.2	7.1	7.1	6.8	6.7	6.8
6	6.8	6.7	6.7	7.1	7.1	7.1	7.2	7.0	7.2	6.8	6.7	6.8
7	6.7	6.7	6.7	7.1	7.0	7.1	7.1	7.0	7.1	6.8	6.7	6.8
8	6.7	6.7	6.7	7.1	7.0	7.0	7.0	7.0	7.0	6.8	6.8	6.8
9	6.7	6.7	6.7	7.3	7.1	7.1	7.0	7.0	7.0	6.9	6.7	6.8
10	6.8	6.7	6.8	7.3	7.1	7.2	7.0	6.9	7.0	7.0	6.9	6.9
11	7.1	6.8	6.9	7.1	7.1	7.1	7.0	6.9	7.0	7.0	6.9	7.0
12	7.2	7.0	7.1	7.1	7.0	7.1	7.0	6.9	6.9	7.0	6.9	7.0
13	7.0	7.0	7.0	7.1	7.0	7.0	7.0	6.9	6.9	7.0	7.0	7.0
14	7.0	6.8	7.0	7.1	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0
15	7.1	7.0	7.1	7.1	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0
16	7.2	7.1	7.2	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	7.0
17	7.2	7.2	7.2	7.1	6.8	7.0	7.0	6.9	6.9	7.0	6.9	7.0
18	7.2	7.1	7.2	7.1	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.0
19	7.1	7.1	7.1	7.1	7.0	7.0	6.9	6.9	6.9	7.1	7.0	7.0
20	7.1	7.0	7.1	7.1	6.9	7.0	6.9	6.9	6.9	7.0	7.0	7.0
21	7.1	7.0	7.0	7.0	6.9	6.9	7.0	6.9	7.0	7.0	6.9	7.0
22	7.1	7.0	7.1	7.0	6.9	6.9	7.0	6.8	6.9	7.0	6.9	6.9
23	7.1	7.1	7.1	7.1	7.0	7.0	6.9	6.8	6.8	6.9	6.9	6.9
24	7.1	7.1	7.1	7.1	7.0	7.1	6.9	6.9	6.9	6.9	6.9	6.9
25	7.1	7.0	7.1	7.3	7.1	7.2	6.9	6.8	6.8	6.9	6.8	6.9
26	7.1	7.0	7.0	7.3	7.2	7.2	6.9	6.8	6.9	6.9	6.8	6.8
27	7.1	7.0	7.0	7.2	7.1	7.1	6.9	6.9	6.9	6.9	6.8	6.8
28	7.0	7.0	7.0	7.1	7.1	7.1	6.9	6.9	6.9	6.9	6.8	6.8
29	---	---	---	7.3	7.1	7.1	6.9	6.9	6.9	6.9	6.8	6.8
30	---	---	---	7.3	7.3	7.3	6.9	6.9	6.9	6.9	6.8	6.8
31	---	---	---	7.3	7.2	7.3	---	---	---	6.9	6.8	6.9
MAX	7.2	7.2	7.2	7.3	7.3	7.3	7.2	7.1	7.2	7.1	7.0	7.0
MIN	6.7	6.7	6.7	7.0	6.8	6.9	6.9	6.8	6.8	6.8	6.7	6.8

KISKIMINETAS RIVER BASIN

03043810 CONEMAUGH RIVER BELOW CONEMAUGH DAM, PA

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

YEAR MAX MAXIMUM 7.9 MINIMUM 6.7
MIN MAXIMUM 7.8 MINIMUM 6.7
MEDIAN MAXIMUM 7.8 MINIMUM 6.7

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	17.8	17.3	17.5	13.2	12.9	13.1	8.7	7.8	8.3	2.1	1.7	1.8
2	17.6	17.2	17.4	13.6	13.2	13.3	7.9	6.6	7.5	2.7	1.6	2.0
3	17.4	16.8	17.1	13.5	13.2	13.4	6.6	5.5	6.0	3.7	2.6	3.1
4	16.8	16.3	16.6	13.5	13.1	13.3	5.5	5.0	5.2	4.1	3.5	3.6
5	---	---	---	13.1	12.6	12.8	5.2	4.8	5.0	6.4	3.6	5.4
6	---	---	---	12.6	12.2	12.4	5.3	4.7	4.9	6.8	5.6	6.4
7	---	---	---	12.4	11.2	11.9	5.5	5.0	5.2	7.1	5.6	6.5
8	---	---	---	11.4	10.5	10.9	5.5	5.1	5.3	7.0	6.0	6.6
9	---	---	---	10.8	10.5	10.6	5.5	5.0	5.2	6.0	5.9	5.9
10	---	---	---	10.5	9.9	10.2	5.7	5.3	5.5	5.9	5.7	5.8
11	---	---	---	10.0	9.2	9.7	5.6	5.1	5.4	5.7	5.6	5.6
12	---	---	---	9.2	8.8	9.1	5.5	5.1	5.2	5.8	5.6	5.7
13	---	---	---	8.8	7.8	8.3	5.3	5.0	5.1	6.0	5.8	5.9
14	---	---	---	7.8	7.3	7.6	5.1	4.7	5.0	6.0	5.7	5.8
15	13.3	12.6	13.0	7.4	7.1	7.2	5.0	4.6	4.8	5.9	5.6	5.7
16	12.7	12.5	12.6	7.4	7.0	7.2	5.0	4.6	4.8	6.4	5.9	6.2
17	12.5	12.1	12.3	7.5	7.1	7.3	5.0	4.7	4.8	6.4	5.6	6.2
18	12.1	11.7	12.0	7.5	7.4	7.4	5.1	4.5	4.7	---	---	---
19	11.7	10.6	10.9	7.5	7.1	7.3	4.8	3.7	4.4	---	---	---
20	10.8	10.5	10.6	8.2	7.5	7.9	3.8	3.4	3.6	---	---	---
21	10.9	10.6	10.7	8.4	8.2	8.3	4.3	3.5	3.9	1.3	0.4	0.7
22	11.8	10.9	11.3	9.0	8.4	8.7	4.5	4.0	4.2	0.5	0.3	0.4
23	12.0	11.5	11.8	9.3	8.8	9.0	5.0	3.8	4.3	0.4	0.1	0.2
24	12.2	12.0	12.1	9.7	9.3	9.5	3.8	3.3	3.6	0.4	0.1	0.2
25	12.2	12.0	12.1	9.4	8.8	9.1	3.4	2.7	3.1	---	---	---
26	12.3	11.9	12.1	9.2	8.8	8.9	2.7	1.6	2.3	0.9	0.5	0.7
27	12.6	12.2	12.4	9.1	8.7	8.9	1.8	1.3	1.6	0.8	0.3	0.5
28	12.6	12.2	12.4	8.9	8.5	8.8	1.6	0.8	1.1	1.0	0.3	0.6
29	12.7	12.5	12.6	8.5	8.2	8.4	1.1	0.8	0.9	1.0	0.5	0.7
30	12.9	12.7	12.8	8.8	8.3	8.4	1.3	1.0	1.1	1.3	0.8	1.0
31	13.1	12.7	12.9	---	---	---	1.9	1.2	1.6	1.8	0.7	1.1
MONTH	17.8	10.5	13.0	13.6	7.0	9.6	8.7	0.8	4.3	7.1	0.1	3.5

KISKIMINETAS RIVER BASIN

03043810 CONEMAUGH RIVER BELOW CONEMAUGH DAM, PA

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	1.2	0.5	0.7	3.2	2.8	2.9	9.0	8.0	8.6	12.7	11.6	12.1
2	1.2	0.5	0.8	3.3	2.6	2.9	9.2	9.0	9.1	12.0	11.4	11.7
3	1.1	0.8	1.0	3.4	2.5	2.9	9.0	6.6	7.8	12.0	11.7	11.9
4	1.4	0.9	1.0	3.5	2.4	2.9	6.6	5.5	5.8	12.4	11.4	11.9
5	1.4	0.8	1.0	3.3	2.8	3.1	7.8	5.6	6.5	11.6	10.9	11.2
6	1.8	0.7	1.0	3.5	2.9	3.2	9.6	7.8	8.6	11.6	11.2	11.3
7	1.4	1.0	1.2	3.8	3.2	3.4	11.2	9.6	10.3	11.9	11.1	11.5
8	1.5	1.1	1.4	3.7	2.9	3.3	12.0	11.1	11.5	13.0	11.6	12.2
9	1.7	1.3	1.4	4.8	3.7	4.3	12.8	11.4	12.0	13.5	12.2	12.8
10	2.6	1.3	1.8	3.9	1.5	2.6	13.5	12.5	12.9	14.3	12.9	13.7
11	3.0	2.4	2.7	1.7	1.4	1.5	14.8	12.1	13.1	16.7	14.3	15.0
12	2.4	1.7	2.1	2.2	1.6	1.9	13.4	11.6	12.7	16.3	15.1	15.6
13	2.0	1.5	1.7	2.5	2.1	2.3	14.3	12.1	13.2	17.2	15.9	16.7
14	3.5	2.0	2.7	3.5	2.2	2.7	15.6	12.6	13.6	18.0	17.0	17.5
15	4.5	3.5	4.1	3.7	2.4	3.1	13.6	12.4	13.1	18.3	17.7	18.0
16	5.1	4.4	4.8	4.1	3.3	3.8	13.9	13.2	13.6	18.3	17.8	18.0
17	5.1	4.5	4.9	3.9	3.6	3.8	13.7	13.1	13.5	18.4	17.3	17.9
18	4.5	2.7	3.6	4.5	3.8	4.1	14.2	13.4	13.8	17.8	16.9	17.3
19	2.7	1.8	2.0	5.5	4.3	4.9	14.4	13.8	14.1	17.6	16.8	17.2
20	1.8	1.6	1.7	5.2	4.9	5.1	14.9	14.4	14.6	17.6	17.1	17.3
21	1.8	1.5	1.7	5.5	5.0	5.2	15.5	14.8	15.2	17.5	16.7	17.1
22	2.6	1.5	1.9	6.0	4.9	5.4	15.5	15.1	15.3	17.1	16.3	16.6
23	3.6	2.6	3.2	6.0	5.5	5.7	15.5	15.0	15.2	16.8	16.4	16.6
24	3.6	3.2	3.5	6.0	5.7	5.8	15.0	13.8	14.5	16.9	16.4	16.6
25	3.2	2.8	3.1	6.0	5.4	5.8	13.9	13.0	13.5	16.7	16.3	16.5
26	3.4	2.4	2.9	5.4	4.8	4.9	13.0	11.1	12.2	16.7	15.8	16.3
27	3.4	2.1	2.7	5.6	4.9	5.2	12.1	10.9	11.4	16.5	15.7	16.0
28	3.2	2.7	2.9	6.4	5.6	5.9	12.3	11.9	12.2	16.7	15.9	16.2
29	---	---	---	6.7	6.3	6.5	12.4	12.1	12.3	16.9	16.0	16.5
30	---	---	---	7.1	6.4	6.7	12.5	12.1	12.4	17.2	16.4	16.7
31	---	---	---	8.0	7.1	7.5	---	---	---	17.4	16.4	16.9
MONTH	5.1	0.5	2.3	8.0	1.4	4.2	15.6	5.5	12.1	18.4	10.9	15.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	17.2	16.4	16.8	27.2	26.6	26.9	26.9	26.2	26.5	23.5	23.0	23.2
2	17.4	16.6	17.1	27.2	26.6	26.8	27.3	26.3	26.8	23.3	22.7	23.0
3	17.5	17.1	17.3	27.0	26.4	26.7	27.4	26.6	27.0	23.2	22.6	22.9
4	18.1	17.4	17.8	27.2	26.5	26.8	27.5	26.8	27.2	23.2	22.4	22.8
5	19.3	18.0	18.7	27.1	26.6	26.9	27.5	27.2	27.4	23.2	22.5	22.8
6	19.7	18.8	19.2	27.1	26.6	26.8	27.6	27.1	27.3	23.1	22.6	22.8
7	20.4	19.2	19.8	26.7	26.3	26.5	27.6	27.0	27.3	23.2	22.5	22.8
8	20.7	19.7	20.2	26.9	26.4	26.6	27.3	26.8	27.1	23.0	22.4	22.7
9	21.2	20.2	20.7	26.9	26.2	26.5	27.0	25.1	26.3	22.9	22.4	22.6
10	21.8	20.9	21.4	26.7	25.7	26.2	25.1	24.0	24.5	22.9	22.2	22.5
11	22.6	21.6	22.1	26.4	25.6	26.0	24.1	23.5	23.8	23.0	22.2	22.6
12	23.3	22.4	22.9	26.4	25.5	25.9	24.1	23.4	23.7	23.0	22.3	22.7
13	24.7	23.2	23.8	26.3	25.7	25.9	24.3	23.5	23.9	22.9	22.3	22.6
14	24.5	23.1	23.8	26.3	25.8	26.1	24.4	23.6	24.0	22.9	22.3	22.6
15	24.6	24.1	24.4	26.5	25.9	26.1	24.4	23.7	24.1	23.2	22.6	22.9
16	24.6	24.1	24.4	26.6	26.0	26.2	24.6	24.1	24.4	23.4	22.9	23.1
17	24.1	23.6	23.9	26.8	26.3	26.5	25.4	24.4	24.9	23.4	23.1	23.2
18	23.6	22.7	23.2	26.9	26.4	26.7	25.8	24.8	25.3	23.7	23.1	23.4
19	22.9	22.2	22.5	27.2	26.6	26.9	26.0	25.5	25.7	23.7	23.2	23.4
20	22.7	21.9	22.2	27.7	26.8	27.3	26.3	25.7	25.9	23.5	22.9	23.3
21	22.6	21.9	22.2	28.1	27.4	27.8	26.2	25.6	25.9	23.4	22.9	23.2
22	22.8	22.1	22.4	28.1	27.8	27.9	26.1	25.5	25.8	23.0	22.4	22.6
23	23.2	22.2	22.7	28.2	27.4	27.8	26.0	25.4	25.6	22.8	22.2	22.5
24	23.7	22.7	23.3	27.7	27.3	27.5	25.8	25.0	25.4	22.5	22.1	22.3
25	24.4	23.5	24.0	27.6	26.7	27.3	25.3	24.7	25.0	22.7	22.1	22.4
26	24.9	24.0	24.5	27.3	26.6	26.9	24.9	24.6	24.7	22.3	22.0	22.2
27	25.5	24.5	25.0	---	---	---	24.6	24.1	24.3	22.4	21.7	22.0
28	26.1	25.2	25.7	---	---	---	24.1	23.5	23.9	22.1	21.2	21.6
29	26.6	25.9	26.3	26.7	26.1	26.4	23.5	23.2	23.4	21.4	20.8	21.2
30	27.3	26.4	26.8	26.8	25.9	26.3	23.6	23.2	23.4	21.0	20.2	20.7
31	---	---	---	26.9	26.2	26.5	23.5	23.2	23.4	---	---	---
MONTH	27.3	16.4	22.2	28.2	25.5	26.7	27.6	23.2	25.3	23.7	20.2	22.6
YEAR	28.2	0.1	13.5									

KISKIMINETAS RIVER BASIN

03045000 LOYALHANNA CREEK AT KINGSTON, PA

LOCATION.--Lat 40°17'33", long 79°20'27", Westmoreland County, Hydrologic Unit 05010008, on right bank 60 ft downstream from bridge on State Highway 217 at Kingston, 100 ft downstream from Miller Run, 1.9 mi upstream from Ninemile Run, and 3 mi southeast of Latrobe.

DRAINAGE AREA.--172 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only October to December 1939, published in WSP 1305.

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,013.16 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Oct. 1, 1969, at datum 1.00 ft higher.

REMARKS.--Records good except those less than 10 ft^3/s, which are fair, and those for estimated daily discharges, which are poor. Flow regulated by Latrobe Reservoir, capacity, 3,670 acre-ft, and diversion works at Kingston. Figures of daily discharge do not include diversion from reservoir and at Kingston intake to borough of Latrobe. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1918, 15.8 ft, present datum, Oct. 15, 1954. Flood of Mar. 17 or 18, 1936 reached a stage of about 15.5 ft, present datum, from information by local residents, discharge, about 21,000 ft^3/s, from rating curve extended above 8,700 ft^3/s.

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

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1500	*10,500	*11.25	Mar. 29	0300	3,650	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	122	74	1030	208	e105	305	678	219	141	93	21	33
2	106	69	774	182	e110	263	690	185	124	58	16	24
3	96	168	582	433	e115	226	879	170	120	43	14	e17
4	83	157	459	1200	e120	207	947	156	119	37	12	e14
5	74	296	375	3000	e135	219	1120	142	102	36	11	e13
6	76	225	320	8040	e150	246	895	135	352	47	11	e11
7	71	187	343	2760	e190	379	711	134	362	46	11	11
8	65	156	423	1900	e370	1010	574	137	181	62	25	9.8
9	60	132	350	1260	e890	696	460	120	130	137	30	9.3
10	57	119	555	938	1580	550	383	115	110	57	16	8.9
11	55	111	1030	1090	928	497	325	109	105	40	14	8.6
12	52	254	781	1960	676	452	280	125	130	34	12	7.7
13	51	253	668	1240	524	384	251	99	88	37	12	7.0
14	70	184	537	1410	763	329	218	102	74	91	9.9	6.5
15	68	161	441	1010	1060	295	192	280	69	45	8.2	6.1
16	69	150	377	785	906	275	167	170	72	35	11	5.8
17	66	140	340	627	757	262	153	134	111	33	19	6.1
18	55	139	301	e430	601	267	145	118	70	34	14	5.8
19	191	202	290	e360	485	267	137	107	60	45	11	6.4
20	102	368	e185	e310	420	280	130	107	55	49	10	6.3
21	76	313	e160	e260	768	310	129	105	52	35	62	5.9
22	67	270	e215	e240	613	287	126	93	50	30	25	5.7
23	60	268	552	e220	521	797	215	102	49	33	14	5.7
24	88	274	581	e190	460	913	182	154	43	27	11	5.3
25	96	408	e420	e170	413	722	215	228	39	24	9.6	4.9
26	74	375	e335	e155	363	593	219	157	35	26	8.6	5.4
27	67	328	e285	e130	313	522	203	129	33	25	11	5.3
28	61	504	e240	e115	308	1260	189	206	90	23	49	4.6
29	60	402	e245	e110	---	2580	186	251	222	18	25	9.2
30	83	351	240	e105	---	1360	204	185	75	16	44	e14
31	99	---	229	e100	---	942	---	162	---	16	28	---
TOTAL	2420	7038	13663	30938	14644	17695	11203	4636	3263	1332	575.3	283.3
MEAN	78.1	235	441	998	523	571	373	150	109	43.0	18.6	9.44
MAX	191	504	1030	8040	1580	2580	1120	280	362	137	62	33
MIN	51	69	160	100	105	207	126	93	33	16	8.2	4.6
(†)	+2.5	+2.4	+10	+6.2	+7.4	+6.2	+17	-7.3	+3.5	+.65	+.42	-.53

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	107	215	349	386	466	610	526	368	231	120	101	97.2
MAX	689	785	834	998	1210	1305	1007	779	997	344	667	683
(WY)	1955	1986	1973	2005	1986	1963	1940	1952	1972	1990	1979	2004
MIN	2.76	5.09	29.4	79.0	137	175	178	83.4	38.3	7.76	7.04	4.20
(WY)	1954	1954	1999	1940	1978	1969	1997	2001	1999	1966	1957	1957

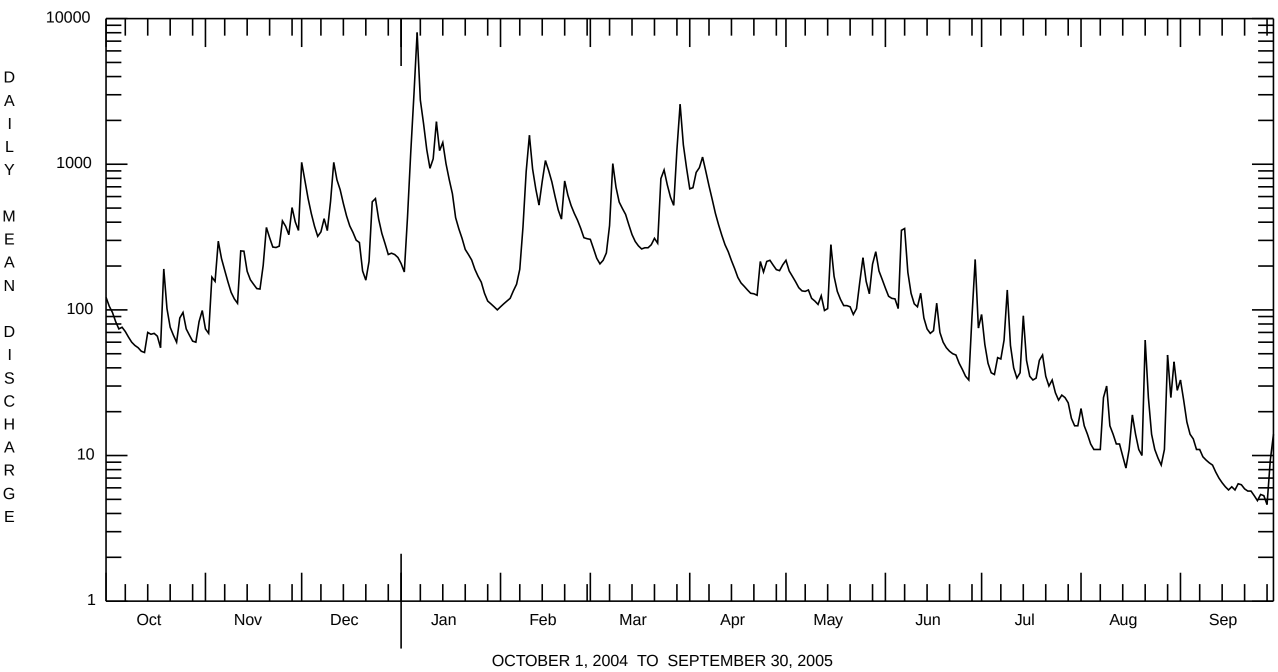
† Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second, furnished by Latrobe Municipal Authority.
e Estimated.

KISKIMINETAS RIVER BASIN

03045000 LOYALHANNA CREEK AT KINGSTON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	157331		107690.6			
ANNUAL MEAN	430	† +6.4	295	† +4.0	297	
HIGHEST ANNUAL MEAN					488	2004
LOWEST ANNUAL MEAN					160	1954
HIGHEST DAILY MEAN	9690	Sep 18	8040	Jan 6	14200	Jun 23 1972
LOWEST DAILY MEAN	42	Jul 17	4.6	Sep 28	0.20	Oct 23 1953
ANNUAL SEVEN-DAY MINIMUM	55	Jul 11	5.3	Sep 22	0.63	Oct 19 1953
MAXIMUM PEAK FLOW			**a**10500	Jan 6	**a**29700	Oct 15 1954
MAXIMUM PEAK STAGE			11.25	Jan 6	**b**15.80	Oct 15 1954
INSTANTANEOUS LOW FLOW			4.0	Sep 28	0.10	Sep 4 1953
10 PERCENT EXCEEDS	850		736		696	
50 PERCENT EXCEEDS	246		137		159	
90 PERCENT EXCEEDS	68		12		21	

† Diversion from and change in contents in Latrobe Reservoir and diversion from Kingston intake, equivalent in cubic feet per second, furnished by Latrobe Municipal Authority.
a From rating curve extended above 8,700 ft^3/s on basis of slope-area measurement at gage height 13.37 ft.
b Present datum, from floodmarks.



KISKIMINETAS RIVER BASIN

03048500 KISKIMINETAS RIVER AT VANDERGRIFT, PA

LOCATION.--Lat 40°36'16", long 79°33'08", Westmoreland County, Hydrologic Unit 05010008, on left bank 0.5 mi upstream from bridge on State Highway Alternate 66 at Vandergrift, and 2.2 mi upstream from Pine Run.

DRAINAGE AREA.--1,825 mi^2.

PERIOD OF RECORD.--August 1937 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1920 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 769.40 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). Oct. 1, 1920 to Sept. 30, 1930, nonrecording gage, Oct. 1, 1930 to Sept. 30, 1932, water-stage recorder, at site 0.6 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since June 1942 by Loyalhanna Lake, 20 mi upstream, since November 1951 by Conemaugh River Lake, 23 mi upstream, since July 1971 by Yellow Creek Lake (station 03042260), and by other reservoirs upstream of station; the 11 most effective of which have a combined capacity of 105,700 acre-ft. Figures of daily discharge do not include diversion from Beaver Run Reservoir to plants and communities downstream, nor into the Monongahela River Basin. Evaporation from operation of Homer City and Conemaugh generating stations, which began during 1969 and 1970, respectively, can amount to as much as 45 ft^3/s. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 18, 1936 reached a stage of 41.64 ft, from floodmark at present site, discharge, about 185,000 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	2430	1150	4490	2740	2170	3620	13500	2300	1090	983	367	695
2	1740	2170	6270	2510	2120	3410	12900	2500	979	886	244	345
3	1020	2210	10900	2220	2010	3010	11100	1920	998	773	242	309
4	1070	2210	7910	3030	1540	2960	8510	1550	1350	755	243	667
5	1260	2220	5220	3760	1520	2780	8480	1500	1390	470	243	660
6	1280	2190	3950	12500	1700	2340	8450	1510	1280	372	249	344
7	1290	2210	3820	8210	2190	2470	8260	1490	1460	355	618	250
8	1210	2270	3980	18100	2310	4290	7600	1390	1690	350	688	253
9	861	2050	3980	25200	2560	7530	6070	1390	1430	359	563	243
10	925	1450	4130	25000	4070	8340	4660	1400	1140	721	820	239
11	918	1420	3950	25100	8430	7460	3870	1110	1050	703	972	237
12	909	1350	3530	25600	11800	6030	2960	1070	1120	705	730	236
13	900	1480	3610	21900	10700	5060	2850	1080	1820	727	764	233
14	879	1980	3540	18300	7780	4540	2820	1140	2120	718	718	235
15	979	2050	3050	19400	5570	3720	2340	1240	1300	692	661	239
16	973	2030	1960	19000	8430	3360	1830	1500	929	777	641	239
17	1020	1970	1940	18200	9440	2760	1850	1640	666	465	634	272
18	1340	1750	1850	14700	8930	2300	1820	1490	696	730	615	348
19	1510	1020	1970	12400	7320	2470	1400	983	986	659	611	334
20	1660	1150	2690	11700	5070	2900	1530	944	845	620	637	623
21	1990	1830	2650	10800	4970	2790	2040	942	797	313	677	351
22	1820	2750	2650	8700	5680	2820	1810	1150	780	291	708	241
23	1300	2560	3230	5830	7060	2950	2060	1130	671	351	646	537
24	1060	2160	4850	4250	7090	4100	2350	1020	639	683	624	578
25	1040	2290	6010	3120	6040	7610	2980	1180	351	694	325	619
26	649	2780	6200	2750	4960	8950	2920	1820	704	667	257	629
27	627	3770	6260	2280	4090	8470	2640	1650	660	419	261	598
28	617	4060	6070	2440	3940	8600	2200	1010	350	311	266	584
29	500	4110	4620	2490	---	9650	2150	1050	570	296	256	619
30	561	4020	3660	1600	---	12500	2110	1890	795	324	333	594
31	1090	---	3480	1760	---	14200	---	1710	---	689	410	---
TOTAL	35428	66660	132420	335590	149490	163990	136060	43699	30656	17858	16023	12351
MEAN	1143	2222	4272	10830	5339	5290	4535	1410	1022	576	517	412
MAX	2430	4110	10900	25600	11800	14200	13500	2500	2120	983	972	695
MIN	500	1020	1850	1600	1520	2300	1400	942	350	291	242	233
CFSM	0.63	1.22	2.34	5.93	2.93	2.90	2.49	0.77	0.56	0.32	0.28	0.23
IN.	0.72	1.36	2.70	6.84	3.05	3.34	2.77	0.89	0.62	0.36	0.33	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

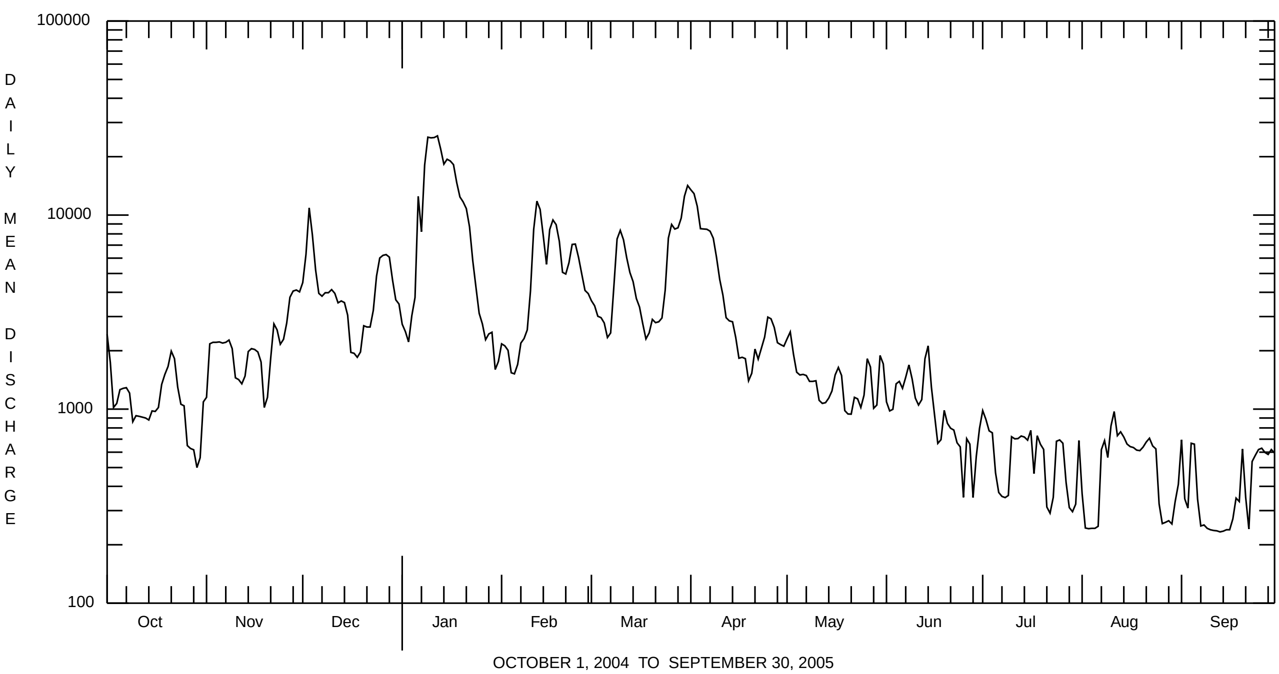
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1303	2006	3369	3830	4653	6444	5667	3691	2476	1497	1159	1108
MAX	6429	7570	9057	10830	10140	12400	12550	7245	8262	5469	4138	6408
(WY)	1955	1998	1973	2005	1956	1945	1993	1978	1972	1977	1958	2004
MIN	255	307	426	847	1724	1802	1727	1127	568	378	363	297
(WY)	1964	1954	1999	1956	1958	1969	1946	1941	1999	1965	1939	1939

KISKIMINETAS RIVER BASIN

03048500 KISKIMINETAS RIVER AT VANDERGRIFT, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	1611975		1140225			
ANNUAL MEAN	4404		3124		3092	
HIGHEST ANNUAL MEAN					4902	2004
LOWEST ANNUAL MEAN					1777	1954
HIGHEST DAILY MEAN	22200	Jan 9	25600	Jan 12	60400	Mar 31 1940
LOWEST DAILY MEAN	500	Oct 29	233	Sep 13	60	Oct 15 1952
ANNUAL SEVEN-DAY MINIMUM	722	Oct 24	237	Sep 10	145	Nov 1 1952
MAXIMUM PEAK FLOW			26300	Jan 11	**a**71900	Mar 31 1940
MAXIMUM PEAK STAGE			15.72	Jan 11	25.70	Mar 31 1940
INSTANTANEOUS LOW FLOW					60	Oct 15 1952
ANNUAL RUNOFF (CFSM)	2.41		1.71		1.69	
ANNUAL RUNOFF (INCHES)	32.86		23.24		23.02	
10 PERCENT EXCEEDS	10400		8290		7160	
50 PERCENT EXCEEDS	2770		1660		1830	
90 PERCENT EXCEEDS	1070		351		490	

a From rating curve extended above 61,000 ft^3/s.



BUFFALO CREEK BASIN

03049000 BUFFALO CREEK NEAR FREEPORT, PA

LOCATION.--Lat 40°42'57", long 79°41'59", Butler County, Hydrologic Unit 05010009, on right bank 0.6 mi upstream from Little Buffalo Creek, 1.6 mi downstream of bridge on SR 3023, and 3 mi north of Freeport.

DRAINAGE AREA.--137 mi^2.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Elevation of gage is 792 ft above National Geodetic Vertical Datum of 1929, by barometer. Prior to July 19, 1962, 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 a base discharge of 2,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1215	*7,110	*9.47	No other peak greater than 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	86	106	970	188	e90	210	235	206	56	44	11	59
2	81	98	747	154	e95	184	520	174	49	28	9.8	26
3	76	153	530	363	e100	168	1070	158	48	23	8.5	18
4	71	182	378	1210	e105	180	903	143	51	18	8.1	13
5	66	320	297	1440	e110	175	964	128	47	27	8.5	11
6	61	255	247	5390	e120	169	694	117	66	106	8.4	9.9
7	58	217	266	2180	e145	365	510	112	67	42	8.8	9.3
8	55	180	339	1250	e350	1050	392	108	47	29	9.7	8.7
9	52	146	295	824	e880	585	305	97	41	23	9.6	8.9
10	51	127	561	631	e750	415	252	e89	54	20	9.0	8.6
11	48	117	488	816	497	350	214	83	149	17	8.7	8.4
12	46	135	425	1580	378	296	181	80	79	16	7.9	7.8
13	45	127	391	1120	297	242	161	70	57	16	7.6	8.0
14	51	103	318	1150	650	200	143	147	46	15	11	7.7
15	59	93	263	763	1110	184	128	169	48	15	7.9	7.4
16	74	90	234	583	781	181	111	118	44	15	7.7	7.5
17	61	88	223	454	567	177	103	99	44	18	8.7	7.9
18	54	87	200	e410	410	190	99	86	37	21	9.4	8.5
19	354	88	200	e340	318	202	93	78	32	19	8.3	16
20	179	99	e140	e290	267	226	92	94	30	15	8.8	15
21	121	99	e115	e250	360	254	122	85	28	16	8.7	17
22	105	89	e165	e230	366	230	96	73	27	36	7.2	13
23	89	89	468	e210	309	255	203	74	24	20	6.7	11
24	143	120	485	e175	273	350	232	91	22	15	6.7	11
25	161	243	e330	e155	253	303	229	91	21	12	6.6	12
26	124	192	e220	e140	229	283	208	71	19	11	6.7	13
27	110	173	e210	e115	198	254	230	63	19	74	6.7	42
28	98	293	e205	e100	204	332	214	77	19	40	6.7	24
29	93	277	e200	e95	---	353	197	92	19	23	7.8	23
30	128	250	174	e90	---	292	207	66	20	17	12	32
31	131	---	180	e85	---	266	---	64	---	13	152	---
TOTAL	2931	4636	10264	22781	10212	8921	9108	3203	1310	804	405.2	464.6
MEAN	94.5	155	331	735	365	288	304	103	43.7	25.9	13.1	15.5
MAX	354	320	970	5390	1110	1050	1070	206	149	106	152	59
MIN	45	87	115	85	90	168	92	63	19	11	6.6	7.4
CFSM	0.69	1.13	2.42	5.36	2.66	2.10	2.22	0.75	0.32	0.19	0.10	0.11
IN.	0.80	1.26	2.79	6.19	2.77	2.42	2.47	0.87	0.36	0.22	0.11	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.6	136	243	263	314	396	315	216	136	82.3	66.5	68.7
MAX	571	720	625	821	861	964	704	525	732	522	511	808
(WY)	1955	1986	1991	1952	1956	1945	1957	1952	1972	1990	1984	2004
MIN	3.63	5.61	7.15	29.3	70.7	49.2	84.9	44.7	20.8	7.75	4.92	5.82
(WY)	1961	1961	1961	1977	1993	1969	1946	1941	1991	1966	1957	1946

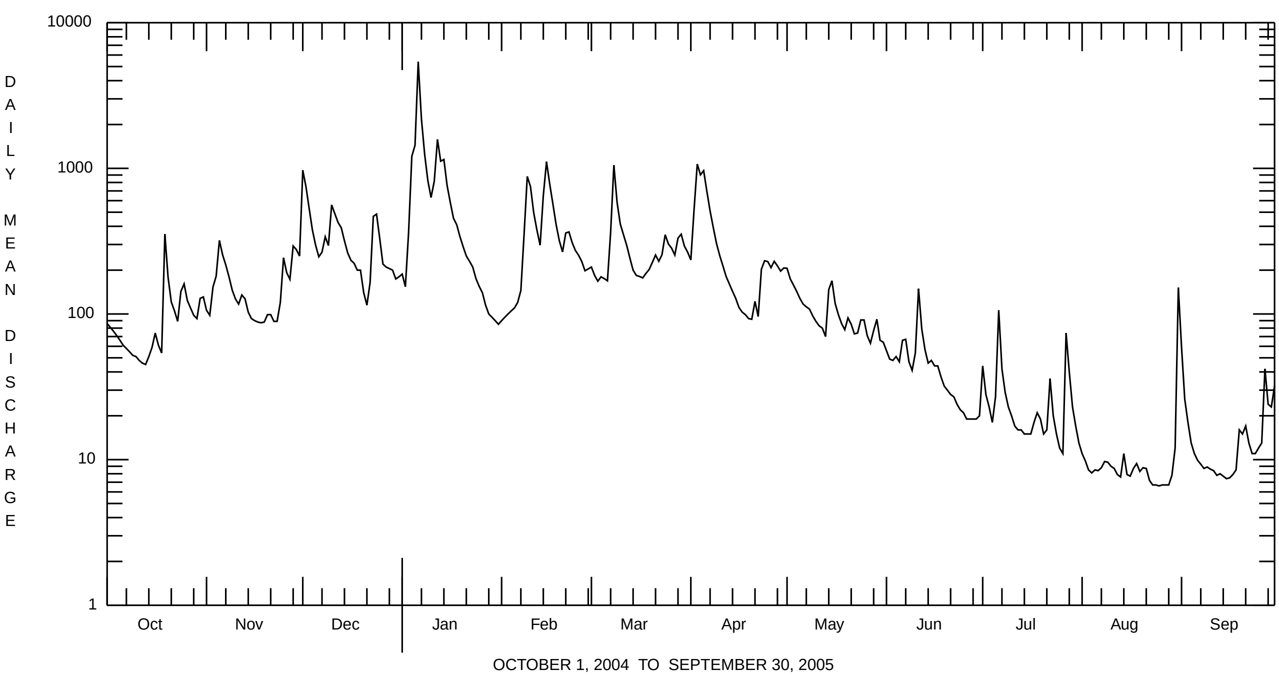
e Estimated.

BUFFALO CREEK BASIN

03049000 BUFFALO CREEK NEAR FREEPORT, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	116329		75039.8			
ANNUAL MEAN	318		206		192	
HIGHEST ANNUAL MEAN					341	2004
LOWEST ANNUAL MEAN					122	1999
HIGHEST DAILY MEAN	7580	Sep 18	5390	Jan 6	7710	Jun 23 1972
LOWEST DAILY MEAN	33	Aug 18	6.6	Aug 25	1.3	Oct 16 1960
ANNUAL SEVEN-DAY MINIMUM	47	Aug 12	6.8	Aug 22	1.7	Oct 13 1960
MAXIMUM PEAK FLOW			7110	Jan 6	**a**16700	Sep 17 2004
MAXIMUM PEAK STAGE			9.47	Jan 6	**b**15.28	Sep 17 2004
INSTANTANEOUS LOW FLOW					1.3	Oct 16 1960**c**
ANNUAL RUNOFF (CFSM)	2.32		1.50		1.40	
ANNUAL RUNOFF (INCHES)	31.59		20.38		19.00	
10 PERCENT EXCEEDS	598		437		455	
50 PERCENT EXCEEDS	174		103		95	
90 PERCENT EXCEEDS	60		9.5		12	

a From rating curve extended above 7,800 ft^3/s on basis of slope-area measurement at gage height 13.60 ft.
b From floodmarks.
c Also Sept. 15, 2002, minimum observed.



OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, PA

LOCATION.--Lat 40°36'55", long 79°43'07", Allegheny County, Hydrologic Unit 05010009, on right bank 520 ft upstream from dam at lock 4 at Natrona, 5.8 mi downstream from Kiskiminetas River, at mile 24.3.

DRAINAGE AREA.--11,410 mi^2, approximately.

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

REVISED RECORDS.--WSP 1435: 1939.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 736.36 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Apr. 14, 1940, nonrecording gage and Apr. 15, 1940 to Oct. 22, 1990, water-stage recorder at same site at datum 0.75 ft higher.

REMARKS.--No estimated daily discharges. Records good. Sharp rises and drops in discharge during periods of low flow may be caused by hydroelectric power production. Flow regulated since 1924 by Piney Reservoir, since May 1940 by Crooked Creek Lake, since December 1940 by Tionesta Lake, since June 1941 by Mahoning Creek Lake, since June 1942 by Loyalhanna Lake, since November 1949 by Chautauqua Lake (station 03013946), since November 1951 by Conemaugh River Lake, since June 1952 by East Branch Clarion River Lake (station 03027000), since October 1965 by Allegheny Reservoir (station 03012520), since July 1970 by Union City Reservoir (station 03021518), since January 1974 by Woodcock Creek Lake (station 03022550). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 32.06 ft, discharge, 365,000 ft^3/s, determined by U.S. Army Corps of Engineers.

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	18100	12000	30800	25500	16500	19800	44000	23200	6990	5340	4610	13400
2	16000	12500	49400	28100	14300	18200	44400	24200	6490	6060	3500	13800
3	13400	13000	56100	31500	12900	16500	65100	22400	6370	5080	3660	11800
4	11100	15200	51500	55900	12900	14500	60300	20800	6480	4920	3320	8920
5	10400	18200	45400	67400	12600	14900	59400	19500	6910	5200	3430	7290
6	10500	20700	39600	104000	11900	13600	58500	18100	5880	4730	3960	6030
7	9060	21600	35500	103000	12100	14900	58200	16600	7210	6810	3560	4200
8	8510	19600	32800	83100	13500	24500	58200	15100	7170	6020	4130	3680
9	7010	18100	34700	86000	19200	34400	55200	12900	6310	5970	4760	4360
10	7070	15800	35700	76400	34300	33000	49200	11600	5850	5390	4260	4300
11	7230	14600	37100	72200	40700	30200	44200	10000	7060	4540	4440	3990
12	7470	13500	36700	78800	40100	27000	38800	8970	6940	5390	3190	2690
13	7520	13400	36400	94100	36100	23600	32700	9350	7030	4420	2850	3710
14	7180	12600	34900	96900	31400	20800	26900	9570	6800	4460	2510	4060
15	7680	11900	32400	103000	36300	18600	23800	11000	6240	4830	3630	5150
16	8050	11800	29300	84900	47300	16400	20100	11000	5900	4770	4790	4140
17	8330	11200	26900	77500	48900	14800	17500	13500	6460	4740	4360	3770
18	8120	10600	23600	66000	43800	14100	15700	11500	6270	5990	3680	3810
19	11800	10400	20600	57300	36300	13800	14200	9980	6640	7040	4130	3140
20	13300	11700	19700	49800	31300	15600	12900	9380	6820	5960	3640	5740
21	14800	12600	15300	45800	32500	20100	13400	8990	6140	5770	3590	5240
22	13600	14400	17900	38400	32900	24800	13000	8700	5790	4830	3790	4340
23	11800	14300	19600	34700	33900	25000	14500	8640	5280	4310	3640	4450
24	11500	13900	39000	28300	32000	28200	18000	7820	4950	4310	3590	4360
25	11200	15200	45400	27400	28800	34100	23100	7830	4240	4640	3670	4770
26	12000	16800	41300	27600	26300	33600	24600	7980	4320	4970	3530	4790
27	10800	19200	41300	25300	23900	31700	25000	7330	4440	6050	3590	7420
28	10200	20300	40900	22900	21700	31600	25700	6890	4260	6730	3850	12300
29	8620	23800	37400	21500	---	37100	25500	6830	4620	6680	3470	9970
30	8560	26400	32200	19600	---	42700	23900	7780	4640	5610	4260	8350
31	10700	---	29400	18000	---	45800	---	7790	---	5150	7590	---
TOTAL	321610	465300	1068800	1750900	784400	753900	1006000	375230	180500	166710	120980	183970
MEAN	10370	15510	34480	56480	28010	24320	33530	12100	6017	5378	3903	6132
MAX	18100	26400	56100	104000	48900	45800	65100	24200	7210	7040	7590	13800
MIN	7010	10400	15300	18000	11900	13600	12900	6830	4240	4310	2510	2690
CFSM	0.91	1.36	3.02	4.95	2.46	2.13	2.94	1.06	0.53	0.47	0.34	0.54
IN.	1.05	1.52	3.48	5.71	2.56	2.46	3.28	1.22	0.59	0.54	0.39	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

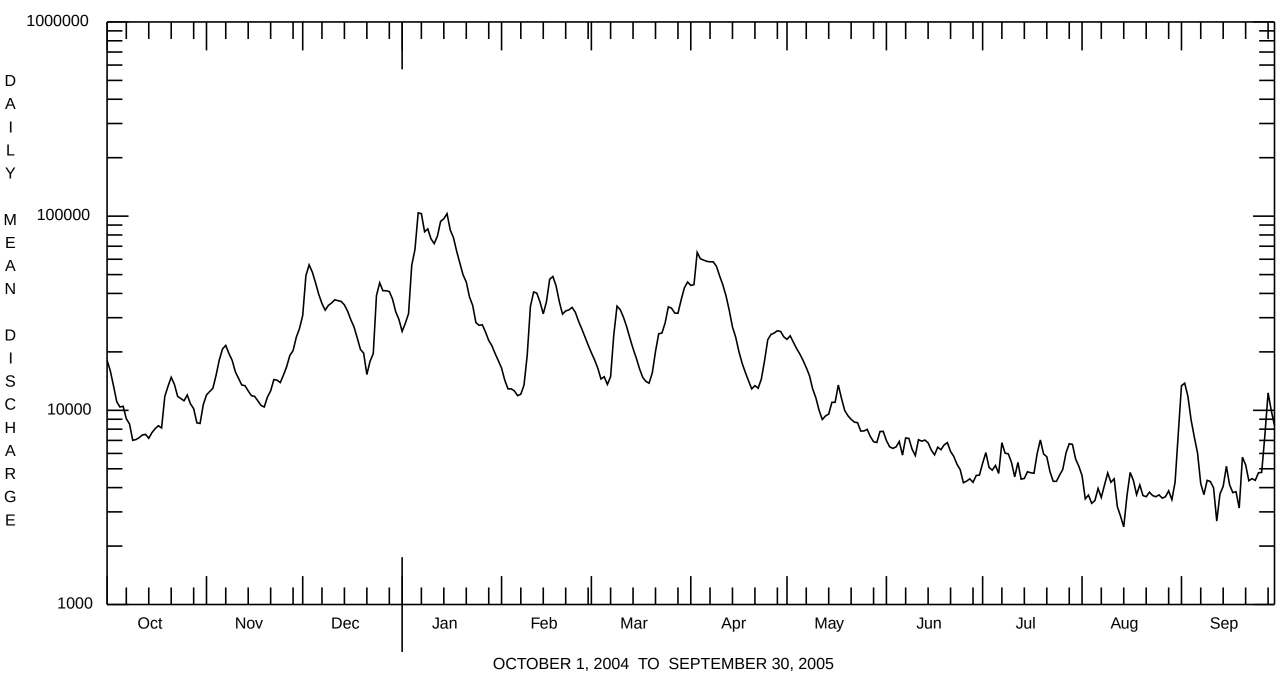
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9725	16450	24100	24870	27050	37960	35430	22910	14710	9157	6939	7564
MAX	34470	45220	48690	68600	53390	87030	83780	48400	45820	34630	23020	47470
(WY)	1991	1986	1978	1952	1976	1945	1940	1943	1989	1972	1956	2004
MIN	1227	2686	2316	4520	7167	10410	9000	6129	3759	1944	1786	1444
(WY)	1964	1954	1961	1961	1963	1969	1946	1941	1991	1966	1962	1939

OHIO RIVER MAIN STEM

03049500 ALLEGHENY RIVER AT NATRONA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	10094100		7178300			
ANNUAL MEAN	27580		19670		19700	
HIGHEST ANNUAL MEAN					30090	2004
LOWEST ANNUAL MEAN					12680	1999
HIGHEST DAILY MEAN	164000	Sep 18	104000	Jan 6	206000	Dec 31 1942
LOWEST DAILY MEAN	5390	Jul 4	2510	Aug 14	949	Oct 26 1963
ANNUAL SEVEN-DAY MINIMUM	6350	Jul 4	3570	Aug 12	1030	Oct 25 1963
MAXIMUM PEAK FLOW			122000	Jan 6	**a**238000	Dec 30 1942
MAXIMUM PEAK STAGE			19.84	Jan 6	**b**27.46	Dec 30 1942
INSTANTANEOUS LOW FLOW					985	Oct 22 1963
ANNUAL RUNOFF (CFSM)	2.42		1.72		1.73	
ANNUAL RUNOFF (INCHES)	32.91		23.40		23.45	
10 PERCENT EXCEEDS	55300		44100		44800	
50 PERCENT EXCEEDS	22200		12900		13200	
90 PERCENT EXCEEDS	8270		4260		3240	

a From rating curve extended above 172,000 ft^3/s.
b Datum then in use.



OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

LOCATION.--Lat 40°32'10", long 79°48'54", Westmoreland County, Hydrologic Unit 05010009, on left bank 15 ft upstream from upper gate on river wall, at river mile 14.5.

DRAINAGE AREA.--11,592 mi^2.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 2004 to current year.
pH: October 2004 to current year.
WATER TEMPERATURE: October 2004 to current year.
DISSOLVED OXYGEN: October 2004 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods Dec. 22, 27-29, Jan. 10, 14-31, Feb. 1-14, and Sept. 14, which are poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 468 microsiemens, Aug. 17; minimum, 155 microsiemens, Jan. 7.
pH: Maximim 8.1, Nov. 24, 25; minimum, 6.9, Jan. 7, 8.
WATER TEMPERATURE: Maximum, 30.6°C, Aug. 4; minimum recorded, 0.2°C, Dec. 24, 25.
DISSOLVED OXYGEN: Maximum recorded, 15.0 mg/L, Feb. 21; minimum, 6.2 mg/L, Aug. 23, Sept. 23.

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	241	222	229	315	276	298	266	242	249	207	202	204
2	252	227	241	316	303	308	254	213	231	212	206	209
3	249	235	242	345	307	319	228	195	215	218	209	214
4	250	235	243	348	324	336	195	169	176	225	197	213
5	256	249	253	335	320	326	170	160	164	200	177	192
6	269	252	260	320	297	307	173	160	165	177	158	170
7	293	269	284	302	285	294	182	165	176	161	155	158
8	301	283	290	294	270	284	193	180	185	185	157	178
9	312	301	308	287	268	274	203	191	195	184	174	178
10	314	305	310	269	254	264	213	199	206	176	171	173
11	336	312	326	268	242	260	210	199	204	180	174	177
12	327	306	316	262	241	254	203	198	200	183	179	182
13	327	319	322	268	253	257	199	193	197	192	182	188
14	325	318	321	272	251	260	194	189	191	182	167	171
15	326	316	322	274	252	263	191	187	189	172	166	169
16	337	320	329	298	274	288	191	187	189	169	166	167
17	340	332	336	280	273	275	194	187	191	177	168	173
18	343	331	337	277	271	275	200	193	195	184	177	180
19	355	337	343	291	275	281	207	198	201	190	180	184
20	374	346	363	292	279	286	219	204	209	203	190	195
21	349	332	340	282	266	269	224	218	221	219	202	211
22	353	340	345	282	267	275	---	---	---	237	218	227
23	355	347	351	306	280	296	240	224	229	239	214	231
24	348	340	344	303	295	299	240	231	235	---	---	---
25	358	345	353	299	280	289	257	228	242	---	---	---
26	345	313	325	286	278	283	231	221	223	---	---	---
27	321	297	312	284	274	279	222	212	218	---	---	---
28	303	296	299	284	268	274	215	204	210	---	---	---
29	314	302	309	283	264	275	211	190	199	---	---	---
30	311	301	304	276	253	262	192	185	188	---	---	---
31	306	277	294	---	---	---	204	187	193	---	---	---
MONTH	374	222	308	348	241	284	266	160	203	239	155	189

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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	---	---	---	267	256	262	205	198	201	230	225	228
2	---	---	---	276	262	270	207	198	202	236	227	230
3	---	---	---	286	270	276	205	196	200	236	231	233
4	---	---	---	286	274	281	198	178	187	233	227	231
5	---	---	---	298	282	292	184	178	181	227	218	222
6	---	---	---	302	287	294	194	182	187	222	218	221
7	---	---	---	311	296	300	185	180	182	226	222	225
8	---	---	---	315	299	309	181	176	178	232	226	229
9	---	---	---	313	284	299	179	174	176	236	230	232
10	---	---	---	318	306	313	181	174	176	239	233	236
11	---	---	---	306	273	284	181	172	175	245	238	242
12	---	---	---	274	266	269	180	175	177	258	243	251
13	---	---	---	273	265	269	188	178	183	263	246	252
14	---	---	---	277	266	272	201	186	194	262	246	254
15	255	226	244	282	275	280	208	201	205	264	247	259
16	241	222	231	282	280	281	212	207	209	273	261	267
17	242	214	225	291	276	284	219	207	212	282	255	265
18	215	204	209	300	289	296	232	219	227	289	263	273
19	208	203	206	300	287	293	258	232	242	302	271	280
20	211	205	208	300	289	294	249	242	245	290	282	285
21	220	207	215	311	300	306	256	243	250	286	283	285
22	225	210	218	300	287	293	281	256	269	284	277	279
23	234	216	224	296	287	292	297	281	285	277	270	274
24	250	233	241	290	266	279	291	274	283	288	277	281
25	251	241	246	273	263	268	287	275	280	304	288	297
26	248	240	245	269	259	265	305	282	292	292	276	283
27	252	240	245	259	243	248	301	269	283	291	276	282
28	265	245	251	249	241	244	270	245	258	346	291	322
29	---	---	---	250	239	246	246	233	243	358	346	354
30	---	---	---	242	229	238	237	228	233	374	338	358
31	---	---	---	229	204	216	---	---	---	346	331	336
MONTH	265	203	229	318	204	278	305	172	220	374	218	267

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	362	331	349	370	356	363	316	305	311	374	362	367
2	364	358	359	361	351	356	315	311	312	362	348	353
3	361	343	355	366	360	364	319	312	315	348	322	334
4	358	340	343	372	363	367	338	318	328	322	298	308
5	351	330	341	364	348	355	354	325	345	338	298	317
6	337	330	332	370	356	366	353	346	350	398	337	365
7	360	332	342	415	369	384	348	342	345	403	394	400
8	372	355	362	394	366	385	344	339	341	407	403	405
9	397	372	383	366	340	355	356	344	350	405	400	402
10	383	347	361	340	334	337	357	351	354	401	384	391
11	367	347	355	342	340	341	402	354	375	384	366	371
12	350	330	340	340	334	336	422	402	416	367	353	358
13	341	328	333	343	334	338	431	418	427	353	338	347
14	336	328	332	370	343	358	427	414	422	341	327	332
15	370	336	348	386	370	381	422	406	413	329	317	323
16	411	370	389	395	383	386	437	407	416	318	315	317
17	411	363	394	411	393	404	468	437	453	319	311	316
18	365	341	347	417	408	413	462	452	459	314	310	312
19	350	337	342	412	405	409	452	406	430	314	301	306
20	340	337	338	406	377	391	406	388	395	317	300	307
21	344	336	339	385	377	381	388	381	384	329	317	323
22	352	341	346	382	378	380	394	387	391	350	329	340
23	354	344	349	387	376	379	406	393	400	362	350	357
24	349	339	341	389	385	388	410	396	401	380	356	369
25	343	337	339	389	374	379	411	400	406	383	359	375
26	351	341	345	374	366	371	432	410	420	360	335	342
27	365	349	354	408	371	381	434	426	431	403	336	373
28	365	357	359	420	408	415	434	427	430	415	372	403
29	359	356	357	414	368	395	433	427	431	372	295	317
30	366	358	363	371	325	352	434	402	421	299	294	297
31	---	---	---	327	311	317	402	365	381	---	---	---
MONTH	411	328	351	420	311	372	468	305	389	415	294	348
YEAR	468	155	292									

OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	7.5	7.4	7.5	7.2	7.2	7.2	7.3	7.3	7.3
2	---	---	---	7.6	7.5	7.5	7.2	7.1	7.2	7.3	7.3	7.3
3	---	---	---	7.5	7.5	7.5	7.2	7.1	7.2	7.3	7.3	7.3
4	---	---	---	7.5	7.4	7.5	7.1	7.0	7.0	7.3	7.2	7.3
5	---	---	---	7.5	7.4	7.4	7.0	7.0	7.0	7.3	7.3	7.3
6	---	---	---	7.4	7.4	7.4	7.0	7.0	7.0	7.3	7.3	7.3
7	---	---	---	7.5	7.4	7.5	7.1	7.0	7.0	7.3	7.3	7.3
8	---	---	---	7.5	7.5	7.5	7.1	7.0	7.1	7.4	7.3	7.4
9	---	---	---	7.6	7.5	7.5	7.1	7.1	7.1	7.4	7.2	7.3
10	---	---	---	7.5	7.4	7.5	7.1	7.1	7.1	7.5	7.4	7.4
11	---	---	---	7.4	7.4	7.4	7.2	7.1	7.1	7.8	7.4	7.6
12	---	---	---	7.4	7.4	7.4	7.2	7.2	7.2	7.7	7.5	7.5
13	---	---	---	7.4	7.4	7.4	7.3	7.2	7.2	7.7	7.5	7.6
14	---	---	---	7.4	7.3	7.4	7.4	7.2	7.3	7.6	7.3	7.4
15	7.3	7.2	7.3	7.4	7.3	7.4	7.4	7.3	7.3	7.6	7.5	7.5
16	7.4	7.3	7.3	7.3	7.3	7.3	7.5	7.3	7.4	7.5	7.4	7.5
17	7.4	7.4	7.4	7.3	7.0	7.3	7.6	7.5	7.5	7.5	7.4	7.5
18	7.4	7.3	7.4	7.1	7.0	7.1	7.8	7.6	7.7	7.5	7.4	7.5
19	7.3	7.3	7.3	7.2	7.1	7.2	7.7	7.6	7.7	7.6	7.5	7.5
20	7.3	7.3	7.3	7.2	7.2	7.2	7.7	7.6	7.6	7.6	7.4	7.5
21	7.3	7.3	7.3	7.2	7.2	7.2	7.7	7.6	7.6	7.5	7.4	7.4
22	7.4	7.3	7.3	7.4	7.2	7.3	7.7	7.5	7.6	7.5	7.3	7.4
23	7.4	7.4	7.4	7.4	7.3	7.4	7.5	7.5	7.5	7.4	7.3	7.4
24	7.4	7.4	7.4	7.4	7.3	7.3	7.5	7.4	7.5	7.4	7.3	7.4
25	7.4	7.4	7.4	7.3	7.2	7.3	7.5	7.4	7.4	7.4	7.3	7.4
26	7.4	7.4	7.4	7.3	7.2	7.2	7.6	7.5	7.5	7.5	7.4	7.4
27	7.5	7.4	7.4	7.2	7.1	7.2	7.5	7.4	7.5	7.5	7.4	7.4
28	7.5	7.4	7.4	7.2	7.1	7.1	7.4	7.4	7.4	7.4	7.3	7.4
29	---	---	---	7.2	7.1	7.2	7.4	7.3	7.4	7.4	7.3	7.4
30	---	---	---	7.2	7.2	7.2	7.3	7.3	7.3	7.3	7.2	7.3
31	---	---	---	7.2	7.2	7.2	---	---	---	7.4	7.3	7.4
MAX	7.5	7.4	7.4	7.6	7.5	7.5	7.8	7.6	7.7	7.8	7.5	7.6
MIN	7.3	7.2	7.3	7.1	7.0	7.1	7.0	7.0	7.0	7.3	7.2	7.3

OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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

YEAR MAX MAXIMUM 8.1 MINIMUM 7.0
MIN MAXIMUM 7.9 MINIMUM 6.9
MEDIAN MAXIMUM 8.1 MINIMUM 6.9

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	18.0	17.7	17.8	13.3	13.0	13.1	6.4	6.3	6.4	2.2	1.5	1.9
2	18.2	17.8	18.0	13.7	13.2	13.4	6.3	6.0	6.1	3.0	2.2	2.5
3	17.8	17.3	17.5	13.7	13.3	13.5	6.0	5.5	5.8	3.9	3.0	3.3
4	17.9	17.2	17.7	13.8	13.3	13.5	5.5	5.0	5.3	4.5	3.9	4.3
5	17.2	16.8	16.9	13.4	12.6	13.0	5.1	5.0	5.1	5.2	4.4	5.0
6	16.9	16.6	16.7	12.6	11.8	12.0	5.1	5.0	5.1	5.3	5.1	5.2
7	17.6	16.6	16.7	11.8	11.3	11.5	5.7	5.1	5.4	5.1	4.2	4.6
8	17.7	16.8	17.0	11.3	10.3	10.7	6.1	5.7	5.9	4.2	4.1	4.2
9	18.5	16.8	17.3	10.3	9.3	9.8	6.2	6.0	6.0	4.2	4.1	4.2
10	18.3	16.9	17.3	9.4	8.9	9.1	6.7	6.2	6.5	4.3	4.1	4.2
11	17.3	16.4	16.8	9.6	8.8	9.1	6.7	6.4	6.6	4.2	4.1	4.1
12	17.2	16.3	16.7	9.6	9.0	9.2	6.4	5.9	6.1	4.6	4.2	4.4
13	16.7	15.6	16.0	9.3	8.3	8.7	5.9	5.4	5.7	5.0	4.4	4.6
14	15.8	14.7	15.4	8.5	7.8	8.1	5.4	4.6	5.1	5.0	4.8	5.0
15	15.6	14.4	14.8	7.8	7.2	7.5	4.6	3.7	4.2	4.8	4.4	4.6
16	14.8	14.2	14.5	7.5	7.1	7.3	3.7	3.0	3.3	4.4	3.3	3.9
17	14.2	13.5	13.8	7.9	7.2	7.6	3.0	2.7	2.8	3.3	2.3	2.7
18	13.5	12.9	13.2	8.1	7.5	7.8	2.7	2.2	2.4	2.3	1.6	1.9
19	13.1	12.7	12.9	7.8	7.6	7.7	2.3	1.8	2.1	1.6	1.0	1.2
20	12.8	12.3	12.5	8.1	7.7	7.9	1.8	1.2	1.5	1.0	0.8	0.9
21	13.1	12.3	12.7	8.0	7.7	7.8	1.2	0.8	0.9	0.8	0.4	0.6
22	13.1	12.6	12.8	8.2	7.6	7.8	1.6	0.8	1.2	---	---	---
23	12.8	11.8	12.3	8.6	7.9	8.2	1.8	1.5	1.7	---	---	---
24	12.0	11.7	11.8	9.1	8.6	8.8	1.6	0.2	0.9	---	---	---
25	12.1	11.7	11.9	9.4	9.1	9.3	0.8	0.2	0.6	---	---	---
26	12.6	12.0	12.3	9.3	8.8	9.1	0.8	0.3	0.6	---	---	---
27	12.9	12.5	12.7	8.8	8.0	8.3	---	---	---	---	---	---
28	13.2	12.8	13.0	8.0	7.4	7.8	---	---	---	---	---	---
29	13.7	12.8	13.1	7.4	6.7	7.0	---	---	---	---	---	---
30	13.2	12.9	13.1	6.7	6.3	6.4	0.8	0.5	0.6	---	---	---
31	13.2	13.0	13.1	---	---	---	1.5	0.8	1.1	---	---	---
MONTH	18.5	11.7	14.8	13.8	6.3	9.4	6.7	0.2	3.8	5.3	0.4	3.5

OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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	---	---	---	1.6	1.4	1.5	7.8	7.1	7.5	10.4	10.0	10.2
2	---	---	---	1.4	1.2	1.3	8.2	7.8	8.1	10.3	9.9	10.1
3	---	---	---	1.3	1.1	1.2	8.0	7.1	7.5	10.2	9.9	10.0
4	---	---	---	1.1	0.9	1.0	7.1	6.0	6.4	10.4	9.7	10.1
5	---	---	---	1.2	0.8	1.1	6.0	5.7	5.8	10.6	10.0	10.3
6	---	---	---	1.5	1.1	1.3	7.0	6.0	6.4	10.8	10.6	10.7
7	---	---	---	2.2	1.5	1.8	7.9	7.0	7.4	10.9	10.7	10.8
8	---	---	---	2.3	1.9	2.2	8.8	7.9	8.4	11.4	10.7	11.0
9	---	---	---	2.3	1.5	1.9	9.1	8.7	8.8	12.2	11.2	11.5
10	---	---	---	2.5	2.0	2.2	9.5	9.0	9.2	13.0	12.2	12.6
11	---	---	---	2.0	1.4	1.7	10.0	9.4	9.7	16.7	12.9	14.0
12	---	---	---	1.4	1.0	1.1	10.1	9.6	9.8	16.0	14.2	14.9
13	---	---	---	1.3	1.0	1.1	10.4	9.5	9.9	16.4	15.3	15.5
14	---	---	---	1.5	1.1	1.3	10.5	9.7	10.1	17.4	15.8	16.1
15	2.1	1.5	1.8	1.8	1.5	1.6	10.8	10.1	10.4	16.8	16.4	16.7
16	2.6	2.0	2.4	2.3	1.8	2.0	11.3	10.6	10.9	17.1	16.8	16.9
17	3.2	2.5	2.9	2.7	2.1	2.4	11.8	11.3	11.5	17.7	16.9	17.2
18	3.0	2.4	2.8	3.0	2.5	2.7	12.4	11.8	12.2	18.1	17.6	17.9
19	2.4	1.7	2.0	3.4	3.0	3.2	13.4	12.4	12.9	18.2	17.8	18.0
20	1.7	1.0	1.4	4.0	3.4	3.6	13.6	13.1	13.3	18.1	17.4	17.7
21	1.0	0.7	0.8	4.2	3.8	4.0	14.3	13.6	13.9	17.6	17.1	17.3
22	1.2	0.7	0.9	4.7	4.0	4.3	14.5	13.7	14.1	17.3	16.9	17.2
23	1.6	1.1	1.3	4.8	4.7	4.7	14.3	13.8	14.0	16.9	16.5	16.8
24	1.8	1.5	1.7	4.7	4.1	4.4	14.0	13.5	13.7	16.6	16.1	16.4
25	1.9	1.6	1.7	4.6	4.0	4.3	13.5	12.3	12.8	16.6	16.3	16.4
26	2.0	1.8	1.9	4.6	4.4	4.5	12.3	11.2	11.7	16.7	16.1	16.4
27	1.9	1.4	1.6	4.5	4.3	4.4	11.2	10.1	10.5	17.0	16.6	16.7
28	1.7	1.4	1.5	4.8	4.4	4.6	10.1	9.6	9.7	17.0	16.8	16.9
29	---	---	---	5.6	4.7	5.1	10.0	9.6	9.8	17.4	17.0	17.2
30	---	---	---	6.4	5.6	6.0	10.3	9.9	10.1	17.8	17.4	17.6
31	---	---	---	7.1	6.3	6.8	---	---	---	20.0	17.5	18.2
MONTH	3.2	0.7	1.8	7.1	0.8	2.9	14.5	5.7	10.2	20.0	9.7	14.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	19.5	18.0	18.6	27.6	26.7	27.0	29.3	28.0	28.5	24.8	24.5	24.7
2	19.2	18.2	18.5	28.1	26.6	27.0	29.4	28.2	28.7	24.8	24.6	24.7
3	18.6	18.5	18.6	27.1	26.6	26.9	29.9	28.2	28.5	24.7	24.2	24.4
4	19.9	18.6	18.9	28.1	26.8	27.2	30.6	28.0	28.5	24.4	23.6	23.9
5	22.4	18.9	20.0	28.5	26.8	27.5	29.0	28.0	28.3	24.0	23.2	23.6
6	21.8	19.9	20.7	28.2	27.0	27.5	29.6	27.9	28.5	24.1	23.1	23.5
7	23.7	20.6	21.8	28.0	27.2	27.7	29.1	27.6	28.0	24.1	23.1	23.4
8	23.8	21.5	22.5	28.0	27.1	27.4	29.4	27.5	27.9	24.3	23.1	23.5
9	24.4	22.4	23.3	28.2	26.9	27.2	28.6	27.3	27.8	24.1	23.3	23.5
10	25.4	22.6	23.3	29.6	27.0	27.5	27.8	27.5	27.6	24.0	23.4	23.7
11	25.8	23.7	24.9	28.2	27.2	27.6	28.2	27.5	27.7	24.5	23.6	23.9
12	27.1	24.0	25.1	29.2	27.2	27.9	29.8	27.7	28.2	24.6	23.7	24.0
13	27.3	24.9	25.7	28.3	27.1	27.7	30.3	27.8	28.6	24.6	23.6	23.8
14	27.3	25.6	26.4	28.5	27.3	27.9	29.5	28.2	28.5	25.0	23.6	23.9
15	26.8	26.0	26.3	29.0	27.1	27.8	28.7	28.3	28.5	24.2	23.6	23.8
16	27.6	26.1	26.6	28.4	27.2	27.6	28.5	27.6	28.1	24.4	23.8	24.1
17	26.8	25.4	26.0	29.7	27.3	28.0	28.8	27.4	27.9	24.4	23.9	24.2
18	26.3	25.0	25.5	30.1	27.6	28.3	27.8	27.3	27.5	24.4	23.9	24.0
19	25.4	24.9	25.1	29.7	27.6	28.5	27.9	27.1	27.4	24.2	23.7	23.9
20	26.3	24.7	25.1	29.8	27.7	28.4	27.7	27.2	27.4	25.1	23.7	24.0
21	26.5	24.5	24.9	30.0	27.9	28.4	27.8	27.3	27.5	24.7	23.7	24.1
22	26.0	24.9	25.4	29.5	27.9	28.3	28.6	27.2	27.6	24.4	23.6	24.0
23	27.3	25.2	25.7	30.4	28.0	28.7	28.0	27.4	27.6	25.9	23.6	24.0
24	26.6	25.2	25.7	29.6	28.0	28.4	27.5	26.7	27.2	25.1	23.5	24.2
25	27.8	25.4	25.9	29.0	27.8	28.3	27.4	26.3	26.8	24.0	23.2	23.5
26	27.1	25.6	26.2	29.8	27.8	28.2	26.8	25.9	26.2	23.7	23.1	23.3
27	27.8	26.0	26.6	29.4	27.8	28.5	26.5	25.8	26.0	24.5	23.0	23.4
28	27.2	26.2	26.5	29.0	27.9	28.4	27.0	25.4	25.9	23.1	22.7	22.9
29	28.1	26.4	26.9	30.2	27.9	28.5	26.0	25.3	25.5	22.8	22.5	22.7
30	27.4	26.6	26.9	29.5	28.0	28.3	26.0	25.1	25.6	23.2	21.7	22.1
31	---	---	---	29.9	28.0	28.8	26.5	24.7	25.2	---	---	---
MONTH	28.1	18.0	24.1	30.4	26.6	27.9	30.6	24.7	27.5	25.9	21.7	23.8
YEAR	30.6	0.2	14.7									

OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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	10.6	10.2	10.4	11.5	11.0	11.2	---	---	---	11.5	11.3	11.4
2	10.3	9.8	10	11.6	11.1	11.3	---	---	---	11.6	11.4	11.5
3	9.9	9.6	9.8	13.5	11.1	11.9	---	---	---	12.1	11.5	11.7
4	9.6	9.3	9.4	12.2	11.6	11.9	---	---	---	12.1	11.8	12.0
5	9.4	9.2	9.3	11.7	11.5	11.6	---	---	---	12.8	12.0	12.4
6	9.7	9.2	9.4	11.9	11.5	11.7	---	---	---	12.9	12.0	12.3
7	9.7	9.4	9.5	12.2	11.8	11.9	---	---	---	13.2	12.1	12.7
8	9.8	9.6	9.7	12.9	12.1	12.3	13.7	13.3	13.5	13.8	13.2	13.5
9	9.8	9.5	9.7	12.7	12.5	12.6	13.4	13.3	13.4	14.1	13.7	13.9
10	9.8	9.4	9.6	12.8	10.8	12.1	13.3	12.9	13.1	---	---	---
11	9.8	9.5	9.7	10.8	10.6	10.7	12.9	12.8	12.8	14.6	14.4	14.5
12	10.0	9.6	9.8	10.7	10.4	10.6	13.1	12.9	13.0	14.4	14.1	14.2
13	10.2	9.8	10.0	10.5	10.0	10.2	13.3	13.1	13.1	14.3	14.1	14.2
14	10.2	9.8	10.0	10.1	9.8	9.9	13.8	13.3	13.5	14.2	14.0	14.1
15	10.0	9.8	10	9.9	9.6	9.8	14.1	13.8	13.9	14.5	14.2	14.4
16	10.0	9.9	10	9.9	9.6	9.7	14.4	14.1	14.3	14.4	14.3	14.4
17	10.2	10.0	10.1	10.0	9.7	9.8	14.5	14.4	14.5	14.4	14.4	14.4
18	10.4	10.1	10.2	10.2	9.8	10.0	14.5	14.5	14.5	14.5	14.4	14.4
19	10.4	10.3	10.4	10.5	10.1	10.3	14.5	14.2	14.3	14.4	14.0	14.2
20	10.6	10.4	10.5	10.8	10.4	10.6	14.2	14.1	14.2	14.0	13.4	13.8
21	10.5	10.3	10.4	11.2	10.8	11.0	14.3	14.2	14.2	13.4	13.2	13.3
22	10.6	10.5	10.5	11.5	11.1	11.3	14.3	13.3	14.0	13.2	12.7	13.0
23	10.8	10.5	10.7	12.0	11.5	11.8	13.4	12.4	12.9	12.7	12.6	12.6
24	10.9	10.7	10.8	12.3	10.8	11.6	12.7	12.4	12.6	---	---	---
25	10.9	10.7	10.8	12.9	11.5	12.3	12.6	12.3	12.5	---	---	---
26	10.8	10.6	10.7	---	---	---	12.4	11.9	12.2	---	---	---
27	---	---	---	---	---	---	12.0	11.7	11.9	---	---	---
28	10.6	9.9	10.1	---	---	---	11.8	11.5	11.6	---	---	---
29	9.9	9.6	9.8	---	---	---	11.9	11.3	11.5	---	---	---
30	10.6	9.6	9.9	---	---	---	11.4	11.3	11.3	---	---	---
31	11.7	10.3	10.9	---	---	---	11.5	11.3	11.3	---	---	---
MONTH	11.7	9.2	10.1	13.5	9.6	11.1	14.5	11.3	13.1	14.6	11.3	13.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	14.3	13.9	14.1	11.5	11.3	11.4	11.6	11.3	11.5
2	---	---	---	14.0	13.6	13.8	11.4	11.0	11.2	11.6	11.3	11.5
3	---	---	---	14.2	13.8	14.0	11.8	11.0	11.4	11.9	11.4	11.6
4	---	---	---	14.4	14.1	14.3	12.4	11.7	12.1	12.1	11.5	11.8
5	---	---	---	14.5	14.2	14.4	12.6	12.2	12.4	11.8	11.5	11.7
6	---	---	---	14.6	14.3	14.4	12.6	12.2	12.3	11.8	11.4	11.6
7	---	---	---	14.5	14.1	14.3	12.3	11.9	12.1	11.6	11.4	11.6
8	---	---	---	14.2	13.8	14.0	12.8	11.8	12.1	11.6	11.4	11.5
9	---	---	---	14.5	14.1	14.3	12.2	11.8	12.1	11.6	11.2	11.4
10	---	---	---	14.5	14.2	14.4	12.2	11.9	12.0	11.3	10.8	11.1
11	---	---	---	14.8	14.4	14.6	12.1	11.8	12.0	11.0	10.4	10.8
12	---	---	---	14.8	14.4	14.7	12.1	11.8	12.0	10.7	10.3	10.5
13	---	---	---	14.8	14.5	14.7	12.1	11.8	12.0	10.5	10.0	10.2
14	---	---	---	14.7	14.4	14.6	12.0	11.8	11.9	10.1	9.7	9.8
15	14.1	13.7	13.9	14.7	14.4	14.6	11.9	11.5	11.7	9.7	9.3	9.5
16	14.0	13.7	13.8	14.6	14.1	14.4	12.0	11.6	11.8	9.4	9.1	9.3
17	13.9	13.4	13.5	14.9	11.5	13.3	12.1	11.7	11.9	9.2	8.9	9.1
18	13.9	13.4	13.7	14.7	11.4	12.0	12.1	11.7	11.9	9.2	8.9	9.0
19	14.5	13.8	14.2	11.6	11.2	11.4	12.0	11.6	11.8	9.2	8.8	9.0
20	14.8	14.3	14.5	11.3	11.0	11.2	11.8	11.5	11.7	9.2	8.8	9.0
21	15.0	14.8	14.9	11.1	10.9	11.0	11.7	11.0	11.3	9.2	8.7	8.9
22	14.9	14.5	14.7	11.2	11.0	11.1	11.3	10.9	11.1	9.2	9.0	9.1
23	14.7	14.3	14.5	11.2	11.0	11.1	11.1	10.7	10.9	9.3	9.0	9.2
24	14.4	14.3	14.4	11.5	11.1	11.3	11.0	10.6	10.9	9.2	9.0	9.1
25	14.3	14.1	14.3	11.6	11.3	11.5	11.2	10.7	10.9	9.2	8.6	9.1
26	14.4	14.2	14.3	11.7	11.5	11.6	11.4	11.0	11.2	9.4	9.0	9.2
27	14.5	14.3	14.4	11.8	11.6	11.7	11.6	11.2	11.4	9.3	8.6	9.2
28	14.6	14.2	14.4	11.8	11.5	11.7	11.7	11.4	11.6	9.3	9.0	9.1
29	---	---	---	11.7	11.4	11.6	11.8	11.4	11.6	9.2	9.0	9.1
30	---	---	---	11.7	11.4	11.6	11.7	11.3	11.5	9.1	8.9	9.0
31	---	---	---	11.7	11.3	11.5	---	---	---	9.1	8.6	8.9
MONTH	15.0	13.4	14.2	14.9	10.9	13.0	12.8	10.6	11.7	12.1	8.6	10.0

OHIO RIVER MAIN STEM

03049640 ALLEGHENY RIVER ABOVE LOCK AND DAM NO. 3 AT ACMETONIA, PA

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	9.2	8.8	9.0	8.1	7.3	7.7	8.1	7.2	7.7	8.2	8.0	8.1
2	9.1	8.8	9.0	8.1	7.1	7.5	7.5	6.6	7.1	8.4	8.1	8.2
3	9.1	8.7	8.9	7.7	7.2	7.5	8.4	7.2	7.8	8.7	8.3	8.5
4	9.1	8.8	8.9	7.5	6.8	7.3	9.0	7.3	7.9	8.7	8.0	8.3
5	9.4	8.7	9.0	7.5	6.8	7.1	8.4	7.4	8.0	9.0	7.8	8.5
6	9.1	8.6	8.9	7.3	6.6	6.9	---	---	---	9.1	8.5	8.8
7	9.2	8.7	9.0	7.3	6.6	7.0	---	---	---	8.8	8.3	8.5
8	8.9	8.5	8.7	7.6	6.8	7.2	---	---	---	9.0	8.3	8.6
9	9.0	8.4	8.7	8.0	7.0	7.2	---	---	---	8.9	8.4	8.6
10	8.7	8.3	8.5	7.6	6.9	7.2	7.3	6.6	6.9	8.9	8.4	8.6
11	8.8	8.3	8.5	7.5	6.7	7.1	7.9	6.8	7.3	9.0	8.4	8.7
12	8.8	8.1	8.4	7.6	6.6	7.2	8.0	7.1	7.5	8.8	8.3	8.5
13	8.8	8.1	8.3	7.3	6.4	7.0	8.1	7.2	7.5	8.7	8.1	8.4
14	8.4	7.7	8.0	7.0	6.4	6.8	8.3	7.5	7.8	9.0	7.8	8.5
15	7.8	7.3	7.4	7.2	6.3	6.7	7.8	7.2	7.5	9.0	7.6	8.0
16	7.4	6.9	7.1	7.2	6.7	6.9	7.5	6.7	7.2	8.2	7.2	7.8
17	7.4	6.9	7.1	7.6	6.7	7.1	7.5	6.8	7.2	8.2	7.1	7.5
18	7.6	7.1	7.3	7.5	6.5	7.1	8.2	7.0	7.6	7.5	6.6	7.2
19	7.8	7.3	7.5	7.7	7.0	7.4	8.4	7.2	7.7	7.1	6.6	6.8
20	8.0	7.4	7.6	7.8	7.3	7.5	8.6	7.4	7.9	7.3	6.6	6.8
21	7.9	7.6	7.7	7.7	7.1	7.5	9.1	6.6	7.7	7.4	6.7	6.9
22	7.9	7.5	7.7	7.4	6.8	7.2	7.7	6.6	7.2	7.1	6.5	6.7
23	8.2	7.7	7.8	7.4	6.9	7.1	6.9	6.2	6.6	7.3	6.2	6.7
24	8.2	7.5	7.8	7.2	6.8	7.0	7.4	6.6	7.1	7.2	6.4	6.9
25	8.6	7.5	7.9	7.2	6.8	7.0	7.7	6.9	7.3	7.3	6.4	6.8
26	8.2	7.5	7.8	7.2	6.8	7.0	7.4	7.0	7.2	7.8	7.0	7.3
27	8.2	7.4	7.7	---	---	---	7.5	7.1	7.3	8.5	7.0	7.8
28	8.3	7.3	7.7	9.5	8.0	8.9	8.0	7.2	7.5	8.0	7.4	7.7
29	8.1	7.2	7.6	9.4	8.6	9.0	7.6	7.2	7.4	7.9	7.4	7.7
30	8.3	7.2	7.6	9.0	8.2	8.6	8.0	7.4	7.7	8.9	7.6	8.2
31	---	---	---	8.8	7.6	8.3	8.1	7.6	7.8	---	---	---
MONTH	9.4	6.9	8.1	9.5	6.3	7.4	9.1	6.2	7.5	9.1	6.2	7.9
YEAR	15.0	6.2	10.3									

PINE CREEK BASIN

03049800 LITTLE PINE CREEK NEAR ETNA, PA

LOCATION.--Lat 40°31'13", long 79°56'18", Allegheny County, Hydrologic Unit 05010009, on right bank at downstream side of highway bridge on Saxonburg Boulevard, 0.7 mi upstream from mouth, and 1.5 mi northeast of Etna.

DRAINAGE AREA.--5.78 mi^2.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 774.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1986 at datum 3.00 ft higher. Sept. 30, 1987 datum lowered 1.00 ft.

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 150 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 19	0000	296	3.99	Jan. 12	0430	169	3.89
Dec. 1	0630	178	4.23	July 15	1730	200	3.73
Jan. 5	2315	*585	*4.63				

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	4.2	2.2	55	6.2	e5.1	12	40	9.1	1.4	0.75	0.44	1.7
2	4.4	2.9	18	6.4	e4.8	8.7	83	4.2	1.3	0.48	0.42	1.1
3	4.1	3.2	11	27	e5.0	11	83	2.4	2.2	0.41	0.39	0.85
4	4.0	4.5	7.8	37	e5.2	14	76	2.6	1.4	0.41	0.39	0.72
5	3.8	3.9	6.6	139	e5.6	8.6	68	2.8	1.2	22	0.43	0.65
6	3.9	3.3	6.6	329	e6.6	12	59	2.8	11	13	0.41	0.62
7	3.9	3.1	16	47	e8.0	21	49	2.5	1.6	2.9	0.37	0.61
8	3.9	2.5	9.9	44	e9.0	23	37	2.0	1.2	1.1	0.99	0.61
9	4.1	2.3	13	28	e9.5	19	22	1.8	1.0	0.76	0.51	0.76
10	3.8	2.4	23	22	e9.0	13	15	1.8	11	0.59	0.38	0.57
11	4.0	2.1	14	49	e9.0	14	12	1.8	2.5	0.57	0.33	0.54
12	3.8	3.1	9.8	67	e9.5	13	7.6	5.1	1.3	0.54	0.29	0.53
13	6.7	2.1	8.0	33	9.7	11	5.8	1.7	1.1	8.4	0.27	0.53
14	8.9	1.8	6.4	43	45	10	3.5	38	1.0	1.1	0.25	0.54
15	10	1.5	6.2	24	33	9.9	2.4	49	0.96	9.0	0.25	0.60
16	5.8	4.1	6.4	19	25	9.3	2.0	8.2	0.79	3.9	0.62	0.70
17	5.1	5.8	6.4	14	17	9.9	1.9	3.9	0.82	12	0.36	0.69
18	24	5.9	6.5	e14	13	9.8	1.9	2.3	0.73	1.8	0.25	0.60
19	52	9.8	6.3	e13	21	9.7	1.9	2.1	0.67	1.3	0.26	0.58
20	10	9.8	11	e12	11	12	5.6	6.4	0.69	0.81	3.0	0.81
21	6.4	6.4	7.4	e12	23	10	6.0	2.0	0.68	0.69	0.70	0.58
22	5.6	6.3	6.5	e12	16	9.5	6.9	1.8	0.71	0.68	0.38	0.57
23	5.8	6.9	21	e12	13	20	55	7.5	0.62	0.55	0.28	1.0
24	17	19	10	e11	12	18	31	2.5	0.60	0.50	0.26	0.66
25	8.7	18	21	e10	11	16	44	2.0	0.59	0.55	0.29	0.61
26	3.4	10	12	9.0	11	15	32	1.6	0.60	12	0.41	1.5
27	1.1	9.6	6.6	e8.2	11	14	34	1.7	0.57	7.1	0.70	0.89
28	1.0	14	7.9	e8.0	12	58	15	11	0.54	0.84	0.63	0.63
29	2.2	8.4	6.3	e7.7	---	78	13	2.1	0.62	0.65	0.80	4.7
30	3.1	8.2	6.3	e6.8	---	67	24	1.8	0.80	0.53	12	0.76
31	2.7	---	6.4	e5.4	---	58	---	1.5	---	0.49	20	---
TOTAL	227.4	183.1	359.3	1075.7	370.0	614.4	837.5	186.0	50.19	106.40	47.06	26.21
MEAN	7.34	6.10	11.6	34.7	13.2	19.8	27.9	6.00	1.67	3.43	1.52	0.87
MAX	52	19	55	329	45	78	83	49	11	22	20	4.7
MIN	1.0	1.5	6.2	5.4	4.8	8.6	1.9	1.5	0.54	0.41	0.25	0.53
CFSM	1.27	1.06	2.01	6.00	2.29	3.43	4.83	1.04	0.29	0.59	0.26	0.15
IN.	1.46	1.18	2.31	6.92	2.38	3.95	5.39	1.20	0.32	0.68	0.30	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2.04	4.80	7.78	8.13	9.66	13.1	10.9	8.18	4.14	3.20	1.78	2.82
MAX	8.55	25.4	26.4	34.7	21.0	32.4	27.9	26.1	17.8	26.4	9.00	57.9
(WY)	1980	1986	1987	2005	1966	1994	2005	1968	1972	1990	2004	2004
MIN	0.01	0.51	0.69	0.82	2.17	1.30	2.33	1.74	0.42	0.02	0.10	0.04
(WY)	1964	1964	1964	1977	1980	1969	1971	1965	1965	1965	1965	1963

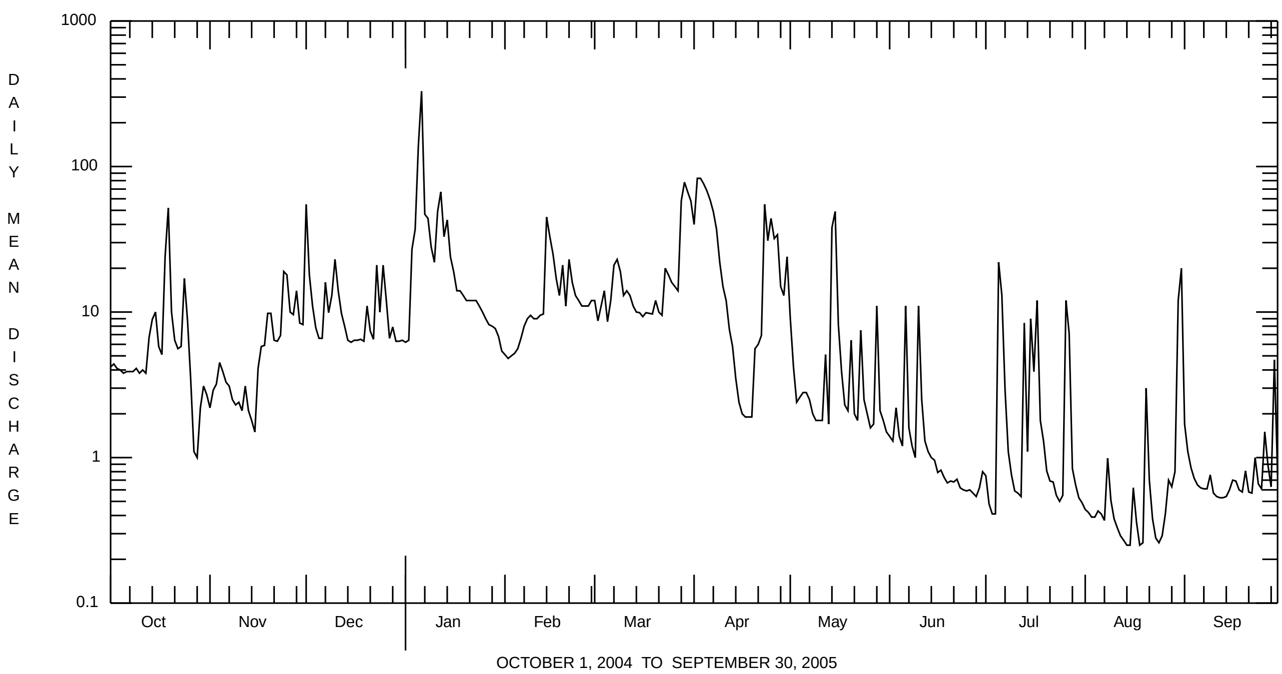
e Estimated.

PINE CREEK BASIN

03049800 LITTLE PINE CREEK NEAR ETNA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	5203.61		4083.26			
ANNUAL MEAN	14.2		11.2		6.36	
HIGHEST ANNUAL MEAN					14.0	2004
LOWEST ANNUAL MEAN					2.68	1969
HIGHEST DAILY MEAN	**e**769	Sep 17	329	Jan 6	**e**769	Sep 17 2004
LOWEST DAILY MEAN	0.94	Jul 25	0.25	Aug 14**a**	0.00	Jul 13 1963
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 19	0.32	Aug 13	0.00	Aug 26 1963
MAXIMUM PEAK FLOW			585	Jan 5	**b**7190	May 30 1986
MAXIMUM PEAK STAGE			4.63	Jan 5	**c**10.28	May 30 1986
ANNUAL RUNOFF (CFSM)	2.46		1.94		1.10	
ANNUAL RUNOFF (INCHES)	33.49		26.28		14.95	
10 PERCENT EXCEEDS	21		24		15	
50 PERCENT EXCEEDS	6.4		5.6		2.7	
90 PERCENT EXCEEDS	1.8		0.56		0.34	

a Also Aug. 15, 18.
b From rating curve extended above 2,000 ft^3/s on basis of slope-area measurement at gage height 8.26 ft, and slope-area measurement of peak flow at site 0.6 mi downstream.
c Gage height 10.41 ft, from outside floodmark, datum then in use.
e Estimated.



MONONGAHELA RIVER BASIN

03072000 DUNKARD CREEK AT SHANNOPIN, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°45'33", long 79°58'15", Greene County, Hydrologic Unit 05020005, on left bank 1,300 ft upstream from highway bridge at mine buildings at Shannopin, 1.2 mi north of Dunkard, 3.5 mi upstream from mouth, and 4 mi southwest of Greensboro.

DRAINAGE AREA.--229 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Prior to December 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1505: 1955.

GAGE.--Water-stage recorder. Datum of gage is 806.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at low flow by mine pumpage above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 4,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 5	2300	9,410	11.14	Mar. 8	1100	4,550	8.79
Jan. 12	0900	*13,400	*12.77	Mar. 29	0300	6,410	9.81

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	44	228	1160	198	e145	600	583	283	126	22	13	9.9
2	44	156	1130	176	e132	505	755	227	100	23	8.2	11
3	39	132	659	187	e153	416	1110	199	90	22	9.8	8.9
4	36	163	481	1750	e176	375	839	170	84	23	11	7.1
5	30	575	375	5120	e196	389	617	147	80	21	6.2	11
6	30	395	309	4360	221	503	502	132	95	20	11	13
7	24	267	321	1890	238	824	418	126	304	50	13	6.9
8	24	194	465	1570	315	3090	368	114	174	40	13	5.3
9	24	141	397	1340	478	1360	311	105	110	49	15	3.6
10	23	112	543	835	1020	791	265	97	82	52	14	3.4
11	20	98	951	1620	705	624	230	87	67	47	8.2	3.0
12	19	171	787	9140	508	580	201	98	133	31	8.5	2.4
13	25	424	606	1880	426	527	181	116	132	25	12	2.2
14	32	274	479	2010	535	455	164	97	75	38	5.5	2.0
15	45	201	384	1290	1640	399	146	249	62	e52	4.8	1.8
16	47	165	319	811	877	354	132	265	57	e46	8.0	1.5
17	64	156	290	618	659	326	120	161	55	46	12	2.7
18	47	169	259	442	493	300	115	125	49	26	13	1.8
19	312	489	229	390	369	274	113	107	43	25	6.0	3.6
20	242	1180	179	395	330	259	109	313	39	64	5.1	9.1
21	128	709	165	325	340	233	104	405	37	62	11	8.5
22	97	482	191	261	326	201	105	233	38	41	14	7.7
23	78	415	429	e306	270	533	154	174	35	30	12	7.8
24	72	370	1160	e232	250	1130	239	183	33	24	18	8.7
25	74	586	579	e271	252	670	289	241	30	21	15	7.4
26	68	643	411	e266	229	546	367	208	27	21	13	5.6
27	57	481	331	e215	217	469	286	157	25	17	13	2.9
28	52	522	242	e143	293	1820	228	137	23	11	12	5.9
29	190	551	260	e158	---	4320	185	158	23	10	11	3.9
30	739	442	226	e176	---	1380	194	141	22	11	13	4.9
31	390	---	214	e161	---	804	---	115	---	9.7	15	---
TOTAL	3116	10891	14531	38536	11793	25057	9430	5370	2250	979.7	344.3	173.5
MEAN	101	363	469	1243	421	808	314	173	75.0	31.6	11.1	5.78
MAX	739	1180	1160	9140	1640	4320	1110	405	304	64	18	13
MIN	19	98	165	143	132	201	104	87	22	9.7	4.8	1.5
CFSM	0.44	1.59	2.05	5.43	1.84	3.53	1.37	0.76	0.33	0.14	0.05	0.03
IN.	0.51	1.77	2.36	6.26	1.92	4.07	1.53	0.87	0.37	0.16	0.06	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.6	171	328	431	511	630	466	334	186	90.7	77.5	78.4
MAX	381	1149	1071	1243	1100	1475	1033	903	877	461	890	573
(WY)	1955	1986	1991	2005	1956	1994	1948	1968	1981	1996	1980	1975
MIN	1.73	2.44	7.46	26.5	63.5	112	80.9	57.4	10.2	4.62	2.45	2.38
(WY)	1952	1954	1954	1967	1954	1987	1971	1986	1966	1962	1962	1999

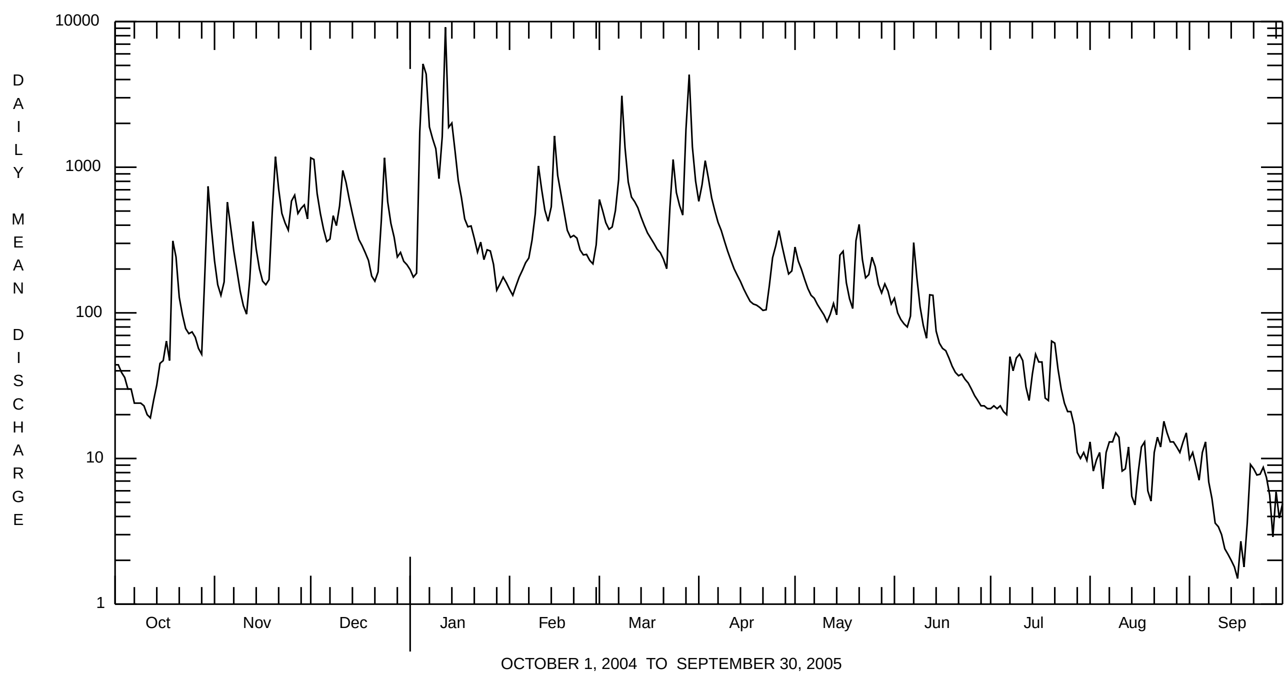
e Estimated.

MONONGAHELA RIVER BASIN

03072000 DUNKARD CREEK AT SHANNOPIN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	141152		122471.5			
ANNUAL MEAN	386		336		281	
HIGHEST ANNUAL MEAN					462	1994
LOWEST ANNUAL MEAN					104	1954
HIGHEST DAILY MEAN	7830	Sep 18	9140	Jan 12	11200	Mar 5 1963
LOWEST DAILY MEAN	13	Sep 7	1.5	Sep 16	0.50	Aug 27 1944
ANNUAL SEVEN-DAY MINIMUM	21	Sep 1	2.1	Sep 12	0.73	Aug 25 1944
MAXIMUM PEAK FLOW			13400	Jan 12	**a**17600	Aug 18 1980
MAXIMUM PEAK STAGE			12.77	Jan 12	14.27	Aug 18 1980
INSTANTANEOUS LOW FLOW			1.1	Sep 19	0.40	Aug 28 1944
ANNUAL RUNOFF (CFSM)	1.68		1.47		1.23	
ANNUAL RUNOFF (INCHES)	22.93		19.89		16.65	
10 PERCENT EXCEEDS	802		707		686	
50 PERCENT EXCEEDS	182		158		100	
90 PERCENT EXCEEDS	33		9.8		8.1	

a From rating curve extended above 16,000 ft^3/s.



MONONGAHELA RIVER BASIN

03072000 DUNKARD CREEK AT SHANNOPIN, 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 276-323.

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													
08...	0915	1028	9813	197	10.3	7.5	7.7	489	499	9.0	170	48.9	10.9
JAN 2005													
24...	1000	1028	9813	E232	14.1	7.1	7.5	491	469	.0	160	43.1	13.0
MAR													
07...	0945	1028	9813	887	12.4	7.7	7.9	364	368	4.8	120	35.5	8.2
MAY													
09...	0950	1028	9813	106	9.7	7.8	7.7	537	544	14.4	160	43.2	11.7
JUL													
11...	1000	1028	9813	47	9.1	7.7	7.8	1570	1650	23.0	380	103	30.0
SEP													
26...	0940	1028	9813	6.5	7.6	6.8	6.9	5490	5610	22.0	1700	451	134

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
08...	83	130	366	2	<.020	.46	<.040	<.01	<.010	.70	2.1	283	<10
JAN 2005													
24...	77	139	332	20	.130	.59	<.040	.02	.017	.73	1.4	1100	<10
MAR													
07...	70	88.0	216	6	.030	.46	<.040	<.01	.014	.63	1.7	730	<10
MAY													
09...	92	156	398	4	.020	.11	<.040	<.01	.013	.52	--	560	<10
JUL													
11...	133	635	1220	2	.030	.12	<.040	.01	.012	.32	--	510	<10
SEP													
26...	54	3400	5330	22	.160	.95	<.040	<.01	<.010	1.4	--	1000	<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					
08...	390	<1.0	100	<50	<10
JAN 2005					
24...	1450	<1.0	250	<50	20
MAR					
07...	960	<1.0	110	<50	<10
MAY					
09...	450	<1.0	140	<50	30
JUL					
11...	310	<1.0	200	<50	10
SEP					
26...	410	<1.0	480	<50	40

MONONGAHELA RIVER BASIN

03072000 DUNKARD CREEK AT SHANNOPIN, 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	09/14/04
Benthic macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Enchytraeidae	1
Tubificidae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	7
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
Caenis	2
Tricorythidae	
Tricorythodes	5
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
Argia	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus	1
Nigronia	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	2
Hydropsyche	31
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Oulimnius	1
Stenelmis	12
Hydrophilidae	
Berosus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	88
Total Organisms	155
Total Taxa	15

MONONGAHELA RIVER BASIN

03072655 MONONGAHELA RIVER NEAR MASONTOWN, PA

LOCATION.--Lat 39°49'30", long 79°55'23", Greene County, Hydrologic Unit 05020005, on left bank, 84 ft upstream from Lock and Dam at Grays Landing, 0.9 mi upstream from Masontown, 1.2 mi upstream from Whitley Creek, 5.3 mi downstream from Dunkard Creek, 7.6 mi downstream from Cheat River, at mile 81.9.

DRAINAGE AREA.--4,440 mi^2.

PERIOD OF RECORD.--October 1938 to current year. Published as "*at Greensboro*" (Station 03072500) October 1938 to September 1995. Prior to January 1939 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1113: 1939 (M), 1941 (M). WSP 1435: 1939. WSP 1907: 1936 (M), 1955 (M).

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 769.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 9, 1990, at datum 1.45 ft lower.

REMARKS.--No estimated daily discharges. Records good above 5,000 ft^3/s, fair below, except those below 1,000 ft^3/s, which are poor. Flow regulated since 1926 by Lake Lynn 11 mi upstream, since May 1938 by Tygart Lake (station 03055500) 69 mi upstream, and since April 1989 by Stonewall Jackson Lake 120.6 mi upstream, combined capacity, 432,000 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1888 reached a stage of about 36 ft, from high-water profile by U.S. Army Corps of Engineers. Flood of Mar. 18, 1936, reached a stage of 28.4 ft, discharge, 130,000 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	5310	10300	14300	4260	5370	12500	24900	13500	5160	1730	1930	2770
2	3540	9250	20400	4510	5950	11700	21800	19700	3640	1300	1610	2330
3	3690	9210	17400	5040	4670	8900	24600	18900	3000	1120	1540	1970
4	3240	10400	17100	14000	5920	8220	19600	13800	3120	1100	1280	1720
5	2880	21900	12900	38100	5470	8130	19900	7660	3460	1260	1060	1730
6	2590	22600	11800	45300	4930	6970	18200	6930	2830	1910	1250	1300
7	2570	19800	13900	26400	6670	10100	16300	5830	4220	1440	1380	1190
8	2510	14600	10400	26800	6560	36100	14200	5070	3200	2940	1360	1290
9	2800	9270	13100	28800	11800	30900	14500	4800	2780	5890	1300	1200
10	1880	7050	13500	23100	23900	24000	11200	4040	2240	3670	1790	1000
11	2430	5490	22800	21300	23700	20400	11100	3020	2350	2770	2760	1240
12	2440	6060	22600	50800	20500	17500	10600	5460	2880	2760	2860	934
13	2300	8920	20200	26600	17300	13400	7250	5150	2230	1710	1680	981
14	3030	9020	16700	28700	18400	12700	5670	3620	3010	2170	1220	1040
15	3140	8420	14600	27900	23000	11400	4500	5440	1780	2570	1330	1420
16	3130	7380	11800	20700	19700	9240	3760	6860	1700	1860	1600	1160
17	2750	7160	9790	17000	17000	10200	3260	5500	2630	2570	1590	844
18	3780	5780	8530	14500	16000	7470	4490	6650	1600	4380	1380	900
19	9610	4910	8940	13100	12300	6180	5180	4850	779	4650	1410	1640
20	8230	13500	10100	10300	10400	7170	4060	12600	1190	5650	1470	1270
21	8030	15700	6520	8410	9760	7700	3170	20600	1580	6120	1870	713
22	9110	15900	9250	8990	12500	10600	3350	17600	1700	5360	2080	1310
23	8490	14500	6560	8590	11700	12400	6910	13400	1900	4490	1660	1050
24	7790	12200	15500	9430	11000	20600	5130	13200	1440	2720	1370	1220
25	7430	8740	14100	6970	9370	23800	7380	13700	1190	3740	1800	1130
26	7890	13700	9280	6470	8950	21700	11100	14400	677	3820	1720	1140
27	6540	16000	8870	6780	7890	20100	12100	13500	1450	3090	1310	1220
28	6270	13300	8970	7280	9900	27800	12700	12300	1350	2530	1500	995
29	7600	14600	7160	5450	---	57200	10700	9170	1020	2810	2170	1120
30	15100	12200	6300	5810	---	38000	9400	6610	1620	1880	6120	1040
31	11700	---	5900	6770	---	27700	---	5690	---	984	3700	---
TOTAL	167800	347860	389270	528160	340610	540780	327010	299550	67726	90994	57100	38867
MEAN	5413	11600	12560	17040	12160	17440	10900	9663	2258	2935	1842	1296
MAX	15100	22600	22800	50800	23900	57200	24900	20600	5160	6120	6120	2770
MIN	1880	4910	5900	4260	4670	6180	3170	3020	677	984	1060	713
(†)	-364	-277	-459	-124	+144	+1320	+254	+1.9	-120	+31	-344	-486

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3463	6841	10940	11870	14170	16090	11990	9263	5987	4118	3809	2926
MAX	15260	29580	26520	24690	30880	37830	23180	29230	22100	13240	15120	12870
(WY)	1980	1986	1973	1952	1994	1963	1940	1996	1981	1958	1956	2003
MIN	439	369	1648	1840	3781	6192	3781	1836	926	676	592	482
(WY)	1954	1954	1966	1977	1941	1987	1946	1982	1965	1966	1965	1946

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

MONONGAHELA RIVER BASIN

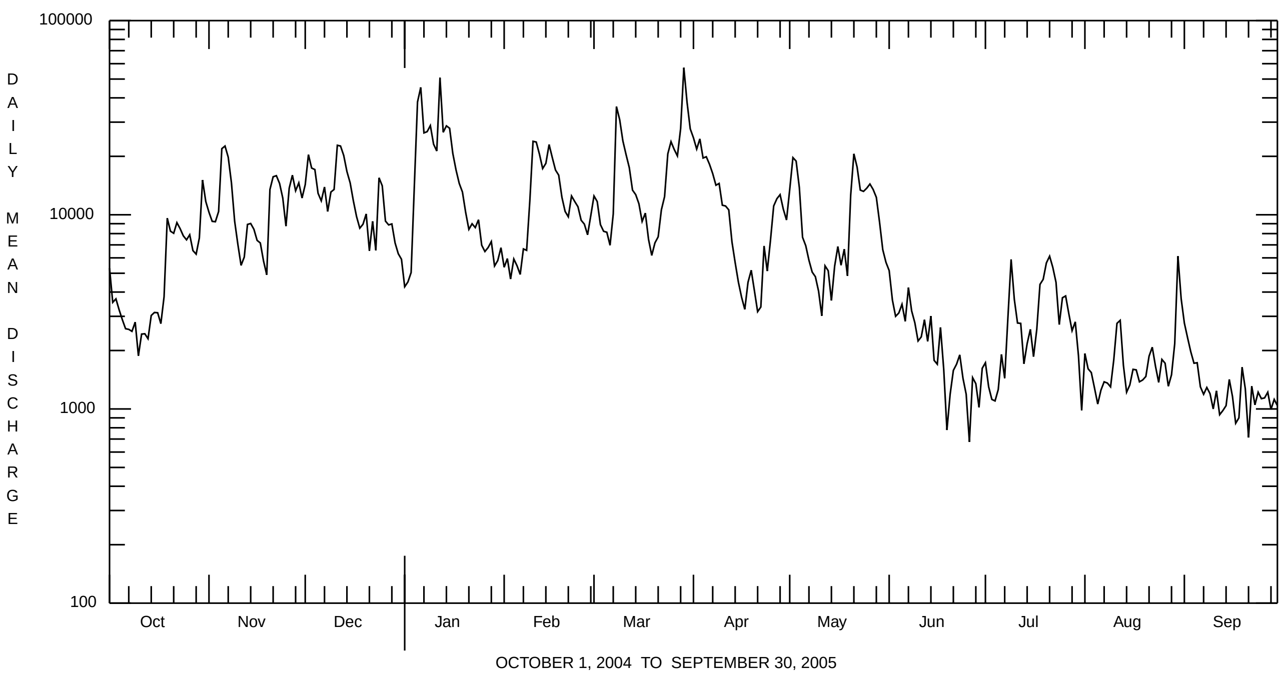
03072655 MONONGAHELA RIVER NEAR MASONTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	3981860		3195727			
ANNUAL MEAN	10880	† -18	8755	† -43	8421	
HIGHEST ANNUAL MEAN					13010	1994
LOWEST ANNUAL MEAN					4995	1966
HIGHEST DAILY MEAN	58500	Apr 14	57200	Mar 29	154000	Nov 5 1985
LOWEST DAILY MEAN	1010	Aug 16	677	Jun 26	177	Sep 11 1988
ANNUAL SEVEN-DAY MINIMUM	1830	Jul 20	1040	Sep 12	267	Nov 4 1953
MAXIMUM PEAK FLOW			66600	Mar 29	**a**220000	Nov 5 1985
MAXIMUM PEAK STAGE			18.96	Mar 29	**b**39.39	Nov 5 1985
10 PERCENT EXCEEDS	22600		20300		20900	
50 PERCENT EXCEEDS	8270		6520		4860	
90 PERCENT EXCEEDS	2390		1300		1060	

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

a From rating curve extended above 131,000 ft^3/s.

b From outside floodmarks, datum then in use.



MONONGAHELA RIVER BASIN

03074500 REDSTONE CREEK AT WALTERSBURG, PA

LOCATION.--Lat 39°58'48", long 79°45'52", Fayette County, Hydrologic Unit 05020005, on right bank, 15 ft upstream from highway bridge at Waltersburg, 400 ft upstream from Bolden Run, and 0.9 mi upstream from Allen Run.

DRAINAGE AREA.--73.7 mi^2.

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

REVISED RECORDS.--WSP 1435: 1943-45 (M), 1946, 1947 (M), 1948 (P), 1949-50 (M), 1951 (P), 1952 (M).

GAGE.--Water-stage recorder. Datum of gage is 882.28 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1973, nonrecording gage 15 ft downstream and Nov. 15, 1973 to Sept. 30, 1997, at present site at datum 1.00 ft. higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation at low flow by mine pumpage into stream above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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)
Jan. 5	2200	1,860	6.83	Mar. 29	0030	*3,890	*10.24
Jan. 12	0330	2,650	8.41	June 11	2000	1,130	5.29
Jan. 14	0600	1,110	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	48	37	278	80	76	134	240	78	e61	34	18	30
2	46	36	190	75	74	120	248	71	e55	29	19	21
3	44	49	154	173	81	110	281	68	88	26	19	19
4	41	54	130	410	87	107	254	65	68	24	19	18
5	39	72	114	1320	91	115	221	64	56	26	17	18
6	38	55	103	1130	95	120	199	61	87	33	17	18
7	37	49	120	509	108	134	181	62	97	41	17	17
8	35	45	108	478	133	439	160	60	61	39	19	17
9	33	42	100	332	214	265	139	56	55	29	19	17
10	33	39	144	264	365	208	124	55	51	24	17	16
11	32	38	232	689	237	195	113	53	208	22	18	16
12	32	79	186	1520	193	186	105	73	107	25	17	16
13	39	61	167	520	160	162	98	53	61	38	17	16
14	50	51	142	694	269	140	89	52	53	32	16	16
15	42	48	125	397	310	126	82	96	49	45	17	16
16	39	46	114	301	264	118	77	61	49	30	92	16
17	37	45	108	231	214	111	73	59	48	26	34	34
18	48	52	100	186	179	104	70	56	41	25	23	18
19	97	126	97	170	151	98	69	54	37	26	21	17
20	50	142	85	152	139	99	67	102	35	24	20	17
21	43	108	85	133	177	96	70	68	34	22	34	17
22	40	96	90	126	141	91	81	61	38	21	21	16
23	37	91	164	113	128	311	86	82	33	21	19	16
24	46	94	149	e93	124	282	83	105	31	19	19	17
25	40	127	126	99	123	236	95	117	29	21	18	16
26	35	108	115	104	115	206	86	88	28	32	18	19
27	32	97	97	94	109	204	83	77	27	21	22	21
28	31	117	86	78	124	1140	77	111	26	20	28	17
29	37	99	94	79	---	1750	75	101	27	19	20	26
30	59	94	90	85	---	500	90	73	64	19	24	19
31	44	---	86	79	---	324	---	e67	---	19	25	---
TOTAL	1304	2197	3979	10714	4481	8231	3716	2249	1704	832	704	557
MEAN	42.1	73.2	128	346	160	266	124	72.5	56.8	26.8	22.7	18.6
MAX	97	142	278	1520	365	1750	281	117	208	45	92	34
MIN	31	36	85	75	74	91	67	52	26	19	16	16
CFSM	0.57	0.99	1.74	4.69	2.17	3.60	1.68	0.98	0.77	0.36	0.31	0.25
IN.	0.66	1.11	2.01	5.41	2.26	4.15	1.88	1.14	0.86	0.42	0.36	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

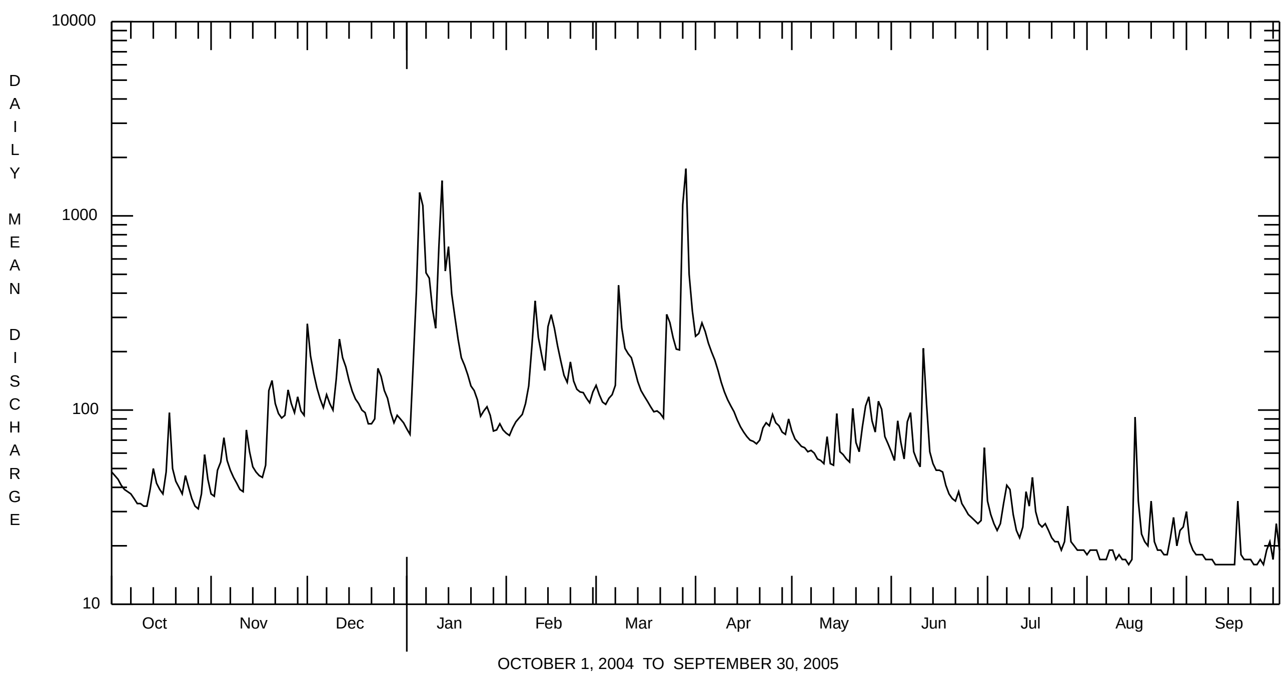
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	49.1	71.7	112	135	159	193	161	125	82.1	55.7	49.0	49.0
MAX	225	459	308	346	376	470	310	274	413	187	172	161
(WY)	1980	1986	1973	2005	1986	1994	1948	1996	1972	1990	1980	1987
MIN	11.2	19.0	14.2	23.1	33.0	45.5	49.2	27.3	15.4	9.59	12.4	8.92
(WY)	1964	1967	1961	1967	1954	1969	1971	1963	1962	1962	1962	1991

e Estimated.

03074500 REDSTONE CREEK AT WALTERSBURG, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	51085		40668			
ANNUAL MEAN	140		111		103	
HIGHEST ANNUAL MEAN					167	2004
LOWEST ANNUAL MEAN					44.2	1954
HIGHEST DAILY MEAN	1440	Apr 13	1750	Mar 29	6620	Jun 23 1972
LOWEST DAILY MEAN	29	Jul 25	16	Aug 14**a**	4.8	Sep 22 1991
ANNUAL SEVEN-DAY MINIMUM	34	Oct 6	16	Sep 10	5.3	Sep 28 1991
MAXIMUM PEAK FLOW			3890	Mar 29	**b**8660	Jun 23 1972
MAXIMUM PEAK STAGE			10.24	Mar 29	**c**14.83	Jun 23 1972
INSTANTANEOUS LOW FLOW			14	Aug 13**d**	4.2	Aug 2 1962
ANNUAL RUNOFF (CFSM)	1.89		1.51		1.40	
ANNUAL RUNOFF (INCHES)	25.79		20.53		19.03	
10 PERCENT EXCEEDS	255		214		210	
50 PERCENT EXCEEDS	94		70		62	
90 PERCENT EXCEEDS	39		19		21	

a Also Sept. 10-16, 22, 23, 25.
b From rating curve extended above 8,200 ft^3/s.
c From peak-stage indicator.
d Also Aug. 14, 15, Sept. 10-16, 19, 20, 22-25.



MONONGAHELA RIVER BASIN

03075070 MONONGAHELA RIVER AT ELIZABETH, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°15'44", long 79°54'05", Allegheny County, Hydrologic Unit 05020005, on right bank 30 ft landward from upstream end of guide wall, 1,050 ft upstream from dam at lock 3 at Elizabeth, 0.4 m downstream from Lobbs Creek, at mile 24.0.

DRAINAGE AREA.--5,340 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Published as "*at Charleroi*" (station 03075000) October 1933 to September 1976. Monthly discharge prior to 1940, adjusted for reservoir contents, published in WSP 1305. Records for March 1886 to March 1905 (high-water periods, only), published in WSP 169, are unreliable and should not be used (peak discharge of July 11, 1888, as published in WSP 183, is still considered reliable).

REVISED RECORDS.--WSP 758: Drainage area. WSP 783: 1888 (M). WSP 1435: 1934, 1936. See also "*PERIOD OF RECORD*."

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 717.90 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). From Oct. 1, 1967 to Sept. 30, 1976, at site 17.5 mi upstream at datum 15.70 ft higher. Prior to Oct. 1, 1967, water-stage recorder at site 17.9 mi upstream at datum 17.43 ft higher. Oct. 1, 1965 to Sept. 30, 1967, auxiliary staff gage, Apr. 14, 1966 to Sept. 30, 1967, auxiliary water-stage recorder and Oct. 1, 1967 to Nov. 4, 1990, water-stage recorder at present site at datum 7.60 ft higher.

REMARKS.--No estimated daily discharges. Records good, except those below 2,500 ft^3/s, which are poor. Flow regulated by locks above station, since 1938 by Tygart Lake (station 03055500), since May 1926 by Lake Lynn, and since April 1989 by Stonewall Jackson Lake, combined capacity, 432,000 acre-ft. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	5200	9730	15400	5320	5390	13700	27500	13400	5490	2040	1250	2280
2	3950	8660	23300	4200	5870	13600	24700	18400	3450	2250	2110	2850
3	3410	8920	17500	5570	5370	9770	26900	20400	3970	1690	1490	1770
4	3420	9850	18700	17000	6150	9290	23400	15100	2750	1490	1610	1450
5	2980	19600	14000	38500	5670	8700	21500	9050	3340	1220	1050	1870
6	2480	23500	12300	82800	5810	8950	20300	6530	3870	1680	536	1690
7	2380	20400	14000	41100	5980	10200	18000	6690	5100	2210	1830	1090
8	3210	14700	11100	30600	8020	31600	15200	5030	4000	1860	1900	1270
9	2530	10100	13200	34000	10400	39500	16300	5130	3320	5480	1330	1110
10	2430	7450	13000	26700	24700	27100	11600	3950	2960	3890	1240	933
11	1370	5560	23300	22600	28000	21600	12000	3440	1920	2680	1950	1740
12	3100	5570	23900	63900	21900	20700	11400	5200	3490	2940	2800	800
13	2310	8410	20400	39600	19300	15800	8840	5110	3150	1990	2350	424
14	2180	10100	18800	32000	19100	13800	6860	4240	2810	1900	739	1230
15	3600	7200	14600	34000	27100	13300	5370	4880	2740	2840	1620	1530
16	2960	7590	12800	25200	22700	10600	3830	7510	1730	2330	1550	1030
17	2610	6880	10700	19100	19900	10500	3580	6030	2780	2060	1670	1080
18	3140	7010	8870	16400	17800	9150	4600	6190	2360	4070	1770	577
19	8890	4490	8380	15600	14500	6200	4620	5040	1510	4330	1770	1300
20	9390	14700	10000	11800	11400	7170	4840	8750	741	4950	985	1560
21	7280	16100	7630	10400	10800	8270	3800	22000	1390	5910	2180	1090
22	9010	15800	8480	9180	12500	9610	3600	17800	1890	5370	1770	672
23	8080	15300	8010	8970	13200	13100	7290	14200	2330	4440	1910	1310
24	8090	12600	15700	11000	12000	22900	5530	13700	1870	3340	1580	1520
25	6290	10400	15500	7630	10700	25400	7680	14500	1510	3300	1320	908
26	8410	13800	9740	6990	10200	23100	10200	14400	892	3860	1980	644
27	6080	16000	9190	7040	8100	20900	12400	13700	1430	3780	1740	1420
28	5820	13900	9940	7860	10200	28300	13200	11900	1570	2350	895	1300
29	6780	14600	7610	5890	---	72100	12500	11000	1810	2400	2090	1140
30	15600	13100	6880	6140	---	53100	8870	6670	1500	2440	4640	733
31	13300	---	5410	7390	---	33100	---	6860	---	1150	4930	---
TOTAL	166280	352020	408340	654480	372760	611110	356410	306800	77673	92240	56585	38321
MEAN	5364	11730	13170	21110	13310	19710	11880	9897	2589	2975	1825	1277
MAX	15600	23500	23900	82800	28000	72100	27500	22000	5490	5910	4930	2850
MIN	1370	4490	5410	4200	5370	6200	3580	3440	741	1150	536	424
(†)	-364	-277	-459	-124	+144	+1320	+254	+1.9	-120	+31	-344	-486

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3640	6973	11560	13560	15480	18130	13540	10380	6516	4418	4108	3137
MAX	16770	33750	29760	37480	33170	41930	26500	33610	24840	13570	17890	13300
(WY)	1980	1986	1973	1937	1994	1963	1940	1996	1981	1958	1956	1945
MIN	475	400	1991	2249	3210	6636	4478	2128	1009	915	812	581
(WY)	1954	1954	1966	1977	1934	1987	1971	1982	1936	1966	1957	1936

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

MONONGAHELA RIVER BASIN

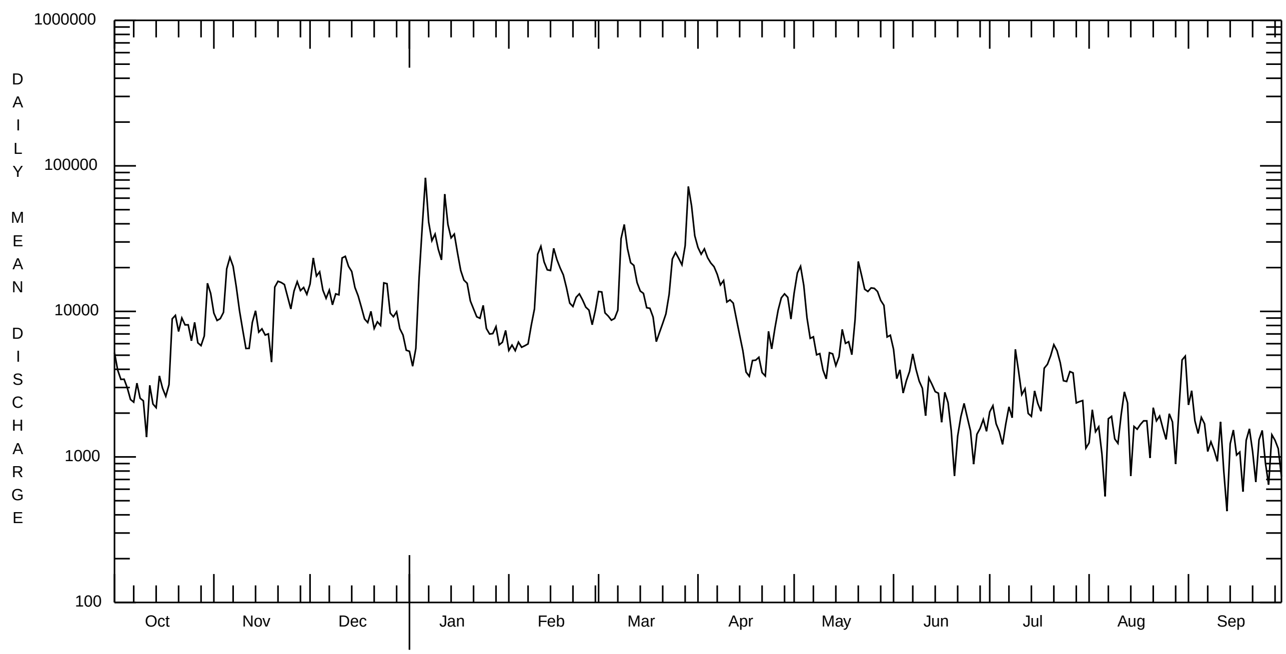
03075070 MONONGAHELA RIVER AT ELIZABETH, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1934 - 2005	
ANNUAL TOTAL	4419380		3493019			
ANNUAL MEAN	12070	† -18	9570	† -43	9259	
HIGHEST ANNUAL MEAN					14400	1996
LOWEST ANNUAL MEAN					5282	1954
HIGHEST DAILY MEAN	86400	Feb 7	82800	Jan 6	158000	Jan 20 1996
LOWEST DAILY MEAN	1200	Sep 6	424	Sep 13	206	Jun 29 1936
ANNUAL SEVEN-DAY MINIMUM	1920	Jul 20	953	Sep 12	301	Oct 1 1936
MAXIMUM PEAK FLOW			91100	Jan 6	**ab**178000	Nov 6 1985
MAXIMUM PEAK STAGE			21.23	Jan 6	30.39	Jan 20 1996
10 PERCENT EXCEEDS	25500		21700		22400	
50 PERCENT EXCEEDS	8500		6690		5280	
90 PERCENT EXCEEDS	2420		1440		1170	

† Change in contents, equivalent in cubic feet per second, in Tygart Lake, Stonewall Jackson Lake and Lake Lynn. Records of contents in Lake Lynn furnished by Allegheny Energy Supply. Records of contents in Tygart Lake and Stonewall Jackson Lake furnished by U.S. Army Corps of Engineers.

a From rating curve extended above 110,000 ft^3/s.

b Gage height 23.60 ft, datum then in use.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

03075070 MONONGAHELA RIVER AT ELIZABETH, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 2005 to current year.
pH: June 2005 to current year.
WATER TEMPERATURE: June 2005 to current year.
DISSOLVED OXYGEN: June 2005 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods June 1 and Sept. 30, which are poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment. Other data for the Water-Quality Network can be found on pages 276-323.

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...	0945	1028	9813	7150	9.6	7.4	7.3	245	246	15.0	82	23.1	6.0
JAN 2005													
04...	1030	1028	9813	13400	13.0	8.0	7.3	305	313	4.5	100	28.3	7.6
MAR													
03...	1030	1028	9813	9940	13.3	8.0	7.6	295	306	2.6	95	27.1	6.7
MAY													
03...	1045	1028	9813	19700	10.8	7.2	7.5	217	219	10.5	72	20.4	5.0
JUL													
19...	0945	1028	9813	3260	8.3	8.0	7.6	591	717	24.3	200	55.1	16.4
SEP													
14...	1015	1028	9813	1110	7.9	7.2	7.6	458	475	25.0	140	38.1	11.2

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004													
02...	39	<.2	63.3	176	10	.070	.49	<.040	.03	.032	.72	2.7	790
JAN 2005													
04...	47	<.2	80.9	182	2	.070	.60	<.040	.02	.028	.97	1.5	480
MAR													
03...	36	<.2	77.7	236	12	.100	.60	<.040	<.01	.011	.78	1.1	260
MAY													
03...	27	<.2	63.1	134	12	.130	.50	<.040	<.01	.021	.74	--	860
JUL													
19...	44	.2	236	444	28	.040	.66	<.040	<.01	.036	.82	--	220
SEP													
14...	39	<.2	155	328	<2	.030	.77	<.040	<.01	<.010	.97	--	<200

MONONGAHELA RIVER BASIN

03075070 MONONGAHELA RIVER AT ELIZABETH, PA--Continued

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

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)	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)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
NOV 2004								
02...	<10	<1.00	960	<1.0	120	<50	<10	<5
JAN 2005								
04...	<10	<1.00	830	<1.0	150	<50	20	<5
MAR								
03...	<10	<1.00	510	<1.0	150	<50	10	<5
MAY								
03...	40	<1.00	1070	<1.0	160	<50	30	<5
JUL								
19...	<10	<1.00	390	<1.0	130	<50	<10	<5
SEP								
14...	<10	<1.00	90	<1.0	30	<50	<10	<5

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a multiplate sampler that was deployed for 5 weeks. Samples represent counts per 100 animal (approximate) subsamples.

Date	11/10/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
Amnicola	5
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	6
Tubificidae	1
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	7
Insecta	
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	1
Chironomidae (MIDGES)	15
Total Organisms	36
Total Taxa	7

MONONGAHELA RIVER BASIN

03075070 MONONGAHELA RIVER AT ELIZABETH, 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	---	---	---	522	507	514	477	459	468	454	429	437
2	275	262	268	514	504	508	491	476	483	509	451	483
3	291	270	280	537	510	523	527	491	513	508	486	497
4	293	288	291	535	495	518	545	514	527	488	473	481
5	301	290	295	495	482	488	525	508	515	478	449	463
6	299	275	287	494	479	485	532	513	520	449	428	441
7	298	268	277	480	471	475	528	512	523	430	410	418
8	331	298	315	489	470	478	558	506	531	411	405	409
9	313	293	304	516	482	496	593	558	576	409	403	406
10	318	312	314	484	458	468	594	577	586	433	406	418
11	317	311	315	472	444	464	577	556	566	440	424	430
12	332	311	319	506	467	491	558	553	555	458	438	447
13	334	325	330	545	502	526	571	555	565	457	448	453
14	348	324	328	548	530	544	573	557	566	466	450	457
15	363	326	347	550	534	544	575	557	563	481	457	469
16	378	361	369	586	547	571	595	574	584	482	473	479
17	379	368	372	593	579	584	609	591	601	489	480	484
18	399	370	390	615	589	600	607	595	602	504	485	494
19	395	385	390	625	608	616	596	574	578	503	490	498
20	404	395	400	650	621	639	576	567	573	500	492	495
21	412	402	406	644	609	636	577	552	568	501	485	494
22	420	409	415	609	409	494	564	546	556	514	492	505
23	432	418	424	424	395	410	578	560	564	521	511	516
24	432	416	424	468	420	454	602	567	585	526	516	522
25	427	415	420	505	468	488	616	602	608	529	521	524
26	429	421	424	540	505	528	627	613	622	524	517	521
27	439	428	433	535	521	528	630	627	629	527	505	518
28	469	439	450	527	503	514	632	620	626	506	494	500
29	498	465	483	508	479	496	624	587	612	503	486	498
30	521	495	510	484	449	463	588	504	559	511	501	506
31	---	---	---	460	450	455	504	427	443	---	---	---
MONTH	521	262	365	650	395	516	632	427	560	529	403	475

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

MONONGAHELA RIVER BASIN

03075070 MONONGAHELA RIVER AT ELIZABETH, 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	20.8	17.8	18.8	32.6	30.5	31.4	34.5	31.9	33.0	28.5	27.1	27.8
2	21.5	18.7	19.9	32.6	30.9	31.6	33.7	31.2	32.6	28.8	27.1	28.1
3	22.4	19.2	20.6	31.3	29.9	30.5	35.2	32.4	33.6	29.0	27.2	28.1
4	22.0	19.4	20.4	32.6	30.0	31.1	34.6	33.1	33.6	28.3	27.1	27.8
5	23.3	20.0	21.2	32.8	31.4	32.0	33.4	32.4	32.9	28.3	27.4	27.7
6	23.6	20.8	22.1	33.0	31.3	32.0	34.0	32.3	32.9	30.2	27.7	28.7
7	24.7	21.1	22.9	32.0	30.1	30.8	33.9	32.7	33.2	31.4	28.0	29.5
8	25.9	21.6	23.1	32.6	29.5	30.7	32.8	32.0	32.5	31.8	29.7	30.7
9	25.8	22.5	23.9	31.3	28.1	29.4	34.9	32.0	33.3	31.3	29.0	29.8
10	27.7	24.7	25.8	30.0	27.3	28.6	34.8	33.4	33.9	30.2	28.4	29.2
11	28.3	25.4	26.7	31.8	27.8	29.6	34.2	32.3	33.4	30.3	29.1	29.6
12	29.4	25.5	27.2	32.5	28.9	30.6	32.8	29.6	31.1	32.1	29.5	30.6
13	28.0	25.1	26.9	33.3	29.9	31.5	32.0	30.5	31.3	33.5	31.1	32.1
14	28.5	26.5	27.8	33.2	31.4	32.3	33.7	31.8	32.5	33.0	31.0	31.9
15	27.4	26.0	26.4	33.8	30.8	32.3	34.0	32.2	33.1	32.9	30.4	31.3
16	26.7	25.7	26.1	32.7	30.8	31.8	33.4	31.4	32.3	31.6	30.3	30.7
17	26.5	24.9	25.5	33.1	31.6	32.4	33.6	31.6	32.6	31.1	30.1	30.6
18	25.7	24.2	24.8	32.5	30.2	31.3	33.3	31.9	32.6	31.9	30.0	30.6
19	24.6	24.1	24.3	31.6	29.3	30.3	33.3	31.7	32.6	31.5	30.6	31.1
20	28.6	24.2	25.8	32.6	29.5	30.8	34.0	32.7	33.2	30.9	28.4	29.6
21	28.6	26.1	27.3	31.7	29.3	30.3	34.5	30.2	32.7	28.5	27.0	27.6
22	29.3	27.9	28.5	31.1	29.2	30.1	30.3	29.7	30.0	30.0	26.9	28.1
23	30.1	27.6	28.7	31.9	28.6	30.0	29.7	28.6	29.1	30.2	28.4	29.4
24	30.8	27.7	28.9	29.3	28.1	28.7	29.8	28.1	28.7	28.4	27.6	27.8
25	30.7	28.7	29.7	30.5	28.7	29.4	31.7	29.4	30.2	29.1	27.6	28.3
26	33.2	29.8	31.1	30.9	29.1	30.0	31.0	30.0	30.5	30.1	28.4	29.0
27	33.1	31.1	32.0	30.5	29.1	29.9	31.4	30.0	30.5	29.6	28.0	28.7
28	34.6	31.9	32.8	31.3	29.1	30.0	32.1	30.5	31.3	28.4	27.5	28.0
29	33.3	31.6	32.4	31.1	28.8	29.9	31.9	29.3	30.7	28.4	25.6	26.9
30	35.3	32.0	33.2	31.5	28.6	30.1	29.5	26.4	28.4	25.9	24.8	25.2
31	---	---	---	33.4	30.1	31.6	27.4	25.8	26.5	---	---	---
MONTH	35.3	17.8	26.2	33.8	27.3	30.7	35.2	25.8	31.8	33.5	24.8	29.1

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	---	---	---	7.4	6.5	7.0	6.7	6.2	6.4	7.6	6.7	7.2
2	9.8	7.4	8.5	7.4	6.5	6.9	7.0	5.8	6.2	8.1	7.2	7.6
3	---	---	---	7.2	6.1	6.7	6.0	5.2	5.6	8.6	7.4	7.9
4	---	---	---	7.2	6.0	6.5	6.2	5.0	5.7	8.2	7.5	7.9
5	---	---	---	7.8	5.8	6.5	6.3	5.5	5.9	8.1	7.2	7.5
6	---	---	---	6.7	5.3	6.0	6.0	5.2	5.7	7.8	7.1	7.5
7	---	---	---	6.8	5.3	6.1	6.6	5.4	6.0	7.8	6.9	7.4
8	---	---	---	7.6	6.0	6.8	6.9	6.2	6.5	7.5	6.8	7.2
9	---	---	---	7.5	5.6	6.9	7.4	6.6	6.9	7.6	6.7	7.2
10	---	---	---	8.8	6.5	7.6	7.3	6.5	6.9	7.7	6.5	7.2
11	---	---	---	7.7	6.5	7.2	7.1	6.2	6.7	8.1	6.6	7.3
12	---	---	---	8.2	6.5	7.4	7.5	6.2	7.1	7.8	6.6	7.3
13	---	---	---	8.1	6.6	7.7	7.5	6.6	7.1	7.1	6.5	6.8
14	---	---	---	7.5	6.6	7.0	7.0	6.0	6.7	6.9	6.4	6.6
15	---	---	---	7.3	6.4	6.8	6.8	5.3	6.3	7.2	6.2	6.6
16	9.8	9.0	9.5	7.6	6.3	7.0	6.7	5.9	6.4	6.6	6.0	6.3
17	9.8	8.7	9.3	7.3	6.6	6.9	6.7	5.0	6.2	6.3	5.9	6.1
18	9.7	8.8	9.3	7.6	6.7	7.1	6.6	5.9	6.2	6.4	5.7	6.0
19	9.2	8.3	8.8	7.6	6.6	7.1	6.6	5.7	6.3	6.5	5.6	5.9
20	9.1	8.0	8.6	9.7	6.6	7.8	6.6	5.6	6.1	6.3	5.5	5.8
21	8.6	7.7	8.1	9.3	7.5	8.3	6.5	5.6	6.1	6.9	5.6	6.0
22	8.5	7.5	8.0	8.9	7.4	8.3	6.6	6.0	6.3	6.2	5.6	5.9
23	8.6	7.4	8.1	8.1	6.6	7.3	7.0	6.0	6.5	5.9	5.3	5.6
24	8.8	7.6	8.3	7.9	6.5	7.2	7.9	6.5	6.9	6.0	5.4	5.6
25	8.5	7.5	8.2	7.6	6.0	6.7	6.8	6.3	6.5	5.7	5.0	5.3
26	8.0	6.8	7.5	6.8	5.7	6.5	6.6	6.2	6.4	---	---	---
27	7.6	6.6	7.3	7.0	5.9	6.4	6.5	6.2	6.4	---	---	---
28	7.4	6.6	7.1	7.3	5.2	6.5	6.8	6.0	6.4	---	---	---
29	7.5	6.6	7.1	7.2	6.0	6.6	6.5	5.7	6.2	---	---	---
30	7.5	6.3	7.0	7.2	6.2	6.8	6.5	6.0	6.3	---	---	---
31	---	---	---	7.0	6.3	6.6	7.0	6.2	6.7	---	---	---
MONTH	9.8	6.3	8.2	9.7	5.2	7.0	7.9	5.0	6.4	8.6	5.0	6.7

MONONGAHELA RIVER BASIN

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13.0", long 79°24'29.9", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-3l, 1940, published in WSP 1675. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir, 12 mi upstream from station (see station 03076000). U.S. Army Corps of Engineers satellite data collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,300 ft^3/s, July 27, gage height, 6.35 ft; minimum discharge, 50 ft^3/s, Sept. 17.

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	244	856	1,690	647	e240	660	1,190	696	291	142	169	132
2	227	625	2,060	487	e235	658	1,250	615	256	133	84	215
3	150	678	1,380	423	231	480	1,410	530	374	66	74	172
4	256	946	1,070	1,280	265	472	1,430	462	435	132	117	81
5	174	2,080	671	3,970	199	412	1,840	403	271	75	138	146
6	123	1,310	616	5,330	206	316	1,640	404	315	141	137	66
7	229	885	894	3,250	246	601	960	434	382	121	110	62
8	300	1,040	972	2,860	468	3,250	879	322	328	1,140	168	59
9	106	1,020	959	2,560	1,600	1,870	749	366	259	1,220	194	127
10	101	706	1,450	1,850	3,390	1,380	553	264	455	345	187	55
11	172	553	1,810	1,660	1,980	942	881	246	218	556	163	54
12	95	647	1,770	3,460	1,310	798	893	268	280	360	190	128
13	93	662	1,590	2,510	941	625	720	356	394	398	144	58
14	109	486	1,390	2,780	1,460	694	474	236	373	1,140	104	56
15	206	534	902	2,310	2,530	520	394	323	180	498	158	55
16	146	492	660	1,900	1,720	448	361	379	170	547	77	127
17	231	457	674	1,490	1,520	543	264	247	285	757	142	54
18	240	414	489	1,120	1,180	495	403	297	184	993	95	56
19	520	442	526	932	870	544	300	205	141	1,060	140	128
20	433	782	712	774	659	752	270	1,270	191	1,100	121	134
21	478	777	430	e640	1,000	761	389	1,250	114	759	275	158
22	436	740	569	e560	1,090	722	416	741	109	670	309	157
23	252	659	1,010	e500	1,020	1,600	843	789	112	450	121	134
24	285	919	998	e450	1,020	2,640	606	1,100	274	240	109	59
25	532	1,530	680	e410	726	1,920	696	892	91	349	124	57
26	332	1,640	588	e370	633	1,500	1,060	768	74	260	140	139
27	284	1,230	683	e330	448	1,120	948	559	141	338	75	70
28	272	1,110	856	e305	570	2,080	763	509	111	163	209	62
29	320	856	887	e280	---	5,830	623	470	68	272	256	67
30	2,230	649	846	e260	---	3,050	558	452	118	182	133	147
31	1,140	---	762	e250	---	1,990	---	325	---	157	121	---
TOTAL	10,716	25,725	30,594	45,948	27,757	39,673	23,763	16,178	6,994	14,764	4,584	3,015
MEAN	346	858	987	1,482	991	1,280	792	522	233	476	148	100
MAX	2,230	2,080	2,060	5,330	3,390	5,830	1,840	1,270	455	1,220	309	215
MIN	93	414	430	250	199	316	264	205	68	66	74	54
(†)	-71.6	-6.71	-45.5	-22.8	82.7	130	20.2	29.3	-6.71	-60.0	-58.5	-67.1
MEAN‡	274	851	942	1,459	1,074	1,410	812	551	226	416	89.5	32.9
CFSM‡	0.93	2.88	3.19	4.95	3.64	4.78	2.75	1.87	0.77	1.41	0.30	0.11
IN.‡	1.07	3.21	3.68	5.71	3.79	5.51	3.07	2.16	0.86	1.63	0.35	0.12

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1905, 1941 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	279	513	833	873	985	1,230	942	697	492	380	296	257
MAX	1,103	2,190	2,147	1,886	2,277	2,644	2,231	1,888	1,823	1,335	1,319	1,648
(WY)	(1955)	(1986)	(1903)	(1996)	(1903)	(1963)	(1901)	(1996)	(1903)	(1990)	(1956)	(2003)
MIN	50.2	55.7	145	140	337	285	327	176	84.2	64.6	51.0	49.8
(WY)	(1992)	(1905)	(1944)	(1981)	(1954)	(1990)	(1995)	(1982)	(1969)	(1991)	(1991)	(1991)

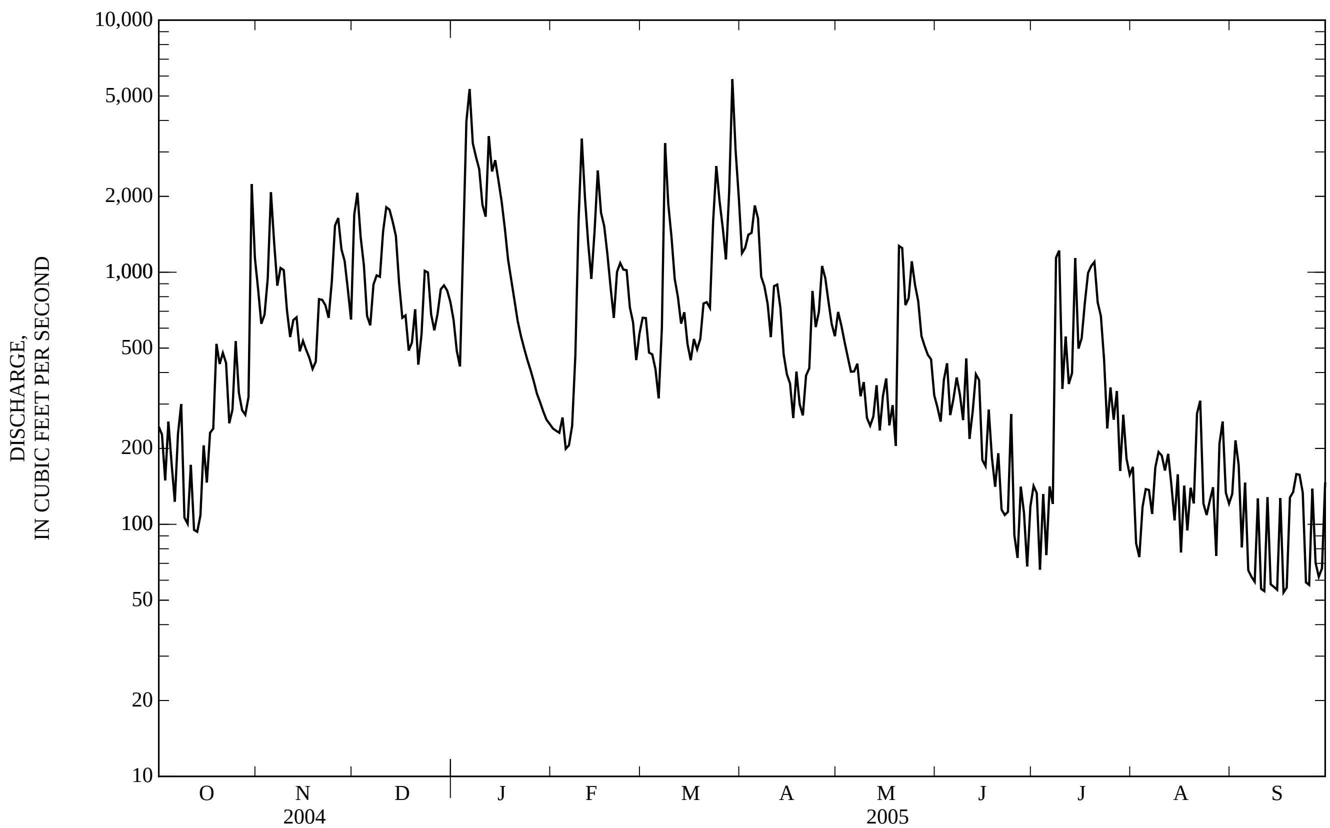
† Change in contents in Deep Creek Reservoir, equivalent in cubic feet per second, provided by Pennsylvania Electric Company.
‡ Adjusted for change in reservoir contents.

MONONGAHELA RIVER BASIN

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1898 - 1905, 1941 - 2005	
ANNUAL TOTAL	285,050		249,711			
ANNUAL MEAN	779		684		645	
ANNUAL MEAN‡	778		677		648	
HIGHEST ANNUAL MEAN					1,052	1903
LOWEST ANNUAL MEAN					375	1954
HIGHEST DAILY MEAN	7,450	Mar 6	5,830	Mar 29	11,200	Jan 19, 1996
LOWEST DAILY MEAN	76	Aug 10	54	(a)	8.2	Sep 11, 1966
ANNUAL SEVEN-DAY MINIMUM	114	Jan 28	76	Sep 11	29	Sep 21, 1972
MAXIMUM PEAK FLOW			7,300	Jul 27	(b)16,100	Jan 19, 1996
MAXIMUM PEAK STAGE			6.35	Jul 27	(c)14.20	Mar 29, 1924
INSTANTANEOUS LOW FLOW			50	Sep 17	UNKNOWN	
ANNUAL RUNOFF (CFSM)	2.64		2.32		2.19	
ANNUAL RUNOFF (CFSM)‡	2.64		2.29		2.20	
ANNUAL RUNOFF (INCHES)	35.95		31.49		29.71	
ANNUAL RUNOFF (INCHES)‡	35.83		31.17		29.84	
10 PERCENT EXCEEDS	1,650		1,550		1,440	
50 PERCENT EXCEEDS	524		452		406	
90 PERCENT EXCEEDS	153		112		106	

‡ Adjusted for change in reservoir contents since October 1940.
a Sept. 11, 17.
b From rating curve extended above 5,800 ft^3/s on basis of slope-area measurement of peak flow.
c From floodmarks.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

MONONGAHELA RIVER BASIN

03077500 YOUGHIOGHENY RIVER AT YOUGHIOGHENY RIVER DAM, PA

LOCATION.--Lat 39°47'56", long 79°22'06", Somerset County, 250 ft below the face of Youghiogheny Dam, 1 mi upstream from mouth of Casselman River.

DRAINAGE AREA.--434 mi^2.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 2005 to current year.
pH: August 2005 to current year.
WATER TEMPERATURE: August 2005 to current year.
DISSOLVED OXYGEN: August 2005 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature record rated fair except for period Aug. 17-31, which is poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment.

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	---	---	---	---	---	---	---	---	---	117	115	115
2	---	---	---	---	---	---	---	---	---	117	116	117
3	---	---	---	---	---	---	---	---	---	117	116	117
4	---	---	---	---	---	---	---	---	---	118	117	118
5	---	---	---	---	---	---	---	---	---	120	118	118
6	---	---	---	---	---	---	---	---	---	120	119	119
7	---	---	---	---	---	---	---	---	---	120	120	120
8	---	---	---	---	---	---	---	---	---	120	119	120
9	---	---	---	---	---	---	---	---	---	121	119	120
10	---	---	---	---	---	---	---	---	---	122	120	121
11	---	---	---	---	---	---	---	---	---	125	122	123
12	---	---	---	---	---	---	---	---	---	127	124	126
13	---	---	---	---	---	---	---	---	---	136	125	126
14	---	---	---	---	---	---	---	---	---	125	123	124
15	---	---	---	---	---	---	---	---	---	127	124	125
16	---	---	---	---	---	---	---	---	---	127	124	125
17	---	---	---	---	---	---	121	109	114	125	123	124
18	---	---	---	---	---	---	111	109	110	126	123	124
19	---	---	---	---	---	---	111	109	110	126	123	124
20	---	---	---	---	---	---	116	110	111	136	124	128
21	---	---	---	---	---	---	113	111	112	127	124	125
22	---	---	---	---	---	---	112	111	112	127	124	126
23	---	---	---	---	---	---	114	112	113	128	124	126
24	---	---	---	---	---	---	114	112	114	128	124	126
25	---	---	---	---	---	---	116	113	115	129	127	128
26	---	---	---	---	---	---	118	115	116	130	127	129
27	---	---	---	---	---	---	117	115	116	130	127	128
28	---	---	---	---	---	---	118	115	117	129	127	128
29	---	---	---	---	---	---	119	117	118	131	128	129
30	---	---	---	---	---	---	123	117	118	130	128	129
31	---	---	---	---	---	---	119	115	117	---	---	---
MONTH	---	---	---	---	---	---	123	109	114	136	115	124

MONONGAHELA RIVER BASIN

03077500 YOUGHIOGHENY RIVER AT YOUGHIOGHENY RIVER DAM, 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	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
2	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
3	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
4	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
5	---	---	---	---	---	---	---	---	---	6.4	6.3	6.3
6	---	---	---	---	---	---	---	---	---	6.3	6.3	6.3
7	---	---	---	---	---	---	---	---	---	6.4	6.3	6.3
8	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
9	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
10	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
11	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
12	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
13	---	---	---	---	---	---	---	---	---	6.4	6.2	6.4
14	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
15	---	---	---	---	---	---	---	---	---	6.4	6.3	6.4
16	---	---	---	---	---	---	---	---	---	6.4	6.3	6.3
17	---	---	---	---	---	---	7.0	6.5	6.7	6.4	6.3	6.3
18	---	---	---	---	---	---	7.2	6.2	7.0	6.3	6.3	6.3
19	---	---	---	---	---	---	6.5	6.2	6.4	6.3	6.3	6.3
20	---	---	---	---	---	---	6.2	6.0	6.2	6.7	6.3	6.3
21	---	---	---	---	---	---	6.1	5.9	6.0	6.4	6.3	6.4
22	---	---	---	---	---	---	6.3	6.0	6.2	6.4	6.3	6.3
23	---	---	---	---	---	---	6.4	5.9	6.2	6.4	6.3	6.3
24	---	---	---	---	---	---	6.0	5.8	5.9	6.3	6.3	6.3
25	---	---	---	---	---	---	6.2	6.0	6.2	6.3	6.2	6.3
26	---	---	---	---	---	---	6.2	6.2	6.2	6.3	6.3	6.3
27	---	---	---	---	---	---	6.2	6.2	6.2	6.3	6.3	6.3
28	---	---	---	---	---	---	6.2	6.2	6.2	6.3	6.3	6.3
29	---	---	---	---	---	---	6.2	6.2	6.2	6.3	6.2	6.3
30	---	---	---	---	---	---	6.2	6.2	6.2	6.3	6.2	6.3
31	---	---	---	---	---	---	6.4	6.2	6.4	---	---	---
MAX	---	---	---	---	---	---	7.2	6.5	7.0	6.7	6.4	6.4
MIN	---	---	---	---	---	---	6.0	5.8	5.9	6.3	6.2	6.3

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	---	---	---	---	---	---	---	---	---	18.0	17.1	17.6
2	---	---	---	---	---	---	---	---	---	18.6	17.4	17.9
3	---	---	---	---	---	---	---	---	---	18.6	17.9	18.3
4	---	---	---	---	---	---	---	---	---	18.8	18.1	18.6
5	---	---	---	---	---	---	---	---	---	18.9	18.3	18.6
6	---	---	---	---	---	---	---	---	---	18.8	18.4	18.6
7	---	---	---	---	---	---	---	---	---	19.0	18.5	18.7
8	---	---	---	---	---	---	---	---	---	19.1	18.6	18.9
9	---	---	---	---	---	---	---	---	---	19.6	18.5	19.2
10	---	---	---	---	---	---	---	---	---	19.6	19.2	19.4
11	---	---	---	---	---	---	---	---	---	19.7	19.1	19.5
12	---	---	---	---	---	---	---	---	---	19.7	19.3	19.5
13	---	---	---	---	---	---	---	---	---	19.9	19.3	19.6
14	---	---	---	---	---	---	---	---	---	20.1	19.5	19.8
15	---	---	---	---	---	---	---	---	---	20.0	19.3	19.6
16	---	---	---	---	---	---	---	---	---	20.6	19.1	20.0
17	---	---	---	---	---	---	14.9	14.5	14.7	20.8	20.1	20.5
18	---	---	---	---	---	---	15.3	14.5	15.0	20.7	20.2	20.5
19	---	---	---	---	---	---	15.7	14.8	15.2	20.7	20.1	20.5
20	---	---	---	---	---	---	16.1	15.4	15.8	20.9	20.0	20.5
21	---	---	---	---	---	---	16.2	15.4	15.8	20.9	20.5	20.7
22	---	---	---	---	---	---	16.1	15.2	15.7	21.2	20.6	20.9
23	---	---	---	---	---	---	16.4	15.4	16.0	21.1	20.7	21.0
24	---	---	---	---	---	---	17.1	16.0	16.7	21.2	20.9	21.1
25	---	---	---	---	---	---	17.1	16.8	17.0	21.3	21.0	21.1
26	---	---	---	---	---	---	17.1	16.4	16.8	21.2	20.9	21.1
27	---	---	---	---	---	---	16.8	16.6	16.7	21.2	20.9	21.1
28	---	---	---	---	---	---	17.1	16.6	16.9	21.3	20.9	21.1
29	---	---	---	---	---	---	17.3	16.7	17.0	21.2	20.9	21.1
30	---	---	---	---	---	---	17.5	17.0	17.3	21.0	20.6	20.8
31	---	---	---	---	---	---	18.1	17.1	17.5	---	---	---
MONTH	---	---	---	---	---	---	18.1	14.5	16.3	21.3	17.1	19.9

MONONGAHELA RIVER BASIN

03077500 YOUGHIOGHENY RIVER AT YOUGHIOGHENY RIVER DAM, 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	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	7.8	7.2	7.4
4	---	---	---	---	---	---	---	---	---	7.7	7.2	7.5
5	---	---	---	---	---	---	---	---	---	7.4	6.6	7.1
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	8.0	7.3	7.7
11	---	---	---	---	---	---	---	---	---	8.3	7.6	8.0
12	---	---	---	---	---	---	---	---	---	8.1	7.4	7.8
13	---	---	---	---	---	---	---	---	---	7.6	6.8	7.2
14	---	---	---	---	---	---	---	---	---	7.7	7.2	7.5
15	---	---	---	---	---	---	---	---	---	8.1	7.3	7.7
16	---	---	---	---	---	---	---	---	---	8.2	7.3	7.8
17	---	---	---	---	---	---	---	---	---	8.2	7.4	7.8
18	---	---	---	---	---	---	---	---	---	8.2	7.5	7.8
19	---	---	---	---	---	---	---	---	---	8.5	7.2	7.9
20	---	---	---	---	---	---	---	---	---	8.9	7.1	8.1
21	---	---	---	---	---	---	---	---	---	8.7	8.3	8.6
22	---	---	---	---	---	---	---	---	---	8.9	8.0	8.5
23	---	---	---	---	---	---	---	---	---	8.9	7.2	8.4
24	---	---	---	---	---	---	---	---	---	9.1	8.5	8.9
25	---	---	---	---	---	---	---	---	---	9.0	8.0	8.5
26	---	---	---	---	---	---	---	---	---	9.1	7.7	8.3
27	---	---	---	---	---	---	---	---	---	9.0	7.4	8.4
28	---	---	---	---	---	---	---	---	---	9.6	8.5	9.1
29	---	---	---	---	---	---	8.7	5.3	6.8	9.3	7.9	8.6
30	---	---	---	---	---	---	---	---	---	9.4	5.2	7.8
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	8.7	5.3	6.8	9.6	5.2	8.0

MONONGAHELA RIVER BASIN

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'07.9", long 79°08'11.0", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi upstream from Slaubaugh Run, 0.7 mi downstream from U.S. Highway 40, and 1.0 mi northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2.

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

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect, frozen well), which are poor. U.S. Army Corps of Engineers satellite data collection platform at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES 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)
Jan. 5	1745	2,070	4.86	Mar. 29	0000	*2,840	*5.79
Jan. 12	0200	1,680	4.34				

Minimum discharge, 1.5 ft^3/s, on several days.

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	51	54	462	e56	e51	e86	286	121	55	11	5.8	16
2	45	48	306	83	e50	e73	418	97	49	9.4	5.4	9.2
3	44	66	213	103	e49	e63	372	89	64	8.5	5.1	6.3
4	39	148	168	232	e48	e67	359	80	77	7.8	4.9	5.3
5	35	224	144	1,260	e54	e71	366	71	53	8.3	4.6	4.6
6	32	127	134	1,210	e61	103	271	66	48	12	4.5	4.2
7	30	98	171	561	82	254	221	64	159	12	5.0	4.0
8	29	82	207	649	190	588	208	62	69	210	7.1	3.8
9	28	71	175	442	573	280	165	55	52	65	8.0	3.7
10	26	64	364	313	606	204	139	51	49	29	6.6	3.6
11	25	60	369	492	284	174	123	48	71	17	5.8	3.2
12	23	128	274	1,050	204	160	108	48	63	13	5.6	3.1
13	23	150	222	442	163	145	99	45	45	11	4.8	3.0
14	23	97	182	421	327	137	88	45	39	12	4.5	2.9
15	22	83	155	297	569	116	79	63	34	12	4.8	2.8
16	33	76	e138	238	358	105	71	50	35	12	6.5	2.6
17	47	71	e118	207	276	93	65	42	42	31	7.4	2.3
18	29	72	e100	165	204	109	61	38	31	25	5.6	2.0
19	53	109	e90	e140	177	147	58	36	26	15	5.0	1.7
20	48	174	e82	e117	152	184	56	284	23	12	5.0	1.5
21	64	137	e73	e91	254	154	52	173	21	9.3	10	1.6
22	46	111	e71	e83	238	138	79	105	22	8.1	8.6	1.6
23	37	102	e73	e76	168	590	263	102	30	7.7	5.8	1.5
24	61	149	e74	e69	145	578	151	185	20	7.1	4.6	1.5
25	62	320	e67	e64	137	349	152	130	15	7.1	4.2	1.5
26	46	224	e61	e61	124	309	155	106	13	8.3	4.1	1.7
27	38	168	e55	e59	114	287	122	88	11	8.9	5.8	1.9
28	36	225	e53	e57	e100	1,130	105	85	10	11	19	1.9
29	41	172	e50	e55	---	1,660	96	91	11	8.4	8.8	2.5
30	124	142	e51	e54	---	590	108	71	19	7.0	6.8	3.0
31	74	---	e53	e53	---	377	---	64	---	6.3	7.4	---
TOTAL	1,314	3,752	4,755	9,200	5,758	9,321	4,896	2,655	1,256	622.2	197.1	104.5
MEAN	42.4	125	153	297	206	301	163	85.6	41.9	20.1	6.36	3.48
MAX	124	320	462	1,260	606	1,660	418	284	159	210	19	16
MIN	22	48	50	53	48	63	52	36	10	6.3	4.1	1.5
CFSM	0.68	2.00	2.45	4.75	3.29	4.81	2.61	1.37	0.67	0.32	0.10	0.06
IN.	0.78	2.23	2.83	5.48	3.43	5.55	2.91	1.58	0.75	0.37	0.12	0.06

e Estimated

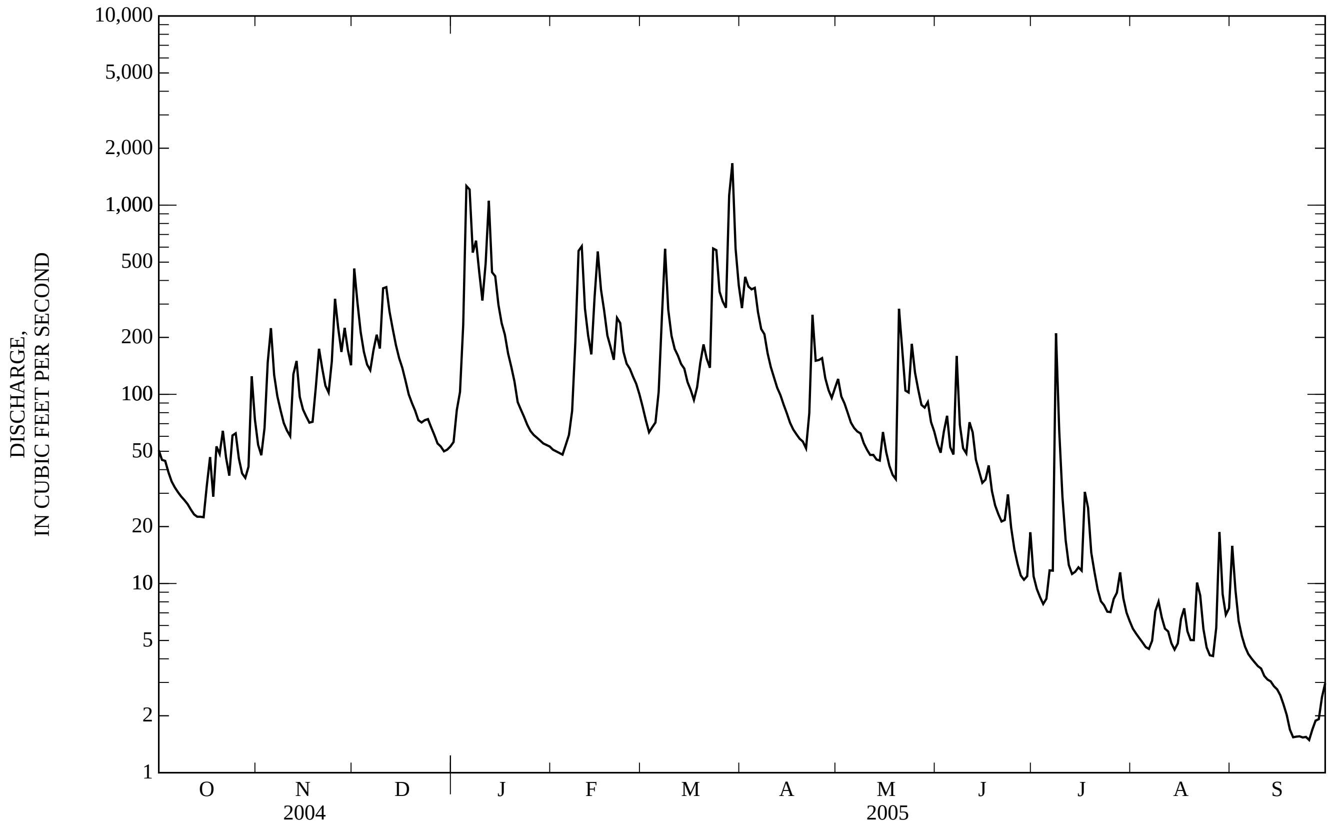
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

MEAN	45.7	91.0	144	163	196	268	211	139	78.3	48.1	38.0	38.8
MAX	288	449	341	376	414	582	468	312	298	175	202	290
(WY)	(1955)	(1986)	(1973)	(1996)	(1956)	(1963)	(1970)	(1996)	(2003)	(1996)	(1956)	(1996)
MIN	1.65	3.38	13.8	26.4	60.3	57.0	77.1	40.1	10.0	4.30	2.87	1.58
(WY)	(1954)	(1954)	(1999)	(1977)	(1964)	(1990)	(1968)	(1976)	(1965)	(1965)	(1991)	(1991)

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	54,591.4		43,830.8			
ANNUAL MEAN	149		120		121	
HIGHEST ANNUAL MEAN					203	1996
LOWEST ANNUAL MEAN					64.2	1954
HIGHEST DAILY MEAN	1,770	Mar 6	1,660	Mar 29	(e)3,600	Jan 19, 1996
LOWEST DAILY MEAN	7.6	Aug 11	1.5	(a)	(b)0.00	Aug 31, 1962
ANNUAL SEVEN-DAY MINIMUM	10	Aug 5	1.6	Sep 19	0.89	Aug 27, 1962
MAXIMUM PEAK FLOW			2,840	Mar 29	(c)8,400	Oct 15, 1954
MAXIMUM PEAK STAGE			5.79	Mar 29	10.70	Oct 15, 1954
INSTANTANEOUS LOW FLOW			1.5	(d)	(b)0.00	Aug 31, 1962
ANNUAL RUNOFF (CFSM)	2.39		1.92		1.94	
ANNUAL RUNOFF (INCHES)	32.49		26.09		26.38	
10 PERCENT EXCEEDS	323		285		282	
50 PERCENT EXCEEDS	91		64		68	
90 PERCENT EXCEEDS	19		5.0		8.3	

a Sept. 20, 23-25.
b Result of regulation from unknown source.
c From rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement at gage height of 8.13 ft.
d Sept. 20-26.
e Estimated.



DAILY MEAN DISCHARGE - 2005 WATER YEAR

YOUGHIOGHENY RIVER BASIN

03079000 CASSELMAN RIVER AT MARKLETON, PA

LOCATION.--Lat 39°51'35", long 79°13'40", Somerset County, Hydrologic Unit 05020006, on right bank at downstream side of highway bridge at Markleton, 2 mi southwest of Casselman, and 7 mi downstream from Coxes Creek.

DRAINAGE AREA.--382 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurements only), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1920 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1923-31. WSP 1435: 1932-34, 1935 (M), 1936-38. WSP 1625: 1924 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,655.29 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Slight diversion upstream of station to city of Frostburg, MD, in the Potomac River Basin. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 8,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 5	1800	10,400	7.46	Mar. 29	0200	*19,500	***a**9.58
Jan. 12	0400	12,400	8.03				

a From peak-stage indicator.

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	352	420	2250	472	335	601	1480	472	283	234	68	63
2	309	367	1650	423	308	518	1740	422	234	135	58	59
3	291	372	1180	579	310	480	1920	395	296	85	51	59
4	260	443	961	1490	308	454	1850	357	425	68	47	48
5	241	1110	815	6090	293	491	2140	322	295	66	44	39
6	229	729	718	7830	300	498	1510	300	271	106	43	35
7	220	576	824	3510	347	1280	1230	291	671	85	49	33
8	210	485	1100	3780	720	4040	1090	299	453	975	194	31
9	197	415	871	2690	2170	1650	909	272	302	1360	128	31
10	190	371	1550	1840	3200	1190	772	253	671	412	90	29
11	184	343	1760	2750	1550	1010	679	243	1140	208	70	27
12	179	565	1380	8470	1150	882	600	238	1260	148	58	26
13	174	834	1160	3140	939	762	546	229	486	129	53	25
14	185	568	981	2680	1260	665	494	217	318	149	48	25
15	190	471	837	1810	2830	598	440	253	239	95	44	24
16	207	439	717	1390	1810	565	401	252	229	57	98	24
17	232	413	690	1200	1420	540	376	218	230	268	140	31
18	215	393	607	935	1100	568	358	200	203	168	89	31
19	350	479	581	843	857	666	339	188	179	189	62	26
20	312	917	450	867	808	761	328	370	166	145	54	24
21	273	777	449	745	1560	737	313	677	156	113	69	24
22	276	635	570	561	1460	641	319	390	154	95	58	26
23	261	599	972	557	1060	2250	754	380	152	87	53	24
24	309	669	997	513	904	3130	677	848	148	77	50	22
25	399	1350	644	570	816	1870	597	669	128	77	42	22
26	322	1110	546	566	722	1520	640	547	112	93	38	23
27	284	908	515	473	614	1490	531	447	102	78	40	30
28	259	1180	416	362	631	6080	469	402	99	84	56	30
29	261	968	508	415	---	12300	441	436	141	79	83	29
30	737	834	485	420	---	3550	442	366	234	72	75	34
31	568	---	475	354	---	2070	---	320	---	61	64	---
TOTAL	8676	19740	27659	58325	29782	53857	24385	11273	9777	5998	2116	954
MEAN	280	658	892	1881	1064	1737	813	364	326	193	68.3	31.8
MAX	737	1350	2250	8470	3200	12300	2140	848	1260	1360	194	63
MIN	174	343	416	354	293	454	313	188	99	57	38	22
CFSM	0.73	1.72	2.34	4.93	2.78	4.55	2.13	0.95	0.85	0.51	0.18	0.08
IN.	0.84	1.92	2.69	5.68	2.90	5.24	2.37	1.10	0.95	0.58	0.21	0.09

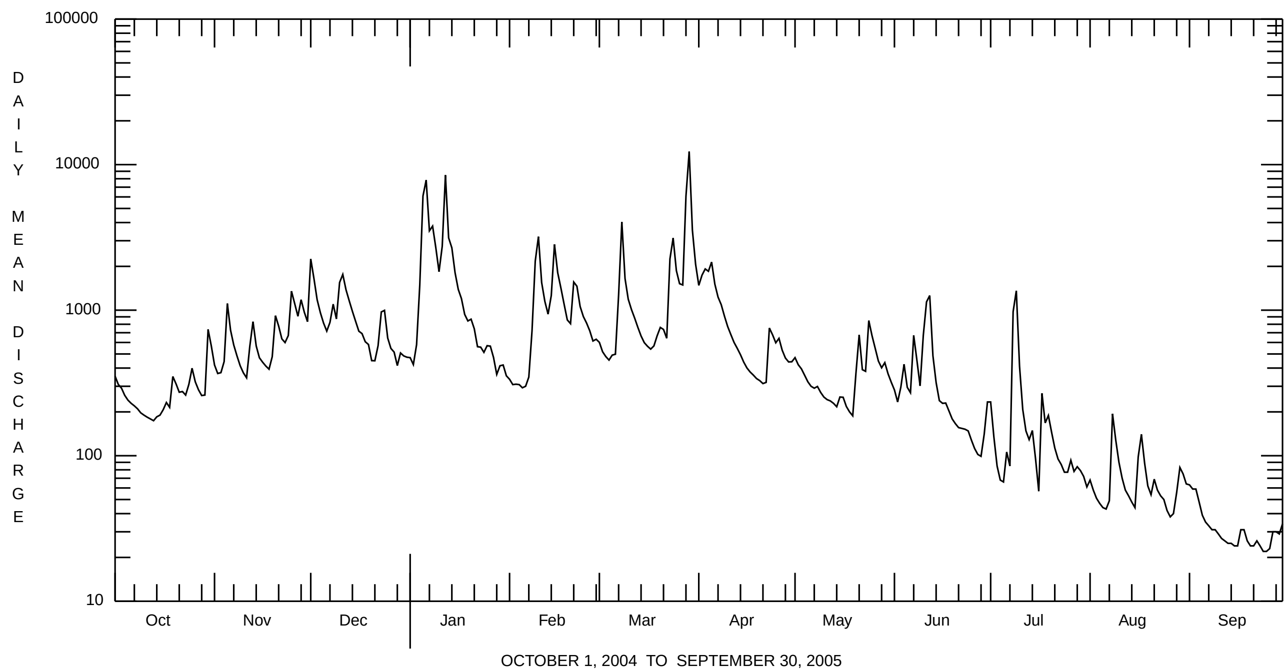
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	275	477	755	867	1036	1494	1160	796	453	258	217	214
MAX	1769	2975	2217	2709	2324	3860	2437	2147	1499	920	842	1756
(WY)	1955	1986	1973	1937	1956	1936	1970	1924	1941	1924	1956	1996
MIN	14.9	22.6	55.3	133	153	307	316	126	60.6	35.6	24.5	19.9
(WY)	1954	1954	1999	1925	1934	1990	1921	1926	1965	1965	1957	1943

03079000 CASSELMAN RIVER AT MARKLETON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1921 - 2005	
ANNUAL TOTAL	304572		252542			
ANNUAL MEAN	832		692		665	
HIGHEST ANNUAL MEAN					1151	1996
LOWEST ANNUAL MEAN					336	1954
HIGHEST DAILY MEAN	12800	Sep 18	12300	Mar 29	**e**25000	Jan 19 1996
LOWEST DAILY MEAN	80	Aug 11	22	Sep 24,25	11	Jul 23 1936**b**
ANNUAL SEVEN-DAY MINIMUM	98	Aug 6	24	Sep 20	12	Sep 4 1957
MAXIMUM PEAK FLOW			19500	Mar 29	**c**50000	Oct 15 1954
MAXIMUM PEAK STAGE			**a**9.58	Mar 29	14.06	Oct 15 1954
INSTANTANEOUS LOW FLOW			21	Sep 24,25	10	Sep 9 1957
ANNUAL RUNOFF (CFSM)	2.18		1.81		1.74	
ANNUAL RUNOFF (INCHES)	29.66		24.59		23.66	
10 PERCENT EXCEEDS	1510		1500		1540	
50 PERCENT EXCEEDS	478		399		344	
90 PERCENT EXCEEDS	136		50		56	

a From peak-stage indicator.
b Also Sept. 7-9, 1957.
c Estimated on basis of summation of peak flows at nearby stations.
e Estimated.



YOUGHIOGHENY RIVER BASIN

03079000 CASSELMAN RIVER AT MARKLETON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 2005 to current year.
pH: June 2005 to current year.
WATER TEMPERATURE: June 2005 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods June 1, July 7-14, and Sept. 30, which are poor. Other interruptions in the record were due to malfunctions of the equipment.

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	---	---	---	545	367	463	716	692	702	677	635	648
2	334	321	328	552	526	541	721	667	696	728	677	707
3	349	330	338	563	528	545	733	684	710	729	700	714
4	458	332	366	610	563	592	749	725	736	700	686	691
5	333	324	330	624	590	605	770	749	756	698	691	694
6	351	300	339	614	585	600	791	769	778	706	689	695
7	374	297	331	650	526	599	799	771	792	737	703	720
8	326	285	301	626	432	549	771	547	684	760	737	747
9	328	293	312	616	365	462	684	492	545	784	757	769
10	384	216	279	420	365	405	570	549	561	813	784	802
11	307	263	288	487	408	454	604	555	579	---	---	---
12	316	272	288	508	483	491	659	604	629	---	---	---
13	321	296	307	544	485	508	694	658	673	---	---	---
14	346	321	334	583	502	537	725	694	709	906	882	893
15	358	345	350	502	453	467	756	725	737	907	900	904
16	370	358	364	531	482	516	767	547	683	903	892	900
17	408	367	380	600	467	532	724	557	644	892	876	882
18	464	392	405	467	435	446	719	594	635	898	841	866
19	406	389	395	493	434	460	657	613	624	860	831	845
20	417	397	406	618	493	540	680	657	674	896	852	871
21	438	414	423	542	516	528	673	603	644	923	896	911
22	444	419	434	565	542	555	724	667	697	936	923	927
23	505	442	471	601	562	587	754	709	732	940	920	932
24	491	462	475	632	599	618	756	732	742	920	913	917
25	536	459	479	643	605	631	761	733	748	932	919	924
26	542	495	510	688	602	654	776	760	766	935	919	929
27	525	501	513	703	654	683	783	761	772	930	919	926
28	547	511	528	687	654	671	766	753	758	926	896	911
29	552	520	532	699	678	688	840	763	813	925	896	913
30	539	406	511	692	675	683	830	696	750	---	---	---
31	---	---	---	708	677	691	697	638	667	---	---	---
MONTH	552	216	390	708	365	558	840	492	698	940	635	832

03079000 CASSELMAN RIVER AT MARKLETON, 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	---	---	---	7.9	7.2	7.4	8.2	7.6	7.8	8.3	7.7	7.9
2	7.5	7.1	7.3	8.1	7.3	7.6	8.2	7.5	7.8	8.3	7.7	7.9
3	7.4	7.1	7.2	8.2	7.3	7.6	8.2	7.6	7.8	8.2	7.6	7.8
4	7.5	7.1	7.3	8.1	7.3	7.5	8.3	7.7	7.9	8.1	7.6	7.7
5	7.7	7.2	7.3	8.1	7.3	7.5	8.3	7.8	8.0	8.1	7.4	7.6
6	7.7	7.2	7.3	8.1	7.4	7.6	8.5	7.9	8.1	7.9	7.4	7.5
7	7.7	7.2	7.3	8.1	7.4	7.6	8.5	7.9	8.1	7.8	7.3	7.5
8	7.7	7.2	7.4	7.6	7.3	7.5	8.4	8.0	8.1	7.9	7.4	7.5
9	7.7	7.2	7.3	7.9	7.2	7.7	8.5	8.1	8.3	8.0	7.4	7.5
10	7.5	7.1	7.2	8.2	7.7	7.8	8.5	8.2	8.3	8.1	7.3	7.5
11	7.3	7.0	7.2	8.4	7.6	7.8	8.9	8.2	8.4	---	---	---
12	7.4	7.1	7.3	8.5	7.6	7.8	8.8	8.0	8.3	---	---	---
13	7.7	7.2	7.4	8.3	7.5	7.8	8.7	7.9	8.2	---	---	---
14	8.0	7.3	7.4	8.4	7.5	7.8	8.7	8.0	8.2	8.3	7.5	7.8
15	7.8	7.2	7.4	8.6	7.6	7.9	8.6	8.0	8.2	8.3	7.4	7.8
16	7.5	7.1	7.2	8.6	7.6	8.0	8.3	8.0	8.1	8.3	7.7	7.8
17	7.5	7.1	7.2	8.2	7.6	7.8	8.6	8.0	8.2	8.3	7.6	7.9
18	7.6	7.0	7.2	8.2	7.5	7.7	8.9	7.9	8.3	8.3	7.8	8.0
19	7.6	7.0	7.3	8.2	7.5	7.7	8.8	8.0	8.2	8.3	7.8	7.9
20	7.6	7.1	7.3	8.4	7.5	7.8	8.7	7.9	8.2	8.1	7.8	7.9
21	7.6	7.1	7.3	8.3	7.5	7.8	8.8	8.0	8.2	8.2	7.6	7.8
22	7.5	7.1	7.2	8.2	7.5	7.7	8.8	7.9	8.2	8.2	7.7	7.8
23	7.6	7.1	7.3	8.0	7.4	7.6	8.8	8.0	8.3	8.3	7.7	7.8
24	7.6	7.1	7.3	8.0	7.4	7.6	8.6	8.0	8.2	8.3	7.8	7.9
25	7.6	7.1	7.3	7.9	7.4	7.5	8.3	7.7	8.0	8.2	7.8	7.9
26	7.7	7.1	7.4	8.3	7.4	7.8	8.2	7.6	7.8	8.0	7.7	7.8
27	7.6	7.2	7.3	8.3	7.6	7.8	8.0	7.6	7.7	8.0	7.7	7.9
28	7.6	7.1	7.3	8.4	7.7	7.9	8.2	7.5	7.7	8.1	7.6	7.8
29	8.1	7.2	7.5	8.3	7.7	7.9	8.0	7.5	7.6	8.2	7.7	7.9
30	8.1	7.2	7.4	8.3	7.6	7.8	8.0	7.5	7.6	8.0	7.6	7.8
31	---	---	---	8.2	7.6	7.9	8.2	7.4	7.8	---	---	---
MAX	8.1	7.3	7.5	8.6	7.7	8.0	8.9	8.2	8.4	8.3	7.8	8.0
MIN	7.3	7.0	7.2	7.6	7.2	7.4	8.0	7.4	7.6	7.8	7.3	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
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	---	---	---	27.3	22.4	24.6	30.0	23.1	26.3	25.1	19.7	21.9
2	18.8	15.9	17.3	26.7	22.3	24.3	29.8	23.0	26.2	25.3	19.6	22.2
3	17.1	15.5	16.1	25.7	20.5	23.2	30.3	22.6	26.3	23.9	18.5	21.3
4	19.3	14.6	16.8	27.6	21.1	24.3	29.5	23.0	26.3	24.7	17.9	21.1
5	23.4	16.8	20.0	26.2	22.6	24.2	26.7	23.4	24.5	23.3	17.3	20.5
6	24.0	19.8	21.7	27.5	22.0	24.5	26.3	22.2	24.1	23.9	17.0	20.5
7	23.8	18.1	21.0	---	---	---	27.1	21.8	24.1	24.3	17.1	20.7
8	23.3	19.6	21.7	---	---	---	23.5	21.4	22.4	23.7	16.9	20.5
9	23.8	19.8	21.9	---	---	---	26.9	21.3	23.8	23.9	18.3	21.2
10	25.0	19.7	22.4	---	---	---	29.1	22.4	25.5	25.0	18.7	21.8
11	23.3	20.0	21.4	---	---	---	29.3	23.4	26.1	---	---	---
12	24.0	19.8	21.7	---	---	---	29.3	23.9	26.6	---	---	---
13	25.0	20.6	22.8	---	---	---	29.6	23.9	26.7	---	---	---
14	25.3	21.7	23.5	---	---	---	29.3	23.6	26.4	23.4	18.6	21.3
15	23.5	21.0	22.1	28.6	22.6	25.4	27.7	24.4	26.1	24.9	19.4	22.3
16	21.0	18.3	19.7	28.7	24.1	26.3	25.7	21.6	23.4	25.7	21.2	23.1
17	19.9	16.2	18.1	27.5	24.3	25.8	26.4	20.1	23.0	24.1	21.3	22.5
18	21.2	16.1	18.7	27.7	24.2	25.7	26.4	20.9	23.7	22.8	19.3	20.8
19	21.3	16.7	19.0	27.4	24.0	25.6	26.8	22.4	24.3	23.6	17.7	20.4
20	22.4	17.1	19.6	29.8	24.1	26.5	28.9	22.7	25.7	20.9	18.7	19.7
21	23.6	18.0	20.7	28.3	23.6	26.0	28.6	24.1	26.0	23.5	17.5	19.9
22	23.4	19.6	21.3	27.1	23.7	25.2	25.5	21.1	23.3	23.0	16.5	19.9
23	25.7	18.6	22.1	29.3	23.1	25.9	24.8	19.4	22.0	23.3	19.8	21.4
24	27.4	20.2	23.6	26.2	21.5	24.0	25.6	18.9	22.1	21.7	19.2	20.4
25	29.0	21.5	25.0	28.7	22.9	25.0	24.4	18.4	21.8	22.4	17.7	20.0
26	29.1	22.6	25.7	29.2	22.5	25.7	22.3	19.7	20.7	20.9	19.6	20.3
27	28.5	22.6	25.5	28.1	24.4	26.0	20.6	19.5	20.0	22.4	17.7	19.7
28	29.8	22.5	25.8	27.3	22.7	24.8	25.0	19.6	21.8	20.9	14.5	17.9
29	29.0	23.7	26.1	28.5	21.9	25.0	22.7	20.3	21.4	19.2	15.1	17.8
30	29.7	23.6	26.1	28.9	22.0	25.2	23.1	20.6	21.9	17.9	11.7	14.8
31	---	---	---	29.2	22.4	25.7	22.4	21.2	21.9	---	---	---
MONTH	29.8	14.6	21.6	29.8	20.5	25.2	30.3	18.4	24.0	25.7	11.7	20.5

YOUGHIOGHENY RIVER BASIN

03080000 LAUREL HILL CREEK AT URSINA, PA

LOCATION.--Lat 39°49'13", long 79°19'18", Somerset County, Hydrologic Unit 05020006, on right bank 500 ft downstream from bridge on State Highway 281 at Ursina, and 2.7 mi upstream from mouth.

DRAINAGE AREA.--121 mi^2.

PERIOD OF RECORD.--August to September 1913 (gage heights and discharge measurements only), October 1918 to current year. Monthly discharge only for some periods, published in WSP 1305. October 1913 to September 1918 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 743: Drainage area. WSP 893: 1919-21, 1932-34. WSP 1305: 1922-31. WSP 1435: 1919-20. WSP 1625: 1932 (M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,335.26 ft above National Geodetic Vertical Datum of 1929. Prior to July 18, 1939, nonrecording gage at bridge 0.5 mi downstream at datum 6.20 ft lower.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 6	1600	4,140	5.15	Mar. 28	2300	*5,380	*5.97
Jan. 11	2300	4,130	5.14				

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	81	194	916	177	e95	237	561	247	150	45	12	34
2	74	179	894	160	e115	208	652	213	128	34	11	35
3	72	184	546	260	e120	195	788	197	136	27	11	22
4	65	210	401	1240	e120	176	714	170	137	23	9.7	15
5	60	373	322	2750	e110	169	1100	153	109	23	9.1	13
6	54	319	278	3950	e115	177	1050	141	105	27	13	12
7	51	269	307	2370	e125	407	721	139	134	21	11	11
8	48	222	398	1640	e150	1960	538	141	94	45	112	11
9	46	196	339	1150	e595	850	412	119	79	45	49	9.8
10	45	133	622	701	1840	511	346	108	73	38	29	8.8
11	45	129	758	1220	846	405	295	101	170	25	20	8.5
12	44	232	626	3180	522	347	255	102	151	21	16	8.2
13	40	312	510	1500	391	292	224	92	100	95	15	7.8
14	41	229	404	1300	546	248	200	85	81	81	13	6.6
15	47	198	334	827	1380	219	173	130	70	44	12	7.5
16	50	182	313	566	1020	202	146	117	68	32	32	7.3
17	56	164	265	453	735	192	131	95	86	34	59	9.3
18	56	154	233	374	507	201	120	87	67	29	29	16
19	174	188	220	322	406	242	111	81	57	37	18	13
20	141	366	178	304	331	280	105	166	52	40	15	11
21	89	348	193	289	629	295	103	194	46	41	19	9.7
22	71	287	204	225	651	269	105	143	45	26	32	5.9
23	61	262	453	237	461	1190	249	228	49	22	19	5.8
24	93	280	593	187	388	1420	246	392	40	18	14	5.5
25	132	472	422	261	340	828	258	294	34	17	12	4.7
26	120	454	414	e185	291	604	326	246	30	18	11	5.5
27	72	364	287	e125	261	568	292	203	27	18	12	2.5
28	89	382	243	e90	240	2530	258	196	25	17	21	4.3
29	119	342	235	e125	---	3560	250	291	46	16	23	9.7
30	394	298	199	e130	---	1530	248	217	43	15	19	10
31	245	---	185	e105	---	834	---	181	---	13	19	---
TOTAL	2775	7922	12292	26403	13330	21146	10977	5269	2432	987	696.8	330.4
MEAN	89.5	264	397	852	476	682	366	170	81.1	31.8	22.5	11.0
MAX	394	472	916	3950	1840	3560	1100	392	170	95	112	35
MIN	40	129	178	90	95	169	103	81	25	13	9.1	2.5
CFSM	0.74	2.18	3.28	7.04	3.93	5.64	3.02	1.40	0.67	0.26	0.19	0.09
IN.	0.85	2.44	3.78	8.12	4.10	6.50	3.37	1.62	0.75	0.30	0.21	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	223	327	356	402	560	445	318	187	103	96.5	85.2
MAX	564	1011	815	1141	1000	1331	879	689	700	388	416	608
(WY)	1955	1986	1973	1937	1956	1936	1970	1924	1941	1985	1935	1971
MIN	6.15	8.91	25.8	57.0	89.3	155	114	52.0	21.2	9.20	8.90	5.73
(WY)	1931	1931	1999	1925	1934	1990	1921	1926	1999	1966	1983	1959

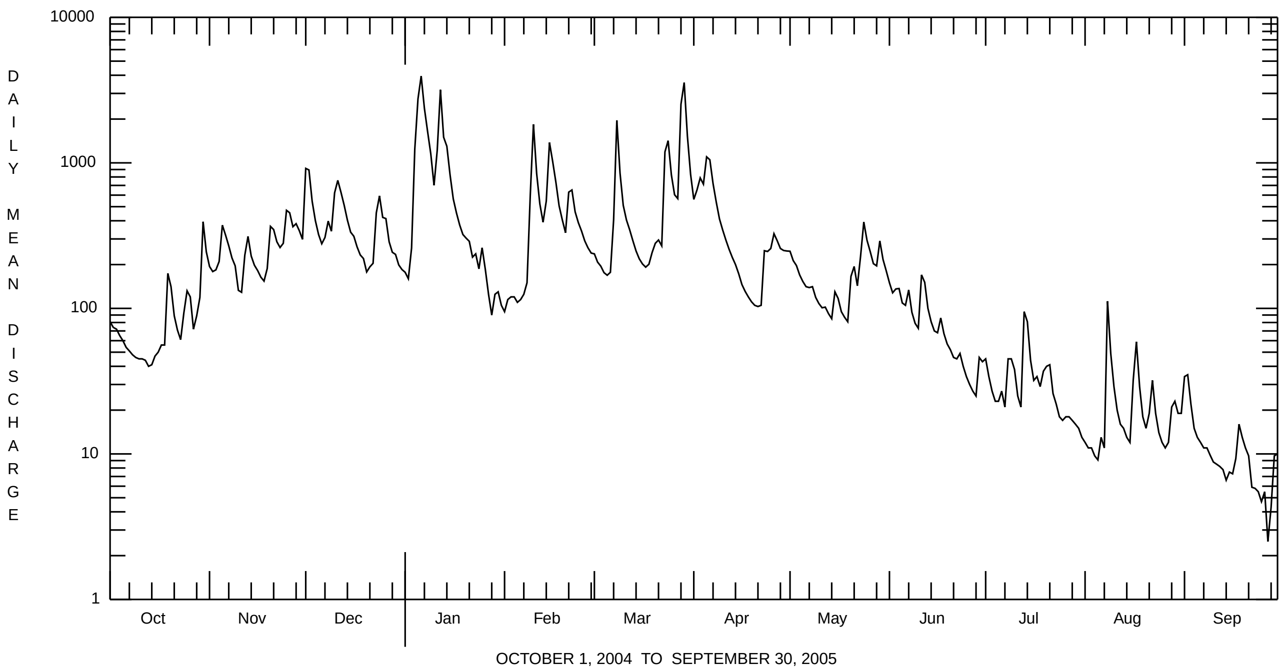
e Estimated.

YOUGHIOGHENY RIVER BASIN

03080000 LAUREL HILL CREEK AT URSINA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1919 - 2005	
ANNUAL TOTAL	125801		104560.2			
ANNUAL MEAN	344		286		268	
HIGHEST ANNUAL MEAN					395	1996
LOWEST ANNUAL MEAN					164	1931
HIGHEST DAILY MEAN	4010	Mar 6	3950	Jan 6	6980	Mar 17 1936
LOWEST DAILY MEAN	28	Aug 18	2.5	Sep 27	2.3	Sep 3 1999
ANNUAL SEVEN-DAY MINIMUM	38	Aug 14	4.9	Sep 22	3.4	Sep 5 1957
MAXIMUM PEAK FLOW			5380	Mar 28	**a**10900	Oct 15 1954
MAXIMUM PEAK STAGE			5.97	Mar 28	10.63	Oct 15 1954
INSTANTANEOUS LOW FLOW			**b**1.0	Sep 28	**b**1.0	Sep 28 2005
ANNUAL RUNOFF (CFSM)	2.84		2.37		2.21	
ANNUAL RUNOFF (INCHES)	38.68		32.15		30.04	
10 PERCENT EXCEEDS	729		638		639	
50 PERCENT EXCEEDS	198		146		148	
90 PERCENT EXCEEDS	49		13		20	

a From rating curve extended above 6,100 ft^3/s on basis of slope-area measurement of peak flow.
b Result of abnormal diversion.



YOUGHIOGHENY RIVER BASIN

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, PA

LOCATION.--Lat 39°49'39", long 79°22'22", Fayette County, Hydrologic Unit 05020006, on left bank 1.0 mi downstream from Casselman River, 1.5 mi northwest of Confluence, at mile 72.0.

DRAINAGE AREA.--1,029 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1940 to current year. Monthly discharge only for June 1940, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,302.77 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since January 1925 by Deep Creek Reservoir (station 03076000) 28 mi upstream and since December 1942 by Youghiogheny River Lake (03077000) 1.7 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17, or 18, 1936 reached a stage of 21.6 ft, from floodmarks, discharge, 85,000 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	914	962	4090	1640	1390	1870	5340	1870	1160	862	858	819
2	732	1620	4220	1570	1350	1740	5430	1770	988	898	952	838
3	958	2090	3180	1690	1380	1650	6020	1710	965	846	942	868
4	1260	2190	2680	4030	1370	1560	6050	1300	1100	789	924	848
5	1290	3200	2390	10400	1340	1660	7470	1210	1010	703	917	805
6	1380	2760	2190	15100	1360	1470	6550	1060	836	726	912	748
7	1290	2480	2280	9420	1310	2140	6270	949	952	717	909	744
8	1270	2330	2800	9710	1560	7890	6160	965	949	944	898	740
9	1260	2190	2470	8730	3690	3900	5260	914	834	1410	746	763
10	1260	2070	3520	7390	7070	2610	4110	820	1040	971	687	785
11	982	2020	4360	8280	4170	2120	3250	754	1340	709	675	762
12	563	2280	4130	18400	3770	1830	2490	752	1470	721	720	721
13	792	2590	3970	9090	3670	1580	2140	784	1090	787	838	691
14	1240	2260	3700	8420	3420	1390	2030	883	912	821	769	695
15	1260	2260	3410	8130	6290	1270	1930	931	822	832	633	630
16	1280	2190	3170	7270	5460	1210	1850	812	803	874	673	697
17	1300	2140	2960	6790	4880	1160	1480	707	867	880	814	783
18	1050	2100	2470	5750	4120	1180	1220	671	883	798	755	761
19	880	2180	2120	4710	3590	1300	1070	652	824	813	738	714
20	1120	2960	1690	3930	3440	1450	953	908	793	775	776	681
21	1430	2860	1390	3320	4070	1490	934	1580	773	742	765	725
22	1400	2580	1420	3020	4070	1350	937	1410	762	749	726	722
23	1310	2210	2020	2940	3260	3620	1490	1780	774	828	735	750
24	1310	2020	2490	2760	2920	5920	1560	2720	832	859	829	807
25	986	3020	1830	2910	2480	3780	1400	2330	900	883	882	775
26	648	3010	1610	2640	2090	3240	1910	2090	838	896	835	716
27	552	2570	1530	2230	1910	3340	2000	1900	737	881	762	713
28	529	2780	1300	1670	1910	9800	1870	1800	737	879	771	713
29	541	2660	1420	1530	---	20300	1830	1940	736	885	788	718
30	1310	2370	1560	1590	---	8710	1820	1760	770	875	813	680
31	1110	---	1650	1430	---	6530	---	1400	---	864	809	---
TOTAL	33207	70952	80020	176490	87340	109060	92824	41132	27497	26217	24851	22412
MEAN	1071	2365	2581	5693	3119	3518	3094	1327	917	846	802	747
MAX	1430	3200	4360	18400	7070	20300	7470	2720	1470	1410	952	868
MIN	529	962	1300	1430	1310	1160	934	652	736	703	633	630
(†)	-369	-165	+191	-73	+252	+1380	-431	-9.0	-195	-193	-618	-688

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, PA--Continued

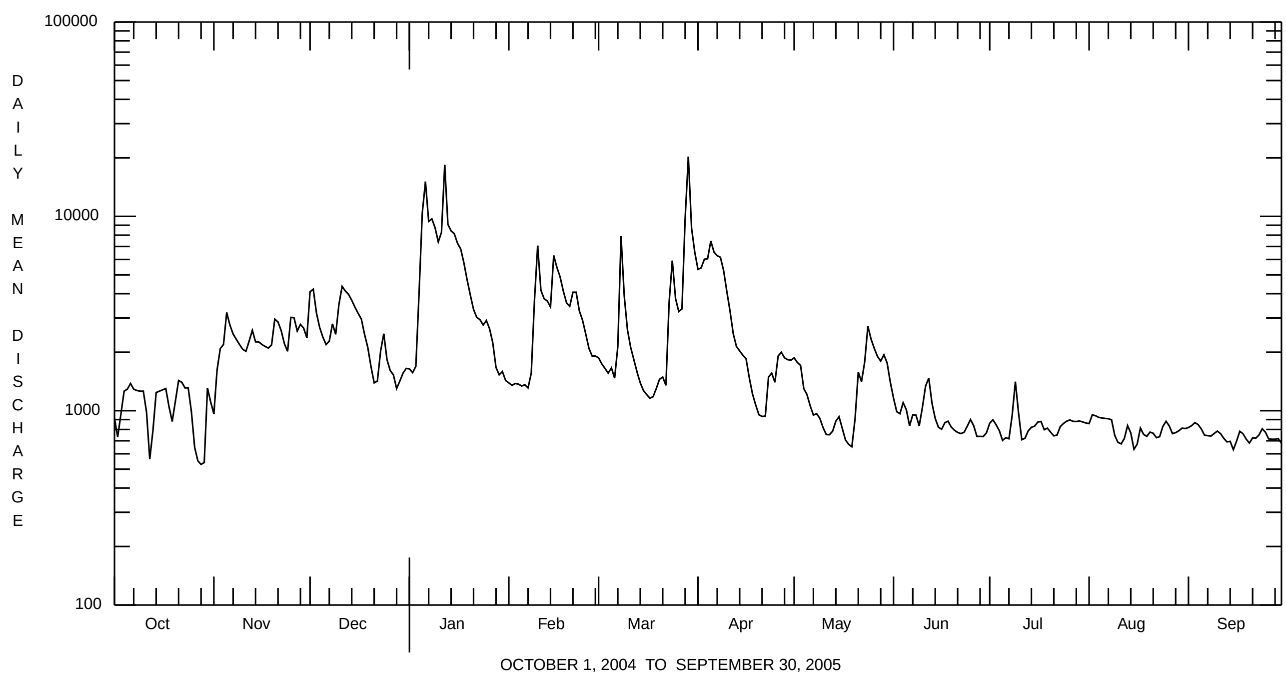
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1185	1575	2316	2508	2824	3650	3092	2366	1548	1110	1073	1135
MAX	4699	5065	6171	5693	5204	7868	6984	5052	4634	2950	3565	3882
(WY)	1980	1986	1973	2005	1956	1963	1993	1996	2003	1985	1956	1971
MIN	287	433	246	496	903	778	1157	602	491	384	290	214
(WY)	1948	1954	1999	1981	1954	1990	1963	1982	1965	1942	1944	1946

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	911617		792002			
ANNUAL MEAN	2491	† +42	2170	† -74	2028	
HIGHEST ANNUAL MEAN					2910	1996
LOWEST ANNUAL MEAN					1074	1954
HIGHEST DAILY MEAN	17000	Sep 18	20300	Mar 29	34600	Oct 16 1954
LOWEST DAILY MEAN	529	Oct 28	529	Oct 28	121	Sep 27 1943
ANNUAL SEVEN-DAY MINIMUM	763	Jul 20	709	Sep 14	175	Sep 16 1946
MAXIMUM PEAK FLOW			**a**25900	Mar 29	**a**69500	Oct 15 1954
MAXIMUM PEAK STAGE			12.35	Mar 29	19.92	Oct 15 1954
10 PERCENT EXCEEDS	5280		4190		4500	
50 PERCENT EXCEEDS	1600		1370		1270	
90 PERCENT EXCEEDS	873		737		615	

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.

a From rating curve extended above 25,000 ft^3/s on basis of slope-area measurement of peak flow.



YOUGHIOGHENY RIVER BASIN

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 2004 to current year.
pH: October 2004 to current year.
WATER TEMPERATURE: October 2004 to current year.
DISSOLVED OXYGEN: October 2004 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance record rated fair except for periods Jan. 14-31, May 4, Aug. 25-31, and Sept. 10, which are poor. pH record rated fair except for periods Jan. 13-31, June 14, 15, July 26, Aug. 11, and Sept. 10, which are poor. Water temperature record rated fair except for periods Jan. 14-31, and Sept. 10, which are poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment. Satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 307 microsiemens, Oct. 25; minimum recorded, 77 microsiemens, Jan. 12.
pH: Maximim 7.7, Oct. 25, 30, 31, Nov. 1; minimum, 5.8, June 13.
WATER TEMPERATURE: Maximum, 22.3°C, Sept. 23; minimum, 1.9°C, Mar. 8, 9, 14.
DISSOLVED OXYGEN: Maximum, 14.3 mg/L, Aug. 7; minimum, 4.9 mg/L, July 6.

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	120	117	118	191	130	144	120	114	116	108	107	107
2	118	117	117	131	126	129	118	113	115	107	106	107
3	119	116	117	128	125	126	114	113	113	107	106	107
4	119	117	118	127	124	126	114	112	113	114	107	110
5	120	118	119	125	120	122	113	112	113	129	100	113
6	120	118	119	120	116	117	114	112	113	131	83	101
7	120	118	119	117	116	116	112	111	111	101	84	92
8	120	118	119	117	115	117	111	110	110	103	78	86
9	120	118	119	115	113	114	111	110	111	91	78	84
10	120	118	119	114	113	113	110	110	110	88	81	84
11	122	119	120	113	112	112	110	108	109	88	82	85
12	121	119	120	113	111	112	111	108	109	112	77	94
13	120	119	120	111	111	111	111	109	110	87	80	84
14	122	120	120	114	111	113	110	109	110	---	---	---
15	123	120	121	113	112	112	110	110	110	---	---	---
16	121	119	120	113	112	113	110	110	110	---	---	---
17	121	120	121	113	111	112	111	110	110	---	---	---
18	121	119	120	113	112	113	111	110	110	---	---	---
19	122	120	121	113	113	113	111	110	111	---	---	---
20	122	120	121	113	112	112	111	111	111	---	---	---
21	123	120	121	112	111	112	111	110	111	---	---	---
22	122	121	122	112	111	112	111	110	110	---	---	---
23	122	121	122	112	111	112	114	109	111	---	---	---
24	122	121	122	112	111	112	115	109	112	---	---	---
25	307	121	167	113	112	112	109	108	109	---	---	---
26	138	132	133	114	113	114	109	108	108	---	---	---
27	139	134	136	115	114	114	108	108	108	---	---	---
28	141	138	140	115	114	114	108	107	108	---	---	---
29	140	129	137	115	114	114	108	108	108	---	---	---
30	181	130	169	115	114	114	108	107	108	---	---	---
31	174	144	152	---	---	---	108	107	108	---	---	---
MONTH	307	116	126	191	111	116	120	107	111	131	77	96

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	108	107	107	122	116	120	120	113	116	124	122	123
2	107	106	106	123	119	121	114	111	112	123	121	122
3	107	106	106	121	119	120	118	114	117	121	120	121
4	108	106	107	120	118	119	117	115	116	---	---	---
5	108	107	108	118	117	118	116	115	115	121	119	121
6	109	108	108	118	116	117	116	115	115	121	119	120
7	110	108	109	158	108	116	117	116	116	121	118	119
8	111	109	110	214	136	161	118	117	117	119	117	118
9	170	111	135	136	122	128	120	117	118	119	117	118
10	170	110	131	127	122	124	120	118	119	118	116	117
11	112	105	107	126	120	123	121	120	120	118	115	116
12	105	105	105	126	124	125	122	121	122	118	116	117
13	106	105	105	124	120	122	123	122	122	118	115	117
14	118	106	109	120	117	119	124	122	123	116	114	115
15	144	108	123	120	117	118	125	122	123	117	113	115
16	108	106	107	123	120	121	125	122	124	117	113	115
17	107	106	107	124	121	123	128	124	126	117	113	115
18	107	107	107	127	124	126	128	126	127	115	112	114
19	108	107	108	130	127	129	129	126	128	115	112	114
20	110	108	109	129	126	127	130	127	129	115	110	113
21	113	110	111	137	129	134	133	128	130	113	112	112
22	114	112	112	135	130	132	134	130	133	112	110	111
23	117	114	116	215	128	162	136	131	133	112	108	110
24	116	113	114	203	165	174	133	128	131	111	109	110
25	121	113	116	167	156	161	133	129	131	111	109	110
26	119	116	117	157	135	146	132	129	131	110	108	109
27	121	114	117	136	130	133	131	125	128	111	107	109
28	116	113	114	158	129	142	127	126	127	110	107	109
29	---	---	---	132	106	120	127	126	126	110	107	108
30	---	---	---	133	118	125	126	124	125	110	107	108
31	---	---	---	120	117	118	---	---	---	108	106	107
MONTH	170	105	112	215	106	130	136	111	123	124	106	114

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	109	107	108	109	106	107	134	103	109	112	111	112
2	109	107	108	108	106	107	109	102	105	113	112	112
3	109	107	108	108	105	106	104	102	103	112	112	112
4	110	107	108	108	104	106	104	103	103	113	112	112
5	108	107	108	107	105	106	104	103	103	113	112	113
6	111	107	109	107	105	106	104	103	103	115	113	114
7	113	108	111	106	105	106	104	103	104	115	113	114
8	112	109	110	107	104	106	104	103	104	115	113	114
9	111	107	109	106	105	106	105	103	104	113	111	112
10	110	106	108	108	106	107	105	103	104	---	---	---
11	110	107	108	109	107	108	105	104	105	113	111	113
12	109	107	108	109	107	108	106	104	105	114	112	113
13	108	106	108	109	106	108	107	105	106	114	113	113
14	108	106	107	109	108	109	108	104	106	115	114	114
15	110	104	107	110	108	108	108	106	107	116	114	115
16	116	104	110	108	107	108	107	106	106	117	115	116
17	121	115	117	108	107	108	107	106	106	117	115	116
18	127	115	117	108	107	108	107	106	106	118	115	117
19	127	113	119	109	106	107	108	106	107	118	117	117
20	116	112	114	107	105	106	108	107	108	119	117	118
21	112	109	110	106	104	105	108	107	108	119	117	118
22	110	108	109	106	104	105	108	108	108	119	118	118
23	109	107	108	105	103	104	109	108	109	120	118	119
24	108	106	107	105	103	104	110	109	109	120	118	119
25	107	105	106	104	103	104	---	---	---	122	119	121
26	108	105	106	117	103	109	---	---	---	121	119	120
27	107	104	106	120	112	116	---	---	---	121	120	121
28	106	105	106	143	95	123	---	---	---	121	119	120
29	108	105	106	143	104	126	---	---	---	123	119	122
30	108	106	107	143	130	136	---	---	---	122	121	122
31	---	---	---	145	129	135	---	---	---	---	---	---
MONTH	127	104	109	145	95	110	134	102	106	123	111	116
YEAR	307	77	115									

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	6.3	6.2	6.2	7.7	7.3	7.5	7.3	7.2	7.2	7.6	7.4	7.4
2	6.5	6.2	6.4	7.3	7.3	7.3	7.4	7.3	7.3	7.5	7.4	7.4
3	6.5	6.4	6.4	7.3	7.2	7.3	7.3	7.3	7.3	7.5	7.4	7.5
4	6.4	6.2	6.4	7.3	7.2	7.2	7.4	7.3	7.3	7.5	7.4	7.5
5	6.6	6.3	6.4	7.4	7.2	7.3	7.4	7.3	7.3	7.6	7.4	7.4
6	6.6	6.4	6.5	7.4	7.3	7.4	7.3	7.2	7.3	7.5	7.3	7.4
7	6.7	6.5	6.6	7.4	7.3	7.3	7.3	7.2	7.2	7.4	7.2	7.3
8	6.8	6.6	6.7	7.3	7.2	7.2	7.3	7.2	7.3	7.4	7.2	7.3
9	6.8	6.7	6.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2
10	6.8	6.7	6.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2
11	6.8	6.7	6.7	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2
12	7.0	6.7	6.8	7.3	7.3	7.3	7.4	7.3	7.3	7.5	7.2	7.4
13	7.0	6.8	6.9	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---
14	6.9	6.8	6.8	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---
15	6.9	6.8	6.8	7.3	7.3	7.3	7.3	7.3	7.3	---	---	---
16	7.0	6.8	7.0	7.3	7.3	7.3	7.3	7.3	7.3	---	---	---
17	7.1	7.0	7.0	7.4	7.3	7.3	7.3	7.3	7.3	---	---	---
18	7.2	7.0	7.0	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---
19	7.3	7.0	7.1	7.3	7.3	7.3	7.4	7.3	7.3	---	---	---
20	7.3	7.1	7.1	7.3	7.2	7.3	7.4	7.3	7.3	---	---	---
21	7.2	7.1	7.1	7.3	7.2	7.2	7.3	7.3	7.3	---	---	---
22	7.2	7.1	7.1	7.3	7.2	7.2	7.3	7.2	7.3	---	---	---
23	7.3	7.1	7.2	7.3	7.2	7.3	7.3	7.2	7.3	---	---	---
24	7.3	7.2	7.2	7.3	7.2	7.3	7.3	7.2	7.3	---	---	---
25	7.7	7.2	7.3	7.3	7.2	7.3	7.3	7.2	7.3	---	---	---
26	7.6	7.3	7.4	7.4	7.3	7.3	7.3	7.3	7.3	---	---	---
27	7.6	7.4	7.4	7.4	7.3	7.4	7.3	7.2	7.3	---	---	---
28	7.6	7.4	7.4	7.4	7.3	7.3	7.6	7.2	7.4	---	---	---
29	7.6	7.3	7.4	7.4	7.3	7.3	7.5	7.4	7.5	---	---	---
30	7.7	7.3	7.5	7.3	7.2	7.3	7.5	7.4	7.4	---	---	---
31	7.7	7.5	7.5	---	---	---	7.5	7.4	7.5	---	---	---
MAX	7.7	7.5	7.5	7.7	7.3	7.5	7.6	7.4	7.5	7.6	7.4	7.5
MIN	6.3	6.2	6.2	7.3	7.2	7.2	7.3	7.2	7.2	7.3	7.2	7.2

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	6.8	6.7	6.7	6.9	6.8	6.9	7.2	7.0	7.1	6.6	6.4	6.6
2	6.8	6.7	6.7	6.9	6.8	6.8	7.0	6.9	7.0	6.6	6.5	6.6
3	6.9	6.7	6.8	6.8	6.8	6.8	7.0	7.0	7.0	6.6	6.5	6.6
4	6.9	6.8	6.8	6.9	6.8	6.8	7.0	7.0	7.0	6.8	6.5	6.6
5	6.9	6.8	6.9	6.9	6.9	6.9	7.0	7.0	7.0	6.7	6.5	6.6
6	6.9	6.8	6.9	6.9	6.8	6.9	7.1	7.0	7.0	6.7	6.5	6.6
7	6.9	6.8	6.8	7.6	6.8	7.0	7.1	7.0	7.0	6.7	6.5	6.6
8	7.0	6.8	6.9	7.2	7.0	7.1	7.1	7.0	7.1	6.7	6.5	6.6
9	7.3	6.9	7.0	7.0	6.9	7.0	7.2	7.1	7.1	6.7	6.5	6.6
10	7.1	6.8	7.0	6.9	6.9	6.9	7.2	7.1	7.1	6.7	6.5	6.6
11	6.9	6.8	6.8	6.9	6.8	6.9	7.1	7.1	7.1	6.7	6.5	6.6
12	6.9	6.8	6.9	6.9	6.8	6.9	7.1	7.0	7.0	6.7	6.5	6.6
13	7.0	6.8	7.0	6.9	6.8	6.9	7.0	7.0	7.0	6.7	6.5	6.6
14	7.0	7.0	7.0	6.9	6.9	6.9	7.0	7.0	7.0	6.7	6.5	6.6
15	7.1	6.8	7.0	6.9	6.8	6.9	7.0	7.0	7.0	6.7	6.5	6.6
16	6.8	6.8	6.8	6.9	6.8	6.9	7.0	7.0	7.0	6.7	6.5	6.6
17	6.8	6.8	6.8	7.0	6.8	6.9	7.0	6.9	7.0	6.7	6.5	6.6
18	6.9	6.8	6.8	7.0	6.9	6.9	7.0	6.9	6.9	6.7	6.5	6.6
19	6.9	6.8	6.9	7.0	6.9	6.9	6.9	6.9	6.9	6.7	6.5	6.5
20	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.4	6.9	6.7	6.5	6.6
21	6.8	6.8	6.8	7.0	6.9	6.9	6.6	6.5	6.5	6.6	6.5	6.6
22	6.8	6.7	6.8	7.0	6.9	7.0	6.6	6.5	6.5	6.7	6.5	6.6
23	6.8	6.7	6.8	7.3	6.9	7.0	6.6	6.5	6.5	6.7	6.6	6.6
24	6.8	6.7	6.8	7.3	7.1	7.2	6.6	6.5	6.6	6.6	6.6	6.6
25	6.8	6.7	6.8	7.1	7.0	7.1	6.7	6.5	6.6	6.6	6.6	6.6
26	6.8	6.7	6.8	7.1	7.0	7.0	6.6	6.5	6.5	6.6	6.5	6.6
27	6.9	6.8	6.8	7.0	7.0	7.0	6.6	6.5	6.5	6.6	6.6	6.6
28	6.9	6.8	6.9	7.1	6.9	7.1	6.6	6.4	6.5	6.6	6.6	6.6
29	---	---	---	7.2	7.0	7.0	6.5	6.4	6.5	6.7	6.6	6.6
30	---	---	---	7.1	7.0	7.1	6.5	6.4	6.5	6.7	6.5	6.6
31	---	---	---	7.2	7.1	7.1	---	---	---	6.7	6.5	6.6
MAX	7.3	7.0	7.0	7.6	7.1	7.2	7.2	7.1	7.1	6.8	6.6	6.6
MIN	6.8	6.7	6.7	6.8	6.8	6.8	6.5	6.4	6.5	6.6	6.4	6.5

YOUGHIOGHENY RIVER BASIN

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	6.7	6.6	6.6	6.6	6.3	6.4	6.7	6.3	6.6	---	---	---
2	6.8	6.6	6.7	6.6	6.3	6.5	6.7	6.1	6.6	---	---	---
3	6.7	6.5	6.6	6.6	6.3	6.4	6.6	6.3	6.5	---	---	---
4	6.7	6.4	6.6	6.6	6.3	6.5	6.6	6.4	6.5	---	---	---
5	6.7	6.4	6.6	6.7	6.3	6.5	6.6	6.5	6.5	---	---	---
6	6.7	6.3	6.5	6.7	6.4	6.5	6.7	6.5	6.5	---	---	---
7	6.7	6.3	6.5	6.7	6.4	6.5	6.8	6.4	6.6	---	---	---
8	6.7	6.4	6.5	6.6	6.4	6.5	6.8	6.4	6.6	---	---	---
9	6.7	6.3	6.4	6.6	6.4	6.5	6.8	6.4	6.7	---	---	---
10	6.6	6.2	6.3	6.6	6.4	6.5	6.8	6.2	6.6	---	---	---
11	6.5	6.2	6.3	6.6	6.4	6.5	---	---	---	---	---	---
12	6.4	6.0	6.3	6.7	6.4	6.5	6.7	6.2	6.3	---	---	---
13	6.4	5.8	6.0	6.6	6.4	6.5	6.5	5.9	6.2	---	---	---
14	---	---	---	6.7	6.4	6.5	6.5	5.9	6.2	6.6	6.5	6.5
15	---	---	---	6.8	6.5	6.7	6.5	5.9	6.2	6.6	6.5	6.5
16	6.5	6.1	6.3	6.7	6.4	6.5	6.4	5.9	6.1	6.5	6.4	6.5
17	6.5	6.3	6.4	6.7	6.4	6.5	6.5	6.3	6.3	6.6	6.4	6.4
18	6.6	6.2	6.4	6.6	6.4	6.5	6.5	6.1	6.3	6.5	6.4	6.4
19	7.0	6.3	6.5	6.6	6.3	6.5	6.5	6.2	6.3	6.6	6.5	6.5
20	7.1	6.3	6.6	6.6	6.4	6.5	6.5	6.0	6.3	6.7	6.4	6.5
21	7.2	6.5	6.7	6.6	6.4	6.5	6.5	6.0	6.3	6.5	6.4	6.4
22	7.1	6.4	6.7	6.6	6.4	6.4	6.5	6.0	6.3	6.5	6.4	6.4
23	7.3	6.6	6.8	6.6	6.3	6.4	6.5	5.9	6.3	6.6	6.4	6.4
24	7.2	6.6	6.8	6.6	6.3	6.4	6.4	5.9	6.3	6.5	6.4	6.4
25	7.1	6.7	6.8	6.5	6.3	6.3	6.4	5.9	6.2	6.5	6.4	6.4
26	7.0	6.5	6.8	---	---	---	6.4	6.1	6.2	6.5	6.4	6.4
27	7.2	6.6	6.9	6.4	6.1	6.3	6.3	6.2	6.2	6.4	6.3	6.4
28	7.3	6.6	6.9	6.4	6.2	6.3	6.6	6.2	6.4	6.5	6.3	6.4
29	6.9	6.3	6.6	6.6	6.2	6.4	6.5	6.3	6.3	6.5	6.4	6.4
30	6.7	6.3	6.5	6.6	6.4	6.4	6.6	6.3	6.4	6.4	6.3	6.4
31	---	---	---	6.7	6.2	6.5	6.6	6.4	6.5	---	---	---
MAX	7.3	6.7	6.9	6.8	6.5	6.7	6.8	6.5	6.7	6.7	6.5	6.5
MIN	6.4	5.8	6.0	6.4	6.1	6.3	6.3	5.9	6.1	6.4	6.3	6.4

YEAR	MAX	MAXIMUM 7.7	MINIMUM 6.3
	MIN	MAXIMUM 7.5	MINIMUM 5.8
	MEDIAN	MAXIMUM 7.5	MINIMUM 6.0

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	19.7	17.3	18.2	14.6	12.5	13.6	9.5	8.2	9.0	5.6	4.2	4.9
2	18.4	17.1	17.6	15.5	13.9	14.6	9.4	8.7	9.0	4.9	4.2	4.5
3	19.0	16.3	17.6	14.9	14.1	14.5	8.9	8.5	8.7	5.3	4.6	5.0
4	19.5	17.9	18.5	14.4	13.7	14.2	9.1	8.4	8.6	5.4	4.6	5.0
5	19.0	17.8	18.2	14.3	13.5	13.9	8.9	8.4	8.6	6.6	4.5	5.7
6	19.1	17.8	18.2	14.3	13.7	13.9	8.6	8.3	8.4	6.2	5.5	5.8
7	19.3	17.8	18.3	14.4	13.6	13.9	8.5	8.1	8.3	5.5	4.3	4.6
8	19.4	17.9	18.3	13.7	12.9	13.3	8.3	7.6	8.0	4.5	4.3	4.3
9	19.3	17.9	18.4	13.1	12.4	12.7	8.0	7.7	7.8	4.4	4.2	4.3
10	18.6	17.7	18.2	12.9	12.1	12.5	7.8	7.5	7.7	4.3	4.1	4.2
11	18.6	15.4	17.5	12.8	12.1	12.4	7.5	6.9	7.2	5.2	4.1	4.5
12	17.9	15.4	16.3	12.2	11.6	12.0	7.5	7.1	7.3	5.7	5.2	5.4
13	18.0	15.2	16.6	11.8	10.9	11.4	7.5	6.8	7.0	6.2	5.2	5.6
14	18.0	17.6	17.8	11.7	10.8	11.1	7.0	6.7	6.9	---	---	---
15	17.9	17.2	17.6	11.6	10.8	11.1	6.9	6.5	6.7	---	---	---
16	17.5	16.8	17.1	11.5	10.7	11.0	6.8	6.3	6.5	---	---	---
17	17.4	16.4	16.8	11.3	11.0	11.1	6.7	6.2	6.4	---	---	---
18	17.2	15.5	16.3	11.2	10.8	11.0	6.5	6.1	6.2	---	---	---
19	16.8	15.4	16.1	10.9	10.7	10.8	6.2	5.2	5.9	---	---	---
20	16.8	16.2	16.4	10.8	10.6	10.7	5.5	5.1	5.2	---	---	---
21	16.7	15.9	16.2	10.7	10.5	10.6	5.8	5.0	5.3	---	---	---
22	16.1	15.5	15.9	10.5	10.3	10.4	6.4	5.4	5.7	---	---	---
23	16.2	15.3	15.6	10.7	10.3	10.5	6.2	5.0	5.7	---	---	---
24	15.9	15.2	15.4	10.6	10.3	10.5	5.4	4.8	5.0	---	---	---
25	15.5	13.4	14.8	10.5	9.6	10.0	5.3	4.5	4.8	---	---	---
26	15.8	13.2	14.0	10.6	9.8	10.1	5.2	4.5	4.8	---	---	---
27	14.9	13.2	14.0	10.4	9.9	10.1	5.0	4.0	4.4	---	---	---
28	15.1	13.2	14.0	10.2	9.7	9.9	5.1	3.9	4.3	---	---	---
29	15.4	12.3	13.7	10.2	9.6	9.9	4.8	4.3	4.6	---	---	---
30	15.1	13.6	14.2	10.0	9.5	9.7	4.9	4.5	4.7	---	---	---
31	15.5	12.8	13.9	---	---	---	5.2	4.5	4.8	---	---	---
MONTH	19.7	12.3	16.5	15.5	9.5	11.7	9.5	3.9	6.6	6.6	4.1	4.9

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	3.7	2.3	2.8	3.5	2.3	2.9	4.5	3.9	4.1	6.6	5.5	5.9
2	3.7	2.2	2.8	3.4	2.6	2.9	4.6	4.0	4.4	6.1	5.2	5.6
3	3.5	2.8	3.0	3.6	2.3	2.8	4.0	3.6	3.8	6.3	5.4	5.8
4	4.0	2.9	3.3	3.6	2.0	2.6	4.6	3.8	4.2	9.8	5.3	6.4
5	4.2	2.5	3.1	3.7	2.4	2.8	5.1	4.1	4.6	8.3	5.0	6.1
6	3.9	2.3	2.9	4.2	2.4	3.1	5.5	4.7	5.0	8.5	5.2	6.4
7	4.2	2.8	3.3	4.4	2.6	3.3	5.1	4.7	4.9	7.2	4.9	6.1
8	3.4	3.1	3.2	4.1	1.9	3.0	5.4	4.9	5.0	9.3	5.4	6.9
9	3.4	2.5	3.2	2.8	1.9	2.2	5.4	4.6	5.0	9.5	5.2	7.1
10	3.2	2.7	3.0	3.6	2.0	2.5	5.8	4.4	5.0	11.2	5.5	7.8
11	3.4	2.8	3.0	3.0	2.2	2.5	5.9	4.8	5.2	11.1	5.9	7.9
12	3.1	2.7	2.9	3.3	2.2	2.6	6.0	4.6	5.1	8.7	6.1	7.1
13	3.3	2.7	2.9	4.0	2.2	2.8	6.4	4.6	5.2	10.4	5.4	7.1
14	3.1	2.8	2.9	4.5	1.9	2.9	6.4	4.5	5.2	9.3	5.9	7.4
15	3.6	3.0	3.2	4.7	2.0	3.0	6.5	4.4	5.2	8.7	5.8	7.2
16	3.2	3.0	3.1	4.6	2.2	3.1	6.8	4.4	5.3	7.8	5.4	6.6
17	3.3	2.9	3.1	5.1	2.6	3.4	7.0	4.6	5.5	10.8	5.3	7.5
18	3.2	2.7	2.9	5.5	2.5	3.6	7.6	4.6	5.7	11.0	5.6	7.7
19	3.2	2.7	2.9	5.2	2.6	3.6	7.9	4.8	6.0	10.2	5.8	7.5
20	2.9	2.5	2.7	3.6	3.2	3.4	8.6	4.7	6.2	7.4	6.3	6.9
21	3.1	2.5	2.8	3.7	3.1	3.3	7.1	4.9	5.9	7.9	6.2	6.8
22	3.2	2.9	3.0	5.8	2.7	3.9	7.9	4.9	5.8	9.3	6.1	7.1
23	3.2	2.8	3.0	5.0	3.6	4.3	6.1	4.9	5.5	7.9	6.0	6.9
24	2.9	2.6	2.7	4.5	3.6	3.9	6.2	4.5	5.1	7.5	6.5	6.9
25	3.5	2.5	2.9	4.2	3.5	3.8	6.8	4.5	5.5	7.4	6.4	6.8
26	3.3	2.5	2.8	4.0	3.6	3.7	6.5	4.9	5.3	8.8	6.3	7.5
27	3.8	2.4	2.9	3.9	3.6	3.7	6.3	4.9	5.5	8.9	6.1	7.4
28	3.0	2.4	2.6	5.2	3.7	4.2	6.4	5.0	5.5	8.3	6.3	7.3
29	---	---	---	5.5	4.9	5.2	5.6	5.0	5.3	8.9	6.7	7.6
30	---	---	---	4.9	3.9	4.3	6.0	5.1	5.5	8.6	6.7	7.5
31	---	---	---	4.4	3.8	4.1	---	---	---	10.0	7.1	8.2
MONTH	4.2	2.2	3.0	5.8	1.9	3.3	8.6	3.6	5.2	11.2	4.9	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.4	7.0	8.2	12.7	9.3	10.8	16.0	12.9	14.0	19.5	17.2	18.1
2	9.6	7.3	8.2	12.6	9.7	10.7	15.6	13.0	14.1	19.7	17.3	18.2
3	8.5	7.1	7.8	12.7	9.6	11.1	16.5	13.6	14.6	20.2	17.3	18.5
4	9.8	7.3	8.4	13.8	10.0	11.5	16.2	13.5	14.6	20.3	17.6	18.5
5	10.8	7.8	8.9	13.4	10.3	11.3	15.3	13.8	14.4	20.4	17.6	18.6
6	12.6	7.8	9.5	13.4	10.0	11.5	16.1	14.2	14.9	20.7	17.6	18.7
7	11.8	7.7	9.2	12.5	10.0	10.9	16.9	14.4	15.3	20.6	17.6	18.6
8	11.1	7.8	9.0	12.3	10.1	10.7	15.5	13.6	14.8	20.8	17.6	18.8
9	12.1	8.2	9.6	12.7	10.0	11.1	16.8	13.6	14.8	21.1	18.0	19.3
10	11.8	8.0	9.4	13.2	10.1	11.3	17.7	13.6	15.1	---	---	---
11	10.9	8.2	9.1	13.3	9.4	11.1	16.2	13.4	14.8	21.3	18.2	19.4
12	10.9	8.2	9.3	14.1	10.2	11.5	17.7	13.4	15.0	21.5	18.4	19.5
13	11.2	8.4	9.6	14.1	10.5	11.5	17.5	14.5	15.7	21.5	18.5	19.5
14	12.3	8.5	9.9	13.0	10.3	11.3	17.6	14.6	15.8	21.7	18.3	19.8
15	10.3	8.4	9.2	13.8	10.6	11.7	17.1	14.2	15.2	22.2	19.0	20.1
16	9.5	7.8	8.5	13.7	10.9	11.9	15.5	14.5	14.9	21.7	18.6	19.9
17	10.0	7.6	8.6	13.4	11.1	12.0	17.4	14.6	15.4	21.2	19.7	20.3
18	11.6	7.7	9.2	13.8	11.0	11.9	18.1	14.4	15.8	21.1	19.4	20.1
19	10.5	7.9	9.2	13.8	11.0	12.0	17.2	14.9	15.8	21.8	19.1	20.1
20	12.3	8.2	9.8	14.8	10.9	12.3	18.7	15.5	16.7	20.6	19.5	20.0
21	11.9	8.2	9.8	14.7	10.9	12.4	18.8	15.3	16.7	21.8	19.3	20.3
22	12.5	8.5	9.9	13.4	11.0	12.0	18.0	15.0	16.3	22.2	19.0	20.4
23	13.3	8.7	10.5	15.1	11.4	12.8	18.4	14.8	16.4	22.3	20.0	20.8
24	12.6	8.8	10.2	13.8	11.4	12.4	18.3	15.4	16.7	21.7	20.2	20.7
25	12.8	9.1	10.5	13.6	11.9	12.5	18.8	16.1	17.0	22.2	19.9	20.9
26	13.2	9.4	10.9	14.9	12.1	13.1	17.4	16.2	16.6	21.2	20.4	20.7
27	13.9	9.6	11.1	15.2	12.0	12.9	16.9	16.2	16.5	21.6	19.2	20.4
28	14.4	9.5	11.2	14.8	11.8	13.0	18.6	16.4	17.2	21.9	18.9	20.2
29	13.3	9.8	11.2	14.8	12.3	13.2	17.4	16.2	16.8	20.6	18.8	19.9
30	13.6	9.4	11.0	15.3	12.2	13.4	18.3	16.8	17.3	20.9	18.4	19.3
31	---	---	---	15.9	12.8	13.9	18.6	17.1	17.8	---	---	---
MONTH	14.4	7.0	9.6	15.9	9.3	11.9	18.8	12.9	15.7	22.3	17.2	19.6
YEAR	22.3	1.9	9.8									

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	---	---	---	10.8	8.8	9.8	8.3	8.0	8.1	7.2	7.0	7.1
2	---	---	---	9.2	8.4	8.8	8.4	8.0	8.2	7.2	7.1	7.2
3	---	---	---	9.1	8.7	8.9	8.1	7.9	8.0	7.3	7.2	7.3
4	---	---	---	9.0	8.7	8.9	8.2	7.8	8.0	7.4	7.2	7.3
5	6.2	5.2	5.8	9.5	8.6	9.1	8.1	7.7	7.9	7.5	7.3	7.4
6	7.1	5.8	6.6	9.7	9.3	9.5	7.9	7.7	7.8	7.6	7.4	7.5
7	8.0	7.1	7.4	9.6	9.2	9.4	7.8	7.6	7.7	7.6	7.5	7.5
8	8.8	7.3	7.9	9.3	9.0	9.1	7.7	7.5	7.6	7.7	7.5	7.6
9	9.4	7.8	8.4	9.7	9.3	9.5	7.6	7.5	7.5	7.8	7.6	7.7
10	9.0	8.0	8.4	9.8	9.1	9.4	7.5	7.4	7.4	7.9	7.7	7.8
11	9.1	8.4	8.8	9.7	9.1	9.2	7.4	7.3	7.4	8.0	7.8	7.9
12	9.5	8.6	8.9	9.3	9.1	9.2	7.4	7.3	7.3	8.1	7.9	8.0
13	9.5	8.6	8.9	9.6	9.1	9.3	7.3	7.2	7.2	---	---	---
14	8.6	8.2	8.4	9.6	9.3	9.4	7.2	7.1	7.2	---	---	---
15	8.8	8.4	8.6	9.6	9.1	9.3	7.3	7.0	7.1	---	---	---
16	8.5	8.1	8.4	9.5	9.1	9.3	7.2	7.0	7.1	---	---	---
17	8.5	8.0	8.3	9.5	9.1	9.2	7.1	6.9	7.0	---	---	---
18	8.9	8.4	8.6	9.4	9.1	9.2	7.1	6.9	6.9	---	---	---
19	8.7	8.2	8.4	9.2	8.9	9.1	7.0	6.8	6.9	---	---	---
20	8.5	8.1	8.3	9.1	8.8	9.0	6.9	6.7	6.8	---	---	---
21	8.9	8.4	8.7	9.0	8.8	8.9	7.0	6.7	6.8	---	---	---
22	9.0	8.7	8.9	9.0	8.7	8.8	7.0	6.8	6.9	---	---	---
23	9.2	8.8	9.0	9.0	8.7	8.8	7.0	6.8	6.8	---	---	---
24	9.2	8.9	9.1	8.8	8.5	8.7	6.9	6.7	6.8	---	---	---
25	9.7	9.0	9.3	8.7	8.4	8.6	6.9	6.7	6.8	---	---	---
26	9.9	9.7	9.8	8.9	8.5	8.7	6.9	6.7	6.8	---	---	---
27	10.2	9.9	10.1	8.8	8.5	8.6	7.0	6.8	6.9	---	---	---
28	10.6	9.4	10.1	8.6	8.3	8.4	7.0	6.8	6.9	---	---	---
29	10.5	9.2	9.7	8.7	8.2	8.4	7.0	6.8	7.0	---	---	---
30	10.3	9.2	9.7	8.5	8.1	8.3	7.0	6.9	7.0	---	---	---
31	10.4	9.4	9.8	---	---	---	7.1	6.9	7.1	---	---	---
MONTH	10.6	5.2	8.7	10.8	8.1	9.0	8.4	6.7	7.3	8.1	7.0	7.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	8.8	8.4	8.6	---	---	---	13.3	6.1	11.9	11.2	10.6	10.9
2	8.9	8.2	8.6	---	---	---	12.3	11.2	12.0	11.1	10.5	10.8
3	8.3	7.8	8.1	---	---	---	12.8	11.7	12.4	10.9	10.4	10.7
4	---	---	---	---	---	---	13.2	12.3	12.8	11.4	10.5	10.8
5	---	---	---	---	---	---	13.4	12.9	13.2	11.0	10.5	10.7
6	---	---	---	---	---	---	13.1	12.9	13.0	10.9	10.4	10.6
7	---	---	---	---	---	---	13.1	12.7	12.9	10.8	10.3	10.6
8	---	---	---	13.2	12.6	13.0	13.1	12.8	12.9	10.9	10.1	10.5
9	---	---	---	13.6	13.1	13.3	13.2	12.8	12.9	10.8	10.1	10.4
10	---	---	---	13.6	12.9	13.2	12.9	12.1	12.5	10.7	10.0	10.4
11	---	---	---	13.4	12.8	13.1	12.4	12.0	12.2	10.8	9.9	10.3
12	---	---	---	13.4	12.5	13.0	12.1	11.7	11.9	10.8	9.9	10.4
13	---	---	---	13.7	12.7	13.0	11.9	11.6	11.7	10.9	10.1	10.5
14	---	---	---	13.8	12.8	13.1	11.8	11.5	11.7	10.7	10.0	10.3
15	---	---	---	13.8	12.5	13.0	11.8	11.5	11.6	10.7	10.0	10.4
16	---	---	---	14.0	12.4	13.0	11.5	11.3	11.4	10.8	10.2	10.5
17	---	---	---	13.7	12.3	12.9	11.4	11.1	11.2	11.0	10.2	10.5
18	---	---	---	13.8	11.8	13.0	11.2	10.8	11.0	11.0	10.2	10.6
19	---	---	---	13.7	12.3	13.0	11.0	10.7	10.8	11.0	10.2	10.5
20	---	---	---	13.1	12.2	12.4	11.8	10.6	11.0	10.8	10.2	10.4
21	---	---	---	12.7	11.6	12.2	12.4	11.7	12.1	10.8	10.1	10.4
22	---	---	---	13.4	10.9	11.8	12.4	11.7	12.0	10.8	10.1	10.4
23	---	---	---	13.0	10.3	11.5	12.2	11.6	11.9	10.5	10.2	10.4
24	---	---	---	13.5	13.0	13.2	12.2	11.5	11.9	10.5	10.2	10.4
25	---	---	---	13.6	12.9	13.3	12.1	11.4	11.8	10.6	10.3	10.4
26	---	---	---	13.4	12.5	13.0	11.9	11.4	11.6	10.7	10.3	10.5
27	---	---	---	13.4	12.8	13.1	11.7	11.3	11.5	10.8	10.3	10.5
28	---	---	---	13.0	11.6	12.8	11.7	11.1	11.4	10.9	10.4	10.6
29	---	---	---	12.8	10.2	12.5	11.5	11.0	11.3	10.8	10.4	10.7
30	---	---	---	13.2	12.5	12.9	11.3	10.8	11.1	11.0	10.5	10.7
31	---	---	---	13.3	13.1	13.2	---	---	---	11.1	10.5	10.8
MONTH	8.9	7.8	8.4	14.0	10.2	12.9	13.4	6.1	11.9	11.4	9.9	10.5

YOUGHIOGHENY RIVER BASIN

03081000 YOUGHIOGHENY RIVER BELOW CONFLUENCE, 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	11.2	10.2	10.8	10.8	7.1	9.2	10.7	9.4	10.1	9.3	7.6	8.6
2	11.1	10.0	10.6	10.8	5.9	8.5	11.1	9.7	10.3	9.6	8.1	8.7
3	11.0	10.0	10.5	10.9	6.8	8.9	11.0	9.9	10.4	9.5	7.2	8.5
4	11.0	10.0	10.4	10.9	7.1	8.9	11.7	9.9	10.8	9.4	7.5	8.6
5	10.9	9.3	10.3	10.9	7.2	9.2	12.3	10.7	11.5	8.6	7.2	8.0
6	11.2	9.8	10.3	9.2	4.9	8.4	13.4	11.1	12.1	---	---	---
7	11.3	9.7	10.5	9.6	7.9	8.7	14.3	10.8	12.5	---	---	---
8	11.4	9.8	10.6	9.5	8.2	8.8	12.7	10.6	11.5	---	---	---
9	11.8	9.6	10.5	9.5	8.3	8.8	11.6	10.4	11.0	---	---	---
10	11.2	9.2	10.4	9.8	8.4	8.9	11.4	10.0	10.6	---	---	---
11	10.9	8.6	9.7	10.4	8.6	9.1	11.2	8.7	10.1	---	---	---
12	10.5	8.8	9.8	10.6	8.4	9.1	10.4	8.6	9.3	---	---	---
13	10.3	8.2	9.0	10.3	8.1	9.0	10.4	8.8	9.6	---	---	---
14	9.6	7.8	8.7	10.3	7.7	9.1	10.5	9.2	9.9	8.4	7.4	7.9
15	9.0	7.3	8.1	10.8	9.4	10	10.2	8.3	9.4	8.7	7.4	8.0
16	9.4	7.5	8.5	10.5	8.9	9.8	10.0	8.7	9.2	8.7	7.3	7.9
17	9.9	8.0	9.0	10.4	8.7	9.6	10.6	8.8	9.6	8.5	7.5	7.9
18	10.7	8.3	9.3	10.5	8.7	9.6	11.1	9.0	10.1	8.8	7.8	8.2
19	11.7	8.6	9.8	---	---	---	11.6	9.6	10.4	9.3	7.9	8.4
20	11.8	8.9	10.3	---	---	---	11.9	9.9	10.9	9.3	8.0	8.5
21	12.0	9.3	10.5	---	---	---	11.1	9.0	10.1	9.2	8.1	8.5
22	12.5	9.5	10.6	---	---	---	9.8	8.2	8.9	9.1	8.2	8.5
23	12.3	9.2	10.6	---	---	---	9.3	7.8	8.7	9.0	7.9	8.4
24	12.5	9.1	10.5	---	---	---	9.4	8.0	8.6	9.1	7.9	8.4
25	11.9	9.7	10.7	---	---	---	9.4	7.9	8.6	9.1	8.1	8.5
26	12.2	9.6	10.6	---	---	---	10.0	7.9	8.8	8.7	7.9	8.3
27	12.4	9.5	10.8	10.0	8.8	9.3	10.2	8.9	9.4	9.1	8.0	8.5
28	12.0	9.9	10.8	10.7	9.1	10.1	11.2	9.0	10.0	9.5	8.0	8.8
29	10.7	8.3	10.2	11.5	10.0	10.8	11.2	9.6	10.2	9.4	8.3	8.7
30	11.0	6.9	9.4	12.1	9.9	11.1	9.8	8.6	9.2	9.6	8.5	9.0
31	---	---	---	11.2	9.3	10.3	9.0	8.0	8.4	---	---	---
MONTH	12.5	6.9	10.1	12.1	4.9	9.4	14.3	7.8	10.0	9.6	7.2	8.4
YEAR	14.3	4.9	9.7									

YOUGHIOGHENY RIVER BASIN

03082500 YOUGHIOGHENY RIVER AT CONNELLSVILLE, PA

LOCATION.--Lat 40°01'03", long 79°35'38", Fayette County, Hydrologic Unit 05020006, on left bank at downstream side of Crawford Avenue bridge at Connellsville, 1.2 mi upstream from Mounts Creek, at mile 44.0.

DRAINAGE AREA.--1,326 mi^2.

PERIOD OF RECORD.--July 1908 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1912 (M), 1914 (M), 1916-17 (M), 1918, 1922-25. WSP 1435: 1919-20. WSP 1725: 1916, 1932 (monthly, yearly summaries).

GAGE.--Water-stage recorder. Datum of gage is 860.13 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 15, 1928, nonrecording gage, and Aug. 15, 1928 to July 7, 1958, water-stage recorder at same site and datum. July 8, 1958 to Sept. 8, 1959, nonrecording gage at site 0.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since January 1925 by Deep Creek Reservoir (station 03076000), since December 1942 by Youghiogheny River Lake (station 03077000) 29.4 mi upstream, and by several smaller reservoirs above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	1290	1270	5100	1950	1710	2440	6570	2430	1560	871	889	902
2	925	1580	5990	1940	1650	2290	6180	2300	1390	950	914	868
3	893	2500	4340	1960	1670	2120	7280	2200	1260	905	1010	897
4	1420	2550	3610	4700	1680	2000	6950	1910	1400	875	956	881
5	1400	3620	3120	11900	1670	2100	9330	1510	1300	750	951	856
6	1530	3400	2810	23200	1690	2040	8100	1470	1210	747	943	769
7	1420	2990	2810	13900	1790	2420	7300	1280	1240	762	1070	739
8	1400	2740	3360	11900	2220	10400	7090	1270	1220	833	1130	734
9	1380	2560	3120	10900	4340	6240	6170	1210	1100	1470	857	729
10	1380	2400	4040	8660	9850	4020	4940	1120	1150	1230	711	799
11	1350	2310	5800	8610	6160	3230	3950	982	1570	778	690	756
12	686	2560	5420	24400	4730	2740	3220	1020	2080	785	657	748
13	623	3130	4970	13000	4560	2380	2670	950	1480	806	819	672
14	1310	2630	4560	10600	4540	2100	2530	1080	1210	946	847	670
15	1410	2640	4110	10000	7840	1880	2400	1370	1010	878	656	673
16	1420	2540	3720	8410	7060	1750	2270	1230	973	934	800	550
17	1440	2480	3460	7560	6240	1660	2060	1010	1010	930	855	824
18	1450	2440	3150	6480	5150	1670	1570	927	1020	914	826	790
19	1200	2610	2770	5340	4350	1810	1470	878	949	846	746	716
20	1230	3630	2400	4570	4080	2000	1240	1100	896	898	816	706
21	1660	3700	2020	3720	4630	2140	1220	1920	851	817	876	670
22	1600	3260	1790	3370	5110	2000	1210	1660	829	756	774	705
23	1520	2970	1980	3230	4120	3670	1770	2080	838	852	731	718
24	1480	2570	3220	3100	3670	7890	2250	3330	812	880	774	790
25	1520	3420	3060	3120	3320	5500	2090	3190	983	946	910	801
26	834	3820	2580	3120	2740	4410	2550	2770	941	965	895	733
27	733	3220	2290	2650	2500	4240	2740	2460	787	954	817	718
28	641	3390	2030	2160	2450	10500	2520	2380	750	923	810	705
29	677	3470	1850	1870	---	29500	2400	2720	752	929	828	736
30	1640	3060	1820	1970	---	12400	2390	2390	821	918	844	713
31	1770	---	1900	1800	---	8360	---	2070	---	902	876	---
TOTAL	39232	85460	103200	220090	111520	147900	114430	54217	33392	27950	26278	22568
MEAN	1266	2849	3329	7100	3983	4771	3814	1749	1113	902	848	752
MAX	1770	3820	5990	24400	9850	29500	9330	3330	2080	1470	1130	902
MIN	623	1270	1790	1800	1650	1660	1210	878	750	747	656	550
(†)	-369	-165	+191	-73	+252	+1380	-431	+9.0	-195	-193	-618	-688

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.

03082500 YOUGHIOGHENY RIVER AT CONNELLSVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1423	1965	2944	3315	3793	4903	4162	3114	1926	1327	1268	1244
MAX	5938	7518	8050	9737	7916	11370	8463	7142	5805	4143	4772	5400
(WY)	1955	1986	1973	1937	1939	1936	1993	1996	1941	1985	1956	1971
MIN	139	84.5	295	465	630	1189	1321	662	504	279	155	146
(WY)	1931	1931	1999	1925	1934	1990	1925	1926	1925	1930	1930	1925

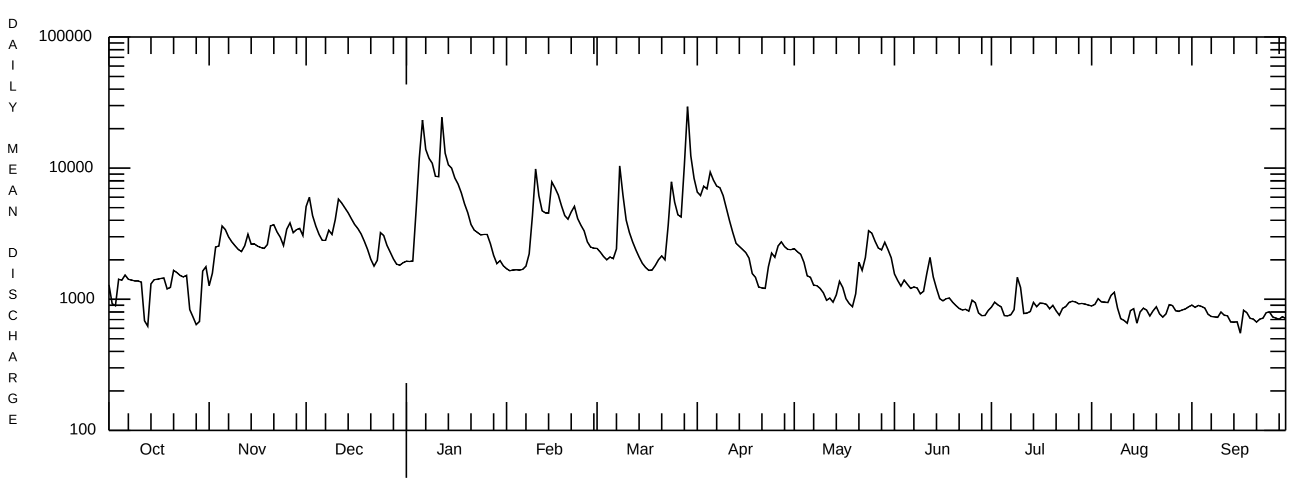
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1925 - 2005	
ANNUAL TOTAL	1177961		986237			
ANNUAL MEAN	3218	† +42	2702	† -74	2610	
HIGHEST ANNUAL MEAN					3944	1996
LOWEST ANNUAL MEAN					1223	1925
HIGHEST DAILY MEAN	24800	Sep 18	29500	Mar 29	58100	Mar 18 1936
LOWEST DAILY MEAN	623	Oct 13	550	Sep 16	39	Nov 16 1930
ANNUAL SEVEN-DAY MINIMUM	935	Jul 6	695	Sep 10	62	Nov 14 1930
MAXIMUM PEAK FLOW			37400	Mar 29	**a**103000	Oct 16 1954
MAXIMUM PEAK STAGE			14.11	Mar 29	21.96	Oct 16 1954
10 PERCENT EXCEEDS	6560		5880		5810	
50 PERCENT EXCEEDS	2240		1710		1630	
90 PERCENT EXCEEDS	1000		766		608	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1924, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1126	1653	2574	4697	4098	5490	3830	2696	2379	1110	764	1100
MAX	5117	4937	5795	8679	9354	9777	6572	6675	5224	5102	1904	5158
(WY)	1912	1914	1922	1913	1918	1912	1914	1924	1910	1912	1912	1911
MIN	36.4	68.4	342	503	1589	1913	1335	1125	938	221	99.5	132
(WY)	1909	1909	1909	1918	1924	1915	1921	1911	1922	1918	1910	1922

SUMMARY STATISTICS	WATER YEARS 1909 - 1924	
ANNUAL MEAN	2620	
HIGHEST ANNUAL MEAN	3976	1912
LOWEST ANNUAL MEAN	1879	1923
HIGHEST DAILY MEAN	59200	Mar 21 1912
LOWEST DAILY MEAN	11	Oct 18 1910
ANNUAL SEVEN-DAY MINIMUM	14	Oct 15 1910
MAXIMUM PEAK FLOW	**b**65900	Mar 29 1924
MAXIMUM PEAK STAGE	**c**20.5	Mar 29 1924
INSTANTANEOUS LOW FLOW	11	Sep 23 1908**d**
ANNUAL RUNOFF (CFSM)	1.98	
ANNUAL RUNOFF (INCHES)	26.84	
10 PERCENT EXCEEDS	6200	
50 PERCENT EXCEEDS	1370	
90 PERCENT EXCEEDS	195	

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.
a From rating curve extended above 55,000 ft^3/s.
b Estimated from hydrograph.
c From graph based on gage readings.
d Also Sept. 26, 27, 1908 and Oct. 18, 1910.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

YOUGHIOGHENY RIVER BASIN

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°14'24", long 79°48'24", Allegheny County, Hydrologic Unit 05020006, on left bank 500 ft upstream from highway bridge at Sutersville, 2.1 mi downstream from Sewickley Creek, at mile 15.2.

DRAINAGE AREA.--1,715 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge for 1926, 1930, part of 1931, 1937, 1938, and part of 1939, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1924, 1926 (M), 1931 (M). WSP 1435: 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 733.36 ft above National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, nonrecording gage at site 500 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since January 1925 by Deep Creek Reservoir (station 03076000), since December 1942 by Youghiogheny River Lake (station 03077000) 58 mi upstream, and by several smaller reservoirs above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	1950	1900	5730	2600	2230	3350	8390	2920	2210	1240	1040	1110
2	1370	1680	8340	2510	2150	3150	7520	2800	1910	1160	1020	1060
3	1130	2770	5940	2880	2140	2860	8970	2680	1870	1160	1110	1010
4	1380	3130	4780	7730	2180	2660	8640	2560	1960	1080	1120	1030
5	1700	3920	4100	14600	2230	2730	10800	2050	1840	1060	1100	996
6	1750	4360	3650	41800	2260	2870	9890	1970	1780	1090	1080	961
7	1780	3710	3500	24000	2480	3060	8640	1770	2460	1070	1080	874
8	1690	3380	3980	15900	2870	10600	8380	1720	1850	1010	1420	853
9	1660	3110	4030	15200	4650	9470	7510	1640	1640	1360	1210	849
10	1640	2910	4390	11900	11800	5690	6150	1540	1430	1740	948	861
11	1630	2770	7110	10400	9030	4610	4900	1390	1620	1250	833	899
12	1320	3060	7120	28500	6140	4050	4130	1400	2740	904	810	867
13	800	3780	6330	18800	5870	3520	3390	1330	2220	1070	817	832
14	1110	3310	5820	14000	5990	3070	3150	1370	1700	1120	979	780
15	1680	3200	5110	13300	9610	2750	2980	1830	1420	1170	925	779
16	1700	3070	4650	10700	9290	2530	2800	1900	1240	1090	816	743
17	1710	2980	4420	9470	8160	2410	2670	1540	1320	1130	1050	758
18	1740	2920	3950	8260	6720	2320	2220	1330	1270	1160	1010	912
19	2000	3090	3520	6870	5580	2370	2020	1230	1240	1300	923	885
20	1670	4390	3040	5990	5060	2550	1800	1260	1140	1120	900	813
21	1740	4780	2640	4820	5540	2730	1680	1920	1080	1130	1310	784
22	1960	4170	2410	4350	6420	2640	1650	2260	1050	1030	1070	815
23	1880	3870	3080	4090	5310	3510	2020	2240	1030	969	908	814
24	1830	3370	4810	3950	4660	9250	2730	3350	1030	1050	880	834
25	1960	4030	3990	3980	4380	7480	2710	4010	1080	1090	957	900
26	1410	4880	3260	3910	3670	5690	2820	3470	1160	1280	1040	899
27	1020	4220	2940	3460	3340	5220	3300	3050	1080	1180	1040	863
28	903	4100	2670	2950	3230	8310	3080	2940	940	1110	1130	819
29	883	4420	2470	2520	---	35400	2880	3430	1180	1080	1020	884
30	1570	3900	2480	2480	---	18300	2910	3110	1200	1070	1040	898
31	2490	---	2610	2410	---	11000	---	2740	---	1060	1150	---
TOTAL	49056	105180	132870	304330	142990	186150	140730	68750	45690	35333	31736	26382
MEAN	1582	3506	4286	9817	5107	6005	4691	2218	1523	1140	1024	879
MAX	2490	4880	8340	41800	11800	35400	10800	4010	2740	1740	1420	1110
MIN	800	1680	2410	2410	2140	2320	1650	1230	940	904	810	743
(†)	-369	-165	+191	-73	+252	+1380	-431	+9.0	-195	-193	-618	-688

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.

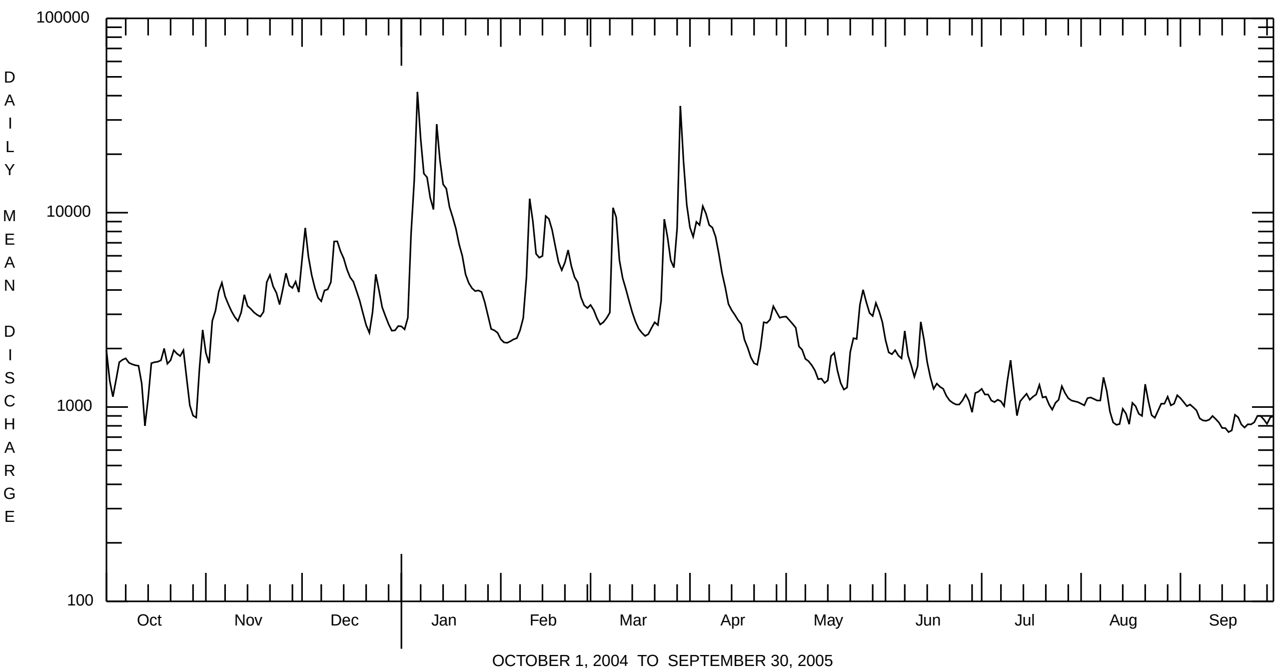
03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1524	2182	3578	4023	4551	5931	4955	3690	2323	1568	1459	1423
MAX	7006	6895	9373	9817	9630	13720	10230	8012	7318	4853	5707	6382
(WY)	1955	2004	1973	2005	1939	1936	1940	1996	1941	1985	1956	1971
MIN	107	209	412	611	716	1539	1637	1012	585	614	309	185
(WY)	1924	1923	1999	1925	1934	1990	1921	1982	1925	1942	1922	1922

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1921 - 2005	
ANNUAL TOTAL	1502064		1269197			
ANNUAL MEAN	4104	† +42	3477	† -74	3097	
HIGHEST ANNUAL MEAN					4604	2004
LOWEST ANNUAL MEAN					1496	1925
HIGHEST DAILY MEAN	33600	Sep 18	41800	Jan 6	79000	Mar 18 1936
LOWEST DAILY MEAN	800	Oct 13	743	Sep 16	57	Sep 30 1922
ANNUAL SEVEN-DAY MINIMUM	1230	Jul 20	808	Sep 11	64	Sep 24 1922
MAXIMUM PEAK FLOW			45200	Jan 6	**a**108000	Oct 16 1954
MAXIMUM PEAK STAGE			**b**20.78	Jan 6	**c**32.50	Oct 16 1954
INSTANTANEOUS LOW FLOW					**d**57	Sep 29 1922
10 PERCENT EXCEEDS	8330		7510		6850	
50 PERCENT EXCEEDS	2890		2260		1950	
90 PERCENT EXCEEDS	1350		924		705	

† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir and Youghiogheny River Lake. Records of contents in Deep Creek Reservoir furnished by Reliant Energy. Records of contents in Youghiogheny River Lake furnished by U.S. Army Corps of Engineers.
a From rating curve extended above 100,000 ft^3/s.
b From peak-stage indicator.
c From floodmark.
d Minimum observed.



03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 2005 to current year.
pH: June 2005 to current year.
WATER TEMPERATURE: June 2005 to current year.
DISSOLVED OXYGEN: June 2005 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods June 25, Aug. 16, and Sept. 25, which are poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment. Other data for the Water-Quality Network can be found on pages 276-323.

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...	1225	1028	9813	1490	10.0	7.7	7.5	367	370	14.0	120	31.4	9.1
JAN 2005													
04...	1330	1028	9813	8270	10.7	7.8	7.7	254	260	8.5	80	22.3	5.8
MAR													
03...	1245	1028	9813	2740	13.8	7.3	7.6	506	519	1.0	120	32.2	8.4
MAY													
03...	1345	1028	9813	2670	11.1	7.2	7.5	297	296	9.4	87	24.0	6.7
JUL													
19...	1150	1028	9813	1300	7.3	7.3	7.8	320	273	24.7	97	25.7	8.0
SEP													
14...	1300	1028	9813	780	8.6	7.7	7.9	253	265	23.5	75	21.2	5.3

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004													
02...	46	<.2	89.6	244	2	<.020	.83	<.040	<.01	.022	1.1	2.5	<200
JAN 2005													
04...	37	<.2	42.8	200	8	.060	1.08	<.040	.01	.130	1.7	2.9	1300
MAR													
03...	37	<.2	74.9	354	10	.070	1.12	<.040	<.01	.016	1.2	1.4	290
MAY													
03...	29	<.2	71.3	188	<2	.080	.82	<.040	<.01	.014	.92	--	<200
JUL													
19...	40	<.2	76.8	232	76	.040	.75	<.040	.01	.157	1.0	--	2500
SEP													
14...	36	<.2	60.0	204	<2	.030	.52	<.040	.01	.015	.66	--	<200

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued

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

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)	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)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
NOV 2004								
02...	<10	<1.00	550	<1.0	50	<50	<10	<5
JAN 2005								
04...	<10	<1.00	3050	4.2	360	<50	20	<5
MAR								
03...	<10	<1.00	770	<1.0	200	<50	20	<5
MAY								
03...	<10	<1.00	340	<1.0	90	<50	<10	<5
JUL								
19...	<10	<1.00	6950	3.3	270	<50	30	<5
SEP								
14...	<10	<1.00	170	<1.0	40	<50	<10	<5

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)	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	12
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	11
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Tubificida	
Naididae	13
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	1
Acentrella	1
Baetis	10
Plauditus	4
Heptageniidae	
Stenacron	1
Stenonema	8
Isonychiidae	
Isonychia	7
Tricorythidae	
Tricorythodes	18

YOUGHIOGHENY RIVER BASIN

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	09/15/04
Benthic Macroinvertebrate	Count
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	7
Hydropsychidae	
Cheumatopsyche	42
Hydropsyche	10
Macrostemum	1
Hydroptilidae	
Hydroptila	2
Philopotamidae	
Dolophilodes	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	35
Total Organisms	193
Total Taxa	25

YOUGHIOGHENY RIVER BASIN

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, 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	---	---	---	338	322	328	304	292	295	274	262	266
2	321	271	293	324	313	317	308	284	294	278	273	275
3	347	266	301	334	313	320	307	278	288	278	269	274
4	293	271	275	345	308	330	284	270	274	277	259	264
5	313	268	286	308	289	298	283	270	274	260	250	252
6	324	271	292	306	288	296	273	269	271	256	241	248
7	285	263	271	304	296	299	272	268	269	265	252	257
8	292	264	275	305	299	302	274	236	257	267	254	259
9	299	264	275	307	271	300	270	243	252	267	253	259
10	325	294	307	287	244	257	297	263	277	259	248	252
11	321	270	291	357	287	335	381	291	314	255	241	245
12	270	223	250	339	323	327	399	381	394	247	240	244
13	254	219	235	329	270	291	395	346	367	247	237	240
14	288	254	276	294	261	276	346	302	310	249	238	245
15	284	273	277	293	249	269	302	244	286	248	237	243
16	301	283	289	261	245	256	---	---	---	249	240	245
17	298	284	293	266	240	246	252	227	236	264	249	256
18	302	282	288	282	247	260	248	239	243	249	232	237
19	313	298	304	299	273	281	250	241	244	284	234	243
20	327	311	318	329	278	295	292	250	278	303	284	293
21	339	320	327	329	303	315	297	239	257	324	295	301
22	339	332	335	313	291	304	252	232	240	328	247	292
23	345	328	334	316	305	309	268	250	256	253	234	247
24	347	332	338	314	289	299	267	256	262	244	234	241
25	---	---	---	305	290	299	263	230	238	---	---	---
26	341	326	332	291	267	277	247	234	241	233	228	230
27	340	331	333	304	291	299	238	231	235	238	228	232
28	364	338	348	309	290	300	254	231	245	244	231	238
29	364	336	349	300	287	294	259	243	249	276	233	244
30	372	337	353	300	286	292	258	249	251	296	276	288
31	---	---	---	304	287	293	277	253	268	---	---	---
MONTH	372	219	302	357	240	296	399	227	272	328	228	256

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

YOUGHIOGHENY RIVER BASIN

03083500 YOUGHIOGHENY RIVER AT SUTERSVILLE, 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	---	---	---	27.0	24.3	25.5	27.8	24.2	25.8	24.2	20.8	22.2
2	18.2	16.8	17.7	26.9	24.0	25.3	27.8	24.9	26.2	24.7	21.8	23.0
3	18.0	16.5	17.1	25.4	23.1	24.2	27.5	24.3	25.8	24.2	21.9	22.9
4	19.1	16.4	17.5	26.7	23.3	24.8	27.1	24.4	25.7	24.2	21.3	22.5
5	21.2	17.8	19.3	26.7	24.5	25.4	25.7	24.0	24.8	23.6	21.0	22.2
6	21.8	19.7	20.8	26.3	23.6	24.6	24.7	23.1	23.7	24.2	20.9	22.3
7	23.0	19.4	21.2	25.1	23.4	24.2	25.7	22.8	24.0	24.4	20.9	22.4
8	24.6	21.4	23.0	25.5	22.7	23.8	23.9	22.1	22.8	24.1	21.0	22.4
9	25.0	22.8	23.9	25.4	22.4	23.7	25.6	21.5	23.2	24.4	21.7	22.8
10	26.6	23.3	24.8	24.7	21.1	23.0	26.8	23.3	24.9	24.6	21.4	22.9
11	26.4	24.2	25.2	25.9	22.1	23.8	27.6	24.3	25.8	24.6	21.1	22.7
12	24.9	22.9	24.0	27.2	23.9	25.2	28.5	25.0	26.6	24.9	21.5	23.0
13	25.2	22.6	23.9	26.5	24.6	25.6	28.9	25.9	27.3	24.5	21.8	23.0
14	26.5	23.3	24.7	25.4	24.1	24.6	27.8	26.2	27.0	24.4	21.3	22.8
15	25.2	22.8	23.8	26.5	23.5	24.8	26.8	24.9	25.8	24.9	22.1	23.3
16	22.8	20.8	21.8	26.8	24.3	25.5	---	---	---	24.8	22.8	23.6
17	21.3	19.5	20.4	26.6	24.6	25.5	25.6	22.2	23.7	23.7	22.4	23.0
18	21.8	19.0	20.3	26.6	24.5	25.4	25.2	22.8	24.0	23.1	21.4	22.1
19	21.6	18.8	20.1	27.0	24.5	25.5	26.0	23.3	24.4	22.9	20.9	21.8
20	23.7	19.5	21.2	28.4	24.6	26.2	27.8	23.9	25.6	21.7	20.7	21.2
21	24.0	20.4	22.0	26.6	25.2	25.7	27.3	25.2	26.0	22.4	19.6	20.9
22	24.2	21.4	22.5	26.6	24.8	25.4	25.7	24.1	24.9	23.0	19.7	21.2
23	25.2	21.0	23.0	28.0	24.1	25.8	25.0	22.5	23.7	23.0	21.6	22.2
24	26.1	21.9	23.8	25.8	24.1	24.7	24.9	21.8	23.2	22.6	20.8	21.7
25	---	---	---	26.5	23.4	24.5	24.5	21.5	22.9	---	---	---
26	27.2	23.9	25.4	26.9	23.3	24.8	23.1	21.5	22.1	22.1	21.1	21.7
27	26.7	24.2	25.4	26.4	24.7	25.4	21.5	20.7	21.0	22.1	19.7	20.8
28	27.7	23.7	25.4	26.3	23.5	24.8	24.1	20.5	21.9	21.6	18.7	20.1
29	27.6	24.6	25.7	26.4	23.2	24.6	22.8	21.2	21.8	20.4	17.9	19.5
30	27.9	24.7	26.0	26.6	23.1	24.7	22.0	20.8	21.4	18.7	16.1	17.4
31	---	---	---	27.4	23.6	25.2	22.2	21.6	21.8	---	---	---
MONTH	27.9	16.4	22.5	28.4	21.1	24.9	28.9	20.5	24.3	24.9	16.1	22.0

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	---	---	---	10.2	7.5	8.7	8.4	6.5	7.4	8.8	7.0	7.9
2	---	---	---	10.7	8.2	9.3	7.7	6.4	7.0	8.6	6.7	7.7
3	---	---	---	11.8	8.9	10.2	8.2	5.1	6.7	---	---	---
4	---	---	---	---	---	---	8.6	5.3	6.9	10.0	7.1	8.2
5	---	---	---	11.6	6.1	8.6	---	---	---	---	---	---
6	---	---	---	---	---	---	9.2	6.1	7.7	9.5	7.4	8.5
7	9.2	6.9	8.3	---	---	---	9.7	5.6	8.0	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	12.0	8.0	10.1	---	---	---	---	---	---	---	---	---
10	12.3	8.4	10.5	---	---	---	8.8	6.2	8.1	---	---	---
11	11.8	6.8	9.7	---	---	---	8.6	6.6	7.6	---	---	---
12	10.2	7.4	9.2	---	---	---	8.6	7.1	7.8	---	---	---
13	10.6	7.4	9.0	---	---	---	8.7	6.9	7.8	---	---	---
14	11.2	7.7	9.5	---	---	---	9.0	6.5	7.9	9.6	7.6	8.5
15	10.2	7.5	8.8	9.8	6.1	8.1	9.2	6.7	8.0	9.6	7.2	8.3
16	9.3	7.1	8.0	10.3	5.8	7.9	---	---	---	9.0	7.0	8.0
17	10.1	7.7	8.8	9.6	5.7	7.7	---	---	---	9.5	6.5	8.0
18	10.5	8.0	9.2	10.0	6.6	8.2	---	---	---	9.4	7.5	8.4
19	10.9	8.1	9.5	9.3	7.2	8.2	---	---	---	10.2	7.2	8.7
20	11.0	8.0	9.6	8.8	5.6	7.6	---	---	---	---	---	---
21	11.1	7.9	9.5	8.1	5.8	6.9	---	---	---	9.6	6.3	8.4
22	10.7	7.6	9.2	8.7	6.2	7.3	---	---	---	10.4	7.8	9.1
23	11.1	7.5	9.3	9.0	6.4	7.9	---	---	---	10.0	7.7	8.7
24	11.1	7.3	9.2	9.9	5.5	7.8	---	---	---	10.3	6.7	8.7
25	---	---	---	9.8	6.0	8.2	9.2	7.5	8.3	---	---	---
26	10.0	6.6	8.3	10.4	5.8	8.4	---	---	---	8.8	6.9	8.1
27	10.1	6.6	8.3	10.4	7.1	8.9	---	---	---	9.7	6.5	8.3
28	9.8	6.9	8.2	9.6	7.8	8.9	8.5	7.0	7.7	10.2	7.7	8.9
29	---	---	---	9.2	7.0	8.2	7.7	5.0	6.2	9.5	7.4	8.7
30	---	---	---	9.0	7.0	7.9	7.1	5.0	6.0	10.6	6.9	8.6
31	---	---	---	8.7	6.8	7.7	7.8	5.0	6.3	---	---	---
MONTH	12.3	6.6	9.1	11.8	5.5	8.2	9.7	5.0	7.4	10.6	6.3	8.4

TURTLE CREEK BASIN

03084698 TURTLE CREEK AT WILMERDING, PA
(Fecal-Indicator Bacteria Project)

LOCATION.--Lat 40°23'39", long 79°48'22", Allegheny County, Hydrologic Unit 05030101, on top of concrete detaining wall, at Middle Avenue, at Wilmerding.

DRAINAGE AREA.--123 mi^2.

PERIOD OF RECORD.--August 2004 to current year.

GAGE.--Water-stage recorder. Datum of gage is 749 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.

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	---	---	---	---	---	---	---	---	---	---	---	40
2	---	---	---	---	---	---	---	---	---	---	---	36
3	---	---	---	---	---	---	---	---	---	---	---	37
4	---	---	---	---	---	---	---	---	---	---	---	43
5	---	---	---	---	---	---	---	---	---	---	---	41
6	---	---	---	---	---	---	---	---	---	---	---	40
7	---	---	---	---	---	---	---	---	---	---	---	39
8	---	---	---	---	---	---	---	---	---	---	---	627
9	---	---	---	---	---	---	---	---	---	---	36	709
10	---	---	---	---	---	---	---	---	---	---	34	217
11	---	---	---	---	---	---	---	---	---	---	98	124
12	---	---	---	---	---	---	---	---	---	---	102	87
13	---	---	---	---	---	---	---	---	---	---	102	63
14	---	---	---	---	---	---	---	---	---	---	54	59
15	---	---	---	---	---	---	---	---	---	---	46	68
16	---	---	---	---	---	---	---	---	---	---	53	76
17	---	---	---	---	---	---	---	---	---	---	48	3180
18	---	---	---	---	---	---	---	---	---	---	47	3420
19	---	---	---	---	---	---	---	---	---	---	215	576
20	---	---	---	---	---	---	---	---	---	---	298	288
21	---	---	---	---	---	---	---	---	---	---	454	107
22	---	---	---	---	---	---	---	---	---	---	155	89
23	---	---	---	---	---	---	---	---	---	---	88	74
24	---	---	---	---	---	---	---	---	---	---	60	64
25	---	---	---	---	---	---	---	---	---	---	50	59
26	---	---	---	---	---	---	---	---	---	---	50	56
27	---	---	---	---	---	---	---	---	---	---	65	57
28	---	---	---	---	---	---	---	---	---	---	134	68
29	---	---	---	---	---	---	---	---	---	---	95	66
30	---	---	---	---	---	---	---	---	---	---	161	60
31	---	---	---	---	---	---	---	---	---	---	55	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	10470
MEAN	---	---	---	---	---	---	---	---	---	---	---	349
MAX	---	---	---	---	---	---	---	---	---	---	---	3420
MIN	---	---	---	---	---	---	---	---	---	---	---	36
CFSM	---	---	---	---	---	---	---	---	---	---	---	2.84
IN.	---	---	---	---	---	---	---	---	---	---	---	3.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	---	---	---	---	---	---	---	---	---	349
MAX	---	---	---	---	---	---	---	---	---	---	---	349
(WY)	---	---	---	---	---	---	---	---	---	---	---	2004
MIN	---	---	---	---	---	---	---	---	---	---	---	349
(WY)	---	---	---	---	---	---	---	---	---	---	---	2004

03084698 TURTLE CREEK AT WILMERDING, PA--Continued

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	56	74	713	75	e104	e183	179	138	75	94	41	58
2	55	83	325	69	e105	e178	e260	124	69	48	36	29
3	54	139	e267	251	e111	e172	410	115	152	45	30	21
4	51	116	e226	588	119	e167	366	108	103	46	29	19
5	47	132	e174	1790	131	e177	250	105	73	91	39	18
6	47	115	e142	6050	148	225	194	97	117	130	35	18
7	47	107	e160	1350	182	425	172	107	122	145	44	17
8	47	101	e177	1350	270	817	160	105	70	59	192	17
9	47	94	146	863	562	428	155	91	58	64	75	18
10	49	91	304	590	773	323	158	88	54	52	40	17
11	47	90	336	1060	373	311	161	87	72	52	34	17
12	47	171	271	1770	285	300	152	137	66	51	30	17
13	51	127	193	890	229	252	147	83	52	97	34	16
14	80	105	134	1230	739	222	139	181	52	75	63	16
15	72	99	121	705	947	204	129	209	60	48	29	16
16	61	96	114	496	669	193	122	114	55	50	54	20
17	54	94	111	369	445	184	119	92	72	50	44	72
18	67	101	106	e270	323	177	117	81	51	135	30	21
19	191	153	108	e239	254	170	113	76	49	73	27	17
20	73	233	105	e212	231	174	113	96	50	57	86	17
21	58	166	109	e181	598	169	140	80	48	40	115	17
22	52	150	95	e168	355	155	128	73	47	38	23	18
23	47	149	278	e156	283	345	209	112	45	49	17	21
24	86	190	260	e147	257	302	172	137	45	40	15	20
25	70	211	128	e137	236	242	201	140	45	53	16	21
26	61	220	97	e131	214	222	161	93	45	65	17	50
27	56	178	89	e125	199	210	165	83	45	95	37	43
28	54	285	91	e120	e190	e340	139	174	46	48	51	21
29	67	204	82	e116	---	e537	131	129	88	43	27	116
30	103	165	79	e110	---	e257	166	93	55	43	36	37
31	81	---	80	e107	---	e176	---	83	---	45	143	---
TOTAL	1978	4239	5621	21715	9332	8237	5228	3431	1981	2021	1489	825
MEAN	63.8	141	181	700	333	266	174	111	66.0	65.2	48.0	27.5
MAX	191	285	713	6050	947	817	410	209	152	145	192	116
MIN	47	74	79	69	104	155	113	73	45	38	15	16
CFSM	0.52	1.15	1.47	5.69	2.71	2.16	1.42	0.90	0.54	0.53	0.39	0.22
IN.	0.60	1.28	1.70	6.57	2.82	2.49	1.58	1.04	0.60	0.61	0.45	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	63.8	141	181	700	333	266	174	111	66.0	65.2	48.0	188
MAX	63.8	141	181	700	333	266	174	111	66.0	65.2	48.0	349
(WY)	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2004
MIN	63.8	141	181	700	333	266	174	111	66.0	65.2	48.0	27.5
(WY)	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005

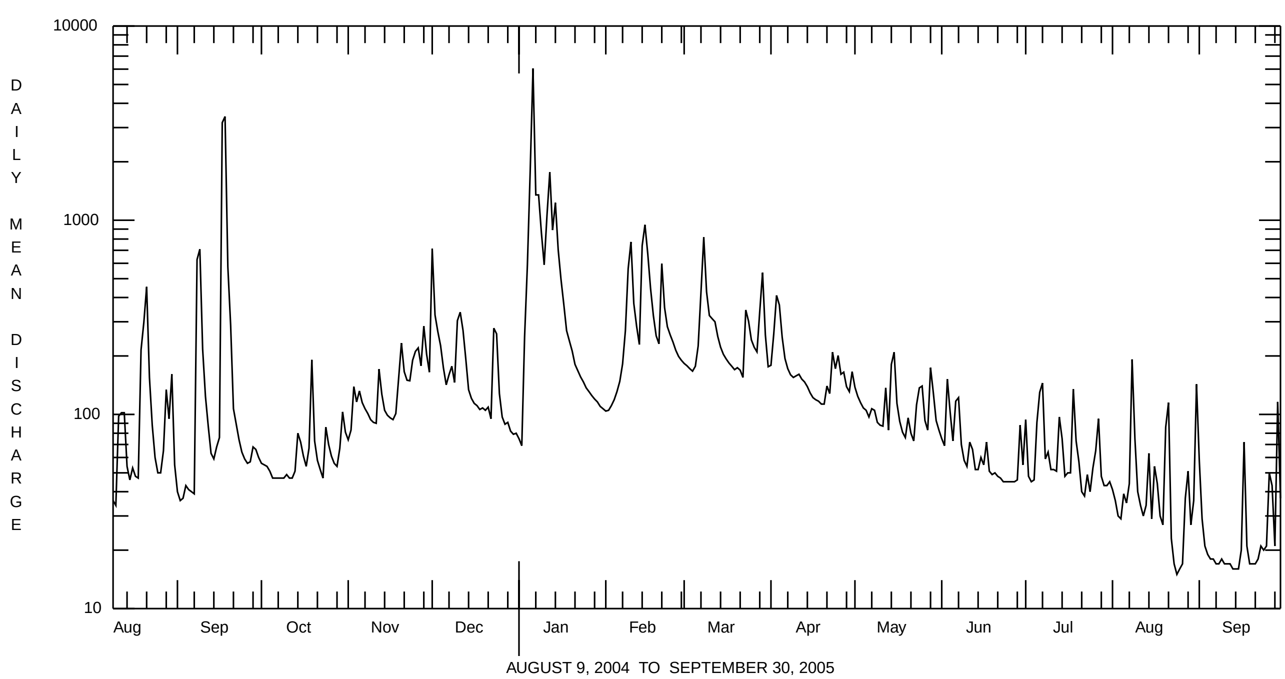
e Estimated.

TURTLE CREEK BASIN

03084698 TURTLE CREEK AT WILMERDING, PA--Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	66097			
ANNUAL MEAN	181		181	
HIGHEST ANNUAL MEAN			181	2005
LOWEST ANNUAL MEAN			181	2005
HIGHEST DAILY MEAN	6050	Jan 6	6050	Jan 6 2005
LOWEST DAILY MEAN	15	Aug 24	15	Aug 24 2005
ANNUAL SEVEN-DAY MINIMUM	17	Sep 9	17	Sep 9 2005
MAXIMUM PEAK FLOW	8430	Jan 6	**a**9760	Sep 17 2004
MAXIMUM PEAK STAGE	9.39	Jan 6	10.44	Sep 17 2004
INSTANTANEOUS LOW FLOW	13	Aug 24**b**	13	Aug 24 2005**b**
ANNUAL RUNOFF (CFSM)	1.47		1.47	
ANNUAL RUNOFF (INCHES)	19.99		20.00	
10 PERCENT EXCEEDS	316		316	
50 PERCENT EXCEEDS	106		106	
90 PERCENT EXCEEDS	32		32	

a From rating curve extended above 8,600 ft^3/s.
b Also Aug. 25, Sept. 13.



TURTLE CREEK BASIN

03084800 THOMPSON RUN AT TURTLE CREEK, PA
(Fecal-Indicator Bacteria Project)

LOCATION.--Lat 40°24'19", long 79°49'41", Allegheny County, Hydrologic Unit 05020005, at bridge at intersection of Tri-Boro Expressway (Rt. 130), Thompson Street, and Larimer Avenue, and 1,400 ft upstream of mouth.

DRAINAGE AREA.--18.0 mi^2.

PERIOD OF RECORD.--May 2004 to current year.

GAGE.--Non-recording gage June 11, 1979 to Aug. 15, 1981. Water-stage recorder May 2004 to current year. Datum of gage is 746 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.

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	---	---	---	---	---	---	---	---	14	12	13	9.8
2	---	---	---	---	---	---	---	---	15	12	12	9.2
3	---	---	---	---	---	---	---	---	17	11	19	9.3
4	---	---	---	---	---	---	---	---	11	11	33	9.6
5	---	---	---	---	---	---	---	---	15	12	28	8.9
6	---	---	---	---	---	---	---	---	12	11	15	9.0
7	---	---	---	---	---	---	---	---	11	18	13	44
8	---	---	---	---	---	---	---	---	11	16	12	184
9	---	---	---	---	---	---	---	---	11	14	11	138
10	---	---	---	---	---	---	---	---	13	12	8.7	38
11	---	---	---	---	---	---	---	---	23	25	8.6	28
12	---	---	---	---	---	---	---	e13	13	19	11	23
13	---	---	---	---	---	---	---	13	12	15	9.5	21
14	---	---	---	---	---	---	---	12	33	13	8.7	20
15	---	---	---	---	---	---	---	13	28	12	8.4	19
16	---	---	---	---	---	---	---	12	28	12	8.2	19
17	---	---	---	---	---	---	---	12	35	14	8.0	641
18	---	---	---	---	---	---	---	26	25	16	8.5	152
19	---	---	---	---	---	---	---	e20	16	13	28	20
20	---	---	---	---	---	---	---	13	14	12	33	17
21	---	---	---	---	---	---	---	42	13	11	35	20
22	---	---	---	---	---	---	---	38	26	11	14	24
23	---	---	---	---	---	---	---	18	15	11	11	27
24	---	---	---	---	---	---	---	15	13	11	10	30
25	---	---	---	---	---	---	---	19	13	11	10	30
26	---	---	---	---	---	---	---	19	13	53	12	28
27	---	---	---	---	---	---	---	15	12	26	10	26
28	---	---	---	---	---	---	---	17	15	16	19	27
29	---	---	---	---	---	---	---	14	13	13	23	24
30	---	---	---	---	---	---	---	13	12	12	16	28
31	---	---	---	---	---	---	---	16	---	20	11	---
TOTAL	---	---	---	---	---	---	---	---	502	475	467.6	1683.8
MEAN	---	---	---	---	---	---	---	---	16.7	15.3	15.1	56.1
MAX	---	---	---	---	---	---	---	---	35	53	35	641
MIN	---	---	---	---	---	---	---	---	11	11	8.0	8.9
CFSM	---	---	---	---	---	---	---	---	0.93	0.85	0.84	3.12
IN.	---	---	---	---	---	---	---	---	1.04	0.98	0.97	3.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	---	---	---	---	---	---	16.7	15.3	15.1	56.1
MAX	---	---	---	---	---	---	---	---	16.7	15.3	15.1	56.1
(WY)	---	---	---	---	---	---	---	---	2004	2004	2004	2004
MIN	---	---	---	---	---	---	---	---	16.7	15.3	15.1	56.1
(WY)	---	---	---	---	---	---	---	---	2004	2004	2004	2004

e Estimated.

TURTLE CREEK BASIN

03084800 THOMPSON RUN AT TURTLE CREEK, PA--Continued

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	12	81	16	e21	e26	26	20	11	5.4	7.9	7.1
2	21	17	31	15	e21	27	56	20	11	5.1	8.5	5.6
3	20	17	22	57	20	25	60	19	24	5.1	8.1	4.3
4	21	15	20	49	20	24	43	18	13	5.5	7.8	4.3
5	21	17	19	251	20	25	32	18	12	22	8.0	4.1
6	20	14	19	458	21	28	29	18	15	7.8	8.2	3.9
7	19	13	26	22	22	30	27	19	11	5.5	7.6	3.8
8	17	13	19	36	e23	36	25	17	10	5.0	18	3.6
9	14	14	29	19	e25	27	23	17	10	4.8	9.2	3.7
10	14	14	27	20	e25	25	22	16	18	4.7	8.1	3.6
11	14	14	22	74	e25	28	21	16	27	4.8	7.9	3.4
12	14	25	21	66	e26	27	20	24	16	4.9	6.2	3.6
13	20	16	20	39	26	25	19	16	13	5.1	12	3.5
14	17	15	19	75	83	23	18	51	16	5.0	8.0	3.2
15	19	15	18	48	52	23	18	26	14	5.3	5.5	3.6
16	16	14	16	e44	48	22	17	13	10	11	13	e80
17	15	15	16	e40	36	17	17	11	13	20	6.3	e38
18	36	15	16	e37	32	12	17	11	7.8	16	5.3	e7.0
19	31	28	17	e35	29	e10	17	11	6.6	6.8	5.4	e5.1
20	14	28	16	e33	e29	e9.7	21	17	5.1	5.1	26	4.6
21	12	19	16	e31	e28	e9.2	24	13	5.8	4.8	11	4.7
22	12	19	17	e29	e28	e9.0	27	12	5.3	4.7	9.4	4.7
23	12	18	46	e28	e28	e8.5	34	28	5.2	4.5	8.3	5.2
24	20	32	22	e27	e27	e9.0	26	24	5.3	4.4	7.4	4.8
25	12	28	18	e26	27	e9.0	25	18	5.2	7.5	7.3	4.7
26	12	21	17	e25	e27	e9.5	21	13	5.3	19	7.9	15
27	12	21	16	e25	e26	e11	26	12	5.3	13	16	5.7
28	12	33	16	e23	e26	e33	18	31	6.0	5.3	9.4	4.7
29	14	22	16	e23	---	58	19	15	5.7	7.9	12	23
30	14	22	16	e22	---	31	28	13	5.4	7.4	17	5.1
31	12	---	16	e22	---	27	---	12	---	7.7	33	---
TOTAL	531	566	690	1715	821	683.9	776	569	318.0	241.1	325.7	273.6
MEAN	17.1	18.9	22.3	55.3	29.3	22.1	25.9	18.4	10.6	7.78	10.5	9.12
MAX	36	33	81	458	83	58	60	51	27	22	33	80
MIN	12	12	16	15	20	8.5	17	11	5.1	4.4	5.3	3.2
CFSM	0.95	1.05	1.24	3.08	1.63	1.23	1.44	1.02	0.59	0.43	0.58	0.51
IN.	1.10	1.17	1.43	3.55	1.70	1.41	1.61	1.18	0.66	0.50	0.67	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.1	18.9	22.3	55.3	29.3	22.1	25.9	18.4	13.7	11.6	12.8	32.6
MAX	17.1	18.9	22.3	55.3	29.3	22.1	25.9	18.4	16.7	15.3	15.1	56.1
(WY)	2005	2005	2005	2005	2005	2005	2005	2005	2004	2004	2004	2004
MIN	17.1	18.9	22.3	55.3	29.3	22.1	25.9	18.4	10.6	7.78	10.5	9.12
(WY)	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005

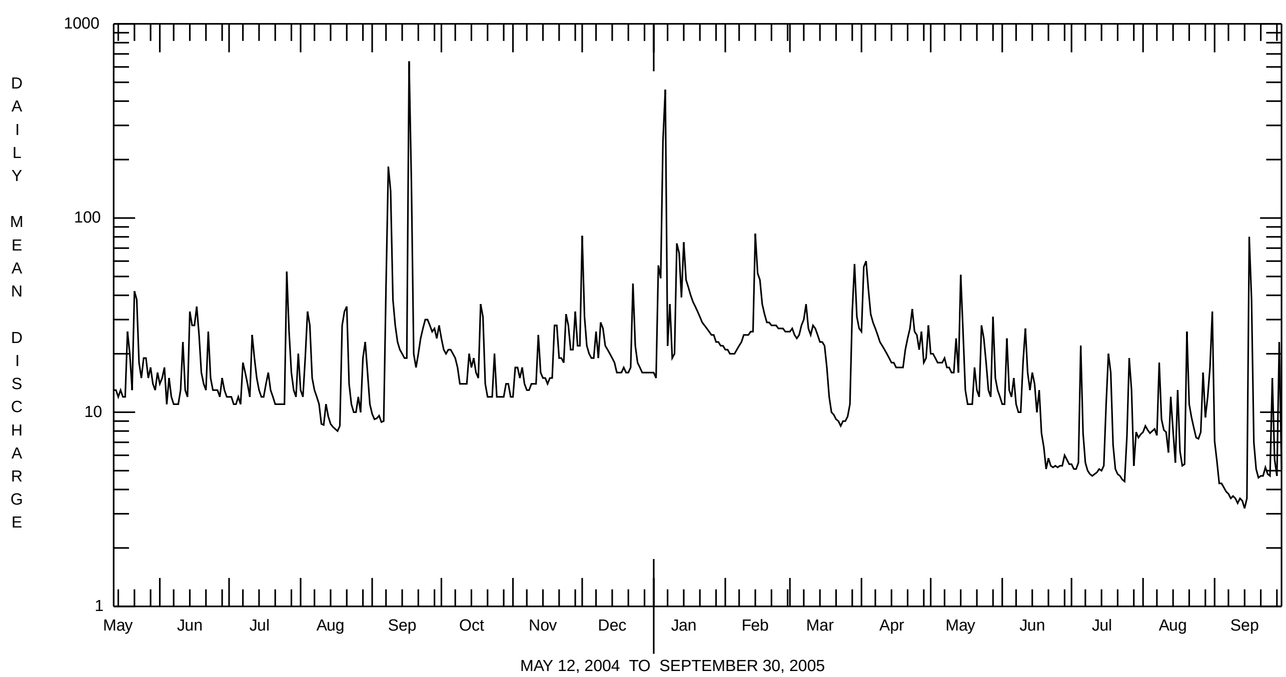
e Estimated.

TURTLE CREEK BASIN

03084800 THOMPSON RUN AT TURTLE CREEK, PA--Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	7510.3			
ANNUAL MEAN	20.6		20.6	
HIGHEST ANNUAL MEAN			20.6	2005
LOWEST ANNUAL MEAN			20.6	2005
HIGHEST DAILY MEAN	458	Jan 6	641	Sep 17 2004
LOWEST DAILY MEAN	3.2	Sep 14	3.2	Sep 14 2005
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 8	3.5	Sep 8 2005
MAXIMUM PEAK FLOW	1030	Jan 6	**a**3170	Sep 17 2004
MAXIMUM PEAK STAGE	5.37	Jan 6	8.23	Sep 17 2004
INSTANTANEOUS LOW FLOW	1.7	Aug 13	1.7	Aug 13 2005
ANNUAL RUNOFF (CFSM)	1.14		1.14	
ANNUAL RUNOFF (INCHES)	15.54		15.55	
10 PERCENT EXCEEDS	32		32	
50 PERCENT EXCEEDS	17		17	
90 PERCENT EXCEEDS	5.2		5.2	

a From rating curve extended above 2,600 ft^3/s.



MONONGAHELA RIVER BASIN

03085000 MONONGAHELA RIVER AT BRADDOCK, PA
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1958 to September 1993. September 1994 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to October 1975.
WATER TEMPERATURE: January 1973 to September 1979, November 1996 to September 1998.
SUSPENDED SEDIMENT DISCHARGE: January 1973 to September 1979.

REMARKS.--Other data for the Water-Quality Network can be found on pages 276-323.

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													
10...	1330	1028	9813	10350	10.0	7.4	7.7	274	273	12.5	94	26.0	7.0
JAN 2005													
19...	1320	1028	9813	22100	13.0	7.9	7.0	332	342	4.0	100	29.6	7.5
MAR													
10...	1330	1028	9813	32200	13.2	7.1	7.6	292	289	3.8	94	26.3	6.9
MAY													
05...	1400	1028	9813	9060	10.5	7.4	7.6	266	272	13.0	90	24.5	7.0
JUL													
14...	1340	1028	9813	2710	8.5	7.5	7.4	491	516	29.0	150	39.8	11.4
SEP													
15...	1330	1028	9813	2290	8.9	7.9	8.0	415	440	27.0	120	33.2	9.1

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004													
10...	42	<.2	65.7	172	32	.050	.58	<.040	.02	.056	.86	2.0	470
JAN 2005													
19...	34	.3	75.0	218	28	.120	.93	<.040	.03	.052	1.3	1.6	1600
MAR													
10...	35	<.2	62.6	178	48	.090	.82	<.040	<.01	.046	1.3	1.6	2100
MAY													
05...	31	<.2	74.9	186	8	.100	.62	<.040	.01	.015	.79	--	330
JUL													
14...	47	<.2	142	374	14	.020	1.04	<.040	.02	.024	1.2	--	<200
SEP													
15...	38	.2	112	300	<2	.020	1.09	<.040	.02	.038	1.3	--	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004								
10...	<10	<1.00	1120	2.6	140	<50	50	<5
JAN 2005								
19...	<10	<1.00	2040	1.8	220	<50	30	<5
MAR								
10...	<10	<1.00	2800	2.1	190	<50	30	<5
MAY								
05...	<10	<1.00	660	<1.0	120	<50	<10	<5
JUL								
14...	<10	<1.00	260	<1.0	90	<50	10	<5
SEP								
15...	<10	<1.00	220	<1.0	50	<50	<10	<5

MONONGAHELA RIVER BASIN

03085000 MONONGAHELA RIVER AT BRADDOCK, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a multiplate sampler that was deployed for 5 weeks. Samples represent counts per 100 animal (approximate) subsamples.

Date	11/09/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	
Physa	3
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	178
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	13
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenonema	1
Tricorythidae	
Tricorythodes	4
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
Argia	2
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	1
Diplectrona	1
Hydropsyche	2
Hydroptilidae	
Hydroptila	20
Polycentropodidae	
Neureclipsis	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	328
Empididae (DANCE FLIES)	
Hemerodromia	3
Total Organisms	562
Total Taxa	15

SAWMILL RUN BASIN

03085213 SAWMILL RUN AT DUQUESNE HEIGHTS NEAR PITTSBURGH, PA
(Fecal-Indicator Bacteria Project)

LOCATION.--Lat 40°25'58", long 80°01'47", Allegheny County, Hydrologic Unit 05030101, on right bank 30 ft upstream of single-span concrete bridge on east side of Minnotte Street, 0.3 mi south of intersection with Green Tree Road, 1.2 mi northeast of intersection with Interstate 279, and 0.9 mi upstream from mouth at Ohio River.

DRAINAGE AREA.--18.1 mi^2.

PERIOD OF RECORD.--May 2004 to current year.

GAGE.--Non-recording gage Dec. 8, 2003 to Apr. 30, 2004. Water-stage recorder May 2004 to current year. Datum of gage is 790 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.

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	---	---	---	---	---	---	---	13	17	7.1	11	7.4
2	---	---	---	---	---	---	---	16	16	8.8	11	7.0
3	---	---	---	---	---	---	---	12	20	8.2	9.9	7.3
4	---	---	---	---	---	---	---	11	11	7.8	23	11
5	---	---	---	---	---	---	---	11	24	8.7	17	7.3
6	---	---	---	---	---	---	---	11	13	6.6	9.5	7.0
7	---	---	---	---	---	---	---	30	e12	9.1	9.5	48
8	---	---	---	---	---	---	---	11	e11	7.6	8.7	573
9	---	---	---	---	---	---	---	9.7	e12	7.5	6.4	166
10	---	---	---	---	---	---	---	9.1	e13	6.3	6.3	20
11	---	---	---	---	---	---	---	8.7	70	7.3	7.7	16
12	---	---	---	---	---	---	---	8.5	15	20	13	12
13	---	---	---	---	---	---	---	9.5	12	20	9.0	10
14	---	---	---	---	---	---	---	12	87	13	8.7	9.5
15	---	---	---	---	---	---	---	15	43	7.5	7.3	8.8
16	---	---	---	---	---	---	---	9.8	20	6.9	8.3	9.3
17	---	---	---	---	---	---	---	8.7	26	9.7	7.6	1740
18	---	---	---	---	---	---	---	113	23	15	10	532
19	---	---	---	---	---	---	---	102	14	8.4	93	99
20	---	---	---	---	---	---	---	18	13	5.8	82	48
21	---	---	---	---	---	---	---	210	12	e4.2	53	24
22	---	---	---	---	---	---	---	103	43	e6.7	10	20
23	---	---	---	---	---	---	---	24	11	8.7	8.5	17
24	---	---	---	---	---	---	---	17	11	5.8	7.8	14
25	---	---	---	---	---	---	---	16	11	6.9	7.5	13
26	---	---	---	---	---	---	---	36	9.8	198	23	11
27	---	---	---	---	---	---	---	17	9.0	27	15	9.4
28	---	---	---	---	---	---	---	38	18	13	17	9.6
29	---	---	---	---	---	---	---	14	11	11	24	7.6
30	---	---	---	---	---	---	---	13	9.4	9.6	17	6.5
31	---	---	---	---	---	---	---	28	---	26	7.8	---
TOTAL	---	---	---	---	---	---	---	955.0	617.2	508.2	549.5	3470.7
MEAN	---	---	---	---	---	---	---	30.8	20.6	16.4	17.7	116
MAX	---	---	---	---	---	---	---	210	87	198	93	1740
MIN	---	---	---	---	---	---	---	8.5	9.0	4.2	6.3	6.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2004, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	---	---	---	---	---	---	---	30.8	20.6	16.4	17.7	116
MAX	---	---	---	---	---	---	---	30.8	20.6	16.4	17.7	116
(WY)	---	---	---	---	---	---	---	2004	2004	2004	2004	2004
MIN	---	---	---	---	---	---	---	30.8	20.6	16.4	17.7	116
(WY)	---	---	---	---	---	---	---	2004	2004	2004	2004	2004

e Estimated.

SAWMILL RUN BASIN

03085213 SAWMILL RUN AT DUQUESNE HEIGHTS NEAR PITTSBURGH, PA--Continued

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	6.4	6.7	211	11	11	20	15	7.4	5.9	7.1	8.2	7.3
2	6.8	25	19	10	9.8	14	60	9.1	5.7	4.9	8.3	5.6
3	5.4	15	14	124	7.7	12	38	7.3	15	4.6	7.4	5.3
4	4.7	14	11	34	8.1	13	23	6.8	6.1	4.5	6.9	5.0
5	3.5	10	9.9	628	8.3	13	18	7.1	5.4	67	8.3	5.0
6	2.1	7.1	9.7	674	9.2	17	16	6.8	13	6.9	4.7	5.4
7	2.2	7.4	32	122	9.9	27	15	13	5.7	4.8	4.3	4.7
8	2.6	7.6	12	169	14	47	14	6.2	5.4	4.7	38	4.6
9	2.5	6.9	79	e187	43	17	13	5.8	6.8	4.5	4.4	5.9
10	2.3	6.3	33	e204	19	15	13	5.8	e17	4.4	4.2	6.2
11	2.2	6.0	19	239	8.1	23	11	16	10	4.4	4.0	4.5
12	2.9	39	e15	165	5.6	21	10	28	7.4	17	3.8	4.5
13	27	9.4	e13	69	4.6	15	10	61	6.0	7.6	4.7	4.5
14	8.5	8.5	e11	168	109	13	10	98	11	4.5	4.0	4.4
15	36	8.3	e12	48	22	12	9.9	21	8.3	19	4.0	4.4
16	10	8.2	12	38	19	11	9.7	15	10	6.2	8.4	25
17	5.2	9.1	11	28	7.8	8.9	9.5	8.8	8.3	21	4.5	12
18	122	11	11	23	5.8	9.4	9.1	7.4	6.3	6.0	4.1	4.7
19	40	108	14	25	4.9	9.8	8.9	7.0	5.6	4.7	4.0	4.6
20	14	26	11	19	27	14	10	18	4.8	4.5	143	4.5
21	7.1	11	12	16	35	8.9	12	6.3	4.8	31	11	4.5
22	6.6	12	13	14	16	8.2	17	5.3	6.4	5.9	5.1	4.3
23	6.3	9.3	113	10	13	44	63	18	4.7	4.5	4.5	6.2
24	30	41	18	9.5	17	17	16	11	4.6	4.9	4.4	4.3
25	6.8	17	15	13	17	14	16	8.0	4.9	18	4.4	4.3
26	6.1	10	14	15	13	11	9.1	7.4	4.8	83	5.7	15
27	5.7	13	12	9.3	11	19	14	7.7	4.9	14	21	5.9
28	5.4	33	11	9.4	30	143	7.7	32	4.6	8.0	6.4	4.7
29	107	15	11	11	---	46	7.1	9.5	6.0	7.4	28	40
30	17	17	11	14	---	20	14	18	108	7.7	27	4.9
31	9.6	---	11	11	---	16	---	9.5	---	8.2	71	---
TOTAL	513.9	517.8	800.6	3117.2	505.8	679.2	499.0	488.2	317.4	400.9	467.7	222.2
MEAN	16.6	17.3	25.8	101	18.1	21.9	16.6	15.7	10.6	12.9	15.1	7.41
MAX	122	108	211	674	109	143	63	98	108	83	143	40
MIN	2.1	6.0	9.7	9.3	4.6	8.2	7.1	5.3	4.6	4.4	3.8	4.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.6	17.3	25.8	101	18.1	21.9	16.6	23.3	15.6	14.7	16.4	61.5
MAX	16.6	17.3	25.8	101	18.1	21.9	16.6	30.8	20.6	16.4	17.7	116
(WY)	2005	2005	2005	2005	2005	2005	2005	2004	2004	2004	2004	2004
MIN	16.6	17.3	25.8	101	18.1	21.9	16.6	15.7	10.6	12.9	15.1	7.41
(WY)	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005

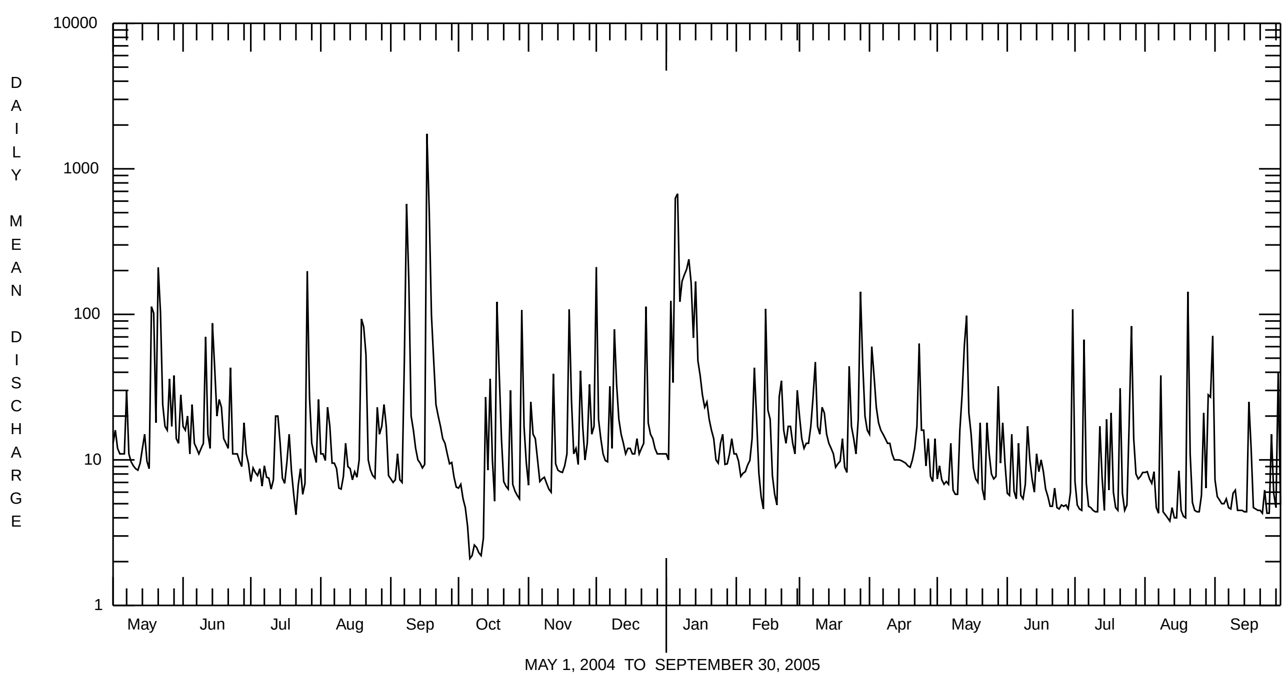
e Estimated.

SAWMILL RUN BASIN

03085213 SAWMILL RUN AT DUQUESNE HEIGHTS NEAR PITTSBURGH, PA--Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL TOTAL	8529.9			
ANNUAL MEAN	23.4		23.4	
HIGHEST ANNUAL MEAN			23.4	2005
LOWEST ANNUAL MEAN			23.4	2005
HIGHEST DAILY MEAN	674	Jan 6	1740	Sep 17 2004
LOWEST DAILY MEAN	2.1	Oct 6	2.1	Oct 6 2004
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 6	2.4	Oct 6 2004
MAXIMUM PEAK FLOW	1930	Aug 20	**a**6530	Sep 17 2004
MAXIMUM PEAK STAGE	6.30	Aug 20	11.82	Sep 17 2004
INSTANTANEOUS LOW FLOW	1.2	Aug 23	1.2	Aug 23 2005
10 PERCENT EXCEEDS	39		39	
50 PERCENT EXCEEDS	10		10	
90 PERCENT EXCEEDS	4.5		4.5	

a From rating curve extended above 5,100 ft^3/s.



LAKES AND RESERVOIRS IN MONONGAHELA RIVER BASIN

03055500 TYGART LAKE.--Lat 39°18'50", long 80°02'00", Taylor County, W. Va., Hydrologic Unit 05020001, at dam on Tygart Valley River, 2.2 mi upstream from Threefork Creek, and 2.4 mi upstream from Grafton, W. Va. DRAINAGE AREA, 1,184 mi^2. PERIOD OF RECORD, April 1938 to current year. Prior to October 1960 published as "*Tygart Reservoir*". GAGE, water-stage recorder. Datum of gage is at sea level.

REMARKS.--Lake is formed by concrete gravity dam completed and accepted February 1938, storage began May 15, 1938. Capacity, 285,000 acre-ft (from sedimentation resurvey made in 1959) between elevations 991.5 ft (sill of valves) and 1,167.0 ft (crest of spillway) above sea level. Dead storage, 2,700 acre-ft. Figures given herein represent total contents. Conservation pool elevation is 1,010.0 ft and water below elevation 991.5 ft cannot be withdrawn. Lake is used for flood control, for supplementary supply for navigation on Monongahela River during periods of low flow, and for recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD (1938-2004).--Maximum contents, 255,680 acre-ft, Nov. 7, 1985, elevation, 1,156.69 ft; minimum since October 1939, 8,330 acre-ft, Jan. 25, 1940, elevation, 1,005.15 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

03076000 DEEP CREEK RESERVOIR.--Lat 39°30'34", long 79°23'28", Garrett County, Md., Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi upstream from mouth, and 7 mi north of Oakland, Md. DRAINAGE AREA, 64.7 mi^2. PERIOD OF RECORD, July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385. GAGE, water-stage recorder at right end of spillway. Datum of gage is at sea level (unadjusted).

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft between elevations 2,425 ft (top of intake to outlet tunnel) and 2,462 ft (crest of spillway). Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Records furnished by Reliant Energy.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,800 acre-ft, July 14, 1990, elevation, 2,462.25 ft; minimum observed, 11,760 acre-ft, Sept. 30, 1925, elevation, 2,433.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 90,000 acre-ft, May 27, elevation, 2,461.2 ft; minimum observed, 71,800 acre-ft, Feb. 2, elevation, 2,456.2 ft.

03077000 YOUGHIOGHENY RIVER LAKE.--Lat 39°47'56", long 79°22'06", Somerset County, Hydrologic Unit 05020006, remote control recorder at control house at dam, 1.2 mi upstream from Confluence, Pa., since June 1951. Water- stage recorder and transmitter at lat 39°45'21", long 79°24'00", at bridge on U.S. Highway 40, 500 ft upstream from Stuck Hollow Run, 0.6 mi upstream from Tub Run, on Youghiogheny River, 7.5 mi upstream from Youghiogheny River Dam, Pa. DRAINAGE AREA, 434 mi^2. PERIOD OF RECORD, October 1943 to current year. Prior to October 1970 published as "Youghiogheny River Reservoir." GAGE, water-stage recorder since Mar. 9, 1948. Datum of gage is at sea level. Prior to Mar. 9, 1948, non-recording gage at dam at same datum.

REMARKS.--Lake is formed by a rock-faced earthfill dam with uncontrolled side channel spillway. Storage began during construction and lake acted as a retention basin from December 1942 to December 1947. Dam became fully operational in January 1948. Lake first reached minimum pool elevation, 1,344.0 ft (capacity, 5,230 acre-ft) in December 1942. Capacity 254,000 acre-ft between elevations 1,319.50 ft (invert at intake to outlet tunnel) and 1,470.00 ft (full pool). Winter low-water pool elevation is 1,419.0 ft, capacity, 103,000 acre-ft. Summer pool normally occurs during period Mar. 15 to Apr. 15. Depletion of low-water storage for Youghiogheny River flow augmentation occurs normally during the period July through November. Figures given herein represent total contents. Lake is used for flood control, for low-flow augmentation of Youghiogheny River and downstream rivers, and for recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD (1943-2004).--Maximum contents, 222,610 acre-ft, May 16, 1967, elevation, 1,460.95; minimum (after dam became fully operational), 3,700 acre-ft, Oct. 31, 1946, elevation 1,340.30 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes for current year.

MONONGAHELA RIVER BASIN

Lakes and Reservoirs in Monongahela 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)
	03055500 Tygart Lake			03076000 Deep Creek Reservoir		
Sept. 30	1,080.16	88,550	---	2,459.00	81,900	---
Oct. 31	1,067.49	70,030	-301	2,457.80	77,500	-72
Nov. 30	1,058.50	58,700	-190	2,457.70	77,100	-6.7
Dec. 31	1,035.11	31,790	-438	2,456.90	74,300	-46
CAL YR 2004	--	--	-27	--	--	-0.6
Jan. 31	1,034.08	30,800	-16	2,456.50	72,900	-23
Feb. 28	1,033.99	30,710	-1.6	2,457.80	77,500	+83
Mar. 31	1,083.52	93,870	+1,030	2,460.00	85,500	+130
Apr. 30	1,094.47	112,070	+306	2,460.30	86,700	+20
May 31	1,094.64	112,370	+4.9	2,460.80	88,500	+29
June 30	1,092.37	108,440	-66	2,460.70	88,100	-6.7
July 31	1,094.66	112,410	+65	2,459.70	84,400	-60
Aug. 31	1,083.41	93,700	-304	2,458.70	80,800	-59
Sept. 30	1,063.31	64,380	-404	2,457.60	76,800	-67
WTR YR 2005	--	--	-33.4	--	--	-7.0

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	03077000 Youghiogheny River Lake		
Sept. 30	1,423.62	111,240	---
Oct. 31	1,415.73	92,960	-297
Nov. 30	1,411.33	83,570	-158
Dec. 31	1,418.04	98,130	+237
CAL YR 2004	--	--	+43
Jan. 31	1,416.68	95,080	-50
Feb. 28	1,420.78	104,450	+169
Mar. 31	1,449.01	181,240	+1,250
Apr. 30	1,439.93	154,430	-451
May 31	1,439.49	153,180	-20
June 30	1,435.48	141,980	-188
July 31	1,431.45	133,780	-133
Aug. 31	1,418.61	99,430	-559
Sept. 30	1,400.27	62,490	-621
WTR YR 2005	--	--	-67

CHARTIERS CREEK BASIN

03085500 CHARTIERS CREEK AT CARNEGIE, PA

LOCATION.--Lat 40°24'02", long 80°05'48", Allegheny County, Hydrologic Unit 05030101, on left bank 100 ft downstream from Hammond Street bridge, 0.3 mi downstream from Robinson Run, 0.8 mi upstream from Campbells Run, and 8.9 mi upstream from mouth.

DRAINAGE AREA.--257 mi^2.

PERIOD OF RECORD.--October 1919 to September 1933, October 1940 to current year. Published as "*at Crafton*" October 1971 to September 1975. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder and concrete weir control. Datum of gage is 755.45 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 15, 1931, nonrecording gage at site 0.5 mi downstream at different datum. Jan. 8, 1932 to Sept. 30, 1933, nonrecording gage at site 1.0 mi downstream at different datum. Nov. 20, 1940 to Aug. 18, 1967, water-stage recorder at site 400 ft upstream at datum 1.00 ft higher. Oct. 1, 1971 to Sept. 30, 1975, nonrecording gage at site 4.6 mi downstream, at datum 725.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulations at low flow by mine drainage, reservoirs, and industrial usage above station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 2, 1912 reached a discharge of 20,000 ft^3/s, from U.S. Army Corps of Engineers.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a 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)
Jan. 6	1100	*11,300	*13.68	Jan. 14	1100	2,700	4.76
Jan. 8	1600	2,960	5.08	Feb. 15	0000	2,710	4.77
Jan. 12	1000	5,240	7.64	Mar. 29	0500	3,150	5.33

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	263	215	1670	261	e250	646	665	296	198	143	59	193
2	247	217	812	246	e225	558	1150	263	191	112	56	118
3	232	268	548	530	e230	466	1180	246	209	94	59	82
4	225	253	453	1390	e240	424	1080	231	213	88	62	76
5	213	254	401	3410	e260	439	799	220	195	132	70	68
6	208	228	372	9920	e280	524	713	211	197	185	73	60
7	202	217	446	2680	e345	721	660	222	341	116	64	57
8	198	210	473	2310	559	1130	619	208	190	100	316	65
9	192	199	455	1500	736	755	552	191	160	90	138	65
10	187	193	777	1100	983	659	487	185	149	83	83	61
11	185	195	565	1760	645	647	433	187	174	79	72	53
12	183	304	481	3860	549	639	398	234	208	81	72	57
13	212	267	446	1600	465	582	367	190	158	97	70	56
14	257	228	403	2150	1280	509	333	606	154	90	66	57
15	367	230	359	1250	1700	444	307	494	156	121	63	61
16	280	226	334	995	970	415	285	354	153	96	77	69
17	199	227	325	859	784	395	275	318	141	122	93	134
18	277	239	307	749	673	375	270	303	112	107	72	73
19	888	425	305	718	605	353	262	297	107	154	65	62
20	333	580	272	673	579	373	261	344	107	119	159	56
21	255	397	271	625	756	344	301	318	102	113	213	49
22	226	327	276	e570	649	316	208	291	116	90	87	48
23	211	309	630	e505	573	634	656	287	111	79	73	54
24	257	412	549	e460	542	747	528	249	104	79	70	52
25	222	520	372	e430	551	610	618	226	101	83	67	50
26	202	389	333	e400	497	547	431	209	100	110	72	76
27	196	344	308	e330	459	508	397	200	98	124	118	75
28	189	486	277	e270	562	1370	311	258	109	81	140	55
29	300	390	289	e290	---	2250	294	245	162	77	156	144
30	351	352	276	e305	---	963	344	211	138	74	184	93
31	252	---	273	e270	---	756	---	216	---	68	462	---
TOTAL	8009	9101	14058	42416	16947	20099	15184	8310	4654	3187	3431	2219
MEAN	258	303	453	1368	605	648	506	268	155	103	111	74.0
MAX	888	580	1670	9920	1700	2250	1180	606	341	185	462	193
MIN	183	193	271	246	225	316	208	185	98	68	56	48
CFSM	1.01	1.18	1.76	5.32	2.36	2.52	1.97	1.04	0.60	0.40	0.43	0.29
IN.	1.16	1.32	2.03	6.14	2.45	2.91	2.20	1.20	0.67	0.46	0.50	0.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	117	199	286	370	458	577	472	352	241	178	143	143
MAX	393	1400	1003	1368	1255	1361	999	887	694	951	960	1402
(WY)	1980	1986	1951	2005	1926	1945	1961	1924	1980	1928	1980	2004
MIN	31.3	35.5	36.5	37.8	80.9	101	154	92.7	46.5	30.0	28.4	24.1
(WY)	1933	1931	1931	1931	1964	1969	1925	1926	1926	1926	1930	1927

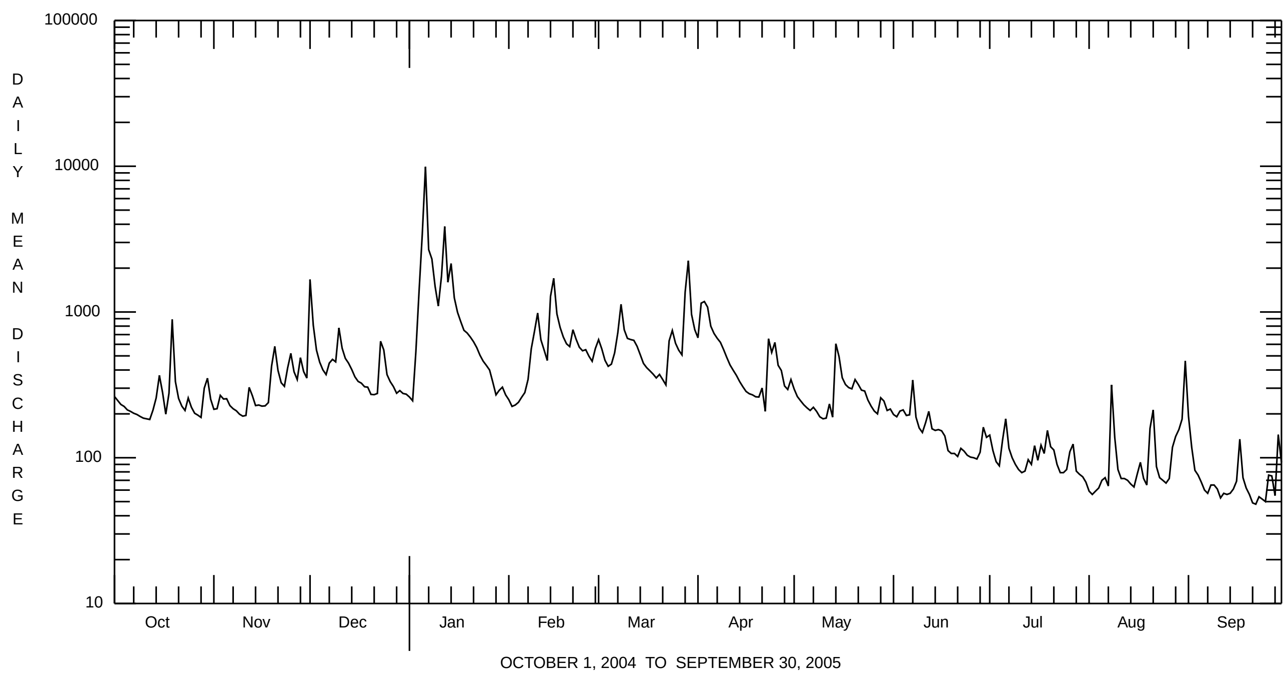
e Estimated.

CHARTIERS CREEK BASIN

03085500 CHARTIERS CREEK AT CARNEGIE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1920 - 2005	
ANNUAL TOTAL	204116		147615			
ANNUAL MEAN	558		404		294	
HIGHEST ANNUAL MEAN					562	2004
LOWEST ANNUAL MEAN					132	1954
HIGHEST DAILY MEAN	15900	Sep 18	9920	Jan 6	15900	Sep 18 2004
LOWEST DAILY MEAN	103	Aug 18	48	Sep 22	16	Aug 9 1926
ANNUAL SEVEN-DAY MINIMUM	119	Aug 12	53	Sep 19	19	Sep 26 1927
MAXIMUM PEAK FLOW			11300	Jan 6	**a**27400	Sep 17 2004
MAXIMUM PEAK STAGE			13.68	Jan 6	25.05	Sep 17 2004
INSTANTANEOUS LOW FLOW			48	Sep 11**b**	**c**16	Aug 9 1926**d**
ANNUAL RUNOFF (CFSM)	2.17		1.57		1.14	
ANNUAL RUNOFF (INCHES)	29.55		21.37		15.53	
10 PERCENT EXCEEDS	797		740		620	
50 PERCENT EXCEEDS	326		260		166	
90 PERCENT EXCEEDS	155		72		56	

a From rating curve extended above 13,100 ft^3/s on basis of contracted-opening measurement of peak flow.
b Also Sept. 20-25.
c Minimum observed.
d Also at times in September 1932.



MONTOUR RUN BASIN

03085956 MONTOUR RUN AT SCOTT STATION NEAR IMPERIAL, PA

LOCATION.--Lat 40°27’23", long 80°10'34", Allegheny County, Hydrologic Unit 05030101, on left bank at upstream side of privately owned single span bridge on south side of Montour Run Road, SR3072, 0.3 mi downstream from McCalrens Run, and 0.9 mi upstream from Trout Run.

DRAINAGE AREA.--25.4 mi^2.

PERIOD OF RECORD.--August 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.00 ft above National Geodetic Vertical Datum of 1929.

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 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)
Jan. 5	2330	*1,640	*7.45	July 5	1645	1,040	6.25
June 11	1900	1,540	7.27				

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	19	31	341	23	e12	50	40	37	21	19	6.9	29
2	20	39	109	19	e12	39	270	30	18	9.3	6.7	15
3	19	54	70	130	e12	33	191	27	28	8.0	6.7	10
4	18	91	52	167	e14	31	119	24	18	7.5	6.4	8.8
5	17	79	41	586	e18	35	72	22	15	212	7.8	7.9
6	16	46	36	855	e31	53	56	21	25	43	7.4	7.4
7	15	35	96	162	38	63	48	28	14	15	6.6	7.0
8	15	27	60	180	62	91	41	21	12	12	14	6.7
9	15	22	100	97	100	49	36	18	11	10	8.4	6.9
10	15	20	135	73	76	43	32	17	11	8.5	6.5	6.0
11	15	19	72	269	47	48	29	19	160	7.3	5.0	5.8
12	14	62	56	314	41	47	27	46	60	7.5	4.8	5.5
13	44	26	48	120	35	42	25	40	19	12	4.4	5.3
14	56	20	40	222	255	36	23	234	26	8.2	4.5	5.3
15	83	18	33	89	148	32	22	85	25	25	4.8	5.3
16	30	18	29	69	95	29	20	42	18	16	12	13
17	20	22	28	57	62	28	20	32	19	48	6.7	9.3
18	112	24	25	50	48	26	19	27	12	19	4.9	7.3
19	235	134	27	47	39	25	19	24	10	13	4.6	6.9
20	57	102	24	44	41	30	24	60	9.7	9.2	129	6.5
21	36	56	23	37	95	26	37	30	9.2	47	38	6.6
22	28	50	31	e37	56	23	27	25	8.9	14	9.4	6.0
23	24	42	189	e33	45	62	207	50	8.5	9.1	7.4	9.3
24	76	112	73	e29	44	54	96	35	8.2	8.0	7.2	6.8
25	32	91	43	e27	43	39	90	25	7.7	7.8	5.8	5.9
26	25	56	35	e21	41	34	53	21	7.3	48	8.1	22
27	21	46	27	e18	36	33	65	19	6.4	31	15	10
28	19	110	29	e16	52	116	39	67	13	11	10	7.2
29	104	53	25	e14	---	102	34	39	26	8.6	36	56
30	89	47	24	e14	---	55	63	36	38	7.7	57	11
31	46	---	27	e14	---	45	---	34	---	7.3	225	---
TOTAL	1335	1552	1948	3833	1598	1419	1844	1235	664.9	709.0	677.0	315.7
MEAN	43.1	51.7	62.8	124	57.1	45.8	61.5	39.8	22.2	22.9	21.8	10.5
MAX	235	134	341	855	255	116	270	234	160	212	225	56
MIN	14	18	23	14	12	23	19	17	6.4	7.3	4.4	5.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	20.0	26.1	38.9	56.7	39.6	46.4	48.9	38.0	27.8	19.9	28.3	48.4
MAX	43.1	51.7	62.8	124	61.3	49.5	69.5	52.7	46.6	30.0	67.7	192
(WY)	2005	2005	2005	2005	2004	2002	2004	2004	2004	2004	2004	2004
MIN	10.2	7.01	22.2	17.4	19.3	44.1	28.2	13.9	15.6	5.58	9.17	9.21
(WY)	2002	2001	2003	2002	2002	2003	2003	2001	2001	2002	2002	2001

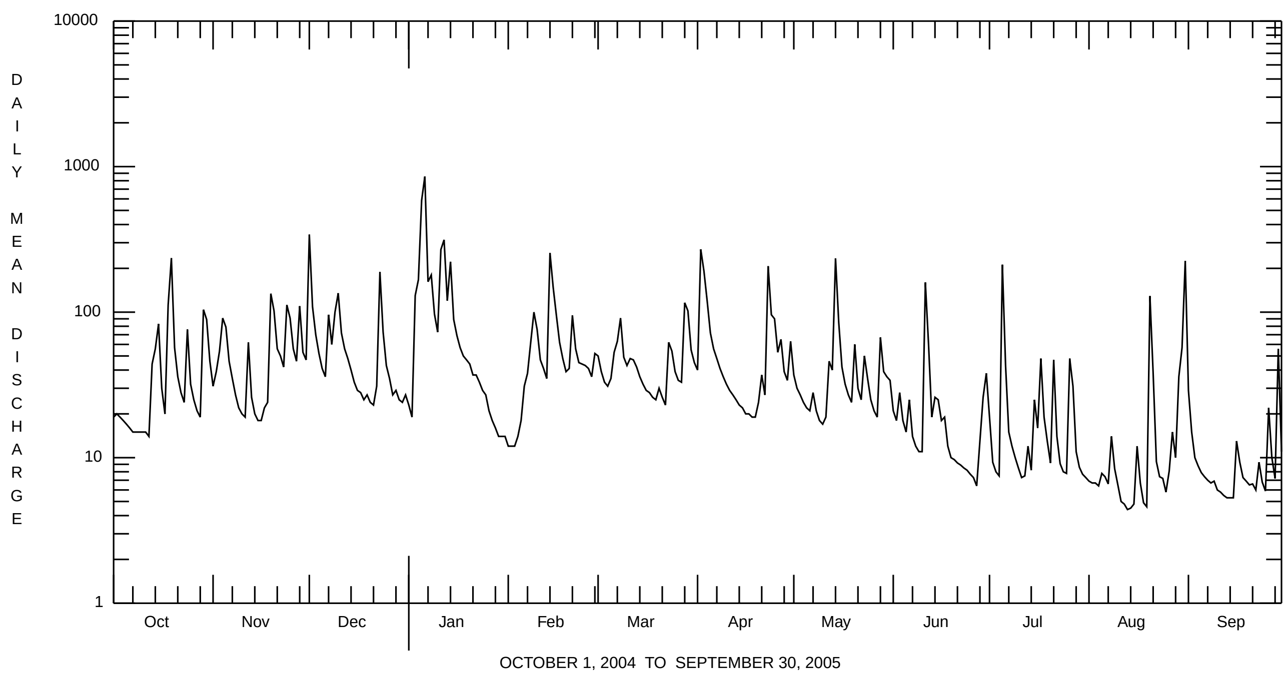
e Estimated.

OHIO RIVER MAIN STEM

03085956 MONTOUR RUN AT SCOTT STATION NEAR IMPERIAL, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	24401.4		17130.6			
ANNUAL MEAN	66.7		46.9		36.6	
HIGHEST ANNUAL MEAN					61.4	2004
LOWEST ANNUAL MEAN					22.4	2002
HIGHEST DAILY MEAN	2870	Sep 17	855	Jan 6	2870	Sep 17 2004
LOWEST DAILY MEAN	7.0	Jul 25	4.4	Aug 13	2.0	Aug 11 2002
ANNUAL SEVEN-DAY MINIMUM	10	Jul 19	5.5	Aug 9	2.4	Aug 8 2002
MAXIMUM PEAK FLOW			1640	Jan 5	**a**8280	Sep 17 2004
MAXIMUM PEAK STAGE			7.45	Jan 5	15.58	Sep 17 2004
INSTANTANEOUS LOW FLOW			4.2	Aug 14,15	1.8	Aug 12 2002
10 PERCENT EXCEEDS	109		98		68	
50 PERCENT EXCEEDS	31		28		18	
90 PERCENT EXCEEDS	14		7.3		5.3	

a From rating curve extended above 4,600 ft^3/s.



OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA
(Pennsylvania Water-Quality Network Station)
(National Stream-Quality Accounting Network Station)

LOCATION.--Lat 40°32'57", long 80°12'21", Allegheny County, Hydrologic Unit 05030101, near left bank 50 ft upstream from Dashields Dam, 1.0 mi downstream from Narrows Run, 1.0 mi northwest of Sewickley, and 13.3 mi downstream from confluence of Allegheny and Monongahela Rivers.

DRAINAGE AREA.--19,500 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 1305: 1938-40 (adjusted monthly runoff). WSP 1435: 1934.

GAGE.--Water-stage recorder and fixed-crest concrete dam control. Datum of gage is 680.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 22, 1933, nonrecording gage, Nov. 22, 1933 to May 4, 1981, water-stage recorder at site 1.5 mi upstream, Nov. 14, 1988 to July 12, 1990, nonrecording gage, and July 13, 1990 to June 13, 1991, water-stage recorder at present site at datum 10.41 ft higher.

REMARKS.--No estimated daily discharges. Records good. Some regulation by locks, and by many reservoirs above station. Combined capacity of reservoirs and lakes, excluding that of Chautauqua Lake (station 03013946), but including Lake Lynn, Deep Creek Reservoir (station 03076000), and 15 smaller reservoirs, 2,773,000 acre-ft. 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	27300	23300	56500	34500	28400	39800	85800	39900	14500	9300	6480	14800
2	22100	22600	85900	34800	21800	37400	83400	46000	12200	8680	6450	18500
3	18400	24400	87900	41700	21400	30500	105000	47000	12000	7700	5180	13300
4	16100	27900	82200	81300	21100	27400	104000	38900	10300	6700	5880	11400
5	15300	40300	70200	124000	21800	26900	97400	31800	12400	8950	5100	9890
6	14200	50400	60100	239000	20200	26800	96100	26100	12300	7630	4440	8430
7	13400	47900	58100	220000	20800	28600	91200	25600	14500	9250	5810	6510
8	14200	38700	52000	146000	25200	62400	86900	21900	13300	8240	7870	4420
9	9940	32300	55300	149000	32700	94700	85500	20200	10500	12000	7260	6580
10	11600	25700	58300	129000	71300	72500	71800	17600	9600	11000	5500	5380
11	9110	23400	71700	117000	86000	61900	66100	14700	11500	8440	6000	5190
12	12200	22000	73300	168000	74100	56200	57900	14500	13400	8390	6840	5760
13	10800	25100	68700	185000	66500	47400	48800	16600	12500	8760	6280	3330
14	11300	26400	65000	153000	62900	38900	38400	17700	11100	6920	4500	5810
15	13500	22100	57000	170000	78300	36000	33000	18800	10800	8120	3290	6340
16	12400	22500	50400	156000	87700	30800	26600	19800	7740	8180	7740	6240
17	12500	20500	44200	138000	83600	29100	24200	21400	10400	7890	6020	5310
18	13100	20600	39800	120000	75800	26000	22300	19000	10100	10300	6790	5130
19	25800	18400	34100	103000	62200	23200	20800	18000	8620	12700	5640	4560
20	25600	30700	34400	85900	51400	25400	20100	18000	8510	11700	5810	7060
21	23800	33500	27500	77500	52300	30000	19900	33800	7880	12400	7940	6780
22	24000	35900	27200	65600	54800	36600	17700	27600	9130	11600	5860	5460
23	22000	33800	33200	60600	56000	44000	25900	25700	7790	8670	5500	5590
24	22600	30600	59300	51400	53900	61700	25500	25300	8360	8810	6740	6580
25	19100	30800	73900	44400	48000	71400	33700	26900	6500	7450	4240	5650
26	22700	35400	58400	46300	42300	67200	38700	25000	5880	10200	6990	5930
27	18100	40400	59000	45300	38300	61500	42500	24000	5930	11200	6160	8100
28	17200	40000	58100	38100	36500	70100	43500	22500	7090	8790	5280	13700
29	17400	43800	51000	36000	---	133000	42000	21600	6990	10100	6650	12200
30	25400	46400	44500	33000	---	134000	36600	18100	7000	8640	9480	10500
31	26900	---	39800	30800	---	99200	---	17400	---	6290	15700	---
TOTAL	548050	935800	1737000	3124200	1395300	1630600	1591300	761400	298820	285000	199420	234430
MEAN	17680	31190	56030	100800	49830	52600	53040	24560	9961	9194	6433	7814
MAX	27300	50400	87900	239000	87700	134000	105000	47000	14500	12700	15700	18500
MIN	9110	18400	27200	30800	20200	23200	17700	14500	5880	6290	3290	3330
CFSM	0.91	1.60	2.87	5.17	2.56	2.70	2.72	1.26	0.51	0.47	0.33	0.40
IN.	1.05	1.79	3.31	5.96	2.66	3.11	3.04	1.45	0.57	0.54	0.38	0.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15230	26220	40340	45370	49420	65120	56490	38470	24670	16040	13370	12740
MAX	51010	83490	88890	132000	91820	147900	124500	90380	70490	50770	48180	69260
(WY)	1955	1986	1973	1937	1939	1936	1940	1996	1989	1972	1956	2004
MIN	3073	3991	6705	10470	11610	18670	16790	9593	5001	3892	3565	3081
(WY)	1964	1954	1961	1977	1934	1969	1946	1934	1934	1966	1957	1946

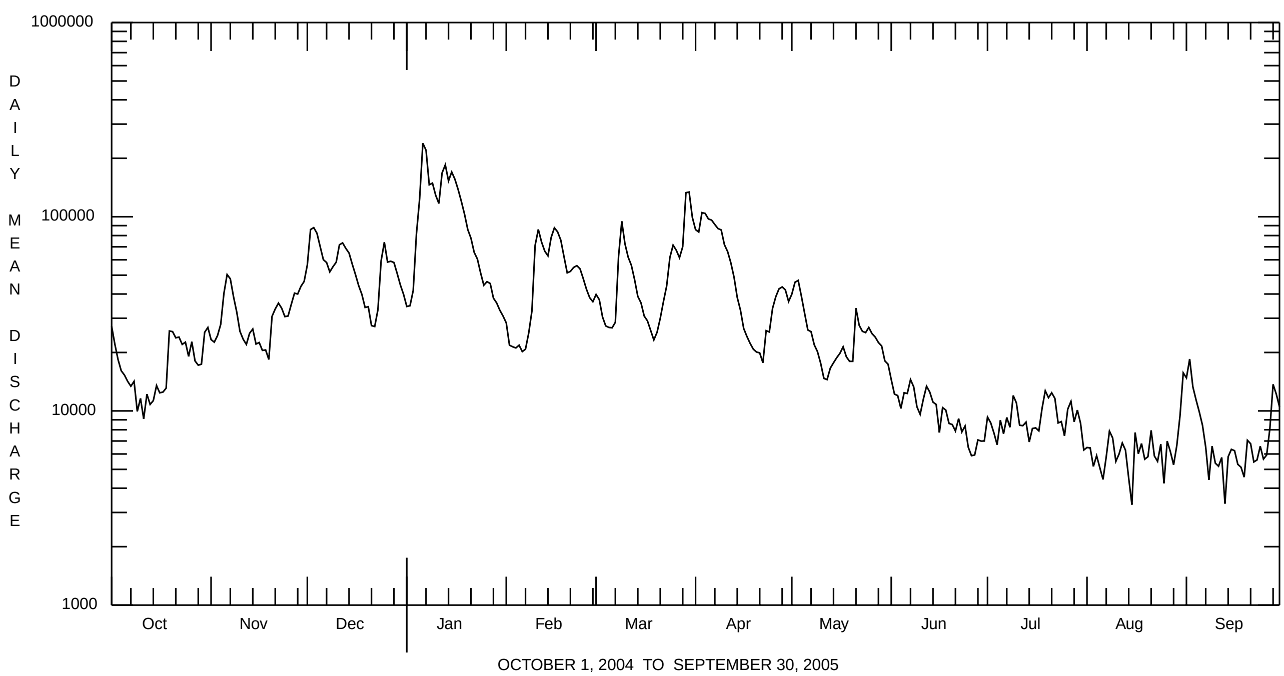
e Estimated.

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1934 - 2005	
ANNUAL TOTAL	17105530		12741320			
ANNUAL MEAN	46740		34910		33540	
HIGHEST ANNUAL MEAN					51340	2004
LOWEST ANNUAL MEAN					21110	1934
HIGHEST DAILY MEAN	283000	Sep 18	239000	Jan 6	465000	Mar 18 1936
LOWEST DAILY MEAN	8980	Jul 4	3290	Aug 15	2100	Sep 4 1957
ANNUAL SEVEN-DAY MINIMUM	10400	Jul 6	5210	Sep 8	2330	Sep 1 1957
MAXIMUM PEAK FLOW			269000	Jan 6	**a**574000	Mar 18 1936
MAXIMUM PEAK STAGE			27.18	Jan 6	**b**34.75	Mar 18 1936
INSTANTANEOUS LOW FLOW					1800	Sep 4 1957
ANNUAL RUNOFF (CFSM)	2.40		1.79		1.72	
ANNUAL RUNOFF (INCHES)	32.63		24.31		23.37	
10 PERCENT EXCEEDS	88400		79500		74600	
50 PERCENT EXCEEDS	37800		23300		23100	
90 PERCENT EXCEEDS	14200		6410		6040	

a From rating curve extended above 535,000 ft^3/s.
b From floodmarks in gage house, site and datum then in use.



03086000 OHIO RIVER AT SEWICKLEY, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2000 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 276-323.

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													
29...	1030	1028	9813	44000	12.1	7.0	7.5	289	295	8.0	98	27.0	7.3
JAN 2005													
20...	1330	1028	9813	87410	15.2	7.8	7.4	196	204	1.5	62	16.5	5.1
MAR													
29...	1400	1028	9813	146800	12.5	7.2	7.7	275	277	6.5	93	25.9	6.8
MAY													
26...	0950	1028	9813	22600	9.3	7.4	7.8	295	294	16.5	93	26.0	6.8
JUL													
21...	1245	1028	9813	15400	9.1	8.1	8.1	464	564	26.9	150	40.5	11.6
SEP													
01...	0815	1028	9813	11970	6.9	7.5	7.8	496	505	24.5	150	40.4	11.6

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004													
29...	46	<.2	59.6	204	18	.050	.66	<.040	.02	.039	.89	2.1	510
JAN 2005													
20...	26	<.2	39.4	170	12	.080	.69	<.040	.03	.023	.91	1.8	540
MAR													
29...	37	<.2	58.5	160	172	.070	.80	<.040	.01	.173	1.9	--	4000
MAY													
26...	37	<.2	73.8	198	2	.070	.69	<.040	.01	.020	1.0	--	310
JUL													
21...	48	.2	122	358	14	.030	.83	<.040	<.01	.027	1.1	--	300
SEP													
01...	48	.2	123	348	8	.140	1.03	<.040	.02	.043	1.3	--	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004								
29...	<10	<1.00	940	1.1	160	<50	10	<5
JAN 2005								
20...	<10	<1.00	950	<1.0	200	<50	<10	<5
MAR								
29...	10	<1.00	9900	10	580	<50	70	<5
MAY								
26...	<10	<1.00	570	<1.0	90	<50	<10	<5
JUL								
21...	<10	<1.00	510	1.4	140	<50	10	<5
SEP								
01...	<10	<1.00	190	<1.0	50	<50	<10	<5

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a multiplate sampler that was deployed for 5 weeks. Samples represent counts per 100 animal (approximate) subsamples.

Date	11/09/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	6
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
Amnicola	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	171
Tubificidae	3
Arthropoda	
Crustacea	
Cladocera	
Gammaridae	
Gammarus	20
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	1
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenacron	5
Stenonema	2
Tricorythidae	
Tricorythodes	3
Megaloptera	
Sialidae (ALDERFLIES)	
Sialis	1
Trichoptera (CADDISFLIES)	
Hydroptilidae	
Hydroptila	3
Polycentropodidae	
Polycentropus	7
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	72
Empididae (DANCE FLIES)	
Hemerodromia	6
Total Organisms	302
Total Taxa	14

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued
(National Stream-Quality Accounting Network Station)

REMARKS.--All water-quality samples were collected and analyzed by the U.S. Geological Survey. An explanation of selected abbreviations used in the water-quality tables is given on pages 40-41. 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 YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Medium code	Instantaneous discharge, cfs (00061)	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)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Data base number
OCT 2004										
28...	0830	9	17600	.054	.040	744	10.2	7.1	428	01
28...	0838	Q	--	<.004	<.004	--	--	--	--	02
DEC										
16...	0945	9	49400	.049	.036	--	13.4	7.2	261	01
JAN 2005										
06...	1550	9	264000	.075	.056	737	12.9	7.2	231	01
31...	0940	9	31700	.030	.020	753	14.3	7.0	355	01
APR										
26...	0840	9	34200	.042	.031	734	10.7	6.9	339	01
26...	0850	R	34200	.042	.031	734	10.7	6.9	339	02
MAY										
16...	0900	9	24200	.046	.036	743	9.0	7.1	348	01
26...	0950	9	22800	.039	.029	740	9.3	7.4	294	01
JUN										
08...	0930	9	13300	.039	.028	740	8.7	7.5	390	01
08...	0933	S	--	--	--	--	--	--	--	02
30...	0915	9	6630	.049	.036	740	6.9	7.2	435	01
JUL										
27...	0830	9	14300	.047	.034	738	7.1	7.4	507	01
AUG										
01...	0815	9	5980	.045	.032	746	7.6	7.7	441	01
SEP										
01...	0815	9	12000	.053	.038	741	6.9	7.5	505	01
01...	0825	R	12000	.055	.040	741	6.9	7.5	505	02

Date	Temperature, water, deg C (00010)	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)	Residue on evap. at 180degC wat flt mg/L (70300)	Data base number	Medium code
OCT 2004													
28...	13.5	39.2	10.8	2.50	24.5	41	24.2	.1	4.13	105	252	01	9
28...	--	E.01	<.008	<.010	<.20	--	<.01	<.01	E.03	<.01	--	02	Q
DEC													
16...	4.0	20.7	5.60	1.60	12.7	29	16.4	.1	5.56	41.2	134	01	9
JAN 2005													
06...	5.5	20.4	4.82	1.92	12.7	34	14.7	E.1	5.86	42.7	135	01	9
31...	.5	29.8	8.39	1.75	24.3	31	32.6	E.1	6.24	77.2	202	01	9
APR													
26...	12.5	31.6	8.61	1.78	21.0	38	27.8	.1	3.99	73.2	194	01	9
26...	12.5	31.4	8.58	1.78	20.9	38	27.9	.1	3.94	73.2	208	02	R
MAY													
16...	7.0	28.5	7.99	1.70	23.7	39	30.2	.1	3.56	71.7	204	01	9
26...	16.5	25.9	7.08	1.49	18.9	34	18.9	E.1	4.08	73.8	172	01	9
JUN													
08...	21.5	33.3	10.2	2.09	24.9	42	30.2	.1	3.93	85.1	226	01	9
08...	--	--	--	--	--	--	--	--	--	--	--	02	S
30...	27.0	37.7	10.8	2.59	30.3	45	37.9	.2	3.13	95.1	256	01	9
JUL													
27...	28.0	39.3	11.4	2.61	37.7	43	34.1	.2	3.29	137	315	01	9
AUG													
01...	27.5	35.6	10.1	2.35	34.8	30	34.2	.2	2.63	108	270	01	9
SEP													
01...	24.5	41.0	11.8	2.68	37.9	44	39.0	.2	3.45	123	315	01	9
01...	24.5	42.4	12.1	2.84	39.1	44	38.9	.2	3.55	127	315	02	R

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

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

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	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)	Partic-ulate nitro-gen, susp, water, mg/L (49570)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Data base number	Medium code
OCT 2004											
28...	.22	.26	.04	.73	.017	.07	E.005	.011	.028	01	9
28...	--	--	<.010	<.016	<.002	<.02	<.006	--	--	02	Q
DEC											
16...	.28	.20	.04	.68	.013	.06	<.006	.009	.030	01	9
JAN 2005											
06...	.27	1.3	.05	.98	E.006	1.04	E.004	.009	.29	01	9
31...	.28	.34	.17	.82	.026	.04	<.006	E.003	.018	01	9
APR											
26...	.19	.29	.05	.67	.014	.16	<.006	.005	.031	01	9
26...	.18	.28	.05	.67	.013	.16	<.006	.004	.031	02	R
MAY											
16...	.20	.32	.06	.79	.016	.15	E.004	.009	.035	01	9
26...	--	.24	--	--	--	.09	--	--	.020	01	9
JUN											
08...	.26	.29	<.04	.87	.017	.13	<.006	.010	.035	01	9
08...	--	--	--	--	--	--	--	--	--	02	S
30...	.29	.41	.09	1.05	.024	.13	.015	.024	.060	01	9
JUL											
27...	.17	.31	<.04	.78	.009	.09	<.006	.007	.041	01	9
AUG											
01...	.18	.31	<.04	.74	.013	.12	<.006	.005	.035	01	9
SEP											
01...	.36	.44	.13	1.02	.019	.21	.017	.030	.043	01	9
01...	.34	.39	.13	1.03	.018	.25	.020	.030	.054	02	R

Date	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, µg/L (01000)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)	Lithium water, fltrd, µg/L (01130)	Selen-ium, water, fltrd, µg/L (01145)	Data base number	Medium code
OCT 2004											
28...	.5	<.1	.5	2.1	.3	40	27	9.4	E.3	01	9
28...	<.1	<.1	<.1	E.3	<.2	<8	<6	<.6	<.4	02	Q
DEC											
16...	.7	<.1	.6	1.8	.3	15	30	4.0	E.2	01	9
JAN 2005											
06...	13.6	.4	13.2	2.5	.4	28	45	3.1	E.3	01	9
31...	.3	<.1	.3	1.4	E.2	27	62	9.2	<.4	01	9
APR											
26...	1.4	<.1	1.3	1.8	.3	34	31	7.5	.5	01	9
26...	1.2	<.1	1.2	1.8	.4	32	35	7.4	.5	02	R
MAY											
16...	.9	<.1	.9	1.8	.3	39	23	8.8	E.3	01	9
26...	.6	<.1	.6	1.6	.3	41	28	5.9	.9	01	9
JUN											
08...	.8	<.1	.8	1.8	.4	37	<6	8.5	E.4	01	9
08...	--	--	--	--	--	--	--	--	--	02	S
30...	.9	<.1	.9	2.0	.5	65	E4	11.8	.6	01	9
JUL											
27...	.5	<.1	.5	2.2	.5	54	<6	10.8	.6	01	9
AUG											
01...	.8	<.1	.8	1.8	.4	65	E5	11.1	E.4	01	9
SEP											
01...	1.2	<.1	1.2	2.0	.5	68	E6	10.3	.52	01	9
01...	1.5	<.1	1.4	2.0	.5	73	E6	10.3	.52	02	R

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

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

Date	Pheo-phytin a, phyto-plank-ton, µg/L (62360)	Chloro-phyll a phyto-plank-ton, fluoro, µg/L (70953)	Stront-ium, water, fltrd, µg/L (01080)	Vanad-ium, water, fltrd, µg/L (01085)	Data base number	Medium code
OCT 2004						
28...	1.5	2.1	245	E.1	01	9
28...	<.2	<.2	<.40	<.1	02	Q
DEC						
16...	1.3	1.3	98.1	<.1	01	9
JAN 2005						
06...	10.0	9.8	111	.2	01	9
31...	6.0	13.4	166	<.1	01	9
APR						
26...	3.4	6.6	218	<.1	01	9
26...	3.5	6.1	217	<.1	02	R
MAY						
16...	2.9	6.8	182	E.1	01	9
26...	2.4	4.3	177	<.1	01	9
JUN						
08...	4.0	8.6	231	E.1	01	9
08...	--	--	--	--	02	S
30...	3.0	3.1	294	E.1	01	9
JUL						
27...	3.1	6.9	316	.2	01	9
AUG						
01...	4.7	10.8	276	.2	01	9
SEP						
01...	3.1	4.3	313	.3	01	9
01...	2.9	4.1	328	.3	02	R

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

REMARKS.--The following data are for analytes from the National Water Quality Laboratory (NWQL) schedule 2001-pesticides in filtered water. Samples are filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size to remove sediment and microorganisms. The filtered samples are then sent to the NWQL where they are analyzed by gas chromatography/mass spectrometric detector.

A field-matrix spike containing the series of organic compounds used in the analytical schedule was added to the replicate sample collected on June 8 at 0933. The spike concentration was .100 μg/L. Data from the spiked sample can be used to determine extraction and elution recoveries from the filtered water and to evaluate the accuracy and precision of the results.

The method detection limit (MDL) provides an index to indicate where measurement uncertainty is increased. When an analyte is detected and all criteria for a positive result are met, the concentration is reported. If the concentration is less than the MDL, an ‘E’ code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the NWQL 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 (<). The abbreviations SRG, SURROGT, or SURROG indicate surrogate and recovery is reported in percent.

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

Date	Time	Medium code	2,6-Diethylaniline water fltrd 0.7μ GF μg/L (82660)	Acetochlor, water, fltrd, μg/L (49260)	Alachlor, water, fltrd, μg/L (46342)	alpha-HCH, water, fltrd, μg/L (34253)	Atrazine, water, fltrd, μg/L (39632)	Benfluralin, water, fltrd 0.7μ GF μg/L (82673)	Butylate, water, fltrd, μg/L (04028)	Data base number
OCT 2004										
28...	0830	9	<.006	<.006	<.005	<.005	.014	<.010	<.004	01
28...	0838	Q	<.006	<.006	<.005	<.005	<.007	<.010	<.004	02
DEC										
16...	0945	9	<.006	<.006	<.005	<.005	<.007	<.010	<.004	01
JAN 2005										
06...	1550	9	<.006	<.006	<.005	<.005	E.006	<.010	<.004	01
31...	0940	9	<.006	<.006	<.005	<.005	E.004	<.010	<.004	01
APR										
26...	0840	9	<.006	<.006	<.005	<.005	.011	<.010	<.004	01
26...	0850	R	<.006	<.006	<.005	<.005	.012	<.010	<.004	02
MAY										
16...	0900	9	<.006	<.006	<.005	<.005	.017	<.010	<.004	01
26...	0950	9	<.006	<.006	<.005	<.005	.032	<.010	<.004	01
JUN										
08...	0930	9	<.006	<.006	<.005	<.005	.035	<.010	<.004	01
08...	0933	S	.090	.122	.119	.094	.132	.077	.104	02
30...	0915	9	<.006	<.006	<.005	<.005	.052	<.010	<.004	01
JUL										
27...	0830	9	<.006	<.006	<.005	<.005	.022	<.010	<.004	01
AUG										
01...	0815	9	<.006	<.006	<.005	<.005	.020	<.010	<.004	01
SEP										
01...	0815	9	<.006	<.006	<.005	<.005	.020	<.010	<.004	01
01...	0825	R	<.006	<.006	<.005	<.005	.019	<.010	<.004	02

Date	CIAT, water, fltrd, μg/L (04040)	Carbaryl, water, fltrd 0.7μ GF μg/L (82680)	Carbofuran, water, fltrd 0.7μ GF μg/L (82674)	Chlorpyrifos water, fltrd, μg/L (38933)	Cyanazine, water, fltrd, μg/L (04041)	DCPA, water fltrd 0.7μ GF μg/L (82682)	Diazinon, water, fltrd, μg/L (39572)	Diazinon-d10 surrog. wat flt 0.7μ GF percent recovry (91063)	Dieldrin, water, fltrd, μg/L (39381)	Disulfoton, water, fltrd 0.7μ GF μg/L (82677)	Data base number	Medium code
OCT 2004												
28...	E.007	E.008	<.020	<.005	<.018	<.003	<.005	111	<.009	<.02	01	9
28...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	128	<.075	<.02	02	Q
DEC												
16...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	100	<.009	<.02	01	9
JAN 2005												
06...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	110	<.009	<.02	01	9
31...	E.003	<.041	<.020	<.005	<.018	<.003	<.005	115	<.009	<.02	01	9
APR												
26...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	109	<.009	<.02	01	9
26...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	110	<.009	<.02	02	R
MAY												
16...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	91.6	<.009	<.02	01	9
26...	E.005	<.041	<.020	<.005	<.018	<.003	<.005	110	<.009	<.02	01	9
JUN												
08...	E.005	<.041	<.020	<.005	<.018	<.003	<.005	113	<.009	<.02	01	9
08...	E.027	E.127	E.096	.105	.083	.117	.098	104	.098	.05	02	S
30...	E.007	<.041	<.020	<.005	<.018	<.003	<.005	114	<.009	<.02	01	9
JUL												
27...	<.006	<.041	<.020	<.005	<.018	<.003	<.005	96.5	<.009	<.02	01	9
AUG												
01...	E.003	E.001	<.020	<.005	<.018	<.003	<.005	108	<.009	<.02	01	9
SEP												
01...	<.006	<.041	<.020	<.005	<.018	<.003	<.008	108	<.009	<.02	01	9
01...	<.006	<.041	<.020	<.005	<.018	<.003	<.008	94.5	<.009	<.02	02	R

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

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

Date	alpha-HCH-d6, surrog, wat flt 0.7µ GF percent recovry (91065)	Azin-phos-methyl, water, fltrd 0.7µ GF µg/L (82686)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethal-flur-alin, water, fltrd 0.7µ GF µg/L (82663)	Etho-prop, water, fltrd 0.7µ GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF µg/L (82666)	Mala-thion, water, fltrd, µg/L (39532)	Methyl para-thion, water, fltrd 0.7µ GF µg/L (82667)	Data base number	Medium code
OCT 2004												
28...	101	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
28...	102	<.050	<.040	<.009	<.005	<.003	<.004	<.035	<.027	<.015	02	Q
DEC												
16...	98.4	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
JAN 2005												
06...	89.6	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
31...	101	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
APR												
26...	88.5	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
26...	87.1	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	02	R
MAY												
16...	103	<.050	<.005	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
26...	89.0	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
JUN												
08...	104	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
08...	96.7	E.151	.097	.084	.099	.102	.098	.102	.118	.103	02	S
30...	102	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
JUL												
27...	90.0	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
AUG												
01...	98.5	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
SEP												
01...	84.9	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	01	9
01...	82.0	<.050	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	02	R

Date	cis-Per-methrin water fltrd 0.7µ GF µg/L (82687)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µ GF µg/L (82671)	Naprop-amide, water, fltrd 0.7µ GF µg/L (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)	Peb-ulate, water, fltrd 0.7µ GF µg/L (82669)	Pendi-meth-alin, water, fltrd 0.7µ GF µg/L (82683)	Phorate water fltrd 0.7µ GF µg/L (82664)	Data base number	Medium code
OCT 2004												
28...	<.006	.007	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
28...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	02	Q
DEC												
16...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
JAN 2005												
06...	<.006	E.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
31...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
APR												
26...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
26...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	02	R
MAY												
16...	<.006	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
26...	<.006	.009	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
JUN												
08...	<.006	.011	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
08...	.035	.128	.076	.099	.119	.036	.085	.102	.080	.056	02	S
30...	<.006	.019	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
JUL												
27...	<.006	E.007	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
AUG												
01...	<.006	E.005	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
SEP												
01...	<.006	E.005	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	01	9
01...	<.006	E.005	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	02	R

OHIO RIVER MAIN STEM

03086000 OHIO RIVER AT SEWICKLEY, PA--Continued

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

Date	Prome-ton, water, fltrd, µg/L (04037)	Propy-zamide, water, fltrd 0.7µ GF µg/L (82676)	Propa-chlor, water, fltrd, µg/L (04024)	Pro-panil, water, fltrd 0.7µ GF µg/L (82679)	Propar-gite, water, fltrd 0.7µ GF µg/L (82685)	Sima-zine, water, fltrd, µg/L (04035)	Tebu-thiuron water fltrd 0.7µ GF µg/L (82670)	Terba-cil, water, fltrd 0.7µ GF µg/L (82665)	Terbu-fos, water, fltrd 0.7µ GF µg/L (82675)	Thio-bencarb water fltrd 0.7µ GF µg/L (82681)	Data base number	Medium code
OCT 2004												
28...	E.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
28...	<.10	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	02	Q
DEC												
16...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
JAN 2005												
06...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.040	<.02	<.010	01	9
31...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
APR												
26...	<.01	<.004	<.025	<.011	<.02	<.006	<.02	<.034	<.02	<.010	01	9
26...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	02	R
MAY												
16...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
26...	E.01	<.004	<.025	<.011	<.02	.006	<.02	<.034	<.02	<.010	01	9
JUN												
08...	.01	<.004	<.025	<.011	<.02	.005	<.02	<.034	<.02	<.010	01	9
08...	.11	.099	.121	.127	E.14	.093	.10	E.063	.08	.111	02	S
30...	E.01	<.004	<.025	<.011	<.02	E.003	<.02	<.034	<.02	<.010	01	9
JUL												
27...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
AUG												
01...	E.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
SEP												
01...	.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	01	9
01...	.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	02	R

Date	Thio-bencarb water fltrd 0.7µ GF µg/L (82681)	Tri-flur-alin, water, fltrd 0.7µ GF µg/L (82661)	Suspnd. sedimnt conc, flow through cntrfug mg/L (50279)	Data base number	Medium code
OCT 2004					
28...	<.010	<.009	6	01	9
28...	<.010	<.009	--	02	Q
DEC					
16...	<.010	<.009	10	01	9
JAN 2005					
06...	<.010	<.009	392	01	9
31...	<.010	<.009	6	01	9
APR					
26...	<.010	<.009	11	01	9
26...	<.010	<.009	10	02	R
MAY					
16...	<.010	<.009	5	01	9
26...	<.010	<.009	5	01	9
JUN					
08...	<.010	<.009	4	01	9
08...	.111	.081	--	02	S
30...	<.010	<.009	3	01	9
JUL					
27...	<.010	<.009	8	01	9
AUG					
01...	<.010	<.009	4	01	9
SEP					
01...	<.010	<.009	--	01	9
01...	<.010	<.009	--	02	R

BEAVER RIVER BASIN

03101500 SHENANGO RIVER AT PYMATUNING DAM, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°29'53", long 80°27'37", Crawford County, Hydrologic Unit 05030102, on left bank 500 ft downstream from Sugar Run, 900 ft downstream from Pymatuning Dam, 1.5 mi northwest of Jamestown, at mile 84.9.

DRAINAGE AREA.--167 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 823: 1934-36. WSP 1083: 1936 (M), 1937, 1940 (M), 1941-45. WSP 1335: 1940.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 970.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since December 1933 by Pymatuning Reservoir (station 03100500). Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	748	357	165	187	670	652	196	270	125	119	117	114
2	751	360	105	188	670	649	287	319	125	115	116	108
3	751	350	90	323	670	684	214	352	125	115	115	106
4	750	411	85	364	668	707	323	352	125	115	115	105
5	747	471	84	419	667	706	343	351	125	115	115	104
6	744	446	83	360	667	708	400	348	125	115	115	102
7	744	439	87	385	670	720	435	348	125	115	115	104
8	742	433	93	377	669	588	430	348	125	115	115	105
9	742	432	87	404	624	659	424	348	125	115	115	110
10	741	432	93	643	649	675	422	348	125	115	115	105
11	739	432	98	664	622	679	420	348	125	115	113	105
12	737	430	95	385	620	674	419	348	124	115	112	106
13	736	428	145	558	617	677	420	343	122	115	115	107
14	738	428	169	549	643	678	271	353	122	115	119	107
15	748	427	166	665	571	674	187	372	123	115	114	107
16	753	235	165	648	646	667	186	252	124	128	112	107
17	755	130	164	640	637	669	186	196	122	127	112	107
18	677	130	162	639	618	672	186	194	120	118	112	105
19	362	130	163	654	612	678	186	193	120	116	112	105
20	600	131	162	691	611	706	186	195	120	115	112	105
21	649	132	162	689	632	689	189	194	120	117	112	105
22	647	131	162	688	636	675	191	194	118	116	112	105
23	651	97	281	688	655	695	252	150	118	115	112	110
24	670	78	209	687	665	683	234	125	120	115	112	107
25	662	95	170	684	658	623	297	125	120	121	112	107
26	656	85	165	682	656	615	284	125	120	116	112	161
27	652	79	162	681	651	610	325	125	120	133	113	123
28	652	93	162	679	652	612	276	125	256	124	117	110
29	530	86	162	677	---	610	268	125	114	118	112	120
30	357	81	173	676	---	527	273	125	119	117	116	112
31	357	---	251	673	---	196	---	125	---	117	133	---
TOTAL	20788	7989	4520	17247	18026	20057	8710	7716	3797	3642	3549	3284
MEAN	671	266	146	556	644	647	290	249	127	117	114	109
MAX	755	471	281	691	670	720	435	372	256	133	133	161
MIN	357	78	83	187	571	196	186	125	114	115	112	102
CFSM	4.02	1.59	0.87	3.33	3.86	3.87	1.74	1.49	0.76	0.70	0.69	0.66
IN.	4.63	1.78	1.01	3.84	4.02	4.47	1.94	1.72	0.85	0.81	0.79	0.73

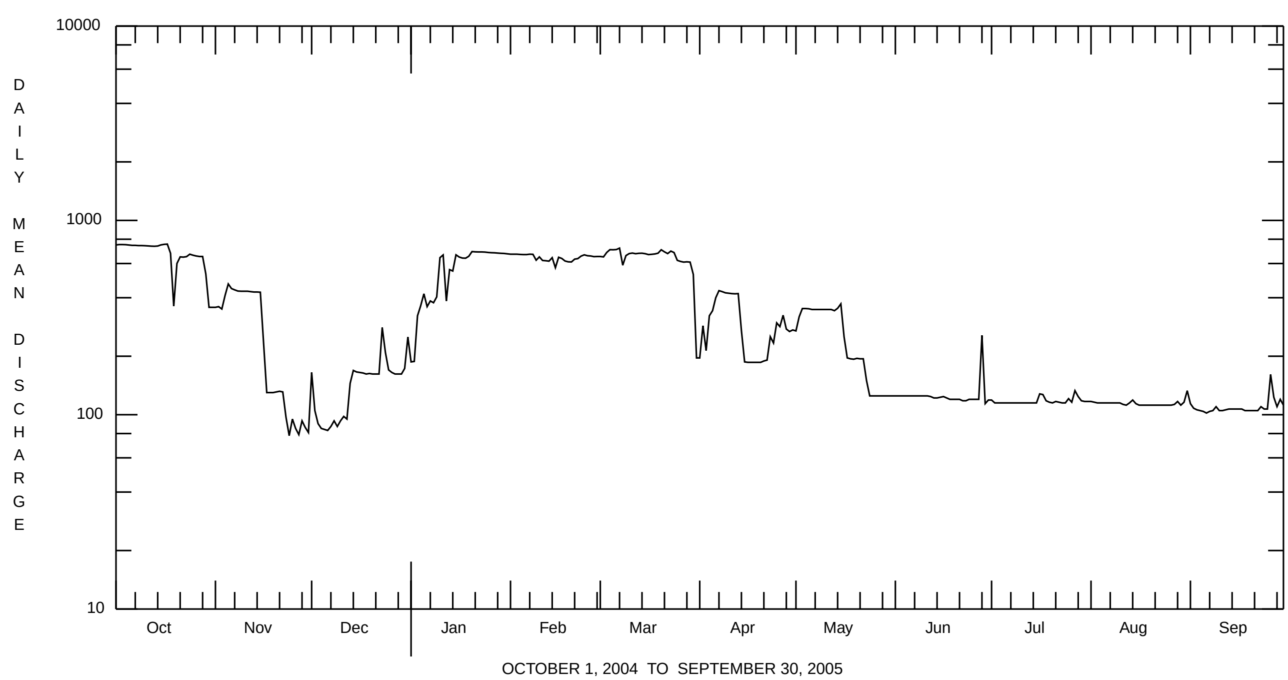
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	176	185	293	282	283	260	203	167	164	149	163	185
MAX	671	588	753	728	783	682	608	548	773	408	587	558
(WY)	2005	1997	1987	1943	1952	1956	1950	1956	1947	1987	1956	1956
MIN	17.3	6.27	3.79	10.4	13.2	17.0	2.78	5.78	5.37	20.0	31.6	40.2
(WY)	1935	1935	1945	1936	1935	1992	1935	1935	1935	1968	1935	1935

BEAVER RIVER BASIN

03101500 SHENANGO RIVER AT PYMATUNING DAM, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1935 - 2005	
ANNUAL TOTAL	119712		119325			
ANNUAL MEAN	327		327		209	
HIGHEST ANNUAL MEAN					356	2004
LOWEST ANNUAL MEAN					16.6	1935
HIGHEST DAILY MEAN	791	Sep 15	755	Oct 17	1240	Jan 28 1937
LOWEST DAILY MEAN	69	Sep 3-7	78	Nov 24	0.40	Aug 25 1935
ANNUAL SEVEN-DAY MINIMUM	69	Sep 1	85	Nov 24	0.73	Jun 6 1935
MAXIMUM PEAK FLOW			933	Jun 28	1660	Sep 9 2004
MAXIMUM PEAK STAGE			6.98	Jun 28	9.81	Sep 9 2004
ANNUAL RUNOFF (CFSM)	1.96		1.96		1.25	
ANNUAL RUNOFF (INCHES)	26.67		26.58		16.98	
10 PERCENT EXCEEDS	658		678		554	
50 PERCENT EXCEEDS	344		193		137	
90 PERCENT EXCEEDS	95		107		27	



03101500 SHENANGO RIVER AT PYMATUNING DAM, 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 276-323.

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													
15...	1305	1028	9813	424	11.2	7.0	7.2	154	159	8.0	59	17.5	3.8
JAN 2005													
10...	1335	1028	9813	683	13.2	7.2	7.9	144	152	2.0	56	16.3	3.8
MAR													
15...	1350	1028	9813	669	12.0	7.2	7.2	162	165	3.0	62	18.1	4.1
MAY													
16...	1315	1028	9813	196	9.5	7.6	7.9	146	150	15.5	57	16.6	3.7
JUL													
18...	1400	1028	9813	117	6.9	7.2	7.6	162	171	25.0	63	18.6	4.0
SEP													
19...	1315	1028	9813	105	8.1	7.4	7.9	154	159	23.0	39	8.6	4.2

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004													
15...	48	<.2	10.8	116	<2	.060	<.04	<.040	.03	.043	.74	5.3	<200
JAN 2005													
10...	46	<.2	11.4	118	12	.060	.24	<.040	.02	.032	.74	4.7	210
MAR													
15...	49	<.2	11.9	188	<2	.120	.36	<.040	.01	.023	.98	5.4	<200
MAY													
16...	46	<.2	11.3	106	12	.020	.12	<.040	.03	.041	.77	--	250
JUL													
18...	56	<.2	9.3	138	<2	.600	.07	<.040	.03	.053	1.2	--	<200
SEP													
19...	52	<.2	10.1	120	10	<.020	<.04	<.040	.03	.050	.62	--	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	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)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004								
15...	<10	<1.00	190	2.2	70	<50	<10	<5
JAN 2005								
10...	<10	<1.00	320	<1.0	50	<50	<10	<5
MAR								
15...	<10	<1.00	120	<1.0	60	<50	<10	<5
MAY								
16...	<10	<1.00	390	<1.0	80	<50	<10	<5
JUL								
18...	<10	<1.00	470	<1.0	880	<50	<10	<5
SEP								
19...	<10	<1.00	320	<1.0	160	<50	<10	<5

BEAVER RIVER BASIN

03101500 SHENANGO RIVER AT PYMATUNING DAM, 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	10/27/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	
Physa	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	197
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	8
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
Caenis	8
Heptageniidae	
Stenonema	14
Leptophlebiidae	
Paraleptophlebia	1
Plecoptera (STONEFLIES)	
Capniidae	
Paracapnia	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	8
Hydropsyche	1
Philopotamidae	
Chimarra	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Stenelmis	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	45
Empididae (DANCE FLIES)	
Hemerodromia	2
Simuliidae (BLACK FLIES)	
Simulium	41
Total Organisms	332
Total Taxa	16

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°25'19", long 80°22'35", Mercer County, Hydrologic Unit 05030102, on left bank 1,700 ft downstream from Williamson Crossing bridge, 1 mi northeast of Greenville, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--104 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1914, 1922-23, 1926-29. WSP 1335: 1923 (m).

GAGE.--Water-stage recorder. Datum of gage is 953.46 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1915, nonrecording gage; Nov. 4, 1915, to Sept. 30, 1918, water-stage recorder; Nov. 7, 1919, to Aug. 31, 1923, and Nov. 19, 1925, to June 20, 1934, nonrecording gage at site 1 mi downstream at datum 8.96 ft lower.

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 a 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)
Jan. 7	0200	*2,530	*7.89	No other peak greater than 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	54	75	532	393	e96	e117	119	347	50	58	40	176
2	52	72	706	312	e91	e117	653	238	46	36	34	80
3	52	174	324	823	e87	e114	1430	192	40	25	29	55
4	50	163	223	1520	e89	e109	855	161	40	22	27	43
5	46	321	177	1090	e85	e109	957	134	39	28	24	36
6	44	239	145	1570	e87	e111	644	114	36	52	23	31
7	42	157	146	1940	e98	e233	420	104	34	36	21	28
8	39	121	378	1030	436	794	347	94	30	26	19	27
9	38	101	302	984	874	404	263	84	29	22	18	92
10	37	88	311	604	669	262	199	77	33	20	17	55
11	35	79	362	544	339	191	159	72	56	17	15	35
12	35	78	306	1280	252	155	130	65	42	16	14	28
13	35	76	307	1790	196	139	115	60	35	35	16	24
14	39	68	267	1460	296	117	103	95	42	109	30	22
15	57	61	206	953	906	118	93	204	83	42	27	20
16	80	60	173	503	611	115	84	178	233	34	21	19
17	59	59	164	349	495	124	79	114	112	314	20	20
18	52	59	147	286	304	153	75	91	66	157	16	21
19	125	61	151	e253	207	219	71	77	53	93	15	18
20	108	71	125	e229	180	408	70	80	44	60	16	17
21	80	83	148	e214	232	449	77	84	38	43	17	16
22	68	73	113	e201	359	295	79	68	34	40	16	14
23	59	66	585	e185	e290	275	341	63	30	33	14	44
24	115	68	1300	e172	e232	466	433	73	27	28	13	34
25	157	154	551	e158	e191	342	549	68	25	93	12	24
26	98	173	502	e150	e155	254	478	58	23	96	11	280
27	77	117	380	e139	e134	202	631	53	21	543	13	466
28	68	167	336	e129	e125	193	473	51	22	326	21	135
29	64	204	170	e120	---	213	309	53	31	107	17	156
30	78	132	165	e110	---	165	304	53	30	66	22	167
31	88	---	347	e102	---	135	---	56	---	49	283	---
TOTAL	2031	3420	10049	19593	8116	7098	10540	3261	1424	2626	881	2183
MEAN	65.5	114	324	632	290	229	351	105	47.5	84.7	28.4	72.8
MAX	157	321	1300	1940	906	794	1430	347	233	543	283	466
MIN	35	59	113	102	85	109	70	51	21	16	11	14
CFSM	0.63	1.10	3.12	6.08	2.79	2.20	3.38	1.01	0.46	0.81	0.27	0.70
IN.	0.73	1.22	3.59	7.01	2.90	2.54	3.77	1.17	0.51	0.94	0.32	0.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2005, BY WATER YEAR (WY)

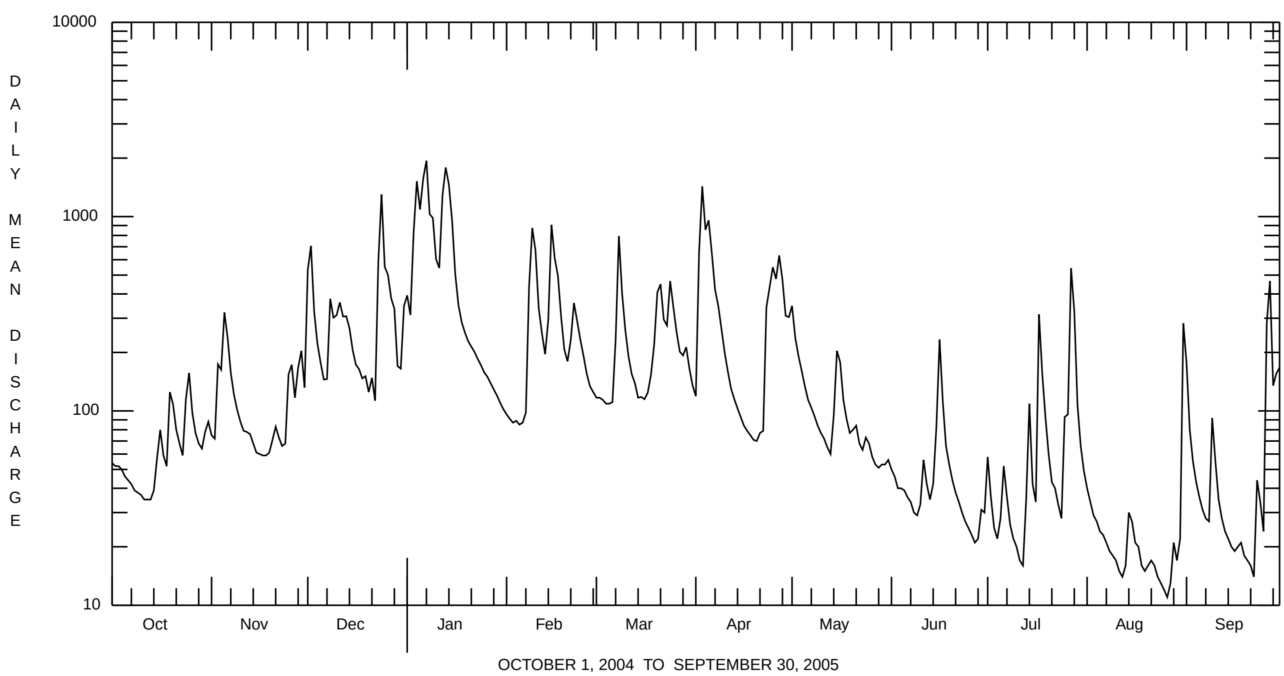
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.3	122	178	210	223	293	235	157	93.2	64.5	43.6	46.5
MAX	343	639	521	773	553	659	506	511	395	457	284	412
(WY)	1927	1986	1928	1937	1976	1963	1957	1929	1989	1958	1980	2004
MIN	5.19	6.31	16.8	21.3	36.0	66.5	16.7	21.8	11.9	5.91	5.33	5.90
(WY)	1964	1931	1961	1977	1963	1915	1915	1934	1934	1934	1930	1930

e Estimated.

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1914 - 2005	
ANNUAL TOTAL	79648		71222			
ANNUAL MEAN	218		195		143	
HIGHEST ANNUAL MEAN					235	2004
LOWEST ANNUAL MEAN					65.6	1931
HIGHEST DAILY MEAN	2730	Sep 10	1940	Jan 7	5980	Jan 22 1959
LOWEST DAILY MEAN	25	Jul 11	11	Aug 26	2.8	Aug 16 2001
ANNUAL SEVEN-DAY MINIMUM	31	Jul 5	14	Aug 21	3.3	Sep 7 2001
MAXIMUM PEAK FLOW			2530	Jan 7	**a**8540	Jan 22 1959
MAXIMUM PEAK STAGE			7.89	Jan 7	14.30	Jan 22 1959
INSTANTANEOUS LOW FLOW			11	Aug 26,27	2.4	Aug 16 2001**b**
ANNUAL RUNOFF (CFSM)	2.09		1.88		1.38	
ANNUAL RUNOFF (INCHES)	28.49		25.48		18.73	
10 PERCENT EXCEEDS	476		469		331	
50 PERCENT EXCEEDS	130		95		67	
90 PERCENT EXCEEDS	43		22		13	

a From rating curve extended above 3,200 ft^3/s on basis of slope-area measurement at gage height 12.26 ft.
b Also Sept. 13.



03102500 LITTLE SHENANGO RIVER AT GREENVILLE, 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 276-323.

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													
15...	1145	1028	9813	60.4	13.1	6.8	7.6	256	262	3.5	110	31.6	6.5
JAN 2005													
10...	1150	1028	9813	600	12.7	6.6	7.5	146	166	2.5	53	15.4	3.4
MAR													
15...	1220	1028	9813	83.9	13.5	7.4	7.6	248	250	1.7	97	28.6	6.1
MAY													
16...	1150	1028	9813	170	9.5	7.6	7.9	224	230	14.6	88	26.4	5.4
JUL													
18...	1310	1028	9813	200	7.0	7.3	7.6	203	212	24.0	87	25.9	5.5
SEP													
19...	1210	1028	9813	18.3	8.2	7.6	8.0	335	344	19.0	150	44.8	9.6

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
15...	83	17.4	170	4	<.020	.41	<.040	.02	.028	.65	4.2	<200	<10
JAN 2005													
10...	37	14.7	98	2	<.020	.75	<.040	.03	.036	.92	3.5	580	<10
MAR													
15...	68	21.4	102	<2	.020	.97	<.040	.02	.021	1.2	2.5	<200	<10
MAY													
16...	71	17.0	432	36	.020	.38	<.040	.03	.054	.86	--	780	<10
JUL													
18...	61	18.9	164	118	.060	.45	<.040	.02	.115	1.1	--	2000	<10
SEP													
19...	122	24.9	226	22	.030	.12	<.040	.02	.048	.45	--	310	<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					
15...	750	<1.0	80	<50	<10
JAN 2005					
10...	950	1.4	50	<50	<10
MAR					
15...	500	<1.0	80	<50	<10
MAY					
16...	1600	1.0	120	<50	<10
JUL					
18...	4540	3.4	250	<50	30
SEP					
19...	1020	<1.0	200	<50	<10

BEAVER RIVER BASIN

03102500 LITTLE SHENANGO RIVER AT GREENVILLE, 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
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Pleuroceridae	
Elimia	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	2
Caenidae	
Caenis	1
Ephemerellidae	
Serratella	1
Heptageniidae	
Stenonema	4
Isonychiidae	
Isonychia	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	1
Hydropsychidae	
Cheumatopsyche	13
Hydropsyche	61
Hydroptilidae	
Hydroptila	1
Philopotamidae	
Chimarra	19
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	2
Stenelmis	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	33
Simuliidae (BLACK FLIES)	
Simulium	5
Total Organisms	150
Total Taxa	16

BEAVER RIVER BASIN

03102850 SHENANGO RIVER NEAR TRANSFER, PA

LOCATION.--Lat 41°21'13", long 80°23'53", Mercer County, Hydrologic Unit 05030102, on left bank at downstream side of covered wooden bridge, 200 ft downstream from highway bridge, 0.6 mi downstream from Big Run, 2.5 mi northeast of Transfer, at mile 71.8.

DRAINAGE AREA.--337 mi^2.

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

REVISED RECORDS.--WDR PA-71-3: 1966, 1967.

GAGE.--Water-stage recorder. Datum of gage is 913.94 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation benchmark).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since December 1933 by Pymatuning Reservoir (station 03100500) 13 mi upstream and at low flow by mills upstream of station. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers 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	771	494	1360	847	e799	e860	334	813	176	178	146	350
2	775	497	1120	677	e790	e851	1730	668	166	146	136	194
3	775	674	557	1920	e794	e837	2370	670	160	129	129	156
4	769	653	398	3310	e790	e837	1730	621	162	123	125	140
5	758	998	333	2330	e790	e860	1980	576	159	133	124	131
6	754	816	291	3600	e794	e878	1370	548	159	159	119	124
7	751	693	331	3280	e827	e1170	1060	530	151	139	116	119
8	e748	632	639	2470	e1460	2000	944	511	146	126	115	117
9	746	601	514	1740	2090	1240	834	514	143	120	116	246
10	743	579	567	1520	1690	1020	753	502	261	116	113	162
11	734	568	631	1690	1110	958	694	486	227	113	111	133
12	728	565	560	3430	1010	867	646	472	174	112	e113	120
13	728	562	599	3410	937	836	618	456	159	198	e115	115
14	741	549	575	3240	1290	784	515	612	186	257	e118	111
15	801	544	490	2140	2100	782	318	846	244	195	e115	110
16	798	451	437	1370	1620	798	301	585	426	252	e118	109
17	765	214	420	1150	1420	814	287	369	271	551	116	112
18	771	212	397	1030	1090	861	281	329	196	328	112	115
19	604	214	410	e1020	951	950	276	304	179	229	109	107
20	709	236	389	e1020	922	1290	273	321	165	175	110	105
21	766	254	479	e1000	1070	1310	281	309	158	155	114	104
22	743	236	342	e1000	1250	1060	297	281	151	148	110	102
23	726	214	1760	e1040	1160	1090	939	269	146	136	107	165
24	872	182	2120	e1090	1070	1530	1010	228	140	129	106	135
25	885	376	917	e982	991	1110	1250	213	136	208	105	117
26	794	353	643	e893	e948	966	1030	195	134	234	104	704
27	757	259	519	e879	e901	890	1470	185	130	871	110	738
28	743	398	557	e879	e878	873	967	185	153	541	137	289
29	724	399	413	e874	---	889	727	186	367	251	115	383
30	515	281	446	e832	---	827	783	185	161	185	141	343
31	513	---	978	e813	---	430	---	185	---	160	665	---
TOTAL	23007	13704	20192	51476	31542	30468	26068	13154	5586	6797	4190	5956
MEAN	742	457	651	1661	1126	983	869	424	186	219	135	199
MAX	885	998	2120	3600	2100	2000	2370	846	426	871	665	738
MIN	513	182	291	677	790	430	273	185	130	112	104	102
CFSM	2.20	1.36	1.93	4.93	3.34	2.92	2.58	1.26	0.55	0.65	0.40	0.59
IN.	2.54	1.51	2.23	5.68	3.48	3.36	2.88	1.45	0.62	0.75	0.46	0.66

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	302	518	784	678	666	669	579	444	337	260	211	271
MAX	1034	1627	1343	1661	1319	1212	1273	1162	1080	902	1005	1192
(WY)	1991	1986	1991	2005	1990	1985	1994	2002	1989	2003	1980	2004
MIN	57.9	88.4	128	151	121	172	207	82.9	86.2	46.5	81.6	101
(WY)	1983	1999	1999	1977	1987	1969	1968	1987	1967	1968	1982	1999

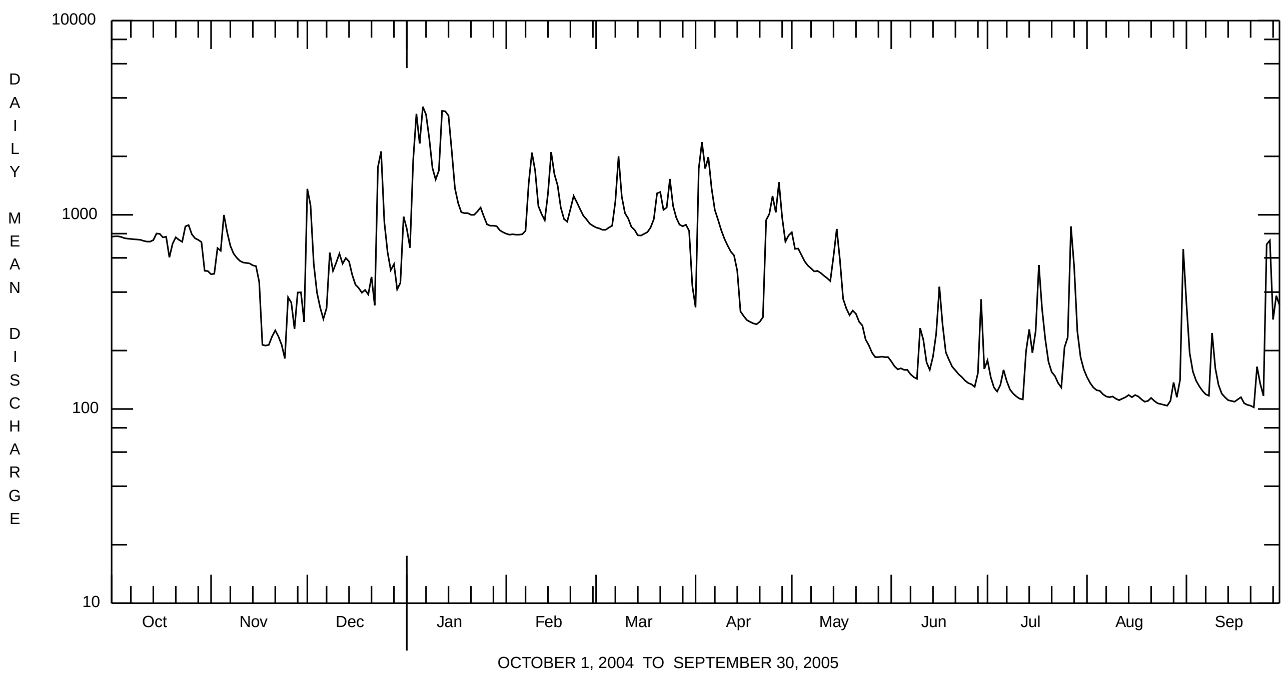
e Estimated.

BEAVER RIVER BASIN

03102850 SHENANGO RIVER NEAR TRANSFER, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	252760		232140			
ANNUAL MEAN	691		636		476	
HIGHEST ANNUAL MEAN					755	2004
LOWEST ANNUAL MEAN					265	1999
HIGHEST DAILY MEAN	5480	Sep 9	3600	Jan 6	5560	Jul 22 2003
LOWEST DAILY MEAN	113	Sep 7	102	Sep 22	33	Jul 21 1968
ANNUAL SEVEN-DAY MINIMUM	133	Sep 1	108	Sep 16	39	Jul 17 1968
MAXIMUM PEAK FLOW			4590	Jan 6	**a**6580	Jul 22 2003
MAXIMUM PEAK STAGE			8.48	Jan 6	11.33	Jul 22 2003
INSTANTANEOUS LOW FLOW			100	Sep 22,23	33	Jul 20 1968
ANNUAL RUNOFF (CFSM)	2.05		1.89		1.41	
ANNUAL RUNOFF (INCHES)	27.90		25.62		19.18	
10 PERCENT EXCEEDS	1080		1240		1000	
50 PERCENT EXCEEDS	576		519		300	
90 PERCENT EXCEEDS	213		118		102	

a From rating curve extended above 4,800 ft^3/s.



BEAVER RIVER BASIN

03105500 BEAVER RIVER AT WAMPUM, PA

LOCATION.--Lat 40°53'19", long 80°20'14", Lawrence County, Hydrologic Unit 05030104, on right bank at downstream side of bridge on State Highway 288 at Wampum, 2.9 mi upstream from Connoquenessing Creek, at mile 15.4.

DRAINAGE AREA.--2,235 mi^2.

PERIOD OF RECORD.--July 1914 to September 1918, August 1932 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "at Newport" 1914-18.

REVISED RECORDS.--WSP 728: Drainage area. WSP 1385: 1933-40, 1946, 1951-52. WSP 1725: 1960 (adjusted runoff). WDR PA-85-3: 1984 (M).

GAGE.--Water-stage recorder. Datum of gage is 736.24 ft above National Geodetic Vertical Datum of 1929 (Penn Central Railroad bench mark). Prior to Sept. 20, 1914, nonrecording gage at site 500 ft downstream at datum 0.76 ft lower. Oct. 1, 1914 to Sept. 30, 1918, nonrecording gage at site 1 mi upstream at datum 0.84 ft higher. Aug. 26, 1932 to Nov. 16, 1938, nonrecording gage at present site and datum. Since 1932 an auxiliary gage 10 mi downstream at Beaver Falls (station 03107500) is used during periods of backwater from Connoquenessing Creek.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1916 by Milton Reservoir, since November 1929 by Meander Creek Reservoir, since December 1933 by Pymatuning Reservoir (station 03100500), since December 1942 by Berlin Lake, since October 1943 by Mosquito Creek Lake, since December 1966 by Michael J. Kirwan Reservoir, and since January 1967 by Shenango River Lake 40 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1912, 29.9 ft, Mar. 26, 1913, from floodmark, discharge, about 87,000 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	e5760	2210	7810	7650	6510	3870	2750	7150	1310	e1360	e980	e2250
2	e5520	2070	8340	7470	5660	3760	11200	6300	1180	e1100	e860	e1550
3	e5170	2740	7520	8940	4730	3510	18800	5010	1130	e995	e860	e1100
4	e4330	2440	6370	17700	3980	3250	16900	3980	1110	e872	e850	e874
5	e3860	3260	4830	17900	3310	3230	13200	3510	1070	e954	e1170	e777
6	3010	3450	4370	e25500	3080	3320	8710	2900	1070	e1320	e1330	e752
7	2780	3350	4510	e25000	3310	4790	6910	2400	1100	e1160	e1050	e692
8	2670	2880	6020	17200	6030	10000	6240	2200	1030	e1020	e960	e692
9	2650	2540	6230	15700	10100	6450	5860	2050	1000	e933	e900	e680
10	2130	2340	7980	12200	9580	4410	5470	1960	1080	e913	e857	e716
11	1980	2280	7230	11400	7100	3670	4560	1760	2230	e933	e821	e668
12	1940	2270	6190	e20600	6490	3430	3700	1650	1410	e900	e790	e626
13	2150	2240	5710	e24400	6280	3250	e2630	1580	1210	e860	e777	e603
14	2950	1880	5280	e22400	7000	3070	e2220	3980	1140	e890	e879	e565
15	2770	e1970	4780	16800	11100	2950	e1840	6190	1310	e1040	e960	e535
16	2790	e2000	4240	12400	9830	2690	e1760	4730	1300	e1130	e843	e580
17	2100	e1920	3650	10300	10200	2660	e1740	3500	1350	e1100	e786	e709
18	1810	e1820	3390	9320	9020	2590	e1670	2990	1330	e1190	e737	e649
19	2780	1650	3160	8910	7550	2690	e1660	2550	1290	e1310	e736	e626
20	2480	1610	3000	8640	6910	3300	e1540	2470	1180	e1360	e788	e573
21	2280	1870	2530	8100	7500	4630	e1750	2240	1070	e1100	e1280	e558
22	2110	2080	2240	7660	8930	4400	e1770	1870	1010	e970	e998	e542
23	1920	2310	7670	7610	8160	3880	4350	1750	e954	e940	e890	e702
24	2270	2150	11400	7450	6830	5480	6570	2370	e913	e900	e804	e762
25	2460	2830	8070	7610	5690	4980	8700	1830	e892	e889	e733	e606
26	2340	3360	6580	7810	4690	4380	8420	1570	e851	e900	e728	e1590
27	2180	2890	5280	7640	4240	3940	9620	1370	e811	e1500	e693	3410
28	2110	3410	4580	7380	4120	3490	9020	1300	e831	e1900	e812	1820
29	2060	3470	4700	7280	---	3800	7270	1450	e933	e1650	e843	1580
30	2380	3200	4820	7080	---	3520	7140	1310	e1080	e1350	e904	1530
31	2490	---	6000	6860	---	3030	---	1380	---	e1200	e3920	---
TOTAL	86230	74490	174480	382910	187930	122420	183970	87300	34175	34639	30539	29317
MEAN	2782	2483	5628	12350	6712	3949	6132	2816	1139	1117	985	977
MAX	5760	3470	11400	25500	11100	10000	18800	7150	2230	1900	3920	3410
MIN	1810	1610	2240	6860	3080	2590	1540	1300	811	860	693	535
CFSM	1.24	1.11	2.52	5.53	3.00	1.77	2.74	1.26	0.51	0.50	0.44	0.44
IN.	1.44	1.24	2.90	6.37	3.13	2.04	3.06	1.45	0.57	0.58	0.51	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1299	1814	2879	3536	3902	4808	3981	2752	2008	1546	1316	1320
MAX	5888	7936	7978	13030	8779	9098	9226	8362	8004	7667	5272	8772
(WY)	1991	1986	1991	1937	1915	1916	1994	1996	1989	2003	2003	2004
MIN	168	278	447	534	304	1074	657	288	222	198	156	153
(WY)	1934	1915	1961	1918	1934	1969	1915	1934	1934	1918	1933	1916

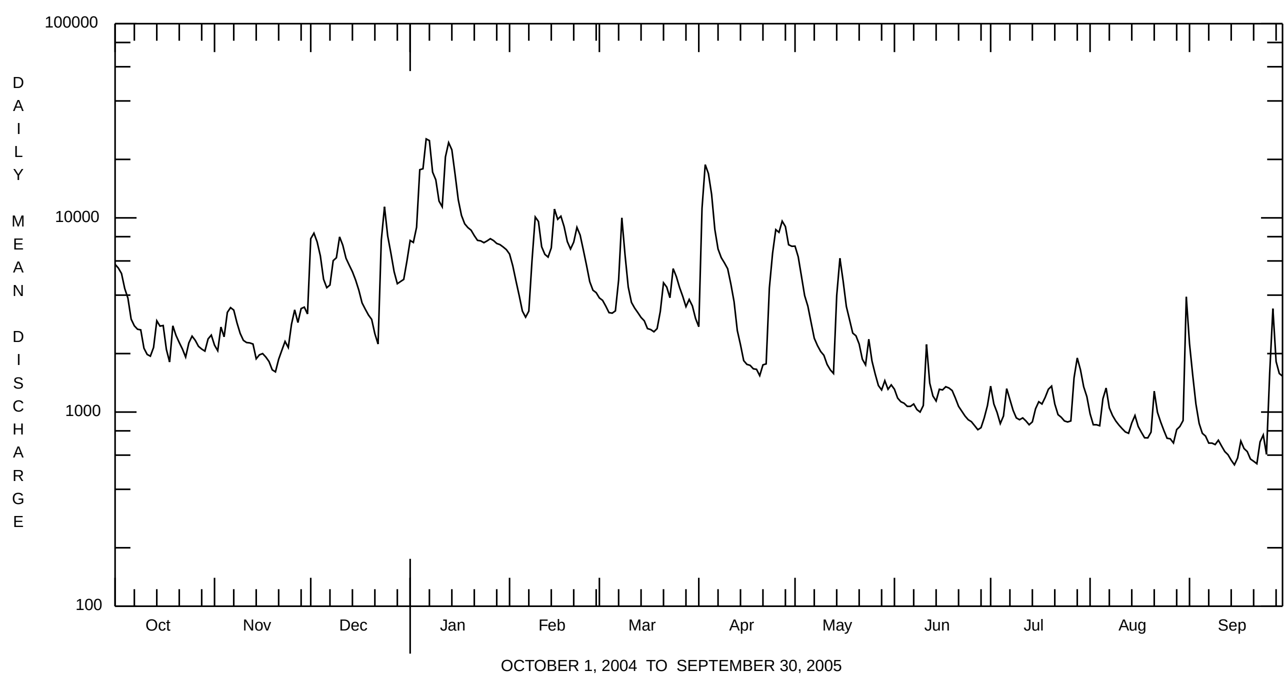
e Estimated.

BEAVER RIVER BASIN

03105500 BEAVER RIVER AT WAMPUM, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1915 - 2005	
ANNUAL TOTAL	1675955		1428400			
ANNUAL MEAN	4579		3913		2597	
HIGHEST ANNUAL MEAN					4796	2004
LOWEST ANNUAL MEAN					834	1934
HIGHEST DAILY MEAN	**e**34000	Sep 9	**e**25500	Jan 6	47500	Jan 22 1959
LOWEST DAILY MEAN	934	Jul 11	**e**535	Sep 15	88	Oct 5 1914
ANNUAL SEVEN-DAY MINIMUM	1040	Jul 5	**a**604	Sep 15	94	Oct 3 1914
MAXIMUM PEAK FLOW			27000	Jan 6	**b**50100	May 28 1946
MAXIMUM PEAK STAGE			**c**17.26	Jan 6	**d**21.53	May 28 1946
INSTANTANEOUS LOW FLOW					**f**74	Jul 30 1933
ANNUAL RUNOFF (CFSM)	2.05		1.75		1.16	
ANNUAL RUNOFF (INCHES)	27.90		23.77		15.79	
10 PERCENT EXCEEDS	7780		8370		5960	
50 PERCENT EXCEEDS	3370		2470		1460	
90 PERCENT EXCEEDS	1590		843		584	

a Computed using estimated daily discharges.
b From slope-rating curve extended above 28,000 ft^3/s on basis of contracted-opening measurement at gage height 21.44 ft.
c Backwater from Connoquenessing Creek.
d Maximum gage height, 24.86 ft, Jan. 22, 1959 (backwater from Connoquenessing Creek).
e Estimated.
f Minimum discharge observed.



BEAVER RIVER BASIN

03106000 CONNOQUENESSING CREEK NEAR ZELIENOPLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°49'01", long 80°14'33", Beaver County, Hydrologic Unit 05030105, on right bank at downstream side of highway bridge at Hazen, 0.3 mi upstream from Brush Creek, 4 mi southeast of Ellwood City, and 6.0 mi west of Zelienople.

DRAINAGE AREA.--356 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1305. June 1915 to September 1919 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania. Published as "at Hazen" 1915-16, 1929-63, and as "near Hazen" 1917-28.

REVISED RECORDS.--WSP 743: Drainage area. WSP 893: 1937-38, 1939 (M). WSP 1305: 1922-26, 1928. WSP 1335: 1920-21, 1924 (M). WSP 1385: 1952.

GAGE.--Water-stage recorder. Datum of gage is 852.31 ft above National Geodetic Vertical Datum of 1929. Prior to June 23, 1941, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Some regulation by mills upstream of station. 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 5,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	1845	*13,900	*13.85	Jan. 12	1530	6,290	8.96

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	230	273	2550	528	e340	555	556	862	144	225	35	351
2	206	242	2160	425	e329	499	2350	663	124	141	32	114
3	186	417	1400	764	e308	411	3460	575	112	73	30	67
4	171	421	1030	3160	e292	349	2570	498	121	56	26	50
5	151	835	823	3560	e282	379	1900	427	113	94	27	41
6	138	656	673	11600	e255	390	1430	384	101	398	28	36
7	129	564	661	8750	e287	734	1100	351	103	164	31	34
8	119	476	898	3700	e722	2410	896	322	89	94	28	31
9	113	381	769	2360	1340	1430	695	280	79	72	26	29
10	109	316	1460	1690	1930	1050	571	252	76	59	25	28
11	106	287	1390	2080	1260	884	483	231	204	50	25	27
12	102	316	1230	5440	971	776	406	214	243	44	22	28
13	113	338	1150	3830	808	649	359	195	152	46	20	26
14	216	261	1010	3730	1330	525	316	485	103	159	22	24
15	271	225	827	2280	3410	485	273	597	89	92	22	23
16	298	212	728	1610	2000	469	240	386	89	89	23	25
17	226	206	676	1300	1450	446	216	279	86	78	24	26
18	174	211	607	1040	1050	466	206	231	83	74	26	27
19	1410	220	602	1000	787	474	195	201	69	84	25	28
20	784	270	518	884	673	497	192	223	61	81	22	29
21	480	280	501	e807	830	592	279	280	57	73	42	26
22	358	238	484	e637	941	533	229	198	54	61	53	27
23	294	233	1190	e589	752	574	1020	206	49	59	30	37
24	440	246	1500	e542	661	1030	1280	367	44	44	24	44
25	552	621	1010	e510	618	865	1140	267	43	37	21	40
26	384	558	914	e473	564	789	928	210	40	37	19	57
27	322	463	748	e414	497	691	1110	173	39	144	19	189
28	288	686	596	e393	504	697	927	184	37	157	23	86
29	265	708	539	e361	---	947	789	335	60	71	23	70
30	333	595	471	e345	---	722	847	213	80	50	34	117
31	352	---	485	e340	---	629	---	170	---	41	788	---
TOTAL	9320	11755	29600	65142	25191	21947	26963	10259	2744	2947	1595	1737
MEAN	301	392	955	2101	900	708	899	331	91.5	95.1	51.5	57.9
MAX	1410	835	2550	11600	3410	2410	3460	862	243	398	788	351
MIN	102	206	471	340	255	349	192	170	37	37	19	23
CFSM	0.84	1.10	2.68	5.90	2.53	1.99	2.52	0.93	0.26	0.27	0.14	0.16
IN.	0.97	1.23	3.09	6.81	2.63	2.29	2.82	1.07	0.29	0.31	0.17	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	163	336	563	672	750	967	775	518	331	204	158	165
MAX	1290	1648	1778	2607	2048	2324	2054	1283	1518	1373	923	2543
(WY)	1955	1986	1928	1937	1956	1945	1940	1983	1989	1928	2004	2004
MIN	11.3	12.3	22.3	16.4	97.7	154	182	62.3	24.4	20.5	11.2	11.4
(WY)	1931	1931	1961	1931	1934	1969	1946	1934	1934	1936	1930	1930

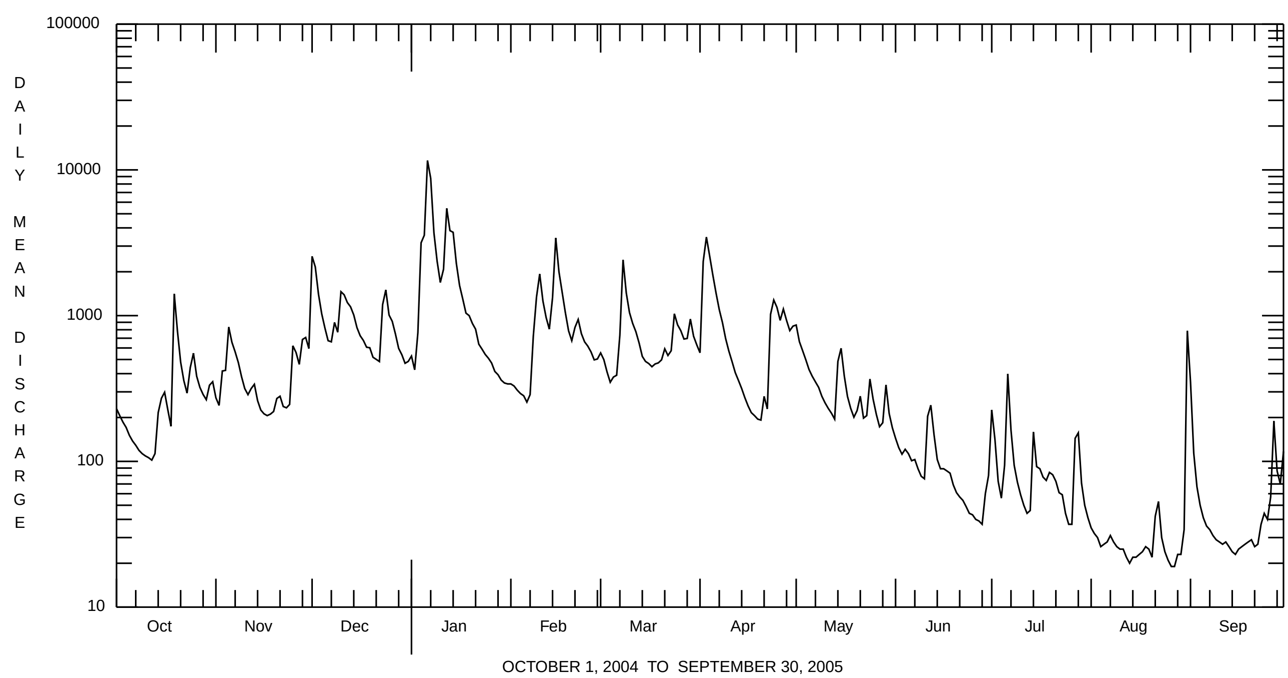
e Estimated.

BEAVER RIVER BASIN

03106000 CONNOQUENESSING CREEK NEAR ZELIENOPLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1920 - 2005	
ANNUAL TOTAL	347982		209200			
ANNUAL MEAN	951		573		465	
HIGHEST ANNUAL MEAN					1001	2004
LOWEST ANNUAL MEAN					221	1931
HIGHEST DAILY MEAN	24500	Sep 18	11600	Jan 6	24500	Sep 18 2004
LOWEST DAILY MEAN	63	Jul 25	19	Aug 26,27	6.5	Jul 21 1936
ANNUAL SEVEN-DAY MINIMUM	98	Jul 11	23	Aug 11	8.7	Oct 13 1939
MAXIMUM PEAK FLOW			13900	Jan 6	**a**29400	Sep 18 2004
MAXIMUM PEAK STAGE			13.85	Jan 6	**b**18.17	Sep 18 2004
INSTANTANEOUS LOW FLOW			17	Aug 26,27	6.0	Jul 21 1936
ANNUAL RUNOFF (CFSM)	2.67		1.61		1.31	
ANNUAL RUNOFF (INCHES)	36.36		21.86		17.76	
10 PERCENT EXCEEDS	1690		1240		1100	
50 PERCENT EXCEEDS	543		294		215	
90 PERCENT EXCEEDS	164		30		32	

a From rating curve extended above 17,100 ft^3/s.
b From floodmarks.



03106000 CONNOQUENESSING CREEK NEAR ZELIENOPLE, 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 276-323.

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													
01...	1015	1028	9813	274	10.4	7.6	7.6	474	466	11.5	160	49.9	9.5
JAN 2005													
05...	1110	1028	9813	2810	10.9	7.1	7.6	265	273	7.0	83	23.8	5.8
MAR													
01...	1030	1028	9813	E555	14.0	7.4	7.8	513	524	1.7	140	42.0	8.4
MAY													
02...	1140	1028	9813	658	11.5	8.1	8.0	370	377	10.5	120	32.5	8.2
JUL													
05...	1105	1028	9813	50	10.6	8.4	8.6	596	611	25.0	200	59.7	11.2
SEP													
01...	1045	1028	9813	330	6.8	7.4	7.9	470	488	21.0	150	47.9	7.6

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, 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)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	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													
01...	63	60.0	304	<2	<.020	1.02	<.200	.02	.035	1.2	2.7	<200	<10
JAN 2005													
05...	35	35.7	164	76	.040	1.55	<.040	.02	.104	2.0	2.4	1600	<10
MAR													
01...	43	54.7	326	2	.040	1.60	<.040	.02	.012	2.0	2.2	<200	<10
MAY													
02...	45	50.7	254	2	.040	.99	<.040	.01	.022	1.2	--	<200	<10
JUL													
05...	84	61.6	466	28	<.020	.27	<.040	<.01	.109	1.3	--	310	<10
SEP													
01...	70	50.3	332	88	.140	1.20	<.040	.03	.149	1.9	--	1700	<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					
01...	320	<1.0	60	<50	20
JAN 2005					
05...	3510	4.7	220	<50	20
MAR					
01...	340	<1.0	130	<50	<10
MAY					
02...	390	<1.0	100	<50	<10
JUL					
05...	660	<1.0	220	<50	40
SEP					
01...	3590	5.2	450	<50	20

03106000 CONNOQUENESSING CREEK NEAR ZELIENOPLE, 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	09/16/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	7
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Baetis	6
Ephemerellidae	
Ephemerella	1
Heptageniidae	
Stenonema	7
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
Argia	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	16
Hydropsyche	20
Psychomyiidae	
Psychomyia	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	31
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	28
Simuliidae (BLACK FLIES)	
Simulium	19
Tipulidae (CRANE FLIES)	1
Total Organisms	141
Total Taxa	14

BEAVER RIVER BASIN

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA

LOCATION.--Lat 40°57'47", long 80°07'31", Butler County, Hydrologic Unit 05030105, on left bank 1,000 ft downstream of Lake Arthur Dam, 0.2 mi north of U.S. Highway 422, and 3 mi north of Portersville.

DRAINAGE AREA.--51.2 mi^2.

PERIOD OF RECORD.--March 1963 to September 1993, July 1994 to current year.

REVISED RECORDS.--WDR PA-79-3: 1978.

GAGE.--Water-stage recorder. Datum of gage is 1,160.91 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Environmental Protection bench mark). Prior to Apr. 8, 1963 nonrecording gage at site 2,000 ft downstream at different datum. Apr. 8 to May 1, 1963, nonrecording gage and May 2, 1963 to Sept. 30, 1980, water-stage recorder at site 1,000 ft downstream at datum 5.71 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation from October 1966 to May 1969 and completely regulated thereafter by Lake Arthur (station 03106280) 1,000 ft 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	86	44	104	129	72	108	90	109	29	13	7.7	e8.6
2	76	42	122	126	67	104	144	105	28	13	7.1	e7.6
3	68	45	126	136	63	98	215	100	26	12	7.0	e6.3
4	59	46	126	117	60	90	255	94	23	11	7.0	e6.3
5	52	45	122	104	57	83	267	88	23	19	7.0	e6.3
6	47	46	120	281	53	79	257	82	21	26	7.1	e6.3
7	43	44	117	408	52	83	240	76	19	25	7.1	e6.3
8	38	40	121	429	62	114	219	69	18	22	e6.9	e6.2
9	34	40	124	416	78	124	197	65	17	19	e6.8	e6.2
10	31	38	135	378	99	124	174	60	16	17	e6.6	e6.1
11	28	36	138	364	107	124	154	55	16	15	e6.8	e6.0
12	26	51	142	416	109	123	139	51	15	14	e6.8	e6.0
13	26	66	140	443	108	116	118	50	14	19	e6.7	e6.0
14	29	62	138	450	124	108	101	60	13	26	e6.7	e6.0
15	33	58	134	424	175	100	93	60	12	24	e6.7	e5.9
16	35	55	128	382	196	93	82	56	11	23	e6.7	e5.8
17	33	52	120	337	199	87	73	53	11	22	e6.7	e5.7
18	35	51	116	303	190	84	67	48	10	21	e6.8	e5.6
19	50	50	110	270	174	82	62	46	9.8	21	e6.8	e5.6
20	52	49	136	238	161	85	58	46	9.1	21	e6.7	e5.5
21	49	48	164	209	159	90	57	39	8.3	20	e6.7	e5.5
22	48	46	85	191	155	90	56	36	7.7	18	e6.7	e5.5
23	46	45	27	171	146	95	66	37	7.4	16	e6.7	e5.5
24	51	64	42	152	138	104	75	39	7.1	14	e6.7	e5.5
25	51	89	50	135	131	107	84	37	7.1	13	e6.6	e5.4
26	49	89	54	122	121	108	92	34	7.0	12	e6.6	e5.4
27	47	87	120	110	113	106	103	32	7.1	13	e6.5	e5.4
28	44	87	159	100	108	106	105	33	7.1	12	e6.5	e5.4
29	44	87	147	90	---	104	107	33	7.4	11	e6.5	e5.4
30	48	86	139	83	---	103	110	31	9.5	9.7	e6.5	e5.3
31	44	---	134	78	---	95	---	30	---	8.4	e10	---
TOTAL	1402	1688	3640	7592	3277	3117	3860	1754	416.6	530.1	213.7	178.6
MEAN	45.2	56.3	117	245	117	101	129	56.6	13.9	17.1	6.89	5.95
MAX	86	89	164	450	199	124	267	109	29	26	10	8.6
MIN	26	36	27	78	52	79	56	30	7.0	8.4	6.5	5.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.8	59.4	103	99.0	105	107	109	74.1	54.0	31.8	21.8	27.9
MAX	268	248	268	245	220	298	200	187	332	155	127	238
(WY)	1976	1973	1973	2005	1990	1964	1972	1983	1989	1990	1980	2004
MIN	1.11	1.50	2.41	2.40	31.0	4.31	2.78	2.97	1.53	3.01	1.98	0.61
(WY)	1964	1970	1970	1970	1980	1999	1986	1986	1969	1965	1966	1969

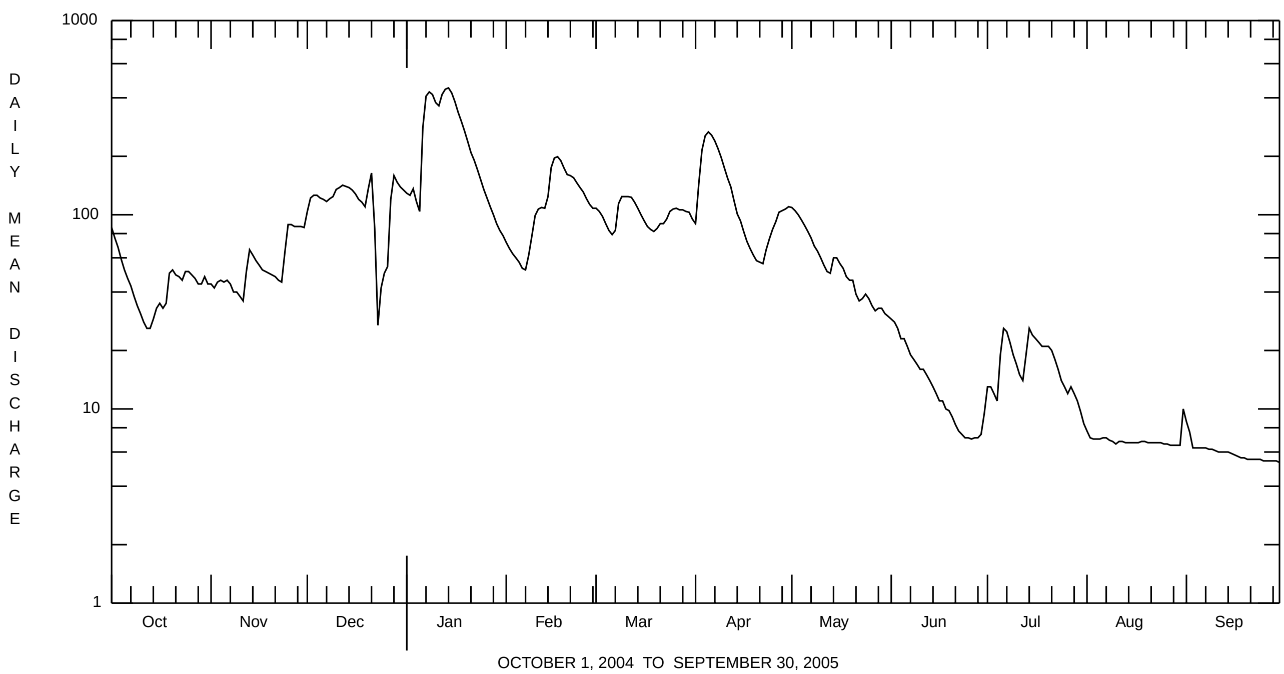
e Estimated.

BEAVER RIVER BASIN

03106300 MUDDY CREEK NEAR PORTERSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1963 - 2005	
ANNUAL TOTAL	37960		27669.0			
ANNUAL MEAN	104		75.8		68.5	
HIGHEST ANNUAL MEAN					116	2004
LOWEST ANNUAL MEAN					24.1	1970
HIGHEST DAILY MEAN	565	Sep 19	450	Jan 14	1450	Mar 10 1964
LOWEST DAILY MEAN	12	Jul 25**a**	**e**5.3	Sep 30	0.50	Sep 1 1969
ANNUAL SEVEN-DAY MINIMUM	15	Jul 19	**b**5.4	Sep 24	0.54	Aug 29 1969
MAXIMUM PEAK FLOW			458	Jan 14	**c**1640	Mar 10 1964
MAXIMUM PEAK STAGE			5.85	Jan 14	8.18	Mar 10 1964
INSTANTANEOUS LOW FLOW					0.40	Sep 17 1966
10 PERCENT EXCEEDS	173		154		175	
50 PERCENT EXCEEDS	89		51		40	
90 PERCENT EXCEEDS	28		6.7		4.0	

a Also Aug. 18.
b Computed using estimated daily discharges.
c From rating curve extended above 820 ft^3/s on basis of slope-area measurement of peak flow.
e Estimated.



BEAVER RIVER BASIN

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°53'02", long 80°14'02", Lawrence County, Hydrologic Unit 05030105, on left bank at downstream side of highway bridge at Camp Allegheny, 2 mi north of Wurtemburg, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--398 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1911 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: Drainage area. WSP 1305: 1914-18, 1920-22, 1923-24 (M), 1925-28, 1930. WSP 1385: 1932, 1935, 1936 (M), 1937-39. WSP 1625: 1955.

GAGE.--Water-stage recorder. Datum of gage is 832.06 ft above National Geodetic Vertical Datum of 1929. Jan. 1, 1912 to Sept. 30, 1922, nonrecording gage at site 1.5 mi downstream at datum 13.77 ft lower and Oct. 1, 1922 to Sept. 30, 1940, nonrecording gage at site 2 mi downstream at datum 18.92 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation since May 1969 by Lake Arthur (station 03106280) 13 mi upstream. Several measurements of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemetry at station.

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

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 6	2000	*7,310	*7.41	Apr. 3	0800	5,530	6.21
Jan. 12	1800	5,620	6.27				

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	377	384	1800	862	e404	e621	528	1210	273	100	84	577
2	350	350	2240	726	e404	e588	3430	891	243	101	79	225
3	340	461	1360	1840	e398	e556	5180	715	225	96	74	121
4	335	506	954	4260	e400	e503	3580	605	251	89	71	94
5	306	691	760	3720	e400	e493	2980	532	248	122	78	84
6	289	669	669	6580	e400	e489	2140	482	238	268	129	78
7	275	497	676	6540	e437	e795	1600	452	214	185	100	74
8	261	424	1350	4230	e918	2750	1270	439	174	128	83	71
9	248	377	1330	3580	e1610	1880	1030	409	157	110	78	71
10	233	349	1690	2330	2240	1070	875	385	152	106	73	70
11	224	336	1600	2220	1410	895	740	362	559	97	71	70
12	218	342	1350	4640	1060	768	640	342	512	89	70	67
13	236	380	1200	4760	872	687	560	325	284	102	69	65
14	326	353	1030	4210	1160	578	499	630	203	356	69	63
15	410	335	872	3160	3210	529	452	931	174	167	72	63
16	543	331	726	2060	2340	537	423	740	156	182	72	64
17	386	323	687	1600	1760	556	404	501	175	150	69	68
18	327	318	640	1230	1230	606	384	439	159	1150	67	71
19	626	329	647	1100	884	700	372	391	143	591	67	71
20	602	345	575	1080	827	884	373	376	134	276	67	71
21	439	377	611	914	1060	1180	424	374	127	165	68	68
22	373	357	573	e737	1410	952	404	329	111	134	66	66
23	340	334	1510	e666	1160	849	905	319	108	120	64	71
24	455	338	2450	e620	956	1410	1240	442	103	106	62	74
25	570	504	1110	e576	824	1150	1300	399	98	97	59	71
26	439	563	802	e540	e760	944	1140	341	94	100	59	145
27	375	482	716	e505	e690	793	1420	297	92	122	59	503
28	343	609	640	e476	e653	754	1310	292	89	140	65	245
29	328	713	667	e446	---	778	1010	350	87	129	84	148
30	395	560	628	e424	---	679	1030	328	97	104	94	173
31	450	---	726	e414	---	591	---	304	---	93	665	---
TOTAL	11419	12937	32589	67046	29877	26565	37643	14932	5680	5775	2887	3702
MEAN	368	431	1051	2163	1067	857	1255	482	189	186	93.1	123
MAX	626	713	2450	6580	3210	2750	5180	1210	559	1150	665	577
MIN	218	318	573	414	398	489	372	292	87	89	59	63
CFSM	0.93	1.08	2.64	5.43	2.68	2.15	3.15	1.21	0.48	0.47	0.23	0.31
IN.	1.07	1.21	3.05	6.27	2.79	2.48	3.52	1.40	0.53	0.54	0.27	0.35

e Estimated.

BEAVER RIVER BASIN

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, PA--Continued

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

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	269	535	790	731	865	1024	964	640	519	343	276	304
MAX	741	1822	1576	2163	1949	1972	1608	1400	2075	1120	1323	1956
(WY)	1976	1986	1978	2005	1981	1972	1987	1983	1989	2003	1980	2004
MIN	56.5	82.2	178	153	289	243	345	215	112	84.8	51.1	53.0
(WY)	1992	1992	1990	1977	1987	1969	1971	1976	1992	1998	2001	1999

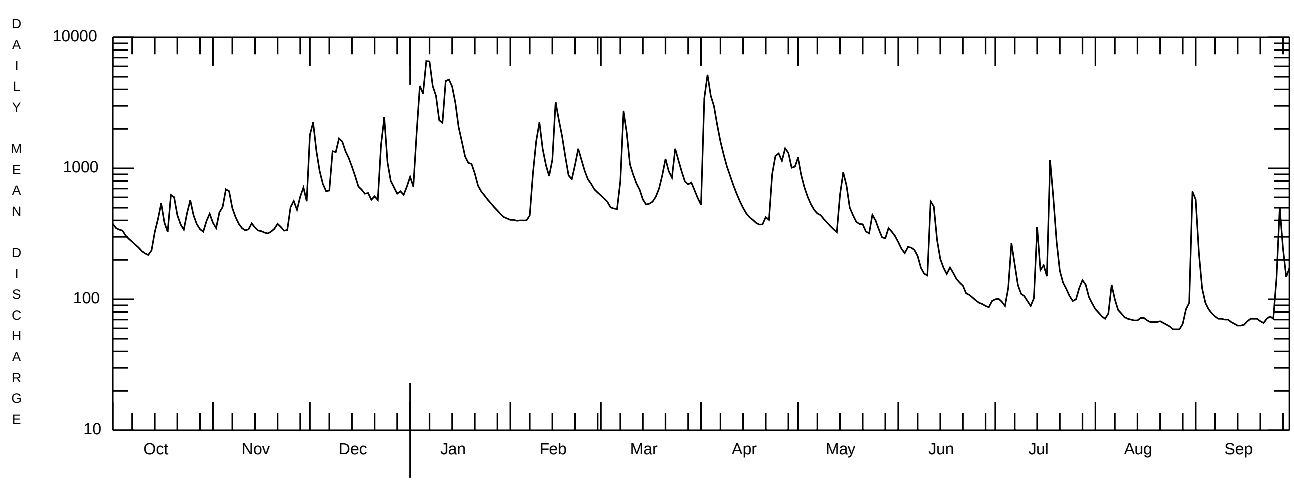
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	329381		251052			
ANNUAL MEAN	900		688		603	
HIGHEST ANNUAL MEAN					978	2004
LOWEST ANNUAL MEAN					317	2001
HIGHEST DAILY MEAN	10700	Sep 9	6580	Jan 6	10700	Sep 9 2004
LOWEST DAILY MEAN	123	Aug 18	59	Aug 25-27	36	Sep 14 2002
ANNUAL SEVEN-DAY MINIMUM	150	Aug 12	62	Aug 22	39	Aug 13 2001
MAXIMUM PEAK FLOW			7310	Jan 6	11800	Sep 9 2004
MAXIMUM PEAK STAGE			7.41	Jan 6	9.48	Sep 9 2004
INSTANTANEOUS LOW FLOW			59	Aug 25-27	36	Sep 13 2002
ANNUAL RUNOFF (CFSM)	2.26		1.73		1.52	
ANNUAL RUNOFF (INCHES)	30.79		23.47		20.59	
10 PERCENT EXCEEDS	1710		1410		1360	
50 PERCENT EXCEEDS	576		409		371	
90 PERCENT EXCEEDS	247		73		92	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1968, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	237	379	589	839	856	1203	911	653	386	237	191	160
MAX	1391	1329	2088	3161	2089	2728	1974	1472	1559	1307	905	1675
(WY)	1912	1922	1928	1937	1956	1913	1940	1924	1956	1958	1956	1926
MIN	37.7	43.0	58.5	56.3	94.7	291	238	94.3	79.3	54.8	35.3	38.2
(WY)	1964	1931	1931	1931	1934	1931	1925	1934	1936	1944	1930	1944

SUMMARY STATISTICS	WATER YEARS 1912 - 1968	
ANNUAL MEAN	552	
HIGHEST ANNUAL MEAN	917	1956
LOWEST ANNUAL MEAN	216	1931
HIGHEST DAILY MEAN	16700	Mar 26 1913
LOWEST DAILY MEAN	20	Sep 11 1938
ANNUAL SEVEN-DAY MINIMUM	24	Sep 6 1938
MAXIMUM PEAK FLOW	**a**19000	Jan 25 1937
MAXIMUM PEAK STAGE	**b**12.05	Jan 25 1937
INSTANTANEOUS LOW FLOW	**c**16	Sep 13 1932
ANNUAL RUNOFF (CFSM)	1.39	
ANNUAL RUNOFF (INCHES)	18.85	
10 PERCENT EXCEEDS	1390	
50 PERCENT EXCEEDS	248	
90 PERCENT EXCEEDS	58	

a From rating curve extended above 14,000 ft^3/s.
b From floodmark, site and datum then in use.
c Minimum observed.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

BEAVER RIVER BASIN

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, 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 276-323.

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													
01...	1215	1028	9813	381	12.1	8.4	8.4	402	390	11.0	180	49.8	12.8
JAN 2005													
05...	1315	1028	9813	3510	11.9	7.3	7.7	219	228	6.0	85	23.6	6.3
MAR													
01...	1245	1028	9813	E620	14.4	7.6	8.1	363	371	1.4	150	41.0	11.2
MAY													
02...	1400	1028	9813	863	11.5	7.7	8.0	301	305	10.3	120	33.9	9.2
JUL													
05...	1300	1028	9813	94	9.2	8.3	8.4	517	531	24.5	220	62.2	15.9
SEP													
01...	1255	1028	9813	504	8.9	8.0	8.1	461	478	20.5	200	59.4	13.7

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
01...	79	89.6	270	<2	<.020	.23	<.040	.01	.027	.56	4.0	<200	<10
JAN 2005													
05...	37	48.3	140	58	.030	.56	<.040	.01	.060	1.1	3.9	1200	<10
MAR													
01...	58	84.8	242	<2	.020	.74	<.040	.01	.027	.86	2.3	<200	<10
MAY													
02...	55	71.3	222	18	.030	.36	<.040	.01	.024	.62	--	210	<10
JUL													
05...	109	124	382	2	<.020	.47	<.040	.01	.026	.69	--	<200	<10
SEP													
01...	71	123	344	78	.040	.58	<.040	.03	.140	1.1	--	1300	<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					
01...	190	<1.0	50	<50	10
JAN 2005					
05...	2660	1.9	510	<50	20
MAR					
01...	260	<1.0	370	<50	10
MAY					
02...	450	<1.0	240	<50	<10
JUL					
05...	250	<1.0	110	<50	20
SEP					
01...	3010	2.8	660	<50	20

BEAVER RIVER BASIN

03106500 SLIPPERY ROCK CREEK AT WURTEMBURG, 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	10/07/04
Benthic macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Branchiobdellida	
Branchiobdellidae	2
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	3
Heterocloeon	1
Heptageniidae	
Stenonema	3
Plecoptera (STONEFLIES)	
Leuctridae	
Leuctra	2
Perlidae	
Paragnetina	1
Taeniopterygidae	
Taeniopteryx	25
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	1
Diplectrona	1
Hydropsyche	34
Philopotamidae	
Chimarra	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Macronychus	1
Optioservus	3
Stenelmis	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	36
Empididae (DANCE FLIES)	
Hemerodromia	2
Simuliidae (BLACK FLIES)	
Simulium	8
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	131
Total Taxa	21

BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°45'48", long 80°18'55", Beaver County, Hydrologic Unit 05030104, on left bank at Beaver Falls, 200 ft upstream from pumping plant of Beaver Falls Municipal Authority, 7.0 mi downstream from Connoquenessing Creek, at mile 5.5.

DRAINAGE AREA.--3,106 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to current year (fragmentary records only prior to October 1956). Gage-height records collected at same site since 1908 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1725: 1960 (adjusted runoff); Instantaneous low flow for water years 1997, 1998 were published in error.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 727.48 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Dec. 3, 1941, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good above 2,000 ft^3/s, and fair below, except those below 1,200 ft^3/s, which are poor. Pumpage from gage pool, averaging 3.4 ft^3/s in 1935 and 6.0 ft^3/s at present, for local water supply, returns to river 2 mi downstream; information furnished by Beaver Falls Municipal Authority. Flow regulated since 1916 by Milton Reservoir, since November 1929 by Meander Creek Reservoir, since December 1933 by Pymatuning Reservoir (station 03100500), since December 1942 by Berlin Lake, since October 1943 by Mosquito Creek Lake, since December 1966 by Michael J. Kirwan Reservoir, since January 1967 by Shenango River Lake, all over 50 mi upstream, and since May 1969 by Lake Arthur (station 03106280) 29 mi upstream. U.S. Army Corps of Engineers satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 27, 1913 reached a stage of 17.4 ft, discharge, 103,000 ft^3/s, from rating curve extended above 60,000 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	6010	3000	10600	8440	6850	5020	3990	9110	1900	1740	1060	4190
2	5790	2820	12600	8190	6070	4850	14800	7770	1650	1400	897	2380
3	5440	3330	9910	10100	5280	4490	25300	6300	1530	1090	891	1410
4	4580	3260	7980	22300	4550	4120	21900	5130	1540	978	860	1040
5	4220	4190	6190	22600	3920	4140	17500	4580	1490	1180	1240	889
6	3320	4230	5510	40000	3700	4210	12300	3920	1440	2150	1500	817
7	3040	3860	5530	39500	4000	5970	9510	3380	1460	1690	1150	775
8	2930	3450	7470	23400	7120	14400	8250	3140	1290	1290	1000	771
9	2860	3150	7770	20400	13000	10100	7480	2950	1210	1140	925	785
10	2530	2950	10400	15700	13700	6760	6800	2810	1270	1060	878	766
11	2390	2850	9780	14500	9790	5600	5730	2580	2960	1010	836	738
12	2380	2870	8360	27100	8330	5170	4770	2450	2500	963	817	700
13	2540	2910	7650	30600	7780	4800	4030	2350	1810	944	796	695
14	3260	2580	6920	28000	8610	4400	3590	4720	1450	1400	914	656
15	3290	2420	6160	21300	17200	4180	3090	7190	1590	1290	992	618
16	3620	2390	5490	15600	14200	3890	2840	5840	1590	1400	869	667
17	2910	2280	4870	12700	13300	3850	2700	4370	1660	1330	802	820
18	2550	2320	4500	11000	11200	3820	2630	3770	1630	2080	768	775
19	4650	2200	4250	10400	9080	3980	2500	3320	1530	2050	746	716
20	4130	2340	3950	10100	8210	4610	2380	3220	1340	1760	829	681
21	3330	2560	3490	9250	8840	6320	2710	3120	1170	1330	1410	645
22	2960	2470	3390	8420	11000	5950	2640	2630	1080	1120	1080	630
23	2730	2470	8560	8290	9880	5300	5720	2500	1020	1050	933	840
24	3060	2480	14800	8080	8310	7690	8910	3310	997	993	823	898
25	3620	3620	9770	8280	7010	7080	10800	2740	983	1000	761	752
26	3260	4200	7680	8550	6000	6210	10300	2370	979	982	749	1920
27	3000	3630	6280	8150	5380	5580	11600	2030	936	1660	708	4050
28	2810	4210	5380	7650	5170	5090	11200	1950	924	2080	866	2340
29	2740	4620	5660	7600	---	5630	8930	2330	1120	1790	862	1790
30	2990	4100	5630	7490	---	5030	8740	2080	1240	1520	937	1940
31	3230	---	6590	7200	---	4390	---	2040	---	1340	5800	---
TOTAL	106170	93760	223120	480890	237480	172630	243640	116000	43289	42810	33699	36694
MEAN	3425	3125	7197	15510	8481	5569	8121	3742	1443	1381	1087	1223
MAX	6010	4620	14800	40000	17200	14400	25300	9110	2960	2150	5800	4190
MIN	2380	2200	3390	7200	3700	3820	2380	1950	924	944	708	618
CFSM	1.10	1.01	2.32	4.99	2.73	1.79	2.61	1.20	0.46	0.44	0.35	0.39
IN.	1.27	1.12	2.67	5.76	2.84	2.07	2.92	1.39	0.52	0.51	0.40	0.44

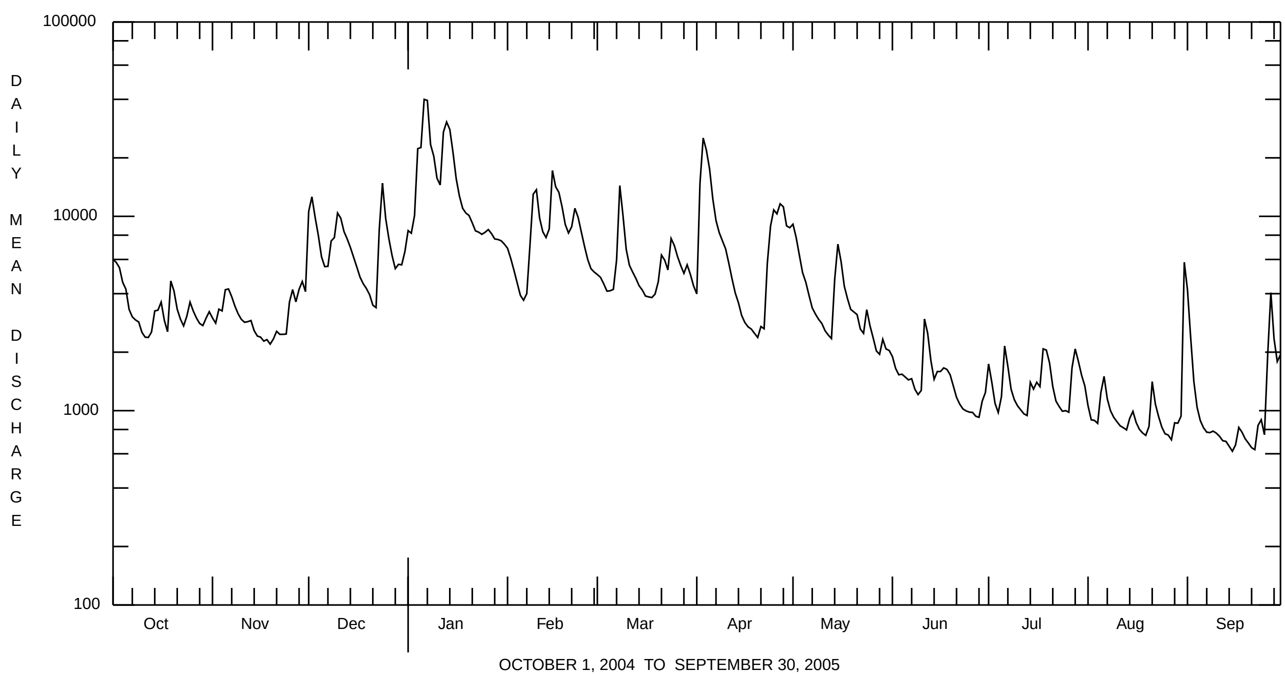
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1886	3043	4795	5062	5534	6674	5955	4145	2981	2382	1829	2060
MAX	6760	11520	11880	15510	12360	13040	13620	10880	11090	9298	6505	12800
(WY)	1991	1986	1991	2005	1990	1993	1957	1996	1989	2003	1980	2004
MIN	531	439	540	714	887	1606	1861	1271	966	916	777	739
(WY)	1992	1992	1961	1961	1963	1969	1971	1962	1992	1965	1991	1999

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	2363470		1830182			
ANNUAL MEAN	6458		5014		3853	
HIGHEST ANNUAL MEAN					6864	2004
LOWEST ANNUAL MEAN					1938	1963
HIGHEST DAILY MEAN	58500	Sep 18	40000	Jan 6	65400	Jan 22 1959
LOWEST DAILY MEAN	1330	Aug 18	618	Sep 15	320	Nov 5 1991
ANNUAL SEVEN-DAY MINIMUM	1520	Jul 6	691	Sep 10	333	Nov 1 1991
MAXIMUM PEAK FLOW			47600	Jan 6	**a**69900	Jan 22 1959
MAXIMUM PEAK STAGE			11.96	Jan 6	14.42	Jan 22 1959
ANNUAL RUNOFF (CFSM)	2.08		1.61		1.24	
ANNUAL RUNOFF (INCHES)	28.31		21.92		16.86	
10 PERCENT EXCEEDS	10700		10300		8440	
50 PERCENT EXCEEDS	4640		3290		2400	
90 PERCENT EXCEEDS	2270		890		904	

a From rating curve extended above 57,000 ft^3/s.



BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, 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 276-323.

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...	1350	1028	9813	3090	8.7	7.8	7.6	420	415	13.5	150	43.2	9.6
JAN 2005													
06...	0945	1028	9813	39100	12.0	7.9	7.7	255	263	5.0	90	25.7	6.2
MAR													
02...	1245	1028	9813	4840	12.8	7.5	7.9	532	540	2.8	140	40.3	10.3
MAY													
04...	1345	1028	9813	4990	10.5	7.5	8.0	386	389	10.0	120	35.0	8.4
JUL													
06...	1300	1028	9813	2330	9.3	8.0	8.3	519	540	27.0	170	49.5	12.1
SEP													
12...	1340	1028	9813	700	10.4	8.1	8.3	542	566	25.5	180	49.8	12.3

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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004													
04...	84	.2	54.0	264	8	.040	.95	<.040	.05	.068	1.5	4.8	<200
JAN 2005													
06...	46	<.2	33.3	156	234	.070	.84	<.040	.03	.333	1.7	4.6	4000
MAR													
02...	71	<.2	56.7	334	6	.170	1.06	<.040	.04	.046	1.4	3.5	230
MAY													
04...	69	<.2	51.2	230	10	.080	.67	<.040	.03	.069	1.1	--	290
JUL													
06...	90	.3	69.8	136	12	--	1.19	<.040	.04	--	1.9	--	200
SEP													
12...	88	.3	71.2	398	16	.040	1.64	.090	.08	.164	2.3	--	<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	370	<1.0	60	<50	<10	<5
JAN 2005								
06...	10	<1.00	10700	16	600	<50	120	8
MAR								
02...	<10	<1.00	480	1.6	140	<50	<10	<5
MAY								
04...	<10	<1.00	580	<1.0	100	<50	<10	<5
JUL								
06...	<10	<1.00	440	2.1	130	<50	<10	<5
SEP								
12...	<10	<1.00	440	1.3	200	<50	20	<5

BEAVER RIVER BASIN

03107500 BEAVER RIVER AT BEAVER FALLS, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a multiplate sampler that was deployed for 5 weeks. Samples represent counts per 100 animal (approximate) subsamples.

Date	11/03/04
Benthic macroinvertebrate	Count
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Tubificidae	2
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	4
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	2
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenacron	5
Stenonema	2
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Nigronia	2
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	20
Empididae (DANCE FLIES)	
Hemerodromia	1
Total Organisms	44
Total Taxa	12

BEAVER RIVER BASIN

LAKES AND RESERVOIRS IN BEAVER RIVER BASIN

03100500 PYMATUNING RESERVOIR.--Lat 41°29'54", long 80°27'47", Crawford County, Hydrologic Unit 05030102, in gatehouse at Pymatuning Dam on Shenango River, 1.8 mi northwest of Jamestown, Pa., and at mile 85.1. DRAINAGE AREA, 158 mi^2. PERIOD OF RECORD, October 1932 to current year. Contents prior to October 1938 published in WSP 1305. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Nov. 20, 1934, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed in two parts. The main dam is earthfill with stone facing, provided with regulating gates (outlet gate sill elevation at 975.3 ft), and a spillway with crest elevation at 1,008.0 ft. An auxiliary dam 15 mi upstream from the main dam with spillway elevation at 1,010 ft has a fixed crest weir section in the earthfill causeway. Controlled storage began Dec. 1933. Capacity is 188,040 acre-ft between elevations, 975.3 ft and 1,008.0 ft. Dead storage 10,150 acre-ft (93 acre-ft behind main dam below elevation 975.3 ft and 10,060 acre-ft behind upstream dam below elevation 1,010 ft). Upstream pool was filled (all dead storage accumulated) on March 5, 1934. Figures given herein represent usable contents. Reservoir is used for flood control, and for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Conservation and Natural Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 217,960 acre-ft, Jan. 16, 2005, elevation, 1,010.01 ft; minimum (after first filling), 110,570 acre-ft, Dec. 4, 1953, elevation, 1,002.17 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 217,960 acre-ft, Jan. 16, elevation, 1,010.01 ft; minimum, 154,840 acre-ft, Nov. 24, elevation, 1,005.63 ft.

03106280 LAKE ARTHUR.--Lat 40°57'45", long 80°07'17", Butler County, Hydrologic Unit 05030105, in gatehouse at left end of spillway of Lake Arthur Dam on Muddy Creek, at Moraine State Park, 3 mi northeast of Portersville, Pa. DRAINAGE AREA, 50.8 mi^2. PERIOD OF RECORD, May 1969 to current year. GAGE, water-stage recorder. Datum of gage is sea level (Pennsylvania Department of Environmental Protection bench mark). Prior to Aug. 23, 1969, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by an earthfill dam with concrete spillway. Storage began May 15, 1969. Usable capacity, 37,000 acre-ft between elevations 1,160 ft, sill of 6 ft outlet gate and 1,189.8 ft (spillway crest). No dead storage. Figures given herein represent usable contents. Lake is used for recreation. Dam built by Pennsylvania Department of Forests and Waters and now maintained by Pennsylvania Department of Conservation and Natural Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 44,240 acre-ft, June 16, 1989, elevation, 1,192.01 ft; minimum (after first filling), 21,320 acre-ft, Nov. 30, 1975, elevation, 1,183.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,980 acre-ft, Jan. 14, elevation, 1,191.64 ft; minimum, 36,310 acre-ft, Aug. 29, elevation, 1,189.57 ft..

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

Date	03100500 Pymatuning Reservoir Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	03106280 Lake Arthur Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
Sept. 30	1,008.69	198,140	--	1,190.58	39,460	--
Oct. 31	1,006.31	164,130	-553	1,190.32	38,620	-14
Nov. 30	1,005.87	158,100	-101	1,190.03	37,700	-15
Dec. 31	1,007.71	183,850	+419	1,190.14	38,050	+5.7
CAL YR 2004	--	--	+27	--	--	-2.5
Jan. 31	1,009.05	203,490	+319	1,190.47	39,100	+17
Feb. 28	1,008.42	194,160	-162	1,190.66	39,710	+11
Mar. 31	1,007.30	177,990	-263	1,190.58	39,460	-4.1
Apr. 30	1,008.60	196,810	+316	1,190.65	39,680	+3.7
May 31	1,007.91	186,740	-164	1,190.23	38,340	-22
June 30	1,007.79	185,010	-29	1,190.03	37,700	-11
July 31	1,007.50	184,430	-9.4	1,189.97	37,510	-3.1
Aug. 31	1,007.10	175,150	-151	1,189.81	37,030	+7.8
Sept. 30	1,007.01	173,880	-21	1,189.71	36,730	+5.0
WTR YR 2005	--	--	-34	--	--	-3.8

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°37'40", long 80°20'16", Beaver County, Hydrologic Unit 05030101, on left bank at downstream side of highway bridge at Moffatts Mill, 1.4 mi downstream from Gums Run, 4 mi south of Vanport, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--178 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1941 to current year. May 1915 to July 1932 (gage heights and discharge measurements only) in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: 1941-43.

GAGE.--Water-stage recorder. Datum of gage is 719.16 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers benchmark). May 27, 1915 to July 31, 1932, and Sept. 2 to Dec. 3, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Normally, no regulation from Raccoon Creek Lake. Diversion out of the basin from Cherry Valley and Service Creek Reservoirs upstream increased from an average of 4.0 ft^3/s at the close of 1957 to 6.8 ft^3/s for the present year; diversion began with 2.0 ft^3/s for September 1957. Published records do not include diversion. Records of diversion furnished by Western Pennsylvania Water Company and Ambridge Water Authority. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 15, 1922, reached a stage of 9.80 ft, discharge, 10,000 ft^3/s. Flood of Mar. 5, 1920, also reached a stage of 9.80 ft, backwater from ice.

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)
Dec. 1	1715	2,130	4.86	Jan. 14	1300	1,880	4.63
Jan. 6	1830	*6,850	*8.50	Feb. 15	0330	1,970	4.71
Jan. 12	1345	2,710	5.34	Apr. 2	2000	2,460	5.15

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	151	255	1310	209	e129	315	347	375	123	70	17	179
2	139	234	1000	184	e116	260	1440	306	107	57	16	82
3	136	293	622	226	e127	221	1800	260	110	39	14	53
4	123	304	454	922	e133	202	1260	232	109	31	13	38
5	114	403	365	1510	e149	220	802	207	94	58	13	29
6	107	326	303	5650	170	224	608	194	85	181	18	24
7	103	281	313	3090	182	342	490	186	83	84	23	21
8	99	243	405	1400	292	612	411	186	75	56	19	20
9	97	207	317	981	432	482	334	163	69	45	54	19
10	95	185	603	723	603	392	285	153	74	36	35	17
11	89	173	509	909	416	357	247	151	111	30	23	16
12	86	206	427	2450	336	344	224	197	99	28	17	15
13	92	208	374	1360	283	297	210	162	74	35	14	15
14	220	168	314	1540	534	251	191	500	64	34	12	15
15	186	155	269	972	1470	232	175	584	64	26	11	14
16	215	147	243	712	799	220	161	357	65	52	11	15
17	153	145	238	567	597	212	151	261	67	51	14	19
18	129	159	222	446	451	202	145	218	62	66	14	25
19	1060	185	220	462	343	189	141	190	52	59	11	23
20	532	371	181	383	310	191	145	198	48	45	11	18
21	330	302	199	316	425	187	203	192	45	33	52	17
22	251	270	199	e289	415	172	163	155	44	28	49	16
23	209	260	409	e275	338	192	576	157	43	25	23	20
24	253	260	568	e208	302	321	662	184	52	22	16	21
25	243	423	357	e218	290	262	669	152	43	20	13	21
26	204	335	335	e207	259	240	550	133	36	22	12	27
27	186	289	270	e166	239	224	528	124	31	75	14	38
28	168	430	242	e121	253	298	422	134	33	55	41	37
29	171	395	230	e140	---	830	355	212	72	35	31	42
30	475	339	216	e155	---	542	388	145	66	25	43	63
31	339	---	214	e144	---	432	---	147	---	20	347	---
TOTAL	6755	7951	11928	26935	10393	9465	14083	6815	2100	1443	1001	959
MEAN	218	265	385	869	371	305	469	220	70.0	46.5	32.3	32.0
MAX	1060	430	1310	5650	1470	830	1800	584	123	181	347	179
MIN	86	145	181	121	116	172	141	124	31	20	11	14
CFSM	1.22	1.49	2.16	4.88	2.09	1.72	2.64	1.24	0.39	0.26	0.18	0.18
IN.	1.41	1.66	2.49	5.63	2.17	1.98	2.94	1.42	0.44	0.30	0.21	0.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	64.6	113	195	261	317	398	344	264	144	87.9	74.1	72.4
MAX	359	764	717	869	788	1010	757	618	632	389	651	1153
(WY)	1955	1986	1991	2005	1956	1945	1957	1983	1989	1990	1980	2004
MIN	7.98	14.8	15.1	34.5	47.7	56.3	94.7	65.6	26.3	15.6	10.2	9.73
(WY)	1964	1964	1964	1967	1964	1969	1946	1986	1988	1965	1965	1964

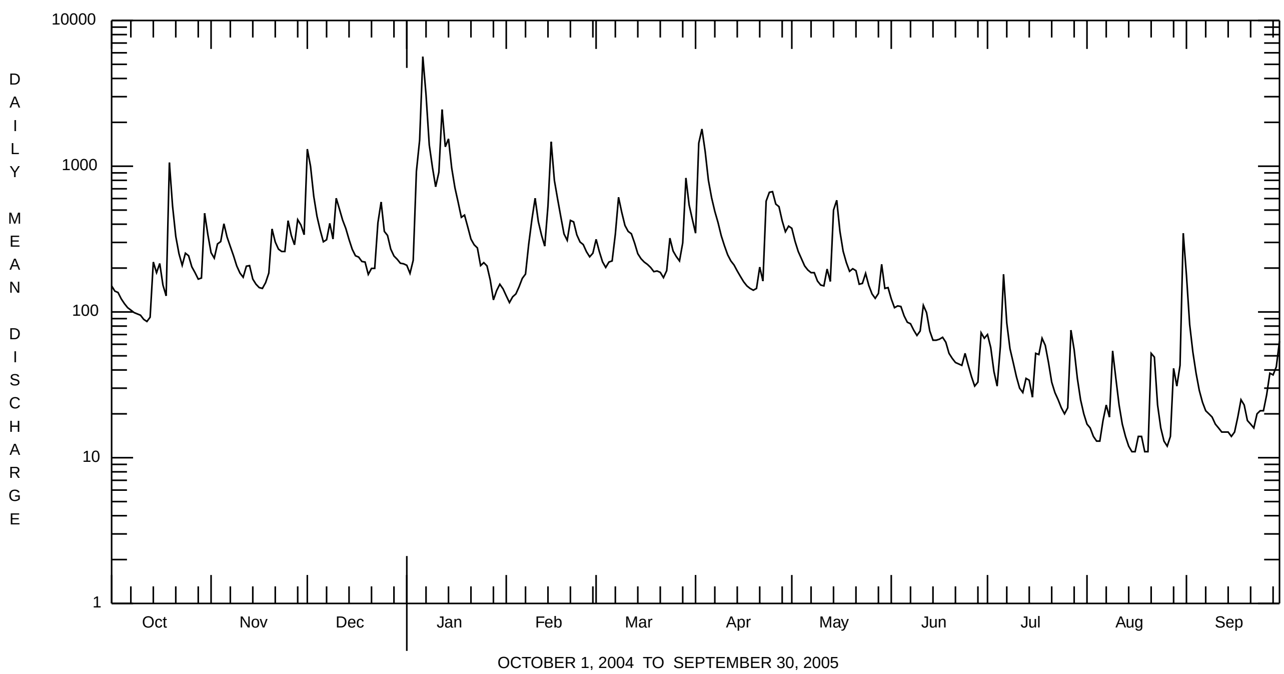
e Estimated.

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL TOTAL	152203		99828			
ANNUAL MEAN	416		274		194	
HIGHEST ANNUAL MEAN					403	2004
LOWEST ANNUAL MEAN					90.9	1954
HIGHEST DAILY MEAN	13400	Sep 18	5650	Jan 6	13400	Sep 18 2004
LOWEST DAILY MEAN	37	Jul 25	11	Aug 15**a**	4.8	Sep 8 1945
ANNUAL SEVEN-DAY MINIMUM	52	Aug 13	12	Aug 14	5.6	Aug 20 1965
MAXIMUM PEAK FLOW			6850	Jan 6	**b**21200	Sep 18 2004
MAXIMUM PEAK STAGE			8.50	Jan 6	14.29	Sep 18 2004
INSTANTANEOUS LOW FLOW			10	Aug 15**c**	4.5	Aug 24 1965
ANNUAL RUNOFF (CFSM)	2.34		1.54		1.09	
ANNUAL RUNOFF (INCHES)	31.81		20.86		14.81	
10 PERCENT EXCEEDS	634		545		446	
50 PERCENT EXCEEDS	250		186		100	
90 PERCENT EXCEEDS	95		21		20	

a Also Aug. 16, 19, 20.
b From rating curve extended above 19,600 ft^3/s.
c Also Aug. 20.



03108000 RACCOON CREEK AT MOFFATTS MILL, 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 276-323.

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													
01...	0815	1028	9813	262	9.8	7.5	7.5	681	665	11.0	320	82.1	26.7
JAN 2005													
03...	1200	1028	9813	197	11.0	7.3	7.9	803	823	8.5	360	92.1	30.9
MAR													
02...	1430	1028	9813	249	14.9	7.4	7.6	879	890	1.9	370	95.3	31.7
MAY													
02...	0910	1028	9813	308	10.5	7.6	7.9	642	653	10.0	290	72.6	25.6
JUL													
05...	0900	1028	9813	34	8.0	7.8	7.9	1290	1310	24.0	630	158	57.6
SEP													
01...	0840	1028	9813	197	8.6	7.6	7.8	811	835	20.5	370	97.3	31.1

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, 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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	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													
01...	54	253	516	10	<.020	.73	<.040	.01	.017	.97	2.1	580	<10
JAN 2005													
03...	64	318	582	12	.070	1.02	<.040	.01	.013	1.2	1.5	940	<10
MAR													
02...	59	299	608	20	.140	1.03	<.040	<.01	.018	1.1	1.4	2400	<10
MAY													
02...	62	239	476	2	.040	.79	<.040	<.01	.013	.89	--	440	<10
JUL													
05...	60	683	1150	8	<.020	.34	<.040	<.01	.018	.56	--	<200	<10
SEP													
01...	67	322	552	100	.050	.81	<.040	<.01	.096	1.2	--	2000	<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					
01...	1030	<1.0	540	<50	40
JAN 2005					
03...	1850	<1.0	580	<50	50
MAR					
02...	4070	2.0	710	<50	90
MAY					
02...	820	<1.0	390	<50	30
JUL					
05...	250	<1.0	70	<50	30
SEP					
01...	6100	14	520	<50	140

RACCOON CREEK BASIN

03108000 RACCOON CREEK AT MOFFATTS MILL, 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	08/03/04
Benthic macroinvertebrate	Count
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	27
Heptageniidae	1
Stenacron	1
Stenonema	2
Plecoptera (STONEFLIES)	
Chloroperlidae	
Sweltsa	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	6
Cheumatopsyche	21
Hydropsyche	77
Psychomyiidae	
Psychomyia	10
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	8
Psephenidae (WATER PENNIES)	
Psephenus	2
Diptera (TRUE FLIES)	
Athericidae	
Atherix	2
Chironomidae (MIDGES)	15
Total Organisms	174
Total Taxa	14

03108490 OHIO RIVER ABOVE MONTGOMERY DAM AND LOCKS AT OHIOVIEW, PA

LOCATION.--Lat 40°38'56", long 80°23'01", Beaver County, Hydrologic Unit 05030101, 50 yards upstream from outer most upper gate on river wall, at river mile 32.

DRAINAGE AREA.--21,714 mi^2.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 2005 to current year.
pH: June 2005 to current year.
WATER TEMPERATURE: June 2005 to current year.
DISSOLVED OXYGEN: June 2005 to current year.

INSTRUMENTATION.--Automated sampler interfaced with a data collection platform with 60-minute recording interval. Satellite telemetry at station.

REMARKS.--Specific conductance, pH, and water temperature records rated fair except for periods June 1-4, 16-28, and Sept. 29, 30, which are poor. Dissolved oxygen record rated poor. Other interruptions in the record were due to malfunctions of the equipment.

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	---	---	---	471	458	464	507	478	491	538	518	527
2	---	---	---	473	464	467	480	465	474	529	521	526
3	---	---	---	470	463	467	470	460	465	521	504	516
4	---	---	---	477	466	472	467	461	465	508	481	496
5	363	355	359	492	477	484	476	467	471	482	452	464
6	362	349	355	494	473	482	493	475	484	462	456	460
7	386	361	370	484	474	477	510	493	501	484	457	472
8	401	382	392	484	464	474	518	510	515	474	460	466
9	405	394	398	472	462	468	512	497	504	462	450	454
10	410	396	405	484	460	469	505	497	500	455	448	452
11	439	408	423	476	469	471	508	496	502	458	442	450
12	427	409	418	478	469	472	512	504	508	445	434	437
13	412	399	403	475	469	472	506	493	501	439	432	434
14	431	405	418	489	470	477	509	491	498	435	429	432
15	432	426	428	489	479	484	528	509	519	461	435	442
16	---	---	---	484	480	483	541	528	535	461	446	451
17	---	---	---	483	475	480	541	519	532	464	448	455
18	---	---	---	495	473	480	523	514	520	484	463	473
19	---	---	---	481	464	469	515	506	510	503	484	493
20	---	---	---	476	468	474	520	508	515	514	502	508
21	---	---	---	479	465	473	527	520	525	517	501	513
22	---	---	---	494	479	483	541	526	534	501	495	498
23	---	---	---	506	489	501	549	538	543	495	489	492
24	---	---	---	518	506	512	555	546	550	489	475	481
25	---	---	---	525	518	521	556	550	553	479	472	477
26	---	---	---	537	525	533	558	550	554	474	469	471
27	---	---	---	557	535	549	556	550	554	499	457	467
28	---	---	---	557	552	554	554	544	550	502	431	462
29	468	450	456	557	545	553	554	547	551	---	---	---
30	464	453	460	546	524	539	554	531	547	---	---	---
31	---	---	---	527	505	518	533	510	521	---	---	---
MONTH	468	349	407	557	458	491	558	460	516	538	429	474

OHIO RIVER BASIN

03108490 OHIO RIVER ABOVE MONTGOMERY DAM AND LOCKS AT OHIOVIEW, 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	---	---	---	7.9	7.6	7.7	8.7	7.7	8.0	7.6	7.5	7.6
2	---	---	---	7.8	7.4	7.6	8.8	8.0	8.5	7.6	7.6	7.6
3	---	---	---	7.8	7.3	7.6	8.9	8.1	8.3	7.7	7.6	7.6
4	---	---	---	8.0	7.4	7.6	8.6	7.8	8.4	7.8	7.6	7.6
5	8.2	7.6	7.8	8.1	7.5	7.8	8.5	7.9	8.2	8.1	7.7	7.8
6	8.4	7.8	7.9	8.1	7.7	7.8	8.6	7.7	8.1	8.3	7.8	7.9
7	8.7	7.8	8.2	8.2	7.8	8.0	8.5	7.8	8.1	8.2	7.7	7.8
8	8.5	7.9	8.1	8.2	7.7	7.9	8.2	7.8	8.0	8.1	7.6	7.9
9	8.3	7.5	8.0	7.8	7.6	7.7	8.3	7.8	8.0	8.1	7.6	7.8
10	8.2	7.7	7.9	8.1	7.6	7.7	8.6	7.8	8.1	8.2	7.6	7.9
11	8.5	7.4	7.8	8.5	7.7	7.8	8.5	7.9	8.2	8.6	7.7	8.0
12	8.2	7.5	7.7	8.7	8.1	8.3	8.4	8.0	8.2	8.3	7.8	8.1
13	7.7	7.4	7.6	8.6	8.0	8.3	8.4	7.7	8.2	8.1	7.7	7.9
14	7.7	7.4	7.5	8.5	7.8	8.2	8.4	7.8	8.1	8.4	7.8	8.0
15	7.7	7.6	7.6	8.4	7.9	8.2	8.3	7.8	8.0	8.5	8.0	8.3
16	---	---	---	8.3	7.8	8.0	8.2	7.7	7.9	8.4	8.1	8.2
17	---	---	---	8.0	7.6	7.8	8.1	7.7	7.8	8.1	7.7	7.9
18	---	---	---	7.8	7.4	7.6	7.9	7.6	7.7	7.8	7.6	7.7
19	---	---	---	7.6	7.1	7.3	7.7	7.5	7.6	7.6	7.4	7.5
20	---	---	---	7.7	7.1	7.4	7.8	7.4	7.6	7.6	7.3	7.4
21	---	---	---	7.6	7.3	7.4	8.0	7.6	7.6	7.5	7.3	7.4
22	---	---	---	7.7	7.2	7.4	7.8	7.6	7.6	7.5	7.3	7.4
23	---	---	---	8.2	7.3	7.6	7.7	7.4	7.6	7.6	7.3	7.4
24	---	---	---	7.8	7.4	7.6	7.7	7.4	7.6	7.5	7.3	7.4
25	---	---	---	8.0	7.4	7.6	7.8	7.4	7.6	7.5	7.3	7.3
26	---	---	---	8.2	7.5	7.8	7.9	7.7	7.8	7.5	7.3	7.4
27	---	---	---	8.4	8.0	8.1	7.8	7.5	7.6	7.6	7.3	7.4
28	---	---	---	8.2	7.8	8.0	7.7	7.4	7.6	7.6	7.4	7.5
29	7.8	7.5	7.7	8.4	7.7	7.9	7.7	7.4	7.6	---	---	---
30	8.0	7.4	7.6	8.7	7.6	7.9	7.5	7.4	7.5	---	---	---
31	---	---	---	8.9	7.7	8.1	7.6	7.4	7.5	---	---	---
MAX	8.7	7.9	8.2	8.9	8.1	8.3	8.9	8.1	8.5	8.6	8.1	8.3
MIN	7.7	7.4	7.5	7.6	7.1	7.3	7.5	7.4	7.5	7.5	7.3	7.3

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	---	---	---	27.4	27.0	27.2	28.9	28.2	28.4	24.8	24.2	24.5
2	---	---	---	27.7	27.0	27.2	28.9	28.4	28.7	24.9	24.2	24.6
3	---	---	---	27.5	26.9	27.2	29.5	28.5	28.9	25.3	24.7	24.8
4	---	---	---	28.0	27.0	27.5	29.4	28.8	29.0	25.1	24.7	24.9
5	20.0	19.1	19.5	27.9	27.4	27.6	29.2	28.8	29.0	25.2	24.6	24.8
6	21.1	19.8	20.2	27.8	27.3	27.4	29.4	28.6	28.9	25.3	24.6	24.9
7	22.1	20.8	21.4	27.5	27.0	27.3	29.2	28.6	28.8	25.3	24.6	24.9
8	22.6	21.6	22.0	27.6	26.8	27.1	28.9	28.5	28.7	25.2	24.6	24.8
9	23.4	22.2	22.6	27.3	26.7	27.0	29.1	28.2	28.5	25.1	24.7	24.9
10	23.8	22.9	23.4	27.8	26.5	26.9	28.6	28.2	28.4	25.6	24.6	24.8
11	25.4	23.6	24.3	27.8	26.8	27.2	28.9	28.4	28.6	25.1	24.6	24.8
12	25.8	24.3	24.9	27.8	27.2	27.5	28.9	28.3	28.7	25.2	24.8	25.0
13	25.5	24.9	25.2	28.0	27.3	27.6	29.2	28.6	28.9	25.3	24.8	25.0
14	25.9	25.3	25.6	28.3	27.4	27.8	29.3	28.6	28.9	26.0	24.9	25.2
15	25.9	25.7	25.8	28.3	27.7	27.9	28.9	28.6	28.7	25.8	25.1	25.5
16	---	---	---	28.5	27.7	28.1	28.7	28.1	28.4	25.8	25.2	25.5
17	---	---	---	28.5	28.1	28.3	28.5	27.8	28.0	25.5	25.1	25.3
18	---	---	---	28.4	28.0	28.2	28.2	27.5	27.7	25.5	25.1	25.3
19	---	---	---	28.7	28.0	28.2	27.9	27.2	27.4	25.6	25.3	25.4
20	---	---	---	28.6	28.0	28.2	28.0	27.4	27.6	25.4	25.1	25.2
21	---	---	---	28.6	27.9	28.2	28.0	27.4	27.5	25.3	24.9	25.1
22	---	---	---	28.7	28.2	28.4	27.6	27.3	27.4	25.1	24.6	24.8
23	---	---	---	29.3	28.3	28.6	27.6	27.1	27.3	25.0	24.7	24.8
24	---	---	---	28.7	28.2	28.3	27.3	26.7	26.9	24.7	24.3	24.4
25	---	---	---	28.6	28.2	28.3	26.9	26.4	26.6	24.6	24.1	24.3
26	---	---	---	28.7	28.3	28.4	26.7	26.1	26.4	24.7	24.2	24.4
27	---	---	---	28.4	28.1	28.2	26.1	25.6	25.8	24.3	23.9	24.1
28	---	---	---	28.3	27.8	28.0	26.0	25.5	25.7	23.9	23.1	23.5
29	27.2	26.5	26.8	28.5	27.8	28.0	26.1	25.4	25.7	---	---	---
30	27.3	26.7	27.0	28.6	27.7	28.0	25.4	25.0	25.2	---	---	---
31	---	---	---	29.1	27.8	28.1	25.0	24.5	24.7	---	---	---
MONTH	27.3	19.1	23.7	29.3	26.5	27.8	29.5	24.5	27.7	26.0	23.1	24.8

03108490 OHIO RIVER ABOVE MONTGOMERY DAM AND LOCKS AT OHIOVIEW, 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	---	---	---	8.1	7.1	7.7	11.1	8.1	9.5	9.9	6.2	8.8
2	---	---	---	8.2	6.4	7.4	10.5	7.0	9.4	10.8	9.2	10.1
3	---	---	---	8.7	5.7	7.5	11.3	8.0	9.3	11.2	9.5	10.4
4	---	---	---	9.8	7.2	8.3	9.1	7.3	8.2	11.9	10.3	10.9
5	11.2	10.4	10.8	9.4	7.4	8.5	7.7	6.2	6.9	12.8	10.2	11.5
6	11.3	10.5	10.8	8.7	8.0	8.4	7.6	5.5	6.5	13.6	10.7	11.8
7	11.3	10.2	10.9	8.7	7.3	8.0	7.4	5.1	6.3	13.5	10.7	12.1
8	10.9	10.0	10.4	9.3	7.3	8.1	7.2	5.1	6.3	13.7	10.6	12.4
9	10.1	9.2	9.7	8.6	7.2	8.1	7.5	6.0	6.8	---	---	---
10	9.8	8.9	9.4	10.4	7.8	8.6	8.4	6.2	7.3	---	---	---
11	9.5	8.6	8.9	11.2	8.1	9.3	8.3	6.2	7.4	---	---	---
12	9.1	8.0	8.4	11.5	9.6	10.4	8.5	5.2	7.3	---	---	---
13	8.3	7.6	8.0	11.1	9.0	9.9	8.5	5.2	6.8	---	---	---
14	---	---	---	10.6	8.6	9.5	8.7	5.6	7.1	---	---	---
15	---	---	---	9.5	7.7	8.5	8.9	5.5	7.1	8.9	7.5	8.4
16	---	---	---	9.3	7.8	8.5	---	---	---	8.6	6.9	7.8
17	---	---	---	9.2	8.2	8.6	---	---	---	7.7	6.1	7.0
18	---	---	---	8.8	8.0	8.4	7.4	6.5	6.9	6.8	5.7	6.4
19	---	---	---	9.2	7.9	8.4	7.0	6.3	6.6	6.5	5.2	6.2
20	---	---	---	8.8	7.8	8.2	7.4	5.9	6.8	6.8	5.3	6.1
21	---	---	---	8.7	6.8	7.8	7.6	6.4	7.0	7.4	5.7	6.6
22	---	---	---	9.1	7.3	8.0	8.2	6.4	7.4	7.4	5.4	6.8
23	---	---	---	9.7	6.9	7.9	8.3	5.5	7.0	7.6	5.5	6.7
24	---	---	---	8.9	7.2	8.2	8.5	5.4	7.5	7.6	5.5	6.9
25	---	---	---	9.7	7.2	8.5	9.4	5.3	7.7	7.8	5.9	6.9
26	---	---	---	10.2	8.4	9.3	9.4	6.0	8.6	7.7	6.3	6.9
27	---	---	---	10.2	8.8	9.5	9.1	6.8	7.9	8.1	6.3	7.3
28	---	---	---	10.3	8.7	9.3	9.4	5.8	7.8	7.9	6.7	7.4
29	---	---	---	10.6	8.3	9.2	9.1	6.3	8.0	---	---	---
30	---	---	---	11.3	7.9	9.6	8.8	6.5	7.8	---	---	---
31	---	---	---	11.4	7.5	9.5	9.7	8.0	8.9	---	---	---
MONTH	11.3	7.6	9.7	11.5	5.7	8.6	11.3	5.1	7.5	13.7	5.2	8.4

04213000 CONNEAUT CREEK AT CONNEAUT, OHIO

LOCATION.--Latitude 41°55'37", longitude 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, Ohio, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--175 mi^2.

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "*at Amboy*"), October 1961 to current year.

REVISED RECORDS.--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.3 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Water-quality and sediment data formerly collected at this site.

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	35	182	704	e4000	e75	e190	195	328	41	37	32	507
2	35	143	1510	e2300	e72	e195	621	354	39	23	26	172
3	33	860	521	e4000	e70	e180	1930	376	37	18	22	73
4	32	720	277	e3000	e70	e165	1090	280	33	16	19	43
5	32	935	183	e2050	e250	e180	1770	194	33	13	17	29
6	29	783	140	e2600	e600	e190	2870	156	30	13	15	22
7	27	361	121	e2200	e1300	e1900	2760	137	26	12	14	19
8	26	214	196	e1700	e3200	e2400	1020	122	24	16	12	18
9	25	149	320	e1650	e1700	e810	483	114	22	15	11	17
10	23	116	794	e1650	e600	503	315	99	21	12	11	15
11	22	97	827	e2100	e310	352	221	110	21	11	11	14
12	21	84	727	e6100	e295	236	177	95	135	10	10	13
13	22	75	e680	e5000	e290	210	148	85	54	10	11	12
14	24	64	e600	e3300	e800	160	129	111	38	25	14	11
15	24	58	e500	e2200	e1950	152	111	245	34	46	13	10
16	27	58	e420	e1100	e900	165	105	348	60	40	16	29
17	73	58	e320	e500	e400	177	95	190	54	41	24	27
18	55	56	e270	e270	e220	265	88	132	41	30	17	21
19	60	56	e210	e240	e200	419	82	111	34	54	14	17
20	157	64	e180	e210	e190	1040	80	90	28	33	16	14
21	100	111	e165	e190	e1800	1630	84	67	24	33	30	13
22	65	160	e175	e170	e1750	846	100	62	22	25	15	13
23	55	125	e185	e155	e540	705	552	60	20	18	12	53
24	81	132	e1000	e135	e250	800	1720	78	19	15	13	45
25	370	823	e1200	e120	e220	747	1390	107	18	78	11	40
26	210	973	e900	e115	e190	591	1240	82	16	277	9.4	134
27	120	490	e700	e100	e170	492	1300	60	15	231	8.7	509
28	79	325	e540	e95	e180	435	1290	51	15	352	9.1	263
29	79	480	e520	e88	---	404	572	48	18	129	9.3	144
30	212	366	e570	e83	---	314	363	52	54	63	15	327
31	325	---	e2000	e77	---	235	---	44	---	40	528	---
TOTAL	2478	9118	17455	47498	18592	17088	22901	4388	1026	1736	985.5	2624
MEAN	79.9	304	563	1532	664	551	763	142	34.2	56.0	31.8	87.5
MAX	370	973	2000	6100	3200	2400	2870	376	135	352	528	509
MIN	21	56	121	77	70	152	80	44	15	10	8.7	10
CFSM	0.46	1.74	3.22	8.76	3.79	3.15	4.36	0.81	0.20	0.32	0.18	0.50
IN.	0.53	1.94	3.71	10.10	3.95	3.63	4.87	0.93	0.22	0.37	0.21	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	135	314	416	431	460	530	400	245	138	76.5	69.6	111
MAX	804	1373	1049	1532	1115	987	839	759	1013	415	493	742
(WY)	1927	1986	1928	2005	1981	1972	1957	2004	1986	1969	1980	2004
MIN	4.95	17.1	35.1	81.0	39.6	147	69.9	20.2	5.46	2.79	3.19	3.56
(WY)	1924	1954	1961	1977	1934	2000	1935	1934	1934	1934	1923	1932

e Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

04213000 CONNEAUT CREEK AT CONNEAUT, OHIO

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1922-2005		
ANNUAL TOTAL	149680		145889.5				
ANNUAL MEAN	409		400		277		
HIGHEST ANNUAL MEAN					442		2004
LOWEST ANNUAL MEAN					140		1931
HIGHEST DAILY MEAN	9060	Sep 10	6100	Jan 12e	11000	Jan 31	1968
LOWEST DAILY MEAN	21	Aug 26	8.7	Aug 27	0.30	Jul 30	1933
ANNUAL SEVEN-DAY MINIMUM	23	Oct 9	10	Aug 23	0.64	Aug 27	1933
MAXIMUM PEAK FLOW			8000	Jan 12e	17000	Jan 22	1959
MAXIMUM PEAK STAGE					12.94	Mar 4	1934
INSTANTANEOUS LOW FLOW					0.20	Jul 31	1933
ANNUAL RUNOFF (CFSM)	2.34		2.28		1.58		
ANNUAL RUNOFF (INCHES)	31.82		31.01		21.47		
10 PERCENT EXCEEDS	899		1140		695		
50 PERCENT EXCEEDS	182		116		100		
90 PERCENT EXCEEDS	35		15		11		

e Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

04213075 BRANDY RUN NEAR GIRARD, PA

LOCATION.--Lat 41°59'31", long 80°17'29", Erie County, Hydrologic Unit 04120101, on left bank 100 ft upstream from highway bridge on Tannery Road, 0.5 mi upstream from mouth, and 1.8 mi southeast of Girard.

DRAINAGE AREA.--4.45 mi^2.

PERIOD OF RECORD.--May 1986 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REVISED RECORDS.--WDR PA-94-3: 1987-89 (M).

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 200 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Jan. 12	1515	*294	*2.14	Dec. 31	1115	255	2.03

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	1.8	2.1	25	31	e4.6	e5.6	4.6	8.3	2.3	1.4	1.3	3.2
2	2.1	14	9.5	15	e4.5	e5.4	35	9.5	2.2	1.3	1.2	1.6
3	1.9	12	7.1	62	e4.3	e4.8	22	7.9	2.3	1.3	1.2	1.2
4	1.8	13	5.7	40	e4.2	e4.9	30	6.7	2.2	1.2	1.1	1.1
5	1.7	15	4.7	14	e4.5	e4.7	58	5.6	2.1	1.3	1.1	1.1
6	1.6	6.0	4.5	34	e5.3	e5.0	56	5.0	1.9	1.3	1.1	1.0
7	1.5	4.4	5.6	21	e9.3	30	23	4.6	1.8	1.2	1.1	0.97
8	1.5	3.5	6.3	11	53	21	12	4.4	1.8	1.2	1.1	1.0
9	1.4	2.9	8.3	10	24	14	8.6	4.3	1.7	1.2	0.99	1.0
10	1.5	2.8	18	13	12	13	7.7	4.4	1.7	1.1	0.93	0.93
11	1.5	2.6	19	13	12	4.6	6.7	4.4	1.9	1.1	1.0	0.93
12	1.5	2.5	18	93	6.9	4.6	6.1	4.1	1.6	1.1	0.94	0.93
13	1.5	2.4	24	49	6.0	4.4	5.7	3.9	1.6	1.1	1.1	0.89
14	1.5	2.3	12	42	20	7.3	5.3	6.4	1.7	1.4	1.2	0.86
15	3.5	2.3	9.0	11	25	6.8	5.1	6.3	1.8	1.3	1.1	0.87
16	1.9	2.3	8.1	8.0	14	4.7	4.9	4.1	5.9	1.4	0.96	4.0
17	6.9	2.4	7.6	7.0	10	5.4	4.8	3.6	2.3	1.9	0.95	1.6
18	3.9	2.5	6.8	7.5	7.5	5.5	4.8	3.4	1.9	1.5	0.92	1.1
19	6.7	2.5	e6.4	7.4	6.5	6.8	4.6	3.2	1.8	2.0	0.87	1.1
20	3.1	4.3	e5.8	6.2	5.6	13	6.1	3.1	1.6	1.3	1.1	1.0
21	2.4	4.0	e5.2	8.2	11	12	6.6	3.0	1.6	1.3	1.1	0.94
22	2.1	3.2	e4.6	e10	11	8.5	8.9	2.9	1.6	1.2	0.93	1.0
23	2.0	2.8	e5.2	e9.1	8.9	8.3	47	3.1	1.6	1.1	0.92	5.0
24	8.6	15	e5.2	e8.0	7.6	9.3	28	3.6	1.5	1.1	0.87	1.7
25	3.7	30	e5.6	e6.6	7.0	13	48	3.1	1.5	11	0.83	1.2
26	2.4	9.9	e5.5	e5.2	5.6	9.6	17	2.9	1.4	3.2	0.83	6.9
27	2.2	6.6	e5.4	e5.3	e6.4	7.7	42	2.7	1.4	6.9	0.89	3.1
28	2.1	9.0	e5.4	e5.1	e5.5	7.6	18	2.8	1.4	2.8	0.91	1.6
29	4.0	6.5	e5.2	e4.8	---	6.4	9.1	2.6	1.5	1.8	0.87	4.9
30	4.7	4.8	e9.1	e4.4	---	5.6	8.7	2.4	1.4	1.5	3.1	2.4
31	2.7	---	138	e4.6	---	5.1	---	2.4	---	1.4	25	---
TOTAL	85.7	193.6	405.8	566.4	302.2	264.6	544.3	134.7	57.0	59.9	57.51	55.12
MEAN	2.76	6.45	13.1	18.3	10.8	8.54	18.1	4.35	1.90	1.93	1.86	1.84
MAX	8.6	30	138	93	53	30	58	9.5	5.9	11	25	6.9
MIN	1.4	2.1	4.5	4.4	4.2	4.4	4.6	2.4	1.4	1.1	0.83	0.86
CFSM	0.62	1.45	2.94	4.11	2.43	1.92	4.08	0.98	0.43	0.43	0.42	0.41
IN.	0.72	1.62	3.39	4.73	2.53	2.21	4.55	1.13	0.48	0.50	0.48	0.46

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	4.83	7.08	8.64	9.20	9.37	10.5	12.0	6.84	3.74	2.49	3.38	4.00
MAX	12.1	17.2	17.0	19.2	28.7	17.6	22.8	14.4	10.9	9.49	19.1	13.8
(WY)	1988	1993	1998	1998	1990	1989	1996	1989	1994	2004	1987	2004
MIN	1.24	0.89	1.49	3.13	2.21	3.71	6.24	1.56	0.86	0.71	0.49	0.75
(WY)	1999	1999	1999	1987	1987	1999	1999	1991	1991	1999	1991	1995

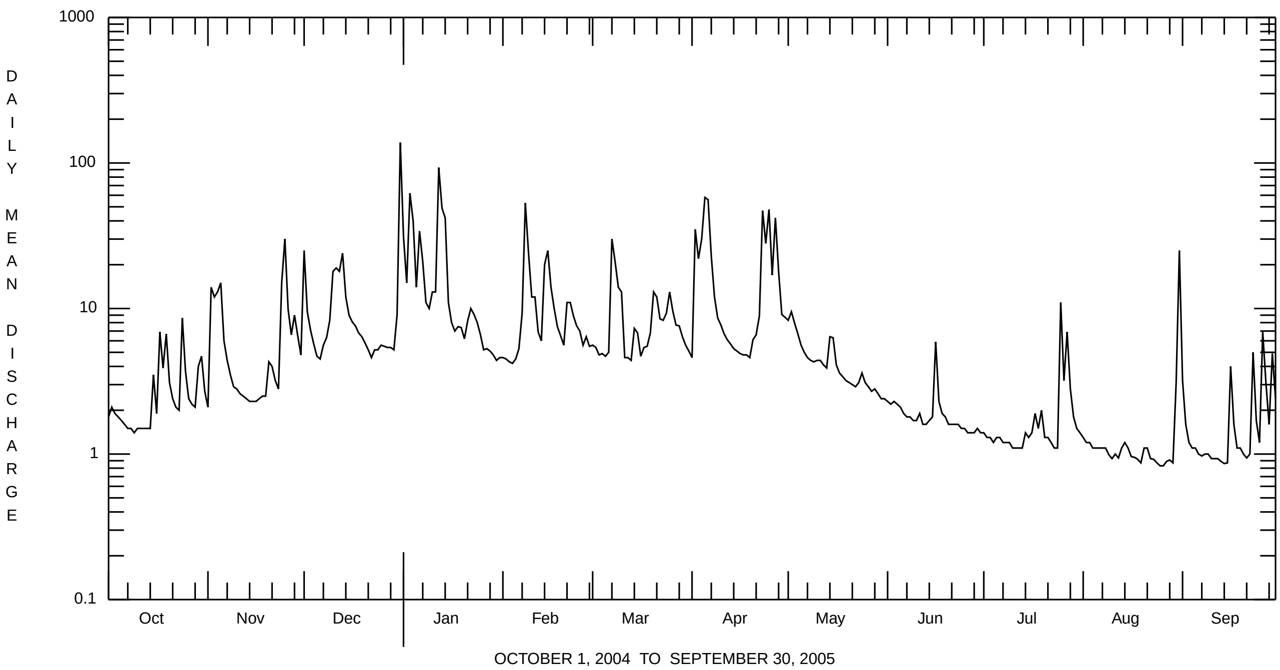
e Estimated.

STREAMS TRIBUTARY TO LAKE ERIE

04213075 BRANDY RUN NEAR GIRARD, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 2005	
ANNUAL TOTAL	3436.8		2726.83			
ANNUAL MEAN	9.39		7.47		6.85	
HIGHEST ANNUAL MEAN					9.84	1996
LOWEST ANNUAL MEAN					2.82	1999
HIGHEST DAILY MEAN	194	Jul 31	138	Dec 31	405	Aug 2 1987
LOWEST DAILY MEAN	1.4	Oct 9	0.83	Aug 25,26	0.14	Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	1.5	Oct 7	0.87	Aug 23	0.16	Aug 1 1991
MAXIMUM PEAK FLOW			**a**294	Jan 12	**a**708	Jun 13 1994
MAXIMUM PEAK STAGE			2.14	Jan 12	**b**3.36	Jun 13 1994
INSTANTANEOUS LOW FLOW			0.76	Aug 18**c**	0.19	Jun 11 1986
ANNUAL RUNOFF (CFSM)	2.11		1.68		1.54	
ANNUAL RUNOFF (INCHES)	28.73		22.80		20.91	
10 PERCENT EXCEEDS	14		15		14	
50 PERCENT EXCEEDS	5.2		4.4		3.4	
90 PERCENT EXCEEDS	2.1		1.1		0.95	

a From rating curve extended above 160 ft^3/s.
b Maximum gage height, 4.55 ft., Dec. 19, 1989 (backwater from ice).
c Also Aug. 19, 20, 23-29, Sept. 13-16.



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

Station name and number	Location and drainage area	Period of Record	Water year 2005 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
OHIO RIVER BASIN								
ALLEGHENY RIVER BASIN								
Allegheny River at Warren, Pa. (03015310)	Lat 41°50’38”, long 79°09’00”, Warren County, Hydrologic Unit 05010002, on right bank at downstream end of municipal parking lot at Warren, Pa., 1,400 ft downstream from confluence of Conewango Creek, and at mile 188.7. Drainage area is 3,131 mi^2.	1988-94≠ 1995-2005	1-15-05	9.83	24,700	1-03-91	10.19	31,700
FRENCH CREEK BASIN								
Woodcock Creek at Blooming Valley, Pa. (03022540)	Lat 41°41’26”, long 80°02’54”, Crawford County, Hydrologic Unit 05010004, on left bank at upstream side of bridge, 0.7 mi northeast of Blooming Valley, Pa., and 3.4 mi upstream from Woodcock Creek Dam. Drainage area is 31.1 mi^2.	1974-95≠ 1996-2005	1-12-05	8.60	1,040	2-17-76	11.48	2,980
CLARION RIVER BASIN								
Clarion River at Johnsonburg, Pa. (03028500)	Lat 41°29’10”, long 78°40’43”, Elk County, Hydrologic Unit 05010005, on left bank at upstream side of highway bridge at Johnsonburg, Pa., 0.1 mi downstream from confluence of East and West Branches. Drainage area is 204 mi^2.	1945-95≠ 1996-2005	1-14-05	6.77	4,400	1-19-96	10.14	12,800

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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)
		OHIO RIVER BASIN--Continued						
		KISKIMINETAS RIVER BASIN						
Little Conemaugh River at East Conemaugh, Pa. (03041000)	Lat 40°20’45”, long 78°52’58”, Cambria County, Hydrologic Unit 05010007, upstream from bridge on State Highway 271 at East Conemaugh, Pa., 300 ft downstream from Clapboard Run, and 2.7 mi upstream from confluence with Stonycreek River. Drainage area is 183 mi^2.	1939-95≠ 1996-2005	1-06-05	13.75	5,570	7-20-77	18.85	40,000
		YOUGHIOGHENY RIVER BASIN						
Youghiogheny River at Ohiopyle, Pa. (03081500)	Lat 39°51’57”, long 79°29’41”, Fayette County, Hydrologic Unit 05020006, on left bank 900 ft downstream from Pa. Rt. 381 highway bridge at Ohiopyle and 1,100 ft upstream from mouth of Meadow Run. Drainage area is 1,062 mi^2.	2003≠ 2004-05	3-29-05	14.10	27,600	3-29-05	14.10	27,600
		LAKE ERIE BASIN						
Mill Creek at Erie, Pa. (04213200)	Lat 42°05’54”, long 80°04’35”, Erie County, Hydrologic Unit 04120101, at bridge on West 38th Street, 100 ft west of State Highway 505, at Erie, Pa. Drainage area is 9.16 mi^2.	1964-2005	4-27-05	10.51	473	9-17-96	15.06	3,310

≠ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 2005

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		OHIO RIVER BASIN				
		ALLEGHENY RIVER BASIN				
03010956 Tunungwant Creek	Allegheny River	Lat 41°57’44”, long 78°37’30”, McKean County, Hydrologic Unit 05010001, at bridge on State Highway 346 at Bradford, Pa., and 1.5 mi downstream from confluence of East and West Branch Tunungwant Creek.	138	1989-2004	10-26-04	62.2
					12-08-04	532
					3-01-05	165
					4-13-05	252
					6-01-05	61.6
					7-06-05	171
					8-16-05	29.3
03012550 Allegheny River	Ohio River	Lat 41°50’29”, long 79°00’44”, Warren County, Hydrologic Unit 05010001, in Allegheny National Forest, on left bank 0.5 mi downstream from Kinzua Dam, 2.5 mi east of Hemlock, and at mile 197.6.	2,180	1936-91≠	6-29-05	2,040
03017500 Tionesta Creek	Allegheny River	Lat 41°36’07”, long 79°03’01”, Forest County, Hydrologic Unit 05010003, in Allegheny National Forest, on left bank at downstream side of highway bridge at Lynch, Pa., 500 ft upstream from Bluejay Creek and 7 mi south of Sheffield, Pa.	233	1939-79≠	10-06-04	141
				1981	11-17-04	146
				1988-2004	2-23-05	510
					3-31-05	1,560
					5-11-05	261
					6-29-05	133
					8-03-05	30.0
					9-14-05	30.0
03020000 Tionesta Creek	Allegheny River	Lat 41°28’44”, long 79°26’26”, Forest County, Hydrologic Unit 05010003, on left bank 100 ft downstream from outlet tunnel at Tionesta Dam, 1.5 mi southeast of Tionesta, and 1.2 mi upstream from mouth.	479	1941-91≠	6-28-05	52.0
					8-02-05	210
03021520 French Creek	Allegheny River	Lat 41°54’28”, long 79°53’49”, Erie County, Hydrologic Unit 05010004, on left bank at upstream side of bridge on State Highway 97, 0.4 mi upstream from South Branch French Creek, 0.9 mi downstream from Union City Dam, and 3.2 mi west of Union City.	221	1972-91≠	5-18-05	212
					6-29-05	48.1
03022000 French Creek	Allegheny River	Lat 41°46’19”, long 80°06’29”, Crawford County, Hydrologic Unit 05010004, at downstream side of bridge at Venango, Pa., 1.2 mi upstream from Gravel Run and 2.2 mi downstream from Boles Run.	597	1938-46≠	10-06-04	309
				1994-2004	11-23-04	690
				Discontinued	1-05-05	6,920
					4-06-05	5,900
03022554 Woodcock Creek	French Creek	Lat 41°41’45”, long 80°06’30”, Crawford County, Hydrologic Unit 05010004, on left bank 0.5 mi downstream from Woodcock Creek Dam, 2.6 mi southeast of Saegertown, and 3.0 mi upstream from mouth.	45.6	1975-91≠	5-17-05	113
					5-25-05	36.8
					6-30-05	13.0
03025000 Sugar Creek	Allegheny River	Lat 41°25’43”, long 79°52’48”, Venango County, Hydrologic Unit 05010004, at bridge 0.8 mi north of Sugarcreek, Pa., 0.9 mi upstream from mouth, and 3 mi northeast of Franklin, Pa.	166	1932-79≠	10-04-04	128
				1989-2004	11-15-04	141
					1-04-05	1,670
					2-22-05	500
					3-29-05	480
					5-09-05	195
					6-27-05	53.0
					8-01-05	54.0
					9-12-05	26.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 2005—Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements: Date	Measurements: Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
		ALLEGHENY RIVER BASIN--Continued				
03027500 East Branch Clarion River	Clarion River	Lat 41°33’11”, long 78°35’47”, Elk County, Hydrologic Unit 05010005, on left bank 700 ft upstream from Middle Fork, 0.5 mi downstream from East Branch Clarion River Dam, and 1.2 mi northeast of Glen Hazel.	73.2	1949-91≠	6-02-05 7-07-05	141 134
03029000 Clarion River	Allegheny River	Lat 41°25’15”, long 78°44’10”, Elk County, Hydrologic Unit 05010005, at bridge on State Highway 948 in Ridgway, Pa., 300 ft downstream from Elk Creek.	303	1940-53≠ 1954-2004	10-25-04 12-09-04 1-13-05 4-14-05 5-31-05 7-07-05 8-17-05	227 1,180 2,450 462 213 291 246
03030852 Clarion River	Allegheny River	Lat 41°07’47”, long 79°33’18”, Clarion County, Hydrologic Unit 05010005, at bridge on State Highway 58 at Callensburg, Pa., and 0.3 mi upstream from Licking Creek.	1,163	1979-2004	10-07-04 11-22-04 1-12-05 2-24-05 4-01-05 5-12-05 7-01-05 8-04-05 9-15-05	283 210 7,520 500 5,730 989 182 154 236
03036000 Mahoning Creek	Allegheny River	Lat 40°55’39”, long 79°17’29”, Armstrong County, Hydrologic Unit 05010006, on left bank at downstream side of highway bridge at McCrea Furnace, 700 ft downstream from Camp Run, 0.9 mi downstream from Mahoning Creek Dam, 1 mi southwest of Eddyville, and 2.1 mi upstream from Pine Run.	344	1939-91≠	5-26-05 7-01-05	244 151
03036995 Crooked Creek	Allegheny River	Lat 40°40’54”, long 79°11’27”, Indiana County, at bridge on State Highway 110 at Creekside, Pa.,and 150 ft upstream from McKee Run.	53.4	1996-2004	10-05-04 11-16-04 12-27-04 2-08-05 3-14-05 5-03-05 6-08-05 7-19-05 9-08-05	30.9 30.7 64.5 84.3 75.5 42.1 25.3 8.66 4.05
03039000 Crooked Creek	Allegheny River	Lat 40°43’13”, long 79°30’42”, Armstrong County, Hydrologic Unit 05010006, on right bank 0.4 mi downstream from Crooked Creek Dam, 3.5 mi south of Ford City, and 6.7 mi upstream from mouth.	278	1910-91≠	5-24-05 7-07-05	47.7 18.4
03044000 Conemaugh River	Kiskiminetas River	Lat 40°27’16”, long 79°23’28”, Indiana County, Hydrologic Unit 05010007, on right bank at downstream side of highway bridge at Tunnelton, 0.9 mi downstream from Boatyard Run, 2.0 mi downstream from Conemaugh River Dam, 3.8 mi southeast of Saltsburg, and 5.5 mi upstream from confluence with Loyalhanna Creek.	1,358	1940-91≠	6-24-05	204

Discharge measurements made at miscellaneous sites during water year 2005—Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements: Date	Measurements: Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
		ALLEGHENY RIVER BASIN--Continued				
03047000 Loyalhanna Creek	Kiskiminetas River	Lat 40°27’53”, long 79°27’05”, Westmoreland County, Hydrologic Unit 05010008, on left bank at downstream side of highway bridge, 0.7 mi downstream from Loyalhanna Dam, 1.5 mi south of Saltsburg, and 4.0 mi upstream from confluence with Conemaugh River.	292	1940-91≠	5-27-05	359
					8-25-05	39.0
03077500 Youghiogheny River	Monongahela River	Lat 39°48’19”, long 79°21’52”, Somerset County, Hydrologic Unit 05020006, on right bank 800 ft upstream from bridge on State Highway 281, 0.2 mi downstream from Youghiogheny River Dam, 0.2 mi south of Confluence, 0.7 mi upstream from Casselman River, and at mile 73.7.	436	1940-91≠	7-06-05	594
		BEAVER RIVER BASIN				
03099600 Mahoning River	Beaver River	Lat 41°01’06”, long 80°26’27”, Lawrence County, Hydrologic Unit 05030103, at bridge on State Highway 224 and 0.4 mi southwest of North Edinburg, Pa.	1,099	1989-2004	10-13-04	1,150
					12-02-04	4,370
					1-11-05	5,100
					4-12-05	1,480
					5-27-05	567
					7-01-05	558
					8-15-05	466
					9-27-05	1,380
03103500 Shenango River	Beaver River	Lat 41°15’58”, long 80°28’22”, Mercer County, Hydrologic Unit 05030102, on left bank 800 ft upstream from double highway bridge at Sharpsville, 0.7 mi downstream from Shenango River Dam, 1.8 mi upstream from McCullough Run, and at mile 55.1.	584	1938-91≠	5-26-05	294
03104500 Shenango River	Beaver River	Lat 41°00’00”, long 80°21’21”, Lawrence County, Hydrologic Unit 05030102, at bridge on Grant Street in New Castle, Pa., and 0.6 mi above confluence with Neshannock Creek.	792	1910-34≠ 1989-2004	10-08-04	1,080
					12-03-04	2,910
					1-11-05	4,020
					3-01-05	1,570
					4-12-05	1,680
					5-27-05	344
					7-06-05	427
					8-15-05	212
					9-27-05	569
03105810 Connoquenessing Creek	Beaver River	Lat 40°48’21”, long 79°57’55”, Butler County, Hydrologic Unit 05030105, at bridge on SR 3006 at Renfrew, Pa., and 0.8 mi upstream from Thorn Creek.	137	1989-2004	10-07-04	59.0
					11-22-04	82.0
					2-24-05	260
					4-04-05	910
					5-13-05	70.0
					7-01-05	101
					8-05-05	19.0
					9-15-05	21.0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 2005—Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements: Date	Measurements: Discharge (ft^3/s)
		OHIO RIVER BASIN--Continued				
		BEAVER RIVER BASIN--Continued				
03105940 Little Connoquenessing Creek	Beaver River	Lat 40°48'36", long 80°06'54", Butler County, Hydrologic Unit 05030105, on right bank at pumping station for Harmony Borough Water Authority, .85 mi northeast of Harmony Borough and 1.3 mi above mouth.	63.8	1996-2004	10-04-04	29.7
					12-06-04	101
					1-21-05	73.8
					3-03-05	40.9
					4-11-05	76.4
					5-16-05	44.8
					6-01-05	20.5
					6-27-05	4.39
					6-27-05	4.48
					8-15-05	2.82
		LAKE ERIE BASIN				
04212945 Conneaut Creek	Lake Erie	Lat 41°55'04", long 80°28'09", Erie County, Hydrologic Unit 04120101, at bridge on Griffey Road and 1.2 mi northwest of Cherry Hill, Pa., and 1.9 mi south of West Springfield, Pa.	149	1989-2004	10-05-04	29.2
					11-22-04	111
					1-04-05	3,470
					4-07-05	2,670
					5-19-05	69.9
					6-28-05	11.2
					8-09-05	7.59
					9-21-05	7.05
04213273 Twelvemile Creek	Lake Erie	Lat 42°12'15", long 79°54'16", Erie County, Hydrologic Unit 04120101, at bridge on Malbert Place near Moorheadville, Pa., and 0.5 mi upstream from mouth.	12.5	1989-2004 Discontinued	10-05-04	5.26
					11-23-04	8.35
					1-03-05	90.8
					2-22-05	33.5
					4-06-05	184

≠ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

FECAL-INDICATOR BACTERIA PROJECT

DISCHARGE MEASUREMENTS AT MISCELANEOUS SITES DURING WATER YEAR 2005

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		OHIO RIVER BASIN				
		TURTLE CREEK BASIN				
03084400 Turtle Creek	Ohio River	Lat 40°23'31", long 79°45'31", Allegheny County, Hydrologic Unit 05030101, in Trafford Borough, 9 mi downstream from Brush Creek at private entry bridge to inactive industrial park, 3 mi from County Rt. 48 on Forbes Road.	55.5	1989-95 2004	10-29-04	17.1
					12-03-04	103
					1-12-05	798
					2-01-05	48.4
					3-16-05	69.1
					4-14-05	46.1
					5-16-05	38.5
					6-22-05	9.95
					8-12-05	6.28
					9-26-05	7.12
03084750 Thompson Run	Turtle Creek	Lat 40°26'55", long 79°47'49", Allegheny County, Hydrologic Unit 05030101, in Gascola at Frey Road bridge about 0.5 mi directly north of Interstate 376, and about 500 ft downstream of the two main tributaries that form Thompson Run.	5.77	2004	10-29-04	3.67
					11-04-04	7.30
					12-22-04	6.33
					1-04-05	20.0
					2-01-05	9.81
					2-01-05	9.34
					3-23-05	15.5
					4-02-05	29.6
					5-16-05	4.63
					7-05-05	1.75
					8-12-05	0.83
					9-26-05	4.75
		MONONGAHELA RIVER BASIN				
		SAWMILL RUN BASIN				
03085160 Sawmill Run	Monongahela River	Lat 40°21'25", long 80°01'44", Allegheny County, Hydrologic Unit 05030101, staff gage on left upstream railroad-tie wingwall, at closed bridge on Smith Road, 1.2 mi east of the intersection of Conner Road and Rt. 19.	1.04	2004	10-26-04	0.26
					11-04-04	0.63
					12-15-04	0.66
					1-04-05	1.65
					2-02-05	0.61
					3-17-05	0.64
					4-02-05	10.1
					4-02-05	4.44
					4-02-05	2.99
					4-02-05	1.77
					4-15-05	0.41
					5-17-05	0.39
					6-16-05	3.19
					6-16-05	0.87
					8-11-05	0.11
					9-27-05	0.15
		CHARTIERS CREEK BASIN				
03085290 Chartiers Creek	Monongahela River	Lat 40°19'54", long 80°06'48", Allegheny County, Hydrologic Unit 05030101, wire-weight gage attached to New Jersey-type barrier wall on the downstream side of bridge on Mayview Road, just north of Mayview State Hospital, and about 1.5 mi south of Bridgeville Borough.	160	2004	10-26-04	101
					12-15-04	226
					1-04-05	930
					2-02-05	117
					3-17-05	211
					4-15-05	168
					5-17-05	135
					6-21-05	50.2
					8-11-05	38.3
					9-27-05	49.3

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 Ohio River Basin. Data from the Delaware River Basin and Susquehanna River Basin can be found in Volumes 1 and 2 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; 610-647-9008, (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)
03008899	881	Havens Run at SR46 at Norwich, PA	41°38’53"	78°21’45"	5.49
[a]03010500	807	Allegheny River at Eldred, PA	41°57’48"	78°23’11"	550
03010956	858	Tunungwant Creek at Bradford, PA	41°57’44"	78°37’30"	138
03012600	866	Allegheny River at Warren, PA	41°49’28"	79°07’09"	2,223
[a]03015000	832	Conewango Creek at Russell, PA	41°56’17"	79°08’00"	816
[a]03015500	831	Brokenstraw Creek at Youngsville, PA	41°51’09"	79°19’03"	321
03015795	877	East Hickory Creek near Queen, PA (Reference station)	41°38’31"	79°20’18"	20.3
[a]03016000	805	Allegheny River at West Hickory, PA	41°34’15"	79°24’29"	3,660
03017500	830	Tionesta Creek at Lynch, PA	41°36’07"	79°03’01"	233
03017800	871	Minister Creek at Truemans, PA (Reference station)	41°37’16"	79°09’11"	10.2
03020449	873	West Branch Caldwell Creek near Grand Valley, PA (Reference station)	41°41’40"	79°34’16"	18.1
[a]03020500	868	Oil Creek at Rouseville, PA	41°28’54"	79°41’44"	300
03022000	869	French Creek at Venango, PA (Reference station)	41°46’19"	80°06’29"	597
03022515	879	Woodcock Creek at Refuge near Hickory Corners, PA (Reference station)	41°39’53"	79°57’53"	10.4
[a]03023100	846	French Creek at Meadville, PA	41°37’57"	80°09’35"	788
03025490	845	French Creek at Franklin, PA	41°24’06"	79°49’54"	1,237
03026175	867	Allegheny River at Kennerdell, PA (Biological only)	41°15’51"	79°50’29"	6,266
[a]03029500	822	Clarion River at Cooksburg, PA	41°19’50"	79°12’33"	807
03030852	843	Clarion River at Callensburg, PA	41°07’47"	79°33’18"	1,163
[a]03031500	803	Allegheny River at Parker, PA (Reference station)	41°06’02"	79°40’53"	7,671
03031505	875	Silver Creek at Walley Mill near North Washington, PA (Reference station)	41°02’39"	79°46’36"	5.50
[a]03032500	820	Redbank Creek at St. Charles, PA	40°59’40"	79°23’40"	528
[a]03034000	861	Mahoning Creek at Punxsutawney, PA	40°56’21"	79°00’31"	158
[a]03036500	802	Allegheny River at Kittanning, PA	40°49’13"	79°31’54"	8,973
03039410	880	Quemahoning Creek at Enoch near Quecreek, PA	40°04’42"	79°06’07"	6.71
03039815	870	Clear Shade Creek above Confluence near Cairnbrook, PA (Reference station)	40°08’54"	78°49’03"	32.1
03044000	810	Conemaugh River at Tunnelton, PA	40°27’16"	79°23’28"	1,358
03044838	878	Mill Creek at Waterford near Wilpen, PA (Reference station)	40°15’06"	79°09’19"	11.7
03049652	801	Allegheny River at Hulton Bridge at Oakmont, PA	40°31’39"	79°50’51"	11,577
03063000	725	Monongahela River at Lock and Dam 8 at Point Marion, PA	39°43’37"	79°54’42"	2,720
03070470	733	Mill Run near Elliottsville, PA (Reference station)	39°45’49"	79°39’49"	9.0
03071700	727	Cheat River at Point Marion, PA	39°44’31"	79°53’59"	1,422
[a]03072000	714	Dunkard Creek at Shannopin, PA	39°45’33"	79°58’15"	229
[a]03075070	702	Monongahela River at Elizabeth, PA	40°15’44"	79°54’05"	5,340
03077500	709	Youghiogheny River at Youghiogheny River Dam, PA	39°48’19"	79°21’52"	436
03078020	726	Casselman River near Salisbury, PA	39°43’56"	79°06’03"	70.8
[a]03083500	706	Youghiogheny River at Sutersville, PA	40°14’24"	79°48’24"	1,715
[a]03085000	701	Monongahela River at Braddock, PA	40°23’28"	79°51’30"	7,337
[a]03086000	901	Ohio River at Sewickley, PA	40°32’57"	80°12’21"	19,500
03099600	915	Mahoning River at North Edinburg, PA	41°01’06"	80°26’27"	1,099
[a]03101500	911	Shenango River at Pymatuning Dam, PA	41°29’53"	80°27’37"	167
[a]03102500	913	Little Shenango River at Greenville, PA	41°25’19"	80°22’35"	104
03103500	910	Shenango River at Sharpsville, PA	41°15’58"	80°28’22"	584

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)--continued.

Station number	WQN No.	Location	Latitude	Longitude	Drainage area (mi^2)
03104500	909	Shenango River at New Castle, PA	41°00’00"	80°21’21"	792
03105810	917	Connoquenessing Creek at Renfrew, PA	40°48’21"	79°57’55"	137
[a]03106000	907	Connoquenessing Creek near Zelienople, PA	40°49’01"	80°14’33"	356
[a]03106500	922	Slippery Rock Creek at Wurtemburg, PA	40°53’02"	80°14’02"	398
[a]03107500	905	Beaver River at Beaver Falls, PA	40°45’48"	80°18’55"	3,106
[a]03108000	903	Raccoon Creek at Moffatts Mill, PA	40°37’40"	80°20’16"	178
03109670	901	Ohio River at mile 44.5 at Newell, WV	40°37’10"	80°35’24"	22,784
04212945	643	Conneaut Creek near Cherry Hill, PA	41°55’04"	80°28’09"	149
04213273	641	Twelvemile Creek near Moorheadville, PA (Reference station)	42°12’15"	79°54’46"	12.5

[a]Other data for this station can be found in the continuous station records section of this report.

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	Drainage area (mi^2)
03021545	L811	Union City Reservoir near Union City, PA	41°54’54"	79°48’55"	2.15
03023012	L810W	Tamarack Lake West near Meadville, PA	41°36’45"	80°07’02"	2.11
03023373	L810E	Tamarack Lake East near Meadville, PA	41°34’47"	80°04’39"	2.11
03024228	L809	Sugar Lake near Bradleytown, PA	41°33’59"	79°56’36"	21.8

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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 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)
03008899 Havens Run at SR46 at Norwich, PA (LAT 41 38 53N LONG 078 21 45W)													
FEB 2005													
08...	1045	1028	9813	5.0	1.0	13.7	6.3	7.2	60	49	2.0	17	4.6
MAR													
15...	1400	1028	9813	7.7	2.0	14.2	6.7	6.5	51	50	1.3	14	3.8
APR													
19...	1245	1028	9813	6.7	1.0	10.4	7.0	7.1	46	44	10.8	15	3.9
MAY													
03...	1300	1028	9813	9.1	1.0	11.1	6.3	7.0	47	46	6.2	14	3.6
JUN													
14...	1115	1028	9813	1.8	<1.0	8.3	7.2	7.3	66	69	18.8	22	6.1
JUL													
26...	1230	1028	9813	.64	2.0	8.5	7.2	7.6	72	68	20.7	24	7.1
AUG													
23...	1200	1028	9813	.44	2.0	9.2	7.2	6.8	78	79	16.5	27	6.8
SEP													
07...	1245	1028	9813	--	2.0	9.9	7.4	7.3	76	73	15.7	24	7.0
03010956 Tunungwant Creek at Bradford, PA (LAT 41 57 44N LONG 078 37 30W)													
NOV 2004													
18...	1200	1028	9813	71	--	13.4	7.9	7.2	315	289	8.0	69	--
JAN 2005													
20...	1215	1028	9813	382	--	16.2	7.0	7.3	157	170	.1	36	--
MAR													
15...	1400	1028	9813	228	--	12.2	6.6	7.6	225	304	2.3	49	--
MAY													
03...	1030	1028	9813	253	--	12.6	7.6	7.6	147	142	6.5	37	--
JUL													
26...	1100	1028	9813	26	--	8.9	7.7	8.0	344	333	22.2	76	--
SEP													
07...	1230	1028	9813	41	--	13.2	8.9	8.6	300	298	20.5	74	--
03012600 Allegheny River at Warren, PA (LAT 41 49 28N LONG 079 07 09W)													
NOV 2004													
18...	0930	1028	9813	--	--	11.5	7.4	7.2	128	129	9.7	43	--
JAN 2005													
20...	0915	1028	9813	--	--	16.0	7.0	7.5	95	97	2.0	29	--
MAR													
23...	1345	1028	9813	1970	--	14.2	7.4	7.8	139	145	1.6	40	--
MAY													
25...	1220	1028	9813	1000	--	10.8	7.6	7.8	111	113	14.6	33	--
SEP													
07...	1245	1028	9813	2060	--	9.0	8.1	7.8	138	143	22.0	46	--
03015795 East Hickory Creek near Queen, PA (LAT 41 38 31N LONG 079 20 18W)													
FEB 2005													
24...	1030	1028	9813	36	2.0	14.4	6.7	6.8	41	40	-.5	13	--
APR													
19...	1020	1028	9813	16	1.0	10.7	6.5	6.7	39	42	9.4	11	--
MAY													
24...	1040	1028	9813	13	--	9.6	6.3	--	--	43	10.7	--	--
JUN													
29...	0945	1028	9813	5.0	3.0	8.1	6.4	6.8	45	46	20.0	16	--
JUL													
27...	0745	1028	9813	18	12	8.0	6.9	7.3	49	51	20.0	17	--
AUG													
29...	1020	1028	9813	1.5	1.0	8.7	7.0	6.6	55	59	16.6	19	--
SEP													
08...	0745	1028	9813	1.9	2.0	9.4	6.9	6.5	53	55	13.5	17	--

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)
03008899 Havens Run at SR46 at Norwich, PA (LAT 41 38 53N LONG 078 21 45W)													
FEB 2005													
08...	4.7	1.2	1.3	10	6.6	<.2	7.1	40	<2	.030	.49	<.040	<.01
MAR													
15...	3.8	1.0	1.1	6	5.1	<.2	6.8	44	4	<.020	.47	<.040	<.01
APR													
19...	4.0	1.1	1.1	6	3.4	<.2	7.2	44	<2	.030	.39	<.040	<.01
MAY													
03...	3.8	.99	1.1	6	4.0	<.2	7.1	26	<2	.020	.40	<.040	<.01
JUN													
14...	6.1	1.5	1.5	12	5.1	<.2	7.6	50	<2	<.020	.37	<.040	<.01
JUL													
26...	7.0	1.7	1.7	16	5.8	<.2	7.6	50	4	<.020	.23	<.040	<.01
AUG													
23...	7.6	1.7	1.9	22	6.2	<.2	8.2	64	<2	.020	.17	<.040	<.01
SEP													
07...	6.9	1.7	1.7	15	6.4	<.2	8.3	100	2	.020	.27	<.040	<.01
03010956 Tunungwant Creek at Bradford, PA (LAT 41 57 44N LONG 078 37 30W)													
NOV 2004													
18...	20.7	--	4.3	42	--	<.2	8.0	210	<2	<.020	.14	<.040	<.01
JAN 2005													
20...	10.1	--	2.5	23	--	<.2	8.7	100	4	.040	.33	<.040	.01
MAR													
15...	13.8	--	3.6	33	--	<.2	9.5	136	8	<.020	.26	<.040	.01
MAY													
03...	10.8	--	2.5	26	--	<.2	8.5	86	<2	.020	.22	<.040	<.01
JUL													
26...	21.9	--	5.2	54	--	<.2	8.7	206	6	<.020	<.04	<.040	<.01
SEP													
07...	22.3	--	4.5	47	--	<.2	8.7	178	<2	.060	<.04	<.040	<.01
03012600 Allegheny River at Warren, PA (LAT 41 49 28N LONG 079 07 09W)													
NOV 2004													
18...	12.8	--	2.7	35	--	--	8.1	128	<2	<.020	.26	<.040	.01
JAN 2005													
20...	8.4	--	2.0	21	--	--	8.3	132	8	.040	.40	<.040	.03
MAR													
23...	12.1	--	2.5	29	--	--	9.2	116	<2	.030	.47	<.040	<.01
MAY													
25...	10.0	--	2.0	26	--	--	8.9	102	<2	<.020	.31	<.040	<.01
SEP													
07...	13.5	--	2.9	35	--	--	8.6	90	12	.030	.09	<.040	.01
03015795 East Hickory Creek near Queen, PA (LAT 41 38 31N LONG 079 20 18W)													
FEB 2005													
24...	2.8	--	1.4	6	1.6	<.2	8.7	84	6	.100	.31	<.040	<.01
APR													
19...	2.5	--	1.2	5	1.6	<.2	8.5	46	<2	<.020	.19	<.040	<.01
MAY													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
29...	3.5	--	1.6	9	1.4	<.2	7.1	54	4	.030	.15	<.040	.01
JUL													
27...	3.9	--	1.8	14	1.4	<.2	5.9	44	2	<.020	.11	<.040	.03
AUG													
29...	4.3	--	2.0	24	2.3	<.2	5.2	36	6	<.020	.12	<.040	.01
SEP													
08...	3.9	--	1.7	18	2.3	<.2	6.9	82	4	.030	.14	<.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)
03008899 Havens Run at SR46 at Norwich, PA (LAT 41 38 53N LONG 078 21 45W)													
FEB 2005													
08...	<.010	.67	--	1.0	<20	10	40	<4.0	30	<.20	<4	<4	--
MAR													
15...	<.010	.47	--	2.2	<20	<10	50	<4.0	20	<.20	<4	<4	--
APR													
19...	<.010	.38	.8	7.6	10	10	50	<4.0	20	<.20	<4	<4	--
MAY													
03...	<.010	.52	.8	.4	<20	<10	30	<4.0	20	<.20	<4	<4	--
JUN													
14...	<.010	.36	1.1	.7	40	30	40	<4.0	30	<.20	<4	<4	--
JUL													
26...	<.010	.21	1.2	.4	40	30	50	<4.0	30	<.20	<4	7	--
AUG													
23...	<.010	.26	1.1	<.2	120	20	50	<4.0	30	<.20	<4	<4	--
SEP													
07...	<.010	.31	--	<.2	20	30	40	<4.0	30	<.20	<4	<4	--
03010956 Tunungwant Creek at Bradford, PA (LAT 41 57 44N LONG 078 37 30W)													
NOV 2004													
18...	<.010	.38	1.7	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005													
20...	<.010	.50	1.3	--	--	--	310	--	--	--	--	<10	<1.00
MAR													
15...	.012	.34	1.4	--	--	--	<200	--	--	--	--	<10	<1.00
MAY													
03...	.011	.32	--	--	--	--	<200	--	--	--	--	<10	<1.00
JUL													
26...	<.010	.11	--	--	--	--	<200	--	--	--	--	<10	<1.00
SEP													
07...	.017	.15	--	--	--	--	<200	--	--	--	--	<10	<1.00
03012600 Allegheny River at Warren, PA (LAT 41 49 28N LONG 079 07 09W)													
NOV 2004													
18...	.030	.44	2.5	--	--	--	210	--	--	--	--	<10	--
JAN 2005													
20...	.020	.64	1.7	--	--	--	370	--	--	--	--	<10	--
MAR													
23...	.014	.48	1.4	--	--	--	<200	--	--	--	--	<10	--
MAY													
25...	.017	.51	--	--	--	--	<200	--	--	--	--	<10	--
SEP													
07...	.012	.29	--	--	--	--	<200	--	--	--	--	<10	--
03015795 East Hickory Creek near Queen, PA (LAT 41 38 31N LONG 079 20 18W)													
FEB 2005													
24...	<.010	.63	--	.5	<10	40	60	<4.0	20	<.20	<4	<4	--
APR													
19...	<.010	.23	--	3.5	<20	20	100	<4.0	20	<.20	<4	<4	--
MAY													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
29...	.020	.30	--	.7	--	10	130	<4.0	20	<.20	<4	<4	--
JUL													
27...	.041	.28	--	.8	650	60	470	<4.0	30	<.20	<4	4	--
AUG													
29...	.011	.25	--	1.1	80	30	120	<4.0	20	<.20	<4	<4	--
SEP													
08...	.014	.19	--	.7	<20	30	100	<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)
03008899 Havens Run at SR46 at Norwich, PA (LAT 41 38 53N LONG 078 21 45W)											
FEB 2005											
08...	<20	80	<1.0	<1.0	10	20	<4.0	<4.0	5.3	<5.0	<5
MAR											
15...	20	90	<1.0	<1.0	<10	10	<4.0	<4.0	<5.0	5.4	<5
APR											
19...	20	80	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	8
MAY											
03...	<20	60	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	<5
JUN											
14...	20	130	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	<5
JUL											
26...	<20	130	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
AUG											
23...	<20	250	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
SEP											
07...	30	110	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
03010956 Tunungwant Creek at Bradford, PA (LAT 41 57 44N LONG 078 37 30W)											
NOV 2004											
18...	--	300	--	<1.0	--	110	--	<50	--	<10	<5
JAN 2005											
20...	--	540	--	<1.0	--	100	--	<50	--	<10	<5
MAR											
15...	--	600	--	<1.0	--	130	--	<50	--	<10	<5
MAY											
03...	--	330	--	<1.0	--	80	--	<50	--	<10	<5
JUL											
26...	--	430	--	<1.0	--	100	--	<50	--	20	<5
SEP											
07...	--	490	--	<1.0	--	80	--	<50	--	<10	<5
03012600 Allegheny River at Warren, PA (LAT 41 49 28N LONG 079 07 09W)											
NOV 2004											
18...	--	330	--	<1.0	--	80	--	<50	--	<10	--
JAN 2005											
20...	--	630	--	<1.0	--	40	--	<50	--	<10	--
MAR											
23...	--	220	--	<1.0	--	40	--	<50	--	<10	--
MAY											
25...	--	70	--	<1.0	--	20	--	<50	--	<10	--
SEP											
07...	--	70	--	<1.0	--	60	--	<50	--	<10	--
03015795 East Hickory Creek near Queen, PA (LAT 41 38 31N LONG 079 20 18W)											
FEB 2005											
24...	80	130	<1.0	<1.0	20	20	<4.0	<4.0	--	--	<5
APR											
19...	70	230	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	5.6	<5
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
JUN											
29...	810	810	<1.0	<1.0	20	30	<4.0	4.9	<5.0	<5.0	<5
JUL											
27...	390	1390	<1.0	<1.0	30	70	<4.0	<4.0	<5.0	5.7	5
AUG											
29...	280	640	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
SEP											
08...	50	610	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<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)
03017500 Tionesta Creek at Lynch, PA (LAT 41 36 07N LONG 079 03 01W)													
NOV 2004													
16...	1115	1028	9813	144	--	14.2	7.4	6.9	69	63	2.3	21	5.0
JAN 2005													
18...	1230	1028	9813	1040	--	15.3	6.9	7.0	48	49	.1	14	3.5
MAR													
22...	1405	1028	9813	385	--	12.1	6.8	6.6	77	81	4.3	19	5.1
MAY													
24...	1355	1028	9813	190	--	10.2	6.9	7.4	65	67	12.7	19	4.8
JUL													
26...	0855	1028	9813	42	--	8.0	7.4	7.7	100	106	22.5	31	7.9
SEP													
08...	1120	1028	9813	44	--	10.3	7.6	6.7	95	98	17.5	28	8.0
03017800 Minister Creek at Trumans, PA (LAT 41 37 16N LONG 079 09 11W)													
OCT 2004													
21...	1200	1028	9813	7.6	1.0	11.0	6.4	6.5	33	30	9.6	10	2.1
NOV													
17...	1000	1028	9813	10	<1.0	12.6	6.6	6.5	33	31	5.0	10	2.3
DEC													
15...	1415	1028	9813	23	1.0	13.6	6.3	6.2	32	32	2.4	10	2.2
JAN 2005													
19...	1130	1028	9813	42	2.0	15.3	5.9	6.6	29	30	.8	10	2.2
03020449 West Branch Caldwell Creek near Grand Valley, PA (LAT 41 41 40N LONG 079 34 16W)													
OCT 2004													
20...	1045	1028	9813	12	1.0	10.6	7.1	7.0	96	100	8.5	33	--
NOV													
17...	0845	1028	9813	12	1.0	12.1	7.0	6.8	80	83	4.5	26	--
DEC													
27...	1030	1028	9813	40	3.0	14.0	6.7	7.1	64	102	.0	20	--
JAN 2005													
12...	0900	1028	9813	120	2.0	13.0	6.5	7.2	61	65	3.0	19	--
03022000 French Creek at Venango, PA (LAT 41 46 35N LONG 080 06 30W)													
OCT 2004													
21...	1200	1028	9813	1130	3.0	10.3	7.6	7.6	236	230	10.0	95	--
NOV													
16...	0830	1028	9813	590	5.0	12.2	7.4	7.9	268	276	4.0	110	--
DEC													
15...	0915	1028	9813	2040	5.0	13.3	7.8	7.8	188	196	1.0	75	--
JAN 2005													
11...	0855	1028	9813	2900	3.0	13.5	7.2	7.8	161	166	2.0	63	--

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)
03017500 Tionesta Creek at Lynch, PA (LAT 41 36 07N LONG 079 03 01W)													
NOV 2004 16...	5.2	1.7	1.8	16	--	--	7.4	68	4	<.020	.30	<.040	<.01
JAN 2005 18...	3.5	1.3	1.4	9	--	--	8.4	56	<2	.020	.44	<.040	<.01
MAR 22...	4.9	1.6	1.6	9	--	--	8.7	52	2	<.020	.40	<.040	<.01
MAY 24...	5.0	1.6	1.7	13	--	--	8.1	36	<2	.060	.23	<.040	<.01
JUL 26...	8.2	2.4	2.5	31	--	--	6.8	62	<2	.030	.08	<.040	<.01
SEP 08...	7.6	2.4	2.3	27	--	--	8.0	74	<2	.030	.16	<.040	<.01
03017800 Minister Creek at Trumans, PA (LAT 41 37 16N LONG 079 09 11W)													
OCT 2004 21...	2.2	.99	1.0	6	1.1	<.2	6.5	22	2	<.020	.13	<.040	<.01
NOV 17...	2.3	1.0	1.1	5	.9	<.2	6.6	46	20	<.020	.27	<.040	<.01
DEC 15...	2.2	.99	1.0	4	1.1	<.2	7.3	56	<2	.020	.30	<.040	<.01
JAN 2005 19...	2.1	1.0	1.0	5	.8	<.2	7.6	34	10	.040	.36	<.040	<.01
03020449 West Branch Caldwell Creek near Grand Valley, PA (LAT 41 41 40N LONG 079 34 16W)													
OCT 2004 20...	8.8	--	2.6	24	8.2	<.2	7.2	72	4	<.020	.08	<.040	<.01
NOV 17...	6.9	--	2.1	23	4.6	<.2	8.0	66	22	.030	.40	<.040	<.01
DEC 27...	5.1	--	1.7	13	3.7	<.2	8.4	40	6	<.020	.67	<.040	<.01
JAN 2005 12...	5.1	--	1.5	13	4.4	<.2	8.1	48	<2	<.020	.49	<.040	.01
03022000 French Creek at Venango, PA (LAT 41 46 35N LONG 080 06 30W)													
OCT 2004 21...	28.7	--	5.7	81	15.2	<.2	10.5	174	2	<.020	.46	<.040	.03
NOV 16...	34.9	--	6.4	98	15.4	<.2	11.7	190	10	.030	.91	<.040	.02
DEC 15...	22.8	--	4.4	63	11.5	<.2	9.9	136	4	.030	.62	<.040	.02
JAN 2005 11...	19.3	--	3.6	52	10.3	<.2	9.1	134	18	<.020	.69	<.040	.03

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)
03017500 Tionesta Creek at Lynch, PA (LAT 41 36 07N LONG 079 03 01W)													
NOV 2004													
16...	<.010	.37	--	1.2	--	<10	20	--	--	--	<4	<4	--
JAN 2005													
18...	<.010	.68	--	1.5	--	30	140	--	--	--	<4	<4	--
MAR													
22...	<.010	.41	--	1.0	--	20	100	--	--	--	<4	<4	--
MAY													
24...	.014	.33	--	.8	--	10	50	--	--	--	<4	<4	--
JUL													
26...	.013	.19	--	.7	--	30	100	--	--	--	<4	<4	--
SEP													
08...	.013	.24	--	.8	--	30	90	--	--	--	<4	<4	--
03017800 Minister Creek at Trumans, PA (LAT 41 37 16N LONG 079 09 11W)													
OCT 2004													
21...	<.010	.17	--	.3	<20	40	60	<4.0	30	<.20	<4	<4	--
NOV													
17...	<.010	.33	--	.9	<20	20	30	<4.0	30	<.20	<4	<4	--
DEC													
15...	<.010	.59	--	.4	<10	40	50	<4.0	40	<.20	<4	<4	--
JAN 2005													
19...	<.010	.40	--	1.1	<20	80	90	<4.0	38	<.20	<4	<4	--
03020449 West Branch Caldwell Creek near Grand Valley, PA (LAT 41 41 40N LONG 079 34 16W)													
OCT 2004													
20...	.013	.33	--	1.0	220	10	60	<4.0	30	<.20	<4	<4	--
NOV													
17...	.012	.58	--	.6	<20	<10	40	<4.0	20	<.20	<4	<4	--
DEC													
27...	<.010	1.0	--	.5	<20	20	80	<4.0	20	<.20	<4	<4	--
JAN 2005													
12...	.011	.45	--	1.3	50	70	220	<4.0	20	<.20	<4	<4	--
03022000 French Creek at Venango, PA (LAT 41 46 35N LONG 080 06 30W)													
OCT 2004													
21...	.046	.80	--	1.4	2000	10	270	<4.0	30	<.20	<4	<4	--
NOV													
16...	.024	1.2	--	1.9	100	10	40	<4.0	30	<.20	<4	<4	--
DEC													
15...	.020	.86	--	1.2	80	30	280	<4.0	20	<.20	<4	5	--
JAN 2005													
11...	.029	.80	--	1.4	180	20	520	<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)
03017500 Tionesta Creek at Lynch, PA (LAT 41 36 07N LONG 079 03 01W)											
NOV 2004											
16...	80	240	<1.0	<1.0	30	30	<4.0	<4.0	<5.0	<5.0	--
JAN 2005											
18...	50	220	<1.0	<1.0	40	50	<4.0	<4.0	7.7	12	--
MAR											
22...	70	270	<1.0	<1.0	40	50	<4.0	<4.0	5.0	5.0	--
MAY											
24...	120	290	<1.0	<1.0	30	40	<4.0	<4.0	<5.0	<5.0	--
JUL											
26...	110	480	<1.0	<1.0	60	80	<4.0	<4.0	<5.0	9.2	--
SEP											
08...	190	470	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	--
03017800 Minister Creek at Trumans, PA (LAT 41 37 16N LONG 079 09 11W)											
OCT 2004											
21...	50	100	<1.0	<1.0	10	10	<4.0	<4.0	5.7	5.8	<5
NOV											
17...	30	70	<1.0	<1.0	5	6	<4.0	<4.0	<5.0	<5.0	<5
DEC											
15...	--	--	<1.0	<1.0	20	20	<4.0	<4.0	12	12	<5
JAN 2005											
19...	<20	50	<1.0	<1.0	40	40	<4.0	<4.0	14	15	<5
03020449 West Branch Caldwell Creek near Grand Valley, PA (LAT 41 41 40N LONG 079 34 16W)											
OCT 2004											
20...	160	480	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
NOV											
17...	90	270	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
DEC											
27...	80	170	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005											
12...	160	590	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
03022000 French Creek at Venango, PA (LAT 41 46 35N LONG 080 06 30W)											
OCT 2004											
21...	80	700	<1.0	<1.0	20	50	<4.0	<4.0	<5.0	<5.0	<5
NOV											
16...	150	400	<1.0	<1.0	50	60	<4.0	<4.0	<5.0	5.6	<5
DEC											
15...	100	610	<1.0	<1.0	20	40	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005											
11...	70	870	<1.0	1.5	20	50	<4.0	<4.0	<5.0	<5.0	<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)
03022515 Woodcock Creek at Refuge near Hickory Corners, PA (LAT 41 39 53N LONG 079 57 53W)													
FEB 2005													
23...	1050	1028	9813	23	3.0	13.1	7.2	7.6	128	133	1.5	45	--
MAR													
16...	1100	1028	9813	8.7	4.0	13.1	7.2	7.6	158	162	1.5	61	--
APR													
18...	1130	1028	9813	6.8	3.0	10.2	7.3	7.8	163	165	13.3	67	20.0
MAY													
17...	1000	1028	9813	8.0	<1.0	10.1	7.6	7.6	151	152	10.0	63	18.3
JUN													
28...	1045	1028	9813	2.0	5.0	7.6	7.6	8.0	230	241	26.0	110	32.4
JUL													
19...	1045	1028	9813	1.7	4.0	5.3	7.3	7.7	220	232	23.5	99	31.6
AUG													
18...	0815	1028	9813	.44	5.0	4.6	7.3	--	--	263	18.0	130	37.4
SEP													
20...	1115	1028	9813	.32	2.0	4.8	7.4	7.8	268	276	17.5	130	37.9
03025490 French Creek at Franklin, PA (LAT 41 24 06N LONG 079 49 54W)													
NOV 2004													
23...	0900	1028	9813	1430	--	11.4	7.4	7.9	247	247	7.0	95	--
MAR 2005													
17...	0845	1028	9813	1630	--	13.3	8.2	7.9	236	243	1.3	89	--
MAY													
18...	0900	1028	9813	1600	--	9.0	8.0	8.1	214	218	12.6	80	--
JUL													
20...	0845	1028	9813	812	--	7.3	7.4	8.1	276	292	25.0	110	--
SEP													
21...	0900	1028	9813	261	--	8.7	8.0	8.1	341	342	19.5	130	--
03026175 Allegheny River at Kennerdell, PA (LAT 41 15 51N LONG 079 50 29W)													
MAR 2005													
17...	1230	1028	9813	6940	--	14.0	7.2	7.9	177	183	3.5	58	--
MAY													
18...	1345	1028	9813	7110	--	10.9	8.4	8.4	158	163	15.3	55	--
JUL													
20...	1335	1028	9813	3670	--	7.7	8.0	8.0	197	207	27.0	65	--
SEP													
21...	1300	1028	9813	3330	--	8.3	8.0	7.6	231	235	21.5	75	--
03030852 Clarion River at Callensburg, PA (LAT 41 07 47N LONG 079 33 16W)													
NOV 2004													
18...	1115	1028	9813	1430	--	11.0	6.8	6.8	258	263	7.0	78	--
JAN 2005													
13...	1145	1028	9813	10100	--	13.6	6.4	6.8	139	144	4.5	46	--
MAR													
21...	1330	1028	9813	2890	--	12.8	6.4	6.8	226	238	2.3	63	--
MAY													
19...	0840	1028	9813	818	--	9.2	6.9	7.0	278	278	13.7	84	--
JUL													
21...	0820	1028	9813	174	--	7.6	6.7	7.4	335	350	23.5	80	--
SEP													
22...	0830	1028	9813	217	--	8.3	7.0	6.5	236	244	18.5	61	--

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)
03022515 Woodcock Creek at Refuge near Hickory Corners, PA (LAT 41 39 53N LONG 079 57 53W)													
FEB 2005 23...	13.7	--	2.5	33	12.0	<.2	9.6	94	12	.050	.32	<.040	<.01
MAR 16...	18.5	--	3.5	48	11.4	<.2	11.4	118	4	.030	.36	<.040	<.01
APR 18...	20.7	3.7	3.8	58	7.8	<.2	11.0	156	<2	.040	.20	<.040	.01
MAY 17...	19.4	3.2	3.4	55	8.1	<.2	8.1	114	6	.020	.12	<.040	.02
JUN 28...	32.7	5.7	5.8	101	8.4	<.2	8.5	192	4	.070	<.04	<.040	.03
JUL 19...	30.3	5.5	5.7	80	7.6	<.2	21.8	136	<2	.040	.06	<.040	.04
AUG 18...	38.8	6.8	7.1	--	8.4	<.2	10.2	176	<2	.070	<.04	<.040	.03
SEP 20...	38.1	7.4	7.8	116	9.1	<.2	12.2	194	<2	.040	<.04	<.040	.02
03025490 French Creek at Franklin, PA (LAT 41 24 06N LONG 079 49 54W)													
NOV 2004 23...	28.6	--	5.8	87	--	--	12.1	170	2	<.020	.64	<.040	.01
MAR 2005 17...	27.2	--	5.1	69	--	--	13.1	156	2	.030	.95	<.040	.01
MAY 18...	23.4	--	5.1	74	--	--	10.9	160	4	<.020	.40	<.040	.01
JUL 20...	33.9	--	6.5	97	--	--	15.8	192	12	.030	.53	<.040	.02
SEP 21...	38.8	--	8.8	112	--	--	18.0	236	<2	.030	.27	<.040	<.01
03026175 Allegheny River at Kennerdell, PA (LAT 41 15 51N LONG 079 50 29W)													
MAR 2005 17...	17.6	--	3.5	44	--	--	11.7	122	<2	.030	.59	<.040	<.01
MAY 18...	16.1	--	3.5	46	--	--	11.0	146	6	<.020	.29	<.040	<.01
JUL 20...	19.6	--	3.9	51	--	--	11.7	144	4	.030	.37	<.040	.02
SEP 21...	21.4	--	5.1	59	--	--	11.7	154	12	<.020	.16	<.040	<.01
03030852 Clarion River at Callensburg, PA (LAT 41 07 47N LONG 079 33 16W)													
NOV 2004 18...	18.4	--	7.8	12	--	--	84.0	192	14	.030	.26	<.040	<.01
JAN 2005 13...	10.7	--	4.6	8	--	--	45.5	94	<2	.020	.40	<.040	<.01
MAR 21...	15.4	--	6.0	7	--	--	68.9	178	8	.070	.44	<.040	.01
MAY 19...	19.3	--	8.6	10	--	--	97.6	180	4	.040	.24	<.040	<.01
JUL 21...	20.2	--	7.1	21	--	--	100	252	12	.080	.36	<.040	<.01
SEP 22...	14.6	--	5.9	15	--	--	71.6	186	14	<.020	.33	<.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)
03022515 Woodcock Creek at Refuge near Hickory Corners, PA (LAT 41 39 53N LONG 079 57 53W)													
FEB 2005 23...	<.010	.93	--	.2	40	10	90	<4.0	10	<.20	<4	<4	--
MAR 16...	.011	.51	--	.8	20	<10	80	<4.0	20	<.20	<4	<4	--
APR 18...	.022	.35	2.8	6.3	<20	<10	110	<4.0	20	<.20	<4	<4	--
MAY 17...	.029	.40	4.6	.4	100	20	190	<4.0	20	<.20	<4	<4	--
JUN 28...	.039	.35	5.1	80.0	340	110	100	4.2	30	<.20	<4	<4	--
JUL 19...	.075	.39	6.1	1.0	1100	20	120	<4.0	30	<.20	<4	<4	--
AUG 18...	.053	.22	4.9	1.1	240	20	110	<4.0	30	<.20	<4	<4	--
SEP 20...	.047	.32	5.8	.6	400	<10	90	<4.0	30	<.20	<4	<4	--
03025490 French Creek at Franklin, PA (LAT 41 24 06N LONG 079 49 54W)													
NOV 2004 23...	.016	1.0	3.0	--	--	--	<200	--	--	--	--	<10	--
MAR 2005 17...	.019	1.1	2.2	--	--	--	<200	--	--	--	--	<10	--
MAY 18...	.029	.70	--	--	--	--	<200	--	--	--	--	<10	--
JUL 20...	.049	.74	--	--	--	--	240	--	--	--	--	<10	--
SEP 21...	.016	.46	--	--	--	--	<200	--	--	--	--	<10	--
03026175 Allegheny River at Kennerdell, PA (LAT 41 15 51N LONG 079 50 29W)													
MAR 2005 17...	.015	.68	1.7	--	--	--	<200	--	--	--	--	<10	--
MAY 18...	.012	.61	--	--	--	--	<200	--	--	--	--	<10	--
JUL 20...	.032	.52	--	--	--	--	<200	--	--	--	--	<10	--
SEP 21...	.020	.30	--	--	--	--	<200	--	--	--	--	<10	--
03030852 Clarion River at Callensburg, PA (LAT 41 07 47N LONG 079 33 16W)													
NOV 2004 18...	.014	.38	1.9	--	--	--	300	--	--	--	--	<10	--
JAN 2005 13...	<.010	.43	1.4	--	--	--	480	--	--	--	--	<10	--
MAR 21...	.010	.58	1.6	--	--	--	450	--	--	--	--	<10	--
MAY 19...	<.010	.43	--	--	--	--	290	--	--	--	--	<10	--
JUL 21...	<.010	.49	--	--	--	--	<200	--	--	--	--	<10	--
SEP 22...	.016	.42	--	--	--	--	<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)
03022515 Woodcock Creek at Refuge near Hickory Corners, PA (LAT 41 39 53N LONG 079 57 53W)											
FEB 2005 23...	130	310	<1.0	<1.0	40	40	<4.0	<4.0	<5.0	<5.0	<5
MAR 16...	80	440	<1.0	<1.0	70	80	<4.0	<4.0	<5.0	<5.0	<5
APR 18...	140	580	<1.0	<1.0	70	90	<4.0	<4.0	<5.0	<5.0	<5
MAY 17...	480	940	<1.0	<1.0	100	100	<4.0	<4.0	<5.0	<5.0	<5
JUN 28...	100	860	<1.0	<1.0	480	520	<4.0	<4.0	<5.0	<5.0	<5
JUL 19...	80	1220	<1.0	<1.0	530	560	<4.0	<4.0	<5.0	<5.0	<5
AUG 18...	480	860	<1.0	<1.0	500	510	<4.0	<4.0	5.6	<5.0	<5
SEP 20...	20	660	<1.0	<1.0	560	590	<4.0	<4.0	--	--	<5
03025490 French Creek at Franklin, PA (LAT 41 24 06N LONG 079 49 54W)											
NOV 2004 23...	--	340	--	<1.0	--	20	--	<50	--	80	--
MAR 2005 17...	--	380	--	<1.0	--	40	--	<50	--	<10	--
MAY 18...	--	370	--	<1.0	--	30	--	<50	--	<10	--
JUL 20...	--	410	--	<1.0	--	80	--	<50	--	<10	--
SEP 21...	--	100	--	<1.0	--	20	--	<50	--	<10	--
03026175 Allegheny River at Kennerdell, PA (LAT 41 15 51N LONG 079 50 29W)											
MAR 2005 17...	--	190	--	<1.0	--	30	--	<50	--	<10	--
MAY 18...	--	200	--	<1.0	--	30	--	<50	--	<10	--
JUL 20...	--	180	--	<1.0	--	70	--	<50	--	<10	--
SEP 21...	--	130	--	<1.0	--	80	--	<50	--	<10	--
03030852 Clarion River at Callensburg, PA (LAT 41 07 47N LONG 079 33 16W)											
NOV 2004 18...	--	820	--	<1.0	--	960	--	<50	--	30	--
JAN 2005 13...	--	860	--	<1.0	--	780	--	<50	--	40	--
MAR 21...	--	970	--	<1.0	--	840	--	<50	--	30	--
MAY 19...	--	630	--	<1.0	--	1200	--	<50	--	30	--
JUL 21...	--	230	--	<1.0	--	570	--	<50	--	<10	--
SEP 22...	--	230	--	<1.0	--	220	--	<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)
03031505 Silver Creek at Walley Mill nr North Washington PA (LAT 41 02 39N LONG 079 46 36W)													
OCT 2004													
26...	1250	1028	9813	2.6	2.0	11.1	7.2	7.1	190	195	9.5	66	--
NOV													
22...	1030	1028	9813	2.5	2.0	11.5	7.1	7.3	172	169	7.0	61	--
DEC													
13...	1045	1028	9813	20	3.0	11.8	6.3	7.2	129	145	5.0	45	--
03039410 Quemahoning Creek at Enoch near Quecreek, PA (LAT 40 04 42N LONG 079 06 07W)													
FEB 2005													
16...	1115	1028	9813	34	4.0	11.4	7.0	7.3	281	287	4.8	51	--
MAR													
08...	1415	1028	9813	42	6.0	12.3	6.7	7.2	386	385	3.3	52	--
APR													
27...	1145	1028	9813	7.1	6.0	10.6	7.1	7.4	390	397	11.8	68	19.9
MAY													
10...	0800	1028	9813	3.1	2.0	8.9	7.6	7.3	402	403	11.3	85	23.4
JUN													
23...	0745	1028	9813	.97	4.0	7.3	7.2	7.7	465	481	17.5	110	30.5
JUL													
13...	0730	1028	9813	1.1	10	5.9	7.2	7.2	524	545	21.0	130	33.6
AUG													
10...	0745	1028	9813	.29	9.0	5.8	7.2	7.5	531	552	20.0	140	37.8
SEP													
27...	1215	1028	9813	.56	10	6.5	7.3	7.6	519	529	17.5	150	40.5
03039815 Clear Shade Creek ab Confluence nr Cairnbrook, PA (LAT 40 08 54N LONG 078 49 03W)													
OCT 2004													
21...	0915	1028	9813	37	<1.0	10.9	6.2	6.5	44	42	8.9	14	4.4
NOV													
16...	1030	1028	9813	49	1.0	13.3	5.1	6.5	42	35	4.1	14	4.0
DEC													
07...	0900	1028	9813	93	<1.0	11.6	5.2	6.3	38	36	5.8	11	3.4
JAN 2005													
19...	1345	1028	9813	101	3.0	14.5	6.3	6.7	36	46	.0	12	3.4
03044000 Conemaugh River at Tunnelton, PA (LAT 40 27 16N LONG 079 23 28W)													
NOV 2004													
09...	0910	1028	9813	1300	--	11.0	7.1	7.0	478	481	8.0	170	--
JAN 2005													
25...	0915	1028	9813	2500	--	13.0	6.7	6.8	441	432	.5	160	--
MAR													
09...	1245	1028	9813	6440	--	12.4	6.8	7.2	410	420	3.3	130	--
MAY													
11...	1310	1028	9813	915	--	9.6	7.0	7.0	614	620	19.2	200	--
JUL													
18...	1015	1028	9813	599	--	7.7	7.9	7.5	948	111	25.0	340	--
SEP													
28...	1245	1028	9813	600	--	8.6	7.1	7.4	944	980	21.0	330	--

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)
03031505 Silver Creek at Walley Mill nr North Washington PA (LAT 41 02 39N LONG 079 46 36W)													
OCT 2004													
26...	17.0	--	5.7	29	15.2	<.2	31.6	138	<2	<.020	.48	<.040	<.01
NOV													
22...	16.4	--	4.9	26	13.5	<.2	27.9	108	<2	<.020	.80	<.040	<.01
DEC													
13...	11.6	--	3.9	16	9.6	<.2	20.6	128	10	<.020	1.52	<.040	<.01
03039410 Quemahoning Creek at Enoch near Quecreek, PA (LAT 40 04 42N LONG 079 06 07W)													
FEB 2005													
16...	14.5	--	3.5	21	56.1	<.2	14.4	156	18	.030	1.99	<.040	.01
MAR													
08...	15.1	--	3.5	19	94.4	<.2	13.6	220	34	.050	1.73	<.040	.01
APR													
27...	19.4	4.6	4.6	34	86.6	<.2	15.8	232	4	<.020	1.17	<.040	.01
MAY													
10...	23.8	6.1	6.2	44	81.6	<.2	14.8	268	2	.070	1.01	<.040	.02
JUN													
23...	30.9	8.1	8.2	58	99.4	<.2	13.2	308	32	.070	.68	<.200	.05
JUL													
13...	34.8	10.6	9.6	65	123	<.2	12.0	424	22	.080	.26	<.200	.04
AUG													
10...	40.1	9.2	9.9	67	122	<.2	12.1	446	8	.060	.22	<.040	.05
SEP													
27...	41.3	10.0	10.3	78	112	<.2	12.3	430	24	.040	.20	<.040	.03
03039815 Clear Shade Creek ab Confluence nr Cairnbrook, PA (LAT 40 08 54N LONG 078 49 03W)													
OCT 2004													
21...	4.1	.9	.9	6	2.6	<.2	8.2	28	4	<.020	.21	<.040	<.01
NOV													
16...	4.0	.9	.9	6	2.2	<.2	7.8	44	2	<.020	.33	<.040	<.01
DEC													
07...	3.3	.8	.8	4	1.9	<.2	8.6	26	<2	.030	.32	<.040	<.01
JAN 2005													
19...	3.4	.9	.9	5	1.9	<.2	8.4	24	<2	.040	.33	<.040	<.01
03044000 Conemaugh River at Tunnelton, PA (LAT 40 27 16N LONG 079 23 28W)													
NOV 2004													
09...	44.1	--	14.0	24	--	--	322	332	6	.130	.73	<.040	<.01
JAN 2005													
25...	41.0	--	13.4	18	--	--	156	312	2	.500	1.04	<.040	<.01
MAR													
09...	32.7	--	11.4	17	--	--	101	276	4	.160	1.05	<.040	<.01
MAY													
11...	52.3	--	16.2	14	--	--	204	406	4	.180	.70	<.040	<.01
JUL													
18...	89.8	--	29.0	22	--	--	305	822	<2	.090	1.03	<.200	.01
SEP													
28...	87.9	--	27.7	22	--	--	296	722	2	.040	.97	<.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)
03031505 Silver Creek at Walley Mill nr North Washington PA (LAT 41 02 39N LONG 079 46 36W)													
OCT 2004													
26...	<.010	.68	--	.5	120	<10	20	<4.0	70	<.20	<4	<4	--
NOV													
22...	<.010	1.0	--	.8	<20	<10	60	<4.0	60	<.20	<4	<4	--
DEC													
13...	<.010	1.7	--	<.2	--	<10	50	<4.0	70	<.20	<4	<4	--
03039410 Quemahoning Creek at Enoch near Quecreek, PA (LAT 40 04 42N LONG 079 06 07W)													
FEB 2005													
16...	.035	2.7	--	.4	550	150	770	<4.0	50	<.20	<4	<4	--
MAR													
08...	.036	1.9	--	.6	240	230	970	<4.0	50	<.20	<4	<4	--
APR													
27...	.010	1.2	1.5	.9	120	50	140	<4.0	50	<.20	<4	<4	--
MAY													
10...	.024	1.6	1.9	2.1	380	<10	230	<4.0	70	<.20	<4	<4	--
JUN													
23...	.030	.85	2.6	.7	1000	20	850	<4.0	80	<.20	<4	<4	--
JUL													
13...	.042	.57	3.2	.8	1000	20	440	<4.0	90	<.20	<4	<4	--
AUG													
10...	.036	.48	3.0	.6	2100	40	430	<4.0	80	<.20	<4	<4	--
SEP													
27...	.033	.57	4.2	1.6	1500	<10	290	<4.0	90	<.20	<4	<4	--
03039815 Clear Shade Creek ab Confluence nr Cairnbrook, PA (LAT 40 08 54N LONG 078 49 03W)													
OCT 2004													
21...	<.010	.25	--	.6	<20	130	220	<4.0	40	<.20	<4	<4	--
NOV													
16...	<.010	.54	--	.7	<20	70	180	<4.0	40	<.20	<4	<4	--
DEC													
07...	<.010	.36	--	.2	<20	80	230	<4.0	40	<.20	<4	<4	--
JAN 2005													
19...	<.010	.38	--	1.4	<10	80	280	<4.0	40	<.20	<4	<4	--
03044000 Conemaugh River at Tunnelton, PA (LAT 40 27 16N LONG 079 23 28W)													
NOV 2004													
09...	.020	1.0	1.6	--	--	--	300	--	--	--	--	<10	--
JAN 2005													
25...	.012	1.3	1.2	--	--	--	760	--	--	--	--	<10	--
MAR													
09...	<.010	1.2	1.3	--	--	--	250	--	--	--	--	<10	--
MAY													
11...	.016	1.8	--	--	--	--	<200	--	--	--	--	<10	--
JUL													
18...	.015	1.2	--	--	--	--	300	--	--	--	--	<10	--
SEP													
28...	.019	1.3	--	--	--	--	<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)
03031505 Silver Creek at Walley Mill nr North Washington PA (LAT 41 02 39N LONG 079 46 36W)											
OCT 2004											
26...	50	190	<1.0	<1.0	60	60	<4.0	<4.0	<5.0	<5.0	<5
NOV											
22...	90	170	<1.0	<1.0	50	50	<4.0	<4.0	<5.0	<5.0	<5
DEC											
13...	20	120	<1.0	<1.0	30	40	<4.0	<4.0	<5.0	<5.0	<5
03039410 Quemahoning Creek at Enoch near Quecreek, PA (LAT 40 04 42N LONG 079 06 07W)											
FEB 2005											
16...	210	1100	<1.0	<1.0	30	50	<4.0	<4.0	<5.0	5.3	<5
MAR											
08...	370	1580	<1.0	1.2	30	60	<4.0	<4.0	<5.0	7.6	<5
APR											
27...	100	310	<1.0	<1.0	50	60	<4.0	<4.0	<5.0	<5.0	<5
MAY											
10...	80	430	<1.0	<1.0	40	50	<4.0	<4.0	<5.0	<5.0	<5
JUN											
23...	40	1040	<1.0	<1.0	140	160	<4.0	<4.0	<5.0	<5.0	<5
JUL											
13...	40	1110	<1.0	<1.0	160	220	<4.0	<4.0	<5.0	<5.0	<5
AUG											
10...	70	920	<1.0	<1.0	90	120	<4.0	<4.0	<5.0	<5.0	<5
SEP											
27...	30	870	<1.0	<1.0	50	70	<4.0	<4.0	--	--	6
03039815 Clear Shade Creek ab Confluence nr Cairnbrook, PA (LAT 40 08 54N LONG 078 49 03W)											
OCT 2004											
21...	90	160	<1.0	<1.0	50	50	<4.0	<4.0	11	11	<5
NOV											
16...	50	100	<1.0	<1.0	40	50	<4.0	<4.0	10	9.4	<5
DEC											
07...	150	150	<1.0	<1.0	70	70	<4.0	<4.0	15	15	<5
JAN 2005											
19...	30	60	<1.0	<1.0	70	80	<4.0	<4.0	14	15	<5
03044000 Conemaugh River at Tunnelton, PA (LAT 40 27 16N LONG 079 23 28W)											
NOV 2004											
09...	--	1570	--	<1.0	--	650	--	<50	--	20	--
JAN 2005											
25...	--	3190	--	2.6	--	1070	--	<50	--	70	--
MAR											
09...	--	800	--	<1.0	--	590	--	<50	--	40	--
MAY											
11...	--	560	--	<1.0	--	760	--	<50	--	40	--
JUL											
18...	--	920	--	2.8	--	580	--	<50	--	50	--
SEP											
28...	--	200	--	<1.0	--	220	--	<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)
03044838 Mill Creek at Waterford near Wilpen, PA (LAT 40 15 06N LONG 079 09 19W)													
FEB 2005													
17...	1100	1028	9813	53	1.0	12.9	6.0	6.9	49	52	3.6	15	--
MAR													
09...	0845	1028	9813	36	<1.0	13.3	6.6	6.9	58	61	1.0	17	--
APR													
28...	0900	1028	9813	15	3.0	11.3	6.8	6.8	53	55	8.0	17	--
MAY													
11...	0855	1028	9813	12	1.0	9.9	7.0	6.8	50	52	12.8	17	4.9
JUN													
22...	1100	1028	9813	6.4	<1.0	8.8	6.6	7.2	50	50	16.0	18	4.6
JUL													
13...	1130	1028	9813	3.8	3.0	9.0	7.0	6.9	51	54	19.0	20	5.7
AUG													
10...	1130	1028	9813	2.2	2.0	8.8	7.2	6.8	57	59	19.0	21	5.3
SEP													
28...	0815	1028	9813	1.1	4.0	9.6	7.0	7.3	56	59	12.5	22	6.1
03049652 Allegheny River at Hulton Bridge at Oakmont, PA (LAT 40 31 39N LONG 079 50 51W)													
NOV 2004													
10...	0950	1028	9813	15100	--	11.2	7.5	7.7	271	270	10.0	99	--
JAN 2005													
19...	1100	1028	9813	59500	--	14.9	8.4	6.9	156	165	1.5	55	--
MAR													
10...	1030	1028	9813	34100	--	13.7	7.2	7.6	299	300	2.9	100	--
MAY													
05...	0945	1028	9813	19900	--	11.3	8.6	7.7	209	216	10.6	72	--
JUL													
14...	0945	1028	9813	3460	--	8.1	7.6	7.2	337	357	28.0	110	--
SEP													
15...	0950	1028	9813	4590	--	8.3	7.7	7.8	313	327	25.0	94	--
03063000 Monongahela R at Lock & Dam 8, at Pnt Marion, PA (LAT 39 43 37N LONG 079 54 42W)													
NOV 2004													
08...	1030	1028	9813	10100	--	11.4	7.4	7.2	202	204	12.0	76	--
JAN 2005													
24...	1130	1028	9813	8100	--	14.1	7.0	7.6	309	297	1.5	110	--
MAR													
07...	1100	1028	9813	9300	--	16.0	7.5	7.7	340	342	4.2	120	--
MAY													
09...	1100	1028	9813	2750	--	10.7	7.2	7.5	218	221	14.3	73	--
JUL													
11...	1115	1028	9813	970	--	8.4	7.3	7.5	594	625	27.5	180	--
SEP													
26...	1030	1028	9813	820	--	8.1	7.2	7.4	473	487	24.0	160	--

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)
03044838 Mill Creek at Waterford near Wilpen, PA (LAT 40 15 06N LONG 079 09 19W)													
FEB 2005													
17...	4.3	--	1.1	7	2.9	<.2	9.6	28	2	.050	.49	<.040	<.01
MAR													
09...	4.8	--	1.2	8	4.6	<.2	9.8	50	<2	<.020	.57	<.040	<.01
APR													
28...	4.7	--	1.2	7	3.1	<.2	9.7	58	<2	<.020	.41	<.040	<.01
MAY													
11...	4.8	1.2	1.2	7	2.5	<.2	9.0	14	2	<.020	.40	<.040	<.01
JUN													
22...	5.1	1.1	1.2	8	1.8	<.2	8.1	46	6	.020	.44	<.040	<.01
JUL													
13...	5.9	1.3	1.3	10	1.8	<.2	8.0	58	6	.020	.45	<.040	<.01
AUG													
10...	6.0	1.2	1.4	12	2.7	<.2	8.8	60	<2	<.020	.42	<.040	<.01
SEP													
28...	6.5	1.4	1.5	15	1.6	<.2	8.4	70	<2	<.020	.25	<.040	<.01
03049652 Allegheny River at Hulton Bridge at Oakmont, PA (LAT 40 31 39N LONG 079 50 51W)													
NOV 2004													
10...	27.4	--	7.3	42	--	<.2	51.7	170	<2	.030	.45	<.040	.01
JAN 2005													
19...	15.1	--	4.1	23	--	<.2	32.6	106	8	.070	.64	<.040	.02
MAR													
10...	27.2	--	7.9	35	--	<.2	62.0	156	2	.060	.82	<.040	.02
MAY													
05...	19.4	--	5.7	33	--	<.2	42.4	148	10	.050	.46	<.040	.01
JUL													
14...	30.4	--	8.7	44	--	<.2	73.4	252	12	.040	.47	<.040	.02
SEP													
15...	26.1	--	6.9	42	--	<.2	65.5	232	<2	.030	.60	<.040	.01
03063000 Monongahela R at Lock & Dam 8, at Pnt Marion, PA (LAT 39 43 37N LONG 079 54 42W)													
NOV 2004													
08...	22.0	--	5.1	34	--	--	48.9	156	30	.070	.47	<.040	.04
JAN 2005													
24...	29.7	--	7.8	40	--	--	91.6	212	12	.140	.63	<.040	.03
MAR													
07...	34.1	--	8.8	45	--	--	94.4	216	<2	.220	.64	<.040	.02
MAY													
09...	20.4	--	5.3	28	--	--	68.2	186	26	.090	.49	<.040	.02
JUL													
11...	49.7	--	13.9	54	--	--	223	476	10	.110	.67	<.040	.01
SEP													
26...	45.0	--	11.5	44	--	--	165	372	<2	.120	.99	<.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)
03044838 Mill Creek at Waterford near Wilpen, PA (LAT 40 15 06N LONG 079 09 19W)													
FEB 2005													
17...	<.010	.97	--	1.0	<20	30	80	<4.0	30	<.20	<4	<4	--
MAR													
09...	<.010	.51	--	.8	<20	20	60	<4.0	40	<.20	<4	<4	--
APR													
28...	<.010	.36	--	.8	150	10	50	<4.0	30	<.20	<4	<4	--
MAY													
11...	<.010	1.9	.6	2.2	20	<10	50	<4.0	30	<.20	<4	<4	--
JUN													
22...	.016	.45	.7	.4	20	<10	70	<4.0	30	.70	<4	<4	--
JUL													
13...	.015	.42	.9	<.2	40	<10	60	<4.0	30	<.20	<4	<4	--
AUG													
10...	.019	.40	1.1	.2	120	30	100	<4.0	30	<.20	<4	<4	--
SEP													
28...	<.010	.50	.9	.6	70	<10	30	<4.0	30	<.20	<4	<4	--
03049652 Allegheny River at Hulton Bridge at Oakmont, PA (LAT 40 31 39N LONG 079 50 51W)													
NOV 2004													
10...	.016	.72	3.0	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005													
19...	.024	1.0	1.9	--	--	--	630	--	--	--	--	<10	<1.00
MAR													
10...	.015	1.2	1.4	--	--	--	520	--	--	--	--	<10	<1.00
MAY													
05...	.017	.66	--	--	--	--	270	--	--	--	--	<10	<1.00
JUL													
14...	.021	.60	--	--	--	--	220	--	--	--	--	<10	<1.00
SEP													
15...	.020	.83	--	--	--	--	<200	--	--	--	--	<10	<1.00
03063000 Monongahela R at Lock & Dam 8, at Pnt Marion, PA (LAT 39 43 37N LONG 079 54 42W)													
NOV 2004													
08...	.038	.83	2.4	--	--	--	800	--	--	--	--	<10	--
JAN 2005													
24...	.020	.90	1.4	--	--	--	550	--	--	--	--	<10	--
MAR													
07...	.025	.87	1.4	--	--	--	500	--	--	--	--	<10	--
MAY													
09...	.022	.65	--	--	--	--	730	--	--	--	--	<10	--
JUL													
11...	.034	.96	--	--	--	--	310	--	--	--	--	<10	--
SEP													
26...	.022	1.3	--	--	--	--	<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)
03044838 Mill Creek at Waterford near Wilpen, PA (LAT 40 15 06N LONG 079 09 19W)											
FEB 2005											
17...	20	60	<1.0	<1.0	10	20	<4.0	<4.0	8.9	9.7	<5
MAR											
09...	<20	40	<1.0	<1.0	20	20	<4.0	<4.0	10	12	<5
APR											
28...	<20	70	<1.0	<1.0	<10	10	<4.0	<4.0	5.2	5.7	<5
MAY											
11...	<20	80	<1.0	<1.0	<10	10	<4.0	<4.0	5.0	5.2	<5
JUN											
22...	<20	90	<1.0	<1.0	<10	20	<4.0	<4.0	<5.0	5.6	<5
JUL											
13...	<20	120	<1.0	<1.0	<10	20	<4.0	<4.0	<5.0	<5.0	<5
AUG											
10...	<20	130	<1.0	<1.0	<10	20	<4.0	<4.0	<5.0	<5.0	<5
SEP											
28...	<20	50	<1.0	<1.0	<10	10	<4.0	<4.0	<5.0	<5.0	<5
03049652 Allegheny River at Hulton Bridge at Oakmont, PA (LAT 40 31 39N LONG 079 50 51W)											
NOV 2004											
10...	--	420	--	<1.0	--	190	--	<50	--	50	<5
JAN 2005											
19...	--	930	--	<1.0	--	190	--	<50	--	10	<5
MAR											
10...	--	970	--	<1.0	--	340	--	<50	--	20	<5
MAY											
05...	--	490	--	<1.0	--	190	--	<50	--	<10	<5
JUL											
14...	--	340	--	<1.0	--	90	--	<50	--	<10	<5
SEP											
15...	--	140	--	<1.0	--	50	--	<50	--	<10	<5
03063000 Monongahela R at Lock & Dam 8, at Pnt Marion, PA (LAT 39 43 37N LONG 079 54 42W)											
NOV 2004											
08...	--	1170	--	<1.0	--	150	--	<50	--	10	--
JAN 2005											
24...	--	760	--	<1.0	--	140	--	<50	--	10	--
MAR											
07...	--	1020	--	<1.0	--	140	--	<50	--	20	--
MAY											
09...	--	1020	--	<1.0	--	110	--	<50	--	40	--
JUL											
11...	--	750	--	1.4	--	130	--	<50	--	20	--
SEP											
26...	--	270	--	<1.0	--	80	--	<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)
03070470 Mill Run near Elliottsville, PA (LAT 39 45 49N LONG 079 39 49W)													
FEB 2005													
14...	1050	1028	9813	97	2.0	12.3	5.8	7.0	58	61	4.3	16	--
MAR													
07...	1400	1028	9813	451	1.0	12.3	7.3	7.0	56	62	5.5	18	--
APR													
20...	1400	1028	9813	7.9	2.0	9.6	6.8	6.9	51	54	15.0	15	--
MAY													
09...	1430	1028	9813	9.8	<1.0	9.7	6.8	7.1	50	52	14.3	15	4.3
JUN													
14...	1100	1028	9813	8.6	<1.0	8.9	6.7	7.0	55	58	18.5	17	5.0
JUL													
12...	0815	1028	9813	1.3	3.0	8.1	6.9	7.2	61	66	18.0	20	5.6
AUG													
09...	1015	1028	9813	.98	3.0	9.2	7.2	6.8	69	73	20.0	24	6.7
SEP													
26...	1340	1028	9813	.31	2.0	8.3	7.2	7.3	87	90	18.0	25	6.9
03071700 Cheat River at Point Marion, PA (LAT 39 44 31N LONG 079 53 59W)													
NOV 2004													
08...	1200	1028	9813	8000	--	10.6	7.3	6.9	78	80	10.5	32	--
JAN 2005													
24...	1230	1028	9813	200	--	12.8	6.8	6.8	109	107	2.0	39	--
MAR													
07...	1200	1028	9813	210	--	12.5	7.4	7.2	196	198	4.5	70	--
MAY													
09...	1215	1028	9813	6000	--	10.0	6.7	7.0	94	97	12.3	36	--
JUL													
11...	1230	1028	9813	200	--	7.1	7.1	7.5	437	455	27.5	130	--
SEP													
26...	1140	1028	9813	100	--	7.6	7.2	7.4	327	336	24.0	110	--
03077500 Youghiogheny River at Youghiogheny River Dam, PA (LAT 39 48 19N LONG 079 21 52W)													
NOV 2004													
08...	1430	1028	9813	1650	--	8.6	7.2	6.9	106	109	14.0	33	--
JAN 2005													
24...	1430	1028	9813	2020	--	11.3	7.1	7.2	90	90	4.0	25	--
MAR													
08...	1300	1028	9813	570	--	12.3	7.0	7.1	104	106	3.2	27	--
MAY													
10...	1420	1028	9813	433	--	10.7	6.9	6.9	113	114	6.5	27	--
JUL													
12...	1200	1028	9813	550	--	8.1	6.6	6.8	102	108	11.0	28	--
SEP													
27...	0855	1028	9813	600	--	7.9	6.7	6.6	115	120	21.0	35	--
03078020 Casselman River near Salisbury, PA (LAT 39 43 56N LONG 079 06 03W)													
NOV 2004													
04...	0930	1028	9813	190	--	9.2	6.7	7.1	156	155	9.2	51	14.2
JAN 2005													
19...	0845	1028	9813	158	--	14.6	7.4	7.4	153	145	.0	47	12.8
MAR													
08...	0915	1028	9813	666	--	12.5	7.5	7.2	187	192	1.6	36	9.8
MAY													
10...	1200	1028	9813	57	--	9.8	7.3	7.1	172	173	16.5	51	14.9
JUL													
12...	1335	1028	9813	15	--	8.7	7.5	8.1	230	243	26.0	71	20.6
SEP													
27...	1015	1028	9813	2.2	--	9.4	7.9	7.6	498	511	17.0	160	48.8

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)
03070470 Mill Run near Elliottsville, PA (LAT 39 45 49N LONG 079 39 49W)													
FEB 2005													
14...	4.6	--	1.1	9	6.5	<.2	8.3	--	2	.030	.27	<.040	<.01
MAR													
07...	4.9	--	1.4	11	6.1	<.2	8.4	26	74	.020	.24	<.040	<.01
APR													
20...	4.2	--	1.1	6	4.4	<.2	9.0	52	2	<.020	.17	<.040	<.01
MAY													
09...	4.4	1.1	1.1	6	3.9	<.2	9.2	72	2	<.020	.16	<.040	<.01
JUN													
14...	4.9	1.1	1.1	8	4.2	<.2	8.3	52	12	.040	.16	<.040	<.01
JUL													
12...	5.7	1.2	1.3	12	5.2	<.2	7.6	94	<2	.020	.23	<.040	<.01
AUG													
09...	7.0	1.4	1.5	16	5.5	<.2	7.4	76	<2	<.020	.17	<.040	<.01
SEP													
26...	7.1	1.6	1.6	25	5.8	<.2	8.6	138	<2	.030	.05	<.040	<.01
03071700 Cheat River at Point Marion, PA (LAT 39 44 31N LONG 079 53 59W)													
NOV 2004													
08...	9.5	--	1.9	14	--	--	15.0	80	10	.060	.45	<.040	.02
JAN 2005													
24...	10.8	--	2.9	10	--	--	33.5	82	10	.150	.56	<.040	<.01
MAR													
07...	19.5	--	5.1	21	--	--	55.1	124	<2	.240	.59	<.040	<.01
MAY													
09...	10.5	--	2.4	9	--	--	27.9	98	6	.070	.42	<.040	<.01
JUL													
11...	35.5	--	9.8	39	--	--	154	346	2	.170	.56	<.040	<.01
SEP													
26...	32.9	--	7.7	31	--	--	107	210	<2	.100	.68	<.040	<.01
03077500 Youghiogheny River at Youghiogheny River Dam, PA (LAT 39 48 19N LONG 079 21 52W)													
NOV 2004													
08...	9.8	--	2.0	19	--	--	11.9	102	2	.090	.39	<.040	<.01
JAN 2005													
24...	7.4	--	1.7	14	--	--	11.7	46	8	.040	.80	<.040	.02
MAR													
08...	8.0	--	1.8	13	--	--	12.4	82	<2	.040	.85	<.040	<.01
MAY													
10...	8.0	--	1.8	12	--	--	12.2	86	8	.070	.83	<.040	<.01
JUL													
12...	8.3	--	1.8	12	--	--	12.2	158	<2	.030	.69	<.040	<.01
SEP													
27...	10.6	--	2.1	24	--	--	12.6	100	2	.190	.32	<.040	<.01
03078020 Casselman River near Salisbury, PA (LAT 39 43 56N LONG 079 06 03W)													
NOV 2004													
04...	14.4	3.4	3.5	24	--	--	20.8	86	<2	<.020	.34	<.040	<.01
JAN 2005													
19...	12.9	3.5	3.5	17	--	--	25.1	104	2	.070	.94	<.040	<.01
MAR													
08...	10.6	2.0	2.3	14	--	--	13.8	106	74	.090	1.11	<.040	.02
MAY													
10...	14.8	3.4	3.4	22	--	--	29.3	114	<2	.040	.36	<.040	<.01
JUL													
12...	20.9	4.5	4.6	32	--	--	36.0	226	<2	.030	.38	<.040	.01
SEP													
27...	48.6	9.8	10.0	72	--	--	80.6	408	2	.020	.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)
03070470 Mill Run near Elliottsville, PA (LAT 39 45 49N LONG 079 39 49W)													
FEB 2005													
14...	.021	.56	--	1.0	200	190	930	<4.0	50	<.20	<4	<4	--
MAR													
07...	.047	.56	--	1.5	80	60	1300	<4.0	60	<.20	<4	<4	--
APR													
20...	<.010	.18	--	<.2	20	20	70	<4.0	40	<.20	<4	<4	--
MAY													
09...	<.010	.50	.7	.3	<10	10	60	<4.0	40	<.20	<4	<4	--
JUN													
14...	<.010	.25	1.2	.6	110	20	80	<4.0	40	<.20	<4	<4	--
JUL													
12...	<.010	.29	1.3	.3	120	<10	60	<4.0	40	<.20	<4	<4	--
AUG													
09...	<.010	.18	1.5	1.0	20	40	60	<4.0	40	<.20	<4	<4	--
SEP													
26...	<.010	.20	2.3	.9	300	<10	30	<4.0	40	<.20	<4	<4	--
03071700 Cheat River at Point Marion, PA (LAT 39 44 31N LONG 079 53 59W)													
NOV 2004													
08...	.018	.72	3.2	--	--	--	520	--	--	--	--	<10	--
JAN 2005													
24...	<.010	.76	1.4	--	--	--	500	--	--	--	--	<10	--
MAR													
07...	<.010	.78	1.2	--	--	--	320	--	--	--	--	<10	--
MAY													
09...	<.010	.62	--	--	--	--	660	--	--	--	--	20	--
JUL													
11...	<.010	.77	--	--	--	--	<200	--	--	--	--	<10	--
SEP													
26...	.014	.97	--	--	--	--	<200	--	--	--	--	<10	--
03077500 Youghiogheny River at Youghiogheny River Dam, PA (LAT 39 48 19N LONG 079 21 52W)													
NOV 2004													
08...	.014	.70	2.4	--	--	--	<200	--	--	--	--	<10	--
JAN 2005													
24...	.014	.93	2.0	--	--	--	340	--	--	--	--	<10	--
MAR													
08...	.018	.90	1.6	--	--	--	220	--	--	--	--	<10	--
MAY													
10...	.013	1.4	--	.3	--	--	--	--	--	--	--	--	--
JUL													
12...	<.010	.71	--	--	--	--	<200	--	--	--	--	<10	--
SEP													
27...	.014	.82	--	--	--	--	<200	--	--	--	--	<10	--
03078020 Casselman River near Salisbury, PA (LAT 39 43 56N LONG 079 06 03W)													
NOV 2004													
04...	.016	.57	--	1.2	--	60	130	--	--	--	<4	<4	--
JAN 2005													
19...	.011	1.2	--	1.2	--	40	260	--	--	--	<4	<4	--
MAR													
08...	.091	1.4	--	.9	--	50	1900	--	--	--	<4	<4	--
MAY													
10...	.017	1.1	--	2.5	--	60	290	--	--	--	<4	<4	--
JUL													
12...	.017	.50	--	.7	--	220	290	--	--	--	<4	<4	--
SEP													
27...	.015	.42	--	1.4	--	60	80	--	--	--	<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)
03070470 Mill Run near Elliottsville, PA (LAT 39 45 49N LONG 079 39 49W)											
FEB 2005											
14...	220	1100	<1.0	1.4	30	70	<4.0	<4.0	9.4	20	<5
MAR											
07...	100	2760	<1.0	2.3	30	100	<4.0	4.8	6.5	20	<5
APR											
20...	50	120	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	7.0	<5
MAY											
09...	40	100	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
JUN											
14...	60	190	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	11.5	<5
JUL											
12...	40	220	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
AUG											
09...	140	200	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	<5
SEP											
26...	60	140	<1.0	<1.0	30	30	<4.0	<4.0	<5.0	<5.0	5
03071700 Cheat River at Point Marion, PA (LAT 39 44 31N LONG 079 53 59W)											
NOV 2004											
08...	--	600	--	<1.0	--	120	--	<50	--	<10	--
JAN 2005											
24...	--	700	--	<1.0	--	140	--	<50	--	20	--
MAR											
07...	--	720	--	<1.0	--	160	--	<50	--	20	--
MAY											
09...	--	670	--	<1.0	--	100	--	<50	--	30	--
JUL											
11...	--	160	--	<1.0	--	140	--	<50	--	<10	--
SEP											
26...	--	260	--	<1.0	--	120	--	<50	--	<10	--
03077500 Youghiogheny River at Youghiogheny River Dam, PA (LAT 39 48 19N LONG 079 21 52W)											
NOV 2004											
08...	--	220	--	<1.0	--	350	--	<50	--	<10	--
JAN 2005											
24...	--	380	--	<1.0	--	60	--	<50	--	<10	--
MAR											
08...	--	250	--	<1.0	--	80	--	<50	--	<10	--
MAY											
10...	--	110	--	<1.0	--	--	--	--	--	--	--
JUL											
12...	--	40	--	<1.0	--	70	--	<50	--	<10	--
SEP											
27...	--	320	--	<1.0	--	540	--	<50	--	40	--
03078020 Casselman River near Salisbury, PA (LAT 39 43 56N LONG 079 06 03W)											
NOV 2004											
04...	40	230	<1.0	<1.0	40	40	<4.0	<4.0	<5.0	<5.0	--
JAN 2005											
19...	50	190	<1.0	<1.0	80	90	<4.0	4.9	8.5	10.1	--
MAR											
08...	60	3100	<1.0	2.5	50	180	<4.0	6.0	5.1	24.1	--
MAY											
10...	90	240	<1.0	<1.0	60	70	<4.0	<4.0	<5.0	5.3	--
JUL											
12...	70	170	<1.0	<1.0	40	50	<4.0	<4.0	<5.0	<5.0	--
SEPT											
27...	<20	50	<1.0	<1.0	50	60	5.2	5.2	--	--	--

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)
03099600 Mahoning River at North Edinburg, PA (LAT 41 01 06N LONG 080 26 27W)													
NOV 2004													
03...	1010	1028	9813	809	--	7.6	7.6	7.8	579	565	16.0	180	--
JAN 2005													
18...	1045	1028	9813	4070	--	16.0	7.9	7.5	390	405	1.5	120	--
MAR													
14...	1000	1028	9813	1100	--	12.6	7.6	8.0	656	670	3.8	170	--
MAY													
12...	1000	1028	9813	652	--	7.8	7.8	8.0	597	605	18.0	160	--
JUL													
07...	1020	1028	9813	618	--	6.0	7.5	7.8	556	574	25.0	170	--
SEP													
13...	1000	1028	9813	373	--	5.6	7.3	7.8	578	596	24.5	170	--
03103500 Shenango River at Sharpsville, PA (LAT 41 15 58N LONG 080 28 22W)													
NOV 2004													
15...	0950	1028	9813	825	--	11.4	7.3	7.5	206	212	8.0	81	--
JAN 2005													
10...	1000	1028	9813	3350	--	13.3	6.7	7.6	166	171	3.5	56	--
MAR													
15...	1030	1028	9813	960	--	13.4	8.0	7.3	198	203	1.9	66	--
MAY													
16...	0945	1028	9813	992	--	9.8	8.0	8.1	191	197	15.7	68	--
JUL													
18...	1045	1028	9813	247	--	6.4	7.5	7.6	237	250	25.5	93	--
SEP													
19...	0945	1028	9813	290	--	7.0	7.2	7.8	237	247	23.0	96	--
03104500 Shenango River at New Castle, PA (LAT 41 00 00N LONG 080 21 21W)													
NOV 2004													
03...	1305	1028	9813	1270	--	8.5	7.6	7.5	240	250	13.5	85	--
JAN 2005													
18...	1330	1028	9813	4070	--	13.3	7.8	7.2	181	190	1.0	58	--
MAR													
14...	1250	1028	9813	1430	--	12.9	7.3	7.8	288	293	2.0	87	--
MAY													
12...	1305	1028	9813	585	--	9.0	7.6	7.7	289	294	15.4	89	--
JUL													
07...	1300	1028	9813	254	--	5.9	7.3	7.8	351	364	25.0	120	--
SEP													
13...	1245	1028	9813	194	--	6.6	7.4	7.8	323	333	23.0	110	--

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)
03099600 Mahoning River at North Edinburg, PA (LAT 41 01 06N LONG 080 26 27W)													
NOV 2004													
03...	50.1	--	13.8	104	--	.4	72.6	394	8	.160	1.96	.100	.15
JAN 2005													
18...	34.8	--	8.8	72	--	<.2	48.7	266	22	.160	.77	.040	.05
MAR													
14...	47.8	--	11.8	87	--	.2	65.9	452	2	.210	1.28	.100	.05
MAY													
12...	45.5	--	11.6	96	--	.3	78.4	432	14	.130	1.62	.090	.05
JUL													
07...	47.6	--	12.3	90	--	<.2	68.8	354	8	.140	1.68	<.200	.14
SEP													
13...	48.6	--	12.3	85	--	.4	74.0	394	6	.110	2.37	.110	.16
03103500 Shenango River at Sharpsville, PA (LAT 41 15 58N LONG 080 28 22W)													
NOV 2004													
15...	24.0	--	5.1	63	--	<.2	14.7	154	6	.080	.22	<.040	.02
JAN 2005													
10...	15.8	--	4.0	39	--	<.2	14.8	148	18	.060	.80	<.040	.07
MAR													
15...	19.2	--	4.3	46	--	<.2	15.5	144	8	.090	.82	<.040	.05
MAY													
16...	20.0	--	4.5	52	--	<.2	16.3	126	14	.050	.26	<.040	.02
JUL													
18...	27.6	--	5.9	80	--	<.2	12.9	164	16	.300	.09	<.040	.06
SEP													
19...	28.1	--	6.3	80	--	<.2	14.6	144	2	.190	.08	<.040	.04
03104500 Shenango River at New Castle, PA (LAT 41 00 00N LONG 080 21 21W)													
NOV 2004													
03...	24.0	--	6.0	63	--	<.2	20.2	162	14	.080	.57	.060	.04
JAN 2005													
18...	16.8	--	3.8	36	--	<.2	16.8	136	18	.080	.81	<.040	.06
MAR													
14...	25.3	--	5.9	57	--	<.2	21.6	208	12	.140	.85	<.040	.05
MAY													
12...	25.2	--	6.3	64	--	<.2	28.5	216	20	.110	.74	<.040	.04
JUL													
07...	35.0	--	7.0	80	--	<.2	29.8	200	<2	.140	.92	<.040	.12
SEP													
13...	32.1	--	6.9	82	--	<.2	26.6	340	18	.180	.91	.070	.09

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)
03099600 Mahoning River at North Edinburg, PA (LAT 41 01 06N LONG 080 26 27W)													
NOV 2004													
03...	.188	2.8	6.3	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005													
18...	.077	1.4	5.3	--	--	--	950	--	--	--	--	<10	<1.00
MAR													
14...	.080	2.0	5.1	--	--	--	300	--	--	--	--	<10	<1.00
MAY													
12...	.110	2.3	--	--	--	--	<200	--	--	--	--	<10	<1.00
JUL													
07...	.215	2.4	--	--	--	--	<200	--	--	--	--	<10	<1.00
SEP													
13...	.196	3.0	--	--	--	--	<200	--	--	--	--	<10	<1.00
03103500 Shenango River at Sharpsville, PA (LAT 41 15 58N LONG 080 28 22W)													
NOV 2004													
15...	.060	.91	5.4	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005													
10...	.062	1.2	4.8	--	--	--	1500	--	--	--	--	<10	<1.00
MAR													
15...	.077	1.6	4.5	--	--	--	680	--	--	--	--	<10	<1.00
MAY													
16...	.034	.90	--	--	--	--	<200	--	--	--	--	<10	<1.00
JUL													
18...	.154	.88	--	--	--	--	610	--	--	--	--	<10	<1.00
SEP													
19...	.096	.83	--	--	--	--	230	--	--	--	--	<10	<1.00
03104500 Shenango River at New Castle, PA (LAT 41 00 00N LONG 080 21 21W)													
NOV 2004													
03...	.092	1.3	5.1	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005													
18...	.065	1.2	4.4	--	--	--	1000	--	--	--	--	<10	<1.00
MAR													
14...	.062	1.7	4.0	--	--	--	710	--	--	--	--	<10	<1.00
MAY													
12...	.081	1.4	--	--	--	--	260	--	--	--	--	<10	<1.00
JUL													
07...	.164	1.6	--	--	--	--	390	--	--	--	--	<10	<1.00
SEP													
13...	.136	1.7	--	--	--	--	<200	--	--	--	--	<10	<1.00

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)
03099600 Mahoning River at North Edinburg, PA (LAT 41 01 06N LONG 080 26 27W)											
NOV 2004											
03...	--	400	--	1.3	--	80	--	<50	--	10	<5
JAN 2005											
18...	--	1350	--	2.4	--	110	--	<50	--	40	<5
MAR											
14...	--	720	--	<1.0	--	150	--	<50	--	20	<5
MAY											
12...	--	380	--	1.0	--	90	--	<50	--	<10	<5
JUL											
07...	--	510	--	2.4	--	120	--	<50	--	20	<5
SEP											
13...	--	500	--	1.8	--	70	--	<50	--	10	<5
03103500 Shenango River at Sharpsville, PA (LAT 41 15 58N LONG 080 28 22W)											
NOV 2004											
15...	--	350	--	<1.0	--	80	--	<50	--	<10	<5
JAN 2005											
10...	--	1590	--	1.9	--	80	--	<50	--	<10	<5
MAR											
15...	--	850	--	<1.0	--	60	--	<50	--	<10	<5
MAY											
16...	--	290	--	<1.0	--	70	--	<50	--	10	<5
JUL											
18...	--	2310	--	1.0	--	750	--	<50	--	20	<5
SEP											
19...	--	1240	--	<1.0	--	480	--	<50	--	<10	<5
03104500 Shenango River at New Castle, PA (LAT 41 00 00N LONG 080 21 21W)											
NOV 2004											
03...	--	640	--	1.2	--	120	--	<50	--	10	<5
JAN 2005											
18...	--	1140	--	1.4	--	50	--	<50	--	20	<5
MAR											
14...	--	1020	--	<1.0	--	80	--	<50	--	20	<5
MAY											
12...	--	770	--	1.3	--	100	--	<50	--	<10	<5
JUL											
07...	--	980	--	1.9	--	220	--	<50	--	20	<5
SEP											
13...	--	470	--	1.1	--	160	--	<50	--	10	<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)
03105810 Connoquenessing Creek at Renfrew, PA (LAT 40 48 21N LONG 079 57 55W)													
NOV 2004													
22...	0900	1028	9813	78	--	10.4	7.3	7.6	875	848	9.5	310	--
JAN 2005													
27...	1200	1028	9813	88	--	14.0	7.0	7.6	816	849	.5	240	--
MAR													
17...	1440	1028	9813	175	--	14.5	7.5	7.8	713	710	5.1	200	--
MAY													
23...	0900	1028	9813	69	--	8.5	7.1	7.6	913	936	15.5	320	--
JUL													
21...	1335	1028	9813	32	--	7.7	7.7	8.0	1330	1380	25.0	480	--
SEP													
29...	1150	1028	9813	94	--	7.9	7.7	7.8	1280	1320	19.0	410	--
03109670 Ohio River at Mile 44.5 at Newell, WV (LAT 40 37 10N LONG 080 35 24W)													
NOV 2004													
04...	1015	1028	9813	33200	--	10.0	7.6	7.3	357	370	14.0	120	--
JAN 2005													
20...	1020	1028	9813	96500	--	14.8	8.1	7.6	233	244	1.5	80	--
MAR													
02...	1000	1028	9813	35200	--	13.9	7.4	7.6	370	379	2.4	100	--
MAY													
04...	1030	1028	9813	45900	--	11.5	8.0	7.8	327	330	11.6	110	--
JUL													
06...	0945	1028	9813	10800	--	7.9	7.6	7.9	455	472	27.0	150	--
SEP													
12...	1015	1028	9813	7260	--	9.4	8.3	8.3	430	447	24.5	140	--
04212945 Conneaut Creek at Cherry Hill, PA (LAT 41 55 04N LONG 080 28 09W)													
NOV 2004													
16...	1315	1028	9813	74	--	12.7	7.7	7.7	269	277	5.0	120	--
JAN 2005													
11...	1400	1028	9813	531	--	13.1	7.3	7.7	166	171	2.0	65	--
MAR													
16...	0830	1028	9813	130	--	12.6	7.2	7.7	221	224	.9	86	--
MAY													
17...	0730	1028	9813	132	--	9.4	8.0	7.8	183	187	12.7	76	--
JUL													
19...	0830	1028	9813	26	--	6.6	7.7	7.9	329	337	25.5	130	--
SEP													
20...	0830	1028	9813	8.8	--	7.6	7.6	7.9	363	369	20.0	140	--
04213273 Twelvemile Creek near Moorheadville, PA (LAT 42 12 15N LONG 079 54 46W)													
OCT 2004													
21...	0900	1028	9813	14	4.0	11.1	7.8	7.7	283	275	10.5	91	--
NOV													
16...	1100	1028	9813	15	5.0	11.8	7.6	8.0	365	378	7.0	140	--
DEC													
15...	1215	1028	9813	45	1.0	13.4	7.3	7.8	248	258	2.0	81	--
JAN 2005													
11...	1200	1028	9813	59	2.0	14.2	7.6	8.0	275	281	2.5	89	--

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)
03105810 Connoquenessing Creek at Renfrew, PA (LAT 40 48 21N LONG 079 57 55W)													
NOV 2004													
22...	108	--	10.0	61	--	--	76.0	608	<2	.030	1.93	<.040	.09
JAN 2005													
27...	78.8	--	10.0	47	--	--	75.0	582	14	.720	1.83	<.200	.05
MAR													
17...	65.9	--	8.4	43	--	--	59.8	554	6	.480	1.40	<.040	.05
MAY													
23...	108	--	11.1	59	--	--	80.7	298	8	.110	2.10	<.040	.10
JUL													
21...	169	--	14.5	81	--	--	105	1420	20	.070	2.21	<.200	.10
SEP													
29...	144	--	12.8	85	--	--	116	968	30	.130	1.81	<.200	.04
03109670 Ohio River at Mile 44.5 at Newell, WV (LAT 40 37 10N LONG 080 35 24W)													
NOV 2004													
04...	34.5	--	8.8	54	--	--	78.4	252	8	.040	.75	<.040	.02
JAN 2005													
20...	21.4	--	6.4	33	--	--	50.1	246	14	.070	.78	<.040	.03
MAR													
02...	29.4	--	7.7	41	--	--	64.1	234	8	.120	.91	<.040	.01
MAY													
04...	29.3	--	8.0	45	--	--	77.9	214	10	.080	.64	<.040	.01
JUL													
06...	40.4	--	10.9	55	--	--	96.9	272	46	.080	.99	<.040	.01
SEP													
12...	36.8	--	10.4	55	--	--	91.1	306	12	.040	.61	<.040	.01
04212945 Conneaut Creek at Cherry Hill, PA (LAT 41 55 04N LONG 080 28 09W)													
NOV 2004													
16...	34.4	--	7.5	89	--	--	21.4	180	8	.030	.54	<.040	.02
JAN 2005													
11...	19.0	--	4.2	50	--	--	14.0	116	18	.140	.51	<.040	.05
MAR													
16...	25.1	--	5.8	65	--	--	19.4	162	8	.070	.62	<.040	.03
MAY													
17...	22.5	--	4.7	64	--	--	13.4	140	4	<.020	.26	<.040	.02
JUL													
19...	38.3	--	9.0	104	--	--	27.1	230	<2	.030	.36	<.040	.03
SEP													
20...	41.8	--	9.3	106	--	--	31.4	264	<2	.030	.77	<.040	.02
04213273 Twelvemile Creek near Moorheadville, PA (LAT 42 12 15N LONG 079 54 46W)													
OCT 2004													
21...	27.2	--	5.6	62	27.7	<.2	25.9	218	<2	<.020	1.18	<.040	.01
NOV													
16...	42.1	--	7.7	82	35.5	<.2	34.6	264	4	<.020	2.20	<.040	<.01
DEC													
15...	24.4	--	4.8	52	25.8	<.2	22.2	170	<2	.020	1.32	<.040	.01
JAN 2005													
11...	27.2	--	5.0	54	32.1	<.2	23.6	194	4	<.020	1.79	<.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)
	03105810 Connoquenessing Creek at Renfrew, PA (LAT 40 48 21N LONG 079 57 55W)												
NOV 2004 22...	.114	2.4	2.5	--	--	--	<200	--	--	--	--	<10	--
JAN 2005 27...	.065	2.5	2.4	--	--	--	<200	--	--	--	--	<10	--
MAR 17...	.070	2.1	2.3	--	--	--	<200	--	--	--	--	<10	--
MAY 23...	.137	2.5	--	--	--	--	200	--	--	--	--	<10	--
JUL 21...	.166	2.5	--	--	--	--	290	--	--	--	--	<10	--
SEP 29...	.119	2.3	--	--	--	--	600	--	--	--	--	<10	--
	03109670 Ohio River at Mile 44.5 at Newell, WV (LAT 40 37 10N LONG 080 35 24W)												
NOV 2004 04...	.035	1.1	2.7	--	--	--	470	--	--	--	--	<10	--
JAN 2005 20...	.033	1.1	2.0	--	--	--	720	--	--	--	--	<10	--
MAR 02...	.020	1.4	1.8	--	--	--	440	--	--	--	--	<10	--
MAY 04...	.036	1.1	--	--	--	--	440	--	--	--	--	<10	--
JUL 06...	.085	1.4	--	--	--	--	1100	--	--	--	--	<10	--
SEP 12...	.024	.93	--	--	--	--	<200	--	--	--	--	<10	--
	04212945 Conneaut Creek at Cherry Hill, PA (LAT 41 55 04N LONG 080 28 09W)												
NOV 2004 16...	.019	.76	4.0	--	--	--	<200	--	--	--	--	<10	--
JAN 2005 11...	.055	.89	4.6	--	--	--	580	--	--	--	--	<10	--
MAR 16...	.024	.85	2.8	--	--	--	240	--	--	--	--	<10	--
MAY 17...	.033	.69	--	--	--	--	330	--	--	--	--	<10	--
JUL 19...	.066	.69	--	--	--	--	640	--	--	--	--	<10	--
SEP 20...	.028	.99	--	--	--	--	<200	--	--	--	--	<10	--
	04213273 Twelvemile Creek near Moorheadville, PA (LAT 42 12 15N LONG 079 54 46W)												
OCT 2004 21...	.019	1.4	--	.5	240	10	70	<4.0	50	<.20	<4	<4	--
NOV 16...	.014	2.2	--	2.0	210	<10	10	<4.0	60	<.20	<4	<4	--
DEC 15...	<.010	1.5	--	1.0	580	20	110	<4.0	40	<.20	<4	<4	--
JAN 2005 11...	<.010	1.8	--	1.3	40	60	120	<4.0	40	<.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)
03105810 Connoquenessing Creek at Renfrew, PA (LAT 40 48 21N LONG 079 57 55W)											
NOV 2004 22...	--	330	--	<1.0	--	80	--	<50	--	10	--
JAN 2005 27...	--	360	--	<1.0	--	140	--	<50	--	<10	--
MAR 17...	--	310	--	<1.0	--	120	--	<50	--	<10	--
MAY 23...	--	700	--	1.0	--	210	--	<50	--	<10	--
JUL 21...	--	530	--	1.1	--	270	--	<50	--	20	--
SEP 29...	--	1400	--	2.7	--	230	--	<50	--	30	--
03109670 Ohio River at Mile 44.5 at Newell, WV (LAT 40 37 10N LONG 080 35 24W)											
NOV 2004 04...	--	860	--	1.1	--	170	--	<50	--	<10	--
JAN 2005 20...	--	1650	--	2.8	--	380	--	<50	--	20	--
MAR 02...	--	750	--	<1.0	--	190	--	<50	--	10	--
MAY 04...	--	810	--	1.1	--	160	--	<50	--	<10	--
JUL 06...	--	2170	--	3.5	--	260	--	<50	--	20	--
SEP 12...	--	190	--	<1.0	--	50	--	<50	--	<10	--
04212945 Conneaut Creek at Cherry Hill, PA (LAT 41 55 04N LONG 080 28 09W)											
NOV 2004 16...	--	680	--	<1.0	--	50	--	<50	--	<10	--
JAN 2005 11...	--	880	--	8.6	--	40	--	<50	--	<10	--
MAR 16...	--	640	--	<1.0	--	50	--	<50	--	<10	--
MAY 17...	--	680	--	<1.0	--	30	--	<50	--	<10	--
JUL 19...	--	840	--	<1.0	--	110	--	<50	--	<10	--
SEP 20...	--	240	--	<1.0	--	40	--	<50	--	<10	--
04213273 Twelvemile Creek near Moorheadville, PA (LAT 42 12 15N LONG 079 54 46W)											
OCT 2004 21...	60	190	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	<5
NOV 16...	20	70	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	<5
DEC 15...	60	210	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005 11...	100	200	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	<5

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)	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 unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
03021545 Union City Reservoir near Union City, PA (LAT 41 54 54N LONG 079 48 55W)													
AUG 2005													
18...	1045	1028	9813	1.0	1.20	8.7	8.6	262	24.6	120	34.7	7.9	98
18...	1100	1028	9813	5.0	--	.4	7.6	495	10.2	200	60.7	10.9	196
03023012 Tamarack Lake West near Meadville, PA (LAT 41 36 45N LONG 080 07 02W)													
AUG 2005													
17...	1115	1028	9813	1.0	.45	3.8	7.0	138	24.6	46	13.6	2.9	32
17...	1140	1028	9813	3.0	--	.5	7.0	161	23.3	51	15.1	3.1	42
03023373 Tamarack Lake East near Meadville, PA (LAT 41 34 47N LONG 080 04 39W)													
AUG 2005													
17...	1420	1028	9813	1.0	.50	9.2	8.9	134	27.3	44	13.0	2.8	28
17...	1445	1028	9813	3.0	--	7.5	7.9	133	26.7	45	13.4	2.9	43
03024228 Sugar Lake near Bradleytown, PA (LAT 41 33 59N LONG 079 56 36W)													
AUG 2005													
17...	1640	1028	9813	1.0	.40	11.0	9.3	191	26.5	88	26.9	5.1	67
17...	1705	1028	9813	3.0	--	.3	7.2	220	24.0	100	32.3	5.1	93

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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Chlorophyll a phytoplankton, uncorr, µg/L (32230)	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)
03021545 Union City Reservoir near Union City, PA (LAT 41 54 54N LONG 079 48 55W)													
AUG 2005													
18...	12.1	12	.040	.027	.52	.022	<10	10	<4	<4	40	250	<1.0
18...	9.2	20	1.16	.029	1.8	--	<10	<10	<4	<4	2970	5550	<1.0
03023012 Tamarack Lake West near Meadville, PA (LAT 41 36 45N LONG 080 07 02W)													
AUG 2005													
17...	10.4	26	.260	.078	1.5	.056	30	170	<4	<4	80	840	<1.0
17...	8.2	22	1.56	.087	2.0	--	<10	140	<4	<4	1950	5570	<1.0
03023373 Tamarack Lake East near Meadville, PA (LAT 41 34 47N LONG 080 04 39W)													
AUG 2005													
17...	10.8	14	.050	.067	1.4	.091	<10	50	<4	<4	40	660	<1.0
17...	7.2	86	3.23	.360	3.0	--	<10	80	<4	<4	150	1770	<1.0
03024228 Sugar Lake near Bradleytown, PA (LAT 41 33 59N LONG 079 56 36W)													
AUG 2005													
17...	12.1	4	.020	.051	1.2	.069	<10	20	<4	<4	30	230	<1.0
17...	8.3	<2	1.05	.118	1.7	--	<10	50	<4	<4	2970	4940	<1.0

Date	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
03021545 Union City Reservoir near Union City, PA (LAT 41 54 54N LONG 079 48 55W)					
AUG 2005					
18...	<1.0	5.7	100	<5.0	<5.0
18...	<1.0	7550	9800	<5.0	<5.0
03023012 Tamarack Lake West near Meadville, PA (LAT 41 36 45N LONG 080 07 02W)					
AUG 2005					
17...	<1.0	20	20	5.7	<5.0
17...	<1.0	430	630	<5.0	<5.0
03023373 Tamarack Lake East near Meadville, PA (LAT 41 34 47N LONG 080 04 39W)					
AUG 2005					
17...	<1.0	3.1	110	<5.0	<5.0
17...	<1.0	110	490	<5.0	<5.0
03024228 Sugar Lake near Bradleytown, PA (LAT 41 33 59N LONG 079 56 36W)					
AUG 2005					
17...	<1.0	<2.0	150	<5.0	<5.0
17...	<1.0	490	650	<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. *****Samples collected with a multiplate sampler deployed for 5 weeks.

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

Station number	03010956	03012600	03017500	03025490	03030852	03044000
Date	08/12/04	08/11/04	08/09/04	10/13/04	08/12/04	10/04/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	--	--	--	11	--	--
Nematoda (NEMATODES)	1	1	1	--	--	--
Nemertea (PROBOSCIS WORMS)						
Enopla						
Hoplonemertea						
Tetrastemmatidae						
Prostoma	1	3	--	--	--	3
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancylidae						
Ferrissia	1	4	--	1	--	--
Hydrobiidae						
Amnicola	--	15	--	--	--	--
Planorbidae						
Menetus dilatatus	--	--	--	--	--	--
Planorbella	--	--	--	--	--	--
Bivalvia (CLAMS)						
Veneroida						
Corbiculidae						
Corbicula fluminea	--	--	--	--	--	7
Sphaeriidae	--	6	--	--	--	--
Pisidium	--	--	--	--	--	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)						
Lumbriculida						
Lumbriculidae	--	5	11	22	--	--
Tubificida						
Enchytraeidae	--	--	--	--	--	--
Naididae	1	2	2	1	4	--
Tubificidae	--	2	--	--	--	--
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	38	6	2	--	--	2
Crustacea						
Copepoda	--	--	--	--	--	--
Amphipoda (SCUDS)						
Crangonyctidae						
Crangonyx	--	--	--	--	--	--
Gammaridae						
Gammarus	--	--	--	1	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

03049652*	03063000*	03071700*	03077500	03078020	03099600	Station number
11/04/04	11/19/04	11/19/04	09/15/04	09/14/04	10/05/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Platyhelminthes
						Turbellaria (FLATWORMS)
						Tricladida
1	1	--	21	--	--	Planariidae
--	1	--	--	1	3	Nematoda (NEMATODES)
						Nemertea (PROBOSCIS WORMS)
						Enopla
						Hoplonemertea
						Tetrastemmatidae
--	--	--	--	--	--	*Prostoma*
						Mollusca
						Gastropoda (SNAILS)
						Basommatophora
						Ancylidae
--	--	--	--	1	8	*Ferrissia*
						Hydrobiidae
--	--	--	--	--	15	*Amnicola*
						Planorbidae
--	17	7	--	--	--	*Menetus dilatatus*
--	--	--	--	--	1	*Planorbella*
						Bivalvia (CLAMS)
						Veneroida
						Corbiculidae
--	--	12	--	--	42	*Corbicula fluminea*
--	--	--	--	--	--	Sphaeriidae
--	--	--	2	--	1	*Pisidium*
						Annelida
						Oligochaeta (AQUATIC EARTHWORMS)
						Lumbriculida
--	--	--	13	--	--	Lumbriculidae
						Tubificida
--	4	--	4	--	--	Enchytraeidae
--	49	65	8	--	--	Naididae
--	81	--	2	--	8	Tubificidae
						Arthropoda
						Acariformes
--	1	3	24	12	1	Hydrachnidia (WATER MITES)
						Crustacea
--	--	--	--	--	1	Copepoda
						Amphipoda (SCUDS)
						Crangonyctidae
--	--	--	3	--	--	*Crangonyx*
						Gammaridae
--	3	--	--	--	22	*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	03010956	03012600	03017500	03025490	03030852	03044000
Date	08/12/04	08/11/04	08/09/04	10/13/04	08/12/04	10/04/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Crustacea						
Isopoda (AQUATIC SOWBUGS)						
Asellidae						
Caecidotea	--	--	--	--	--	--
Podocopa (SEED SHRIMP)	--	--	--	--	--	--
Entognatha						
Collembola (SPRINGTAILS)						
Isotomidae	--	--	--	--	--	--
Poduridae						
Podura aquatica	--	--	--	--	--	--
Sminthuridae	--	--	--	--	--	--
Insecta						
Ephemeroptera (MAYFLIES)						
Baetidae						
Acentrella	7	--	--	--	1	--
Baetis	1	--	10	--	28	--
Plauditus	--	--	15	--	3	--
Caenidae						
Caenis	1	1	--	--	--	--
Ephemerellidae						
Dannella	--	--	2	--	--	--
Ephemerella	--	--	--	9	--	--
Eurylophella	--	--	--	--	--	--
Serratella	--	--	1	39	--	--
Heptageniidae						
Stenonema	--	7	8	4	6	--
Isonychiidae						
Isonychia	--	1	1	3	--	--
Leptophlebiidae						
Paraleptophlebia	--	--	--	--	--	--
Odonata (DRAGONFLIES AND DAMSELFLIES)						
Gomphidae						
Lanthus	--	--	1	--	--	--
Plecoptera (STONEFLIES)						
Capniidae	1	--	2	--	--	--
Leuctridae						
Leuctra	--	--	--	--	--	--
Perlidae						
Acroneuria	--	--	--	1	--	--
Perlodidae						
Isoperla	1	--	--	--	--	--
Taeniopterygidae						
Taeniopteryx	--	--	--	--	--	1
Megaloptera						
Corydalidae (FISHFLIES AND DOBSONFLIES)						
Corydalus	--	--	--	--	--	3
Nigronia	1	--	1	--	--	--
Sialidae (ALDERFLIES)						
Sialis	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

03049652*	03063000*	03071700*	03077500	03078020	03099600	Station number
11/04/04	11/19/04	11/19/04	09/15/04	09/14/04	10/05/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Crustacea
						Isopoda (AQUATIC SOWBUGS)
						Asellidae
--	--	--	16	--	1	*Caecidotea*
--	--	3	--	--	--	Podocopa (SEED SHRIMP)
						Entognatha
						Collembola (SPRINGTAILS)
--	--	--	1	--	--	Isotomidae
						Poduridae
--	--	--	--	--	1	*Podura aquatica*
--	--	--	--	--	1	Sminthuridae
						Insecta
						Ephemeroptera (MAYFLIES)
						Baetidae
--	--	--	--	6	--	*Acentrella*
--	--	--	4	2	--	*Baetis*
--	--	--	--	--	--	*Plauditus*
						Caenidae
--	--	--	--	5	--	*Caenis*
						Ephemerellidae
--	--	--	--	--	--	*Dannella*
--	--	--	--	--	1	*Ephemerella*
--	--	--	4	--	--	*Eurylophella*
--	--	--	--	--	--	*Serratella*
						Heptageniidae
--	--	--	2	19	--	*Stenonema*
						Isonychiidae
--	--	--	--	7	--	*Isonychia*
						Leptophlebiidae
--	--	--	4	--	--	*Paraleptophlebia*
						Odonata (DRAGONFLIES AND DAMSELFLIES)
						Gomphidae
--	--	--	--	--	--	*Lanthus*
						Plecoptera (STONEFLIES)
--	--	--	--	--	--	Capniidae
						Leuctridae
--	--	--	2	--	--	*Leuctra*
						Perlidae
--	--	--	--	2	--	*Acroneuria*
						Perlodidae
--	--	--	--	--	--	*Isoperla*
						Taeniopterygidae
--	--	--	--	--	--	*Taeniopteryx*
						Megaloptera
						Corydalidae (FISHFLIES AND DOBSONFLIES)
--	--	--	--	--	--	*Corydalus*
--	--	--	--	--	--	*Nigronia*
						Sialidae (ALDERFLIES)
--	--	--	--	2	--	*Sialis*

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	03010956	03012600	03017500	03025490	03030852	03044000
Date	08/12/04	08/11/04	08/09/04	10/13/04	08/12/04	10/04/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)						
Brachycentridae						
Brachycentrus	--	--	6	2	--	--
Micrasema	--	1	--	--	--	--
Hydropsychidae	--	--	--	--	--	4
Cheumatopsyche	4	1	5	5	--	52
Hydropsyche	12	1	4	7	71	35
Macrostemum	--	2	--	--	8	--
Hydroptilidae						
Hydroptila	--	--	--	--	2	--
Leucotrichia	--	--	--	--	--	--
Leptoceridae						
Ceraclea	--	--	--	1	--	--
Oecetis	--	--	--	--	--	--
Philopotamidae						
Chimarra	1	--	--	--	--	6
Dolophilodes	--	--	--	--	--	--
Wormaldia	--	--	3	--	--	--
Polycentropodidae						
Polycentropus	--	--	--	--	--	--
Psychomyiidae						
Psychomyia	--	4	--	1	--	--
Rhyacophilidae						
Rhyacophila	--	--	1	--	--	--
Coleoptera (BEETLES)						
Elmidae (RIFFLE BEETLES)						
Optioservus	3	5	9	14	1	1
Oulimnius	--	9	5	--	--	--
Stenelmis	--	--	2	7	--	1
Psephenidae (WATER PENNIES)						
Psephenus	--	--	--	--	--	--
Diptera (TRUE FLIES)						
Athericidae						
Atherix	1	--	--	--	--	--
Ceratopogonidae (BITING MIDGES)						
Chironomidae (MIDGES)	32	25	30	33	19	2
Empididae (DANCE FLIES)						
Chelifera	--	--	1	--	--	--
Hemerodromia	2	1	1	2	1	5
Simuliidae (BLACK FLIES)						
Simulium	--	2	--	--	--	--
Tipulidae (CRANE FLIES)						
Antocha	4	1	1	2	--	--
Total Organisms	113	105	125	166	144	122
Total Taxa	19	23	25	20	11	13

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

03049652*	03063000*	03071700*	03077500	03078020	03099600	Station number
11/04/04	11/19/04	11/19/04	09/15/04	09/14/04	10/05/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Trichoptera (CADDISFLIES)
						Brachycentridae
1	--	--	--	2	--	*Brachycentrus*
--	--	--	--	--	--	*Micrasema*
--	--	--	--	--	--	Hydropsychidae
3	--	--	9	9	1	*Cheumatopsyche*
--	--	--	1	23	1	*Hydropsyche*
--	--	--	--	--	--	*Macrostemum*
						Hydroptilidae
2	2	--	14	--	--	*Hydroptila*
--	--	--	--	5	--	*Leucotrichia*
						Leptoceridae
--	--	--	--	--	--	*Ceraclea*
--	--	1	--	--	--	*Oecetis*
						Philopotamidae
--	--	--	--	--	--	*Chimarra*
--	--	--	--	1	--	*Dolophilodes*
--	--	--	--	--	--	*Wormaldia*
						Polycentropodidae
--	--	25	--	--	--	*Polycentropus*
						Psychomyiidae
--	--	--	--	4	--	*Psychomyia*
						Rhyacophilidae
--	--	--	--	1	--	*Rhyacophila*
						Coleoptera (BEETLES)
						Elmidae (RIFFLE BEETLES)
--	--	--	--	11	3	*Optioservus*
--	--	--	7	--	--	*Oulimnius*
--	--	--	--	3	1	*Stenelmis*
						Psephenidae (WATER PENNIES)
--	--	--	--	4	--	*Psephenus*
						Diptera (TRUE FLIES)
						Athericidae
--	--	--	--	2	--	*Atherix*
						Ceratopogonidae (BITING MIDGES)
8	25	57	59	14	20	Chironomidae (MIDGES)
						Empididae (DANCE FLIES)
--	--	--	--	--	--	*Chelifera*
--	--	1	1	--	1	*Hemerodromia*
						Simuliidae (BLACK FLIES)
--	--	--	8	1	--	*Simulium*
						Tipulidae (CRANE FLIES)
--	--	--	--	4	--	*Antocha*
15	184	174	209	141	133	Total Organisms
5	10	9	22	24	20	Total Taxa

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	03103500	03104500	03105810	03109670*	04212945
Date	08/11/04	10/13/04	10/29/04	11/03/04	10/06/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count
Platyhelminthes					
Turbellaria (FLATWORMS)					
Tricladida					
Planariidae	7	4	--	4	--
Nematoda (NEMATODES)	--	--	3	--	--
Mollusca					
Gastropoda (SNAILS)					
Basommatophora					
Ancylidae					
Ferrissia	--	3	--	1	--
Hydrobiidae					
Amnicola limosa	--	--	--	23	--
Pleuroceridae					
Elimia	1	--	--	3	--
Bivalvia (CLAMS)					
Veneroida					
Corbiculidae					
Corbicula fluminea	1	1	--	1	--
Dreissenoidae					
Dressena polymorpha	--	--	--	1	--
Sphaeriidae					
Pisidium	--	2	--	--	--
Sphaerium	4	4	--	--	--
Annelida					
Hirudinea (LEECHES)					
Arhynchobdellida					
Erpobdellidae					
Erpobdella	1	--	--	2	--
Oligochaeta (AQUATIC EARTHWORMS)					
Lumbriculida					
Lumbriculidae	1	--	--	--	--
Tubificida					
Naididae	1	1	20	--	--
Tubificidae	2	47	--	2	2
Arthropoda					
Acariformes					
Hydrachnidia (WATER MITES)	--	1	3	--	--
Crustacea					
Copepoda	--	--	--	1	--
Amphipoda (SCUDS)					
Crangonyctidae					
Crangonyx	--	--	14	1	--
Gammaridae					
Gammarus	35	6	--	8	--
Insecta					
Ephemeroptera (MAYFLIES)					
Caenidae					
Caenis	--	--	1	--	--

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	03103500	03104500	03105810	03109670*	04212945
Date	08/11/04	10/13/04	10/29/04	11/03/04	10/06/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count
Ephemeroptera (MAYFLIES)					
Ephemerellidae					
Serratella	--	1	--	--	6
Heptageniidae	--	1	--	--	--
Leucrocuta	--	--	--	--	2
Stenacron	--	3	--	5	--
Stenonema	--	33	1	--	6
Isonychiidae					
Isonychia	--	--	--	--	7
Leptophlebiidae					
Paraleptophlebia	--	--	--	--	2
Potamanthidae					
Anthopotamus	--	--	--	--	1
Tricorythidae					
Tricorythodes	--	3	--	1	--
Plecoptera (STONEFLIES)					
Capniidae	--	--	--	--	1
Perlidae					
Neoperla	--	--	--	--	1
Taeniopterygidae					
Taeniopteryx	--	1	5	--	10
Trichoptera (CADDISFLIES)					
Hydropsychidae	--	4	3	--	--
Cheumatopsyche	16	17	22	--	16
Diplectrona	--	--	1	--	--
Hydropsyche	--	3	9	--	43
Philopotamidae					
Chimarra	--	--	--	--	1
Polycentropodidae					
Neureclipsis	1	--	--	--	--
Polycentropus	--	--	--	1	--
Psychomyiidae					
Psychomyia	--	4	--	--	--
Coleoptera (BEETLES)					
Elmidae (RIFFLE BEETLES)					
Optioservus	--	2	--	--	--
Stenelmis	--	29	12	--	2
Diptera (TRUE FLIES)					
Chironomidae (MIDGES)	72	20	29	7	25
Empididae (DANCE FLIES)					
Hemerodromia	7	--	13	--	1
Simuliidae (BLACK FLIES)					
Simulium	11	6	2	--	8
Tipulidae (CRANE FLIES)	--	1	--	--	--
Antocha	--	--	3	--	--
Total Organisms	160	197	141	61	134
Total Taxa	14	24	16	15	17

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 YEAR **OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station number	03017800	03020449	03022000	03031505	03039815	04213273
Date	11/20/03	11/20/03	12/17/03	12/12/03	12/19/03	12/18/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	--	--	1	--	--	1
Nematoda (NEMATODES)	--	--	3	--	--	--
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancylidae						
Ferrissia	--	1	5	--	--	--
Hydrobiidae						
Amnicola	--	--	3	--	--	--
Planorbidae						
Planorbella	--	--	--	--	--	1
Pleuroceridae						
Elimia .	--	--	2	--	--	--
Bivalvia (CLAMS)						
Sphaeriidae	2	1	--	--	--	--
Pisidium	--	--	6	1	--	--
Sphaerium	--	--	16	--	--	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)						
Lumbriculida						
Lumbriculidae	35	1	--	--	--	3
Tubificida						
Enchytraeidae	--	--	--	--	3	--
Naididae	--	1	--	12	3	--
Tubificidae	--	--	6	--	1	9
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	1	3	4	10	4	3
Crustacea						
Amphipoda (SCUDS)						
Crangonyctidae						
Crangonyx	--	--	1	--	--	--
Gammaridae						
Gammarus	--	--	3	--	--	--
Entognatha						
Collembola (SPRINGTAILS)						
Isotomidae	1	--	--	--	--	2
Poduridae	1	--	--	--	--	1
Sminthuridae	--	--	--	--	--	1

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR **OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

Station number	03017800	03020449	03022000	03031505	03039815	04213273
Date	11/20/03	11/20/03	12/17/03	12/12/03	12/19/03	12/18/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Insecta						
Ephemeroptera (MAYFLIES)						
Ameletidae						
Ameletus	--	--	--	--	--	1
Baetidae						
Baetis	2	2	--	12	1	6
Ephemerellidae						
Ephemerella	5	19	3	25	1	2
Eurylophella	3	--	1	3	11	2
Serratella	--	10	--	--	--	--
Ephemeridae						
Ephemera	--	1	2	2	1	1
Heptageniidae	1	1	--	--	1	--
Epeorus	12	20	--	4	48	2
Leucrocuta	1	1	--	--	--	--
Stenacron	--	1	12	--	1	--
Stenonema	2	10	32	16	12	--
Isonychiidae						
Isonychia	--	4	--	--	--	--
Leptophlebiidae	--	--	--	--	2	--
Paraleptophlebia	6	44	--	4	--	--
Potamanthidae						
Anthopotamus	--	--	9	--	--	--
Odonata						
Coenagrionidae						
Argia	--	--	2	--	--	--
Cordulegastridae						
Cordulegaster	1	--	--	--	--	--
Gomphidae						
Lanthus	--	--	--	--	1	--
Plecoptera (STONEFLIES)	--	--	--	--	--	2
Capniidae						
Allocapnia	--	1	12	15	3	39
Paracapnia	32	5	--	4	3	--
Chloroperlidae						
Alloperla	1	1	--	--	11	--
Sweltsa	1	--	--	1	--	--
Leuctridae						
Leuctra	15	7	--	4	6	--
Nemouridae	--	--	--	23	1	--
Amphinemura	2	--	--	--	2	--
Perlidae	--	1	4	--	--	--
Acroneuria	--	--	--	2	3	--
Paragnetina	--	3	--	--	--	--
Perlodidae						
Isoperla	1	11	--	9	--	--
Taeniopterygidae						
Strophopteryx	--	--	6	--	--	--
Taenionema	--	2	--	2	1	--
Taeniopteryx	--	3	1	5	--	1

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR **OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

Station number	03017800	03020449	03022000	03031505	03039815	04213273
Date	11/20/03	11/20/03	12/17/03	12/12/03	12/19/03	12/18/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Megaloptera						
Corydalidae						
Nigronia	--	1	--	1	5	--
Sialidae (ALDERFLIES)						
Sialis	--	--	--	--	2	--
Trichoptera (CADDISFLIES)						
Glossosomatidae						
Glossosoma	--	--	--	1	--	--
Helicopsychidae						
Helicopsyche	--	--	2	--	--	--
Hydropsychidae	1	--	--	--	--	--
Cheumatopsyche	--	15	15	3	--	--
Diplectrona	5	--	--	2	--	2
Hydropsyche	6	11	2	7	4	4
Hydroptilidae						
Hydroptila	--	--	1	--	--	--
Lepidostomatidae						
Lepidostoma	6	--	--	--	1	--
Leptoceridae						
Oecetis	--	--	1	--	--	--
Limnephilidae						
Pycnopsyche	3	--	--	--	2	--
Philopotamidae						
Chimarra	--	--	--	--	10	--
Dolophilodes	4	13	--	--	4	--
Polycentropodidae						
Neureclipsis	--	--	--	--	1	--
Rhyacophilidae						
Rhyacophila	--	--	--	4	--	--
Uenoidae						
Neophylax	1	--	--	1	--	--
Coleoptera (BEETLES)						
Curculionidae	--	--	1	--	--	--
Elmidae (RIFFLE BEETLES)						
Dubiraphia	--	--	6	--	--	--
Macronychus	--	--	1	--	--	--
Optioservus	--	11	7	10	1	--
Oulimnius	6	2	--	2	3	1
Promoresia	--	--	4	--	2	--
Stenelmis	--	--	32	--	--	1
Hydrophilidae						
Helophorus	--	--	--	1	--	--
Psephenidae (WATER PENNIES)						
Ectopria	1	--	--	1	--	--
Psephenus	--	--	8	--	--	2

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR **OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

Station number	03017800	03020449	03022000	03031505	03039815	04213273
Date	11/20/03	11/20/03	12/17/03	12/12/03	12/19/03	12/18/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Diptera (TRUE FLIES)						
Ceratopogonidae (BITING MIDGES)						
Probezzia	2	--	--	5	--	1
Chironomidae (MIDGES)	103	37	33	18	53	120
Empididae (DANCE FLIES)						
Chelifera	--	--	--	2	--	2
Hemerodromia	--	2	14	2	1	1
Sciomyzidae	--	1	--	--	--	--
Simuliidae (BLACK FLIES)						
Prosimulium	--	--	--	23	1	--
Simulium	--	--	--	--	1	1
Tabanidae						
Chrysops	--	--	1	--	--	--
Tipulidae (CRANE FLIES)						
Antocha	1	1	--	12	--	--
Dicranota	4	2	--	3	2	8
Hexatoma	1	1	--	--	1	--
Molophilus	--	--	--	--	--	1
Tipula	2	--	--	--	--	2
Total Organisms	271	251	262	252	214	223
Total Taxa	35	37	37	37	39	30

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PRESQUE ISLE BACTERIA PROJECT

The following table contains water-quality data from two sites at Presque Isle Beach 2 in Erie, Pennsylvania sampled as part of a water-quality monitoring and modeling study to forecast fecal-indicator bacteria in recreational waters. The project is a cooperative study conducted by the U.S. Geological Survey in cooperation with the Erie County Health Department. The results were based on 52 samples collected at each of two recreational sites (referred to as east and west) at Presque Isle Beach 2. Samples were analyzed for *Escherichia coli* bacteria. The objective is to develop a surrogate for the rapid assesment of the recreational water-quality of Presque Isle Beach 2 using factors such as wave height, number of birds on the beach, lake-current direction, rainfall, turbidity, and wind direction. For additional information, contact Tammy Zimmerman at the USGS Pennsylvania Water Science Center, 215 Limekiln Road, New Cumberland, PA 17070: 717-730-6974 (email: tmzimmer@usgs.gov).

REMARKS--Explanation of column headings--**FNMU**: formazin nephelometric units; **mg/L**: milligrams per liter; **µS/cm**: microsiemens per centimeter at 25 degrees Celsius; **deg C**: degrees Celsius; **col/100 mL**: colonies per 100 milliliters.

420752080084601 -- 28b Presque Isle Beach 2 West

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

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Turbidity, IR LED light, mult. detect, FNMU (63684)	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)	*E* coli, modif. m-TEC, water, col/100 mL (90902)
MAY 2005									
30...	0830	84218	84218	8.6	8.3	8.1	303	14.9	32
31...	0950	84218	84218	3.1	8.8	8.2	297	16.2	<4
JUN									
01...	1030	84218	84218	1.9	9.8	8.2	293	16.8	<4
05...	0840	84218	84218	3.3	9.1	8.1	292	15.9	4k
06...	0930	84218	84218	13	8.9	8.1	294	16.5	12k
07...	0800	84218	84218	50	8.4	7.9	296	17.7	16k
10...	0900	84218	84218	1.0	8.8	8.1	297	19.9	<4
12...	0840	84218	84218	1.1	8.1	8.1	298	22.6	<4
13...	0840	84218	84218	2.1	9.2	8.1	294	20.9	12k
14...	1010	84218	84218	27	8.6	7.8	298	21.9	60
19...	0850	84218	84218	6.5	8.2	7.7	301	19.9	<4
20...	0840	84218	84218	4.8	9.5	8.1	297	19.4	<4
21...	1000	84218	84218	9.2	9.2	8.0	298	20.7	160
22...	1000	84218	84218	83	9.9	8.0	300	21.0	20
26...	0850	84218	84218	4.2	9.3	8.4	285	22.9	<4
27...	0800	84218	84218	2.0	8.8	8.1	290	22.1	8k
29...	1030	84218	84218	14	8.5	8.0	292	24.2	12k
JUL									
03...	0640	84218	84218	6.2	7.1	7.9	287	22.2	8k
04...	0840	84218	84218	8.3	8.1	7.9	288	22.8	12k
05...	0920	84218	84218	4.1	8.7	8.0	288	24.3	40
06...	0910	84218	84218	4.0	6.7	7.7	297	23.6	16k
10...	0840	84218	84218	14	8.1	7.9	285	23.4	52
12...	1010	84218	84218	2.6	8.8	8.2	278	26.0	<4
13...	0920	84218	84218	2.5	9.6	8.2	275	24.6	<4
17...	0830	84218	84218	8.9	7.8	7.8	275	23.7	270
18...	0850	84218	84218	34	7.7	7.7	279	24.6	60
19...	0900	84218	84218	82	8.1	7.8	279	25.1	140
20...	0920	84218	84218	8.7	8.7	7.8	282	25.9	4k
21...	0910	84218	84218	35	7.9	8.0	280	25.8	68
24...	0830	84218	84218	3.3	7.4	8.2	276	24.7	6k
25...	0850	84218	84218	43	8.0	8.0	278	24.8	64
26...	0840	84218	84218	17	7.4	7.9	282	25.4	18k
27...	1250	84218	84218	60	8.0	8.0	278	24.4	110
28...	0950	84218	84218	20	8.0	7.9	280	24.0	34
31...	0740	84218	84218	5.2	7.4	8.0	279	23.8	6k
AUG									
01...	0850	84218	84218	4.7	7.1	8.0	283	24.1	9k
02...	0830	84218	84218	29	7.3	7.9	286	25.9	60
03...	1110	84218	84218	18	7.7	8.1	287	27.2	17k
07...	0840	84218	84218	2.8	7.4	8.2	281	24.6	3k
08...	0840	84218	84218	3.9	7.6	8.2	279	24.9	<4
09...	0920	84218	84218	12	7.7	8.1	283	24.9	160
10...	1140	84218	84218	11	7.4	8.0	285	27.0	6k
14...	0800	84218	84218	3.6	7.3	8.2	279	25.8	<4
15...	0750	84218	84218	9.2	7.6	8.3	283	24.1	23
16...	0750	84218	84218	7.3	7.6	8.3	283	24.5	6k
17...	0910	84218	84218	4.0	7.8	8.2	282	24.9	11k
21...	0740	84218	84218	48	7.9	8.2	284	25.1	120
22...	0740	84218	84218	50	7.9	8.2	288	24.1	620
24...	0910	84218	84218	14	7.9	8.3	284	23.6	<4
29...	0740	84218	84218	5.8	7.8	8.4	283	23.2	<4
30...	0730	84218	84218	5.2	8.0	8.5	285	22.6	17k
SEP									
04...	0750	84218	84218	15	8.3	8.1	284	21.5	9k

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PRESQUE ISLE BACTERIA PROJECT

420755080084501 -- 29b Presque Isle Beach 2 East

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

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Turb- idity, IR LED light, mult. detect, FNMU (63684)	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)	*E coli*, modif. m-TEC, water, col/ 100 mL (90902)
MAY 2005									
30...	0840	84218	84218	8.4	8.3	8.1	302	14.9	20
31...	1000	84218	84218	3.0	8.5	8.2	296	16.1	<4
JUN									
01...	1040	84218	84218	4.6	10.8	8.2	293	16.9	4k
05...	0850	84218	84218	2.4	8.9	8.0	292	15.7	<4
06...	0940	84218	84218	7.9	8.6	8.0	294	16.4	16k
07...	0810	84218	84218	60	8.0	7.9	295	17.7	12k
10...	0910	84218	84218	2.0	8.6	8.1	298	20.0	4k
12...	0850	84218	84218	1.2	8.0	8.1	299	22.6	<4
13...	0850	84218	84218	2.6	9.2	8.1	294	21.1	<4
14...	1020	84218	84218	18	8.3	7.8	298	21.9	68
19...	0900	84218	84218	7.2	8.2	7.8	302	19.9	4k
20...	0850	84218	84218	4.8	8.4	7.9	295	19.7	4k
21...	1010	84218	84218	3.9	9.0	8.0	297	20.6	36
22...	1010	84218	84218	6.3	9.1	8.0	298	21.0	1k
26...	0900	84218	84218	3.0	9.5	8.4	286	23.1	8k
27...	0810	84218	84218	2.5	8.6	8.1	290	22.4	4k
29...	1040	84218	84218	7.9	8.2	8.0	293	24.1	8k
JUL									
03...	0650	84218	84218	5.9	7.2	7.9	288	22.0	24
04...	0850	84218	84218	21	7.9	7.8	292	22.8	<4
05...	0930	84218	84218	4.1	8.1	8.0	288	24.2	28
06...	0920	84218	84218	4.0	7.9	7.9	289	23.7	80
10...	0850	84218	84218	8.0	7.7	7.8	284	23.3	40
12...	1020	84218	84218	2.4	8.5	8.2	278	25.9	4k
13...	0930	84218	84218	2.5	8.2	8.1	277	24.7	8k
17...	0840	84218	84218	7.7	7.7	7.8	276	23.7	430
18...	0900	84218	84218	18	7.6	7.7	280	24.6	40
19...	0910	84218	84218	120	8.1	7.8	280	25.1	110
20...	0930	84218	84218	10	7.1	7.8	281	25.9	32
21...	0920	84218	84218	21	7.5	8.0	279	25.8	16k
24...	0840	84218	84218	2.8	7.3	8.1	276	24.7	9k
25...	0900	84218	84218	50	7.8	7.9	279	24.8	54
26...	0850	84218	84218	8.0	6.9	7.8	281	25.8	18k
27...	1300	84218	84218	68	7.8	8.0	278	24.6	110
28...	1000	84218	84218	45	7.9	7.9	279	24.0	23
31...	0750	84218	84218	3.8	7.2	8.0	279	24.2	15k
AUG									
01...	0900	84218	84218	4.1	7.2	8.0	278	24.7	6k
02...	0840	84218	84218	15	7.1	7.9	284	26.0	66
03...	1120	84218	84218	34	7.5	8.1	289	27.4	25
07...	0850	84218	84218	4.4	7.6	8.2	280	25.4	3k
08...	0850	84218	84218	3.2	7.7	8.2	280	25.1	<4
09...	0930	84218	84218	9.4	7.4	8.1	282	25.0	75
10...	1150	84218	84218	13	7.5	8.0	285	27.0	6k
14...	0810	84218	84218	2.8	7.4	8.2	280	25.8	9k
15...	0800	84218	84218	7.1	7.6	8.4	282	24.4	15k
16...	0800	84218	84218	4.4	7.1	8.3	282	24.9	20
17...	0920	84218	84218	7.2	7.5	8.3	281	25.1	3k
21...	0750	84218	84218	63	8.0	8.2	284	25.0	98
22...	0750	84218	84218	36	7.7	8.2	288	24.4	46
24...	0920	84218	84218	3.9	7.8	8.4	284	23.6	4k
29...	0750	84218	84218	5.7	7.8	8.5	284	22.9	9k
30...	0740	84218	84218	4.9	7.9	8.5	287	22.1	6k
SEP									
04...	0800	84218	84218	13	8.1	8.1	284	21.7	20

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

****

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.
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.

****

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

(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)

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
84218 --Erie County Health Department

(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
84218 --Erie County Health Department

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.

GROUND-WATER-LEVEL STATION RECORDS

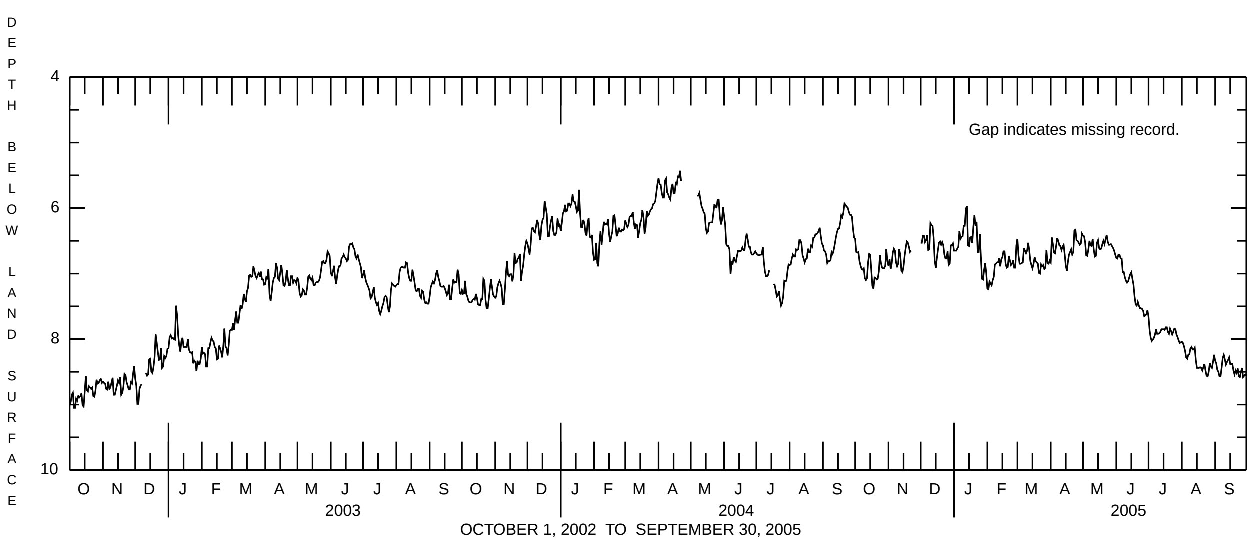
ALLEGHENY COUNTY

403734080063001. Local number, AG 700.

LOCATION.--Lat 40°37'34", long 80°06'30", Hydrologic Unit 05030101, at State Game Land Number 203, Bradford Woods.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone and shale of Glenshaw Formation of Late Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 100 ft, cased to 24 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,035 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.40 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 1987, are 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, 4.67 ft below land-surface datum, Mar. 21, 1997, also May 2, 1998; lowest, 9.29 ft below land-surface datum, Sept. 25, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 5.79 ft below land-surface datum, Jan. 13; lowest, 8.58 ft below land-surface datum, Sept. 24, 27.

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	6.47	6.88	6.53	6.65	7.23	6.47	6.83	6.42	6.76	7.66	8.04	8.33
2	6.67	6.78	6.53	6.65	7.24	6.72	6.45	6.43	6.77	7.87	8.06	8.37
3	6.68	6.93	6.42	6.65	7.12	6.85	6.55	6.52	6.71	7.98	8.11	8.47
4	6.67	6.85	6.42	6.62	7.15	6.85	6.68	6.72	6.71	8.03	8.18	8.50
5	6.81	6.68	6.52	6.59	7.18	6.84	6.69	6.73	6.77	8.01	8.28	8.57
6	6.88	6.62	6.49	6.35	7.10	6.83	6.58	6.63	6.77	7.98	8.30	8.57
7	6.93	6.65	6.41	6.47	7.05	6.61	6.46	6.50	6.98	7.93	8.24	8.44
8	6.94	6.83	6.64	6.44	6.86	6.65	6.50	6.57	6.98	7.85	8.23	8.29
9	6.92	6.89	6.63	6.43	6.85	6.69	6.57	6.58	7.06	7.92	8.14	8.24
10	7.07	6.85	6.23	6.27	6.83	6.65	6.58	6.47	7.11	7.92	8.12	8.31
11	7.10	6.63	6.26	6.27	6.83	6.53	6.64	6.63	7.14	7.91	8.16	8.39
12	7.07	6.72	6.27	6.01	6.77	6.64	6.59	6.74	7.12	7.89	8.16	8.35
13	6.83	6.96	6.45	5.97	6.89	6.81	6.56	6.73	7.06	7.85	8.13	8.32
14	6.70	6.98	6.80	6.57	6.78	6.87	6.71	6.53	7.01	7.85	8.32	8.28
15	6.71	6.89	6.91	6.58	6.75	6.92	6.88	6.49	6.98	7.85	8.44	8.38
16	6.95	6.73	6.77	6.45	6.66	6.85	6.96	6.61	7.08	7.86	8.44	8.38
17	7.19	6.61	6.64	6.44	6.66	6.75	6.82	6.63	7.17	7.82	8.44	8.38
18	7.23	6.51	6.53	6.53	6.85	6.81	6.71	6.62	7.35	7.82	8.43	8.48
19	7.06	6.53	6.51	6.28	6.91	6.83	6.67	6.55	7.47	7.89	8.44	8.54
20	7.07	6.59	6.56	6.11	6.90	6.85	6.63	6.50	7.49	7.92	8.48	8.48
21	7.09	6.67	6.52	6.27	6.73	6.99	6.71	6.55	7.43	7.84	8.43	8.52
22	7.08	6.65	6.57	6.21	6.80	7.00	6.67	6.48	7.49	7.88	8.38	8.45
23	6.97	---	6.71	6.67	6.87	6.86	6.34	6.41	7.53	7.93	8.48	8.57
24	6.72	---	6.77	6.67	6.85	6.89	6.33	6.51	7.53	7.89	8.56	8.58
25	6.84	---	6.77	6.40	6.80	6.87	6.49	6.56	7.54	7.84	8.57	8.50
26	6.91	---	6.66	6.74	6.91	6.93	6.50	6.56	7.57	7.85	8.50	8.44
27	6.92	---	6.87	7.08	6.91	6.91	6.53	6.55	7.65	7.93	8.37	8.58
28	6.92	---	6.85	7.09	6.57	6.64	6.56	6.58	7.64	7.97	8.42	8.56
29	6.88	---	6.57	6.94	---	6.84	6.54	6.61	7.62	8.02	8.44	8.54
30	6.63	---	6.57	6.84	---	6.85	6.39	6.65	7.56	8.06	8.35	8.56
31	6.82	---	6.54	6.99	---	6.80	---	6.71	---	8.05	8.24	---
MEAN	6.89	6.75	6.58	6.52	6.89	6.79	6.60	6.57	7.20	7.91	8.32	8.45
MAX	7.23	6.98	6.91	7.09	7.24	7.00	6.96	6.74	7.65	8.06	8.57	8.58
MIN	6.47	6.51	6.23	5.97	6.57	6.47	6.33	6.41	6.71	7.66	8.04	8.24



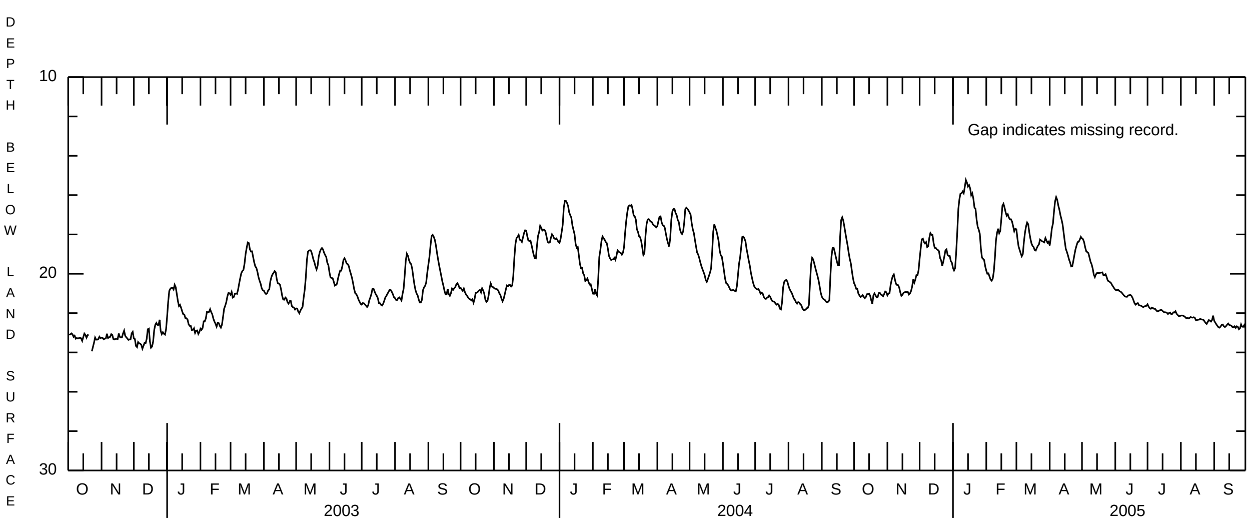
ARMSTRONG COUNTY

405344079380201. Local number, AR 109.

LOCATION.--Lat 40°53'44", long 79°38'02", Hydrologic Unit 05010009, at State Game Lands No. 259.
Owner: U.S. Geological Survey.
AQUIFER.--Allegheny Formation, Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 152.5 ft, cased to 19 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of instrument shelf, 2.00 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are available from the USGS Pennsylvania Water Science Center Office. Water levels of Oct. 21-25, 2002 affected by well pumping and clean out of Oct. 21, 2002.
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 for the period of record indicated above.
Highest water level, 15.08 ft below land-surface datum, Jan. 13, 2005; lowest, 34.64 ft below land-surface datum, Oct. 4, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.08 ft below land-surface datum, Jan. 13; lowest, 22.84 ft below land-surface datum, Sept. 24.

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	20.48	21.10	19.23	19.70	19.84	17.74	18.56	18.20	20.81	21.55	22.13	22.39
2	20.59	21.00	18.72	19.83	20.00	18.22	18.18	18.24	20.84	21.67	22.12	22.48
3	20.76	20.98	18.25	19.71	19.98	18.60	17.70	18.39	20.82	21.75	22.13	22.57
4	20.76	20.57	18.21	18.91	20.14	18.78	17.45	18.66	20.83	21.78	22.16	22.65
5	21.00	20.31	18.38	17.89	20.29	18.96	16.83	18.86	20.89	21.72	22.20	22.72
6	21.10	20.11	18.46	16.70	20.35	19.11	16.32	18.90	20.91	21.74	22.26	22.74
7	21.18	20.03	18.39	16.21	20.25	19.00	16.10	18.95	20.96	21.78	22.24	22.68
8	21.15	20.29	18.64	15.92	19.89	18.37	16.24	19.17	21.03	21.78	22.27	22.59
9	21.08	20.51	18.60	15.91	19.19	17.91	16.53	19.39	21.10	21.85	22.25	22.58
10	21.17	20.57	18.17	15.82	18.31	17.59	16.74	19.52	21.15	21.91	22.20	22.67
11	21.24	20.58	17.93	15.91	17.92	17.39	17.03	19.74	21.17	21.90	22.22	22.71
12	21.18	20.70	18.02	15.59	17.71	17.48	17.24	20.04	21.17	21.87	22.23	22.66
13	21.04	20.95	18.03	15.23	17.94	17.89	17.49	20.17	21.10	21.84	22.21	22.59
14	21.03	21.12	18.44	15.36	17.82	18.20	17.93	20.03	21.09	21.84	22.24	22.53
15	21.01	21.07	18.68	15.57	17.22	18.45	18.36	19.96	21.07	21.89	22.36	22.60
16	21.12	20.97	18.68	15.49	16.54	18.58	18.74	19.96	21.12	21.94	22.35	22.62
17	21.35	20.94	18.76	15.66	16.44	18.64	18.89	19.96	21.22	21.96	22.34	22.64
18	21.52	20.92	18.79	16.01	16.63	18.79	19.07	19.95	21.36	21.96	22.33	22.71
19	21.10	20.93	18.85	15.91	16.88	18.82	19.28	19.94	21.51	21.98	22.29	22.72
20	21.00	20.92	19.20	16.19	17.05	18.69	19.43	19.93	21.57	22.05	22.32	22.67
21	21.10	21.05	19.32	16.63	16.97	18.58	19.63	20.08	21.51	21.99	22.33	22.75
22	21.20	21.00	19.60	16.70	17.14	18.50	19.62	20.07	21.49	21.97	22.34	22.67
23	21.18	20.88	19.39	17.25	17.23	18.26	19.34	20.02	21.60	22.05	22.42	22.70
24	20.98	20.66	19.11	17.61	17.23	18.30	19.03	20.17	21.61	22.04	22.50	22.82
25	20.97	20.29	18.81	17.76	17.35	18.35	18.75	20.35	21.63	21.96	22.55	22.77
26	21.06	20.46	18.76	17.97	17.59	18.37	18.56	20.38	21.66	21.97	22.45	22.57
27	21.08	20.29	19.04	18.73	17.84	18.40	18.39	20.42	21.70	21.90	22.35	22.69
28	21.14	20.07	19.09	19.18	17.71	18.18	18.37	20.47	21.66	22.03	22.39	22.70
29	21.03	20.08	19.09	19.24	---	18.31	18.26	20.57	21.64	22.09	22.43	22.61
30	20.90	19.82	19.35	19.30	---	18.43	18.12	20.65	21.63	22.15	22.35	22.78
31	20.94	---	19.44	19.62	---	18.37	---	20.74	---	22.15	22.13	---
MEAN	21.05	20.64	18.76	17.21	18.19	18.36	18.07	19.74	21.26	21.91	22.29	22.65
MAX	21.52	21.12	19.60	19.83	20.35	19.11	19.63	20.74	21.70	22.15	22.55	22.82
MIN	20.48	19.82	17.93	15.23	16.44	17.39	16.10	18.20	20.81	21.55	22.12	22.39



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

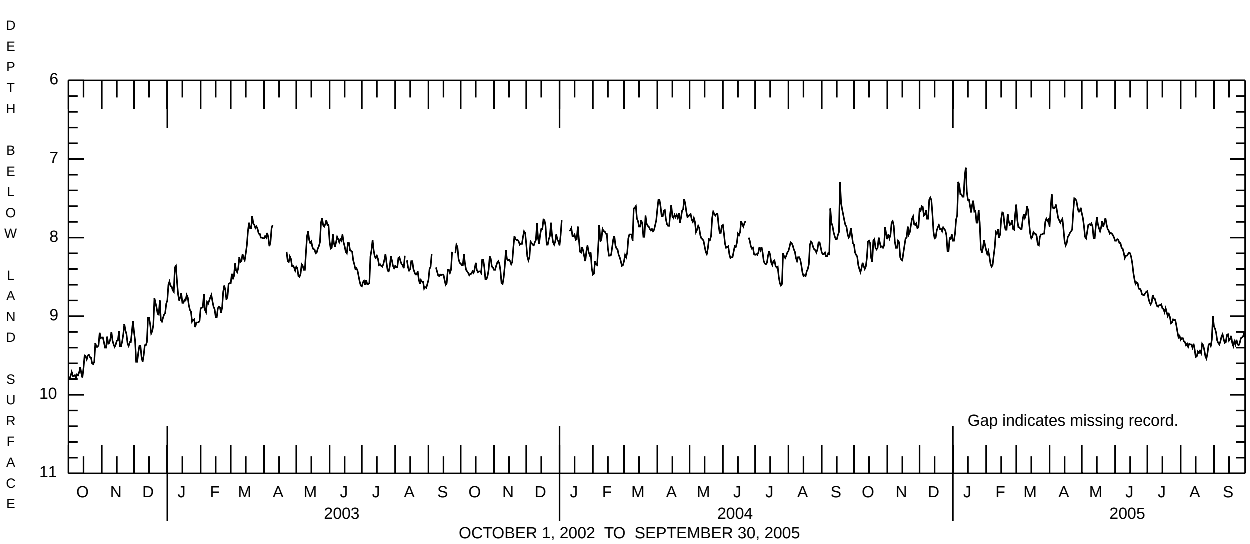
BEAVER COUNTY

403006080252301. Local number, BV 156.

LOCATION.--Lat 40°30'06", long 80°25'23", Hydrologic Unit 05030101, at Raccoon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Glenshaw Formation of Late Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 101 ft, cased to 25 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since Aug. 23, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 930 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 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 1991, are 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, 6.74 ft below land-surface datum, Sept. 17, 18, 2004: lowest, 13.72 ft below land-surface datum, June 5, 1968.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.03 ft below land-surface datum, Jan. 13; lowest, 9.54 ft below land-surface datum, Aug. 25.

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	8.02	7.64	8.04	8.16	7.58	7.86	7.69	8.04	8.68	9.30	9.13
2	8.19	7.96	7.66	8.04	8.21	7.78	7.64	7.75	8.04	8.77	9.28	9.16
3	8.22	8.01	7.60	7.95	8.17	7.87	7.45	7.85	8.02	8.82	9.28	9.21
4	8.24	7.96	7.61	7.77	8.24	7.87	7.62	7.99	8.03	8.85	9.32	9.31
5	8.35	7.81	7.72	7.72	8.33	7.89	7.63	8.01	8.07	8.83	9.33	9.34
6	8.40	7.79	7.71	7.29	8.37	7.89	7.62	7.93	8.07	8.73	9.37	9.36
7	8.44	7.85	7.65	7.33	8.35	7.77	7.58	7.84	8.13	8.77	9.35	9.32
8	8.39	8.05	7.76	7.45	8.23	7.70	7.67	7.83	8.14	8.78	9.39	9.26
9	8.32	8.13	7.76	7.45	8.12	7.75	7.75	7.84	8.19	8.83	9.35	9.23
10	8.36	8.13	7.52	7.48	7.93	7.71	7.78	7.82	8.26	8.87	9.36	9.29
11	8.40	8.04	7.49	7.48	7.95	7.60	7.81	7.86	8.23	8.88	9.36	9.34
12	8.37	8.06	7.52	7.22	7.89	7.65	7.78	8.01	8.23	8.86	9.40	9.33
13	8.26	8.25	7.70	7.11	8.00	7.82	7.76	8.01	8.21	8.86	9.35	9.24
14	8.05	8.28	7.93	7.42	7.96	7.95	7.90	7.86	8.19	8.85	9.42	9.23
15	8.04	8.29	8.01	7.52	7.76	8.01	8.05	7.74	8.20	8.90	9.52	9.31
16	8.07	8.19	8.00	7.52	7.68	7.99	8.10	7.83	8.25	8.91	9.51	9.29
17	8.26	8.10	7.91	7.60	7.69	7.93	8.07	7.88	8.33	8.95	9.45	9.25
18	8.31	8.01	7.87	7.68	7.83	7.95	7.99	7.92	8.45	8.90	9.47	9.34
19	8.04	8.00	7.84	7.58	7.90	7.95	7.97	7.87	8.53	8.95	9.44	9.38
20	8.02	7.86	7.89	7.53	7.90	7.98	7.94	7.79	8.59	9.00	9.47	9.32
21	8.13	7.96	7.89	7.67	7.70	8.09	7.92	7.86	8.57	8.97	9.35	9.36
22	8.15	7.93	7.92	7.66	7.79	8.10	7.90	7.81	8.58	9.01	9.37	9.30
23	8.13	7.84	7.87	7.81	7.84	7.99	7.68	7.75	8.65	9.09	9.43	9.36
24	8.00	7.76	7.89	7.81	7.83	7.96	7.50	7.83	8.65	9.08	9.51	9.37
25	8.06	7.73	7.91	7.65	7.78	7.96	7.51	7.89	8.67	9.04	9.54	9.34
26	8.12	7.83	7.97	7.81	7.89	7.95	7.53	7.91	8.72	9.05	9.47	9.28
27	8.11	7.84	8.17	8.14	7.90	7.95	7.61	7.95	8.73	9.05	9.36	9.27
28	8.13	7.82	8.17	8.19	7.70	7.80	7.67	7.94	8.73	9.12	9.35	9.26
29	8.10	7.88	8.01	8.13	---	7.76	7.67	7.95	8.71	9.20	9.38	9.22
30	7.87	7.87	8.02	8.03	---	7.79	7.62	7.97	8.69	9.27	9.30	9.27
31	7.96	---	7.96	8.10	---	7.77	---	8.00	---	9.25	9.00	---
MEAN	8.18	7.97	7.82	7.68	7.97	7.86	7.75	7.88	8.36	8.94	9.38	9.29
MAX	8.44	8.29	8.17	8.19	8.37	8.10	8.10	8.01	8.73	9.27	9.54	9.38
MIN	7.87	7.73	7.49	7.11	7.68	7.58	7.45	7.69	8.02	8.68	9.00	9.13



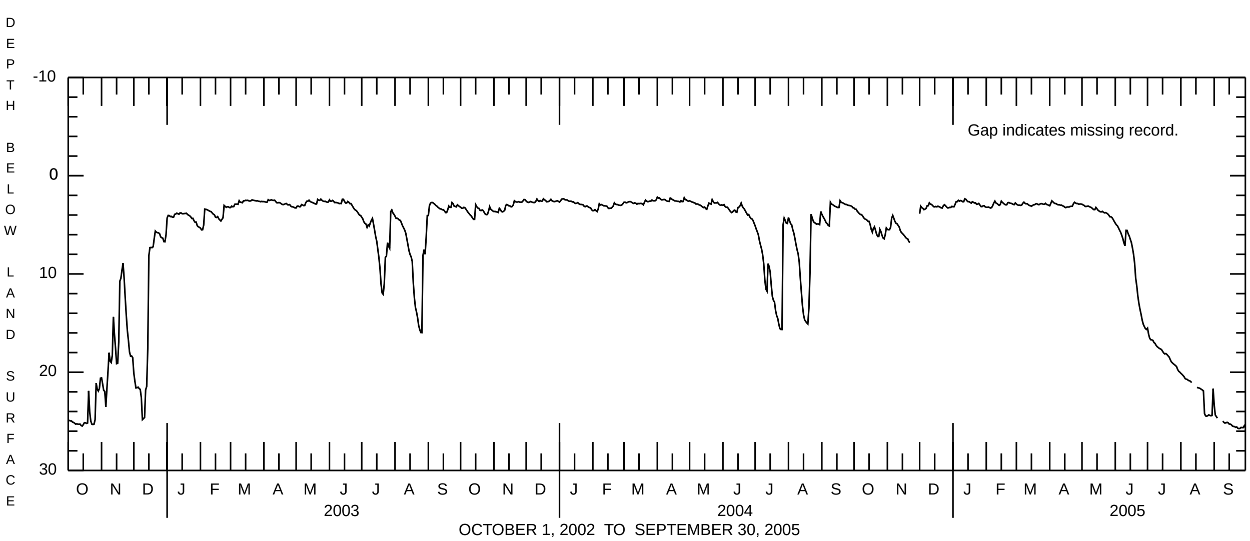
BUTLER COUNTY

410501079524401. Local number, BT 311.

LOCATION.--Lat 41°05'01", long 79°52'44", Hydrologic Unit 05030105, at State Game Land Number 95.
Owner: U.S. Geological Survey.
AQUIFER.--Kittanning Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 89 ft, cased to 12 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since March 15, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,465 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.14 ft above land-surface datum. Prior to Mar. 15, 2001, top of casing, 2.30 ft.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since March 2001, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--November 1970 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, 1.98 ft below land-surface datum, May 18, 2002; lowest, 31.06 ft below land-surface datum, Oct. 16, 17, 18, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.24 ft below land-surface datum, Jan. 6, 12; lowest, 25.74 ft below land-surface datum, Sept. 24.

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	3.29	5.47	3.87	3.16	3.21	2.88	3.06	2.90	4.83	15.52	20.11	23.31
2	3.41	5.50	3.10	3.16	3.21	2.97	2.82	2.97	5.00	16.14	20.21	24.34
3	3.42	5.49	3.25	2.91	3.19	3.00	2.56	3.02	5.10	16.54	20.33	24.52
4	3.62	5.24	3.32	2.64	3.24	2.99	2.66	3.13	5.32	16.70	20.46	24.67
5	3.74	4.31	3.45	2.64	3.29	3.02	2.77	3.13	5.55	16.71	20.65	---
6	3.87	4.04	3.41	2.50	3.24	2.98	2.83	3.10	5.76	16.76	20.71	---
7	3.95	4.34	3.33	2.59	3.04	2.80	2.84	3.09	6.06	16.98	20.74	---
8	3.96	4.64	3.06	2.53	2.78	2.69	2.93	3.16	6.39	17.07	20.84	---
9	4.10	4.84	3.05	2.56	2.58	2.81	2.96	3.20	6.83	17.27	20.87	24.98
10	4.28	4.89	2.76	2.65	2.78	2.86	2.96	3.26	7.13	17.40	20.93	25.10
11	4.40	5.06	2.90	2.65	2.83	2.85	3.00	3.37	5.56	17.49	21.06	25.18
12	4.44	5.22	2.92	2.35	2.93	2.94	2.99	3.45	5.57	17.58	---	25.15
13	4.52	5.58	3.02	2.40	3.02	3.03	3.07	3.45	5.91	17.63	---	25.10
14	4.64	5.78	3.15	2.55	2.94	3.05	3.10	3.23	6.15	17.70	---	25.15
15	4.65	5.88	3.17	2.64	2.59	3.11	3.21	3.37	6.48	17.87	---	25.28
16	4.98	6.00	3.13	2.64	2.72	3.03	3.25	3.52	6.81	18.04	21.54	25.28
17	5.47	6.13	3.17	2.72	2.81	2.96	3.19	3.60	7.37	18.14	21.59	25.35
18	5.75	6.29	3.10	2.79	2.91	2.95	3.18	3.67	8.01	18.10	21.61	25.48
19	5.36	6.39	3.15	2.65	2.96	2.87	3.19	3.68	8.91	18.19	21.66	25.52
20	5.20	6.44	3.20	2.70	2.96	2.85	3.13	3.63	10.43	18.32	21.74	25.54
21	5.57	6.71	3.27	2.78	2.75	2.92	3.11	3.72	11.23	18.44	21.81	25.61
22	5.96	6.79	3.29	2.76	2.73	2.95	3.11	3.78	12.26	18.68	21.90	25.57
23	6.18	---	3.07	2.91	2.79	2.88	2.87	3.76	13.01	18.92	24.21	25.71
24	6.18	---	2.95	2.89	2.81	2.84	2.70	3.81	13.61	19.04	24.45	25.74
25	5.46	---	3.04	2.82	2.85	2.86	2.78	3.89	14.11	19.14	24.48	25.72
26	5.69	---	3.17	2.97	2.92	2.90	2.83	4.02	14.68	19.23	24.43	25.62
27	6.06	---	3.28	3.13	2.94	2.91	2.83	4.18	15.11	19.32	24.34	25.64
28	6.34	---	3.27	3.15	2.77	2.81	2.90	4.18	15.35	19.43	24.40	25.64
29	6.42	---	3.22	3.07	---	2.92	2.88	4.27	15.56	19.72	24.43	25.45
30	6.02	---	3.23	3.06	---	2.95	2.88	4.44	15.65	19.90	24.40	25.64
31	5.32	---	3.12	3.17	---	3.01	---	4.65	---	19.99	21.68	---
MEAN	4.91	5.50	3.17	2.78	2.92	2.92	2.95	3.57	8.99	18.00	22.06	25.24
MAX	6.42	6.79	3.87	3.17	3.29	3.11	3.25	4.65	15.65	19.99	24.48	25.74
MIN	3.29	4.04	2.76	2.35	2.58	2.69	2.56	2.90	4.83	15.52	20.11	23.31



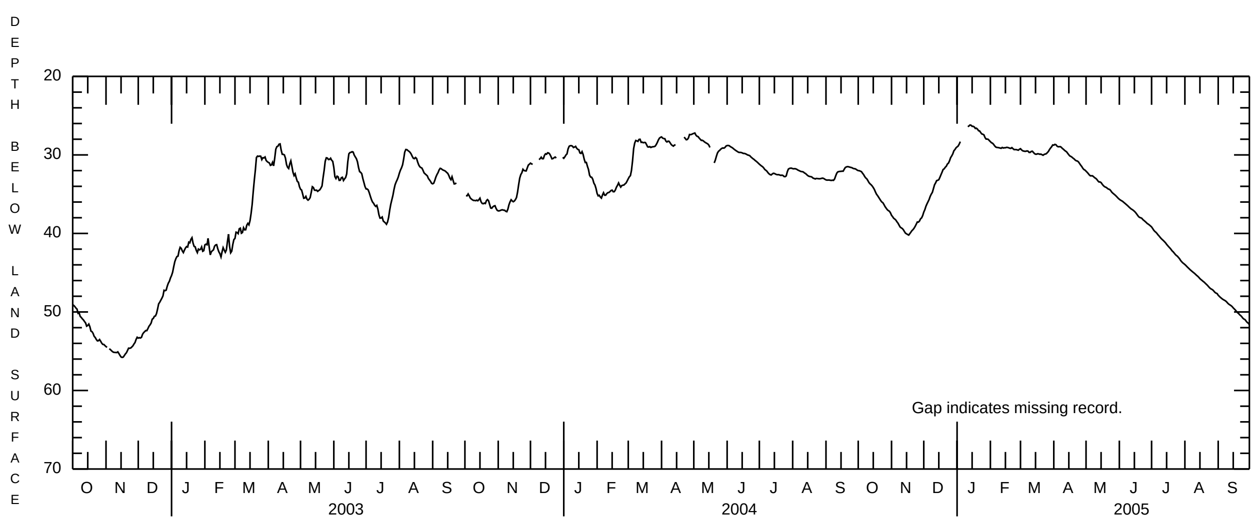
CLARION COUNTY

412020079133901. Local number, CR 3.

LOCATION.--Lat 41°20'20", long 79°13'39", Hydrologic Unit 05010005, at Cooks Forest State Park.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Pottsville Formation, Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 130 ft, cased to 12 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,545 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.80 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--Jan. 1970 to Dec. 1974; July 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, 25.82 ft below land-surface datum, May 20, 2002; lowest, 75.90 ft below land-surface datum, Dec. 1, 1971.
EXTREMES FOR CURRENT YEAR.--Highest water level, 26.09 ft below land-surface datum, Jan. 13; lowest, 51.70 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	32.00	37.69	37.28	28.98	28.31	29.21	28.76	32.07	35.65	39.17	43.96	47.87
2	32.01	37.86	36.98	28.87	28.45	29.36	28.66	32.21	35.75	39.37	44.09	48.01
3	32.07	38.07	36.55	28.62	28.51	29.47	28.70	32.36	35.83	39.58	44.24	48.14
4	32.13	38.17	36.23	28.31	28.66	29.51	28.88	32.54	35.91	39.74	44.37	48.25
5	32.33	38.30	35.95	---	28.85	29.54	28.96	32.66	36.03	39.85	44.50	48.36
6	32.50	38.51	35.67	---	29.00	29.54	28.96	32.66	36.14	40.00	44.64	48.45
7	32.75	38.69	35.27	---	29.05	29.49	28.94	32.66	36.26	40.18	44.75	48.52
8	32.93	38.94	34.99	---	29.06	29.52	29.03	32.77	36.38	40.33	44.87	48.61
9	33.05	39.18	34.77	---	29.09	29.68	29.18	32.90	36.50	40.50	44.98	48.74
10	33.27	39.29	34.29	---	29.12	29.68	29.28	32.98	36.64	40.66	45.09	48.90
11	33.52	39.37	33.81	26.40	29.16	29.56	29.42	33.11	36.76	40.79	45.22	49.02
12	33.68	39.53	33.57	26.32	29.05	29.53	29.52	33.30	36.88	40.91	45.35	49.11
13	33.80	39.76	33.27	26.19	29.12	29.67	29.62	33.44	36.96	41.05	45.46	49.20
14	33.96	39.97	33.23	26.22	29.09	29.83	29.81	33.44	37.06	41.20	45.60	49.32
15	34.16	40.05	33.16	26.36	29.09	29.91	29.99	33.52	37.18	41.39	45.76	49.48
16	34.39	40.14	32.86	26.36	29.04	29.91	30.14	33.72	37.32	41.55	45.88	49.62
17	34.71	40.21	32.52	26.44	29.05	29.85	30.20	33.89	37.50	41.71	45.99	49.76
18	35.00	40.03	32.21	26.63	29.09	29.87	30.30	34.02	37.69	41.85	46.11	49.93
19	35.18	39.84	31.86	26.60	29.15	29.92	30.42	34.10	37.87	42.01	46.21	50.09
20	35.39	39.64	31.77	26.72	29.17	29.90	30.52	34.15	37.97	42.20	46.35	50.20
21	35.61	39.51	31.57	26.92	29.07	29.97	30.67	34.28	38.01	42.33	46.48	50.36
22	35.83	39.33	31.44	26.95	29.20	30.04	30.75	34.36	38.08	42.49	46.61	50.47
23	36.00	39.10	31.16	27.16	29.32	29.94	30.78	34.40	38.25	42.66	46.77	50.62
24	36.10	38.82	31.04	27.33	29.32	29.89	30.90	34.55	38.36	42.80	46.92	50.80
25	36.33	38.54	30.74	27.37	29.32	29.85	31.10	34.75	38.48	42.90	47.04	50.91
26	36.59	38.56	30.35	27.45	29.36	29.71	31.30	34.88	38.60	43.06	47.11	50.98
27	36.78	38.42	30.13	27.79	29.40	29.56	31.47	34.99	38.74	43.22	47.20	51.17
28	36.97	38.14	29.87	27.98	29.28	29.31	31.70	35.11	38.82	43.44	47.35	51.33
29	37.09	38.02	29.48	27.98	---	29.12	31.86	35.24	38.93	43.60	47.51	51.43
30	37.17	37.72	29.32	28.02	---	28.96	31.93	35.38	39.05	43.74	47.60	51.62
31	37.38	---	29.10	28.18	---	28.73	---	35.53	---	43.85	47.66	---
MEAN	34.54	38.98	32.92	27.29	29.05	29.61	30.06	33.74	37.32	41.55	45.86	49.64
MAX	37.38	40.21	37.28	28.98	29.40	30.04	31.93	35.53	39.05	43.85	47.66	51.62
MIN	32.00	37.69	29.10	26.19	28.31	28.73	28.66	32.07	35.65	39.17	43.96	47.87



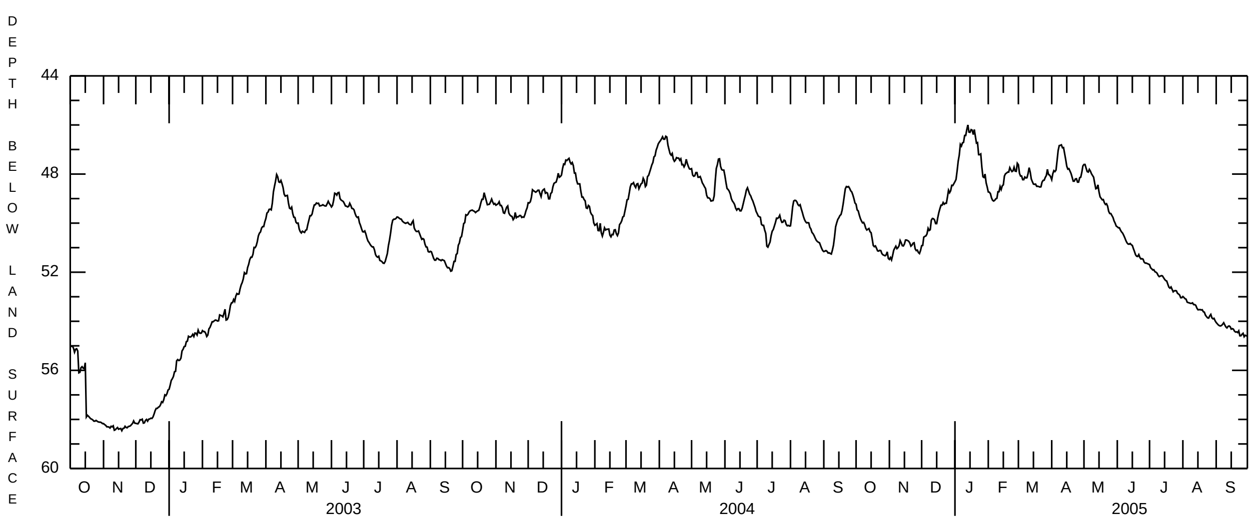
CRAWFORD COUNTY

413542080245002. Local number, CW 413.

LOCATION.--Lat 41°35'42", long 80°24'50", Hydrologic Unit 05030102, at State Game Land Number 214 near Hartstown.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Cussewago Formation of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 100 ft, cased to 19 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since May 4, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.43 ft above land-surface datum. Prior to May 2, 2001, measuring point, top of casing, 2.70 ft above land surface datum.
REMARKS.--Since the June 9, 1981 well pumping and clean out, the monthly mean water levels have generally been from 12 to 24 feet lower. Water levels were also affected by intermittent pumping. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since May 2001, are available from the USGS Pennsylvania Water Science Center Office. Since the Oct. 16, 2002 well pumping and clean out, the water level recovered by 2.2 ft less than the prior static level.
PERIOD OF RECORD.--July 1967 to current year. Prior to June 1981, water-level data stored with well identification number 413542080245001.
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, 20.02 ft below land-surface datum, Feb. 23, 1975; lowest, 58.46 ft below land-surface datum, Nov. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 45.65 ft below land-surface datum, Jan. 13; lowest, 54.63 ft below land-surface datum, Sept. 27.

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	49.23	51.48	50.92	48.31	48.73	47.62	48.23	47.61	50.15	51.69	52.99	54.05
2	49.46	51.40	50.91	48.22	48.74	47.97	47.99	47.61	50.19	51.82	53.03	54.10
3	49.50	51.50	50.57	47.87	48.80	48.08	47.86	47.76	50.19	51.86	53.08	54.15
4	49.67	51.32	50.54	47.48	48.97	48.08	47.90	47.90	50.29	51.91	53.10	54.18
5	49.81	51.11	50.52	47.23	49.07	48.23	47.84	47.92	50.36	51.90	53.22	54.19
6	49.91	51.02	50.44	46.79	49.10	48.23	47.45	47.81	50.41	51.98	53.24	54.17
7	49.99	50.94	50.21	46.86	49.07	48.12	47.04	47.88	50.50	52.00	53.25	54.12
8	49.97	51.04	50.30	46.73	49.01	48.16	46.84	47.99	50.60	52.04	53.27	54.06
9	50.06	51.00	50.27	46.71	48.99	48.15	46.83	48.06	50.71	52.13	53.27	54.15
10	50.21	50.92	49.88	46.43	48.72	47.98	46.81	48.13	50.80	52.18	53.25	54.23
11	50.28	50.71	49.81	46.43	48.72	47.74	46.93	48.38	50.85	52.16	53.32	54.27
12	50.25	50.80	49.82	46.19	48.51	47.92	46.92	48.60	50.86	52.14	53.32	54.21
13	50.22	50.92	49.87	46.00	48.63	48.20	47.16	48.58	50.83	52.15	53.35	54.19
14	50.35	50.93	50.02	46.29	48.48	48.31	47.41	48.44	50.88	52.22	53.46	54.22
15	50.39	50.85	50.02	46.30	48.44	48.41	47.68	48.73	50.91	52.29	53.53	54.32
16	50.64	50.69	49.78	46.19	48.08	48.42	47.80	48.93	51.04	52.34	53.53	54.30
17	50.91	50.69	49.57	46.21	47.99	48.41	47.78	48.99	51.16	52.36	53.52	54.32
18	50.96	50.71	49.41	46.39	47.96	48.50	47.88	49.05	51.29	52.49	53.54	54.40
19	50.93	50.74	49.27	46.19	47.92	48.50	47.98	49.04	51.35	52.61	53.53	54.44
20	51.02	50.81	49.27	46.47	47.92	48.51	48.13	49.17	51.36	52.65	53.61	54.43
21	51.13	50.94	49.16	46.74	47.74	48.53	48.29	49.24	51.28	52.60	53.63	54.46
22	51.14	50.90	49.23	46.72	47.83	48.52	48.29	49.21	51.40	52.70	53.75	54.39
23	51.11	50.82	49.19	47.21	47.90	48.33	48.20	49.31	51.46	52.80	53.81	54.59
24	51.12	50.80	49.19	47.21	47.87	48.26	48.19	49.52	51.45	52.76	53.86	54.59
25	51.24	51.05	48.94	47.18	47.72	48.25	48.33	49.61	51.47	52.75	53.87	54.53
26	51.29	51.12	48.66	47.71	47.88	48.14	48.33	49.61	51.59	52.76	53.78	54.49
27	51.31	51.10	48.76	48.11	47.89	48.06	48.15	49.69	51.63	52.86	53.72	54.63
28	51.33	51.20	48.68	48.14	47.56	47.81	48.13	49.77	51.63	52.89	53.86	54.57
29	51.29	51.24	48.46	48.00	---	48.02	47.93	49.91	51.65	52.93	53.90	54.59
30	51.17	51.11	48.47	48.36	---	48.04	47.67	50.00	51.67	53.04	53.88	54.61
31	51.44	---	48.39	48.53	---	48.11	---	50.12	---	53.04	53.98	---
MEAN	50.56	51.00	49.63	47.07	48.37	48.18	47.73	48.79	51.00	52.39	53.50	54.33
MAX	51.44	51.50	50.92	48.53	49.10	48.53	48.33	50.12	51.67	53.04	53.98	54.63
MIN	49.23	50.69	48.39	46.00	47.56	47.62	46.81	47.61	50.15	51.69	52.99	54.05



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

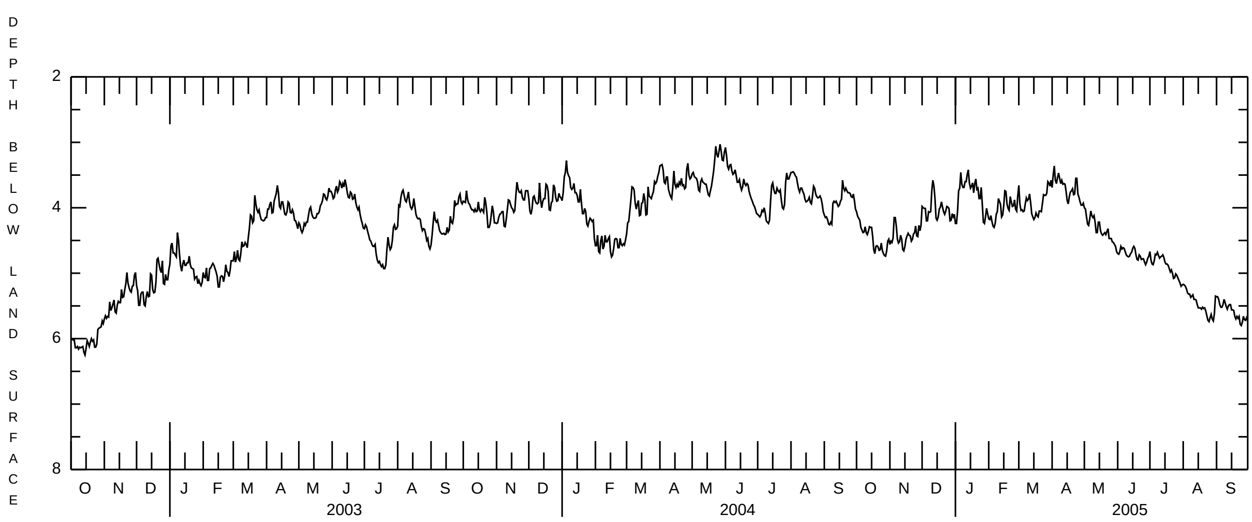
ELK COUNTY

412458078324601. Local number, EK 108.

LOCATION.--Lat 41°24'58", long 78°32'46", Hydrologic Unit 05010005, at St. Marys.
Owner: St. Marys Municipal Joint Water Authority.
AQUIFER.--Pottsville Group of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in., depth 340 ft, cased to 40 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since July 25, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood instrument shelf, 2.65 ft above land-surface datum. Prior to July 25, 2001, top of casing, 2.30 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since May 2001, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--October 1974 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, 1.95 ft below land-surface datum, Mar. 4, 1991; lowest, 9.24 ft below land-surface datum, Jan. 21, 1996.
EXTREMES FOR CURRENT YEAR.--Highest water level, 3.01 ft below land-surface datum, Apr. 3; lowest, 5.80 ft below land-surface datum, Sept. 24.

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	4.06	4.56	3.98	4.24	4.17	3.66	3.69	4.00	4.70	4.67	5.17	5.36
2	4.13	4.51	4.00	4.24	4.18	3.94	3.50	4.02	4.71	4.80	5.18	5.36
3	4.16	4.53	4.01	4.05	4.12	4.04	3.36	4.14	4.67	4.86	5.20	5.40
4	4.19	4.46	4.01	3.74	4.21	4.03	3.58	4.25	4.59	4.87	5.24	5.48
5	4.30	4.15	4.20	3.70	4.28	4.06	3.63	4.27	4.63	4.81	5.30	5.52
6	4.34	4.15	4.20	3.46	4.30	4.05	3.54	4.17	4.61	4.71	5.32	5.52
7	4.38	4.28	4.06	3.64	4.24	3.94	3.47	4.05	4.62	4.72	5.32	5.48
8	4.37	4.48	4.07	3.69	4.10	3.85	3.55	4.12	4.67	4.68	5.37	5.40
9	4.29	4.54	4.06	3.69	4.06	3.89	3.63	4.15	4.72	4.73	5.35	5.45
10	4.38	4.52	3.74	3.60	3.86	3.87	3.58	4.12	4.74	4.77	5.33	5.51
11	4.41	4.42	3.58	3.60	3.90	3.79	3.64	4.22	4.75	4.75	5.40	5.55
12	4.36	4.48	3.67	3.49	3.95	3.92	3.63	4.38	4.74	4.74	5.40	5.50
13	4.29	4.64	3.86	3.42	4.14	4.09	3.64	4.38	4.70	4.72	5.41	5.48
14	4.30	4.66	4.16	3.62	4.11	4.14	3.75	4.22	4.68	4.76	5.48	5.48
15	4.30	4.59	4.19	3.70	3.96	4.18	3.89	4.22	4.62	4.83	5.53	5.56
16	4.44	4.48	4.14	3.67	3.74	4.15	3.94	4.35	4.59	4.86	5.53	5.56
17	4.64	4.43	4.02	3.62	3.75	4.08	3.83	4.40	4.62	4.86	5.53	5.57
18	4.70	4.39	3.99	3.77	3.94	4.12	3.76	4.42	4.72	4.88	5.55	5.66
19	4.59	4.42	3.91	3.63	4.01	4.14	3.74	4.40	4.79	4.93	5.52	5.70
20	4.58	4.43	3.99	3.56	4.04	4.05	3.71	4.38	4.80	4.98	5.54	5.66
21	4.60	4.51	4.06	3.72	3.83	4.05	3.80	4.41	4.72	4.95	5.53	5.69
22	4.65	4.48	4.10	3.70	3.91	4.06	3.79	4.36	4.74	5.00	5.58	5.66
23	4.64	4.40	4.05	3.86	3.98	3.93	3.55	4.32	4.79	5.08	5.65	5.78
24	4.54	4.38	3.98	3.86	3.97	3.80	3.55	4.47	4.78	5.07	5.72	5.80
25	4.65	4.28	3.99	3.69	3.88	3.81	3.79	4.47	4.78	5.01	5.74	5.75
26	4.70	4.43	4.01	3.94	4.02	3.81	3.84	4.47	4.83	5.03	5.68	5.66
27	4.73	4.44	4.20	4.22	4.05	3.78	3.91	4.52	4.87	5.07	5.63	5.71
28	4.74	4.27	4.19	4.24	3.82	3.60	3.96	4.53	4.83	5.11	5.70	5.72
29	4.66	4.35	4.09	4.14	---	3.62	3.96	4.56	4.77	5.15	5.73	5.68
30	4.51	4.27	4.14	4.01	---	3.67	3.93	4.59	4.74	5.20	5.62	5.72
31	4.48	---	4.10	4.09	---	3.58	---	4.67	---	5.18	5.35	---
MEAN	4.46	4.43	4.02	3.79	4.02	3.93	3.70	4.32	4.72	4.90	5.47	5.58
MAX	4.74	4.66	4.20	4.24	4.30	4.18	3.96	4.67	4.87	5.20	5.74	5.80
MIN	4.06	4.15	3.58	3.42	3.74	3.58	3.36	4.00	4.59	4.67	5.17	5.36



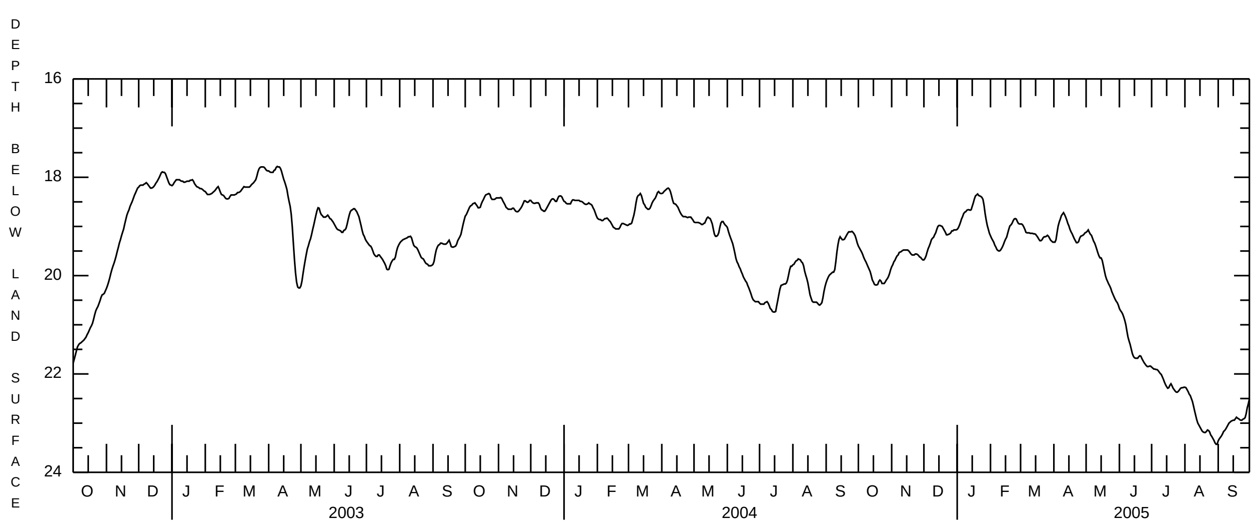
ERIE COUNTY

415607080044601. Local number, ER 82.

LOCATION.--Lat 41°56'07", long 80°04'46", Hydrologic Unit 05010004, near McLane.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Riceville Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 82 ft, cased to 56 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since May 17, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,419 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of metal table, 3.44 ft above land-surface datum. Prior to May 17, 2001, top of plywood cover, 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 May 2001, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--July 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, 10.00 ft below land-surface datum, Mar. 17, 1973; lowest, 24.89 ft below land-surface datum, Oct. 21-23, 1998.
EXTREMES FOR CURRENT YEAR.--Highest water level, 18.34 ft below land-surface datum, Jan. 19-21; lowest, 23.43 ft below land-surface datum, Aug. 30, 31.

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	19.40	19.82	19.68	19.06	19.19	18.95	19.32	19.12	20.67	21.86	22.27	23.36
2	19.44	19.78	19.65	19.03	19.24	18.95	19.32	19.10	20.71	21.88	22.28	23.32
3	19.48	19.72	19.60	18.98	19.28	18.97	19.27	19.07	20.74	21.90	22.32	23.29
4	19.52	19.69	19.52	18.92	19.32	19.01	19.12	19.12	20.78	21.90	22.36	23.26
5	19.57	19.64	19.45	18.85	19.38	19.06	18.99	19.16	20.84	21.91	22.41	23.22
6	19.63	19.60	19.40	18.80	19.42	19.12	18.91	19.18	20.91	21.91	22.44	23.17
7	19.68	19.58	19.34	18.74	19.47	19.13	18.85	19.24	21.00	21.93	22.50	23.15
8	19.72	19.53	19.27	18.71	19.49	19.13	18.78	19.30	21.13	21.96	22.56	23.12
9	19.77	19.52	19.24	18.70	19.50	19.13	18.75	19.34	21.25	21.99	22.65	23.08
10	19.82	19.51	19.22	18.67	19.49	19.14	18.72	19.40	21.33	22.01	22.75	23.04
11	19.87	19.49	19.17	18.66	19.46	19.14	18.76	19.47	21.40	22.06	22.84	23.00
12	19.92	19.48	19.13	18.66	19.42	19.14	18.81	19.54	21.49	22.11	22.93	22.98
13	20.00	19.48	19.06	18.67	19.37	19.15	18.87	19.60	21.58	22.17	23.00	22.96
14	20.09	19.48	19.00	18.66	19.31	19.15	18.94	19.64	21.64	22.22	23.04	22.95
15	20.13	19.48	18.98	18.59	19.26	19.16	18.99	19.64	21.67	22.26	23.08	22.94
16	20.18	19.48	18.98	18.52	19.22	19.19	19.06	19.69	21.68	22.29	23.12	22.94
17	20.19	19.50	18.99	18.44	19.14	19.22	19.11	19.79	21.68	22.28	23.16	22.91
18	20.19	19.53	19.00	18.38	19.06	19.26	19.15	19.90	21.68	22.23	23.18	22.88
19	20.18	19.56	19.04	18.36	18.99	19.29	19.20	20.00	21.65	22.20	23.19	22.90
20	20.12	19.58	19.08	18.34	18.97	19.29	19.25	20.07	21.63	22.24	23.19	22.91
21	20.09	19.58	19.12	18.37	18.94	19.27	19.29	20.12	21.64	22.29	23.17	22.93
22	20.11	19.58	19.17	18.38	18.89	19.23	19.33	20.17	21.69	22.32	23.14	22.94
23	20.16	19.56	19.17	18.39	18.85	19.21	19.33	20.21	21.73	22.35	23.15	22.94
24	20.16	19.56	19.16	18.41	18.84	19.21	19.31	20.26	21.77	22.37	23.18	22.92
25	20.16	19.57	19.15	18.45	18.85	19.20	19.24	20.33	21.80	22.37	23.24	22.91
26	20.13	19.59	19.13	18.57	18.90	19.18	19.20	20.38	21.83	22.35	23.27	22.89
27	20.09	19.62	19.09	18.74	18.94	19.20	19.19	20.43	21.85	22.32	23.31	22.81
28	20.06	19.63	19.09	18.87	18.95	19.24	19.18	20.48	21.85	22.29	23.35	22.69
29	20.02	19.66	19.07	18.98	---	19.28	19.16	20.52	21.84	22.28	23.40	22.61
30	19.96	19.68	19.07	19.06	---	19.30	19.13	20.55	21.84	22.28	23.43	22.51
31	19.88	---	19.07	19.14	---	19.32	---	20.60	---	22.27	23.43	---
MEAN	19.93	19.58	19.20	18.68	19.18	19.17	19.08	19.79	21.44	22.15	22.95	22.98
MAX	20.19	19.82	19.68	19.14	19.50	19.32	19.33	20.60	21.85	22.37	23.43	23.36
MIN	19.40	19.48	18.98	18.34	18.84	18.95	18.72	19.07	20.67	21.86	22.27	22.51



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

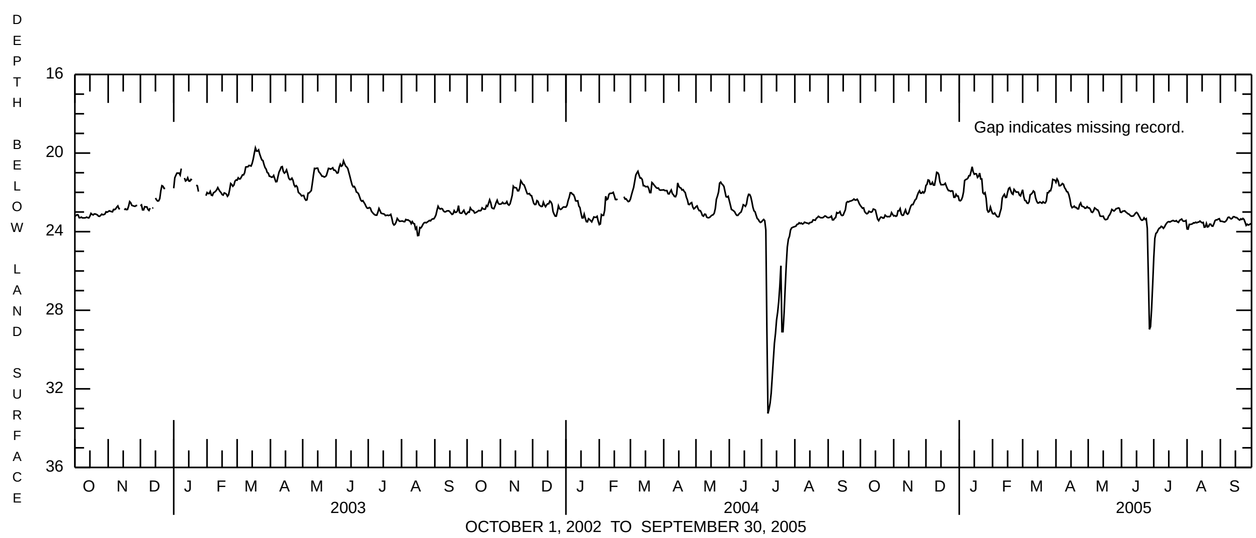
FAYETTE COUNTY

394843079351401. Local number, FA 17.

LOCATION.--Lat 39°48'43", long 79°35'14", Hydrologic unit 05020006, at Fort Necessity National Battlefield.
Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of Glenshaw Formation of Late Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 100 ft, cased to 19 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since Dec. 12, 2000. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,910 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 ft above land-surface datum.
REMARKS.--Water levels affected by intermittent pumping. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since December 2000, are 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, 18.56 ft below land-surface datum, Apr. l, 1992; lowest, 40.00 ft below land-surface datum, Nov. 8, 1967.
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.52 ft below land-surface datum, Jan. 13; lowest, 28.97 ft below land-surface datum, June 27.

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	22.67	23.20	21.65	22.41	23.08	21.87	21.49	22.79	23.02	25.35	23.86	23.47
2	22.74	23.18	21.59	22.43	23.10	22.21	21.32	22.79	22.96	24.34	23.87	23.47
3	22.81	23.22	21.37	22.38	23.05	22.41	21.41	22.86	22.95	24.09	23.63	23.48
4	22.79	23.19	21.39	22.24	23.14	22.42	21.66	23.00	22.94	24.04	23.63	23.50
5	22.98	22.94	21.59	21.98	23.22	22.54	21.66	23.02	23.00	23.92	23.62	23.51
6	23.05	22.94	21.59	21.40	23.25	22.56	21.62	22.94	23.04	23.83	23.60	23.47
7	23.09	22.83	21.49	21.35	23.23	22.48	21.55	22.79	23.09	23.80	23.55	23.40
8	23.06	23.10	21.63	21.33	23.02	22.12	21.59	22.83	23.11	23.73	23.56	23.28
9	22.96	23.17	21.63	21.28	22.83	22.09	21.76	22.88	23.17	23.76	23.52	23.26
10	22.99	23.16	21.33	21.15	22.29	22.03	21.84	22.90	23.21	23.83	23.55	23.31
11	23.01	23.02	20.98	21.15	22.18	21.93	21.96	23.01	23.21	23.76	23.52	23.35
12	22.98	22.89	21.00	20.94	22.10	21.98	21.98	23.20	23.20	23.65	23.51	23.32
13	22.85	23.07	21.10	20.70	22.26	22.27	22.12	23.22	23.14	23.57	23.46	23.24
14	22.87	23.11	21.47	20.96	22.25	22.44	22.35	23.22	23.06	23.51	23.51	23.24
15	22.90	23.04	21.61	21.08	21.99	22.54	22.67	23.21	23.02	23.49	23.55	23.28
16	23.13	22.85	21.61	21.05	21.80	22.54	22.78	23.34	23.07	23.51	23.53	23.28
17	23.36	22.69	21.61	21.06	21.76	22.49	22.75	23.39	23.18	23.48	23.77	23.32
18	23.44	22.62	21.60	21.24	21.92	22.52	22.70	23.38	23.27	23.45	23.76	23.38
19	23.34	22.62	21.54	21.18	22.06	22.55	22.77	23.35	23.38	23.43	23.58	23.41
20	23.26	22.49	21.69	21.02	22.10	22.48	22.77	23.21	23.42	23.46	23.76	23.35
21	23.27	22.38	21.82	21.32	21.85	22.53	22.84	23.14	23.40	23.47	23.74	23.38
22	23.31	22.33	21.91	21.32	21.92	22.54	22.84	23.03	23.30	23.44	23.62	23.33
23	23.30	22.15	21.91	22.02	21.99	22.44	22.63	22.87	23.38	23.50	23.62	23.38
24	23.16	22.01	21.95	22.08	21.98	22.02	22.54	22.91	23.34	23.53	23.71	23.52
25	23.21	21.92	21.92	22.02	21.99	22.02	22.70	22.95	23.84	23.43	23.72	23.68
26	23.24	22.04	21.94	22.30	22.14	21.92	22.72	22.90	26.32	23.39	23.60	23.62
27	23.23	22.04	22.25	22.89	22.18	21.92	22.74	22.83	28.97	23.36	23.44	23.66
28	23.24	21.97	22.25	23.00	22.02	21.73	22.81	22.82	28.83	23.45	23.40	23.64
29	23.20	22.03	22.10	22.97	---	21.34	22.80	22.79	27.94	23.47	23.40	23.60
30	23.03	21.95	22.19	22.75	---	21.36	22.73	22.81	26.69	23.46	23.36	23.62
31	23.12	---	22.19	22.93	---	21.38	---	23.01	---	23.43	23.34	---
MEAN	23.08	22.67	21.67	21.74	22.38	22.18	22.27	23.01	23.95	23.68	23.59	23.43
MAX	23.44	23.22	22.25	23.00	23.25	22.56	22.84	23.39	28.97	25.35	23.87	23.68
MIN	22.67	21.92	20.98	20.70	21.76	21.34	21.32	22.79	22.94	23.36	23.34	23.24



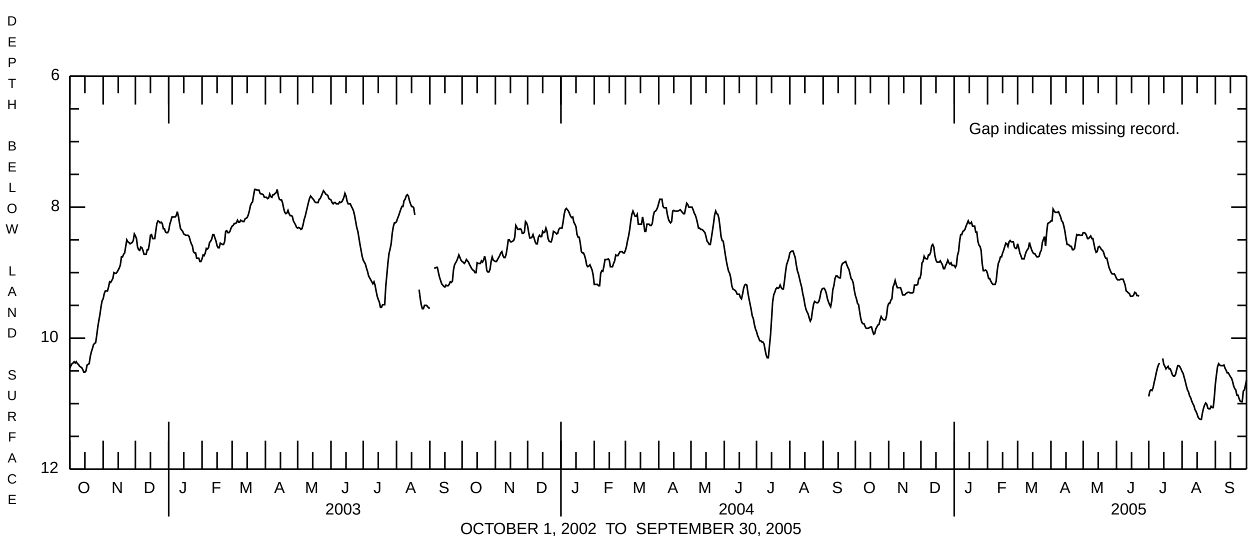
FOREST COUNTY

412823079030601. Local number, FO 11.

LOCATION.--Lat 41°28'23", long 79°03'06", Hydrologic Unit 05010005, in Allegheny National Forest.
Owner: U.S. Geological Survey.
AQUIFER.--Clarion Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 110 ft, cased to 23 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since June 7, 2001. Satellite telemetry at station
DATUM.--Elevation of land-surface datum is 1,780 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood table, 1.47 ft above land-surface datum. Prior to June 7, 2001, top of casing, 1.40 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since June 2001, are available from the USGS Pennsylvania Water Science Center Office. Well pumping and cleanout on Aug. 19, 2003 caused water levels to be about 0.9 ft lower.
PERIOD OF RECORD.--August 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, 7.06 ft below land-surface datum, May 14, 15, 2002; lowest, 12.07 ft below land-surface datum, Sept. 18, 19, 1982.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.99 ft below land-surface datum, Apr. 3, 4; lowest, 11.24 ft below land-surface datum, Aug. 18, 19.

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	9.35	9.47	9.03	8.89	9.02	8.56	8.21	8.39	9.09	10.89	10.51	10.70
2	9.40	9.47	8.85	8.92	9.09	8.62	8.21	8.39	9.11	10.81	10.54	10.56
3	9.47	9.42	8.83	8.89	9.09	8.70	8.03	8.40	9.11	10.79	10.60	10.44
4	9.49	9.40	8.75	8.74	9.13	8.74	8.06	8.43	9.11	10.80	10.66	10.39
5	9.60	9.22	8.78	8.68	9.16	8.79	8.08	8.48	9.10	10.76	10.73	10.41
6	9.70	9.18	8.79	8.52	9.18	8.79	8.08	8.48	9.10	10.68	10.79	10.42
7	9.76	9.12	8.79	8.42	9.18	8.79	8.08	8.46	9.10	10.61	10.82	10.42
8	9.78	9.18	8.73	8.42	9.18	8.73	8.07	8.44	9.14	10.53	10.88	10.42
9	9.78	9.23	8.73	8.37	9.13	8.68	8.11	8.48	9.19	10.46	10.91	10.41
10	9.82	9.23	8.69	8.36	8.97	8.65	8.15	8.48	9.28	10.41	10.96	10.46
11	9.85	9.23	8.59	8.34	8.86	8.63	8.21	8.56	9.29	10.38	11.00	10.49
12	9.85	9.23	8.57	8.29	8.82	8.54	8.23	8.64	9.31	---	11.03	10.53
13	9.85	9.28	8.61	8.25	8.76	8.60	8.29	8.69	9.32	---	11.09	10.53
14	9.84	9.34	8.74	8.21	8.76	8.65	8.37	8.68	9.36	10.31	11.12	10.56
15	9.83	9.34	8.81	8.25	8.70	8.69	8.48	8.61	9.36	10.40	11.16	10.59
16	9.83	9.34	8.84	8.25	8.66	8.71	8.57	8.60	9.36	10.43	11.21	10.61
17	9.89	9.32	8.84	8.23	8.60	8.71	8.57	8.62	9.34	10.47	11.23	10.66
18	9.94	9.31	8.84	8.29	8.55	8.74	8.58	8.65	9.30	10.45	11.24	10.73
19	9.93	9.30	8.82	8.29	8.56	8.76	8.60	8.66	9.31	10.43	11.24	10.77
20	9.86	9.30	8.85	8.29	8.60	8.76	8.60	8.69	9.35	10.47	11.14	10.79
21	9.83	9.31	8.88	8.38	8.53	8.75	8.65	8.75	9.35	10.47	11.07	10.87
22	9.80	9.31	8.94	8.38	8.51	8.69	8.65	8.78	9.36	10.51	11.02	10.87
23	9.79	9.31	8.94	8.52	8.53	8.66	8.63	8.78	---	10.56	10.99	10.92
24	9.72	9.30	8.89	8.58	8.53	8.54	8.52	8.85	---	10.58	11.01	10.96
25	9.67	9.19	8.86	8.60	8.53	8.49	8.42	8.92	---	10.58	11.07	10.97
26	9.70	9.19	8.81	8.66	8.61	8.45	8.43	8.96	---	10.55	11.08	10.97
27	9.72	9.19	8.85	8.86	8.63	8.59	8.42	9.00	---	10.48	11.08	10.81
28	9.72	9.18	8.87	8.97	8.63	8.39	8.43	9.02	---	10.42	11.04	10.79
29	9.72	9.09	8.85	8.97	---	8.25	8.43	9.02	---	10.42	11.06	10.72
30	9.66	9.09	8.89	8.96	---	8.24	8.43	9.02	---	10.44	11.06	10.64
31	9.52	---	8.89	8.97	---	8.23	---	9.05	---	10.47	10.91	---
MEAN	9.73	9.27	8.81	8.54	8.80	8.62	8.35	8.68	9.24	10.54	10.98	10.65
MAX	9.94	9.47	9.03	8.97	9.18	8.79	8.65	9.05	9.36	10.89	11.24	10.97
MIN	9.35	9.09	8.57	8.21	8.51	8.23	8.03	8.39	9.09	10.31	10.51	10.39



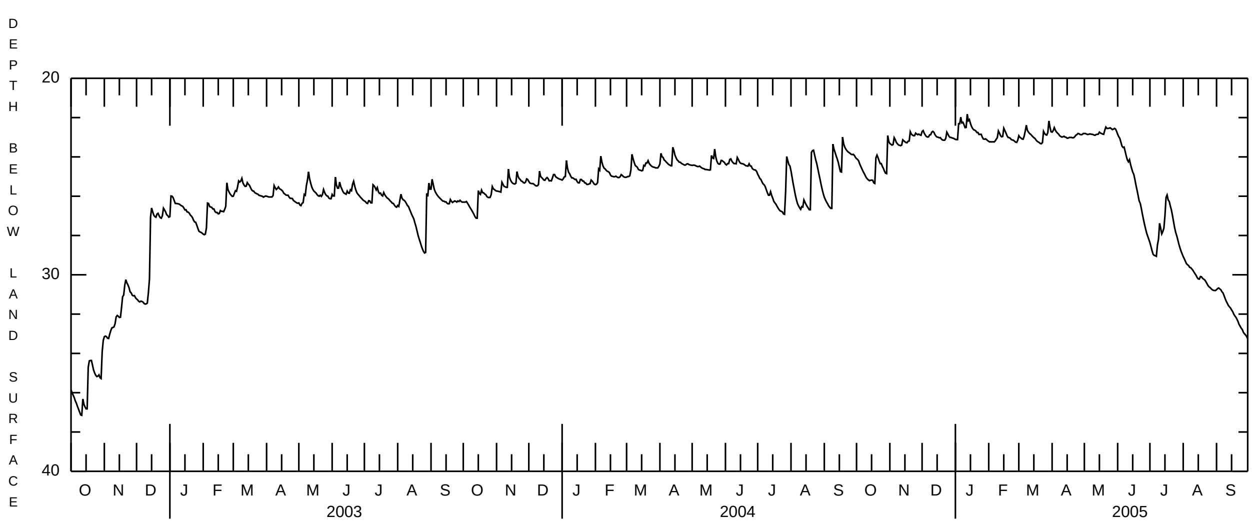
GREENE COUNTY

394655080014301. Local number, GR 118.

LOCATION.--Lat 39°46'55", long 80°01'43", Hydrologic Unit 05020005, at State Game Land Number 223.
Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of lower member of Waynesburg Formation of Late Pennsylvanian and Early Permian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 104 ft, cased to 22 ft, open hole.
INSTRUMENTATION.--Pressure transducer and digital data logger with 60-minute recording interval. Data collection platform with 60-minute recording interval since Sept. 7, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.40 ft above land-surface datum.
REMARKS.--Water levels affected by water cascading into the well. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1987, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--June 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, 20.43 ft below land-surface datum, Jan. 11, 2005; lowest, 52.38 ft below land-surface datum, Nov. 25, 26, 1999.
EXTREMES FOR CURRENT YEAR.--Highest water level, 20.43 ft below land-surface datum, Jan. 11; lowest, 33.25 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	24.09	23.32	22.71	23.11	23.21	22.92	22.74	22.81	22.85	28.36	29.07	30.76
2	24.13	23.36	22.66	23.12	23.24	23.00	22.66	22.81	22.97	28.57	29.19	30.70
3	24.21	23.40	22.80	23.12	23.23	23.04	22.51	22.84	23.06	28.78	29.31	30.67
4	24.37	23.37	22.89	22.31	23.24	23.09	22.64	22.86	23.25	28.96	29.43	30.72
5	24.49	23.02	22.96	22.31	23.23	23.10	22.73	22.85	23.45	29.01	29.49	30.76
6	24.61	23.12	22.99	21.98	23.24	22.94	22.79	22.83	23.52	29.03	29.53	30.86
7	24.73	23.26	22.98	22.27	23.19	22.68	22.84	22.84	23.50	29.06	29.62	30.92
8	24.83	23.33	22.88	22.24	23.10	22.39	22.92	22.85	23.73	28.49	29.64	31.06
9	24.94	23.39	22.87	22.36	23.02	22.65	22.96	22.86	23.96	28.18	29.70	31.21
10	25.05	23.41	22.74	22.51	22.68	22.74	22.99	22.89	24.15	27.38	29.77	31.34
11	25.12	23.43	22.70	22.50	22.79	22.81	22.98	22.90	24.25	27.62	29.86	31.45
12	25.17	23.40	22.75	21.82	22.92	22.85	22.95	22.86	24.14	27.92	29.95	31.56
13	25.21	23.13	22.87	22.16	22.98	22.91	22.99	22.85	24.39	27.80	30.03	31.63
14	25.19	23.18	22.95	22.10	22.96	22.97	23.00	22.84	24.59	27.63	30.14	31.69
15	25.18	23.23	22.99	22.30	22.54	23.02	23.05	22.74	24.77	27.00	30.21	31.79
16	25.19	23.27	23.00	22.45	22.66	23.06	23.04	22.79	24.89	26.07	30.22	31.87
17	25.32	23.28	23.03	22.55	22.78	23.14	23.01	22.81	25.14	25.94	30.09	32.00
18	25.35	23.20	23.02	22.62	22.92	23.20	23.01	22.84	25.43	26.19	30.10	32.09
19	24.05	23.19	23.10	22.64	23.01	23.24	23.01	22.85	25.69	26.27	30.18	32.16
20	23.91	22.72	23.14	22.68	23.02	23.27	23.03	22.64	25.96	26.50	30.22	32.26
21	24.04	22.84	23.15	22.76	23.05	23.32	23.02	22.48	26.24	26.70	30.26	32.38
22	24.20	22.89	23.15	22.76	23.12	23.33	22.98	22.55	26.36	26.98	30.34	32.53
23	24.34	22.92	23.06	22.86	23.14	23.27	22.90	22.55	26.62	27.30	30.44	32.62
24	24.34	22.92	22.74	22.85	23.15	22.70	22.87	22.54	26.91	27.60	30.54	32.72
25	24.48	22.79	22.84	22.85	23.20	22.81	22.81	22.52	27.18	27.84	30.61	32.79
26	24.59	22.84	22.95	22.99	23.25	22.87	22.82	22.56	27.44	28.02	30.65	32.93
27	24.73	22.87	23.01	23.09	23.26	22.89	22.86	22.61	27.67	28.23	30.71	33.00
28	24.83	22.84	23.01	23.10	23.15	22.76	22.87	22.59	27.88	28.45	30.76	33.06
29	24.85	22.88	23.04	23.08	---	22.17	22.86	22.55	28.05	28.64	30.79	33.14
30	22.91	22.90	23.05	23.12	---	22.49	22.81	22.58	28.20	28.80	30.80	33.25
31	23.22	---	23.08	23.17	---	22.72	---	22.70	---	28.94	30.80	---
MEAN	24.57	23.12	22.94	22.64	23.05	22.91	22.89	22.74	25.21	27.81	30.08	31.86
MAX	25.35	23.43	23.15	23.17	23.26	23.33	23.05	22.90	28.20	29.06	30.80	33.25
MIN	22.91	22.72	22.66	21.82	22.54	22.17	22.51	22.48	22.85	25.94	29.07	30.67



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

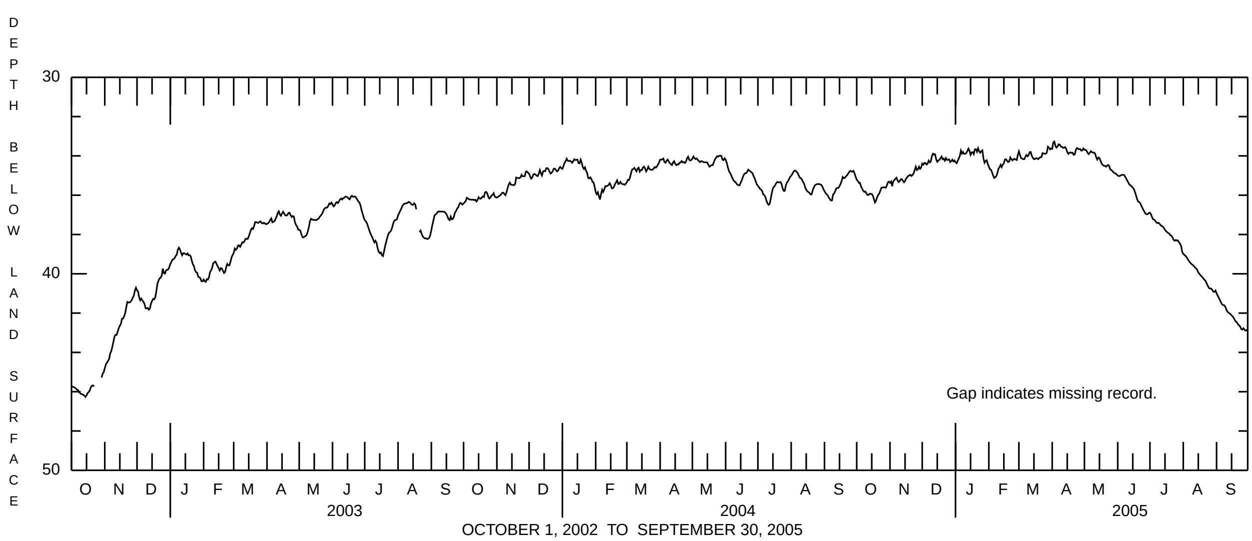
INDIANA COUNTY

405320078483901. Local number, IN 919.

LOCATION.--Lat 40°53'20", long 78°48'39", North American Datum of 1983, Hydrologic Unit 02050201, at State Game Lands 174.
Owner: U.S. Geological Survey.
AQUIFER.--Pottsville Formation, Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 140 ft, cased to 18 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,620 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are 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 for the period of record indicated above.
Highest water level, 33.19 ft below land-surface datum, Apr. 3, 2005; lowest, 52.76 ft below land-surface datum, Oct. 18, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.19 ft below land-surface datum, Apr. 3; lowest, 43.04 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	35.21	35.37	34.39	34.32	34.55	33.77	33.64	33.69	35.00	36.89	38.99	40.99
2	35.27	35.30	34.45	34.37	34.68	33.96	33.31	33.69	35.03	36.98	39.03	41.11
3	35.37	35.54	34.36	34.26	34.70	34.11	33.27	33.74	35.02	37.13	39.08	41.21
4	35.37	35.30	34.36	34.13	34.84	34.14	33.50	33.85	34.98	37.23	39.15	41.32
5	35.55	35.23	34.44	34.00	35.00	34.17	33.58	33.91	34.97	37.25	39.23	41.44
6	35.66	35.17	34.40	33.73	35.12	34.17	33.52	33.84	34.96	37.31	39.33	41.55
7	35.77	35.11	34.24	33.88	35.09	34.05	33.41	33.76	34.98	37.39	39.40	41.59
8	35.83	35.24	34.33	33.80	35.02	33.95	33.43	33.81	35.07	37.42	39.47	41.60
9	35.81	35.33	34.28	33.90	34.87	34.02	33.52	33.84	35.17	37.40	39.52	41.66
10	35.90	35.29	34.01	33.89	34.65	33.96	33.53	33.83	35.27	37.46	39.56	41.80
11	35.99	35.19	33.89	33.86	34.58	33.81	33.59	33.89	35.37	37.53	39.62	41.91
12	35.99	35.18	33.94	33.75	34.45	33.80	33.58	34.08	35.47	37.57	39.68	41.98
13	35.93	35.27	33.92	33.63	34.57	34.00	33.55	34.19	35.50	37.60	39.73	42.01
14	35.93	35.34	34.18	33.74	34.44	34.10	33.64	34.08	35.56	37.67	39.80	42.05
15	35.94	35.27	34.30	33.95	34.37	34.17	33.80	34.11	35.61	37.77	39.93	42.12
16	36.02	35.15	34.23	33.82	34.18	34.16	33.90	34.25	35.69	37.83	40.00	42.17
17	36.19	35.09	34.20	33.81	34.17	34.11	33.84	34.39	35.83	37.88	40.07	42.25
18	36.37	35.02	34.12	33.91	34.25	34.14	33.82	34.46	36.00	37.92	40.13	42.35
19	36.27	34.99	34.03	33.66	34.31	34.17	33.85	34.50	36.20	37.96	40.18	42.44
20	36.11	34.96	34.17	33.66	34.28	34.10	33.84	34.50	36.32	38.04	40.26	42.47
21	35.99	35.02	34.14	33.79	34.08	34.07	33.95	34.55	36.35	38.06	40.32	42.58
22	35.92	34.97	34.24	33.61	34.17	34.06	33.92	34.50	36.41	38.15	40.39	42.62
23	35.77	34.89	34.11	33.77	34.23	33.86	33.70	34.46	36.54	38.27	40.51	42.69
24	35.62	34.72	34.21	33.84	34.17	33.88	33.60	34.51	36.65	38.32	40.63	42.81
25	35.61	34.55	34.20	33.76	34.15	33.89	33.63	34.68	36.76	38.28	40.73	42.84
26	35.60	34.72	34.17	33.72	34.18	33.89	33.66	34.72	36.86	38.31	40.75	42.77
27	35.60	34.68	34.31	34.13	34.21	33.83	33.65	34.77	36.95	38.30	40.75	42.84
28	35.62	34.55	34.27	34.35	33.95	33.53	33.73	34.83	36.97	38.39	40.82	42.89
29	35.52	34.66	34.19	34.26	---	33.58	33.72	34.88	36.96	38.47	40.91	42.86
30	35.35	34.59	34.28	34.22	---	33.67	33.62	34.90	36.90	38.58	40.92	42.96
31	35.31	---	34.23	34.41	---	33.62	---	34.94	---	38.88	40.85	---
MEAN	35.75	35.06	34.21	33.93	34.47	33.96	33.64	34.26	35.84	37.81	39.99	42.13
MAX	36.37	35.54	34.45	34.41	35.12	34.17	33.95	34.94	36.97	38.88	40.92	42.96
MIN	35.21	34.55	33.89	33.61	33.95	33.53	33.27	33.69	34.96	36.89	38.99	40.99



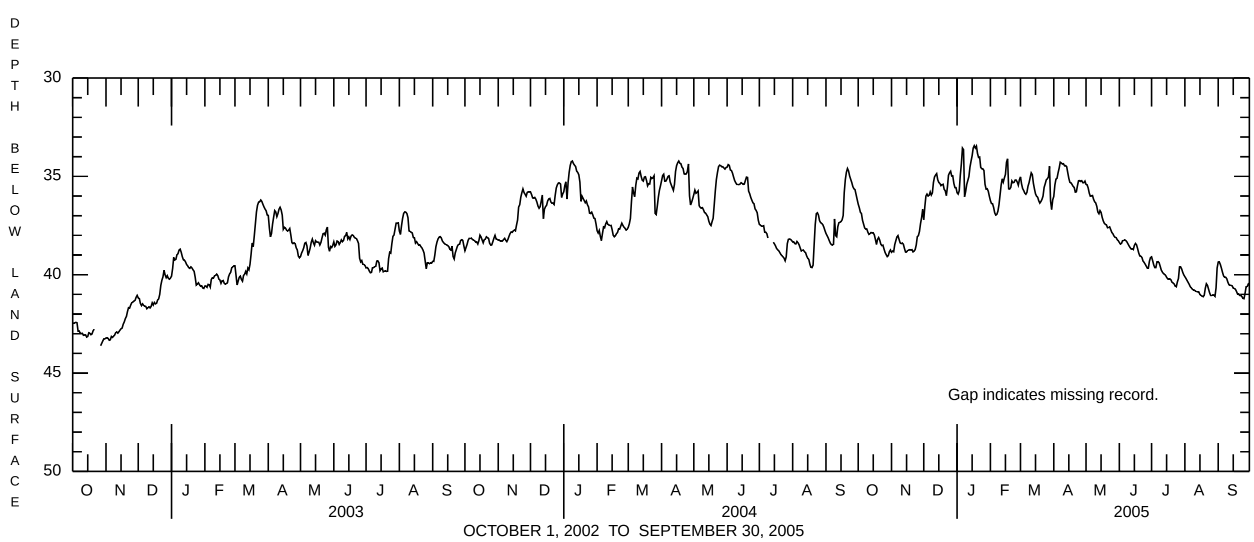
JEFFERSON COUNTY

411734078522101. Local number, JE 425.

LOCATION.--Lat 41°17'34", long 78°52'21", Hydrologic Unit 05010006, at State Game Lands 54.
Owner: U.S. Geological Survey.
AQUIFER.--Pottsville Formation, Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 152 ft, cased to 20 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 2,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.30 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are 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 for the period of record indicated above.
Highest water level, 33.11 ft below land-surface datum, Jan. 7, 2005; lowest, 44.90 ft below land-surface datum, Oct. 11, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.11 ft below land-surface datum, Jan. 7; lowest, 41.25 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	36.41	38.86	37.21	35.83	36.23	35.02	36.02	35.41	38.36	39.09	40.10	39.36
2	36.59	38.80	36.53	35.90	36.38	35.38	35.44	35.43	38.44	39.29	40.19	39.35
3	36.82	38.83	36.00	35.73	36.39	35.62	35.14	35.59	38.41	39.50	40.29	39.48
4	36.89	38.47	35.90	34.95	36.58	35.72	35.10	35.85	38.27	39.64	40.39	39.67
5	37.23	38.27	36.00	34.35	36.85	35.85	34.82	36.01	38.26	39.64	40.49	39.88
6	37.43	38.08	35.96	33.56	36.97	35.91	34.58	35.99	38.23	39.35	40.61	40.06
7	37.62	38.01	35.79	33.64	36.93	35.81	34.28	35.97	38.26	39.33	40.67	40.13
8	37.68	38.20	35.95	36.04	36.77	35.50	34.32	36.16	38.33	39.39	40.74	40.13
9	37.68	38.38	35.84	35.76	36.44	35.32	34.37	36.29	38.43	39.57	40.78	40.21
10	37.84	38.42	35.31	35.41	35.95	35.06	34.36	36.35	38.53	39.76	40.79	40.38
11	37.95	38.39	35.03	35.21	35.44	34.82	34.46	36.52	38.62	39.86	40.84	40.51
12	37.91	38.45	34.93	35.01	35.12	34.91	34.45	36.81	38.69	39.94	40.86	40.54
13	37.85	38.66	34.86	34.53	35.29	35.35	34.51	36.90	38.68	39.98	40.87	40.54
14	37.87	38.84	35.17	34.23	35.08	35.64	34.81	36.74	38.72	40.03	40.88	40.57
15	37.87	38.84	35.31	33.95	34.90	35.89	35.10	36.83	38.51	40.13	41.01	40.68
16	37.98	38.77	35.36	33.56	34.28	36.01	35.31	37.08	38.41	40.21	41.05	40.70
17	38.21	38.75	35.47	33.44	34.10	36.06	35.33	37.26	38.48	40.23	41.09	40.74
18	38.46	38.72	35.42	33.56	35.63	36.24	35.41	37.38	38.67	40.21	41.12	40.85
19	38.20	38.74	35.40	33.46	35.64	36.36	35.51	37.44	38.89	40.26	41.04	40.98
20	38.11	38.72	35.66	33.83	35.56	36.28	35.56	37.47	39.04	40.38	40.69	40.97
21	38.24	38.84	35.73	34.04	35.23	36.17	35.80	37.61	39.06	40.42	40.46	41.06
22	38.44	38.80	35.98	34.02	35.32	36.00	35.78	37.60	39.12	40.47	40.54	41.06
23	38.52	38.72	35.55	34.54	35.31	35.56	35.48	37.57	39.30	40.58	40.73	41.10
24	38.50	38.49	34.94	34.61	35.19	35.38	35.23	37.71	39.37	40.61	40.92	41.21
25	38.69	38.07	34.82	34.62	35.19	35.18	35.21	37.85	39.46	40.37	41.06	41.22
26	38.87	38.01	34.74	34.70	35.29	35.12	35.26	37.92	39.56	40.19	41.06	40.94
27	38.98	37.80	34.98	35.40	35.45	35.03	35.22	38.03	39.66	39.61	41.03	40.61
28	39.08	37.40	34.98	35.65	35.17	34.49	35.32	38.10	39.66	39.60	41.04	40.60
29	39.03	37.09	35.36	35.63	---	36.25	35.32	38.11	39.31	39.71	41.10	40.47
30	38.83	36.68	35.57	35.75	---	36.68	35.24	38.22	39.13	39.88	40.67	40.41
31	38.74	---	35.57	36.00	---	36.19	---	38.27	---	40.01	39.66	---
MEAN	38.02	38.37	35.53	34.74	35.67	35.64	35.09	36.98	38.80	39.91	40.73	40.48
MAX	39.08	38.86	37.21	36.04	36.97	36.68	36.02	38.27	39.66	40.61	41.12	41.22
MIN	36.41	36.68	34.74	33.44	34.10	34.49	34.28	35.41	38.23	39.09	39.66	39.35



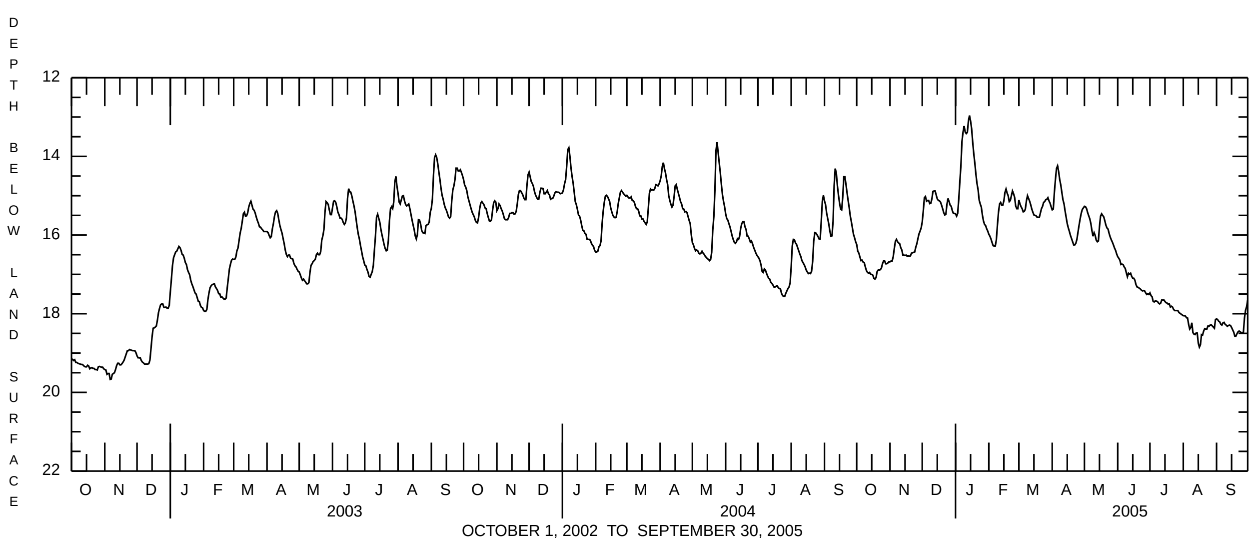
LAWRENCE COUNTY

410538080280801. Local number, LA 1201.

LOCATION.--Lat 41°05'38", long 80°28'08", Hydrologic Unit 05030102, at State Game Land 150, near Pulaski.
Owner: U.S. Geological Survey.
AQUIFER.--Shale and sandstone of Connoquenessing Formation of Early Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 150 ft, cased to 30 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.40 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 1987, are available from the USGS Pennsylvania Water Science Center Office. Well pumping and cleanout on Aug. 19, 2003 caused water levels to be about 1.1 ft higher.
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, 12.25 ft below land-surface datum, May 19, 1978; lowest, 22.94 ft below land-surface datum, Apr. 15, 1986.
EXTREMES FOR CURRENT YEAR.--Highest water level, 12.92 ft below land-surface datum, Jan. 14; lowest, 18.85 ft below land-surface datum, Aug. 16.

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	16.24	16.68	15.67	15.46	15.98	15.11	15.36	15.27	16.55	17.47	18.05	18.13
2	16.41	16.66	15.38	15.52	16.03	15.21	15.34	15.28	16.59	17.54	18.05	18.15
3	16.46	16.66	15.05	15.45	16.10	15.28	14.92	15.33	16.64	17.57	18.06	18.19
4	16.56	16.55	15.02	15.10	16.19	15.33	14.59	15.43	16.75	17.69	18.10	18.21
5	16.65	16.34	15.14	14.65	16.27	15.41	14.31	15.51	16.74	17.70	18.11	18.27
6	16.64	16.16	15.12	14.24	16.28	15.40	14.24	15.59	16.75	17.67	18.27	18.29
7	16.69	16.11	15.12	13.62	16.28	15.34	14.39	15.71	16.81	17.68	18.39	18.23
8	16.70	16.17	15.20	13.38	16.12	15.13	14.59	15.89	16.85	17.69	18.35	18.22
9	16.81	16.20	15.19	13.23	15.75	15.00	14.73	16.03	16.96	17.73	18.23	18.27
10	16.90	16.22	15.08	13.38	15.42	15.07	14.92	15.94	17.06	17.75	18.48	18.29
11	16.95	16.32	14.89	13.42	15.21	15.14	15.10	16.01	16.97	17.73	18.52	18.32
12	16.97	16.38	14.88	13.39	15.17	15.23	15.21	16.13	16.99	17.65	18.53	18.30
13	16.95	16.51	14.88	13.10	15.24	15.34	15.39	16.17	16.97	17.65	18.49	18.29
14	17.00	16.51	14.98	12.96	15.24	15.42	15.55	16.15	17.05	17.65	18.49	18.30
15	17.00	16.52	15.08	13.10	15.13	15.49	15.71	15.79	17.10	17.69	18.75	18.35
16	17.02	16.51	15.12	13.30	14.92	15.50	15.82	15.52	17.10	17.72	18.85	18.41
17	17.10	16.54	15.13	13.64	14.83	15.51	15.91	15.46	17.15	17.73	18.79	18.47
18	17.12	16.53	15.16	13.94	14.93	15.55	16.01	15.50	17.26	17.76	18.53	18.57
19	17.08	16.54	15.24	14.18	15.00	15.55	16.09	15.54	17.32	17.75	18.54	18.57
20	16.93	16.53	15.33	14.46	15.15	15.55	16.17	15.64	17.33	17.83	18.44	18.51
21	16.89	16.46	15.43	14.69	15.12	15.44	16.25	15.75	17.35	17.81	18.38	18.46
22	16.89	16.45	15.49	14.85	15.00	15.33	16.25	15.82	17.37	17.83	18.39	18.44
23	16.88	16.44	15.47	15.11	14.88	15.27	16.21	15.85	17.40	17.89	18.39	18.46
24	16.84	16.43	15.22	15.21	14.95	15.17	16.11	15.96	17.42	17.92	18.31	18.48
25	16.73	16.31	15.07	15.29	15.04	15.15	15.93	16.05	17.41	17.92	18.32	18.49
26	16.66	16.22	15.15	15.49	15.26	15.10	15.75	16.12	17.42	17.92	18.29	18.47
27	16.66	16.09	15.24	15.64	15.33	15.09	15.59	16.18	17.47	17.92	18.28	18.11
28	16.73	15.97	15.27	15.73	15.33	15.05	15.45	16.25	17.51	17.97	18.31	17.91
29	16.73	15.90	15.38	15.76	---	15.13	15.35	16.33	17.49	17.99	18.34	17.82
30	16.71	15.82	15.45	15.84	---	15.19	15.31	16.39	17.51	18.01	18.37	17.65
31	16.68	---	15.45	15.90	---	15.28	---	16.48	---	18.03	18.15	---
MEAN	16.79	16.36	15.20	14.48	15.43	15.28	15.42	15.84	17.11	17.77	18.37	18.29
MAX	17.12	16.68	15.67	15.90	16.28	15.55	16.25	16.48	17.51	18.03	18.85	18.57
MIN	16.24	15.82	14.88	12.96	14.83	15.00	14.24	15.27	16.55	17.47	18.05	17.65



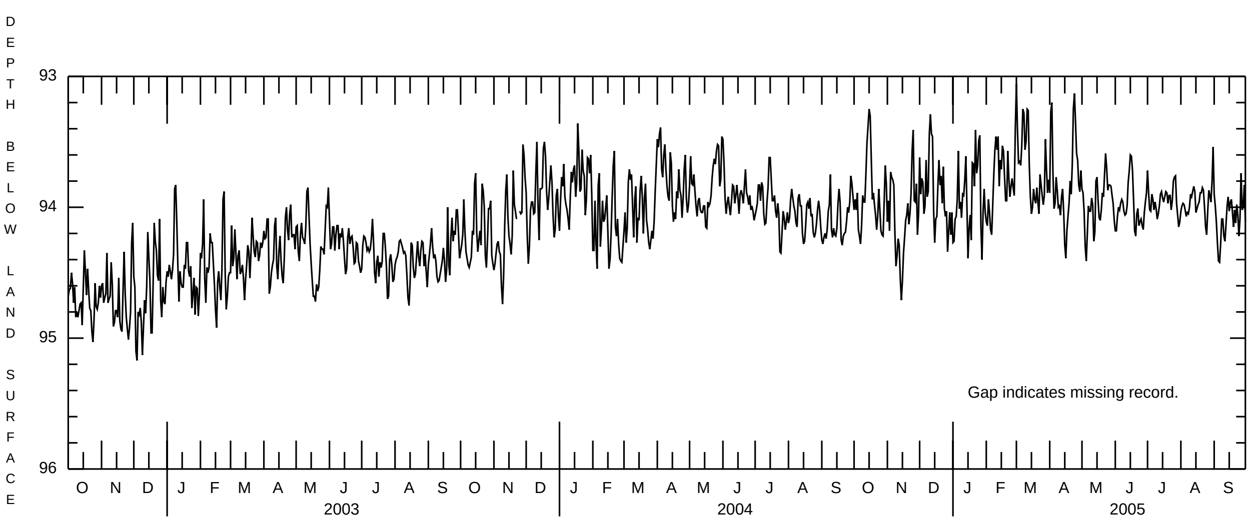
McKEAN COUNTY

414509078343401. Local number, MC 125.

LOCATION.--Lat 41°45'09", long 78°34'34", Hydrologic Unit 05010001, at State Game Lands 62.
Owner: U.S. Geological Survey.
AQUIFER.--Pottsville Formation, Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 173.5 ft, cased to 17 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 2,169 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are 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 for the period of record indicated above.
Highest water level, 93.01 ft below land-surface datum, Mar. 1, 2005; lowest, 96.03 ft below land-surface datum, Oct. 13, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 93.01 ft below land-surface datum, Mar. 1; lowest, 94.78 ft below land-surface datum, Nov. 14.

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	94.02	94.11	93.62	94.27	94.11	93.06	93.89	93.86	94.18	93.72	94.03	93.90
2	93.94	93.95	93.90	94.26	94.14	93.41	93.27	93.89	94.18	93.89	93.99	93.99
3	94.02	94.18	93.78	94.09	93.94	93.66	93.20	94.03	94.07	94.02	93.97	94.11
4	93.89	93.73	93.81	94.07	94.04	93.65	93.74	94.30	94.00	94.03	93.98	94.27
5	94.17	93.77	94.05	93.94	94.17	93.68	94.01	94.41	94.02	93.90	94.02	94.41
6	94.22	93.79	93.99	93.57	94.21	93.53	93.97	94.20	93.97	93.94	94.07	94.42
7	94.28	93.83	93.64	94.01	93.98	93.25	93.77	93.99	93.94	94.02	94.04	94.28
8	94.14	94.20	93.92	93.96	93.75	93.28	93.87	94.03	93.96	93.96	94.05	94.09
9	93.91	94.45	93.88	94.08	93.56	93.56	94.00	94.03	94.03	94.01	94.00	94.09
10	93.96	94.37	93.44	93.90	93.46	93.50	93.99	93.93	94.06	94.09	93.90	94.22
11	93.96	94.24	93.29	93.91	93.56	93.25	94.06	93.98	94.05	94.05	93.92	94.26
12	93.75	94.29	93.44	93.79	93.46	93.26	93.92	94.26	93.99	93.99	93.88	94.13
13	93.51	94.55	93.46	93.61	93.84	93.68	93.86	94.19	93.81	93.90	93.84	93.99
14	93.38	94.71	94.02	94.00	93.64	93.92	94.04	93.80	93.72	93.88	93.88	93.92
15	93.25	94.56	94.27	94.39	93.71	94.05	94.29	93.77	93.60	93.93	94.04	94.03
16	93.30	94.35	94.09	94.16	93.53	94.00	94.39	93.95	93.61	93.96	94.01	93.96
17	93.62	94.23	94.07	94.06	93.57	93.86	94.18	94.08	93.72	93.92	93.98	93.94
18	93.94	94.10	93.83	94.25	93.77	93.94	94.07	94.10	93.94	93.88	93.96	94.04
19	93.89	94.06	93.64	93.66	93.95	93.97	93.97	94.02	94.18	93.89	93.89	94.15
20	93.98	93.97	93.83	93.67	93.95	93.85	93.80	93.89	94.22	93.97	93.89	94.02
21	94.06	94.13	93.76	93.84	93.57	93.96	93.90	93.92	94.05	93.91	93.85	94.12
22	94.17	94.05	93.97	93.41	93.78	94.05	93.67	93.75	94.01	93.91	93.87	93.98
23	94.07	93.90	93.69	93.74	93.92	93.75	93.25	93.59	94.14	94.02	94.00	94.06
24	93.86	93.57	94.01	93.68	93.84	93.83	93.13	93.70	94.11	93.95	94.15	94.22
25	94.02	93.41	94.07	93.49	93.78	93.91	93.35	93.87	94.09	93.80	94.21	94.09
26	94.18	93.95	94.03	93.45	93.85	93.98	93.59	93.83	94.14	93.77	94.03	93.74
27	94.21	93.96	94.34	94.15	93.91	93.91	93.64	93.83	94.17	93.76	93.87	94.02
28	94.22	93.82	94.18	94.40	93.40	93.48	93.83	93.84	94.04	93.97	93.91	94.00
29	93.96	94.21	94.04	94.04	---	93.71	93.88	93.91	93.96	94.06	93.96	93.83
30	93.68	94.05	94.21	93.86	---	93.89	93.72	93.97	93.89	94.15	93.80	94.11
31	93.82	---	94.04	94.04	---	93.79	---	94.10	---	94.11	93.54	---
MEAN	93.92	94.08	93.88	93.93	93.80	93.70	93.81	93.97	94.00	93.95	93.95	94.08
MAX	94.28	94.71	94.34	94.40	94.21	94.05	94.39	94.41	94.22	94.15	94.21	94.42
MIN	93.25	93.41	93.29	93.41	93.40	93.06	93.13	93.59	93.60	93.72	93.54	93.74



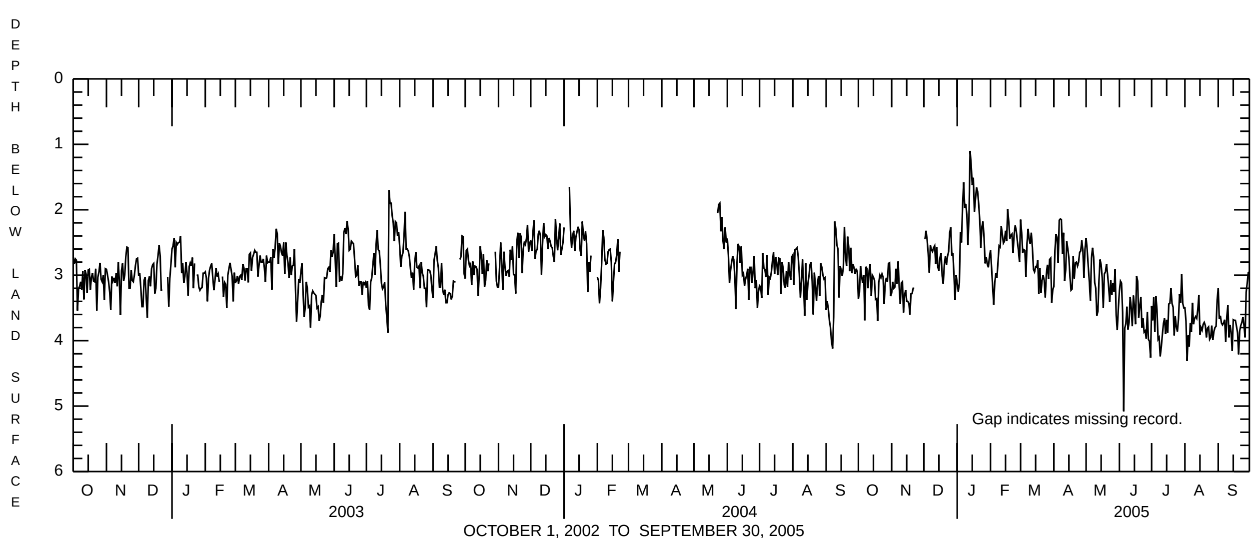
MERCER COUNTY

412350080223701. Local number, MR 1364.

LOCATION.--Lat 41°23'50", long 80°22'37", Hydrologic Unit 05030102, at Greenville.
Owner: Borough of Greenville.
AQUIFER.--Sandstone of Cussewago Formation of Early Mississippian age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 235 ft, cased to 41 ft, open hole.
INSTRUMENTATION.--Continuous strip-chart recorder. Electronic data logger with 5-minute recording interval since Dec. 1, 2004.
DATUM.--Elevation of land-surface datum is 965 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood cover, 2.26 ft above land-surface datum.
REMARKS.--Water levels after Sept. 25, 1998 affected by Pymatuning earthquake (magnitude 5.2). Water levels affected by intermittent pumping.
PERIOD OF RECORD.--March 1964 to September 2005. (Discontinued)
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, 0.25 ft below land-surface datum, Apr. 17, 1998; lowest, 8.31 ft below land-surface datum, Feb. 12, 1967.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.80 ft below land-surface datum, Jan. 13; lowest, 5.08 ft below land-surface datum, June 5.

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	3.36	3.27	---	3.12	2.62	2.15	3.17	2.43	3.24	3.47	3.50	3.20
2	3.26	3.10	2.45	3.25	2.88	2.35	2.62	2.61	3.09	3.69	3.70	3.67
3	2.86	3.20	2.32	3.12	3.18	2.66	2.37	2.86	3.12	3.34	4.31	3.62
4	3.02	3.18	2.46	2.34	3.45	2.61	2.43	3.10	3.57	3.87	3.92	3.73
5	3.12	2.90	2.67	2.50	3.11	2.62	2.81	3.39	5.08	3.32	4.09	3.76
6	3.00	3.13	2.96	1.94	2.97	3.03	2.16	2.74	3.81	3.53	3.73	3.73
7	3.69	2.79	2.54	1.58	3.04	2.51	2.14	2.58	3.74	3.98	3.87	3.68
8	2.87	3.18	2.61	1.97	2.80	2.29	2.15	2.72	3.48	3.95	3.42	4.02
9	2.90	3.44	2.64	1.91	2.55	2.46	2.67	3.11	3.83	4.24	3.75	3.63
10	3.20	3.12	2.58	2.08	2.57	2.52	2.35	3.20	3.72	4.10	3.66	3.46
11	2.93	3.10	2.55	2.54	2.25	2.35	3.09	3.62	3.33	3.91	3.63	3.95
12	2.83	3.57	2.83	2.09	2.37	2.58	2.92	3.55	3.49	3.74	3.66	3.76
13	3.32	3.30	2.57	1.10	2.51	2.91	2.48	3.08	3.78	3.66	3.52	3.87
14	3.00	3.23	2.88	1.31	2.48	2.95	2.60	2.76	3.31	3.90	3.30	4.16
15	3.03	3.40	2.93	1.62	2.32	2.87	2.74	2.84	3.47	3.68	3.91	3.68
16	3.08	3.40	2.73	1.51	2.48	2.88	3.03	3.04	3.75	3.88	3.80	3.69
17	3.37	3.43	2.66	2.03	1.99	2.77	3.23	3.50	3.01	3.44	3.84	3.69
18	3.36	3.60	3.01	1.84	2.18	3.29	3.21	2.98	3.09	3.43	3.75	3.78
19	3.70	3.28	3.13	1.66	2.44	2.89	2.71	2.95	3.65	3.20	3.72	3.88
20	3.11	3.28	2.84	1.72	2.39	3.27	3.05	2.83	3.47	3.43	3.77	4.21
21	3.00	3.20	2.71	1.91	2.37	3.08	2.81	2.99	3.33	3.49	3.95	3.85
22	3.04	3.20	2.84	2.16	2.66	3.00	2.80	3.18	3.80	3.92	3.81	3.77
23	2.98	---	2.71	2.58	2.38	3.08	2.86	3.41	3.66	3.63	3.79	3.72
24	3.03	---	2.64	2.26	2.24	3.34	2.80	3.08	3.87	3.79	3.98	3.64
25	3.44	---	2.35	2.18	2.32	2.98	2.65	3.30	3.85	3.86	3.95	3.77
26	3.12	---	2.27	2.42	2.48	2.84	2.63	3.12	3.97	3.67	3.77	3.95
27	3.04	---	2.70	2.82	2.62	3.06	2.47	3.25	3.56	3.29	3.99	3.26
28	3.10	---	2.66	2.72	2.80	2.76	2.62	2.91	3.98	3.42	3.86	3.12
29	2.82	---	3.00	2.83	---	2.74	3.04	3.61	4.01	2.98	3.80	2.96
30	2.81	---	3.38	2.88	---	3.42	2.60	3.84	4.26	3.43	3.78	2.95
31	3.32	---	3.00	2.72	---	3.22	---	3.51	---	3.50	3.38	---
MEAN	3.12	3.24	2.72	2.22	2.59	2.82	2.71	3.10	3.64	3.64	3.77	3.67
MAX	3.70	3.60	3.38	3.25	3.45	3.42	3.23	3.84	5.08	4.24	4.31	4.21
MIN	2.81	2.79	2.27	1.10	1.99	2.15	2.14	2.43	3.01	2.98	3.30	2.95



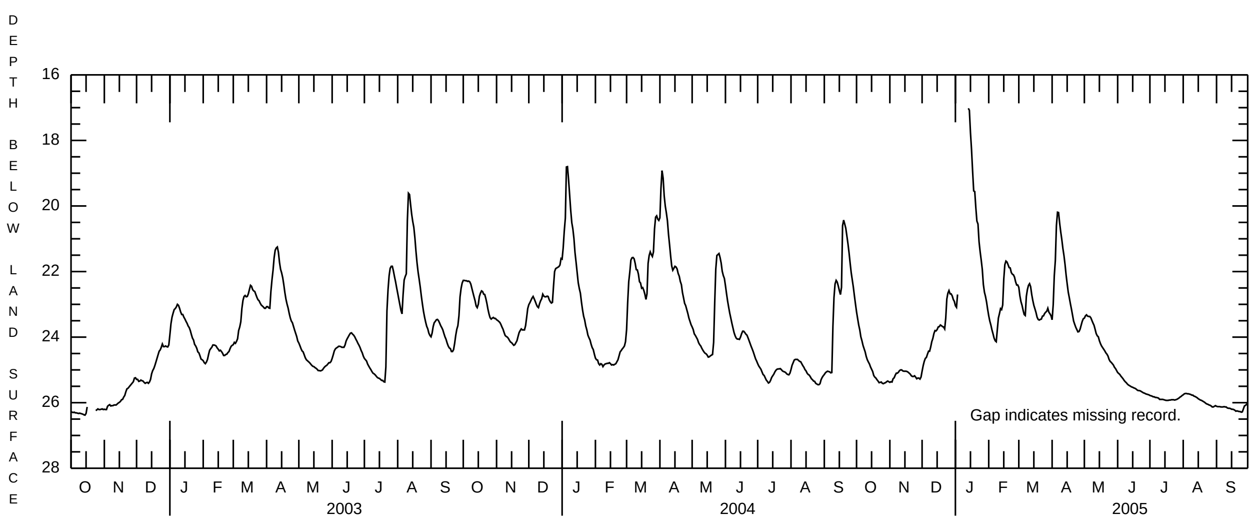
MERCER COUNTY

412739080104201. Local number, MR 3306.

LOCATION.--Lat 41°27'39", long 80°10'42", North American Datum of 1983, Hydrologic Unit 05010003, at State Game Lands 270. Owner: U.S. Geological Survey.
AQUIFER.--Cuyahoga Group, Mississippian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 120 ft, cased to 30 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,310 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are 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 for the period of record indicated above.
Highest water level, 16.91 ft below land-surface datum, Jan. 14, 2005; lowest, 27.64 ft below land-surface datum, Nov. 6, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 16.91 ft below land-surface datum, Jan. 14; lowest, 26.29 ft below land-surface datum, Sept. 23-25.

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	23.23	25.38	25.04	23.04	23.35	22.48	23.47	23.42	25.08	25.78	25.76	26.11
2	23.43	25.36	24.87	23.09	23.51	22.74	23.01	23.35	25.11	25.79	25.73	26.12
3	23.63	25.37	24.74	22.70	23.63	22.92	22.13	23.32	25.14	25.80	25.72	26.12
4	23.78	25.27	24.65	---	23.78	23.03	21.66	23.36	25.19	25.82	25.72	26.12
5	23.99	25.24	24.62	---	23.90	23.18	20.60	23.37	25.23	25.82	25.73	26.13
6	24.11	25.16	24.52	---	24.03	23.31	20.19	23.37	25.27	25.84	25.73	26.13
7	24.25	25.10	24.43	---	24.11	23.34	20.20	23.41	25.32	25.84	25.74	26.13
8	24.35	25.10	24.43	---	24.14	22.76	20.52	23.49	25.36	25.85	25.75	26.12
9	24.45	25.07	24.30	---	23.77	22.55	20.79	23.57	25.39	25.86	25.77	26.13
10	24.59	25.02	24.14	---	23.42	22.42	21.02	23.64	25.43	25.90	25.77	26.13
11	24.69	25.00	24.04	---	23.28	22.37	21.29	23.76	25.46	25.90	25.80	26.16
12	24.76	25.00	23.89	---	23.13	22.46	21.51	23.89	25.48	25.90	25.81	26.17
13	24.82	25.03	23.80	17.02	23.16	22.70	21.78	23.96	25.50	25.90	25.83	26.17
14	24.91	25.04	23.81	17.08	23.02	22.88	22.10	23.99	25.52	25.91	25.85	26.18
15	24.98	25.04	23.77	17.76	22.23	23.03	22.37	24.11	25.53	25.92	25.88	26.20
16	25.05	25.04	23.69	18.28	21.79	23.14	22.63	24.20	25.55	25.93	25.90	26.20
17	25.17	25.05	23.68	18.93	21.68	23.25	22.80	24.27	25.56	25.93	25.92	26.21
18	25.22	25.07	23.63	19.54	21.71	23.39	22.98	24.32	25.58	25.93	25.93	26.23
19	25.25	25.10	23.65	19.56	21.79	23.46	23.15	24.37	25.61	25.92	25.95	26.26
20	25.30	25.13	23.68	20.05	21.88	23.48	23.33	24.42	25.63	25.92	25.97	26.25
21	25.34	25.18	23.69	20.46	21.89	23.46	23.51	24.48	25.63	25.91	25.99	26.26
22	25.39	25.20	23.75	20.55	22.03	23.45	23.61	24.52	25.64	25.91	26.02	26.27
23	25.38	25.20	23.42	21.09	22.08	23.36	23.70	24.58	25.66	25.91	26.04	26.27
24	25.37	25.18	22.84	21.39	22.10	23.35	23.77	24.68	25.68	25.92	26.05	26.29
25	25.41	25.22	22.66	21.65	22.17	23.28	23.84	24.74	25.70	25.91	26.07	26.28
26	25.42	25.27	22.58	21.93	22.31	23.24	23.83	24.77	25.71	25.90	26.08	26.19
27	25.40	25.25	22.68	22.39	22.41	23.21	23.76	24.81	25.73	25.88	26.10	26.10
28	25.39	25.25	22.68	22.63	22.41	23.12	23.64	24.85	25.74	25.86	26.13	26.08
29	25.36	25.28	22.74	22.76	---	23.24	23.52	24.92	25.75	25.83	26.13	26.05
30	25.34	25.22	22.85	22.93	---	23.29	23.44	24.96	25.76	25.81	26.11	26.02
31	25.36	---	22.91	23.15	---	23.35	---	25.02	---	25.78	26.09	---
MEAN	24.81	25.16	23.75	20.82	22.81	23.07	22.47	24.13	25.50	25.87	25.91	26.17
MAX	25.42	25.38	25.04	23.15	24.14	23.48	23.84	25.02	25.76	25.93	26.13	26.29
MIN	23.23	25.00	22.58	17.02	21.68	22.37	20.19	23.32	25.08	25.78	25.72	26.02



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

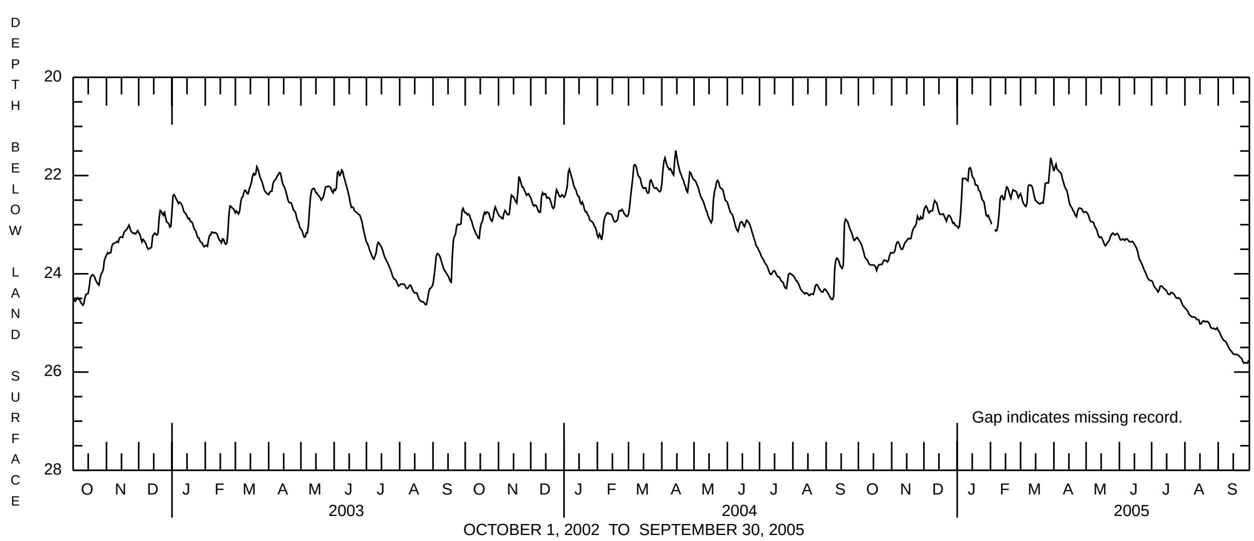
SOMERSET COUNTY

395920079021501. Local number, SO 854.

LOCATION.--Lat 39°59'20", long 79°02'15", Hydrologic Unit 05020006, at Somerset County Conservancy.
Owner: Somerset County Conservancy.
AQUIFER.--Allegheny Formation, Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 121 ft, cased to 42 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 2,280 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of instrument shelf, 1.50 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--July 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, 21.46 ft below land-surface datum, Apr. 14, 2004; lowest, 25.82 ft below land-surface datum, Sept. 25-28, 2005.
EXTREMES FOR CURRENT YEAR.--Highest water level, 21.61 ft below land-surface datum, Mar. 29; lowest, 25.82 ft below land-surface datum, Sept. 25-28.

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	23.30	23.58	22.71	23.03	22.92	22.37	21.91	22.74	23.26	24.14	24.69	25.15
2	23.33	23.57	22.65	23.07	22.99	22.44	21.83	22.76	23.31	24.17	24.72	25.18
3	23.37	23.57	22.62	23.04	---	22.53	21.77	22.80	23.31	24.24	24.74	25.23
4	23.41	23.53	22.66	22.82	---	22.58	21.87	22.87	23.29	24.28	24.78	25.28
5	23.49	23.42	22.73	22.48	23.10	22.61	21.89	22.93	23.30	24.30	24.83	25.32
6	23.56	23.36	22.76	22.06	23.13	22.63	21.92	22.94	23.32	24.33	24.85	25.35
7	23.66	23.35	22.72	22.06	23.11	22.56	21.93	22.94	23.29	24.37	24.87	25.37
8	23.69	23.39	22.72	22.06	23.00	22.23	21.97	22.96	23.29	24.33	24.88	25.38
9	23.71	23.46	22.72	22.06	22.77	22.19	22.07	23.03	23.31	24.25	24.88	25.42
10	23.75	23.50	22.59	22.09	22.47	22.20	22.14	23.07	23.34	24.25	24.88	25.47
11	23.80	23.50	22.51	22.11	22.42	22.20	22.22	23.11	23.35	24.26	24.90	25.51
12	23.82	23.45	22.54	21.86	22.41	22.24	22.27	23.19	23.35	24.29	24.93	25.55
13	23.82	23.38	22.56	21.84	22.49	22.34	22.30	23.25	23.34	24.31	24.93	25.57
14	23.82	23.35	22.66	21.89	22.48	22.45	22.39	23.26	23.36	24.33	24.94	25.60
15	23.82	23.33	22.75	22.01	22.33	22.51	22.51	23.25	23.40	24.35	25.02	25.63
16	23.83	23.29	22.79	22.05	22.23	22.53	22.60	23.29	23.44	24.40	25.02	25.64
17	23.86	23.28	22.79	22.09	22.25	22.55	22.63	23.34	23.48	24.42	24.98	25.64
18	23.93	23.29	22.79	22.19	22.32	22.57	22.67	23.40	23.55	24.42	24.96	25.64
19	23.86	23.28	22.78	22.19	22.40	22.58	22.72	23.43	23.65	24.38	24.96	25.65
20	23.82	23.16	22.83	22.21	22.46	22.56	22.75	23.40	23.72	24.38	24.98	25.66
21	23.81	23.09	22.88	22.30	22.36	22.55	22.81	23.36	23.76	24.40	24.97	25.69
22	23.81	23.05	22.93	22.32	22.29	22.56	22.84	23.34	23.80	24.42	24.97	25.71
23	23.81	23.03	22.85	22.38	22.31	22.39	22.74	23.29	23.86	24.46	24.99	25.73
24	23.75	22.97	22.81	22.48	22.31	22.16	22.67	23.22	23.92	24.49	25.03	25.79
25	23.72	22.83	22.82	22.51	22.33	22.15	22.66	23.19	23.96	24.50	25.09	25.82
26	23.73	22.88	22.85	22.54	22.39	22.15	22.67	23.17	24.01	24.49	25.11	25.81
27	23.73	22.90	22.91	22.68	22.45	22.15	22.68	23.20	24.07	24.50	25.11	25.81
28	23.76	22.84	22.97	22.81	22.40	21.90	22.73	23.21	24.11	24.53	25.11	25.82
29	23.73	22.88	22.96	22.83	---	21.64	22.75	23.19	24.13	24.59	25.13	25.78
30	23.63	22.87	23.01	22.81	---	21.72	22.74	23.18	24.14	24.64	25.13	25.80
31	23.57	---	23.02	22.88	---	21.82	---	23.21	---	24.67	25.10	---
MEAN	23.70	23.25	22.77	22.38	22.54	22.32	22.39	23.15	23.58	24.38	24.95	25.57
MAX	23.93	23.58	23.02	23.07	23.13	22.63	22.84	23.43	24.14	24.67	25.13	25.82
MIN	23.30	22.83	22.51	21.84	22.23	21.64	21.77	22.74	23.26	24.14	24.69	25.15



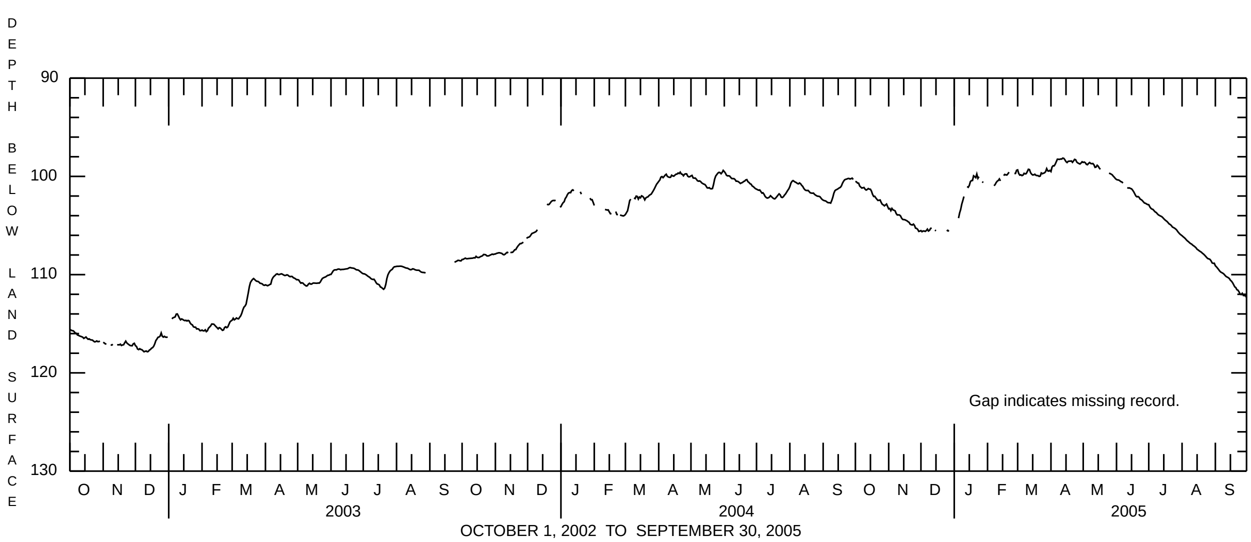
VENANGO COUNTY

411958079540202. Local number, VE 57.

LOCATION.--Lat 41°19'58", long 79°54'02", Hydrologic Unit 05010003, at State Game Lands 39.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Venango Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 215 ft, cased to 9 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,518 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of pipe on instrument shelf, 2.52 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--Aug. 1974 to Aug. 1977; June 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, 98.04 ft below land-surface datum, Apr. 12, 2005; lowest, 120.40 ft below land-surface datum, Dec. 15, 16, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 98.04 ft below land-surface datum, Apr. 12; lowest, 112.40 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	100.51	103.31	105.52	---	---	99.34	99.51	98.58	100.32	102.88	106.04	109.10
2	100.56	103.27	105.63	---	---	99.71	99.05	98.54	100.36	103.10	106.14	109.21
3	100.68	103.49	105.56	---	---	99.87	98.92	98.62	100.37	103.25	106.23	109.34
4	100.69	103.26	105.56	---	---	99.84	98.93	98.78	100.44	103.33	106.33	109.48
5	100.98	103.41	105.60	104.25	---	99.92	98.75	98.81	100.53	103.37	106.46	109.63
6	101.09	103.45	105.52	103.72	---	99.87	98.50	98.68	100.57	103.50	106.57	109.74
7	101.19	103.51	105.37	103.36	100.95	99.69	98.25	98.59	100.68	103.62	106.65	109.80
8	101.16	103.79	105.56	102.83	100.84	99.75	98.26	98.69	---	103.68	106.76	109.86
9	101.13	103.93	105.49	102.46	100.63	99.72	98.27	98.71	---	103.81	106.84	109.95
10	101.30	103.92	105.29	102.05	100.49	99.51	98.23	98.69	---	103.92	106.90	110.08
11	101.39	103.93	105.26	---	100.42	99.28	98.24	98.82	101.15	103.98	107.01	110.19
12	101.34	104.02	---	---	100.26	99.31	98.14	99.08	101.19	104.04	107.08	110.25
13	101.24	104.25	---	101.03	100.46	99.62	98.17	99.05	101.17	104.09	107.17	110.31
14	101.30	104.38	105.47	101.11	---	99.77	98.32	98.87	101.23	104.19	107.27	110.40
15	101.31	104.40	105.54	100.93	---	99.86	98.50	98.97	101.27	104.31	107.42	110.57
16	101.51	104.41	---	100.53	99.92	99.84	98.59	99.16	101.40	104.42	107.49	110.67
17	101.83	104.47	---	100.43	99.80	99.78	98.47	99.28	101.57	104.51	107.58	110.82
18	102.04	104.52	---	100.42	99.85	99.89	98.45	---	101.78	104.59	107.65	111.02
19	102.03	104.61	---	99.94	99.86	99.92	98.45	---	101.99	104.71	107.72	111.24
20	102.19	104.68	---	100.02	99.73	99.92	98.43	---	102.08	104.84	107.83	111.32
21	102.33	104.87	---	100.13	99.57	100.0	98.57	---	102.05	104.90	107.91	111.53
22	102.45	104.92	---	99.76	---	99.97	98.43	---	102.13	105.00	108.02	111.58
23	102.43	104.95	---	100.20	---	99.65	98.27	---	102.31	105.15	108.14	111.75
24	102.40	104.86	---	100.03	---	99.73	98.31	---	102.37	105.21	108.27	111.97
25	102.65	104.99	105.56	---	---	99.68	98.54	99.68	102.46	105.27	108.37	112.03
26	102.84	105.27	105.49	---	99.72	99.64	98.63	99.71	102.59	105.35	108.40	111.90
27	102.90	105.30	105.60	100.54	99.70	99.52	98.69	99.77	102.71	105.46	108.45	112.12
28	103.00	105.40	---	100.63	99.38	99.21	98.74	99.84	102.74	105.62	108.60	112.14
29	102.91	105.60	---	---	---	99.44	98.64	99.98	102.81	105.75	108.81	112.12
30	102.82	105.57	---	---	---	99.47	98.51	100.09	102.87	105.87	108.85	112.34
31	103.07	---	---	---	---	99.39	---	100.23	---	105.96	108.84	---
MEAN	101.78	104.36	105.50	101.22	100.10	99.68	98.53	99.13	101.60	104.44	107.48	110.75
MAX	103.07	105.60	105.63	104.25	100.95	100.00	99.51	100.23	102.87	105.96	108.85	112.34
MIN	100.51	103.26	105.26	99.76	99.38	99.21	98.14	98.54	100.32	102.88	106.04	109.10



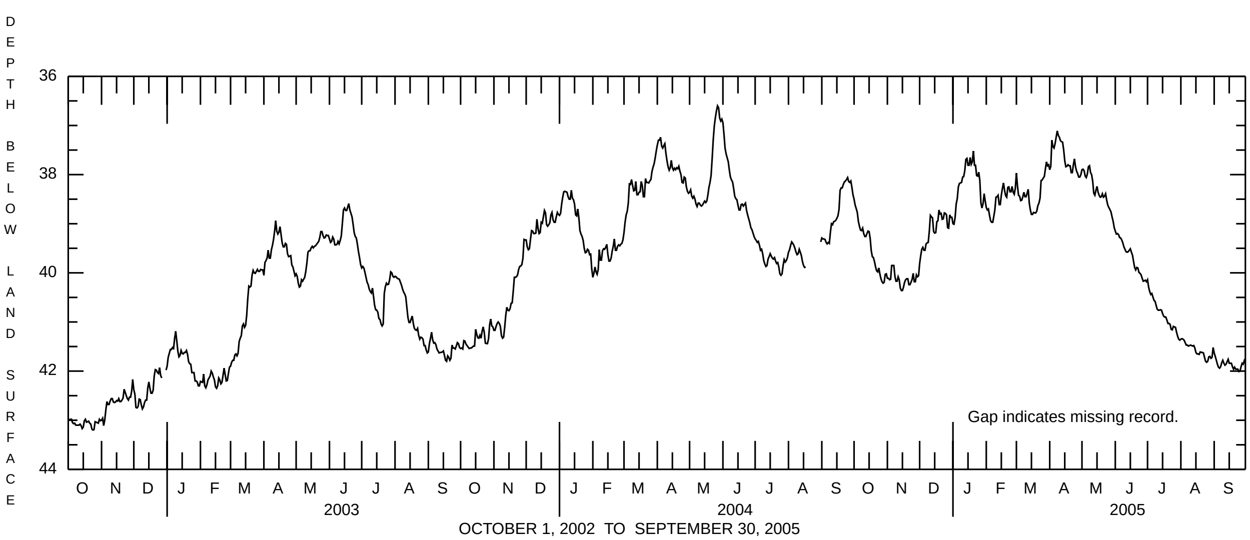
WARREN COUNTY

414159079213601. Local number, WR 50.

LOCATION.--Lat 41°41'59", long 79°21'36", Hydrologic Unit 05010003, at State Game Land Number 86.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Venango Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 105 ft, cased to 46 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,170 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 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 1987, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--August 1972 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, 36.52 ft below land-surface datum, May 28, 2004; lowest, 45.42 ft below land-surface datum, Nov. 2, 1983.
EXTREMES FOR CURRENT YEAR.--Highest water level, 37.04 ft below land-surface datum, Apr. 8; lowest, 42.01 ft below land-surface datum, Sept. 24.

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	38.50	40.11	39.81	39.00	38.67	37.97	37.90	37.90	39.15	40.14	41.35	41.63
2	38.62	40.11	39.65	39.01	38.72	38.23	37.83	37.89	39.21	40.29	41.34	41.70
3	38.69	40.14	39.52	38.87	38.70	38.42	37.30	37.92	39.20	40.38	41.35	41.78
4	38.77	40.13	39.48	38.60	38.83	38.44	37.43	38.03	39.22	40.44	41.37	41.86
5	38.95	39.85	39.54	38.49	38.94	38.53	37.46	38.06	39.28	40.42	41.42	41.92
6	39.05	39.85	39.54	38.25	38.97	38.52	37.37	37.99	39.29	40.49	41.47	41.94
7	39.13	39.85	39.41	38.18	38.97	38.45	37.24	37.84	39.33	40.56	41.47	41.91
8	39.14	40.07	39.39	38.17	38.85	38.36	37.11	37.82	39.39	40.58	41.49	41.83
9	39.09	40.17	39.38	38.16	38.71	38.45	37.20	37.96	39.47	40.66	41.48	41.78
10	39.20	40.17	39.15	38.05	38.46	38.45	37.24	38.00	39.52	40.74	41.47	41.84
11	39.26	40.08	38.83	38.04	38.45	38.38	37.31	38.14	39.57	40.76	41.48	41.88
12	39.26	40.14	38.86	37.92	38.42	38.30	37.33	38.38	39.58	40.76	41.49	41.86
13	39.20	40.31	38.88	37.69	38.61	38.58	37.34	38.42	39.57	40.75	41.48	41.81
14	39.15	40.36	39.16	37.67	38.61	38.72	37.50	38.32	39.54	40.76	41.53	41.76
15	39.16	40.36	39.19	37.81	38.42	38.81	37.72	38.24	39.51	40.83	41.62	41.84
16	39.30	40.29	39.18	37.81	38.28	38.81	37.84	38.36	39.58	40.88	41.65	41.84
17	39.55	40.19	38.96	37.65	38.17	38.77	37.83	38.42	39.64	40.90	41.65	41.84
18	39.67	40.14	38.94	37.79	38.32	38.78	37.80	38.46	39.77	40.90	41.66	41.91
19	39.69	40.12	38.72	37.74	38.43	38.78	37.82	38.45	39.89	40.96	41.61	41.96
20	39.77	40.12	38.80	37.52	38.46	38.74	37.82	38.39	39.94	41.03	41.62	41.92
21	39.88	40.24	38.79	37.81	38.26	38.63	37.96	38.46	39.89	41.03	41.62	41.96
22	39.96	40.24	38.91	37.81	38.25	38.58	37.96	38.44	39.90	41.05	41.63	41.96
23	39.98	40.19	38.90	38.02	38.35	38.48	37.80	38.39	39.99	41.15	41.72	41.96
24	39.90	40.13	38.78	38.03	38.35	38.12	37.68	38.52	40.01	41.16	41.80	42.01
25	40.02	40.01	38.79	37.95	38.24	38.11	37.84	38.62	40.04	41.09	41.82	42.00
26	40.12	40.18	38.82	38.12	38.36	38.07	37.93	38.67	40.11	41.10	41.80	41.91
27	40.18	40.18	39.08	38.58	38.40	38.04	37.98	38.71	40.17	41.11	41.71	41.84
28	40.21	40.04	39.09	38.68	38.28	37.88	38.05	38.76	40.16	41.21	41.70	41.86
29	40.19	40.08	38.82	38.59	---	37.74	38.05	38.86	40.15	41.29	41.74	41.79
30	40.03	40.06	38.87	38.39	---	37.82	38.00	38.95	40.18	41.35	41.72	41.84
31	40.02	---	38.87	38.54	---	37.80	---	39.08	---	41.37	41.52	---
MEAN	39.47	40.13	39.10	38.16	38.52	38.38	37.65	38.34	39.67	40.84	41.57	41.86
MAX	40.21	40.36	39.81	39.01	38.97	38.81	38.05	39.08	40.18	41.37	41.82	42.01
MIN	38.50	39.85	38.72	37.52	38.17	37.74	37.11	37.82	39.15	40.14	41.34	41.63



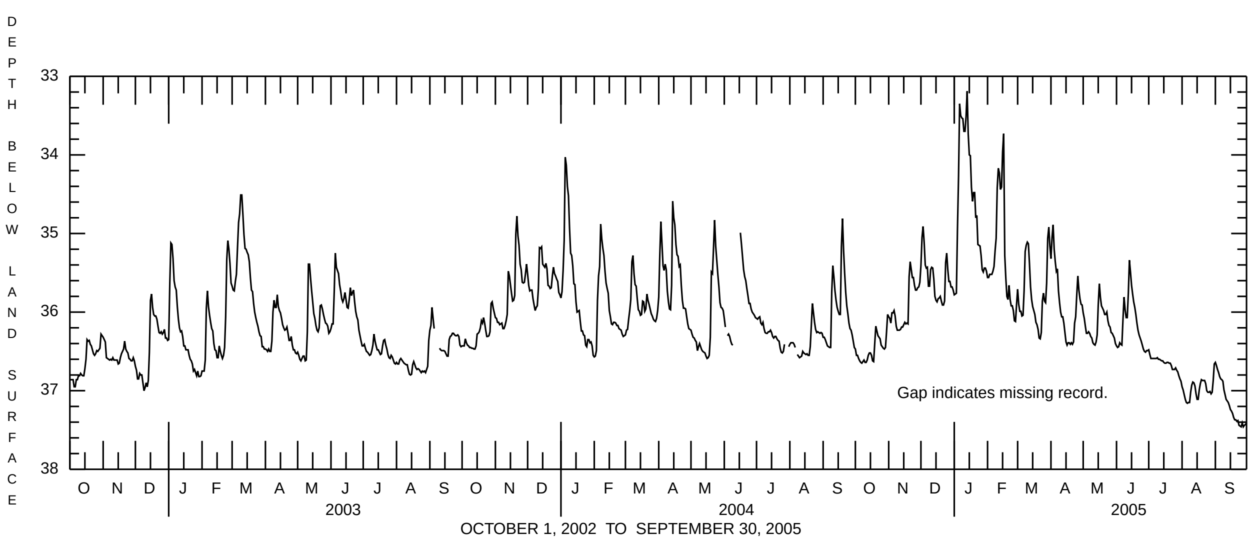
WASHINGTON COUNTY

400233080261301. Local number, WS 155.

LOCATION.--Lat 40°02'33", long 80°26'13", Hydrologic Unit 05030106, at State Game Land Number 245, near Good Intent.
Owner: U.S. Geological Survey.
AQUIFER.--Washington Formation of Early Permian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 160 ft, cased to 19 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since Aug. 23, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 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 1987, are available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--July 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, 32.25 ft below land-surface datum, Jan. 14, 1974; lowest, 39.01 ft below land-surface datum, July 11, 1971.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.00 ft below land-surface datum, Jan. 13; lowest, 37.46 ft below land-surface datum, Sept. 25, 27.

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	36.47	36.06	35.41	35.78	35.56	35.71	35.32	36.01	36.43	36.48	36.95	36.64
2	36.55	36.08	35.05	35.77	35.56	35.90	35.05	36.08	36.45	36.54	36.99	36.68
3	36.55	36.14	34.91	35.76	35.52	35.99	34.89	36.18	36.44	36.59	37.05	36.73
4	36.59	36.01	35.11	34.95	35.52	35.99	35.20	36.27	36.39	36.59	37.11	36.77
5	36.62	36.01	35.40	34.27	35.52	36.05	35.36	36.27	36.41	36.59	37.15	36.82
6	36.64	35.98	35.44	33.35	35.48	36.04	35.48	36.25	36.42	36.59	37.16	36.85
7	36.65	36.05	35.43	33.50	35.42	35.73	35.45	36.27	36.10	36.59	37.15	36.86
8	36.63	36.18	35.67	33.53	35.22	35.23	35.73	36.31	35.81	36.59	37.15	36.88
9	36.61	36.23	35.67	33.54	35.06	35.15	35.88	36.33	35.97	36.58	37.02	36.99
10	36.64	36.23	35.46	33.70	34.42	35.11	36.00	36.39	36.07	36.60	36.93	37.05
11	36.64	36.23	35.43	33.70	34.17	35.13	36.06	36.41	36.07	36.60	36.89	37.11
12	36.61	36.22	35.44	33.51	34.23	35.38	36.06	36.42	35.76	36.61	36.90	37.13
13	36.55	36.19	35.58	33.19	34.44	35.68	36.14	36.38	35.34	36.62	36.94	37.15
14	36.52	36.19	35.80	33.73	34.41	35.84	36.26	36.29	35.49	36.62	37.04	37.19
15	36.52	36.16	35.85	34.00	33.96	35.93	36.38	35.91	35.66	36.64	37.11	37.24
16	36.55	36.13	35.87	34.01	33.73	35.98	36.42	35.64	35.77	36.65	37.11	37.26
17	36.62	36.15	35.83	34.41	35.28	36.03	36.39	35.81	35.87	36.65	36.99	37.29
18	36.63	36.14	35.82	34.59	35.57	36.13	36.39	35.92	35.94	36.64	36.91	37.34
19	36.40	36.15	35.80	34.48	35.80	36.16	36.41	35.95	36.03	36.64	36.86	37.37
20	36.18	35.55	35.86	34.48	35.84	36.22	36.39	35.98	36.14	36.65	36.87	37.37
21	36.24	35.36	35.91	34.80	35.66	36.33	36.41	36.03	36.23	36.65	36.87	37.39
22	36.30	35.46	35.91	34.77	35.84	36.34	36.38	36.03	36.29	36.68	36.87	37.38
23	36.32	35.56	35.86	35.14	35.92	36.26	36.14	36.00	36.33	36.73	36.91	37.44
24	36.34	35.56	35.37	35.15	35.92	35.86	36.06	36.11	36.37	36.73	37.00	37.45
25	36.42	35.66	35.25	35.16	35.98	35.76	35.78	36.17	36.42	36.73	37.02	37.46
26	36.44	35.72	35.46	35.28	36.11	35.86	35.54	36.19	36.47	36.71	37.02	37.41
27	36.46	35.72	35.61	35.46	36.12	35.88	35.72	36.26	36.50	36.74	37.01	37.46
28	36.47	35.69	35.61	35.49	35.90	35.63	35.83	36.27	36.51	36.76	37.04	37.44
29	36.45	35.68	35.68	35.44	---	35.06	35.90	36.30	36.49	36.81	37.02	37.43
30	36.25	35.62	35.68	35.44	---	34.92	35.91	36.33	36.49	36.85	36.87	37.41
31	36.03	---	35.72	35.48	---	35.16	---	36.40	---	36.88	36.66	---
MEAN	36.48	35.94	35.58	34.58	35.29	35.76	35.90	36.17	36.16	36.66	36.99	37.17
MAX	36.65	36.23	35.91	35.78	36.12	36.34	36.42	36.42	36.51	36.88	37.16	37.46
MIN	36.03	35.36	34.91	33.19	33.73	34.92	34.89	35.64	35.34	36.48	36.66	36.64



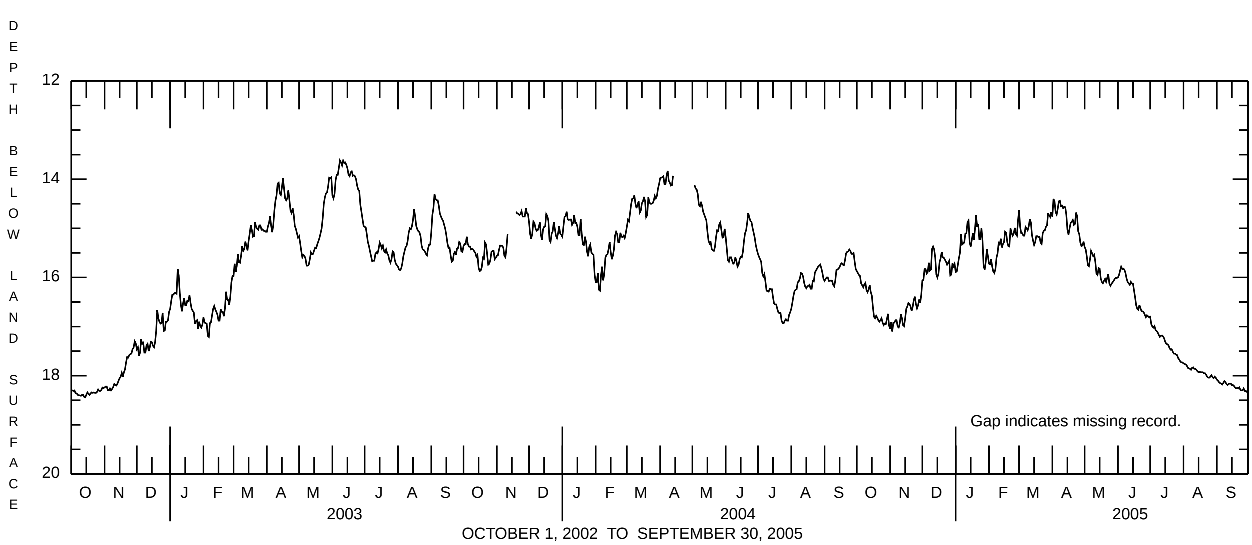
WESTMORELAND COUNTY

402138079031802. Local number, WE 300.

LOCATION.--Lat 40°21'38", long 79°03'18", Hydrologic Unit 05010007, at State Game Land Number 42.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Clarion Formation of Middle Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 110 ft, cased to 22 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval since Sept. 19, 2001. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of metal cover, 3.02 ft above land-surface datum. Prior to Sept. 19, 2001, top of plywood cover, 3.05 ft above land-surface datum.
PERIOD OF RECORD.--February 1968 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, 13.00 ft below land-surface datum, May 23, 24, 2002; lowest, 29.22 ft below land-surface datum, July 3, 1968.
EXTREMES FOR CURRENT YEAR.--Highest water level, 14.04 ft below land-surface datum, Apr. 2; lowest, 18.35 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	15.87	17.05	16.06	15.89	15.72	14.63	14.76	15.38	16.00	16.80	17.75	18.08
2	15.91	16.91	16.05	15.88	15.73	14.97	14.40	15.43	15.95	16.95	17.76	18.10
3	15.95	17.10	15.83	15.75	15.63	15.10	14.45	15.57	15.86	17.00	17.77	18.13
4	15.97	16.92	15.83	15.61	15.78	15.10	14.67	15.75	15.78	17.02	17.79	18.15
5	16.12	16.92	15.92	15.50	15.88	15.15	14.72	15.77	15.83	16.99	17.84	18.16
6	16.16	16.87	15.89	15.12	15.91	15.15	14.60	15.63	15.82	17.07	17.85	18.18
7	16.20	16.87	15.70	15.33	15.83	14.97	14.45	15.46	15.84	17.09	17.86	18.15
8	16.14	17.00	15.86	15.31	15.60	15.00	14.44	15.51	15.91	17.12	17.88	18.11
9	16.11	17.02	15.84	15.29	15.51	15.04	14.55	15.57	16.02	17.17	17.84	18.13
10	16.26	16.93	15.42	15.11	15.30	14.96	14.54	15.54	16.09	17.21	17.83	18.17
11	16.30	16.75	15.37	15.10	15.33	14.81	14.59	15.69	16.12	17.19	17.86	18.19
12	16.24	16.83	15.43	14.88	15.21	14.88	14.56	15.92	16.15	17.18	17.86	18.17
13	16.16	16.97	15.60	14.84	15.39	15.14	14.57	15.95	16.09	17.20	17.88	18.16
14	16.30	16.99	15.94	15.29	15.32	15.25	14.73	15.81	16.12	17.24	17.91	18.16
15	16.37	16.83	16.00	15.37	15.28	15.34	15.03	15.82	16.13	17.31	17.93	18.19
16	16.61	16.64	15.92	15.24	15.07	15.28	15.13	16.02	16.27	17.35	17.92	18.19
17	16.80	16.59	15.69	15.10	15.09	15.16	15.00	16.09	16.41	17.36	17.93	18.21
18	16.83	16.52	15.61	15.24	15.28	15.16	14.89	16.12	16.57	17.38	17.93	18.24
19	16.78	16.54	15.48	15.01	15.36	15.18	14.87	16.07	16.64	17.44	17.93	18.26
20	16.82	16.59	15.59	14.73	15.37	15.17	14.83	16.03	16.66	17.47	17.95	18.25
21	16.87	16.68	15.60	14.97	15.00	15.29	14.93	16.09	16.56	17.46	17.95	18.26
22	16.90	16.60	15.64	14.91	15.09	15.32	14.91	16.01	16.63	17.51	17.98	18.24
23	16.87	16.46	15.68	15.22	15.15	15.10	14.68	15.93	16.69	17.55	18.02	18.29
24	16.83	16.39	15.74	15.22	15.11	15.05	14.75	16.12	16.69	17.55	18.04	18.30
25	16.92	16.54	15.70	15.00	14.99	15.04	15.06	16.17	16.71	17.57	18.04	18.30
26	16.97	16.63	15.66	15.25	15.12	14.97	15.12	16.13	16.76	17.58	18.02	18.26
27	16.94	16.57	15.96	15.77	15.15	14.94	15.29	16.10	16.81	17.64	17.99	18.31
28	16.95	16.45	15.94	15.84	14.84	14.69	15.36	16.07	16.77	17.67	18.03	18.31
29	16.85	16.52	15.71	15.68	---	14.74	15.35	16.03	16.79	17.71	18.05	18.33
30	16.74	16.35	15.77	15.43	---	14.77	15.27	16.01	16.81	17.73	18.02	18.35
31	16.98	---	15.72	15.56	---	14.67	---	16.01	---	17.73	18.04	---
MEAN	16.51	16.73	15.75	15.30	15.36	15.03	14.82	15.86	16.32	17.33	17.92	18.21
MAX	16.98	17.10	16.06	15.89	15.91	15.34	15.36	16.17	16.81	17.73	18.05	18.35
MIN	15.87	16.35	15.37	14.73	14.84	14.63	14.40	15.38	15.78	16.80	17.75	18.08



Calendar for Water Year 2005

2004

October

S	M	T	W	T	F	S
					1	2
3	4	5	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						

November

S	M	T	W	T	F	S
	1	2	3	4	5	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				

December

S	M	T	W	T	F	S
			1	2	3	4
5	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	

2005

January

S	M	T	W	T	F	S
						1
2	3	4	5	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					

February

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

March

S	M	T	W	T	F	S
		1	2	3	4	5
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		

April

S	M	T	W	T	F	S
					1	2
3	4	5	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

May

S	M	T	W	T	F	S
1	2	3	4	5	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				

June

S	M	T	W	T	F	S
			1	2	3	4
5	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		

July

S	M	T	W	T	F	S
					1	2
3	4	5	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						

August

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

September

S	M	T	W	T	F	S
				1	2	3
4	5	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	

Conversion Factors

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter (mm)
	2.54×10^{-2}	meter (m)
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^{0}	kilometer (km)
	Area	
acre	4.047×10^{3}	square meter (m^2)
	4.047×10^{-1}	square hectometer (hm^2)
	4.047×10^{-3}	square kilometer (km^2)
square mile (mi^2)	2.590×10^{0}	square kilometer (km^2)
	Volume	
gallon (gal)	3.785×10^{0}	liter (L)
	3.785×10^{-3}	cubic meter (m^3)
	3.785×10^{0}	cubic decimeter (dm^3)
million gallons (Mgal)	3.785×10^{3}	cubic meter (m^3)
	3.785×10^{-3}	cubic hectometer (hm^3)
cubic foot (ft^3)	2.832×10^{-2}	cubic meter (m^3)
	2.832×10^{1}	cubic decimeter (dm^3)
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter (m^3)
	2.447×10^{-3}	cubic hectometer (hm^3)
acre-foot (acre-ft)	1.233×10^{3}	cubic meter (m^3)
	1.233×10^{-3}	cubic hectometer (hm^3)
	1.233×10^{-6}	cubic kilometer (km^3)
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second (L/s)
	2.832×10^{-2}	cubic meter per second (m^3/s)
	2.832×10^{1}	cubic decimeter per second (dm^3/s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
	6.309×10^{-2}	cubic decimeter per second (dm^3/s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second (m^3/s)
	4.381×10^{1}	cubic decimeter per second (dm^3/s)
	Mass	
ton (short)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$°F = (1.8 \times °C) + 32$

INDEX

INDEX--Continued

INDEX--Continued

INDEX--Continued