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Water Resources Data Pennsylvania Water Year 1987

Volume 1. Delaware River Basin

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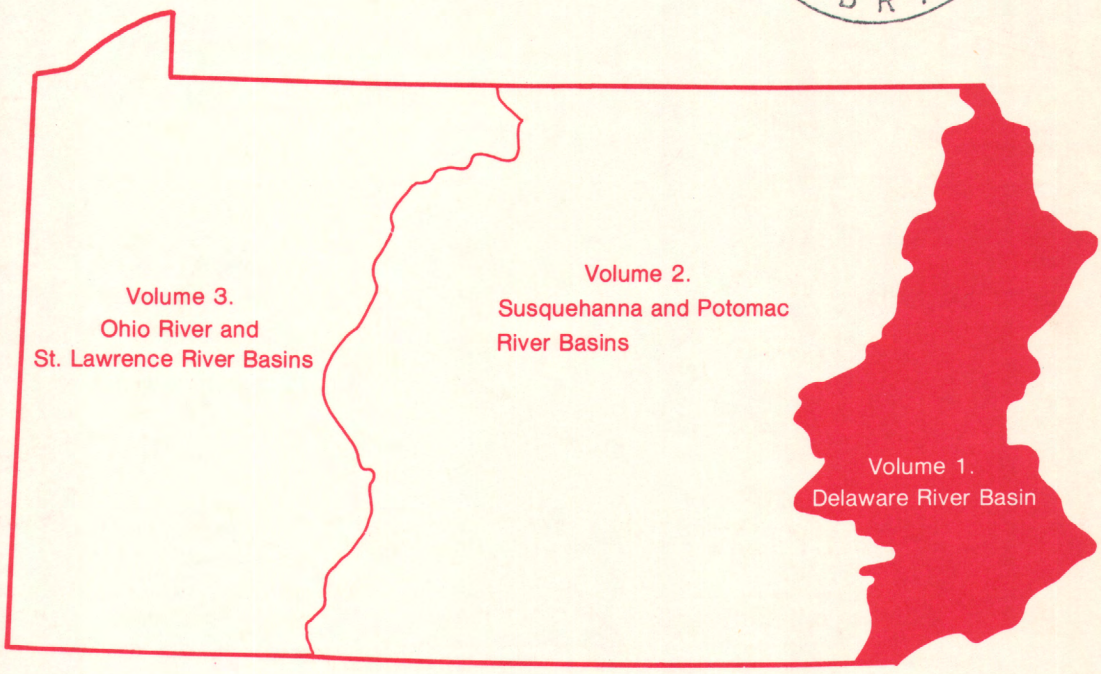


U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-87-1
Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

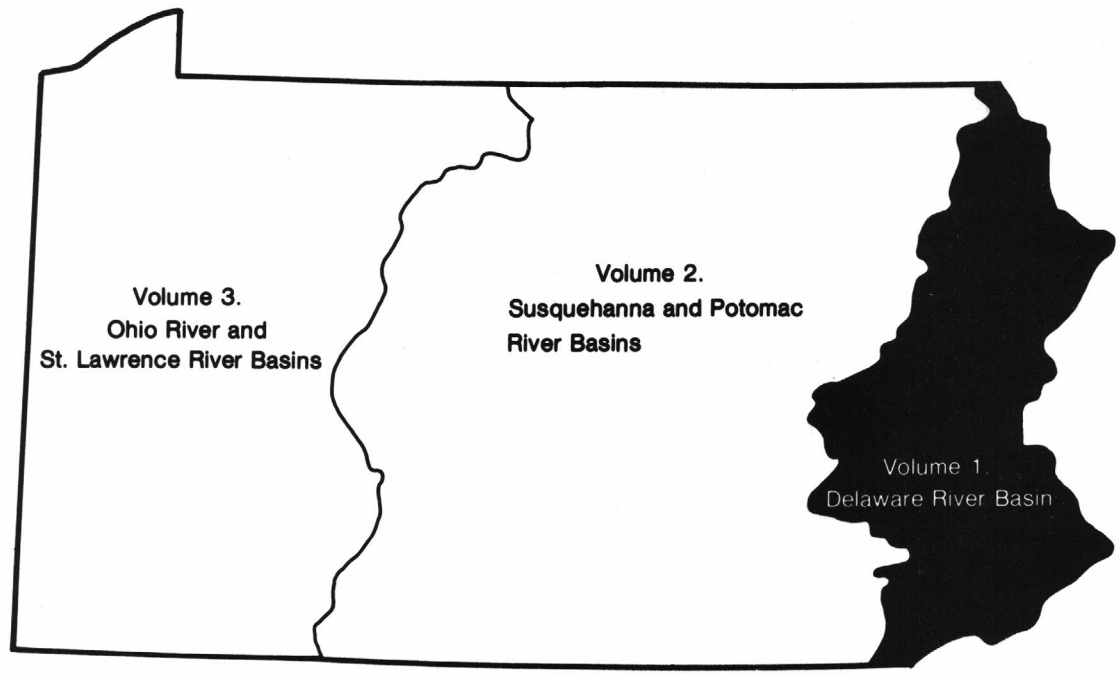
The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

Water Resources Data Pennsylvania Water Year 1987

Volume 1. Delaware River Basin

by J.R. Kolva, T.E. White, R.L. Druther, and P. Moleski



U.S. GEOLOGICAL SURVEY WATER DATA REPORT PA-87-1
Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108-1107
1989

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 three volumes:

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

Volume 1 was prepared in cooperation with the Commonwealth of Pennsylvania and the other agencies under the general supervision of David E. Click, District Chief, Pennsylvania District, and Charles R. Wood, Subdistrict Chief, Malvern Subdistrict. It is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Craig R. Moore
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15. Supplementary Notes

Prepared in cooperation with the State of Pennsylvania and with other agencies.

16. Abstract (Limit: 200 words)

Water resources data for the 1987 water year for Pennsylvania consist of records of discharge and water quality of streams; contents and elevations of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, Volume 1, includes records from the Delaware River basins. Specifically, it contains: (1) Discharge records for 77 continuous record streamflow-gaging stations and 57 partial-record stations; (2) elevation and contents records for 12 lakes and reservoirs and elevations for 4 tidal stations; (3) water-quality records for 39 streamflow-gaging stations, for 43 ungaged streamsites, and (4) water-level records for 16 observation wells. Locations of these sites are shown on figures 6-9. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together withg the data in Volumes 2 and 3, represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

17. Document Analysis a. Descriptors

*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 collections, Sites

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates types of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (e) elevation, gage height, or contents, (s) sediment)

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

GROUND-WATER LEVELS

BERKS COUNTY
Well 402615075530501 Local number BE 623 270
BUCKS COUNTY
Well 402643075150501 Local number BK 929 271
CARBON COUNTY
Well 410123075425401 Local number CB 104 272
CHESTER COUNTY
Well 395450075485401 Local number CH 10 273
DELAWARE COUNTY
Well 395040075341801 Local number DE 3 274
Well 403226075343001 Local number DE 723 275

LEBANON COUNTY
Well 402207076180801 Local number LB 372 276
LEHIGH COUNTY
Well 403429075392401 Local number LE 644 277
MONROE COUNTY
Well 411223075234901 Local number MO 190 278
MONTGOMERY COUNTY
Well 400808075210401 Local number MG 225 279
Well 401310075181702 Local number MG 884 280
NORTHAMPTON COUNTY
Well 403618075203801 Local number NP 85 281
PHILADELPHIA COUNTY
Well 395342075102101 Local number PH 12 282
PIKE COUNTY
Well 410940074583401 Local number PI 200 283
SCHUYLKILL COUNTY
Well 404708076070701 Local number SC 296 284
WAYNE COUNTY
Well 414333075153201 Local number WN 64 285

The Water Resources Division of the U.S. Geological Survey, in cooperation with State and federal agencies, obtains 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, the data are published annually in this report series entitled "Water Resources Data - Pennsylvania, Volume 1, 2, and 3." Volume 1 contains data for the Delaware River Basin, Volume 2, the Susquehanna and Potomac River Basins, and Volume 3, the Ohio and St. Lawrence River Basins.

This report, Volume 1, specifically contains: (1) Discharge records for 77 continuous record streamflow-gaging stations, 57 crest-stage partial-record stations, (2) elevation and contents records for 12 lakes and reservoirs and elevations for 4 tidal stations; (3) water-quality records for 39 streamflow-gaging stations, for 43 ungaged streamsites; and (4) water-level records for 16 observation wells.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey 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-87-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in 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. Starting with the 1964 water year, a companion report (part 2) was introduced that contained only data relating to water quality. Beginning with the 1975 water year the report was changed to its present format of three volumes. Each volume contains 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 through 1970 water years, the 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, 4. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of title page or by contacting the Information Specialist, telephone (717) 782-3851.

COOPERATION

The U.S. Geological Survey 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 also acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are listed below.

The Pennsylvania State Department of Environmental Resources, Arthur A. Davis, Secretary through the following:

Office of Resources Management, James R. Grace, Deputy Secretary;
  Bureau of Water Resources Management, John E. McSparran, Director;
  Bureau of Topographic and Geologic Survey, Donald M. Hoskins, Director;
Office of Environmental Protection, Mark M. McClellan, Deputy Secretary;
  Bureau of Water Quality Management, Daniel B. Drawbaugh, Acting Director;
  Bureau of Mining and Reclamation, Ernest F. Giovannitti, Director.

Delaware River Basin Commission, G. M. Hansler, Executive Director;

Chester County Water Resources Authority, D. C. Yaeck, Executive Director;

City of Bethlehem, Gordon Mowrer Mayor;

City of Philadelphia, Water Department, W. J. Marrazzo, Water Commissioner

Assistance in the form of funds or services was given by Corps of Engineers, U. S. Army, in the collecting of records for 62 gaging stations.

The following organizations aided in collecting records:

Palmer Water Co.; Pennsylvania Power and Light Co.; Philadelphia Electric Co.; Phildelphia Suburban Water Co.; Borough of Tamaqua; Womelsdorf-Robesonia Joint Water Authority, and the City of Coatesville.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation for the 1987 water year was above the 1951-80 normal for the Delaware River basin. Figure 1 compares the 1987 monthly precipitation with the 1951-80 monthly mean precipitation recorded at Allentown, Pennsylvania. September was the wettest month with rainfall about 214 percent of normal. The period of August and September had 7.5 inches more rain than normal. The spring period of February through May was relatively dry with rainfall about 4.5 inches below normal. Rainfall for the year was 7.0 inches above normal.

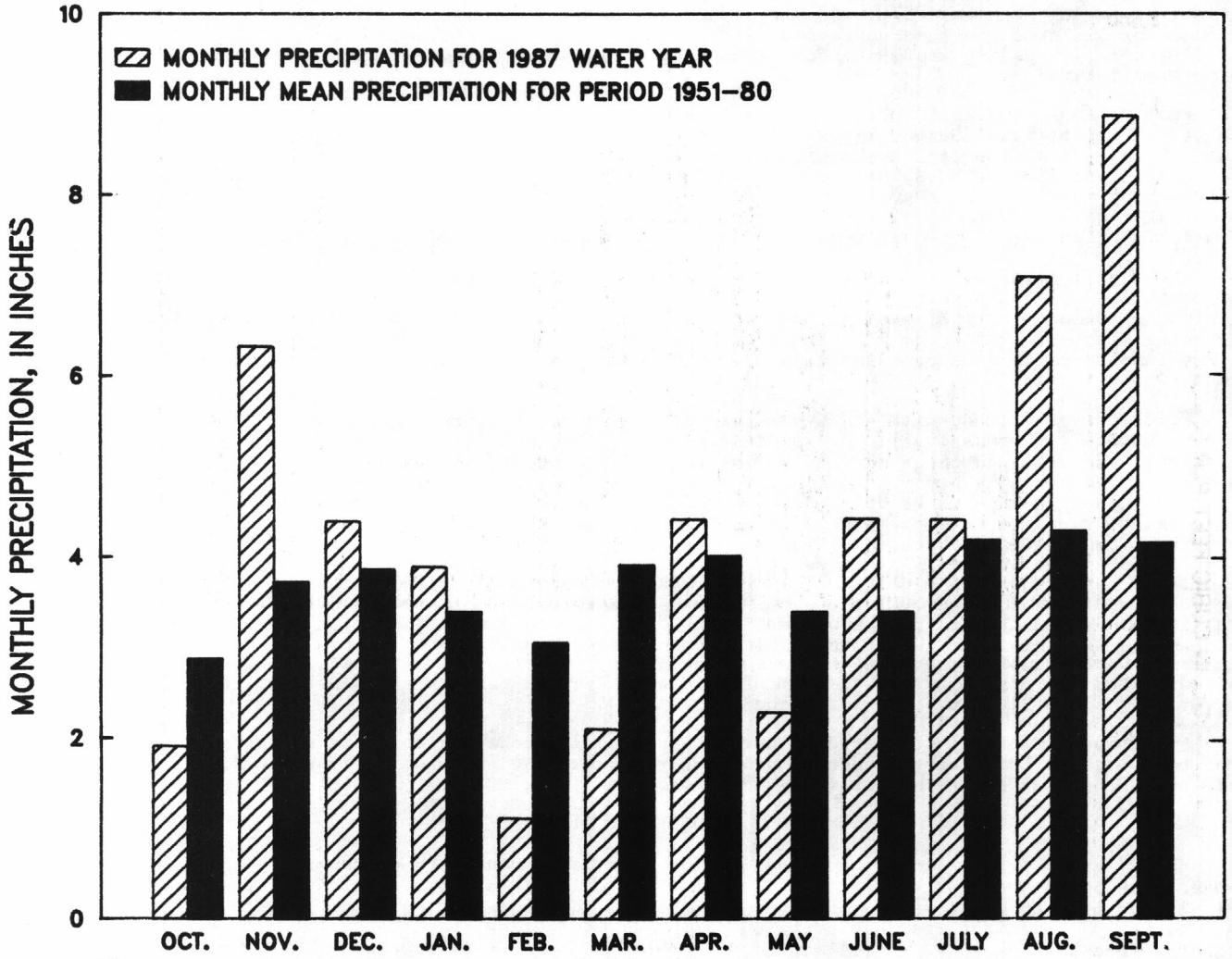

Figure 1.--Comparison of precipitation in the Delaware River basin above Allentown, Pa. during the 1987 water year with mean precipitation for 1951-80.

Streamflow for the Delaware River basin was normal during the 1987 water year. Figure 2 compares the 1987 monthly and yearly mean discharges with the median discharges for 1951-80 at two representative gaging stations. The yearly mean discharge was 101 percent of the 1951-80 median at Schuylkill River at Pottstown, and 104 percent of the median at Bush Kill at Shoemakers.

Monthly mean discharges at Schuylkill River at Pottstown were normal during October, January, April and July. Monthly mean discharges for February, March, June and August were below normal. Flows for November, December, May and September were above normal. Flows for September were 456 percent of normal.

Monthly mean discharges at Bush Kill at Shoemakers were normal during October, January and August. Flows in November, December, April, July and September were all above normal Flows in February, March, May and June were below normal. The monthly mean flow for September was over ten times the normal for that month.

Storage in seven major reservoirs during the 1987 water year was average or slightly below average. Storage ranged between 69 percent of normal at Francis E. Walter Reservoir and 100 percent of normal at Beltzville Lake.

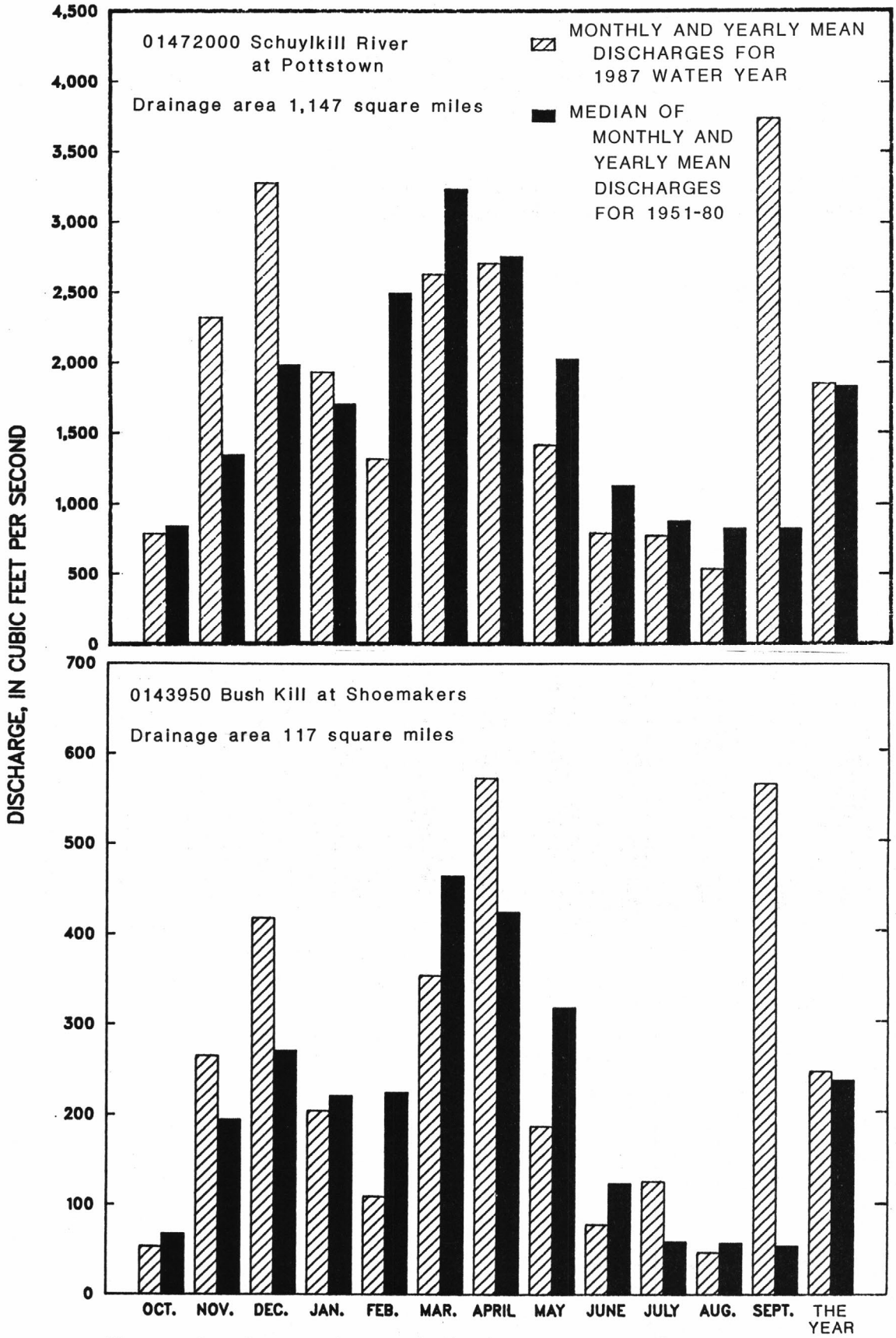

Figure 2.--Comparison of discharge at two long-term representative gaging stations during the 1987 water year with median discharge for period 1951-80.

Ground-water levels, which were above normal throughout much of the Delaware River basin during the 1986 water year, were generally normal or above normal during the 1987 water year. However, water levels varied substantially throughout the basin due to an uneven distribution of precipitation. Seasonal mean water levels in 16 observation wells relative to long-term seasonal mean levels are shown in figure 3. Long-term mean water levels were calculated from records ranging from 5 to 37 years in length.

During the fall, water levels were generally normal or above normal in all but the southeastern part of the basin, where levels were normal to much above normal and the southwestern part of the basin where levels were below normal. Recharge during late fall and early winter was adequate and by winter, normal to much above normal water levels prevailed in all but the southern part of the basin which was below normal. A dry spring caused water levels in the northern and southwestern parts of the basin to be below normal. The southeastern area was still above normal Summertime water levels were mixed. Levels in the southwestern and north central parts of the basin were generally below to much below normal and levels in the southeastern parts of the basin were generally normal to much above normal. The northeastern counties had normal water levels.

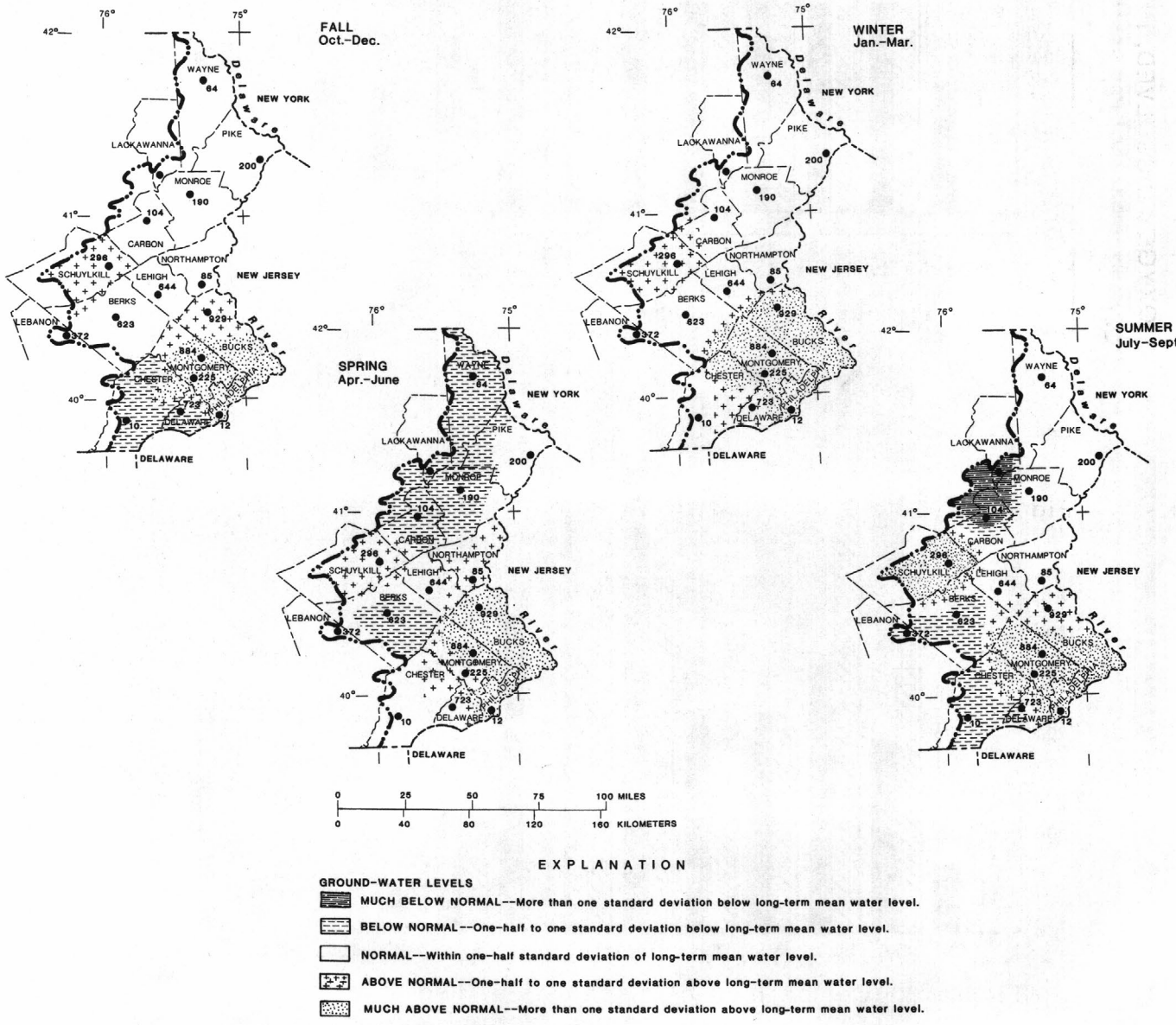

Figure 3.--Relationship between mean 1987 seasonal water levels and long-term mean water levels.

The suspended-sediment station, Schuylkill River at Philadelphia was discontinued during the 1987 water year. During 1987, all of the water-quality stations in the basin were equiped with data collection platforms (DCP) to provide near-real-time data. Figure 4 shows the diurnal fluctuations of dissolved oxygen concentration at three stations on Brandywine Creek for the period of July 28 to August 8, 1987.

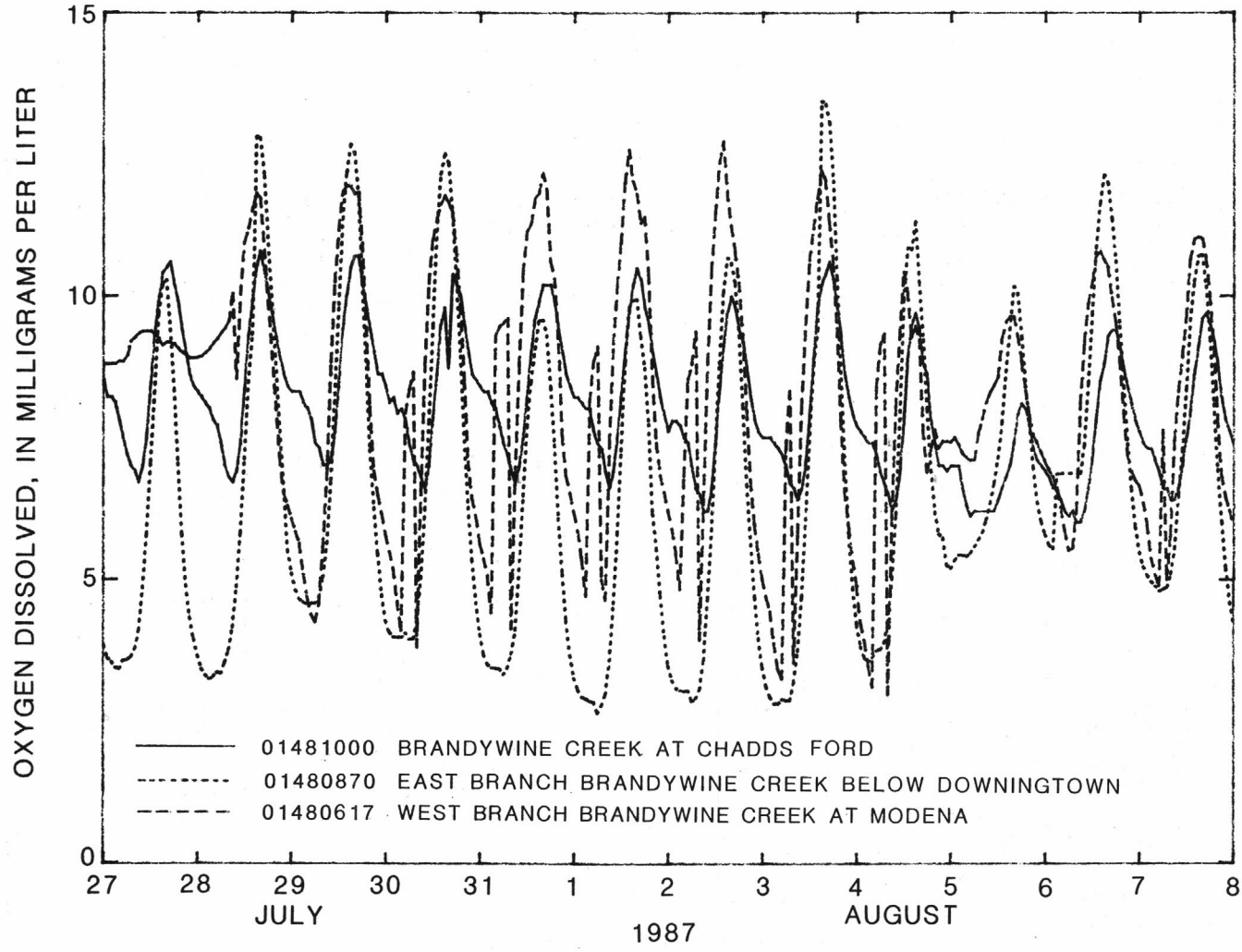

Figure 4.--Diurnal fluctuation of dissolved oxygen concentration at three stations on the Brandywine Creek for the period, July 28 to August 8, 1987.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins throughout the country which provides consistent data on hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide. This network also provides analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designed by the U.S. Geological Survey office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

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

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records in this report are for the 1987 water year that began October 1, 1986, and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 7-10. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report, whether streamsite or 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 taken.

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 and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned in downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. A station number can be from 8 to 15 digits and normally appears to the left of the station name. For example, an 8-digit number for a station such as 01431500, includes a 2-digit part number "01" plus a 6-digit downstream order number "431500". The part number designates major river basins; for example, part "01" is the North Atlantic Slope basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites with a 1-second grid. See figure 5 below.

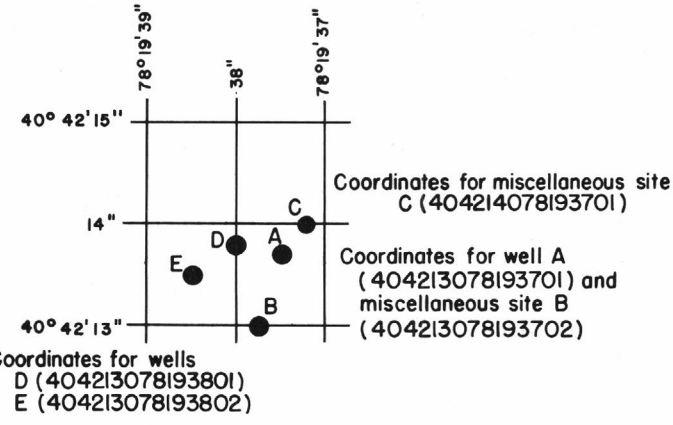

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude)

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

Records of Stage and Water Discharge

Records of stage and water discharge may be continuous or partial. Continuous records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations" or "continuous record stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all continuous-record and partial record stations for which data are given in this report are shown in figures 7, 8, 10.

Data Collection and Computation

The data obtained at a continuous-record gaging station on a stream consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

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

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

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

For some gaging stations there are periods when no gage-height is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station and reservoir consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River 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 indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

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

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

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, 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 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 canals, ditches, drains, or 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. The minimum for the current water year appears below the table of peak data.

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are ommitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

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 is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in 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 either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 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 discharges listed for partial-record stations and miscellaneous sites.

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

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most 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 district office (telephone number: 717-782-3851).

Records of Surface-Water Quality

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

Classification of records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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. Location of stations for which records on the quality of surface water appear in this report are shown in figures 6-9.

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.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the 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 publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on a following page in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are determined from data recorded at 15, 30, or 60 minute intervals for each day. More detailed records (hourly values) may be obtained from the U.S.G.S. District Office whose address is given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. At stations where recording instruments are used, maximum, minimum and mean temperatures for each day are published. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations and are on file in the District office. 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.

Sediment

Suspended-sediment concentrations are determined from samples collected by hand or by pumping samplers. Samples are collected by hand using depth-integrating samplers at single or multiple verticals in the cross section. Samples are collected by pumping samplers using an intake set to a fixed location in the cross section. The intake is located at a site that best represents the entire cross section based on simultaneous samples collected at various stages by the pumping sampler and by hand. During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, every 15 minutes). The published sediment discharges for days of rapidly changing flow or concentration were 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 were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, 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

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

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

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

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature 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. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

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	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Ground-water level data from a basic network of observation wells and from ground-water projects are published herein. Location of observation wells in the basic network are shown in figures 7, 10. The location of observation wells for projects are shown in figure 9.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the county location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The 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 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 for each day.

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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 weekly, monthly, or some other frequency of measurement.

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

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assitance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum. Wells equipped with recording gages have water levels reported for each day. Missing records are indicated by dashes in place of the water level.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval system (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

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

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

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

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

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.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

Bottom material: See Bed material.

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

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

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

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

Continuous record station is a station where streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses. Data may be collected continuously or periodically.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic foot per second (ft^3/s)[1] is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$][1] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

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

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[1] Until appropriate changes can be made to the WATSTORE and PRIME computer systems, the unit abbreviations "CFS" and "CFSM" will appear in some computer-generated table headings and summaries.

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

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

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

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

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

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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

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

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

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

Micrograms per gram (ug/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 liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

Miscellaneous record site is a site where limited streamflow and/or water-quality data are collected on a random basis for use in hydrologic analyses.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

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

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

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

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

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

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

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	.004 - .062	Sedimentation
Sand	.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

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

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

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

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

Picocurie (PC, pCi) is one trillionth ($1x10^{-}\mu^2$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10 radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

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

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

Milligrams of carbon per area of volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mgO /(m^2.time)] for periphyton and macrophytes and [mgO /(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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.

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

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that orginiates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

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

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

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a 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.

Suspended-sediment load is general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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

Total sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. it is not synonymous with total-sediment discharge.

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

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are genrally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" 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.

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

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

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

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the 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 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

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

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons-per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day (T/day) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

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

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

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

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

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to a State annual hydrologic-data reports.

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.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

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

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

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3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

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5-A2. *Determination of minor elements in water by emission spectroscopy.* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples.* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

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, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sedments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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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, Chapter C1. 1976. 116 pages.

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, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells.* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

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8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

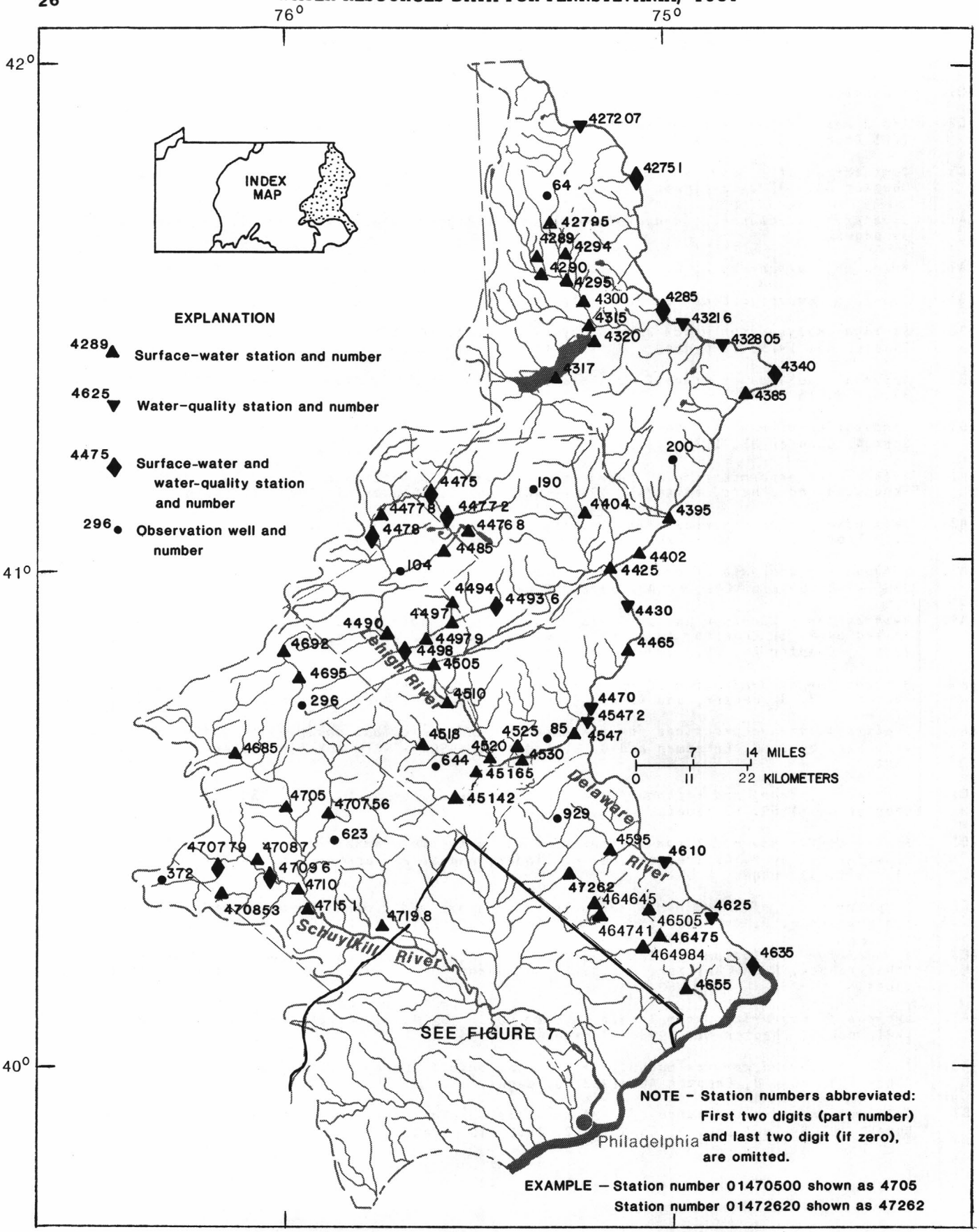

Figure 6.--Location of data-collection stations.

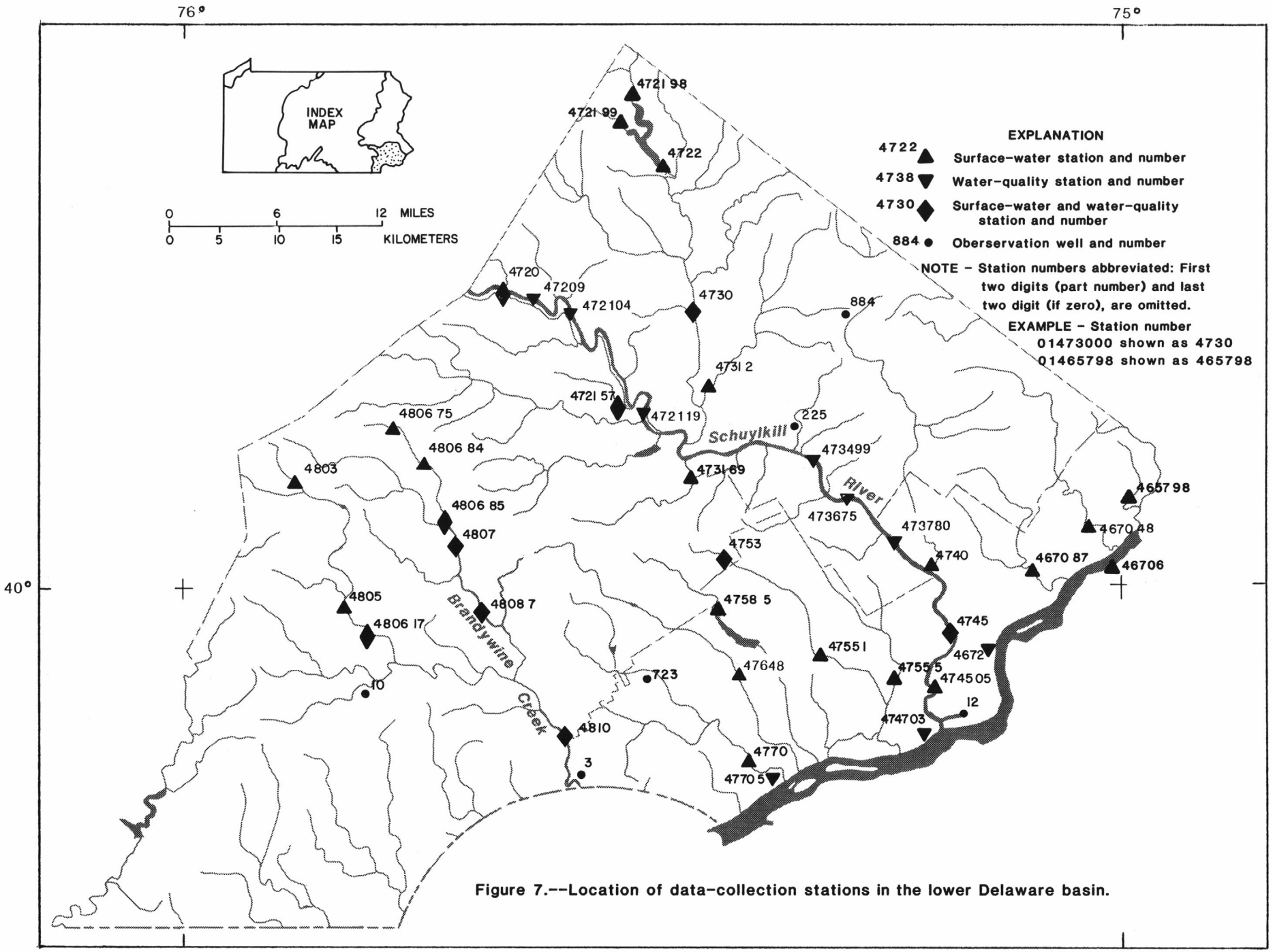

Figure 7.--Location of data-collection stations in the lower Delaware basin.

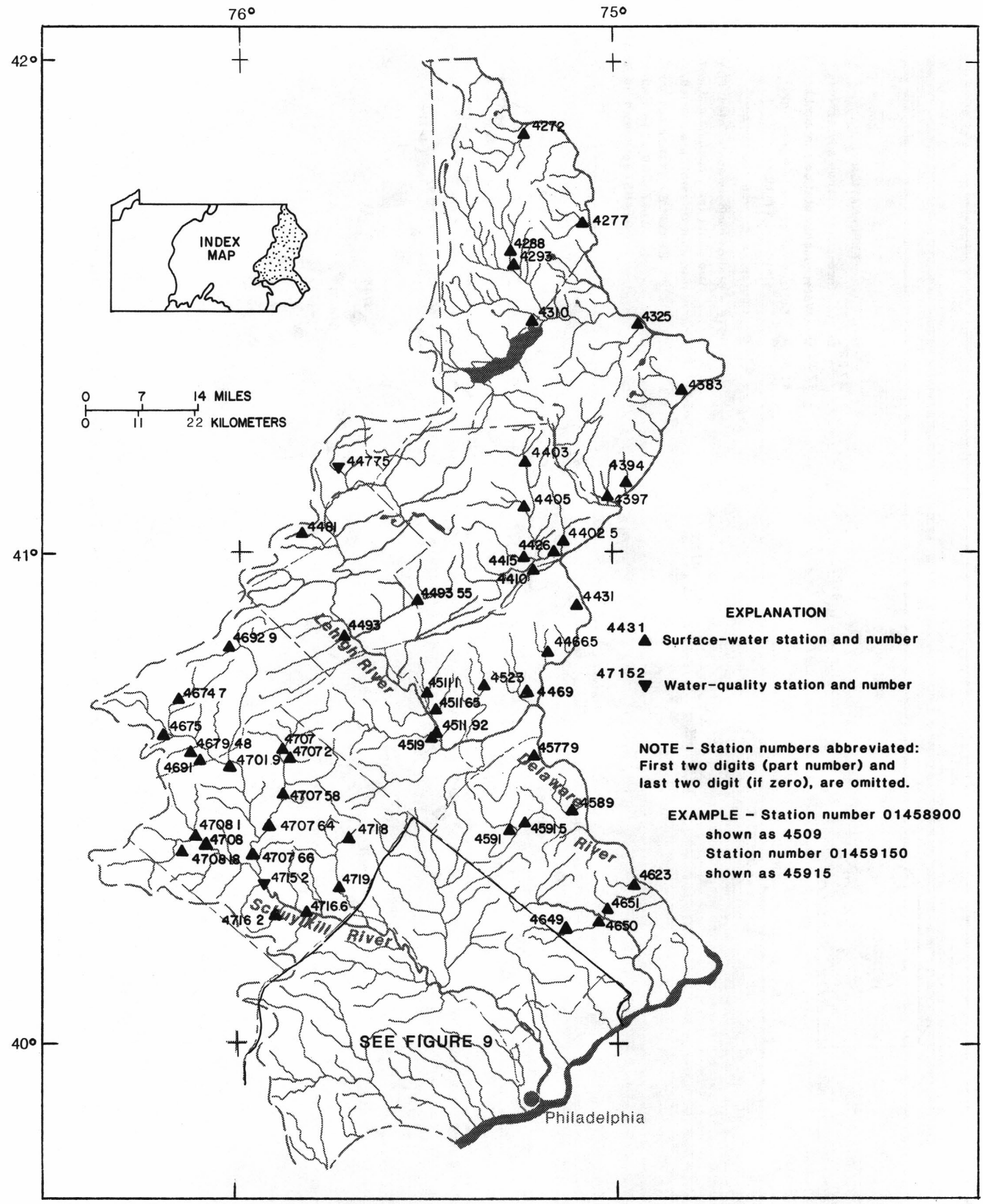

Figure 8.--Location of partial-record data-collection stations.

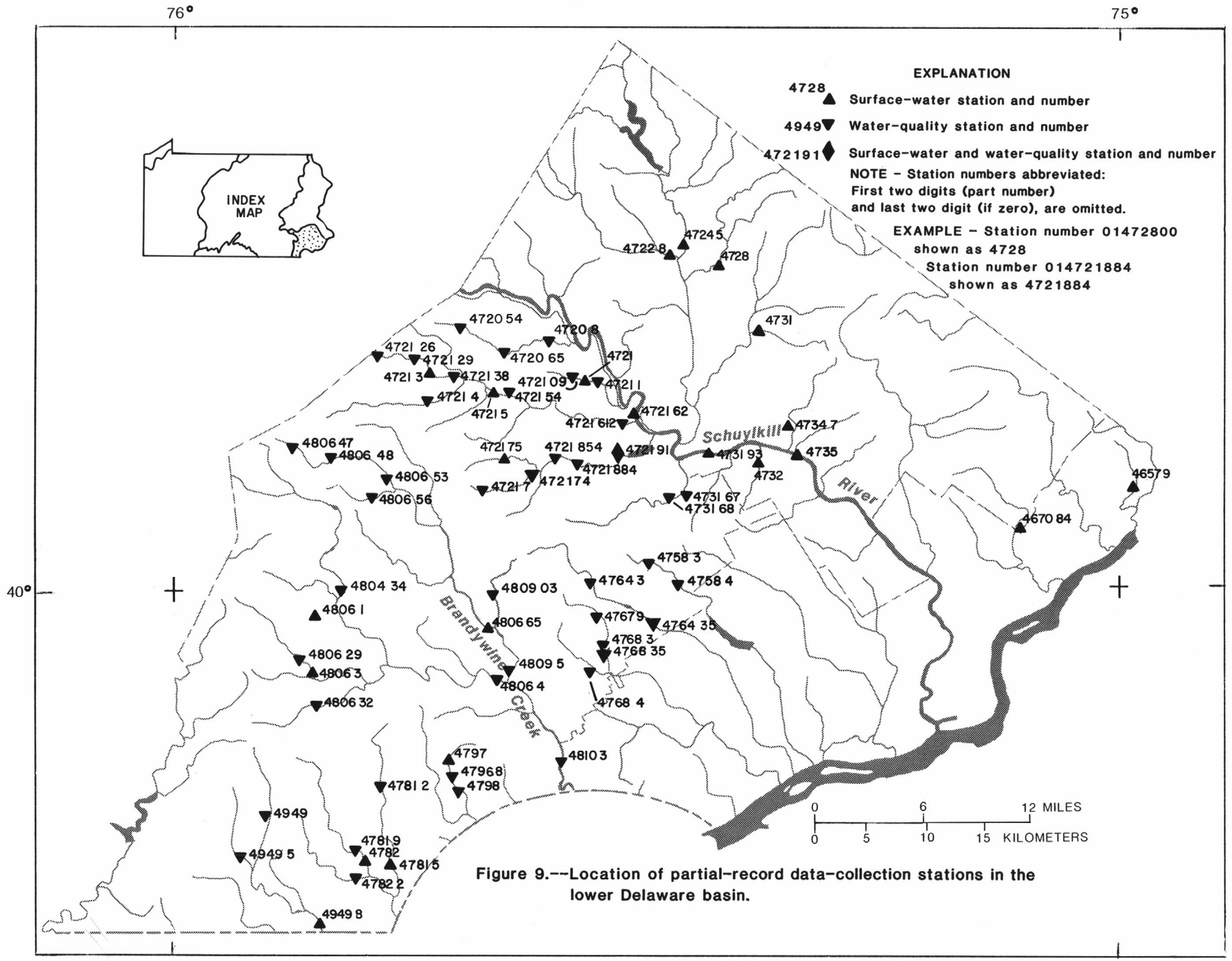

Figure 9.--Location of partial-record data-collection stations in the lower Delaware basin.

DELAWARE RIVER BASIN

01427207 DELAWARE RIVER AT LORDVILLE, NY

LOCATION.--Lat 41°52'05", long 75°12'50", Delaware County, Hydrologic Unit 02040101, at Lordville-Equinunk Interstate Bridge at Lordville, 50 ft downstream from Humphries Brook, and 6.5 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to August 1971, June 1973 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

INSTRUMENTATION.--Water-temperature digital recorder since June 1973, provides one-hour interval punches. Prior to August 1971, water-temperature recorder provided continuous recordings.

REMARKS.--Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-86) 30.5°C, June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-87), 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.5°C, July 11,23, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01427207 DELAWARE RIVER AT LORDVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.0	.0	.0	6.0	4.0	4.5	---	---	---
2	.0	.0	.0	.0	.0	.0	3.5	3.0	3.5	---	---	---
3	.0	.0	.0	.0	.0	.0	4.5	3.5	4.0	---	---	---
4	.0	.0	.0	.0	.0	.0	6.0	4.0	5.0	---	---	---
5	.0	.0	.0	.0	.0	.0	6.0	5.0	5.0	---	---	---
6	.0	.0	.0	.0	.0	.0	5.5	5.0	5.0	---	---	---
7	.0	.0	.0	.0	.0	.0	5.5	5.0	5.0	---	---	---
8	.0	.0	.0	.5	.0	.0	5.5	4.5	5.0	---	---	---
9	.0	.0	.0	1.0	.0	.5	5.5	4.0	5.0	---	---	---
10	.0	.0	.0	.5	.0	.5	7.5	4.5	6.0	---	---	---
11	.0	.0	.0	1.5	.0	.5	8.5	5.5	7.0	---	---	---
12	.0	.0	.0	1.5	.5	1.0	8.0	7.0	7.5	---	---	---
13	.0	.0	.0	2.0	1.0	1.5	9.0	7.0	8.0	---	---	---
14	.0	.0	.0	3.0	.5	2.0	9.0	6.0	7.5	---	---	---
15	.0	.0	.0	3.5	1.5	2.5	8.5	7.5	8.0	---	---	---
16	.0	.0	.0	3.0	1.5	2.5	8.0	7.0	7.5	---	---	---
17	.0	.0	.0	3.5	1.0	2.0	8.5	7.5	8.0	---	---	---
18	.0	.0	.0	4.0	1.5	3.0	11.0	8.0	9.5	---	---	---
19	.0	.0	.0	5.0	1.5	3.5	13.0	10.0	11.5	---	---	---
20	.0	.0	.0	4.0	2.5	3.0	14.5	11.0	13.0	---	---	---
21	.0	.0	.0	2.5	2.0	2.5	16.5	12.5	14.5	---	---	---
22	.0	.0	.0	6.0	2.5	4.0	16.0	13.5	14.5	18.5	14.5	16.5
23	.0	.0	.0	7.0	3.5	5.5	13.5	12.0	12.5	21.0	17.5	19.0
24	.0	.0	.0	7.5	4.5	6.0	13.0	11.5	12.5	20.5	17.0	18.5
25	.0	.0	.0	7.5	5.0	6.5	13.5	10.0	12.0	16.5	16.0	16.5
26	.0	.0	.0	7.0	5.5	6.5	14.5	10.5	12.5	17.0	15.5	16.5
27	.0	.0	.0	6.5	5.0	5.5	---	---	---	16.5	15.5	15.5
28	.0	.0	.0	7.5	5.0	6.5	---	---	---	20.5	15.0	17.5
29	---	---	---	8.0	5.5	7.0	---	---	---	25.0	20.0	22.0
30	---	---	---	8.0	6.5	7.5	---	---	---	27.0	23.0	25.0
31	---	---	---	8.0	6.5	7.5	---	---	---	25.0	23.0	23.5
MONTH	0.0	0.0	0.0	8.0	0.0	3.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	21.0	23.0	22.5	20.5	21.5	20.0	17.0	18.5	---	---	---
2	23.0	20.5	22.0	21.0	17.0	19.0	18.0	16.0	16.5	---	---	---
3	21.0	18.0	19.5	20.0	16.5	17.5	20.0	16.0	18.0	19.0	14.5	16.5
4	18.0	17.0	17.5	22.0	18.5	20.0	24.5	20.0	22.0	20.5	16.0	18.0
5	21.5	16.5	18.5	23.5	19.5	21.5	24.0	22.0	23.0	19.5	17.5	18.5
6	22.0	19.0	20.5	24.0	21.0	22.5	22.0	20.0	20.5	17.5	16.5	17.0
7	19.5	17.0	18.0	22.5	19.0	20.5	21.0	19.0	20.0	17.0	16.0	16.5
8	19.5	16.5	18.0	22.5	18.0	20.0	21.5	18.0	19.5	18.0	16.5	17.5
9	20.5	18.0	19.0	25.0	21.5	23.0	20.0	18.0	19.0	17.5	17.0	17.5
10	21.0	17.0	19.0	26.5	22.5	24.5	18.5	17.0	17.5	19.0	16.5	17.5
11	22.0	17.5	19.5	27.5	23.5	25.5	20.5	16.5	18.5	19.0	17.0	18.0
12	20.5	17.5	19.5	27.0	23.5	25.5	22.5	18.0	20.0	19.0	17.5	18.0
13	20.5	16.0	18.0	25.5	20.5	22.5	23.5	19.5	21.5	17.5	16.5	17.0
14	24.0	19.5	21.5	20.5	19.5	20.0	22.0	19.0	20.5	18.0	16.0	17.0
15	26.5	22.0	24.0	19.5	17.0	18.5	19.5	17.0	18.5	16.5	15.0	16.0
16	25.5	22.5	24.5	19.5	17.0	18.0	21.0	17.0	19.0	17.5	15.0	16.5
17	24.5	21.0	23.0	21.0	16.5	18.5	21.5	19.0	20.0	18.0	17.5	17.5
18	24.5	20.0	22.0	23.0	18.5	20.5	19.5	17.0	18.5	18.0	15.5	17.0
19	22.5	20.0	21.0	24.0	21.0	22.5	18.5	16.0	17.5	15.5	14.0	14.5
20	22.0	18.0	20.0	24.5	21.5	23.0	17.5	15.5	16.5	14.5	13.5	14.0
21	20.5	19.0	20.0	25.5	21.0	23.5	17.5	14.5	16.0	16.5	14.5	15.5
22	19.5	18.5	19.0	27.0	23.0	25.0	16.0	14.0	15.0	17.0	15.5	16.0
23	19.5	17.5	19.0	27.5	23.5	25.5	14.5	13.0	14.0	16.0	15.5	16.0
24	22.0	17.5	19.5	26.5	24.0	25.5	13.0	11.5	12.5	15.5	13.5	14.5
25	25.0	20.5	22.5	25.0	22.5	24.0	13.5	11.0	12.0	13.5	12.5	13.0
26	23.5	17.5	20.5	22.5	19.0	21.0	13.0	11.0	12.5	13.0	11.5	12.5
27	18.5	16.0	17.5	24.5	20.0	22.0	13.0	11.0	12.0	14.5	11.5	13.0
28	18.0	16.0	17.0	24.0	21.0	22.5	14.0	11.5	13.0	17.0	14.0	15.5
29	22.0	16.5	19.0	24.0	19.5	21.5	16.0	14.0	14.5	17.5	15.0	16.5
30	23.5	20.0	21.5	22.0	20.0	21.0	18.5	14.0	16.0	17.0	16.0	16.5
31	---	---	---	21.5	19.0	20.0	---	---	---	---	---	---
MONTH	26.5	16.0	20.0	27.5	16.5	22.0	---	---	---	---	---	---

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'30", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area. WDR NY-86-1: 1975-84 (M).

GAGE.--Water-stage recorder. Datum of gage is 734.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi^2 of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi^2 of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Satellite gage-height and temperature telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft^3/s, Mar. 15, 1986, gage-height, 13.42 ft; maximum gage height, 14.83 ft, Jan. 9, 1979 (ice jam); minimum discharge, 307 ft^3/s, Aug. 23, 1985; minimum gage height, 2.20 ft, Sept. 13, 1977, Aug. 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,000 ft^3/s, Apr. 5, gage height, 10.44 ft; minimum, 589 ft^3/s, Sept. 5, gage height, 2.59 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	865	3980	e2100	e1300	e1100	10700	1300	900	920	1330	1120
2	944	970	3330	e2000	e1300	e2000	7490	1190	981	1090	1340	1090
3	1190	1090	4560	e1900	e1300	e3000	6440	1100	1280	2110	1290	774
4	3600	1120	4990	e1800	e1250	e2400	13700	1340	1100	1820	1450	639
5	2610	1130	3790	e1700	e1200	e2200	31200	1330	1190	1470	1140	771
6	1630	1170	3190	e1700	e1150	e2200	19100	1270	1090	1260	1040	1030
7	1190	1190	2900	e1600	e1100	e2800	15500	1220	797	1200	1170	1130
8	980	1750	2930	e1600	e1050	e4700	13000	1090	789	1550	1240	1870
9	859	6690	2980	e1500	e1050	e9000	12000	952	958	1560	1080	13400
10	786	7020	3640	e1400	e1000	e8000	10200	903	761	1330	1080	6760
11	950	4830	3900	e1400	e980	e6400	8510	819	663	1220	1070	3730
12	949	3940	3450	e1300	e960	e5400	7520	794	765	1240	905	2620
13	740	3320	e3000	e1300	e940	4310	12400	761	1050	1600	829	8280
14	872	2620	e2650	e1200	e920	3550	12300	715	907	2900	1030	11600
15	1140	2250	e2550	e1300	e900	3110	9990	709	778	6280	1360	6250
16	1030	2130	2670	e1400	e880	2760	8400	724	791	3500	1340	4230
17	883	2200	2480	e1400	e860	2450	7280	677	806	2360	1220	3440
18	1060	2390	2420	e1300	e840	2350	6540	749	796	1860	1460	5950
19	986	2600	2490	e1300	e820	2390	5800	906	940	1580	1410	7590
20	768	2380	2310	e1200	e800	2510	4900	902	1110	1460	1510	5600
21	702	10800	2110	e1200	e780	2280	4190	766	871	1500	1420	4350
22	817	8410	1920	e1100	e760	2200	3600	876	774	1320	1500	3560
23	697	5750	e1750	e1100	e760	2760	3110	917	1770	1180	1630	3060
24	726	5450	e1700	e1100	e1000	3520	2690	1280	1790	1220	1600	2530
25	1130	5680	2790	e1100	e1050	4480	2370	988	1350	1170	1630	2160
26	924	7080	3750	e1100	e1000	6590	2050	773	1130	1760	1670	1810
27	1020	18000	3330	e1100	e920	7560	1690	728	1490	1450	1740	1560
28	1050	10300	2980	e1100	e920	7120	1490	747	1520	1080	1480	1380
29	948	6920	2740	e1100	---	6570	1510	779	1110	895	2300	1240
30	934	5200	2560	e1200	---	5920	1420	784	942	801	1870	1160
31	768	---	2390	e1250	---	6870	---	909	---	998	1110	---
TOTAL	33846	135245	92230	42850	27790	128500	247090	28998	31199	51684	42244	110684
MEAN	1092	4508	2975	1382	992	4145	8236	935	1040	1667	1363	3689
MAX	3600	18000	4990	2100	1300	9000	31200	1340	1790	6280	2300	13400
MIN	697	865	1700	1100	760	1100	1420	677	663	801	829	639

CAL YR 1986 TOTAL 1045550 MEAN 2865 MAX 54800 MIN 403
WTR YR 1987 TOTAL 972360 MEAN 2664 MAX 31200 MIN 639

e Estimated

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since June 1975, provides one-hour-interval punches.

REMARKS.--Interruptions of record were due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum recorded, (water years 1976-87), 30.5°C, July 12, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 30.5°C, July 12, but may have been higher during period of instrument malfunction; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	.0	.0	.0	7.0	4.0	5.5	12.5	6.5	9.5
2	.0	.0	.0	.0	.0	.0	4.0	3.5	3.5	13.0	8.5	11.0
3	.0	.0	.0	.0	.0	.0	4.0	3.5	3.5	12.0	10.0	10.5
4	.0	.0	.0	.0	.0	.0	5.5	4.0	5.0	11.0	9.5	10.0
5	.0	.0	.0	.0	.0	.0	5.5	5.0	5.5	10.5	9.5	10.0
6	.0	.0	.0	.0	.0	.0	5.0	5.0	5.0	12.0	9.0	10.5
7	.0	.0	.0	.0	.0	.0	5.5	5.0	5.0	15.0	9.5	12.0
8	.0	.0	.0	.0	.0	.0	5.5	5.0	5.0	16.0	10.0	13.0
9	.0	.0	.0	.0	.0	.0	5.5	5.0	5.5	17.5	11.0	14.5
10	.0	.0	.0	.0	.0	.0	6.5	5.0	6.0	19.0	13.0	16.5
11	.0	.0	.0	.0	.0	.0	8.0	6.5	7.0	19.5	15.5	17.5
12	.0	.0	.0	.5	.0	.0	8.5	7.5	8.0	18.5	16.0	17.0
13	.0	.0	.0	2.0	.0	1.0	8.5	7.5	8.0	19.0	13.5	16.5
14	.0	.0	.0	3.0	.5	1.5	8.0	7.0	7.5	19.5	14.0	17.0
15	.0	.0	.0	4.0	1.0	2.5	8.0	7.5	8.0	19.0	16.5	18.0
16	.0	.0	.0	4.0	1.5	2.5	7.5	7.0	7.5	19.5	14.0	17.0
17	.0	.0	.0	4.0	1.5	2.5	8.0	7.0	7.5	21.5	16.0	19.0
18	.0	.0	.0	5.0	1.5	3.0	10.0	8.0	8.5	21.5	17.5	20.0
19	.0	.0	.0	6.0	2.0	4.0	12.0	9.5	11.0	20.0	16.0	17.5
20	.0	.0	.0	4.5	3.0	3.5	15.0	11.0	13.0	15.5	14.0	14.5
21	.0	.0	.0	4.0	2.5	3.5	16.5	13.0	14.5	16.5	13.5	14.5
22	.0	.0	.0	6.5	2.5	4.5	16.0	14.0	15.0	19.5	14.5	17.0
23	.0	.0	.0	8.0	4.0	6.0	14.0	12.5	13.0	---	---	---
24	.0	.0	.0	8.5	5.0	6.5	13.5	12.0	12.5	---	---	---
25	.0	.0	.0	8.0	6.0	7.0	14.0	10.5	12.0	---	---	---
26	.0	.0	.0	7.5	6.5	7.0	15.0	10.0	12.5	---	---	---
27	.0	.0	.0	6.5	5.5	6.5	15.0	10.5	13.0	---	---	---
28	.0	.0	.0	7.5	6.0	6.5	11.5	9.5	10.5	---	---	---
29	---	---	---	8.5	6.5	7.5	10.5	8.5	9.5	---	---	---
30	---	---	---	8.5	7.5	8.0	9.5	7.5	8.5	---	---	---
31	---	---	---	8.5	7.0	8.0	---	---	---	---	---	---
MONTH	---	---	---	8.5	0.0	3.0	16.5	3.5	8.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	24.5	20.5	23.0	19.0	17.0	18.0
2	25.5	22.0	24.0	---	---	---	22.0	18.5	19.5	17.0	15.5	16.5
3	23.5	19.5	21.5	---	---	---	21.5	18.0	19.5	19.0	14.5	17.0
4	19.5	18.5	19.0	---	---	---	25.0	19.0	22.0	20.0	15.0	17.5
5	22.5	17.0	20.0	---	---	---	24.0	22.0	23.0	20.0	16.5	18.5
6	22.5	18.5	20.5	---	---	---	23.0	21.5	22.5	19.5	17.5	18.5
7	20.5	18.0	19.0	---	---	---	23.5	20.5	22.0	19.5	17.5	18.5
8	21.5	18.0	19.5	---	---	---	24.0	20.5	22.5	18.5	17.5	18.0
9	22.0	18.5	20.5	---	---	---	22.5	20.0	21.0	17.5	17.0	17.0
10	21.5	17.0	19.5	28.0	23.0	25.5	20.5	19.0	20.0	18.0	16.5	17.5
11	22.5	17.5	20.0	30.0	24.5	27.5	22.5	17.5	20.0	19.5	17.0	18.0
12	22.0	19.5	20.0	30.5	26.0	28.5	24.0	18.5	21.0	18.5	17.0	18.0
13	22.5	19.5	21.0	29.5	26.0	28.0	25.0	20.0	22.5	17.0	16.5	17.0
14	25.0	19.5	22.0	26.5	20.0	23.5	25.5	21.0	23.5	17.0	16.0	16.5
15	27.0	22.0	24.5	20.0	18.5	19.5	24.5	21.0	23.0	17.0	15.5	16.5
16	28.0	22.5	25.5	20.5	18.0	19.5	24.5	20.5	22.5	17.5	15.5	16.5
17	27.0	23.0	25.5	22.5	17.5	20.0	25.5	21.0	23.5	18.0	16.5	17.5
18	27.5	22.0	25.0	25.0	19.0	22.0	25.0	22.0	24.0	17.5	15.5	16.5
19	27.5	22.5	25.5	26.0	21.5	23.5	24.0	19.5	22.0	15.0	14.0	14.5
20	27.0	23.0	25.0	26.0	23.0	24.5	22.5	19.5	21.0	15.0	13.5	14.0
21	25.0	22.0	23.0	27.5	22.0	25.0	22.0	17.5	20.0	16.5	14.0	15.0
22	22.5	21.5	22.0	29.0	23.5	26.5	20.0	17.5	19.0	17.0	15.0	16.0
23	22.0	20.0	21.5	29.5	24.0	27.0	18.5	16.0	17.5	16.5	15.0	15.5
24	---	---	---	30.0	25.5	28.0	17.0	14.0	15.5	15.5	13.5	15.0
25	---	---	---	29.0	25.5	27.5	17.0	13.0	15.0	14.0	12.5	13.0
26	---	---	---	26.5	23.5	25.0	16.5	13.5	15.0	13.5	11.5	12.5
27	---	---	---	25.5	21.0	23.5	15.5	14.0	14.5	15.5	11.5	13.5
28	---	---	---	25.5	21.0	23.5	13.5	13.0	13.5	16.5	13.0	15.0
29	---	---	---	26.0	20.5	23.5	17.0	13.5	15.0	18.0	14.5	16.0
30	---	---	---	24.5	21.5	22.5	19.5	14.5	17.0	17.0	15.5	16.0
31	---	---	---	25.5	21.0	23.5	19.0	16.5	18.0	---	---	---
MONTH	---	---	---	---	---	---	25.5	13.0	20.0	20.0	11.5	16.5

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'31", long 74°59'11", Sullivan County, Hydrologic Unit 02040101, on left bank 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Subsequent to September 1954, entire flow from 371 mi^2 of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi^2 of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft^3/s, Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft^3/s, on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft^3/s, Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft^3/s, Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,800 ft^3/s, Apr. 5, gage height, 14.07 ft; minimum daily, 733 ft^3/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	1010	4390	e2300	e1400	e1150	12100	1540	1010	971	1300	1420
2	1080	1090	3580	e2200	e1400	e2800	8620	1420	1060	1090	1410	1300
3	1190	1220	4800	e2100	e1300	e4000	7060	1350	1300	1920	1330	1040
4	3160	1360	5640	e1900	e1250	e3500	13600	1760	1230	1980	1500	832
5	3170	1300	4300	e1750	e1250	e3200	36500	1710	1260	1560	1290	733
6	2070	1480	3510	e1750	e1200	e2800	23100	1570	1180	1320	1090	1060
7	1510	1440	3110	e1700	e1200	e3000	18400	1480	1090	1210	1150	1110
8	1220	1760	3060	e1700	e1150	e5000	15000	1390	882	1430	1230	1500
9	1060	5530	3120	e1600	e1150	e10000	13600	1270	1020	1650	1140	14400
10	947	7980	3700	e1500	e1100	9600	11700	1190	935	1400	1090	8690
11	954	5240	4280	e1450	e1100	7420	9640	1120	798	1280	1130	4280
12	1140	4160	e3500	e1450	e1050	6250	8270	1080	740	1230	1020	2900
13	972	3560	e3100	e1400	e1050	e5000	12700	1040	1100	1370	942	8480
14	885	2870	e2700	e1400	e1000	e3900	14300	997	1060	1850	920	14700
15	1300	2400	2670	e1600	e1000	3530	11400	962	1000	6290	1300	7530
16	1300	2210	2800	e1600	e980	3170	9460	943	825	4050	1370	4780
17	1090	2230	2610	e1600	e960	2820	7950	899	925	2590	1230	3620
18	1100	2590	2560	e1350	e940	2670	7030	897	876	2000	1310	5720
19	1270	2770	2660	e1350	e920	2730	6170	1060	935	1680	1430	9220
20	958	2580	2530	e1350	e900	2890	5220	1160	1130	1490	1430	6520
21	848	11000	2310	e1300	e880	2690	4460	1060	1030	1510	1480	4860
22	879	10700	e2000	e1250	e860	2540	3860	980	919	1410	1440	3870
23	942	6640	e1800	e1200	e840	3010	3360	1100	1130	1240	1570	3250
24	772	5780	e1750	e1200	e1050	3750	2960	1250	2050	1190	1580	2790
25	1140	6320	e2850	e1200	e1150	4670	2670	1380	1450	1240	1620	2420
26	1180	6470	4320	e1200	e1100	6510	2400	1020	1180	1540	1630	2110
27	1260	20000	3810	e1200	e1000	8160	2040	920	1340	1740	1710	1870
28	1240	12700	3340	e1200	e1000	7680	1790	916	1600	1220	1820	1670
29	1100	7940	3010	e1200	---	7050	1750	946	1260	1050	2250	1500
30	1170	5760	2790	e1300	---	6300	1690	878	1050	945	2120	1410
31	940	---	e2500	e1400	---	6530	---	999	---	916	1420	---
TOTAL	38977	148090	99100	46700	30180	144320	278800	36287	33365	52362	43252	125585
MEAN	1257	4936	3197	1506	1078	4655	9293	1171	1112	1689	1395	4186
MAX	3170	20000	5640	2300	1400	10000	36500	1760	2050	6290	2250	14700
MIN	772	1010	1750	1200	840	1150	1690	878	740	916	920	733

CAL YR 1986 TOTAL 1205950 MEAN 3304 MAX 62800 MIN 459
WTR YR 1987 TOTAL 1077020 MEAN 2951 MAX 36500 MIN 733

e Estimated

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.
CHEMICAL DATA: 1971-73 (a).
NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Water-temperature digital recorder since October 1975, provides one-hour-interval punches. Prior to October 1975, water-temperature recorder provided continuous recordings.

REMARKS.--Interruptions of record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983, 1985-87), 32.0°C, Aug. 2, 3, 1975, July 10, 1981, July 12, 1987; minimum (water years 1968, 1977-87), 0.0°C, on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 32.0°C, July 12; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.0	7.0	8.0	3.0	2.0	2.5	1.5	.5	1.0
2	---	---	---	8.5	6.5	8.0	2.0	1.5	1.5	.5	.5	.5
3	---	---	---	9.0	6.0	7.0	3.0	1.5	2.0	1.0	.5	.5
4	---	---	---	8.0	6.0	6.5	3.5	3.0	3.0	.5	.5	.5
5	---	---	---	6.0	4.5	5.5	3.0	2.5	2.5	.5	.5	.5
6	---	---	---	5.0	4.5	5.0	2.5	1.5	2.0	.5	.5	.5
7	---	---	---	5.5	4.5	5.0	2.0	1.5	2.0	.5	.5	.5
8	---	---	---	6.0	5.5	6.0	2.5	2.0	2.5	1.0	.5	.5
9	---	---	---	8.0	6.5	7.5	2.0	2.0	2.0	.5	.0	.5
10	---	---	---	8.0	7.0	7.5	2.5	2.0	2.0	.0	.0	.0
11	---	---	---	6.5	4.0	5.0	2.5	2.0	2.0	.5	.0	.5
12	---	---	---	4.5	3.5	4.0	2.5	2.0	2.0	.5	.0	.5
13	---	---	---	4.0	2.5	3.5	2.0	.5	1.0	1.0	.0	.5
14	---	---	---	2.5	1.0	2.0	.5	.5	.5	1.0	.0	.5
15	---	---	---	1.5	.5	1.0	1.0	.5	.5	1.5	.5	1.0
16	---	---	---	2.5	.5	1.5	1.5	.5	1.0	1.0	.0	.5
17	---	---	---	3.0	2.0	2.5	2.5	1.0	1.5	1.0	.0	.5
18	---	---	---	3.5	3.0	3.5	2.5	2.0	2.5	.0	.0	.0
19	---	---	---	3.5	2.0	3.0	2.5	2.0	2.5	.0	.0	.0
20	---	---	---	2.0	1.0	1.5	2.5	2.0	2.5	.0	.0	.0
21	---	---	---	2.0	1.0	1.5	3.0	1.0	2.0	.0	.0	.0
22	---	---	---	3.0	2.0	2.5	2.5	.5	1.5	.0	.0	.0
23	---	---	---	3.0	2.0	2.5	1.5	.5	1.0	.0	.0	.0
24	---	---	---	3.5	3.0	3.5	1.0	.5	1.0	.0	.0	.0
25	---	---	---	4.5	3.5	4.0	2.0	1.0	1.5	.0	.0	.0
26	---	---	---	4.0	4.0	4.0	2.5	2.0	2.5	.0	.0	.0
27	---	---	---	5.5	4.0	5.0	3.0	2.5	3.0	.0	.0	.0
28	---	---	---	5.0	4.5	5.0	2.5	2.5	2.5	.0	.0	.0
29	---	---	---	4.5	4.0	4.0	3.0	2.0	2.5	.0	.0	.0
30	11.5	9.0	10.0	4.0	3.0	3.5	2.0	1.5	2.0	.0	.0	.0
31	10.5	7.0	8.5	---	---	---	2.5	1.0	1.5	.0	.0	.0
MONTH	---	---	---	9.0	0.5	4.5	3.5	0.5	2.0	1.5	0.0	0.5

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.0	.0	.0	---	---	---	12.5	7.5	10.0
2	.0	.0	.0	.5	.0	.5	---	---	---	13.5	9.5	11.5
3	.0	.0	.0	.5	.0	.5	---	---	---	11.5	10.0	11.0
4	.0	.0	.0	.5	.0	.5	---	---	---	10.5	10.0	10.5
5	.0	.0	.0	1.0	.0	.5	---	---	---	10.5	9.5	10.0
6	.0	.0	.0	1.0	.0	.5	6.0	5.5	6.0	12.5	9.5	10.5
7	.0	.0	.0	1.5	.0	.5	6.0	5.5	6.0	15.0	10.0	12.0
8	.0	.0	.0	1.5	.0	.5	6.0	5.5	6.0	16.0	11.0	13.5
9	.5	.0	.0	.5	.5	.5	6.5	5.5	6.0	17.0	11.5	14.5
10	.5	.0	.0	1.0	.0	.5	7.5	6.0	6.5	19.0	13.5	16.5
11	.5	.0	.0	1.0	.0	.5	9.0	7.0	8.0	20.0	15.5	18.0
12	.0	.0	.0	1.0	.0	.5	9.0	8.0	8.5	19.0	16.0	17.5
13	.0	.0	.0	1.0	.0	.5	9.0	8.0	8.5	19.5	14.5	16.5
14	.0	.0	.0	2.5	.0	1.0	9.0	8.5	9.0	19.5	14.5	17.0
15	.5	.0	.0	3.5	1.5	2.5	9.0	8.5	8.5	20.5	16.5	18.0
16	.5	.0	.0	4.5	2.5	3.0	8.5	8.0	8.0	21.0	15.0	17.5
17	.5	.0	.0	4.0	2.5	3.0	8.5	7.5	8.0	22.5	16.5	19.5
18	.5	.0	.0	5.0	2.5	3.5	9.5	8.5	9.0	23.0	18.0	20.5
19	.5	.0	.0	6.0	3.0	4.5	12.5	9.5	11.0	20.0	17.0	18.5
20	.5	.0	.0	5.0	4.0	4.5	14.5	11.5	13.0	16.5	15.0	16.0
21	.5	.0	.0	4.5	3.5	4.0	16.5	14.0	15.0	17.5	14.0	15.5
22	.5	.0	.0	7.0	4.0	5.0	16.0	15.5	16.0	20.5	15.0	18.0
23	.0	.0	.0	8.0	5.0	6.5	15.5	13.5	14.5	21.5	17.5	19.5
24	.5	.0	.0	8.5	6.5	7.5	13.5	12.5	13.5	22.5	19.0	20.5
25	.5	.0	.0	8.5	7.0	8.0	14.5	12.0	13.0	20.0	18.0	19.0
26	.5	.0	.0	8.5	7.5	8.0	15.0	12.0	13.5	18.5	17.0	18.0
27	.5	.0	.0	8.0	7.0	7.5	15.5	12.0	13.5	17.0	16.0	16.5
28	.5	.0	.0	8.5	7.0	7.5	12.0	11.0	11.5	22.0	16.0	18.5
29	---	---	---	9.0	7.0	8.0	11.5	9.5	10.5	24.5	18.5	21.5
30	---	---	---	9.0	8.0	8.5	10.0	8.5	9.5	27.0	21.5	24.0
31	---	---	---	9.5	8.5	9.0	---	---	---	26.5	23.5	25.0
MONTH	0.5	0.0	0.0	9.5	0.0	3.5	---	---	---	27.0	7.5	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	23.5	25.0	26.0	23.0	24.5	---	---	---	---	---	---
2	26.5	23.0	24.5	24.0	21.5	23.0	---	---	---	---	---	---
3	24.5	21.0	22.5	23.0	21.0	22.0	24.0	21.5	22.5	---	---	---
4	20.5	19.0	20.0	23.5	21.0	22.0	26.0	21.0	23.5	---	---	---
5	23.0	18.0	20.5	26.0	21.0	23.5	24.5	23.0	24.0	---	---	---
6	23.0	18.5	21.0	27.0	23.0	25.0	24.5	22.5	23.5	---	---	---
7	20.0	18.5	19.0	24.5	23.0	23.5	25.0	22.0	23.5	---	---	---
8	22.0	18.5	20.0	---	---	---	26.0	22.5	24.0	---	---	---
9	22.5	19.0	20.5	27.5	24.0	25.5	23.5	22.0	22.5	---	---	---
10	23.0	18.0	20.0	28.0	25.0	26.5	22.5	20.5	22.0	---	---	---
11	23.0	17.5	20.0	31.0	26.0	28.5	24.0	19.5	21.5	---	---	---
12	20.5	19.5	20.0	32.0	27.5	29.5	25.5	20.0	22.5	---	---	---
13	23.5	19.5	21.0	31.0	28.0	29.5	26.0	21.0	23.5	---	---	---
14	24.5	19.5	22.0	29.0	26.0	28.0	27.0	22.0	24.0	---	---	---
15	27.5	21.5	24.5	25.5	20.5	22.0	27.0	23.0	25.0	---	---	---
16	28.0	22.5	25.0	21.0	19.5	20.5	27.5	23.5	25.5	---	---	---
17	28.0	23.0	25.5	23.0	20.0	21.5	28.0	24.0	26.0	---	---	---
18	28.0	22.5	25.0	25.5	21.0	23.0	28.0	24.5	26.0	---	---	---
19	28.5	23.5	26.0	27.0	23.0	25.0	27.0	23.0	25.0	---	---	---
20	28.5	24.5	26.5	28.0	24.5	26.0	25.5	22.5	24.0	---	---	---
21	26.0	24.0	25.0	29.0	24.5	26.5	25.0	20.5	23.0	---	---	---
22	24.0	23.0	23.5	30.0	25.5	28.0	23.0	20.5	22.0	---	---	---
23	24.5	22.5	23.0	31.0	26.0	28.5	21.5	19.0	20.5	---	---	---
24	24.5	21.0	22.5	31.0	27.0	29.0	20.0	16.5	18.5	---	---	---
25	26.5	21.5	24.0	30.0	27.0	29.0	19.0	15.5	17.0	---	---	---
26	24.0	22.0	23.0	29.0	26.5	27.5	18.5	15.5	17.0	---	---	---
27	24.5	21.5	22.5	28.0	25.0	26.5	17.0	16.0	16.5	---	---	---
28	23.5	21.0	22.0	27.5	23.0	25.5	---	---	---	---	---	---
29	24.5	19.5	22.0	27.5	22.5	25.0	---	---	---	---	---	---
30	26.5	21.5	24.0	25.5	23.0	24.0	---	---	---	---	---	---
31	---	---	---	28.0	23.0	25.0	---	---	---	---	---	---
MONTH	28.5	17.5	22.5	---	---	---	---	---	---	---	---	---

01427950 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA

LOCATION.--Lat 41°40'28", long 75°22'35", Wayne County, Hydrologic Unit 02040104, on right bank at steel bridge on state highway 247, 0.3 miles downstream from Johnson Creek and 2 miles northwest of Aldenville.

DRAINAGE AREA.--40.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1986 to September 30, 1987. Crest stage partial record site 1975 to 1986.

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

REMARKS.--Records good except for periods of estimated discharge, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,440 ft³/s March 15, 1986, gage height, 7.40 ft., minumum daily discharge, 6.7 ft³/s, Aug. 23, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges, greater than base discharge of 1000 ft³/s and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	1645	1220	5.11	Sept. 9	0115	*2550	*6.64
Apr. 4	1945	2210	6.32	Sept. 13	0945	2410	6.51

Minumum daily discharge, 6.7 ft³/s, Aug. 23

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	32	110	67	e40	e28	229	41	221	14	9.5	48
2	206	32	109	65	e40	e70	159	34	141	15	15	28
3	98	30	269	e62	e40	e180	174	32	45	37	20	21
4	344	29	194	e60	e40	e400	1040	84	42	22	13	17
5	187	34	151	e57	e40	e120	609	60	43	25	18	14
6	99	72	112	e55	e39	e58	360	52	30	20	20	14
7	70	74	106	e53	e39	e70	393	47	25	27	22	22
8	59	277	95	e52	e39	367	255	43	25	87	21	293
9	45	687	107	e50	e38	436	183	40	22	38	20	917
10	38	271	183	e50	e38	314	141	37	20	24	26	227
11	33	183	135	e54	e37	231	121	34	18	19	21	136
12	30	155	104	e54	e36	163	135	32	18	15	22	129
13	37	131	86	e50	e35	117	269	30	21	13	22	1000
14	95	98	79	e49	e34	101	157	28	28	64	20	406
15	68	89	70	e50	e33	96	119	28	25	56	18	201
16	50	87	65	e65	e32	90	106	25	20	24	18	127
17	43	104	61	e60	e31	84	106	23	18	18	18	101
18	40	128	62	e55	e31	82	110	22	17	16	14	169
19	34	124	64	e52	e30	95	92	35	17	15	12	161
20	34	126	58	e50	e30	107	80	31	18	15	9.5	135
21	30	470	55	e49	e29	96	76	28	17	14	7.1	104
22	29	269	59	e48	e29	110	66	24	18	12	6.9	81
23	28	206	60	e47	e29	159	65	27	18	12	6.7	68
24	26	282	75	e46	e28	211	76	106	17	11	7.7	58
25	26	178	187	e45	e28	204	74	66	14	10	7.6	48
26	45	544	170	e44	e27	311	76	54	17	31	7.4	39
27	76	587	117	e43	e27	266	68	47	28	19	33	34
28	66	311	98	e42	e26	216	52	39	18	13	81	29
29	49	211	83	e42	---	181	62	31	15	11	218	29
30	42	151	74	e41	---	170	48	25	14	9.9	59	38
31	33	---	70	e40	---	219	---	20	---	9.7	36	---
MEAN	68.1	199	105	51.5	33.7	173	183	39.5	33.0	23.1	26.8	156
MAX	344	687	269	67	40	436	1040	106	221	87	218	1000
MIN	26	29	55	40	26	28	48	20	14	9.7	6.7	14
CFSM	1.68	4.90	2.60	1.27	.83	4.25	4.52	.97	.81	.57	.66	3.85
IN.	1.94	5.47	2.99	1.46	.87	4.90	5.04	1.12	.91	.66	.76	4.30

WTR YR 1987 MEAN 91.0 MAX 1040 MIN 6.7 CFSM 2.24 IN. 30.42

e Estimated

01427950 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to September 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)
OCT												
15...	1200	61	75	7.1	9.0	--	--	--	--	--	--	--
NOV												
08...	0845	98	--	--	--	<0.01	0.30	<0.01	<0.2	0.03	0.05	--
08...	1300	167	--	--	--	<0.01	0.30	0.01	1.4	0.06	0.05	--
08...	1645	414	--	--	--	<0.01	0.30	0.03	0.7	0.07	0.02	--
13...	0930	133	--	--	--	<0.01	0.40	<0.01	0.4	0.01	0.04	--
19...	1500	--	--	--	--	--	--	--	--	--	--	4
21...	0800	677	--	--	--	0.02	0.40	0.03	2.5	0.05	0.03	24
21...	1205	556	--	--	--	0.02	0.40	0.03	0.7	0.02	0.02	19
21...	1655	455	--	--	--	0.02	0.40	0.04	0.8	0.03	0.02	12
26...	0815	218	--	--	--	<0.01	0.50	0.05	0.6	0.03	0.02	8
26...	1210	657	--	--	--	0.02	0.50	0.02	0.8	0.07	0.03	47
26...	1645	677	--	--	--	0.02	0.40	0.04	0.8	0.06	0.03	25
27...	0805	648	--	--	--	<0.01	0.30	0.03	0.6	0.05	0.02	20
27...	1210	565	--	--	--	<0.01	0.30	0.03	0.7	0.03	0.02	17
27...	1630	506	--	--	--	<0.01	0.30	0.33	0.5	0.02	0.01	10
DEC												
04...	0955	--	--	--	--	--	--	--	--	--	--	10
13...	0920	--	--	--	--	--	--	--	--	--	--	3
20...	1045	--	--	--	--	--	--	--	--	--	--	1
28...	0920	--	--	--	--	--	--	--	--	--	--	3
FEB												
18...	1000	--	--	--	--	<0.01	0.70	0.01	<0.2	0.01	0.01	--
MAR												
08...	1045	--	--	--	--	--	--	--	--	--	--	24
09...	0845	400	--	--	--	<0.01	0.90	<0.01	0.4	0.02	0.03	41
09...	1330	407	--	--	--	<0.01	0.90	<0.01	0.3	0.07	0.03	42
09...	1730	383	--	--	--	<0.01	0.90	<0.01	0.4	0.02	0.02	29
17...	1355	--	--	--	--	--	--	--	--	--	--	2
18...	0915	77	--	7.9	--	<0.01	0.60	0.05	0.6	0.03	0.01	--
25...	1015	--	--	--	--	--	--	--	--	--	--	8
APR												
02...	1115	--	--	--	--	--	--	--	--	--	--	2
04...	0710	624	--	--	--	0.02	0.50	0.06	0.5	0.04	0.04	147
04...	1325	1220	--	--	--	0.01	0.50	0.02	1.6	0.04	0.04	447
04...	1705	1990	--	--	--	<0.01	0.50	0.05	0.6	0.07	0.07	759
13...	1145	--	--	--	--	--	--	--	--	--	--	16
15...	0930	124	--	8.0	13.0	<0.01	0.40	<0.01	0.7	0.01	0.02	--
15...	1045	219	--	7.4	10.5	<0.01	0.40	0.02	1.0	0.01	0.01	--
MAY												
13...	0900	30	88	7.6	9.0	<0.01	0.30	0.02	0.4	0.01	0.01	--
JUN												
10...	0915	16	70	7.3	13.0	<0.01	0.50	0.03	0.4	0.04	0.03	--
15...	0810	--	--	--	--	--	--	--	--	--	--	11
22...	0825	--	--	--	--	--	--	--	--	--	--	4
29...	0810	--	--	--	--	--	--	--	--	--	--	2
JUL												
06...	0945	--	--	--	--	--	--	--	--	--	--	2
09...	0900	36	80	7.6	--	<0.01	0.50	<0.01	0.6	0.05	0.04	5
12...	1045	--	--	--	--	--	--	--	--	--	--	3
14...	1730	176	--	--	--	0.01	0.40	0.08	1.0	0.09	0.02	--
14...	1800	192	--	--	--	0.01	0.40	0.07	1.4	0.10	0.06	--
14...	1830	190	--	--	--	0.01	0.50	0.06	1.3	0.10	0.01	--
14...	1900	187	--	--	--	0.01	0.50	0.08	0.7	0.08	0.07	--
14...	2030	176	--	--	--	<0.01	0.40	0.04	0.8	0.08	0.05	--
14...	2130	167	--	--	--	0.01	0.70	0.07	1.3	0.09	0.01	--
14...	2200	155	--	--	--	<0.01	0.40	0.04	0.8	0.08	0.01	--
14...	2230	139	--	--	--	<0.01	0.40	0.06	1.0	0.08	0.02	--
20...	1145	--	--	--	--	--	--	--	--	--	--	2
30...	1335	--	--	--	--	--	--	--	--	--	--	2
AUG												
09...	1040	--	--	--	--	--	--	--	--	--	--	2
12...	0920	21	79	7.5	15.5	<0.01	0.20	0.01	0.5	0.04	0.03	--
29...	0100	157	88	--	--	<0.01	0.40	0.03	0.7	0.07	0.05	--
29...	0130	165	87	--	--	<0.01	0.40	0.04	0.9	0.09	0.09	--
29...	0200	176	--	--	--	<0.01	0.40	0.06	0.6	0.11	0.08	--

01427950 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--Continued

WATER-QUALITY RECORDS--Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)
AUG												
29...	0230	199	--	--	--	<0.01	0.40	0.06	0.9	0.10	0.06	--
29...	0300	250	109	--	--	<0.01	0.40	0.06	1.3	0.13	0.10	--
29...	0330	400	81	--	--	<0.01	0.50	0.06	0.8	0.11	0.08	--
29...	0400	474	78	--	--	<0.01	0.40	0.05	0.7	0.09	0.07	--
29...	0430	474	76	--	--	<0.01	0.40	0.05	0.7	0.10	0.07	--
29...	0500	455	77	--	--	<0.01	0.40	0.04	1.0	0.10	0.08	--
29...	0530	455	73	--	--	<0.01	0.50	0.04	0.7	0.10	<0.01	--
29...	0600	400	78	--	--	<0.01	0.40	0.05	0.8	0.13	0.06	--
29...	0630	367	70	--	--	<0.01	0.50	0.07	0.7	0.11	0.08	--
29...	0730	320	75	--	0.0	<0.01	0.40	0.05	0.8	0.12	0.09	--
29...	0830	291	72	--	--	<0.01	0.50	0.05	0.6	0.12	0.08	--
29...	1030	253	74	--	--	<0.01	0.50	0.03	1.3	0.07	0.05	--
SEP												
08...	1500	110	--	--	--	<0.01	0.40	0.04	0.4	0.09	0.09	--
08...	1600	133	--	--	--	<0.01	0.40	0.04	0.5	0.10	0.09	--
08...	1700	178	--	--	--	<0.01	0.30	0.03	0.5	0.08	0.08	--
08...	1730	305	--	--	--	<0.01	0.30	0.03	0.7	0.06	0.06	--
08...	1800	414	--	--	--	<0.01	0.30	0.03	0.8	0.07	0.06	--
08...	1830	494	--	--	--	<0.01	0.30	0.03	0.8	0.08	0.07	--
08...	1900	523	--	--	--	<0.01	0.30	0.04	1.3	0.07	0.07	--
08...	2000	600	--	--	--	<0.01	0.30	0.04	1.0	0.08	0.08	--
08...	2100	672	--	--	--	<0.01	0.30	0.03	0.7	0.08	0.08	--
24...	0900	65	62	8.6	12.5	<0.01	0.30	<0.01	0.2	0.03	<0.01	--

01428900 PROMPTON RESERVOIR

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to September 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO PLANKTON CHROMO FLUOROM (UG/L)
413735075203101 - PROMPTON RESERVOIR (LAT 41°37'35" LONG 75°20'31")											
OCT 15...	1030	68	6.51	0.01	0.20	0.14	0.8	0.04	<0.20	--	--
JUN 10...	1100	--	--	<0.01	0.20	0.04	0.6	0.05	0.02	13.0	1.20
JUL 09...	1245	74	7.60	<0.01	<0.10	<0.01	0.9	0.04	<0.01	27.0	1.00
AUG 12...	1045	87	7.40	<0.01	<0.10	0.02	1.5	0.06	0.03	42.0	<0.10
SEP 24...	0930	63	7.80	<0.01	0.20	0.04	0.6	0.04	<0.01	13.0	0.40
413657075203701 - PROMPTON RESERVOIR (LAT 41°36'57" LONG 75°20'37")											
OCT 15...	1000	64	6.51	<0.01	0.20	0.12	1.1	0.03	<0.20	--	--
JUN 10...	1115	--	--	<0.01	0.10	0.04	0.9	0.02	0.01	20.0	0.60
JUL 09...	1300	74	8.40	<0.01	<0.10	<0.01	1.4	0.03	<0.01	31.0	0.80
AUG 12...	1100	85	7.60	<0.01	<0.10	0.02	1.7	0.05	0.02	73.0	<0.20
SEP 24...	0945	59	7.80	<0.01	0.20	0.01	0.6	0.04	<0.01	21.0	0.60
413539075194801 - PROMPTON RESERVOIR (LAT 41°35'39" LONG 75°19'48")											
OCT 15...	0930	68	6.38	0.01	0.20	0.12	2.2	0.03	<0.20	--	--
JUN 10...	1130	--	--	<0.01	<0.10	0.02	0.9	0.02	0.02	14.0	0.50
JUL 09...	1315	0	8.35	<0.01	<0.10	<0.01	0.7	0.02	<0.01	20.0	0.70
AUG 12...	1115	85	7.85	<0.01	<0.10	0.02	1.1	0.04	0.02	67.0	<0.10
SEP 24...	1000	58	7.70	<0.01	0.200	0.01	0.7	0.06	<0.01	27.0	0.90

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

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

DRAINAGE AREA.--59.7 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good. Flow regulated since 1960 by Prompton Reservoir (station 01428900) 500 ft upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 110 ft³/s, 24.93 in/yr, adjusted for storage since January 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,860 ft³/s Aug. 18, 1955, gage height, 9.24 ft, from rating curve extended above 3,600 ft³/s; no flow July 26 to Aug. 25, 1960, result of construction work upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 16.7 ft, from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s, Apr. 4, gage height, 4.46 ft; minimum daily, 17 ft³/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	50	221	97	59	e33	304	70	42	32	28	89
2	35	45	120	97	56	102	256	64	52	33	27	75
3	46	43	187	95	56	164	218	63	62	38	28	60
4	285	43	331	87	56	172	664	100	60	39	28	46
5	253	42	275	80	57	153	1030	102	62	39	28	42
6	172	56	220	75	56	139	665	94	55	39	28	40
7	117	83	181	75	54	148	565	87	45	39	28	39
8	86	136	152	74	52	271	457	77	43	42	28	75
9	71	395	141	70	52	487	355	70	42	47	28	728
10	60	425	176	70	49	411	273	65	42	49	29	535
11	51	306	212	77	49	318	230	60	39	43	29	309
12	44	242	183	79	49	257	209	57	39	42	29	213
13	42	200	148	76	49	208	247	54	39	42	29	620
14	55	166	122	71	46	170	259	48	41	42	29	716
15	80	139	102	74	e43	149	226	45	43	81	29	476
16	72	123	98	94	e42	137	196	43	42	69	28	329
17	63	129	92	89	e41	126	176	42	41	58	28	240
18	58	164	94	82	e40	119	171	42	40	43	27	239
19	51	173	97	83	e40	128	158	42	38	42	26	311
20	45	158	92	83	e39	148	139	42	37	40	25	277
21	43	476	85	80	e37	140	123	42	36	38	24	234
22	42	453	74	74	e36	140	110	42	36	37	22	193
23	42	332	70	72	e36	192	98	43	36	35	21	157
24	42	308	68	71	e35	241	91	120	36	34	19	128
25	41	330	129	67	e35	270	92	118	35	33	18	107
26	42	389	218	67	e34	322	87	96	34	33	17	89
27	64	771	206	67	e33	333	79	77	34	33	19	77
28	75	528	176	63	e33	301	73	73	35	33	26	69
29	71	355	149	61	---	263	78	64	34	31	57	63
30	65	283	129	60	---	227	77	55	33	30	83	63
31	57	---	113	61	---	239	---	42	---	29	71	---
TOTAL	2301	7343	4661	2371	1264	6508	7706	2039	1253	1265	936	6639
MEAN	74.2	245	150	76.5	45.1	210	257	65.8	41.8	40.8	30.2	221
MAX	285	771	331	97	59	487	1030	120	62	81	83	728
MIN	31	42	68	60	33	33	73	42	33	29	17	39
MEAN‡	78.4	251	146	74.2	42.9	218	250	64.5	39.3	40.3	36.5	220
CFSM‡	1.31	4.20	2.45	1.24	.72	3.65	4.19	1.08	.66	.68	.61	3.68
IN.‡	1.51	4.69	2.82	1.43	.75	4.21	4.67	1.25	.73	.78	.71	4.11

CAL YR 1986 TOTAL 46574 MEAN 128 MAX 2180 MIN 17 MEAN‡ 128 CFSM‡ 2.14 IN‡ 29.02
WTR YR 1987 TOTAL 44286 MEAN 121 MAX 1030 MIN 17 MEAN‡ 121 CFSM‡ 2.03 IN‡ 27.60

‡ Adjusted for change in contents in Prompton Reservoir.
e Estimated

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to September 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)
OCT												
15...	1225	69	72	6.3	--	0.01	0.20	0.11	0.8	0.03	<0.20	--
FEB												
18...	1030	50	--	--	--	<0.01	0.50	0.04	3.0	0.01	0.01	--
MAR												
18...	0930	108	--	8.0	--	<0.01	0.70	0.01	0.4	0.01	0.01	--
APR												
15...	1045	219	--	7.4	10.5	<0.01	0.40	0.02	1.0	0.01	0.01	--
MAY												
13...	0945	47	70	7.6	13.0	<0.01	<0.10	0.03	0.6	0.17	0.14	--
JUN												
10...	1000	40	74	6.9	19.0	<0.01	<0.10	0.05	0.4	0.02	0.01	--
JUL												
09...	1045	43	76	7.7	--	0.01	0.20	0.15	0.8	0.02	<0.01	--
AUG												
12...	1145	29	113	7.2	--	0.01	0.10	0.33	1.0	0.03	0.03	--
SEP												
24...	1030	133	60	8.2	--	<0.01	0.20	0.03	1.0	0.05	<0.01	--

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'25", long 75°16'00", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft upstream from unnamed tributary, 1,700 ft downstream from General Edgar Jadwin Reservoir, 2.1 mi north of Honesdale, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--64.6 mi².

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

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

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

REMARKS.--Record good except for periods of estimated discharge which are poor. Flow regulated since October 1959 by General Edgar Jadwin Reservoir (station 01429400) 1,700 ft upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 114 ft³/s, 23.92 in/yr, adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s July 10, 1952, gage height, 14.6 ft, site and datum then in use, from rating curve extended above 2,500 ft³/s on basis of slope- area measurement at gage height 13.78 ft, site and datum then in use; no flow Oct. 2, 3, 1968, result of shutoff at General Edgar Jadwin Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 15.86 ft, site and datum then in use, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s, Apr. 5, gage height, 5.86 ft; minimum daily, 7.7 ft³/s Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	29	182	94	59	81	326	67	30	15	20	204
2	69	29	162	97	58	279	210	62	55	40	21	76
3	64	28	389	102	58	224	194	70	46	65	34	54
4	326	27	357	85	58	167	728	131	45	38	26	40
5	e140	27	222	75	53	129	1220	73	46	30	22	32
6	e75	71	176	78	51	127	837	61	36	27	24	27
7	e48	84	152	79	51	170	580	53	31	29	22	30
8	35	205	136	72	50	411	400	46	31	67	21	261
9	31	485	142	67	48	624	290	41	29	45	20	1180
10	29	358	224	68	46	356	235	38	26	32	25	723
11	26	207	224	101	46	240	197	39	23	27	21	218
12	24	180	163	89	44	206	199	44	24	24	18	170
13	23	153	120	79	44	172	426	42	32	20	16	757
14	52	110	96	73	41	147	349	38	57	220	14	1050
15	61	95	111	82	38	137	237	38	37	429	14	438
16	44	95	100	118	e37	130	202	36	29	91	14	231
17	36	129	95	76	e37	116	192	33	24	52	12	186
18	33	185	106	78	e36	116	198	31	29	40	13	480
19	29	191	116	85	e36	140	168	45	23	32	13	689
20	27	153	100	83	e35	163	140	43	20	28	12	350
21	25	857	90	e78	e35	133	119	42	19	27	10	251
22	24	589	78	e76	e34	161	106	39	21	28	9.2	194
23	23	276	73	e74	e33	238	94	38	24	25	8.9	153
24	23	327	73	70	e33	276	90	130	28	21	8.2	132
25	23	330	291	64	e32	285	110	67	23	20	7.9	108
26	38	437	316	e63	e31	317	89	53	19	79	7.7	88
27	71	928	213	e62	e30	266	77	46	22	52	24	76
28	51	497	168	e62	e29	223	74	43	23	31	87	69
29	41	292	139	e61	---	186	87	38	19	24	239	67
30	36	228	123	61	---	154	77	34	17	20	105	91
31	32	---	111	63	---	248	---	31	---	23	71	---
TOTAL	1577	7602	5048	2415	1183	6622	8251	1592	888	1701	959.9	8425
MEAN	50.9	253	163	77.9	42.2	214	275	51.4	29.6	54.9	31.0	281
MAX	326	928	389	118	59	624	1220	131	57	429	239	1180
MIN	18	27	73	61	29	81	74	31	17	15	7.7	27
MEAN‡	50.9	254	162	77.8	42.2	214	275	51.4	29.6	54.9	31.4	281
CFSM‡	.79	3.93	2.51	1.20	.65	3.31	4.26	.79	.46	.85	.49	4.35
IN‡	.91	4.39	2.89	1.39	.68	3.81	4.75	.92	.51	.98	.56	4.85

CAL YR 1986 TOTAL 48918 MEAN 134 MAX 2190 MIN 12 MEAN‡ 134 CFSM‡ 2.07 IN‡ 28.17
WTR YR 1987 TOTAL 46263.9 MEAN 127 MAX 1220 MIN 7.7 MEAN‡ 127 CFSM‡ 1.96 IN‡ 26.64

‡ Adjusted for change in General Edgar Jadwin Reservoir.
e Estimated

01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA

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

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--October 1948 to September 1969, October 1985 to current year. Operated as crest stage partial record gage July 1973 to September 1985.

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

REMARKS.--Records good. Flow regulated since 1960 by Prompton Reservoir (station 01428900) and, at high flow, since 1959 by General Edgar Jadwin Reservoir (station 01429400).

AVERAGE DISCHARGE.--23 yrs, (1948-1969,1986-1987) 276 ft³/s, 22.89 in/yr, adjusted for storage since October 1959.

EXTEMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s Aug. 18, 1955 (gage height, 15.52), from rating curve extended above 11,000 ft³/s; minimum observed, 6.2 ft³/s, Sep. 25, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 1942 reached a stage of 24.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,000 ft³/s, Apr. 4, gage height, 6.23 ft, minimum daily, 16 ft³/s, Aug. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e70	e140	466	233	e160	145	696	161	139	63	64	175
2	e84	e135	399	238	e150	407	526	145	177	130	80	175
3	e140	e120	804	238	e130	451	476	165	145	205	116	177
4	e650	e115	866	210	e130	403	2240	338	e130	143	94	145
5	e513	e110	597	211	e140	371	3070	276	146	114	81	117
6	331	e170	465	209	e139	354	1960	237	119	103	74	100
7	229	e280	391	184	e135	399	1490	208	100	96	65	98
8	174	e410	344	174	e120	888	1070	183	93	182	56	106
9	144	e1000	335	163	e118	1460	756	174	89	159	50	1790
10	125	1140	483	162	e117	947	574	157	80	129	59	e1200
11	109	756	533	209	116	684	470	142	68	113	54	737
12	99	622	418	202	e115	551	452	132	64	95	47	508
13	92	524	333	188	e113	461	754	125	128	87	41	2170
14	e140	408	309	177	e112	397	683	117	176	263	37	2500
15	214	334	256	201	e112	365	502	115	124	712	35	1210
16	181	300	244	272	e105	348	426	110	109	305	34	706
17	151	324	232	240	e102	322	399	106	90	197	31	556
18	138	421	248	218	e100	314	412	103	88	145	31	1350
19	123	441	270	208	e100	348	373	133	84	120	29	1590
20	114	387	243	208	e99	379	317	138	72	99	26	958
21	113	1780	220	193	e98	345	281	143	69	92	23	689
22	110	1350	189	e180	e92	376	253	143	74	e90	21	522
23	106	765	174	e178	e90	495	225	157	84	e85	19	415
24	106	775	173	e176	e89	582	215	405	95	e75	17	351
25	103	814	580	e170	e88	619	247	308	90	e70	16	294
26	e120	1020	725	e169	e83	701	216	253	79	e120	16	245
27	e230	2160	538	e168	e80	655	188	e220	80	e150	66	211
28	e210	1280	423	e168	77	582	177	e197	87	e100	162	196
29	e190	805	354	e165	---	504	197	e180	83	e78	431	183
30	e180	601	309	e164	---	440	184	e155	72	65	292	197
31	e170	---	276	e164	---	569	---	e140	---	69	197	---
TOTAL	5459	19487	12197	6040	3110	15862	19829	5566	3034	4454	2364	19671
MEAN	176	650	393	195	111	512	661	180	101	144	76.3	656
MAX	650	2160	866	272	160	1460	3070	405	177	712	431	2500
MIN	70	110	173	162	77	145	177	103	64	63	16	98
MEAN‡	180	657	389	193	109	520	654	179	98.5	144	83.0	655
CFSM‡	1.10	4.01	2.37	1.18	.66	3.17	3.99	1.09	.60	.88	.51	3.99
IN‡	1.27	4.47	2.74	1.36	.69	3.66	4.45	1.26	.67	1.01	.58	4.46

CAL YR 1986 TOTAL 126571 MEAN 347 MAX 6280 MIN 39 MEAN‡ 347 CFSM‡ 2.11 IN‡ 28.71
WTR YR 1987 TOTAL 117073 MEAN 321 MAX 3070 MIN 16 MEAN‡ 321 CFSM‡ 1.96 IN‡ 26.56

‡ Adjusted for change in contents in Prompton Reservoir and General Edgar Jadwin Reservoir.
e Estimated

01431500 LACKAWAXEN RIVER AT HAWLEY, PA

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

DRAINAGE AREA.--290 mi².

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

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

GAGE.--Water-stage recorder, and crest-stage gage. Datum of gage is 869.00 ft above National Geodetic Vertical Datum of 1929. Prior to 1938, nonrecording gage at same site and datum. Aug. 10, 1938, to Aug. 19, 1955, water-stage recorder and Aug. 20, 1955, to Feb. 13, 1956, nonrecording gage at site 1,000 ft downstream at same datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Regulation since 1960 by Prompton Reservoir (station 01428900) and, at high flow, since 1959 by General Edgar Jadwin Reservior (station 01429400) located 14.9 mi and 13.0 mi upstream, respectively. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--58 years, (water years 1908-17, 1938-87), 485 ft³/s, 22.70 in/yr, adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,900 ft³/s, Aug. 19, 1955, gage height, 24.8 ft at present site, 20.6 ft at former site, from floodmark, from rating curve extended above 12,000 ft³/s, on basis of slope-area measurement at gage height 24.2 ft at present site, 20.1 ft at former site; minimum daily, 8 ft³/s, Sept. 8, 1909.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 19.1 ft at present site, 13.9 ft at former site, from floodmarks, discharge, 27,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,500 ft³/s, Apr. 5, gage height 8.93 ft; minimum daily, 40 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	157	827	455	e280	358	1110	330	197	111	83	e280
2	105	153	704	460	e275	953	754	306	285	184	86	e270
3	184	141	1550	462	e270	1110	669	318	303	491	166	e270
4	869	137	1650	414	e270	992	3790	824	270	309	149	e260
5	649	132	1100	381	e265	784	5660	627	292	211	113	e240
6	381	224	839	398	e260	658	3490	510	243	172	139	e220
7	274	348	705	353	e255	760	2970	445	203	154	123	e210
8	210	577	625	330	e250	1810	2180	384	196	317	102	779
9	177	1470	594	310	e250	2740	1530	343	191	347	94	5250
10	155	1490	860	303	e245	1760	1170	315	171	264	96	3080
11	135	931	1010	357	e240	1250	934	287	156	192	99	1330
12	123	774	759	365	e235	895	894	264	148	156	90	852
13	118	680	602	336	e230	691	1410	246	200	202	82	3550
14	172	526	488	307	e225	563	1280	228	494	279	78	4720
15	280	447	507	365	e220	506	951	220	323	1400	77	2280
16	229	417	432	609	e220	476	810	210	231	662	72	1310
17	193	467	419	478	e215	433	765	195	189	364	66	963
18	172	646	438	e450	e210	407	839	181	163	252	62	2440
19	154	697	515	400	e210	456	744	221	158	203	61	3920
20	140	605	471	e370	e205	530	629	237	142	168	60	2320
21	131	2910	412	e350	e200	474	576	237	138	151	55	1520
22	127	2460	346	334	e195	483	508	226	140	130	52	1080
23	123	1400	324	e320	e190	688	443	210	156	119	50	822
24	122	1330	313	e310	e185	825	410	645	175	105	46	676
25	122	1500	1260	e305	e180	873	494	505	164	98	43	565
26	144	1610	1660	e300	e180	946	453	370	143	145	40	459
27	271	3420	1150	e300	e175	893	380	310	137	178	98	394
28	258	2190	862	e290	e170	780	346	285	142	127	256	349
29	221	1410	707	e290	---	653	393	249	128	100	833	316
30	197	1070	609	e280	---	556	382	218	117	88	e550	311
31	175	---	541	e280	---	739	---	195	---	86	e390	---
TOTAL	6697	30319	23279	11262	6305	26042	36964	10141	5995	7765	4311	41036
MEAN	216	1011	751	363	225	840	1232	327	200	250	139	1368
MAX	869	3420	1660	609	280	2740	5660	824	494	1400	833	5250
MIN	86	132	313	280	170	358	346	181	117	86	40	210
MEAN‡	220	1018	747	361	223	848	1225	326	198	250	146	1367
CFSM‡	.76	3.51	2.58	1.24	.77	2.92	4.22	1.12	.68	.86	.50	4.71
IN‡	.87	3.92	2.97	1.44	.80	3.37	4.71	1.30	.76	1.00	.58	5.26

CAL YR 1986 TOTAL 219558 MEAN 602 MAX 11600 MIN 53 MEAN‡ 602 CFMS‡ 2.07 IN‡ 28.16
WTR YR 1987 TOTAL 210116 MEAN 576 MAX 5660 MIN 40 MEAN‡ 576 CFSM‡ 1.99 IN‡ 26.95

‡ Adjusted for change in contents of Prompton Reservoir and General Edgar Jadwin Reservoir.
e Estimated

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA

LOCATION.--Lat 41°27'33", long 75°11'08", Pike County, Hydrologic Unit 02040103, at hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, 3 mi east of dam at Wilsonville, 1.2 mi south of Hawley.

DRAINAGE AREA.--228 mi².

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

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. WSP 2102: 1966 (monthy mean).

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

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

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

AVERAGE DISCHARGE.--78 years, 367 ft³/s, 21.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,440 ft³/s June 30, 1973; no flow at times each year subsequent to Nov. 3, 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	.00	458	1210	440	.00	.00	.00	570	705	.00	.00
2	238	.00	401	1200	704	16	465	.00	689	455	.00	.00
3	287	.00	458	1200	702	25	946	.00	702	.00	680	.00
4	.00	.00	741	750	356	.00	922	223	698	.00	583	.00
5	.00	.00	694	1200	355	.00	960	.00	710	.00	584	.00
6	230	.00	.00	949	345	.00	1810	.00	.00	460	599	.00
7	228	.00	.00	933	.00	.00	1810	.00	.00	453	552	.00
8	.00	.00	556	942	.00	.00	1820	.00	739	465	.00	549
9	240	.00	703	695	767	431	1830	.00	702	560	.00	802
10	246	.00	685	.00	713	579	941	.00	695	468	456	905
11	.00	.00	908	.00	702	626	922	.00	372	.00	463	888
12	.00	.00	933	704	719	827	942	.00	348	.00	462	1150
13	356	.00	705	720	722	895	921	.00	.00	463	460	1130
14	351	.00	.00	729	.00	.00	933	.00	.00	669	464	877
15	344	.00	697	701	85	.00	940	.00	811	713	.00	1400
16	349	.00	951	691	60	612	1450	.00	695	814	.00	1320
17	317	.00	.00	.00	726	703	1450	.00	701	824	796	1330
18	.00	.00	492	.00	700	692	1440	.00	718	.00	.00	1460
19	.00	.00	949	779	784	796	1440	.00	341	.00	.00	1700
20	471	.00	.00	685	765	708	718	.00	.00	877	.00	1710
21	475	.00	.00	690	.00	.00	.00	.00	.00	926	.00	1710
22	.00	.00	194	699	.00	.00	.00	.00	348	972	.00	1700
23	483	.00	923	811	73	695	.00	.00	348	953	.00	1450
24	440	.00	939	661	.00	694	.00	.00	348	895	.00	1420
25	.00	549	.00	664	.00	733	.00	.00	462	820	152	1400
26	.00	572	924	1200	.00	718	.00	.00	347	.00	.00	1680
27	.00	555	.00	1190	79	722	.00	255	.00	807	.00	1680
28	.00	579	.00	1160	.00	.00	.00	228	.00	809	.00	1340
29	.00	590	1190	1170	---	.00	.00	829	459	813	.00	1330
30	.00	627	1210	957	---	.00	.00	.00	673	815	.00	1620
31	.00	---	1200	361	---	83	---	.00	---	834	157	---
TOTAL	5275.00	3472.00	16911.00	23651.00	9797.00	10555.00	22660.00	1535.00	12476.00	16570.00	6408.00	30551.00
MEAN	170	116	546	763	350	340	755	49.5	416	535	207	1018
MAX	483	627	1210	1210	784	895	1830	829	811	972	796	1710
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1986 TOTAL 189524.00 MEAN 519 MAX 1790 MIN .00
WTR YR 1987 TOTAL 159861.00 MEAN 438 MAX 1830 MIN .00

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39" Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, 0.4 mi upstream from highway bridge and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2. PERIOD OF RECORD December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers)

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

EXTREMES FOR PERIOD OF RECORD. Maximum contents, 8,170 acre-ft, June 29, 1973, elevation, 1,138.40 ft; minimum (after first filling), 2,800 acre-ft, Mar. 8, 1986, elevation, 1,123.20 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 4,860 acre-ft, Sept. 9, elevation, 1,129.87 ft; minimum, 3,040 acre-ft, Aug. 26, elevation, 1,123.37 ft.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi^2. PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation 1,053.00 ft Storage began in October 1959. Capacity at elevation 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft, June 19, 1973, elevation, 1,017.40 ft; no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,620 acre-ft, Apr. 5, elevation, 998.15 ft; no storage many days.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek, at Wilsonville, 1.2 mi south of Hawley and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway at elevation 1,176.00 ft in two sections. Spillway equipped with roller gate, 14 ft high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft, top of gates, is 209,300 acre-ft, of which 108,900 acre-ft is controlled storage above elevation 1,170.00 ft, minimum pool (prior to 1984, minimum pool 1,160.00 ft). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co. Records prior to 1984 included 48,900 acre-ft more usable contents.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 129,300 acre-ft, Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft, (old minimum pool) Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 92,170 acre-ft, May 28, 31, elevation, 1,187.1 ft; minimum, 26,960 acre-ft, Feb. 20, elevation, 1,175.2 ft.

LAKES AND RESERVIORS IN LACKAWAXEN RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01428900 Prompton Reservoir			01429400 General Edgar Jadwin Reservoir		
Sept. 30	1124.28	3300	--	976.28	0	--
Oct. 31	1125.20	3560	+ 4.2	976.45	0	0
Nov. 30	1126.55	3930	+ 6.2	979.59	38	+ 0.6
Dec. 31	1125.69	3690	- 3.9	978.47	9	- 0.5
CAL YR 1986	--	--	+ 0.2	--	--	0
Jan. 31	1125.18	3550	- 2.3	977.57	0	- 0.1
Feb. 28	1124.75	3430	- 2.2	976.59	0	0
Mar. 31	1126.55	3930	+ 8.1	UNKNOWN		
Apr. 30	1124.95	3490	- 7.4	973.80	0	0
May 31	1124.68	3410	- 1.3	976.47	0	0
June 30	1124.15	3260	- 2.5	976.26	0	0
July 31	1124.02	3230	- 0.5	976.04	0	0
Aug. 31	1125.43	3620	+ 6.3	979.10	23	+ 0.4
Sept. 30	1125.21	3560	- 1.0	977.40	0	- 0.4
WTR YR 1987	--	--	+ 0.4	--	--	0

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01431700 Lake Wallenpaupack		
Sept. 30	1177.9	41360	--
Oct. 31	1177.3	38120	- 52.7
Nov. 30	1181.4	60300	+ 373
Dec. 31	1182.4	65800	+ 89.4
CAL YR 1986	--	--	+ 5.3
Jan. 31	1177.6	39740	- 424
Feb. 28	1175.6	29080	- 192
Mar. 31	1179.1	47840	+ 305
Apr. 30	1183.4	71340	+ 395
May 31	1187.1	92170	+ 339
June 30	1184.1	75260	- 284
July 31	1181.0	58100	- 279
Aug. 31	1179.8	51620	- 105
Sept. 30	1179.0	47300	- 72.6
WTR YR 1987	--	--	+ 8.2

01432160 DELAWARE RIVER AT BARRYVILLE, NY

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pa., Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Brook.

DRAINAGE AREA.--2,659 mi^2.

PERIOD OF RECORD.--Water years 1958, 1968 to current year.
CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).
NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).
BIOLOGICAL DATA:
Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since March 1975, provides one-hour-interval punches. Prior to September 1973, water-temperature recorder provided continuous recordings.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow. Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82, 1986-87), 32.0°C, July 20, 21, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 30.5°C, July 12; minimum, 0.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	18.0	18.5	9.0	8.0	8.5	3.5	2.5	3.0	1.5	1.0	1.5
2	19.0	18.0	18.5	9.0	8.5	9.0	3.0	2.0	2.5	1.0	.5	1.0
3	18.5	17.0	17.5	8.5	7.5	8.0	3.5	2.5	3.0	1.0	.5	.5
4	17.0	17.0	17.0	7.5	7.5	7.5	3.5	3.0	3.0	1.0	.5	.5
5	17.0	16.0	16.5	7.5	6.0	6.5	3.0	2.5	3.0	.5	.5	.5
6	16.0	14.5	15.0	6.0	5.5	6.0	3.0	2.0	2.5	.5	.5	.5
7	14.5	13.0	13.5	6.0	6.0	6.0	2.0	2.0	2.0	1.0	.5	.5
8	13.5	12.5	13.0	7.0	6.0	6.5	2.5	2.0	2.5	1.0	.5	.5
9	14.0	13.0	13.5	8.0	7.0	7.5	2.5	2.0	2.5	1.0	.5	.5
10	14.0	12.5	13.0	8.0	7.5	8.0	3.0	2.5	2.5	1.0	.5	.5
11	12.5	11.5	12.0	7.5	5.5	6.5	2.5	2.5	2.5	.5	.5	.5
12	12.5	11.5	12.0	5.5	5.0	5.0	2.5	2.0	2.5	.5	.5	.5
13	13.5	12.0	12.5	5.0	4.0	5.0	2.0	1.0	1.5	1.0	1.0	1.0
14	14.0	13.5	14.0	4.0	3.0	3.0	1.0	.5	1.0	1.0	.5	1.0
15	14.0	12.5	13.0	2.5	2.0	2.0	1.0	.5	.5	1.5	1.0	1.5
16	12.5	11.5	12.0	3.0	2.0	2.5	1.5	1.0	1.5	1.5	1.5	1.5
17	12.0	11.0	11.5	3.5	3.0	3.0	1.5	1.5	1.5	1.0	.5	.5
18	11.5	11.0	11.0	4.0	3.5	4.0	2.0	1.5	2.0	.5	.5	.5
19	10.5	10.0	10.5	4.0	3.0	3.5	2.0	2.0	2.0	.5	.0	.5
20	11.0	9.5	10.0	3.0	2.0	2.5	2.0	2.0	2.0	.0	.0	.0
21	11.5	10.5	11.0	2.0	2.0	2.0	2.0	2.0	2.0	.5	.0	.5
22	12.5	11.0	11.5	2.5	2.0	2.5	1.5	1.0	1.0	.5	.0	.5
23	12.0	11.0	11.5	3.0	2.5	2.5	1.0	.5	.5	.0	.0	.0
24	12.5	12.0	12.0	3.5	3.0	3.0	1.0	.5	1.0	.0	.0	.0
25	12.0	10.5	11.0	4.0	3.5	3.5	1.5	1.0	1.5	.0	.0	.0
26	10.5	10.5	10.5	4.0	4.0	4.0	2.0	1.5	2.0	.0	.0	.0
27	10.5	10.0	10.5	5.0	4.0	4.5	2.0	2.0	2.0	.0	.0	.0
28	11.0	10.0	10.5	5.0	4.0	4.5	2.0	2.0	2.0	.0	.0	.0
29	10.5	10.0	10.5	4.5	3.5	4.0	2.0	2.0	2.0	.0	.0	.0
30	10.5	10.0	10.5	4.0	3.5	4.0	2.0	1.5	2.0	.0	.0	.0
31	10.0	8.5	9.5	---	---	---	1.5	1.5	1.5	.0	.0	.0
MONTH	19.0	8.5	12.5	9.0	2.0	5.0	3.5	0.5	2.0	1.5	0.0	0.5

01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.5	.5	.5	8.0	6.5	7.5	---	---	---
2	1.0	.0	.5	.5	.5	.5	6.5	5.0	5.5	---	---	---
3	1.0	.5	.5	.5	.5	.5	5.0	4.5	5.0	---	---	---
4	.5	.5	.5	.5	.5	.5	5.5	4.5	5.0	---	---	---
5	.5	.0	.5	.5	.5	.5	6.0	5.5	6.0	---	---	---
6	.0	.0	.0	.5	.0	.5	6.0	6.0	6.0	---	---	---
7	.5	.0	.5	1.0	.5	1.0	6.0	6.0	6.0	---	---	---
8	.5	.0	.5	1.0	1.0	1.0	6.0	5.5	6.0	---	---	---
9	.0	.0	.0	1.0	1.0	1.0	6.5	5.5	6.0	---	---	---
10	.0	.0	.0	1.0	.5	.5	7.5	6.0	6.5	---	---	---
11	.5	.0	.5	1.0	.5	.5	8.5	6.5	7.5	---	---	---
12	.5	.5	.5	1.0	.5	.5	8.5	8.0	8.5	---	---	---
13	.5	.5	.5	1.5	.5	1.0	8.5	8.0	8.5	---	---	---
14	.5	.5	.5	1.5	1.0	1.0	9.0	8.0	8.5	---	---	---
15	.5	.5	.5	2.5	1.5	1.5	9.0	8.5	8.5	---	---	---
16	.5	.5	.5	2.5	2.0	2.5	8.5	8.0	8.0	---	---	---
17	.5	.5	.5	3.0	2.0	2.5	---	---	---	---	---	---
18	.0	.0	.0	3.5	2.5	3.0	---	---	---	---	---	---
19	.0	.0	.0	4.0	3.0	3.5	---	---	---	---	---	---
20	.5	.0	.5	4.0	3.5	3.5	---	---	---	---	---	---
21	1.0	.5	.5	3.5	3.0	3.5	---	---	---	---	---	---
22	.5	.5	.5	5.0	3.5	4.0	---	---	---	---	---	---
23	.5	.5	.5	5.5	4.5	5.0	---	---	---	---	---	---
24	.5	.5	.5	6.0	5.0	5.5	---	---	---	---	---	---
25	.5	.5	.5	6.5	5.5	6.0	---	---	---	---	---	---
26	.5	.5	.5	7.0	6.5	6.5	---	---	---	---	---	---
27	.5	.5	.5	6.5	6.5	6.5	---	---	---	---	---	---
28	.5	.5	.5	7.0	6.5	6.5	---	---	---	---	---	---
29	---	---	---	8.0	7.0	7.5	---	---	---	---	---	---
30	---	---	---	8.0	8.0	8.0	---	---	---	---	---	---
31	---	---	---	8.5	8.0	8.0	---	---	---	---	---	---
MONTH	1.0	0.0	0.5	8.5	0.0	3.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	25.5	20.5	23.5	19.0	18.0	19.0
2	---	---	---	22.0	19.5	20.5	24.5	22.5	23.0	17.5	16.5	17.0
3	---	---	---	23.0	19.5	21.5	23.5	21.5	22.5	19.0	16.0	17.5
4	---	---	---	23.5	21.0	22.5	25.0	21.0	22.5	20.5	16.5	18.0
5	---	---	---	25.5	21.5	23.5	23.5	22.0	23.0	21.0	16.5	18.5
6	---	---	---	26.0	23.0	24.5	23.5	21.0	22.0	20.0	17.5	19.0
7	---	---	---	23.0	21.0	22.5	24.0	20.5	22.0	21.0	19.0	20.0
8	---	---	---	25.5	20.5	23.0	25.0	21.0	23.0	20.5	18.5	20.0
9	---	---	---	26.5	22.5	24.5	24.0	21.5	23.0	18.5	18.0	18.5
10	---	---	---	27.0	23.0	25.0	22.0	20.0	21.5	19.0	18.0	18.5
11	---	---	---	28.5	23.5	26.5	23.0	19.0	21.0	19.5	18.0	19.0
12	---	---	---	30.5	27.5	29.0	25.0	19.5	22.0	19.0	18.5	18.5
13	---	---	---	30.0	26.5	28.5	26.0	19.5	22.5	18.5	17.5	18.0
14	---	---	---	27.5	24.0	26.5	26.5	20.0	23.0	18.0	17.5	18.0
15	---	---	---	23.5	19.5	21.5	25.5	21.5	23.5	18.0	17.0	17.5
16	---	---	---	21.0	19.0	20.0	26.5	23.5	25.0	18.5	17.5	18.0
17	---	---	---	22.0	18.5	20.5	27.5	24.5	26.0	19.0	18.0	18.5
18	---	---	---	24.5	19.5	22.0	27.0	23.0	25.0	18.5	17.0	18.0
19	---	---	---	26.0	23.0	24.5	26.0	23.5	25.0	17.0	15.5	16.0
20	---	---	---	26.0	23.5	25.0	25.0	23.5	24.0	16.0	15.5	15.5
21	---	---	---	27.0	22.5	24.5	24.0	21.5	23.0	17.0	16.0	16.5
22	---	---	---	27.5	23.0	25.0	23.0	21.5	22.0	17.5	16.5	17.0
23	---	---	---	28.5	23.5	25.5	22.0	19.5	20.5	17.5	16.5	17.0
24	---	---	---	28.5	23.5	25.5	19.5	17.5	19.0	17.0	16.0	16.5
25	---	---	---	28.5	24.0	26.0	18.5	16.5	17.5	16.0	15.0	16.0
26	---	---	---	27.5	23.5	25.5	18.5	16.5	17.5	16.0	14.5	15.5
27	---	---	---	26.5	24.0	25.5	18.0	16.5	17.0	17.0	14.5	15.5
28	---	---	---	25.5	22.0	23.5	16.5	15.5	16.0	17.5	15.5	16.5
29	---	---	---	25.5	20.5	23.0	16.5	15.0	16.0	18.0	16.5	17.5
30	---	---	---	23.5	20.0	22.0	19.0	15.5	17.5	18.0	17.5	17.5
31	---	---	---	26.5	20.5	23.0	19.5	17.0	18.5	---	---	---
MONTH	---	---	---	---	---	---	27.5	15.0	21.5	21.0	14.5	17.5

01432805 DELAWARE RIVER AT POND EDDY, NY

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pa., Hydrologic Unit 02040104, at interstate bridge at Pond Eddy, 450 ft downstream from Mill Brook, and 4.5 mi upstream from Mongaup River.

DRAINAGE AREA.--2,820 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1973, provides one-hour-interval punches.

REMARKS.--Temperature probe may be influenced by solar radiation during periods of low flow. Interruptions of record were due to malfunctions of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84, 1986) 31.0°C, July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983-87), 0.0°C on many days during winter periods, except 1978, 1980, and 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.5°C, June 1, July 27, but may have been higher during period of instrument malfunction, July 10-15, Aug. 17-20; minimum, 0.0°C on many days during winter period.

TEMPERATURE, (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	18.5	19.5	8.5	7.5	8.0	3.0	1.5	2.0	1.0	.5	.5
2	19.5	18.5	19.0	8.0	8.0	8.0	2.0	1.0	1.5	.5	.0	.5
3	19.0	17.5	18.5	8.0	7.0	7.0	3.0	1.5	2.0	.5	.0	.0
4	17.5	17.0	17.5	7.0	6.5	7.0	3.0	2.5	3.0	.5	.0	.0
5	17.0	16.0	16.5	6.5	5.0	5.5	2.5	2.5	2.5	.0	.0	.0
6	15.5	14.0	15.0	5.0	4.5	5.0	2.5	1.5	1.5	.0	.0	.0
7	13.5	12.5	13.5	5.0	5.0	5.0	2.0	1.0	1.5	.0	.0	.0
8	14.0	12.5	13.0	6.0	5.0	5.5	2.5	2.0	2.0	.0	.0	.0
9	14.5	12.5	13.5	7.0	6.0	6.5	2.5	1.5	2.0	.0	.0	.0
10	14.0	12.5	13.0	7.0	6.5	7.0	2.5	2.0	2.0	.0	.0	.0
11	12.5	11.0	12.0	6.5	4.0	5.5	2.5	1.5	2.0	.0	.0	.0
12	12.5	11.5	12.0	4.0	3.5	4.0	2.0	2.0	2.0	.0	.0	.0
13	12.5	12.0	12.5	4.0	2.5	3.5	2.0	.0	1.0	.5	.0	.0
14	14.5	12.5	13.5	2.5	1.5	2.0	.5	.0	.0	.0	.0	.0
15	13.5	12.0	13.0	1.5	.5	1.0	.5	.0	.0	1.0	.5	1.0
16	12.0	11.0	11.5	1.5	1.0	1.5	1.5	1.0	1.0	1.5	.5	1.0
17	11.5	10.5	11.0	3.0	2.0	2.5	2.0	1.5	1.5	.0	.0	.0
18	11.5	10.0	10.5	3.5	3.0	3.0	2.0	2.0	2.0	.0	.0	.0
19	10.5	9.5	10.0	3.0	2.0	2.5	2.5	2.0	2.0	.0	.0	.0
20	10.5	9.0	9.5	2.0	1.0	1.5	2.5	2.0	2.0	.0	.0	.0
21	11.5	9.5	10.0	1.5	1.0	1.5	2.0	1.5	2.0	.0	.0	.0
22	12.0	10.5	11.0	2.0	1.0	1.5	1.5	.5	1.0	.0	.0	.0
23	12.0	11.0	11.5	2.0	1.5	2.0	.5	.0	.5	.0	.0	.0
24	12.0	11.0	11.5	3.0	2.0	2.5	.5	.5	.5	.0	.0	.0
25	11.5	10.5	11.0	3.5	3.0	3.0	1.5	1.0	1.5	.0	.0	.0
26	10.5	10.0	10.0	3.5	3.5	3.5	2.0	1.5	2.0	.0	.0	.0
27	10.0	9.5	9.5	4.5	3.5	4.0	2.5	2.0	2.0	.0	.0	.0
28	10.0	9.5	10.0	4.5	4.0	4.0	2.5	2.0	2.0	.0	.0	.0
29	10.5	9.5	10.0	4.0	3.5	3.5	2.0	1.5	2.0	.0	.0	.0
30	10.0	9.5	10.0	3.5	3.0	3.5	1.5	1.0	1.5	.0	.0	.0
31	9.5	8.5	9.0	---	---	---	1.5	1.0	1.5	.0	.0	.0
MONTH	20.0	8.5	12.5	8.5	0.5	4.0	3.0	0.0	1.5	1.5	0.0	0.0

01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.0	.0	.0	8.5	6.0	7.0	11.5	8.5	10.0
2	.0	.0	.0	.0	.0	.0	6.0	4.5	5.0	12.5	10.5	11.5
3	.0	.0	.0	.0	.0	.0	5.0	4.0	4.5	11.5	10.5	11.5
4	.0	.0	.0	.0	.0	.0	6.0	4.5	5.5	10.5	10.0	10.5
5	.0	.0	.0	.0	.0	.0	6.5	6.0	6.0	10.0	9.5	10.0
6	.0	.0	.0	.0	.0	.0	6.0	5.5	6.0	11.5	10.0	10.5
7	.0	.0	.0	1.0	.0	.5	6.0	6.0	6.0	13.0	10.5	12.0
8	.0	.0	.0	1.5	.0	.5	6.5	6.0	6.0	14.5	12.0	13.5
9	.0	.0	.0	.5	.0	.5	6.5	5.5	6.0	15.5	13.0	14.0
10	.0	.0	.0	.5	.0	.0	8.0	6.0	7.0	17.5	14.0	15.5
11	.0	.0	.0	.5	.0	.0	9.0	7.0	8.0	19.5	16.5	17.5
12	.0	.0	.0	.5	.0	.0	9.5	8.5	9.0	19.0	17.5	18.0
13	.0	.0	.0	1.0	.0	.5	9.0	8.5	9.0	18.5	15.5	17.0
14	.0	.0	.0	1.5	.0	.5	9.5	8.5	9.0	19.0	15.5	17.0
15	.0	.0	.0	2.5	.5	2.0	9.5	8.5	9.0	19.0	17.0	18.0
16	.0	.0	.0	3.0	1.5	2.5	9.0	8.0	8.5	19.5	16.0	17.5
17	.0	.0	.0	3.0	1.5	2.5	8.5	8.0	8.0	21.0	16.5	18.5
18	.0	.0	.0	4.0	1.5	3.0	9.5	8.5	9.0	21.0	18.5	20.0
19	.0	.0	.0	4.5	2.5	3.5	12.0	9.5	10.5	19.5	17.5	18.5
20	.0	.0	.0	4.5	3.0	3.5	13.5	11.5	12.0	17.5	15.5	16.5
21	.0	.0	.0	3.5	3.0	3.5	16.5	13.5	15.0	17.0	15.0	15.5
22	.0	.0	.0	5.5	3.5	4.5	16.5	15.5	16.0	20.0	16.0	17.5
23	.0	.0	.0	6.5	4.5	6.0	15.5	14.5	15.0	21.0	18.5	19.5
24	.0	.0	.0	7.5	5.0	6.5	14.5	13.5	14.0	21.5	19.5	20.5
25	.0	.0	.0	8.0	6.0	7.0	14.0	12.0	13.5	20.5	18.5	19.5
26	.0	.0	.0	8.5	7.0	7.5	14.5	12.0	13.5	18.5	17.5	18.0
27	.0	.0	.0	7.5	6.5	7.0	14.0	12.5	13.5	17.5	16.0	17.0
28	.0	.0	.0	8.0	6.5	7.5	13.0	11.0	12.0	20.0	15.5	17.5
29	---	---	---	9.0	7.5	8.0	11.0	10.5	11.0	23.5	19.0	21.0
30	---	---	---	9.0	8.5	8.5	10.5	10.0	10.5	23.5	19.5	21.5
31	---	---	---	9.0	8.5	9.0	---	---	---	25.5	22.5	24.0
MONTH	0.0	0.0	0.0	9.0	0.0	3.0	16.5	4.0	9.5	25.5	8.5	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	24.0	25.5	25.0	22.5	23.5	24.0	22.0	23.0	19.5	18.5	19.0
2	25.0	21.5	23.0	23.5	20.5	21.5	23.5	22.5	23.0	18.5	17.5	18.0
3	23.5	20.5	21.0	22.5	19.5	21.0	24.5	22.5	23.0	22.0	16.5	18.0
4	20.5	18.5	19.0	23.0	21.5	22.5	24.5	22.0	23.0	---	---	---
5	21.0	17.0	19.0	24.5	22.0	23.0	24.0	23.0	23.5	20.5	17.5	19.0
6	21.0	18.0	19.5	26.0	23.5	24.5	23.0	22.0	22.5	20.5	18.0	19.0
7	20.0	19.0	19.5	24.5	22.0	23.0	---	---	---	20.5	19.0	20.0
8	22.0	18.5	20.0	24.5	21.0	23.0	24.0	22.0	23.5	---	---	---
9	21.0	19.0	20.0	25.5	23.0	24.5	23.5	22.5	23.0	20.5	18.0	19.0
10	21.0	18.0	19.5	---	---	---	22.5	21.5	22.0	---	---	---
11	21.0	17.5	19.0	---	---	---	23.5	20.5	22.0	---	---	---
12	20.0	19.0	19.5	---	---	---	24.0	20.5	22.0	---	---	---
13	21.5	19.0	20.0	---	---	---	24.0	21.0	22.5	19.0	17.5	18.0
14	23.5	20.5	22.0	---	---	---	25.0	22.0	23.0	18.5	17.0	18.0
15	25.5	22.0	23.5	---	---	---	25.0	22.5	24.0	18.0	17.0	17.5
16	24.0	20.5	22.5	20.5	19.5	20.0	27.0	23.5	25.0	19.0	17.5	18.0
17	24.0	21.0	22.5	22.0	19.0	20.0	---	---	---	19.0	18.0	18.5
18	24.0	20.5	22.5	23.5	20.0	21.5	---	---	---	19.0	17.0	18.5
19	24.5	21.0	23.0	25.5	23.0	24.0	---	---	---	17.0	15.5	16.0
20	26.0	23.0	24.5	26.0	24.5	25.5	---	---	---	15.5	15.0	15.5
21	25.5	24.5	25.0	26.0	23.0	25.0	25.0	22.5	23.5	16.5	15.5	16.0
22	24.0	23.5	24.0	27.0	23.5	25.0	23.5	22.5	23.0	17.5	16.0	16.5
23	23.5	22.5	22.5	27.0	24.0	25.5	22.5	20.5	21.5	17.5	16.0	17.0
24	24.0	20.5	22.5	27.0	24.5	26.0	21.0	19.0	20.0	16.5	16.0	16.5
25	25.0	22.0	23.5	27.0	24.5	25.5	19.5	17.5	18.5	16.0	15.0	15.5
26	24.0	21.5	22.5	26.5	24.5	25.5	19.0	17.5	18.0	15.5	14.0	15.0
27	22.5	20.5	21.5	27.5	25.5	26.0	18.5	17.0	17.5	16.0	14.5	15.5
28	23.5	21.5	22.0	25.5	23.0	24.0	17.0	16.0	16.5	17.0	15.5	16.5
29	24.0	21.0	22.5	24.5	22.0	23.0	16.5	15.5	16.0	18.0	16.5	17.0
30	---	---	---	24.0	21.5	22.5	18.0	16.0	17.0	18.0	17.5	17.5
31	---	---	---	24.0	21.5	23.0	19.5	17.5	18.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area. WDR NY-86-1: 1979-80.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft above National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master. Telephone gage-height telemeter and satellite gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft^3/s, Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft^3/s, on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft, Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft^3/s, Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft^3/s, Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft^3/s, by velocity-area studies; maximum gage height, 25.5 ft, Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 61,200 ft^3/s, Apr. 5, gage height, 12.36 ft; minimum, 965 ft^3/s, Sept. 6, gage height, 1.89 ft; minimum daily, 1,070 ft^3/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	1290	7730	5140	3170	e1600	14700	2400	1760	2090	2040	2160
2	1620	1320	6260	5050	2780	3450	12400	2220	2630	1980	1550	2290
3	1760	1390	8440	5010	3110	5980	10500	2080	3070	2420	1740	1730
4	3380	1640	10600	4380	3130	6060	17900	3370	2640	2760	2650	1320
5	4600	1660	8950	4260	2930	4980	51800	3610	2660	2130	2550	1070
6	3250	1930	6520	4530	2640	4360	35400	3230	2260	1790	2350	1120
7	2540	2080	5480	4170	2350	4830	27800	2990	1560	2310	2130	1350
8	1960	2210	5380	4000	2080	7150	23000	2740	1460	2610	1950	1730
9	1680	5410	5890	3690	2260	15200	19600	2210	2100	3180	1740	18300
10	1670	10800	6550	3090	3030	14700	16400	2030	2310	3000	1620	16200
11	1470	7430	7720	2790	2620	11700	14000	2100	2050	2420	2160	8740
12	1310	6000	7130	3250	2500	10100	12200	1850	1430	1600	1790	6270
13	1340	5150	6360	3650	e2600	8570	15500	1690	1640	1950	1710	11800
14	1570	4200	5160	3430	e2500	6860	19400	1600	1690	3050	1560	24200
15	2290	3370	4750	3540	e1500	5200	15900	1540	2210	8360	1750	15300
16	2450	2960	5100	4140	e1700	5130	14000	1480	2370	7070	1560	10600
17	2050	2940	4550	e3600	e1950	5240	12300	1410	2080	4560	1850	8220
18	1670	3710	3850	e2900	e2600	4940	11400	1630	2180	3460	2370	9800
19	1510	4100	5130	e2900	e2700	4960	10300	1560	2210	2620	1590	18200
20	1550	4080	4660	e3700	e2700	5280	8910	1860	2140	2510	1550	14100
21	1800	12300	3630	e3500	e2200	4710	6700	1790	1550	3070	1670	11000
22	1730	16700	3270	e3600	e1300	4070	5930	1980	1510	3040	1530	8830
23	1560	10700	3560	e3000	e1300	4740	5270	1690	1540	2900	1660	7380
24	2020	8720	3790	e3500	e1400	6140	4700	1980	2550	2780	1740	6540
25	1560	10200	5110	e3200	e1550	7020	4260	2510	2450	2790	1770	5860
26	1530	9460	8020	e3800	e1650	8600	4070	2140	1820	2340	1870	5550
27	1650	24000	7210	e4200	e1500	10600	3670	1940	1770	2480	1980	5160
28	1990	19500	5570	e4400	e1400	9920	3020	2030	1840	2430	2380	4570
29	1750	13300	5390	e4300	---	8870	2780	2140	1810	2160	2670	4200
30	1550	9750	6060	e4050	---	7840	2700	2370	1980	2010	3410	4250
31	1460	---	5670	e3500	---	8360	---	1550	---	1950	2470	---
TOTAL	60320	208300	183490	118270	63150	217160	406510	65720	61270	89820	61360	237840
MEAN	1946	6943	5919	3815	2255	7005	13550	2120	2042	2897	1979	7928
MAX	4600	24000	10600	5140	3170	15200	51800	3610	3070	8360	3410	24200
MIN	1310	1290	3270	2790	1300	1600	2700	1410	1430	1600	1530	1070

CAL YR 1986 TOTAL 1980380 MEAN 5426 MAX 76300 MIN 1240
WTR YR 1987 TOTAL 1773210 MEAN 4858 MAX 51800 MIN 1070

e Estimated

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c), 1987 (b).
PESTICIDE DATA: 1974 (a).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d).
BIOLOGICAL DATA:
Bacteria--1973-76 (d).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Water-temperature digital recorder since January 1973, provides one-hour-interval punches.

REMARKS.--Interruptions of record Apr. 15, Apr. 22 to Sept. 30, were due to malfunctions of recording instrument or probe.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84), 30.0°C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-87), 0.0°C, on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Minimum, 0.0°C, on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)
MAY												
07...	1345	3200	71	7.9	15.0	11.7	20	6.1	1.2	42	<10	--
28...	1530	1810	79	7.8	24.0	9.7	24	7.6	1.3	53	<10	--
JUN												
30...	1100	1390	82	7.9	25.0	9.4	25	7.5	1.5	49	<10	--
SEP												
01...	0915	1730	--	7.4	17.5	9.2	27	8.4	1.5	59	<10	1

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY											
07...	10	--	90	16	--	20	<0.10	<1	--	<10	--
28...	<10	--	70	<5	--	30	<0.10	<1	--	<10	--
JUN											
30...	<10	--	80	<5	--	30	<0.10	<1	--	<10	--
SEP											
01...	30	2	90	<5	<5	20	<0.10	4	2	10	10

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	19.5	20.5	10.0	8.5	9.0	3.0	2.0	2.5	1.5	1.0	1.0
2	20.5	19.5	20.0	9.5	8.0	9.0	2.5	2.0	2.0	1.5	.5	1.0
3	19.5	18.0	18.5	8.5	7.0	8.0	3.5	2.0	3.0	1.0	.5	.5
4	19.5	18.0	18.5	8.0	7.0	7.5	3.5	2.5	3.0	.5	.0	.5
5	18.0	16.0	17.0	7.5	5.5	6.0	3.0	2.0	2.5	.5	.0	.0
6	16.0	13.5	15.0	6.5	5.5	6.0	2.5	1.5	2.0	.5	.0	.0
7	14.0	13.0	13.5	6.5	6.0	6.5	2.0	1.5	2.0	1.0	.0	.5
8	14.5	12.0	13.5	7.5	6.5	7.0	3.0	2.0	2.5	1.0	.5	.5
9	15.0	13.5	14.5	8.0	7.5	8.0	2.0	2.0	2.0	1.0	.5	.5
10	15.0	13.0	13.5	8.5	7.5	8.0	3.0	2.0	2.5	1.0	.5	1.0
11	13.0	11.5	12.5	7.5	5.0	6.0	2.0	1.5	2.0	1.0	.5	1.0
12	13.5	12.0	12.5	5.0	4.5	5.0	2.5	1.5	2.0	.5	.5	.5
13	13.5	13.0	13.0	4.5	3.0	4.5	1.5	.0	1.0	1.5	.5	1.0
14	14.5	13.5	14.0	3.0	2.0	2.5	.0	.0	.0	1.5	.5	1.0
15	14.5	13.0	13.5	2.0	1.5	2.0	.5	.0	.5	2.5	1.0	2.0
16	12.5	11.0	12.5	3.0	1.5	2.0	2.0	.5	1.5	2.5	1.0	2.0
17	12.5	11.5	12.0	3.5	2.0	3.0	2.0	1.0	2.0	1.0	.0	.5
18	12.0	11.0	11.5	4.5	3.5	4.0	2.0	1.5	2.0	.0	.0	.0
19	11.0	10.0	10.5	4.0	2.5	3.5	2.5	2.0	2.5	.5	.0	.5
20	11.0	9.5	10.5	2.5	2.0	2.0	2.5	2.0	2.5	.5	.0	.5
21	12.5	9.5	11.0	2.5	1.5	2.0	2.5	1.5	2.0	.5	.0	.5
22	13.0	11.5	12.5	2.5	2.0	2.5	1.5	1.0	1.5	.0	.0	.0
23	13.0	12.5	13.0	3.0	2.0	2.5	1.0	.5	.5	.5	.0	.0
24	13.0	12.0	12.5	3.5	3.0	3.5	1.5	.5	1.0	.0	.0	.0
25	12.0	10.5	11.5	4.5	3.0	4.0	2.5	1.0	2.0	.0	.0	.0
26	11.5	10.5	11.0	4.5	4.0	4.0	2.5	2.0	2.5	.0	.0	.0
27	11.0	10.0	10.5	5.0	4.0	4.5	3.0	2.5	2.5	.0	.0	.0
28	12.0	11.0	11.5	5.0	4.5	5.0	2.5	2.0	2.5	.0	.0	.0
29	11.5	10.0	11.0	4.5	4.0	4.0	2.5	2.0	2.5	.0	.0	.0
30	11.5	10.5	11.0	4.0	3.0	4.0	2.0	1.5	2.0	.0	.0	.0
31	10.5	9.0	9.5	---	---	---	2.0	1.5	2.0	.5	.0	.0
MONTH	21.0	9.0	13.5	10.0	1.5	5.0	3.5	0.0	2.0	2.5	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5	.5	.5	.5	8.5	6.5	7.5	---	---	---
2	1.0	.0	.5	1.5	.5	1.0	6.5	4.5	5.5	---	---	---
3	.5	.0	.5	1.5	.5	1.0	5.0	4.5	4.5	---	---	---
4	1.0	.0	.5	1.5	.0	.5	6.5	5.0	6.0	---	---	---
5	.5	.0	.0	1.5	.0	.5	6.5	6.0	6.5	---	---	---
6	.5	.0	.5	2.0	.0	1.0	6.5	6.0	6.0	---	---	---
7	1.0	.0	.5	3.0	1.0	2.0	6.5	6.0	6.0	---	---	---
8	1.0	.0	.5	3.0	1.0	2.0	6.5	6.0	6.5	---	---	---
9	.5	.0	.0	1.5	1.0	1.0	7.0	6.0	6.5	---	---	---
10	.5	.0	.0	1.0	.0	.5	8.0	6.0	7.0	---	---	---
11	1.0	.0	.5	1.0	.0	.5	9.5	7.0	8.5	---	---	---
12	.0	.0	.0	1.0	.5	1.0	9.5	8.5	9.5	---	---	---
13	.5	.0	.0	1.5	1.0	1.0	9.5	8.5	9.0	---	---	---
14	.5	.0	.0	2.0	1.0	1.5	10.0	8.5	9.5	---	---	---
15	.5	.0	.5	3.5	1.5	2.5	---	---	---	---	---	---
16	.5	.0	.0	3.5	2.5	3.0	9.0	8.0	8.5	---	---	---
17	.0	.0	.0	4.0	2.5	3.0	8.5	8.0	8.0	---	---	---
18	.5	.0	.0	4.5	3.0	3.5	10.0	8.5	9.0	---	---	---
19	.0	.0	.0	5.0	3.5	4.5	12.0	10.0	11.0	---	---	---
20	.0	.0	.0	4.5	4.0	4.0	13.5	11.5	12.5	---	---	---
21	.5	.0	.0	4.5	3.5	4.0	16.0	13.0	14.5	---	---	---
22	.5	.0	.0	6.0	3.5	5.0	---	---	---	---	---	---
23	.5	.0	.5	7.5	5.5	6.5	---	---	---	---	---	---
24	.5	.0	.5	8.0	5.5	7.0	---	---	---	---	---	---
25	1.0	.0	.5	9.0	6.5	7.5	---	---	---	---	---	---
26	1.5	.0	.5	9.0	7.5	8.0	---	---	---	---	---	---
27	1.0	.0	.5	8.5	7.0	8.0	---	---	---	---	---	---
28	1.0	.0	.5	8.5	7.0	8.0	---	---	---	---	---	---
29	---	---	---	9.5	8.0	9.0	---	---	---	---	---	---
30	---	---	---	10.0	8.5	9.0	---	---	---	---	---	---
31	---	---	---	10.0	8.5	9.5	---	---	---	---	---	---
MONTH	1.5	0.0	0.5	10.0	0.0	3.5	---	---	---	---	---	---

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

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

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records excellent except for period of ice effect, Jan. 22 to Mar. 8, and from Oct. 11 to Nov. 9 and July 6 to Sept. 8, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--48 years, 5,793 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft^3/s, Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft^3/s on basis of flood-routing study; minimum, 382 ft^3/s, Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft^3/s, Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft, from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,200 ft^3/s, Apr. 5, gage height, 17.91 ft; minimum, 1,050 ft^3/s, Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2260	1470	8980	5900	e3600	e2000	15800	3250	1920	2310	2190	2350
2	1830	1480	7320	5780	e3100	e4200	13300	2910	2800	2310	1690	2630
3	1920	1520	9620	5730	e3500	e6700	11400	2700	3360	2590	1850	1990
4	3540	1740	11900	5130	e3500	e7100	18300	4100	3020	3110	2710	1490
5	5250	1810	10300	4640	e3300	e5900	58000	4610	2980	2470	2750	1210
6	3540	2050	8010	4860	e3000	e5100	40000	4130	2770	2020	2580	1160
7	2910	2250	6690	4770	e2900	e5600	32200	3730	1860	2440	2250	1510
8	2400	2420	6350	4610	e2500	e8020	27200	3450	1650	2720	2180	1810
9	1870	5100	6810	4270	e2300	15800	23000	2880	2260	3330	1780	16500
10	1930	10700	7450	3790	e3300	16200	19100	2590	2500	3330	1720	17400
11	1780	8080	8660	3380	e2900	12800	15800	2530	2390	2840	2150	9630
12	1470	6600	8100	3680	e2800	11200	13500	2410	1760	1940	2010	6880
13	1490	5770	7250	4250	e2800	9770	17000	2130	1790	2030	1780	10800
14	1800	4800	6050	3980	e2800	8240	22600	2020	2020	3310	1620	26300
15	2410	3910	5360	4070	e1800	6340	18100	1940	2200	7920	1700	16800
16	2770	3410	5880	4710	e1900	5960	15500	1860	2690	7830	1590	11400
17	2440	3290	5480	4550	e2000	6150	13500	1780	2360	5030	1780	9140
18	2090	4040	4560	3310	e2800	5750	12700	1930	2340	3880	2650	9970
19	1680	4570	5740	3430	e2900	5710	11700	1880	2390	2880	1650	19300
20	1620	4600	5670	4440	e2900	6040	10400	2180	2420	2550	1640	15300
21	2000	11000	4450	4210	e2800	5650	8170	2100	1900	3260	1720	11700
22	2070	17500	3950	e4190	e1700	4810	7290	2280	1600	3290	1600	9700
23	1700	11800	4050	e3700	e1700	5320	6490	2060	1860	3110	1660	8280
24	2040	9770	4400	e4100	e1700	6900	5880	2230	2590	2970	1770	7320
25	1830	10900	5860	e3800	e1800	7780	5490	2840	2610	2950	1750	6550
26	1710	10300	8790	e4100	e2000	9160	5200	2410	2290	2780	1940	6100
27	1760	23400	8450	e4400	e1700	11000	4700	2130	1990	2450	2060	5710
28	2210	21700	6630	e4800	e1800	10500	3970	2320	2080	2750	2490	5190
29	2010	14600	6100	e4700	---	9550	3670	2350	2010	2380	2780	4710
30	1710	11000	6870	e4400	---	8560	3630	2830	2160	2200	3930	4620
31	1690	---	6480	e4000	---	9340	---	1800	---	2100	2750	---
TOTAL	67720	221580	212210	135680	71800	243150	463590	80360	68570	97080	64720	253450
MEAN	2185	7386	6845	4377	2564	7844	15450	2592	2286	3132	2088	8448
MAX	5250	23400	11900	5900	3600	16200	58000	4610	3360	7920	3930	26300
MIN	1470	1470	3950	3310	1700	2000	3630	1780	1600	1940	1590	1160

CAL YR 1986 TOTAL 2253310 MEAN 6173 MAX 77200 MIN 1430
WTR YR 1987 TOTAL 1979910 MEAN 5424 MAX 58000 MIN 1160

e Estimated

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft downstream from highway bridge, 0.1 mi downstream from Saw Creek, 0.7 mi northwest of Shoemakers, and 2 mi southwest of Bushkill.

DRAINAGE AREA.--117 mi^2.

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

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

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

REMARKS.--Records good except for periods of estimated discharge, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--79 years, 235 ft^3/s, 27.31 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft^3/s, Aug. 19, 1955, gage height, 13.95 ft, from floodmarks, from rating curve extended above 2,600 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 2.6 ft^3/s, Sept. 25, 26, 27, 1964, gage height, 0.72 ft.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 4	2115	2290	4.51	Sept. 13	2100	*2580	*4.78
Apr. 7	1430	1320	3.50	Sept. 19	0730	1340	3.52
Sept. 9	0830	1510	3.71				

Minimum daily discharge, 12 ft^3/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	40	453	312	e145	487	581	195	108	31	37	128
2	40	40	406	313	e140	710	470	187	137	57	34	108
3	48	39	764	299	e140	474	426	185	134	135	39	92
4	148	34	685	269	e135	326	1380	300	122	103	55	73
5	106	38	573	256	e135	291	1850	281	124	76	47	60
6	88	80	495	239	e130	275	1520	266	112	65	58	55
7	69	95	435	218	e130	327	1350	252	105	56	60	71
8	61	118	397	210	e125	507	1080	229	103	117	48	185
9	56	184	397	196	e125	688	878	197	98	137	39	1230
10	52	159	468	195	e120	653	732	177	90	105	55	729
11	44	150	444	232	e120	568	623	168	79	83	48	492
12	42	171	387	213	e115	502	552	161	72	105	38	368
13	41	160	340	195	e110	441	551	148	79	147	31	1360
14	55	132	e305	180	e110	398	493	137	80	438	28	1820
15	69	113	e280	194	e105	366	435	129	74	629	26	1130
16	57	110	261	241	e105	335	397	122	64	319	24	820
17	51	104	248	210	e100	305	378	114	57	206	22	679
18	48	102	314	e200	e96	281	371	111	51	150	21	829
19	44	165	412	e195	e94	266	341	130	47	111	19	1260
20	41	156	343	e190	e92	256	309	137	45	104	19	1010
21	37	643	300	e185	e91	244	285	145	55	100	18	815
22	35	550	267	e175	e90	235	263	130	63	91	17	678
23	33	461	247	e170	e88	230	242	125	70	82	16	591
24	33	449	239	e165	e86	227	234	383	64	72	15	498
25	31	444	671	e160	e84	221	296	300	54	65	14	462
26	41	515	637	e160	e82	210	266	245	46	69	12	379
27	77	831	547	e155	e80	195	233	216	53	70	62	321
28	70	708	482	e155	e80	188	216	186	62	58	148	280
29	57	617	429	e150	---	177	226	165	47	47	196	253
30	49	532	385	e150	---	172	211	145	35	42	121	241
31	44	---	350	e145	---	419	---	117	---	40	81	---
TOTAL	1709	7940	12961	6327	3053	10974	17189	5783	2330	3910	1448	17017
MEAN	55.1	265	418	204	109	354	573	187	77.7	126	46.7	567
MAX	148	831	764	313	145	710	1850	383	137	629	196	1820
MIN	31	34	239	145	80	172	211	111	35	31	12	55
CFSM	.47	2.26	3.57	1.74	.93	3.03	4.90	1.59	.66	1.08	.40	4.85
IN.	.54	2.52	4.12	2.01	.97	3.49	5.47	1.84	.74	1.24	.46	5.41

CAL YR 1986 TOTAL 90243 MEAN 247 MAX 2510 MIN 26 CFSM 2.11 IN. 28.69
WTR YR 1987 TOTAL 90641 MEAN 248 MAX 1850 MIN 12 CFSM 2.12 IN. 28.82

e Estimated

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Route 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi^2, approximately.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated daily discharges, which are fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). Several measurements of water temperature were made during the year. Gage height satellite telemeter at station.

AVERAGE DISCHARGE.--23 years, 6,381 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft^3/s, Mar. 16, 1986, gage height, 24.00 ft; minimum daily, 580 ft^3/s, July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76,900 ft^3/s, Apr. 5, gage height, 18.33 ft; minimum, 1,190 ft^3/s, Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2370	1720	10800	7040	e4320	2400	15800	4250	2170	2390	2190	2660
2	2250	1580	8910	6690	e3840	4680	16300	3800	2800	2450	1990	2730
3	2040	1620	10000	6730	e3980	7510	13000	3510	3610	2500	1810	2480
4	2610	1730	14200	6430	e4280	8570	17200	4180	3600	3180	2390	1890
5	5620	2010	12600	5420	e4000	7460	67100	5890	3300	3020	2950	1500
6	4730	2140	10200	5760	e3640	6470	57800	5500	3350	2390	2770	1250
7	3680	2470	8200	5680	e3500	6580	43800	4740	2350	2360	2470	1400
8	2960	2710	7570	5450	e3200	8440	35800	4420	2070	2850	2340	1720
9	2300	3800	7760	5060	e2900	16300	28400	4000	2340	3320	1840	12100
10	2250	10200	8200	4640	e3290	20000	23400	3380	2670	3710	1930	25100
11	2090	9560	9420	3980	e3710	15600	19200	3140	2730	3310	2070	12800
12	1660	7530	9480	4120	e3360	13100	16100	3190	2220	2400	2330	8350
13	1720	6630	8470	4960	e3250	11400	16700	2750	1870	2070	1840	10400
14	1950	5950	7260	4730	e3170	10000	25800	2590	2110	3610	1780	36000
15	2230	4860	6440	4560	e2520	7730	21600	2460	2090	6780	1640	24500
16	3030	4100	6630	5080	e2030	6840	18100	2370	2980	10200	1640	14900
17	2980	3770	6620	5660	e2320	7100	15700	2250	2670	6490	1610	11400
18	2510	4060	5580	4300	e2890	6700	14500	2180	2470	4810	2440	10900
19	1900	5210	6720	3860	e3290	6480	13500	2370	2500	3480	1940	21600
20	1940	5370	7140	5060	e3230	6680	12200	2440	2490	3020	1700	20500
21	2160	9390	5800	5000	e3170	6690	9960	2670	2270	3470	1650	15000
22	2220	22700	5000	4670	e2420	5720	8570	2610	1810	3580	1720	11900
23	1900	14900	4830	e4290	e2050	5530	7680	2640	2060	3320	1590	10300
24	2010	11400	5330	e4220	e2070	7060	7100	2970	2040	3210	1690	8790
25	2450	11800	6620	e4220	e2130	7860	6800	3420	3030	3120	1740	7880
26	1790	12000	9340	e4440	e2330	8880	6520	3270	2670	3160	1890	7110
27	1950	22500	10700	e4810	e2230	11100	5940	2890	2120	2380	2040	6810
28	2320	29500	8350	e5100	e2160	11500	5250	2810	2000	3080	2450	6350
29	2410	18600	7200	e5180	---	10200	4710	2780	2210	2570	3060	5650
30	2060	13500	7880	e5060	---	9220	4590	3240	2280	2370	3910	5420
31	1930	---	7600	e4710	---	9510	---	2480	---	2220	3350	---
TOTAL	76020	253310	250850	156910	85280	273310	559120	101190	74880	106820	66760	309390
MEAN	2452	8444	8092	5062	3046	8816	18640	3264	2496	3446	2154	10310
MAX	5620	29500	14200	7040	4320	20000	67100	5890	3610	10200	3910	36000
MIN	1660	1580	4830	3860	2030	2400	4590	2180	1810	2070	1590	1250

CAL YR 1986 TOTAL 2613230 MEAN 7160 MAX 96000 MIN 1530
WTR YR 1987 TOTAL 2313840 MEAN 6339 MAX 67100 MIN 1250

e Estimated

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

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

DRAINAGE AREA.--65.9 mi².

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

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

REMARKS.--Records good except for periods of estimated discharge, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 137 ft³/s, 28.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s, July 28, 1969, gage height, 11.82 ft, from rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow; minimum, 5.4 ft³/s, Sept. 11, 12, 13, 14, 1980, gage height, 1.14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges, greater than base discharge of 1,100 ft³/s and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 4	1600	3070	6.72	Sept. 13	1500	*5790	*8.59
Sept. 9	0030	3600	7.15	Sept. 18	1730	1440	5.06

Minimum daily discharge, 15 ft³/s, Aug. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	29	213	171	e76	187	492	103	84	26	27	86
2	27	29	203	174	74	250	334	98	123	38	26	60
3	32	28	604	161	e73	206	264	102	107	103	34	47
4	99	25	420	141	e72	180	1500	172	97	60	31	38
5	61	27	322	128	71	160	1110	140	89	49	30	33
6	47	60	268	118	69	153	860	128	76	37	40	31
7	39	61	232	113	67	203	701	122	69	32	33	50
8	33	88	206	108	66	352	526	110	66	91	29	355
9	31	125	215	101	64	484	385	102	60	100	28	1620
10	30	109	284	103	e62	395	321	96	56	67	34	626
11	27	101	248	121	60	304	268	90	49	51	30	359
12	26	108	215	107	59	262	250	85	49	96	25	250
13	26	99	188	97	e58	225	278	78	50	76	23	2520
14	36	86	164	91	e57	195	229	73	50	210	22	1400
15	39	79	155	104	e56	175	201	74	45	260	21	791
16	34	77	147	125	e55	161	185	70	44	137	20	589
17	31	75	141	109	e54	147	207	66	40	98	19	444
18	31	74	202	102	e53	137	211	66	38	79	19	694
19	31	102	244	e96	e52	131	185	85	36	65	17	974
20	29	93	190	e91	e52	128	172	82	32	60	18	682
21	28	552	167	e90	e51	121	155	82	34	55	17	465
22	26	361	150	88	e50	117	142	73	37	49	17	357
23	26	271	141	e87	e49	117	132	142	41	42	17	293
24	25	267	137	e86	e48	120	129	313	37	38	16	242
25	25	257	586	e85	e47	121	158	209	32	37	15	214
26	30	351	441	e84	47	122	133	166	29	46	15	178
27	45	549	344	e82	46	117	123	148	42	42	65	154
28	40	389	287	e81	45	113	119	133	36	34	78	136
29	35	312	245	e80	---	106	125	115	30	31	110	122
30	33	259	217	e80	---	105	115	100	27	29	67	114
31	31	---	193	e78	---	477	---	90	---	29	49	---
TOTAL	1078	5043	7769	3282	1633	6071	10010	3513	1605	2167	992	13924
MEAN	34.8	168	251	106	58.3	196	334	113	53.5	69.9	32.0	464
MAX	99	552	604	174	76	484	1500	313	123	260	110	2520
MIN	25	25	137	78	45	105	115	66	27	26	15	31
CFSM	.53	2.55	3.80	1.61	.88	2.97	5.06	1.72	.81	1.06	.49	7.04
IN.	.61	2.85	4.39	1.85	.92	3.43	5.65	1.98	.91	1.22	.56	7.86

CAL YR 1986 TOTAL 54192 MEAN 148 MAX 2000 MIN 19 CFSM 2.25 IN. 30.59
WTR YR 1987 TOTAL 57087 MEAN 156 MAX 2520 MIN 15 CFSM 2.37 IN. 32.23

e Estimated

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at Minisink Hills, 500 ft upstream from Marshall Creek, 1,500 ft downstream from Coates Paper Box Co., 0.8 mi upstream from mouth, and 3 mi southeast of East Stroudsburg.

DRAINAGE AREA.--259 mi².

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

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

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

REMARKS.--Records good, except periods of estimated daily discharges which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 563 ft³/s, 29.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft³/s, Aug. 19, 1955, gage height, 29.9 ft, site and datum then in use, 27.0 ft, present site and datum, from floodmarks, from rating curve extended above 4,600 ft³/s, on basis of computation of flow over dam at gage height 14.43 ft and slope-area measurement of peak flow, site and datum then in use; minimum, 29 ft³/s, Sept. 27, 1964; minimum gage height, 1.10 ft Sept. 10, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above greater than of 4,300 ft³/s, and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 4	1830	10,500	8.60	Sept. 13	1745	*17,000	*10.28
Sept. 9	0130	15,700	9.97				

Minimum discharge, 77 ft³/s, Aug. 25-26, gage height, 1.50 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	118	853	724	333	975	1450	445	254	117	122	271
2	134	119	808	749	e320	1290	993	419	298	127	114	212
3	140	116	2390	693	e310	1050	848	419	311	301	129	180
4	321	113	1640	605	e300	909	4960	694	287	203	122	149
5	226	115	1290	545	e290	787	4870	562	282	158	115	130
6	178	245	1070	506	e280	741	3190	514	235	134	144	130
7	153	232	942	493	e270	1100	2500	470	216	121	118	237
8	135	293	845	475	e265	1480	1960	432	216	341	112	2230
9	125	432	857	444	e265	1460	1570	403	198	315	111	6740
10	118	369	1150	452	e263	1170	1310	382	183	228	195	2440
11	112	365	967	572	e260	1000	1130	362	171	179	144	1550
12	112	456	862	492	e260	887	1050	340	172	223	118	1120
13	112	374	756	442	e250	781	1140	318	186	211	107	7370
14	140	328	660	419	e250	699	929	300	170	1370	104	4410
15	150	301	625	455	e240	637	809	303	160	1700	102	2510
16	130	300	604	557	e230	586	739	284	151	620	88	1850
17	121	290	576	477	e220	543	890	268	141	413	86	1540
18	120	279	945	455	e220	508	988	253	135	311	84	2270
19	116	446	1180	e420	e210	489	816	312	131	252	81	2830
20	114	407	871	e410	e210	465	739	319	127	220	84	2130
21	113	2220	776	e400	e210	446	684	322	133	208	86	1650
22	109	1420	691	e398	e210	431	634	291	149	180	80	1350
23	106	1080	641	e380	e210	420	581	273	167	159	83	1160
24	105	1050	618	e370	e210	409	594	632	148	147	78	985
25	103	967	2590	e360	e205	411	804	491	135	140	77	883
26	124	1240	1830	e357	e200	399	612	414	123	211	77	759
27	184	2180	1450	e355	e200	381	545	376	161	200	252	676
28	160	1530	1220	e355	e200	378	526	366	157	145	409	613
29	140	1230	1040	e350	---	359	542	323	130	128	566	561
30	129	1020	926	355	---	356	495	290	120	148	315	532
31	123	---	831	362	---	1320	---	266	---	143	212	---
TOTAL	4272	19635	32504	14427	6891	22867	38898	11843	5447	9353	4515	49468
MEAN	138	654	1049	465	246	738	1297	382	182	302	146	1649
MAX	321	2220	2590	749	333	1480	4960	694	311	1700	566	7370
MIN	103	113	576	350	200	356	495	253	120	117	77	130
CFSM	.53	2.53	4.05	1.80	.95	2.85	5.01	1.48	.70	1.16	.56	6.37
IN.	.61	2.82	4.67	2.07	.99	3.28	5.59	1.70	.78	1.34	.65	7.11

CAL YR 1986 TOTAL 231041 MEAN 633 MAX 14100 MIN 99 CFSM 2.44 IN. 33.18
WTR YR 1987 TOTAL 220120 MEAN 603 MAX 7370 MIN 77 CFSM 2.33 IN. 31.62

e Estimated

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at mile 197.7.

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

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

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

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

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River basin, diversions). National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--65 years, 7,874 ft^3/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft^3/s, Aug. 19, 1955, gage height, 30.21 ft, from high-water mark in gage house, from rating curve extended above 170,000 ft^3/s, on basis of flood-routing study; minimum, 609 ft^3/s, Sept. 28, 29, 1943, gage height, 2.11 ft.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74,200 ft^3/s, Apr. 6, gage height, 15.36 ft; minimum, 1,500 ft^3/s, Oct. 13, gage height, 3.13 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2290	1910	13000	9100	5390	4520	17700	5820	2870	2610	2550	3650
2	2550	1680	11000	8720	4990	8170	19900	5290	3340	2770	2550	3340
3	2170	1690	13100	8740	5050	10500	15800	4970	4280	3070	2140	3230
4	2890	1750	16800	8250	5530	11800	22400	5760	4520	3490	2420	2590
5	5430	2070	15400	7040	5110	10500	58600	7590	4170	3560	3310	2060
6	5650	2520	12700	6660	4630	9110	63800	7220	4080	2850	3330	1750
7	4220	2920	10500	6810	4580	9120	49000	6470	3340	2510	3000	1990
8	3320	3260	9510	6810	4340	11300	41100	5950	2730	3430	2740	3350
9	2610	4190	9700	6400	4050	18400	33400	5410	2660	3990	2520	18100
10	2260	9750	10600	6070	3700	23700	28400	4700	3160	4280	2540	29400
11	2160	11000	11500	5640	4720	19400	23700	4370	3250	3850	2400	16800
12	1920	9020	11700	5610	4370	16400	20400	4320	2940	3220	2730	11100
13	1660	7840	10600	6150	4000	14500	19700	3890	2460	2600	2360	17000
14	1830	6910	9170	6050	3730	12800	27300	3620	2580	4180	2180	39300
15	2250	5720	7600	5890	3500	10300	25300	3480	2640	9690	2020	30000
16	3100	4920	8210	6610	2440	9010	21400	3360	3170	12200	2070	19400
17	3200	4460	8210	7170	2920	9130	19200	3180	3120	8020	1940	15200
18	2690	4540	7820	5930	3340	8590	18100	3040	2870	5810	2320	14800
19	2200	6080	9580	5340	3710	8200	16900	3390	2880	4490	2670	24600
20	1910	6380	9590	6090	3680	8280	15400	3470	2890	3730	1990	24800
21	1950	11200	8160	6470	3660	8350	13300	3770	2790	3750	1930	18800
22	2240	24200	7130	5870	3400	7280	11400	3590	2390	4050	2010	15300
23	2160	17800	6670	4920	2980	6900	10300	3610	2330	3820	1870	13400
24	1880	13700	7020	4490	2780	8230	9570	4080	2360	3650	1940	11400
25	2380	13400	10800	4520	2810	9230	9840	4550	3280	3530	2010	10200
26	2020	14300	12700	5010	3000	10200	9210	4520	3070	3700	2050	9070
27	2150	22200	13900	5340	3100	12300	8100	3960	2610	3240	2590	8520
28	2340	31500	11300	5440	2980	13400	7390	3740	2500	3300	3390	7810
29	2660	21300	9850	5570	---	12000	6570	3680	2570	3050	4470	6940
30	2330	16100	10100	5840	---	11000	6250	3830	2510	2880	4640	6570
31	2020	---	9800	5650	---	11800	---	3570	---	2740	4380	---
TOTAL	80440	284310	323720	194200	108490	344420	649430	138200	90360	128060	81060	390470
MEAN	2595	9477	10440	6265	3875	11110	21650	4458	3012	4131	2615	13020
MAX	5650	31500	16800	9100	5530	23700	63800	7590	4520	12200	4640	39300
MIN	1660	1680	6670	4490	2440	4520	6250	3040	2330	2510	1870	1750

CAL YR 1986 TOTAL 3105070 MEAN 8507 MAX 111000 MIN 1610
WTR YR 1987 TOTAL 2813160 MEAN 7707 MAX 63800 MIN 1660

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi upstream from Tobyhanna Creek, and 4 mi southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Estimated daily discharges during water year: Jan 11 to Feb. 21. Records good except for period of estimated record, which are poor.

AVERAGE DISCHARGE.--44 years, 189 ft³/s, 28.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft³/s, Aug. 19, 1955, gage height, 16.37 ft, from floodmarks, from rating curve extended above 1,700 ft³/s, on basis of slope-area measurement of peak flow; minimum observed, 7.0 ft³/s, Sept. 26, 27, 1964; minimum gage height, 0.19 ft Sept. 27, Oct. 2, 9, 10, Nov. 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942, reached a stage of 12.03 ft, from floodmark, present site and datum, discharge, 15,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s	Gage height (ft)
Apr. 4	2045	3290	6.08	Sept. 13	1730	*3380	*6.18
Sept. 9	0600	1360	3.58				

Minimum discharge, 27 ft³/s, Aug. 25, 26, 27, gage height, 0.38 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	65	256	201	e90	157	614	144	80	38	43	334
2	87	65	235	214	e89	251	445	131	79	138	42	207
3	109	64	453	215	e88	198	399	147	76	247	59	153
4	320	62	424	196	e87	163	1720	283	79	150	59	122
5	226	66	344	187	e87	157	2100	226	78	104	57	97
6	162	116	293	174	e87	139	1220	195	70	78	69	91
7	126	114	260	156	e87	161	1060	166	67	66	60	116
8	107	174	244	146	e87	291	843	148	67	328	59	284
9	95	237	266	138	e87	431	648	135	66	339	70	1100
10	87	204	372	139	e86	360	507	126	63	224	89	645
11	78	177	313	150	e86	310	417	120	58	159	75	414
12	73	189	276	141	e85	256	412	115	57	120	63	308
13	71	175	239	133	e85	226	451	111	65	98	53	2050
14	121	147	232	127	e85	202	383	105	62	113	45	1960
15	130	135	213	144	e85	189	326	116	63	218	41	1040
16	108	129	190	185	e85	183	292	114	58	140	38	666
17	96	129	182	154	e85	171	296	104	49	111	36	574
18	91	124	228	e140	e83	166	308	101	45	93	34	606
19	82	150	296	e120	e82	172	282	133	42	80	32	851
20	77	146	242	e110	e82	181	258	144	41	72	35	714
21	73	478	211	e110	e81	173	227	139	47	70	33	542
22	71	385	189	e105	e81	179	205	123	60	64	32	431
23	68	300	177	e103	e80	206	186	117	68	58	32	355
24	66	302	167	e100	e80	224	185	216	64	53	29	314
25	64	308	489	e95	e80	225	229	173	55	50	28	302
26	84	344	461	e95	e79	231	195	143	48	80	28	258
27	100	534	372	e92	e79	221	166	124	54	91	114	230
28	90	419	313	e92	e79	211	164	114	49	66	159	208
29	81	349	273	e92	---	195	167	103	43	57	328	188
30	74	297	243	e91	---	188	157	94	38	49	207	180
31	69	---	222	e90	---	468	---	86	---	44	146	---
TOTAL	3165	6384	8675	4235	2357	6885	14862	4296	1791	3598	2195	15340
MEAN	102	213	280	137	84.2	222	495	139	59.7	116	70.8	511
MAX	320	534	489	215	90	468	2100	283	80	339	328	2050
MIN	64	62	167	90	79	139	157	86	38	38	28	91
CFSM	1.11	2.32	3.05	1.49	.92	2.42	5.40	1.51	.65	1.27	.77	5.58
IN.	1.28	2.59	3.52	1.72	.96	2.79	6.03	1.74	.73	1.46	.89	6.22

CAL YR 1986 TOTAL 80440 MEAN 220 MAX 3390 MIN 34 CFSM 2.40 IN. 32.63
WTR YR 1987 TOTAL 73783 MEAN 202 MAX 2100 MIN 28 CFSM 2.20 IN. 29.93

e Estimated

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1980 to current year.

INSTRUMENTATION.--Temperature recorder since October 1980.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.0°C July 18, 19, 1982, July 17, 1983; minimum, 0.0°C on many days during winter period.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	.5	.5	.5	6.5	4.5	5.5	---	---	---
2	2.5	.5	1.0	1.0	.5	.5	5.5	4.5	5.0	---	---	---
3	2.0	1.0	1.0	1.0	.5	1.0	5.5	4.0	4.5	---	---	---
4	1.0	.5	.5	2.0	.5	1.0	6.5	5.0	5.5	---	---	---
5	1.0	.5	.5	2.0	.5	1.0	7.0	5.5	6.0	---	---	---
6	1.0	.5	.5	3.0	.5	1.5	6.5	6.0	6.0	---	---	---
7	.5	.5	.5	5.0	1.0	2.5	6.5	6.0	6.0	---	---	---
8	.5	.5	.5	5.5	2.0	3.0	7.0	5.5	6.0	---	---	---
9	.5	.0	.5	3.5	1.5	2.5	---	---	---	---	---	---
10	.5	.5	.5	2.5	.5	1.0	---	---	---	---	---	---
11	1.0	.5	.5	3.0	.5	1.5	---	---	---	---	---	---
12	.5	.5	.5	3.0	1.0	2.0	---	---	---	---	---	---
13	.5	.0	.5	3.5	1.5	2.5	---	---	---	---	---	---
14	1.0	.0	.5	3.5	1.0	2.5	---	---	---	---	---	---
15	1.0	.0	.5	5.0	1.5	3.0	---	---	---	---	---	---
16	.5	.0	.5	5.0	1.5	3.0	---	---	---	---	---	---
17	.5	.5	.5	5.0	1.5	3.0	---	---	---	---	---	---
18	1.0	.5	.5	6.0	2.0	3.5	---	---	---	---	---	---
19	1.0	.5	.5	6.5	2.5	4.0	---	---	---	---	---	---
20	1.0	.5	.5	4.5	3.0	4.0	---	---	---	---	---	---
21	1.0	.5	1.0	4.0	3.0	3.5	---	---	---	---	---	---
22	1.5	.5	1.0	8.0	3.5	5.5	---	---	---	---	---	---
23	1.0	1.0	1.0	---	---	---	---	---	---	---	---	---
24	1.0	.5	1.0	---	---	---	---	---	---	---	---	---
25	1.0	.5	.5	---	---	---	---	---	---	---	---	---
26	1.0	.5	.5	---	---	---	---	---	---	---	---	---
27	1.0	.5	.5	---	---	---	---	---	---	---	---	---
28	1.0	.5	.5	---	---	---	---	---	---	---	---	---
29	---	---	---	10.5	6.5	8.5	---	---	---	---	---	---
30	---	---	---	9.5	8.0	8.5	---	---	---	---	---	---
31	---	---	---	9.5	6.5	8.5	---	---	---	---	---	---
MONTH	2.5	.0	.5	10.5	.5	3.0	7.0	4.0	5.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
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22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
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29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi downstream from unnamed tributary, 0.9 mi downstream from bridge on Legislative Route 45040, 3 mi west of Long Pond, and 5 mi upstream from mouth.

DRAINAGE AREA.--18.0 mi². At site used prior to July 7, 1966, 16.8 mi².

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

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

REMARKS.--Records good except for periods of estimated daily discharges, which are fair. Diversion above station, since October 1969, to Wild Creek Basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 47.0 ft³/s, 35.45 in/yr, adjusted for diversion since October 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 679 ft³/s, Apr. 6, 1984, gage height, 4.76 ft, minimum discharge 3.0 ft³/s, Mar. 11, 1969, gage height, 1.84 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 5	0800	202	3.12	Sept. 10	1230	202	3.12
Mar. 11	0830	248	3.26	Sept. 14	1500	*589	*4.30
Apr. 5	1630	426	3.82	Sept. 18	2300	223	3.18

Minimum daily discharge, 7.2 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	18	59	61	e24	e20	195	49	19	12	11	43
2	21	15	57	49	e24	e23	175	45	19	12	10	36
3	22	15	89	47	e23	e40	113	46	19	15	11	29
4	27	14	107	e45	e23	58	258	72	20	20	10	23
5	30	15	92	e45	e22	96	415	67	21	18	11	19
6	28	19	85	e43	e21	83	354	54	20	15	12	16
7	26	25	76	e42	e21	44	262	46	19	13	13	17
8	23	34	62	e42	e20	74	200	41	18	21	12	39
9	20	42	61	41	e20	105	114	38	17	34	12	145
10	17	44	72	40	e19	113	107	36	15	37	15	196
11	15	43	82	39	e19	125	100	35	16	28	17	179
12	14	38	74	39	e18	60	100	32	15	26	17	127
13	13	34	63	39	e18	48	109	33	16	51	14	340
14	15	33	e53	e39	e18	51	103	31	16	66	13	553
15	15	26	47	e38	e17	42	87	29	15	75	11	448
16	17	23	48	e37	e17	39	77	31	14	73	10	276
17	17	22	48	e36	e17	37	84	29	13	55	9.5	188
18	16	22	54	e35	e17	39	107	28	12	38	8.8	178
19	15	24	81	e33	e17	40	98	34	12	27	8.5	218
20	14	28	83	e32	e17	40	80	41	11	22	8.7	208
21	13	57	77	e32	e16	38	69	43	12	18	8.0	188
22	12	68	60	e31	e16	40	64	39	14	16	8.0	156
23	11	88	49	30	e16	44	60	33	16	14	7.7	125
24	11	80	47	e29	e15	49	58	30	16	13	7.5	103
25	11	69	92	e28	e15	51	72	30	15	12	7.3	88
26	12	72	128	e27	e14	50	68	28	14	12	7.2	79
27	13	96	118	e27	e14	49	58	27	15	13	13	71
28	15	108	94	e26	e14	45	52	25	17	13	29	65
29	18	97	72	e25	---	44	55	23	16	12	55	61
30	19	78	61	e25	---	46	50	22	14	12	58	57
31	19	---	51	e24	---	130	---	20	---	11	49	---
TOTAL	542	1347	2242	1126	512	1763	3744	1137	476	804	484.2	4271
MEAN	17.5	44.9	72.3	36.3	18.3	56.9	125	36.7	15.9	25.9	15.6	142
MAX	30	108	128	61	24	130	415	72	21	75	58	553
MIN	11	14	47	24	14	20	50	20	11	11	7.2	16
†	0.35	0.38	0.41	0.43	0.39	0.46	2.18	0.44	0.36	0.26	0.25	0.30
MEAN‡	17.8	45.3	72.8	36.7	18.7	57.4	127	37.1	16.3	26.2	15.8	142
CFSM‡	.99	2.52	4.04	2.04	1.04	3.19	7.06	2.06	.91	1.46	.88	7.91
IN.‡	1.14	2.81	4.66	2.35	1.08	3.68	7.87	2.38	1.01	1.68	1.01	8.83

CAL YR 1986 TOTAL 16865 MEAN 46.2 MAX 300 MIN 11 MEAN‡ 48.8 CFSM‡ 2.71 IN.‡ 36.82
WTR YR 1987 TOTAL 18448.2 MEAN 50.5 MAX 553 MIN 7.2 MEAN‡ 51.0 CFSM‡ 2.83 IN.‡ 38.48

† Diversion above station to Wild Creek Basin, equivalent in cubic feet per second, furnished by the City of Bethlehem.
‡ Adjusted for diversion.
e Estimated

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft downstream from bridge on State Highway 940, 500 ft downstream from Shingle Mill Run, and 1.5 mi southwest of Blakeslee.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft upstream at same datum.

REMARKS.--Records good except periods of estimated daily discharges which are poor. Power generation by Pocono Lake about 5.0 mi upstream since 1985 and minor diversion from Tunkhannock Creek basin into Wild Creek basin.

AVERAGE DISCHARGE.--26 years, 264 ft³/s, 30.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,190 ft³/s, Sept. 27, 1985, gage height, 12.33 ft; minimum, 22 ft³/s, Sept. 24, 25, 1964, gage height, 1.51 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft, from floodmark, discharge, 35,300 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s and maximum (*).

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 1	0415	1610	5.68	Sept. 9	0800	1800	6.21
Apr. 4	2215	*5700	*9.59	Sept. 13	2100	4720	9.51

Minimum daily discharge, 42 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	86	318	252	145	253	1460	244	107	57	58	418
2	133	85	296	276	145	426	973	218	101	95	59	350
3	114	84	695	262	149	404	666	267	99	213	65	235
4	293	83	818	241	151	316	3270	421	98	215	54	144
5	269	90	596	213	139	230	3290	402	100	117	59	106
6	205	126	466	208	155	184	1840	350	96	89	129	99
7	169	158	378	206	e140	219	1430	265	91	81	117	149
8	130	197	318	199	e140	355	1080	217	88	323	81	466
9	96	264	330	189	e135	549	776	194	86	383	102	1680
10	94	252	432	190	e130	518	634	182	83	243	156	1200
11	93	223	440	204	e130	405	554	171	76	151	111	756
12	91	215	394	193	e125	318	546	159	69	125	89	529
13	124	200	311	188	e122	254	581	143	69	144	77	2930
14	101	157	261	182	e120	218	537	141	70	249	67	3190
15	114	139	242	194	e118	208	475	151	76	391	57	1630
16	122	134	233	276	e115	205	434	149	77	255	53	1010
17	138	127	240	229	e110	195	453	129	56	165	52	753
18	122	139	321	204	e105	192	548	131	56	121	51	856
19	88	188	454	208	e105	198	529	214	58	97	49	1350
20	86	196	394	195	e100	209	457	198	57	85	59	1130
21	85	686	332	184	e100	203	415	261	59	71	65	863
22	84	610	257	177	e98	205	367	226	66	69	44	677
23	83	470	223	e169	e98	229	315	183	104	65	44	553
24	83	423	220	e165	e96	264	289	267	94	62	43	473
25	82	411	687	e162	e95	268	369	256	87	61	43	431
26	93	466	862	e159	e93	286	359	218	81	69	42	378
27	118	767	654	e156	e92	263	317	174	86	112	118	335
28	113	651	503	e152	e91	244	285	155	87	77	314	309
29	103	511	390	e149	---	232	286	123	83	73	504	287
30	95	404	328	e146	---	247	289	126	70	69	400	254
31	107	---	283	e143	---	949	---	116	---	63	272	---
TOTAL	3766	8542	12676	6071	3342	9246	23824	6451	2430	4390	3434	23541
MEAN	121	285	409	196	119	298	794	208	81.0	142	111	785
MAX	293	767	862	276	155	949	3290	421	107	391	504	3190
MIN	82	83	220	143	91	184	285	116	56	57	42	99
CFSM	1.03	2.41	3.47	1.66	1.01	2.53	6.73	1.76	.69	1.20	.94	6.65
IN.	1.19	2.69	4.00	1.91	1.05	2.91	7.51	2.03	.77	1.38	1.08	7.42

CAL YR 1986 TOTAL 104468 MEAN 286 MAX 3990 MIN 56 CFSM 2.43 IN. 32.93
WTR YR 1987 TOTAL 107713 MEAN 295 MAX 3290 MIN 42 CFSM 2.50 IN. 33.96

e Estimated

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1980 to current year.

INSTRUMENTATION.--Temperature recorder since June 1980.

REMARKS.--Interruptions in daily record due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.0°C July 17-19, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.5°C, July 11, 22, 23, 27; minimum 0.0°C on many days during periods

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	17.5	18.0	11.0	8.0	9.5	3.5	2.5	3.0	2.5	1.0	1.5
2	19.5	16.5	17.5	11.5	9.0	10.5	2.5	2.0	2.5	2.0	1.0	1.5
3	16.5	15.0	15.5	9.5	7.0	8.5	3.5	2.5	3.0	2.5	1.5	2.0
4	18.5	16.5	17.5	10.0	8.5	9.5	2.5	1.5	2.0	2.0	1.0	1.5
5	17.5	15.0	16.5	8.5	7.0	7.5	1.5	.5	1.0	1.5	.5	1.0
6	15.0	12.5	14.0	9.0	7.5	8.5	1.0	.0	.5	2.0	.5	1.0
7	14.0	11.5	12.5	9.5	7.5	8.5	1.5	.5	1.0	2.5	1.5	2.0
8	14.0	11.0	12.0	10.5	9.5	10.0	1.5	1.0	1.5	2.0	1.0	1.5
9	14.5	11.5	13.0	12.0	10.0	11.0	2.0	1.0	1.5	2.5	1.5	2.0
10	11.5	8.5	10.0	10.0	8.5	9.5	2.5	1.5	2.0	2.0	1.0	2.0
11	11.0	7.5	9.0	8.5	7.5	8.0	1.5	1.0	1.0	2.0	1.5	2.0
12	12.0	9.0	10.5	8.5	7.0	7.5	1.5	1.0	1.5	1.5	1.0	1.5
13	12.0	11.5	12.0	7.0	4.5	6.0	1.0	0	.5	2.5	1.5	1.5
14	13.0	10.0	12.0	5.0	3.5	4.5	1.0	.0	.5	2.5	1.0	2.0
15	10.0	8.0	9.0	5.5	3.5	4.5	2.0	.5	1.0	3.5	2.5	3.0
16	9.5	8.0	9.0	5.5	4.5	5.0	2.5	1.5	2.0	2.5	1.0	2.0
17	9.5	8.0	8.5	6.5	5.0	5.5	3.0	2.0	2.5	1.5	.5	1.0
18	9.5	7.0	8.5	5.5	2.5	4.5	2.5	2.0	2.5	2.0	1.0	1.5
19	9.0	5.5	7.0	---	---	---	2.5	2.0	2.0	2.0	.5	1.5
20	9.5	5.5	7.5	2.5	1.5	2.0	2.5	2.0	2.0	2.0	1.0	1.5
21	10.0	6.0	8.0	3.0	2.0	2.5	2.0	1.5	2.0	2.0	1.0	1.5
22	11.5	8.0	9.5	2.5	2.0	2.0	2.0	1.0	1.5	1.0	.5	.5
23	12.0	8.5	10.0	3.0	1.5	2.5	2.5	1.0	1.5	1.0	.5	.5
24	11.0	8.5	10.0	3.5	2.5	3.0	2.5	1.0	2.0	.5	.5	.5
25	10.0	7.0	8.5	3.5	2.5	3.0	3.0	2.0	2.5	5	.5	.5
26	10.5	9.5	10.0	5.0	3.0	4.0	2.5	2.0	2.5	1.0	.5	.5
27	12.0	10.0	11.0	5.0	4.0	4.5	2.5	2.0	2.0	5	.5	.5
28	12.5	10.0	11.0	5.0	3.5	4.0	2.5	2.0	2.0	.5	.5	.5
29	12.0	8.5	10.0	5.0	4.0	4.5	2.5	2.0	2.0	.5	.5	.5
30	11.5	9.5	10.5	4.5	4.0	4.0	2.5	1.5	2.0	1.0	.5	.5
31	10.0	8.0	9.0	---	---	---	2.5	1.5	2.0	1.5	.5	1.0
MONTH	19.5	5.5	11.2	---	---	---	3.5	.0	1.8	3.5	.5	1.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.5	1.0	2.0	2.0	2.0	6.5	5.0	5.5	13.5	8.5	10.5
2	2.5	1.0	1.5	2.5	1.5	2.0	6.5	5.5	6.0	12.0	9.5	10.5
3	2.0	1.0	1.5	2.5	1.0	1.5	7.0	5.5	6.0	10.5	9.5	10.0
4	2.0	.5	1.5	2.5	1.0	1.5	7.5	6.0	7.0	10.0	9.0	9.5
5	1.0	.5	.5	2.5	.5	1.0	7.5	7.0	7.0	10.0	9.0	9.5
6	2.5	.5	1.0	3.5	.0	2.0	7.0	7.0	7.0	13.0	9.0	10.5
7	2.5	.5	1.5	5.0	1.5	3.0	7.0	6.5	7.0	14.0	9.0	11.5
8	2.0	.5	1.5	4.5	2.0	3.0	7.5	6.5	7.0	14.0	9.0	11.5
9	1.5	.5	.5	3.0	1.5	2.5	8.5	7.0	7.5	15.5	9.0	12.0
10	.5	.5	.5	2.5	.5	1.5	10.0	7.0	8.5	17.5	11.0	14.0
11	2.0	.5	1.0	3.0	1.0	1.5	10.5	7.5	9.0	18.0	12.5	15.0
12	.5	.5	.5	3.5	1.5	2.5	10.0	8.5	9.5	16.0	13.0	14.5
13	.5	.5	.5	4.0	1.5	2.5	9.5	8.5	9.0	17.5	11.0	14.0
14	.5	.5	.5	4.0	1.0	2.5	12.5	8.5	10.5	17.0	11.5	14.5
15	.5	.5	.5	5.0	2.0	3.0	11.0	10.5	10.5	17.0	13.0	15.0
16	.5	.5	.5	4.5	1.5	2.5	9.0	8.0	9.0	17.5	11.5	14.0
17	.5	.5	.5	5.0	1.5	3.0	8.5	8.0	8.5	19.5	12.0	15.5
18	.5	.5	.5	5.5	2.0	3.5	10.5	8.5	9.5	19.5	14.0	17.0
19	.5	.5	.5	6.0	2.5	4.0	12.5	9.5	11.0	16.0	14.0	15.0
20	1.0	.5	.5	4.5	3.0	3.5	14.0	10.5	12.5	14.0	12.0	13.0
21	1.5	.5	.5	4.0	3.0	3.5	16.0	12.0	14.0	15.5	13.0	14.0
22	2.0	.5	1.0	7.5	3.5	4.5	16.0	13.0	14.5	19.0	14.0	16.0
23	1.5	.5	1.0	8.0	4.0	5.5	14.0	13.0	13.5	19.0	15.0	17.0
24	1.5	.5	1.0	8.5	4.0	6.0	13.5	12.0	13.0	18.5	15.5	17.0
25	1.5	.5	1.0	9.0	4.5	6.0	15.0	11.5	13.0	17.0	15.5	16.0
26	2.0	.5	1.0	7.5	5.5	6.0	15.0	11.0	13.0	16.0	15.0	15.5
27	2.0	.5	1.0	8.0	4.5	6.0	15.0	11.5	12.5	15.0	14.5	15.0
28	2.5	.5	1.5	8.5	5.5	7.0	11.5	10.0	11.0	20.0	14.0	16.5
29	---	---	---	9.0	5.0	7.0	12.0	9.5	10.5	20.5	15.0	18.5
30	---	---	---	8.0	6.0	7.0	12.0	9.0	10.0	---	---	---
31	---	---	---	8.0	5.5	7.0	---	---	---	21.5	17.5	19.0
MONTH	2.5	.5	.9	9.0	.0	3.7	16.0	5.0	9.7	21.5	8.5	14.0

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	17.0	19.5	22.5	19.0	20.5	23.0	19.0	21.0	18.0	16.5	17.0
2	22.5	18.0	20.0	20.0	18.0	19.0	21.5	19.5	20.0	18.0	16.0	17.0
3	19.0	18.0	18.5	22.5	18.5	20.0	23.5	19.5	21.5	19.5	16.0	17.5
4	17.5	16.5	17.0	22.5	19.5	21.0	24.5	19.0	21.5	20.0	14.5	17.0
5	21.0	15.0	17.5	24.0	18.5	21.0	22.5	19.0	20.0	19.0	15.0	17.0
6	20.5	15.0	17.5	23.5	19.0	21.0	21.5	18.5	20.0	18.0	16.5	17.5
7	18.0	14.5	16.5	20.5	19.0	19.5	22.5	19.5	21.0	19.0	17.5	18.0
8	21.5	16.0	18.5	23.0	18.0	20.5	22.5	18.5	20.5	18.5	17.5	18.0
9	21.0	17.0	18.5	23.5	20.0	21.5	---	---	---	19.0	18.0	18.5
10	20.0	14.5	17.0	23.5	21.0	22.0	20.5	17.5	19.0	20.0	18.5	19.0
11	20.5	13.0	16.5	26.5	21.0	23.0	21.5	16.0	18.5	20.5	18.0	19.0
12	17.0	15.5	16.5	---	---	---	22.0	15.5	18.5	20.0	18.0	19.0
13	21.0	16.0	18.0	25.0	20.5	23.0	21.5	15.5	18.5	18.5	17.5	18.0
14	22.5	15.5	19.0	23.0	19.5	21.5	22.0	16.5	19.0	18.5	18.0	18.5
15	23.5	17.0	20.5	21.0	18.5	19.5	21.5	16.5	19.0	18.5	17.0	18.0
16	23.5	16.5	20.0	21.5	18.0	19.5	22.5	19.0	21.0	19.0	17.5	18.0
17	22.5	17.0	19.5	23.0	17.0	20.0	24.0	19.0	21.5	19.0	18.0	18.5
18	22.5	15.5	19.0	24.5	17.5	21.0	23.5	20.0	21.5	18.5	17.0	18.0
19	23.0	17.0	20.0	25.0	19.5	22.5	22.5	17.0	20.0	17.0	16.0	16.5
20	22.5	18.0	20.5	24.0	20.0	22.0	21.0	17.5	19.5	16.5	16.0	16.0
21	21.0	19.0	19.5	25.0	19.5	22.0	22.0	15.5	19.0	16.5	15.5	16.0
22	20.0	18.5	19.5	26.5	20.5	23.5	19.0	17.0	18.0	16.5	15.0	15.5
23	20.0	19.0	19.5	26.5	20.5	23.5	18.5	15.5	17.5	15.5	14.0	15.0
24	23.5	18.0	20.5	26.0	21.5	24.0	17.5	13.5	15.5	16.0	14.5	15.0
25	25.0	18.0	21.0	25.5	21.0	23.5	16.0	12.5	14.5	15.0	13.5	14.0
26	21.0	18.5	19.0	23.5	21.5	22.5	16.5	12.5	15.0	15.0	12.5	13.5
27	22.5	18.0	20.0	26.5	20.5	23.0	16.0	13.5	14.5	16.0	13.0	14.0
28	20.5	16.0	18.5	25.0	18.5	22.0	16.0	15.5	16.0	17.0	14.0	15.0
29	22.5	15.5	19.0	---	---	---	17.0	15.5	16.5	17.0	14.0	15.5
30	23.0	18.0	20.5	24.5	19.0	21.5	18.5	15.0	16.5	16.0	14.5	15.5
31	---	---	---	25.0	20.0	22.5	18.0	15.5	16.5	---	---	---
MONTH	25.0	13.0	18.9	26.5	17.5	21.5	24.5	12.5	18.7	20.5	12.5	16.8

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER LAKE NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County Hydrologic Unit 02040106, on right bank 0 7 mi downstream from Franics E. Walter Lake, 2.0 mi upstream from Fawn Run, and 4 mi northeast of White Haven.

DRAINAGE AREA.--290 mi².

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "below Bear Creek Reservoir," October 1962 to September 1971 published as "below Francis E. Walter Reservoir."

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good, except for estimated daily discharges, which are poor. Flow regulated by Francis E. Walter Lake (station 01447780) 0.7 mi upstream since February 1961. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 625 ft³/s, 29.29 in/yr, adjusted for storage since February 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft³/s, Dec. 21, 1957, gage height, 9.85 ft, from rating curve extended above 6,100 ft³/s; minimum, 1.3 ft³/s, Nov. 14, 1961, result of shutoff at lake; minimum gage height, 1.86 ft, Sept. 16, 1964; minimum daily discharge, 22 ft³/s, July 20-23, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 1955 reached a discharge of 54,200 ft³/s, based on slope-area measurement at site 4.9 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,520 ft³/s, Sept. 15, gage height, 8.14 ft; minimum daily discharge, 73 ft³/s, June 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	247	814	697	349	192	1740	570	272	132	100	816
2	252	245	812	652	347	789	1820	561	156	171	102	915
3	278	212	1140	598	346	1140	1800	487	106	338	102	783
4	570	192	1610	600	349	1010	1040	676	108	416	102	487
5	865	192	1500	596	285	787	1180	789	184	508	193	400
6	443	301	1100	516	e283	595	3650	787	300	387	256	390
7	368	360	943	474	e278	526	5960	663	259	234	255	383
8	329	363	860	475	e270	663	6750	520	184	660	251	272
9	232	653	812	474	e256	1620	6180	481	141	1100	248	699
10	219	924	990	474	e252	1730	3130	478	121	808	324	2750
11	231	856	1080	474	e248	1360	1640	395	140	552	287	2710
12	232	590	962	474	e248	1090	1580	361	303	366	204	1980
13	248	574	771	473	246	815	1540	361	568	188	129	887
14	258	495	759	468	255	697	1500	361	331	195	129	3130
15	363	367	649	398	301	692	1340	327	105	719	129	6870
16	311	372	586	446	369	577	931	313	107	908	129	6390
17	442	417	586	504	370	489	785	313	83	667	103	3770
18	588	452	685	505	359	531	877	492	73	591	85	1990
19	300	470	921	505	294	573	1060	455	83	366	85	2020
20	260	530	1000	555	215	593	1100	399	89	174	85	2060
21	154	1310	974	576	212	593	887	426	91	175	86	3220
22	160	1820	631	413	204	591	793	432	91	146	87	3010
23	223	1290	547	329	277	594	702	432	89	129	87	1880
24	210	1120	605	356	319	673	584	435	140	131	87	1510
25	192	1090	1100	359	240	796	563	479	172	131	86	895
26	192	1100	1750	473	197	406	583	499	230	132	83	765
27	305	1650	1520	437	190	715	785	465	535	205	198	766
28	370	1950	971	416	189	848	667	404	325	251	366	679
29	267	1400	978	353	---	820	572	340	131	248	531	560
30	190	1020	962	351	---	662	572	317	131	188	659	524
31	228	---	803	351	---	1090	---	316	---	111	655	---
TOTAL	9531	22562	29421	14772	7748	24257	52311	14334	5648	11327	6223	53511
MEAN	307	752	949	477	277	782	1744	462	188	365	201	1784
MAX	865	1950	1750	697	370	1730	6750	789	568	1100	659	6870
MEAN‡	310	750	951	476	279	779	1726	461	186	366	222	1776
CFSM‡	1.07	2.59	3.28	1.64	.96	2.76	5.95	1 59	.64	1.26	.77	6 12
IN.‡	1.23	2.89	3.78	1.89	1.00	3.18	6.64	1.83	.72	1.46	88	6 84

CAL YR 1986 TOTAL 262670 MEAN 720 MAX 6040 MIN 81 MEAN‡ 720 CFSM‡ 2.48 IN.‡ 33.69
WTR YR 1987 TOTAL 251645 MEAN 689 MAX 6870 MIN 73 MEAN‡ 690 CFSM‡ 2.38 IN.‡ 32.31

‡ Adjusted for change in contents in Francis Walter Reservoir.
e Estimated

01448500 DILLDOWN CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, Hydrologic Unit 02040106, on left bank 60 ft upstream from bridge on Shucks Mill Road, 2.8 mi upstream from Mud Run, 4 mi northeast of Albrightsville, and 4.4 mi west of Long Pond.

DRAINAGE AREA.--2.39 mi².

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

REVISED RECORDS.--WSP 1392: 1949(M), 1950-53.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,665.07 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of estimated daily discharges which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 4.88 ft³/s, 27.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s, June 14, 1969, gage height, 3.995 ft, from rating curve extended above 300 ft³/s, on basis of culvert and flow-over-dam computations of peak flow; minimum, 0.10 ft³/s, Dec. 10, 1964, gage height, 0.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 4	1345	*428	*3.63	Sept. 13	1215	264	3.17
Sept. 8	2200	77	2.37	Sept. 18	1615	94	2.48

Minimum discharge, 0.55 ft³/s, Aug. 19, 24, 26, gage height 0.86 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	5.1	5.5	e2.2	9.5	13	4.2	1.7	1.2	.89	2.5
2	1.5	1.2	5.8	6.0	e2.2	7.2	8.2	4.2	1.8	1.6	.97	1.1
3	2.1	1.2	17	5.6	e2.1	4.6	7.8	5.4	1.8	2.0	1.0	1.0
4	3.5	1.2	8.2	5.1	e2.1	4.0	132	8.7	2.1	1.1	.88	.92
5	1.7	1.3	6.5	4.5	e2.1	3.9	42	5.5	1.8	1.0	1.3	.92
6	1.5	2.6	5.9	4.4	e2.1	4.0	29	5.1	1.6	.99	1.0	1.1
7	1.4	1.5	5.7	4.4	e2.0	5.7	22	4.8	1.6	1.1	.92	1.9
8	1.4	3.1	5.5	4.1	e2.0	9.2	16	4.7	1.5	3.0	.88	15
9	1.3	3.2	6.9	4.0	e2.0	10	13	3.6	1.5	2.1	.93	18
10	1.3	2.1	10	4.0	e1.9	9.0	11	3.5	1.4	1.2	2.8	4.4
11	1.3	2.6	6.8	4.3	e1.9	e7.2	9.8	3.3	1.3	1.0	.97	3.4
12	1.3	2.6	5.9	3.9	e1.9	e5.9	11	3.3	1.6	3.7	.86	4.1
13	1.4	2.2	5.2	3.6	e1.9	e4.8	11	3.0	1.5	1.7	.81	111
14	2.4	2.0	4.8	3.5	e1.8	e4.1	8.4	3.0	1.3	5.8	.80	28
15	1.5	2.0	4.8	4.8	e1.8	e3.8	7.7	3.1	1.3	3.8	.78	13
16	1.4	2.0	4.7	5.2	e1.8	e3.7	7.2	2.8	1.3	1.5	.76	9.3
17	1.3	2.0	4.6	3.6	e1.8	e3.6	10	2.7	1.2	1.2	.70	12
18	1.3	2.0	12	3.4	e1.8	e3.5	9.8	2.7	1.1	1.2	.68	37
19	1.3	2.3	11	e3.2	e1.7	e3.3	7.4	3.5	1.1	1.1	.68	29
20	1.2	3.6	6.5	3.1	e1.7	e3.4	6.6	3.7	1.1	1.2	.83	17
21	1.2	13	5.6	3.0	e1.7	e3.8	6.2	3.6	1.4	1.1	.67	13
22	1.2	4.4	5.1	e2.8	e1.7	e4.8	5.9	2.9	1.5	1.0	.80	11
23	1.2	3.9	4.9	e2.7	e1.7	5.5	5.6	2.6	1.5	1.0	.69	9.3
24	1.2	6.3	4.9	e2.6	e1.6	5.3	5.8	2.5	1.4	.98	.63	8.2
25	1.2	5.1	20	e2.5	e1.6	5.0	7.4	2.4	1.2	.97	.64	7.3
26	1.9	10	10	e2.5	e1.6	4.8	5.5	2.3	1.2	1.3	.62	6.4
27	1.7	11	7.7	e2.4	e1.6	4.4	5.0	2.2	2.2	1.0	3.6	5.9
28	1.4	7.2	7.0	e2.4	e1.5	4.2	5.5	2.1	1.1	.95	5.2	5.4
29	1.3	6.4	6.6	e2.3	---	4.0	5.4	2.0	1.0	.92	3.4	5.2
30	1.2	5.7	6.4	e2.3	---	5.3	4.6	1.8	1.0	.92	1.1	5.4
31	1.2	---	5.9	e2.2	---	27	---	1.8	---	.98	1.3	---
TOTAL	45.9	114.9	227.0	113.9	51.8	184.5	439.8	107.0	43.1	48.61	38.09	387.74
MEAN	1.48	3.83	7.32	3.67	1.85	5.95	14.7	3.45	1.44	1.57	1.23	12.9
MAX	3.5	13	20	6.0	2.2	27	132	8.7	2.2	5.8	5.2	111
MIN	1.1	1.2	4.6	2.2	1.5	3.3	4.6	1.8	1.0	.92	.62	.92
CFSM	.62	1.60	3.06	1.54	.77	2.49	6.13	1.44	.60	.66	.51	5.41
IN.	.71	1.79	3.53	1.77	.81	2.87	6.85	1.67	.67	.76	.59	6.04

CAL YR 1986 TOTAL 1765.0 MEAN 4.84 MAX 87 MIN 1.0 CFSM 2.02 IN. 27.47
WTR YR 1987 TOTAL 1802.34 MEAN 4.94 MAX 132 MIN .62 CFSM 2.07 IN. 28.05

e Estimated

01449000 LEHIGH RIVER AT LEHIGHTON, PA.

LOCATION.--Lat 40°49'45", long 75°42'20", Carbon County, Hydrologic Unit 02040106, on left bank 190 ft downstream of highway bridge at East Weissport, 0.3 mi upstream from Mahoning Creek.

DRAINAGE AREA.--591 mi^2.

PERIOD OF RECORD.--December 1982 to current year. Daily gage height records, previously referred to as continuous records for water years 1946-1948. Miscellaneous measurements 1977-1978, 1980-1981, and annual maximum 1982.

GAGE.--Water-stage recorder. Datum of gage is 444.26 ft above National Geodetic Vertical Datum of 1929. Prior to December 1982, nonrecording gage at highway bridge 190 ft upstream at same datum.

REMARKS.--Records good, except for periods of estimated daily discharges which are poor. Flow regulated by Francis E. Walter Lake (station 01447780) since February 1961. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 1,380 ft^3/s, 31.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft^3/s, Sept. 27, 1985, gage height, 18.22 ft, from rating curve extended above 16,000 ft^3/s; minimum, 147 ft^3/s, Sept. 15, 1983, and Oct. 8, 9, 1984, gage height, 1.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,100 ft^3/s, Sept. 13, gage height, 12.16 ft; minimum daily discharge, 234 ft^3/s Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	424	1740	1540	759	812	3620	1170	644	336	280	1350
2	499	434	1720	1570	761	1530	3160	1140	577	380	268	1360
3	509	432	2830	1410	774	2130	3060	1120	439	612	282	1260
4	704	382	3000	1330	768	1940	6000	1410	432	686	279	927
5	1260	378	2910	1280	731	1680	5150	1500	434	719	281	695
6	1040	463	2340	1220	626	1420	6180	1430	551	719	465	688
7	531	617	2020	1090	e570	1350	8290	1340	558	501	454	791
8	646	685	1910	1070	e550	1790	9140	1160	552	851	438	1960
9	518	938	1830	1040	e520	2990	8160	1040	461	1680	426	4710
10	414	1300	2140	1030	e500	3350	5730	1020	420	1380	662	4180
11	422	1400	2140	1050	e480	2780	3040	990	372	934	630	4290
12	426	1150	2040	1010	e470	2350	2990	876	418	782	457	3230
13	430	963	1660	982	e460	2060	3030	847	774	542	365	12900
14	512	979	1570	959	e460	1700	2770	826	826	505	306	8490
15	554	757	1500	962	455	1620	2540	826	423	1050	300	10800
16	630	730	1330	991	470	1530	2200	760	336	1450	295	10100
17	495	730	1310	1040	536	1280	1900	744	325	1070	291	7450
18	891	818	1690	1020	e690	1280	1970	e1300	293	904	262	e3800
19	592	920	2240	1040	e580	1270	2040	e1200	278	814	243	e3850
20	505	967	2130	1050	e530	1300	2060	e980	286	485	284	e4200
21	447	2460	2000	1070	e491	1260	1890	927	295	412	265	e6300
22	321	3000	1770	1030	490	1250	1640	893	364	411	262	4870
23	351	2530	1330	832	524	1240	1540	857	442	348	264	3050
24	423	2050	1450	760	640	1240	1410	924	371	326	248	2770
25	377	2120	2530	766	612	1340	1460	880	398	320	243	2000
26	400	2110	3050	848	477	1330	1350	906	396	354	234	1620
27	438	2840	3030	956	470	877	1370	885	662	371	379	1540
28	583	3500	2140	757	467	1420	1470	826	700	437	785	1440
29	576	2580	2040	816	---	1350	1250	748	438	439	1180	1250
30	413	2280	1970	795	---	1290	1220	673	330	426	1090	1130
31	378	---	1830	792	---	2480	---	657	---	341	992	---
TOTAL	16770	40937	63190	32106	15861	51239	97630	30855	13795	20585	13210	113001
MEAN	541	1365	2038	1036	566	1653	3254	995	460	664	426	3767
MAX	1260	3500	3050	1570	774	3350	9140	1500	826	1680	1180	12900
MIN	321	378	1310	757	455	812	1220	657	278	320	234	688

CAL YR 1986 TOTAL 507004 MEAN 1389 MAX 11000 MIN 252
WTR YR 1987 TOTAL 509179 MEAN 1395 MAX 12900 MIN 234

e Estimated

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi downstream from Middle Creek, and 13 mi northeast of Lehighton.

DRAINAGE AREA.--49.9 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of estimated daily discharge which are poor.

AVERAGE DISCHARGE.--21 years, 105 ft³/s, 28.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s, July 29, 1969, gage height, 9.21 ft, from rating curve extended above 800 ft³/s; minimum, 9.2 ft³/s, Sept. 7, 1985, gage height, 2.70 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 5	0145	1370	7.58	Sept. 8	2400	*1860	*8.49
Jul. 15	0130	1150	7.11	Sept. 13	1515	1060	6.91

Minimum discharge, 20 ft³/s, Jul. 4, gage height, 2.89 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	27	151	137	e68	159	147	88	44	27	47	55
2	38	26	152	141	e67	212	119	86	47	31	46	41
3	35	26	270	133	e66	183	119	101	47	46	46	36
4	51	27	210	121	e65	160	626	110	48	29	43	32
5	46	29	188	112	e64	142	940	90	46	27	52	30
6	34	53	170	107	e62	135	538	85	41	27	52	34
7	31	38	155	104	e61	152	407	80	42	27	43	71
8	29	63	144	100	e60	179	338	78	42	89	41	362
9	29	69	151	95	e58	197	290	76	42	58	40	1270
10	28	57	172	96	e57	191	227	73	38	40	73	448
11	27	69	146	106	e56	171	196	71	36	35	45	268
12	28	77	138	95	e55	156	186	70	39	42	39	215
13	28	66	131	89	e54	144	180	68	40	45	37	764
14	41	60	121	85	e53	133	151	67	35	396	36	784
15	33	58	119	93	e52	123	138	68	32	694	34	453
16	29	57	116	101	e51	115	130	64	31	250	34	333
17	28	55	113	90	e50	108	141	61	29	155	31	308
18	28	55	162	90	e50	103	141	59	30	120	31	308
19	26	87	175	e88	e49	98	124	64	29	102	29	296
20	26	85	145	e86	e48	95	116	65	29	90	32	250
21	26	283	140	e84	e47	91	111	64	31	83	29	226
22	26	221	132	80	e46	88	109	59	36	75	32	206
23	26	171	126	e80	e45	84	104	57	37	68	31	187
24	26	161	127	e78	e44	81	109	63	31	63	27	169
25	26	140	332	e77	e43	77	134	55	29	60	26	154
26	36	190	265	e76	e42	76	105	53	28	62	26	141
27	39	275	232	e75	e42	73	98	54	48	59	62	131
28	32	244	203	e73	e41	72	99	52	30	54	75	123
29	29	205	181	e72	---	70	99	49	27	49	74	116
30	28	171	164	e70	---	73	94	47	29	49	46	113
31	26	---	150	e69	---	159	---	46	---	51	40	---
TOTAL	961	3145	5181	2903	1496	3900	6316	2123	1093	3003	1299	7924
MEAN	31.0	105	167	93.6	53.4	126	211	68.5	36.4	96.9	41.9	264
MAX	51	283	332	141	68	212	940	110	48	694	75	1270
MIN	26	26	113	69	41	70	94	46	27	27	26	30
CFSM	.62	2.10	3.35	1.88	1.07	2.52	4.22	1.37	.73	1.94	.84	5.29
IN.	.72	2.34	3.86	2.16	1.12	2.91	4.71	1.58	.81	2.24	.97	5.91

CAL YR 1986 TOTAL 38002 MEAN 104 MAX 1050 MIN 26 CFSM 2.09 IN. 28.33
WTR YR 1987 TOTAL 39344 MEAN 108 MAX 1270 MIN 26 CFSM 2.16 IN. 29.33

e Estimated

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1968 to September 1970, May 1971 to current year.

INSTRUMENTATION.--Temperature recorder October 1970, May 1971 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.5°C July 25, 1970; minimum, freezing point on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum 23.5°C, July 11; minimum, 0.0°C, many days during winter period.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01449360 POHOPOCO CREEK AR KRESGEVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	17.5	19.5	21.5	20.0	20.5	20.5	17.5	19.0	16.0	15.0	15.5
2	20.0	18.0	19.5	20.0	17.5	19.0	19.0	18.0	18.5	15.5	13.5	14.5
3	18.5	16.5	17.5	20.5	17.5	19.0	20.5	18.0	19.0	16.5	14.0	15.0
4	16.5	15.5	16.0	21.5	19.0	20.0	21.5	19.0	20.0	15.5	13.0	14.5
5	18.5	15.0	16.5	22.0	18.5	20.5	20.5	19.0	19.5	15.5	13.5	14.5
6	18.0	15.5	16.5	21.5	19.0	20.0	19.0	18.0	18.5	15.5	14.5	15.0
7	16.5	14.5	15.5	20.0	18.5	19.0	20.0	18.0	18.5	17.5	15.0	16.0
8	19.0	15.5	17.0	20.5	18.0	19.5	20.5	18.0	19.5	19.0	16.5	17.5
9	19.0	17.5	18.0	21.5	19.5	20.5	20.0	18.5	19.5	18.5	17.0	17.5
10	18.5	15.5	17.0	21.5	20.5	21.0	20.0	18.0	18.5	17.0	16.0	16.5
11	17.5	14.0	16.0	23.5	20.0	21.5	19.0	16.5	18.0	16.5	15.5	16.0
12	16.0	15.0	15.5	23.0	21.5	22.0	19.5	16.5	18.0	16.5	16.0	16.0
13	19.0	15.5	17.0	22.5	20.5	21.5	19.5	16.5	18.0	17.0	16.5	17.0
14	20.0	16.5	18.0	22.0	20.5	21.5	19.5	16.5	18.0	16.5	15.5	16.0
15	22.0	18.0	20.0	20.5	17.0	18.0	20.0	17.5	18.5	15.5	14.5	15.0
16	21.5	18.5	20.0	17.5	16.5	17.0	21.5	18.0	19.5	16.0	14.5	15.5
17	21.0	18.0	19.5	17.5	15.5	17.0	21.5	19.0	20.0	17.0	16.0	16.5
18	20.5	16.5	18.5	18.5	16.0	17.5	22.5	20.0	21.0	17.0	15.5	16.5
19	21.5	18.0	19.5	20.0	17.5	19.0	21.0	18.5	20.0	15.5	14.0	14.5
20	21.5	19.0	20.5	20.5	18.5	19.5	20.5	18.5	19.5	14.5	14.0	14.0
21	20.5	19.0	19.5	20.5	18.0	19.5	19.5	17.0	18.5	15.0	14.0	14.5
22	19.0	15.0	18.5	22.0	19.0	20.5	18.5	17.0	18.0	14.5	14.0	14.5
23	20.0	18.0	19.0	22.0	19.0	21.0	18.0	16.5	17.5	14.0	13.0	13.5
24	22.0	18.0	20.0	22.0	20.0	21.0	16.5	14.5	15.5	14.0	13.0	13.5
25	22.0	19.0	20.5	21.5	20.0	20.5	15.0	13.5	14.5	13.5	12.0	12.5
26	20.5	18.0	19.0	21.0	19.5	20.0	16.0	13.5	15.0	12.5	10.5	11.5
27	19.5	17.0	18.5	20.5	18.5	19.5	15.5	15.0	15.0	13.5	11.0	12.0
28	19.5	17.5	18.5	20.0	17.5	19.0	15.5	15.0	15.0	14.0	12.0	13.5
29	20.5	16.0	18.0	19.5	17.0	18.5	17.0	15.0	16.0	14.5	12.5	13.5
30	22.0	18.5	20.0	19.0	17.0	18.0	16.5	14.5	15.5	14.5	13.5	14.0
31	---	---	---	20.5	18.5	19.5	17.0	14.5	15.5	---	---	---
MONTH	22.0	14.0	18.5	23.5	15.5	19.5	22.5	13.5	18.0	19.0	10.5	15.0

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi upstream from Sawmill Run, 0.45 mi downstream from Beltzville Dam, 1.3 mi upstream from Bull Run, and 2.3 mi northeast of Parryville.

DRAINAGE AREA.--96.4 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) and Penn Forest Reservoir (station 01449400), 7.3 mi and 10.0 mi upstream, respectively, and Beltzville Lake (station 01449790), 0.45 mi upstream. Figures of daily discharge do not include diversion from Wild Creek Reservoir to city of Bethlehem. Diversion from Tunkhannock Creek to Wild Creek basin above station since October 1969.

AVERAGE DISCHARGE.--20 years, 196 ft³/s, 27.62 in/yr, adjusted for storage and diversion 1968-1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s, May 8, 1973, gage height, 5.59 ft; minimum, 0.90 ft³/s, Oct. 11, 12, 1969, gage height, 2.12 ft, result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s, Apr. 8, gage height, 5.21 ft; minimum daily, 28 ft³/s, Oct. 30, 31, Nov. 1, 2, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	28	216	191	95	58	231	158	60	36	46	56
2	41	28	195	267	95	256	231	97	60	36	46	56
3	58	29	356	187	95	430	184	97	60	36	46	43
4	67	28	429	187	95	312	161	224	75	35	46	34
5	66	29	299	147	80	170	650	241	81	35	46	32
6	47	75	220	119	60	167	1310	131	80	89	79	33
7	38	63	227	151	54	184	1290	95	81	62	78	33
8	32	46	173	152	54	184	1370	95	54	113	68	238
9	29	46	219	120	84	283	1410	95	41	113	68	549
10	29	116	253	111	97	330	541	95	41	55	68	1100
11	29	132	171	111	97	275	212	95	41	36	68	1010
12	29	169	138	111	77	207	253	90	41	37	49	733
13	29	98	114	111	77	207	298	87	41	36	34	481
14	66	48	114	111	84	207	468	87	41	40	31	671
15	54	48	186	111	84	207	402	87	41	582	31	1140
16	41	48	223	111	84	151	291	87	41	935	32	1210
17	33	109	165	111	58	111	244	87	41	445	32	1210
18	29	108	129	111	46	128	244	87	34	173	32	1110
19	29	153	210	111	46	138	244	87	30	153	32	633
20	29	127	249	183	69	108	236	87	31	55	32	394
21	29	311	249	135	80	92	196	87	32	40	32	261
22	29	434	198	106	80	92	180	87	32	65	32	237
23	29	309	142	124	63	92	180	87	73	77	32	501
24	29	236	182	129	56	131	180	87	70	77	32	851
25	29	196	184	129	56	127	180	87	44	77	32	780
26	29	252	221	76	56	80	180	87	36	77	32	696
27	29	377	249	54	56	102	180	64	37	56	36	691
28	29	430	249	84	56	114	180	40	36	46	77	625
29	29	324	372	95	---	114	133	48	36	46	95	311
30	28	258	430	95	---	114	134	60	36	46	95	153
31	28	---	320	95	---	178	---	60	---	46	68	---
TOTAL	1132	4655	7082	3936	2034	5349	11993	3003	1447	3755	1527	15872
MEAN	36.5	155	228	127	72.6	173	400	96.9	48.2	121	49.3	529
MAX	67	434	430	267	97	430	1410	241	81	935	95	1210
MIN	28	28	114	54	46	58	133	40	30	35	31	32

CAL YR 1986 TOTAL 55516 MEAN 152 MAX 1320 MIN 28
WTR YR 1987 TOTAL 61785 MEAN 169 MAX 1410 MIN 28

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1968 to current year.

INSTRUMENTATION.--Temperature recorder October 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.5°C on several days during July, August 1970; minimum, freezing point December 9, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 19.5°C, Aug. 18; minimum, 1.5°C, Jan. 26-29.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	14.5	13.0	13.5	17.5	16.0	16.5	14.0	13.5	14.0
2	14.0	13.0	13.5	13.0	13.0	13.0	16.5	16.0	16.5	14.5	13.5	14.0
3	13.0	13.0	13.0	15.0	13.0	13.5	17.5	16.0	16.5	15.5	13.0	14.0
4	13.0	13.0	13.0	14.5	13.0	13.5	18.0	16.0	17.0	15.5	13.0	14.0
5	14.0	13.0	13.5	15.5	13.0	14.0	16.5	16.5	16.5	14.5	13.5	14.0
6	14.0	13.0	13.5	13.5	13.0	13.5	17.0	16.5	16.5	14.0	13.5	14.0
7	---	---	---	13.5	13.5	13.5	17.5	16.5	17.0	14.0	13.5	13.5
8	---	---	---	13.5	13.5	13.5	17.5	16.5	17.0	15.0	13.5	14.0
9	---	---	---	14.0	13.5	14.0	17.0	16.5	17.0	14.0	12.0	13.0
10	---	---	---	14.5	13.5	14.0	17.5	16.5	17.0	12.0	12.0	12.0
11	---	---	---	15.0	13.5	14.0	18.0	16.5	17.0	14.0	12.0	13.0
12	---	---	---	---	---	---	19.0	16.5	17.0	14.0	14.0	14.0
13	12.5	10.5	11.0	---	---	---	19.0	16.0	17.0	17.0	14.0	15.5
14	13.0	10.5	11.5	---	---	---	19.0	16.0	17.0	17.0	13.5	15.0
15	13.5	10.5	11.5	---	---	---	18.5	16.5	17.0	13.5	13.5	13.5
16	13.0	10.5	11.5	---	---	---	19.0	16.5	17.5	13.5	13.5	13.5
17	13.5	10.5	11.5	---	---	---	18.5	16.5	17.0	14.0	13.5	14.0
18	14.5	10.5	12.0	---	---	---	19.5	16.5	17.5	15.5	14.0	14.5
19	14.0	10.5	11.5	---	---	---	19.0	16.5	17.0	17.5	15.5	16.5
20	13.5	10.5	11.5	---	---	---	18.5	16.5	17.0	17.5	17.0	17.0
21	11.5	11.0	11.0	---	---	---	19.0	16.5	17.0	17.0	17.0	17.0
22	13.0	11.0	11.5	17.0	15.5	16.0	17.5	16.5	17.0	17.0	17.0	17.0
23	11.5	10.5	11.0	17.0	15.5	16.0	17.5	16.5	17.0	17.0	15.0	16.0
24	13.0	10.5	11.5	16.5	16.0	16.5	18.0	16.5	17.0	16.0	15.5	15.5
25	13.5	11.0	11.5	16.5	16.0	16.5	17.5	16.0	16.5	16.0	16.0	16.0
26	11.0	11.0	11.0	16.5	16.0	16.5	17.5	13.5	15.0	16.5	16.0	16.0
27	14.0	11.0	11.5	17.5	16.0	16.5	13.5	13.5	13.5	16.5	16.5	16.5
28	13.5	10.5	11.5	18.0	16.0	16.5	13.5	13.5	13.5	16.5	16.5	16.5
29	14.0	10.5	11.5	17.5	16.0	16.5	14.0	13.5	13.5	17.0	16.5	16.5
30	14.5	11.0	12.5	18.0	16.0	16.5	14.0	13.5	13.5	16.5	16.5	16.5
31	---	---	---	18.0	16.0	16.5	14.0	13.5	13.5	---	---	---
MONTH	14.5	10.5	12.0	18.0	13.0	15.0	19.5	13.5	16.5	17.5	12.0	15.0

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 ft upstream from Sixth Street Bridge in Palmerton, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--76.7 mi².

PERIOD OF RECORD.--October 1939 to current year.
REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), drainage area. WSP 2102: 1967 (monthlv net diversion).

GAGE.--Water-stage recorder. Datum of gage is 389.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except periods of estimated daily discharges which are poor. Occasional diversion from Pohopoco Creek into Aquashicola Creek above station.

AVERAGE DISCHARGE.--48 years, 152 ft³/s, 26.93 in/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s July 10, 1945 gage height 13.63 ft from rating curve extended above 2,500 ft³/s on basis of contracted-opening measurement of peak flow minimum, 2.6 ft³/s Sept. 12, 1957, from rating curve extended below 16 ft³/s; minimum gage height, 2.44 ft Sept 16, 1964; minimum daily discharge, 9.1 ft³/s Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s/ and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 5	0115	2230	7.35	Sept. 9	0215	*9540	*12.57
July 14	2200	1800	6.85	Sept. 13	Unknown	4000e	Unknown

Minimum daily discharge, 31 ft³/s, Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	41	207	194	87	287	200	127	67	38	67	76
2	36	41	196	191	89	493	176	122	68	44	65	68
3	31	41	347	176	93	394	170	123	64	59	66	63
4	39	41	345	157	92	311	838	149	63	45	61	59
5	35	43	295	141	89	253	1480	127	64	42	68	57
6	38	67	249	132	86	225	827	120	56	40	76	62
7	54	57	221	127	88	231	693	113	54	39	64	103
8	53	69	199	122	91	285	553	108	54	57	58	865
9	52	90	201	114	91	340	437	105	57	50	57	e3000
10	50	92	216	114	85	320	359	102	51	45	94	e800
11	47	115	189	132	83	271	308	98	48	42	68	e400
12	47	140	188	118	84	242	279	94	50	62	61	e320
13	48	136	181	110	82	221	265	89	51	69	57	e1000
14	56	119	169	106	78	200	225	86	46	646	56	e1010
15	52	108	157	110	71	181	202	88	45	865	54	651
16	47	101	149	131	e72	163	185	85	44	319	52	452
17	46	92	140	138	73	151	193	82	42	198	52	398
18	45	87	228	142	72	139	192	79	40	157	52	395
19	44	118	396	153	69	132	170	82	40	149	48	375
20	43	116	268	142	66	125	158	88	39	128	47	358
21	43	554	273	130	65	119	153	83	39	115	46	316
22	42	461	234	116	66	113	148	76	62	112	48	280
23	42	329	209	e100	e65	107	140	73	50	103	47	247
24	41	273	196	e98	e66	102	143	85	44	96	45	221
25	41	228	526	e95	67	98	177	76	40	88	44	197
26	47	266	502	e92	66	95	146	71	39	92	43	175
27	53	427	385	86	67	91	139	69	57	89	72	159
28	47	387	319	94	67	90	142	66	45	80	115	148
29	44	303	271	94	---	85	144	63	41	72	112	136
30	42	249	240	93	---	87	137	64	39	71	80	132
31	41	---	216	93	---	176	---	68	---	70	70	---
TOTAL	1383	5191	7912	3841	2170	6127	9379	2861	1499	4082	1945	12523
MEAN	44.6	173	255	124	77.5	198	313	92.3	50.0	132	62.7	417
MAX	56	554	526	194	93	493	1480	149	68	865	115	3000
MIN	31	41	140	86	65	85	137	63	39	38	43	57
†	-4.5	-5.2	-5.0	-5.0	-4.4	-4.4	-4.3	-4.1	-3.9	-4.0	-3.7	
MEAN‡	40.1	168	250	119	71.9	194	309	88.0	45.9	128	58.7	413
CFSM‡	.52	2.19	3.26	1.55	1.94	2.53	4.03	1.15	60	.67	.77	5.39
IN.‡	.60	2.44	3.76	1.79	1.98	2.92	4.50	1.32	.67	1.92	.88	6.01

CAL YR 1986 TOTAL 53128 MEAN 146 MAX 1800 MIN 31 MEAN‡ 141 CFSM‡ 1.84 IN.‡ 24.96
WTR YR 1987 TOTAL 58913 MEAN 161 MAX 3000 MIN 31 MEAN‡ 156 CFSM‡ 2.03 IN.‡ 27.62

† Figures of net diversion, equivalent in cubic feet per second, include water diverted from Pohopoco Creek to Aquashicola Creek plus water diverted above station from Aquashicola Creek, furnished by Palmer Water Company.
‡ Adjusted for diversion.
e Estimated

01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi upstream from highway bridge at Walnutport, and 0.4 mi upstream from Trout Creek.

DRAINAGE AREA.--889 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated record which are poor. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Lake (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 1,870 ft³/s, 28.56 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,800 ft³/s, Aug. 19, 1955, gage height, 17.68 ft; minimum, 57 ft³/s, July 27, 1965, gage height, 1.25 ft, result of upstream shutoff.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft May 23, 1942, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,200 ft³/s, Sept. 13, gage height, 10.56 ft; minimum daily, 311 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	523	444	2700	2360	e1100	1830	4980	1780	735	396	381	1380
2	534	459	2610	2500	1060	3500	4250	1630	685	426	364	1420
3	552	457	4860	2180	1080	4100	4070	1630	572	626	380	1270
4	756	427	4990	1980	1040	3480	8680	2160	554	709	374	952
5	1350	426	4570	1820	965	2820	9820	2280	574	709	377	684
6	1170	614	3620	1660	831	2360	10100	2040	629	773	527	689
7	597	725	3120	1530	e790	2310	12000	1870	676	605	549	945
8	662	847	2850	1500	e760	2920	12900	1640	638	915	511	4180
9	561	1170	2820	1390	e720	4410	11700	1490	566	1960	501	14400
10	470	1690	3250	1370	e710	5030	8550	1450	490	1610	911	7820
11	456	2000	3070	1420	e690	4140	4490	1400	446	992	721	7190
12	462	1890	2870	1350	e680	3450	4420	1250	474	856	546	5370
13	472	1460	2410	1280	e670	3050	4470	1170	783	670	448	18800
14	585	1290	2230	1240	e670	2570	4230	1140	894	1660	372	13600
15	623	1040	2220	1280	e670	2410	3860	1150	555	2860	362	13900
16	662	950	2040	1380	e670	2190	3330	1040	408	3090	357	12900
17	540	977	1910	1460	e900	1770	2910	996	394	2010	352	10200
18	818	1090	2690	1450	1080	1730	2960	976	369	1250	335	7110
19	666	1540	3900	1510	e950	1720	2920	1400	341	1140	316	6660
20	519	1480	3610	1580	809	1710	2930	1260	345	676	337	5790
21	473	4960	3260	1560	669	1620	2710	1290	354	536	328	5800
22	390	5290	2890	1430	646	1570	2380	1190	510	537	332	6810
23	388	4250	2110	1360	700	1550	2280	1110	552	494	334	4760
24	443	3290	2260	1340	754	1570	2140	1240	493	460	320	4800
25	423	3200	4400	e1300	738	1720	2310	1130	451	447	313	3850
26	455	3330	4890	e1400	628	1700	2080	1150	441	518	311	3170
27	501	4890	4710	e1450	614	979	2020	1100	745	509	427	3020
28	582	5460	3540	e1300	612	1820	2220	979	770	493	859	2830
29	588	4100	3340	e1250	---	1650	1900	871	535	498	1370	2270
30	470	3530	3250	e1200	---	1610	1800	792	395	492	1200	1800
31	414	---	2960	e1150	---	3140	---	750	---	441	1030	---
TOTAL	18105	63276	99950	46980	22206	76429	145410	41354	16374	29358	15845	174370
MEAN	584	2109	3224	1515	793	2465	4847	1334	546	947	511	5812
MAX	1350	5460	4990	2500	1100	5030	12900	2280	894	3090	1370	18800
MIN	388	426	1910	1150	612	979	1800	750	341	396	311	684

CAL YR 1986 TOTAL 741709 MEAN 2032 MAX 17900 MIN 335
WTR YR 1987 TOTAL 749657 MEAN 2054 MAX 18800 MIN 311

e Estimated

01451420 LITTLE LEHIGH CREEK NEAR EAST TEXAS, PA

LOCATION.--Lat 40°31'59", long 75°32'9", Lehigh County, on right bank 300 ft. upstream from bridge on Mill Creek Road, on Seem Road, 0.8 mi southeast of East Texas.

DRAINAGE AREA.--51.2 mi².

PERIOD OF RECORD.--November 1986 to September 1987.

GAGE.--Water-stage recorder. Altitude of gage is 360 ft. from topographic map.

REMARKS.--Records good. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,330 ft³/s, Sept. 9, 1987, gage height, 6.97 ft; minimum daily discharge, 9.5 ft³/s, Aug. 21, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,330 ft³/s, Sept. 9, gage height, 6.97 ft; minimum daily discharge, 9.5 ft³/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	39	44	42	144	47	36	25	24	13	20
2	---	---	42	48	43	290	37	36	25	30	14	16
3	---	---	96	46	44	138	35	37	25	30	14	15
4	---	---	60	43	45	82	127	50	25	25	14	14
5	---	---	50	41	44	55	126	42	24	19	16	14
6	---	---	46	41	43	51	103	38	23	19	19	16
7	---	---	44	41	43	56	75	36	22	19	15	23
8	---	---	43	40	43	64	63	34	22	22	14	230
9	---	---	47	39	42	62	56	33	23	20	14	1760
10	---	---	50	40	41	52	51	31	23	20	26	152
11	---	---	43	44	41	48	48	30	22	19	16	56
12	---	---	42	40	41	47	48	31	24	18	14	43
13	---	---	40	39	41	46	54	31	25	19	13	71
14	---	22	37	39	40	46	48	31	25	26	13	64
15	---	22	37	42	39	45	46	35	24	42	13	46
16	---	22	37	43	38	43	44	33	24	21	13	41
17	---	21	36	39	38	42	50	31	23	18	13	49
18	---	22	55	38	38	41	54	31	23	18	12	68
19	---	34	69	43	38	41	45	33	23	17	9.8	96
20	---	28	44	44	38	40	43	37	22	18	9.9	57
21	---	120	40	43	38	39	42	37	23	17	9.5	53
22	---	61	39	45	38	38	41	33	31	16	10	72
23	---	48	38	47	40	37	40	32	40	15	10	54
24	---	46	38	45	39	37	41	32	26	14	9.7	46
25	---	43	158	44	37	37	53	30	25	14	9.6	42
26	---	48	81	44	37	36	43	29	24	19	9.6	40
27	---	64	61	44	37	36	39	27	25	18	14	38
28	---	47	54	43	36	36	39	27	24	14	15	36
29	---	44	49	43	---	34	38	26	23	13	15	38
30	---	41	47	43	---	34	37	26	23	13	14	38
31	---	---	45	43	---	57	---	25	---	13	13	---
MEAN	---	---	51.8	42.5	40.1	59.8	53.8	32.9	24.5	19.7	13.4	110
MAX	---	---	158	48	45	290	127	50	40	42	26	1760
MIN	---	---	36	38	36	34	35	25	22	13	9.5	14

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi upstream from Cedar Creek, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--80.8 mi².

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "at Allentown."

REVISED RECORDS.--WDR PA-73-1: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M); WDR PA-87-1: 1946 to 1986 (P).

GAGE.--Water-stage recorder and, since September 1958, masonry control. Datum of gage is 253.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Occasional regulation at low flow by fish hatchery above station. Several observation of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 99.6 ft³/s, 16.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s, June 22, 1972, gage height, 11.80 ft, from rating curve extended above 980 ft³/s on basis of slop-area measurement of peak flow; minimum, 17 ft³/s, Feb. 4, 1965, result of upstream shutoff; minimum gage height, 1.39 ft June 17, 18, 22, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum(*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 8	Unknown	*5970	*8.34

No other peaks above base discharge.

Minimum daily discharge, 48 ft³/s, Aug. 26.

REVISIONS.--The peak discharges above 900 cfs and annual maximum (*) reported for water years 1946 to 1986 have been revised as shown in the following table. They supersede figures published in the reports for 1946 to 1986.

Date	Discharge (ft³/s)	Gage height (ft)	Date	Discharge (ft³/s)	Gage height (ft)
Aug. 18, 1946	2010	5.14	Oct. 19, 1975	908	3.90
June 20, 1948	1060	4.10	Jan. 28, 1976	1820	4.95
Feb. 07, 1951	1900	5.03	Mar. 22, 1977	1350	4.44
Nov. 22, 1952	1160	4.22	Feb. 25, 1977	1180	4.25
Aug. 18, 1955	3120	6.17	Jan. 26, 1978	6000	8.36
Oct. 15, 1955	2340	5.46	Oct. 16, 1977	1000	4.02
Feb. 28, 1958	3280	6.30	Jan. 9, 1978	1220	4.29
Jan. 22, 1958	1170	4.23	Mar. 15, 1978	1610	4.73
Sept. 12, 1960	1090	4.14	Mar. 16, 1978	939	3.94
Feb. 27, 1962	1840	4.97	Mar. 27, 1978	1340	4.43
Mar. 12, 1962	1230	4,31	Jan. 25, 1979	9790	10.76
Mar. 6, 1963	2260	5.39	Jan. 22, 1979	1560	4.68
Feb. 8, 1965	1860	4.99	Feb. 24, 1979	2050	5.18
July 28, 1969	5030	7.67	Feb. 26, 1979	4020	6.91
Apr. 2, 1970	1210	4.28	Sept. 6, 1979	924	3.92
Feb. 13, 1971	4880	7.56	Mar. 21, 1980	1060	4.10
Aug. 3, 1971	1730	4.86	Aug. 9, 1982	2680	5.78
Aug. 28, 1971	1400	4.50	May 31, 1982	2300	5.43
Sept. 13, 1971	1150	4.21	Apr. 16, 1983	1400	4.50
June 22, 1972	11,800	11.80	Dec. 13, 1984	2670	5.77
May 31, 1972	1060	4.10	Apr. 5, 1984	1590	4.71
June 29, 1973	4330	7.15	May 4, 1984	962	3.97
Feb. 3, 1973	1190	4.26	May 30, 1984	2690	5.79
Dec. 21, 1973	1450	4.56	June 25, 1984	4220	7.06
Dec. 8, 1974	1100	4.15	July 7, 1984	5370	7.92
Sept. 24, 1975	977	3.99	Sept. 27, 1985	3050	6.11
Jan. 27, 1976	3420	6.42	Aug. 17, 1986	2330	5.45

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	61	88	119	102	279	145	104	73	79	59	67
2	68	62	98	133	104	274	114	101	76	90	58	58
3	68	61	200	130	114	189	107	111	75	84	58	54
4	71	61	136	120	114	158	330	146	78	72	59	53
5	69	70	113	114	109	138	261	125	82	68	71	53
6	65	114	103	111	104	134	260	114	77	66	73	56
7	62	73	99	112	103	141	208	109	74	65	62	69
8	62	91	96	110	105	151	172	103	74	69	59	e1030
9	62	84	116	108	101	144	153	100	81	68	59	e2290
10	61	71	128	115	94	128	142	96	75	66	132	e253
11	61	94	108	131	98	120	135	90	73	63	69	144
12	61	103	105	118	100	119	139	89	73	70	62	115
13	63	75	99	113	97	117	160	86	73	68	59	184
14	69	69	90	113	91	113	136	86	71	169	57	152
15	68	67	91	122	89	111	129	101	69	141	56	113
16	66	67	89	129	89	107	126	93	68	79	55	104
17	64	66	90	116	90	105	139	85	67	70	55	122
18	64	72	191	115	90	104	145	83	67	67	54	160
19	63	140	192	138	88	103	127	86	66	65	54	170
20	62	117	129	140	86	102	121	104	66	65	53	127
21	62	283	118	123	86	101	119	98	71	64	53	117
22	62	139	111	117	86	100	116	89	156	64	55	140
23	61	107	109	117	93	98	113	88	137	62	54	116
24	61	103	116	112	91	98	117	85	81	61	53	106
25	61	95	355	111	89	97	150	81	73	63	52	99
26	71	140	201	108	88	96	120	81	70	87	52	95
27	73	158	152	105	85	95	113	79	75	72	72	92
28	67	111	140	105	85	98	112	79	71	64	69	89
29	64	100	131	104	---	96	111	78	67	61	67	87
30	62	93	127	104	---	102	107	76	66	59	59	87
31	61	---	124	105	---	190	---	73	---	60	55	---
TOTAL	2001	2947	4045	3618	2671	4008	4427	2919	2325	2301	1905	6402
MEAN	64.5	98.2	130	117	95.4	129	148	94.2	77.5	74.2	61.5	213
MAX	73	283	355	140	114	279	330	146	156	169	132	2290
MIN	61	61	88	104	85	95	107	73	66	59	52	53
CFSM	.80	1.22	1.61	1.44	1.18	1.60	1.83	1.17	.96	.92	.76	2.64
IN.	.92	1.36	1.86	1.67	1.23	1.85	2.04	1.34	1.07	1.06	.88	2.95

CAL YR 1986 TOTAL 41073 MEAN 113 MAX 578 MIN 61 CFSM 1.39 IN. 18.91
WTR YR 1987 TOTAL 39569 MEAN 108 MAX 2290 MIN 52 CFSM 1.34 IN. 18.22

e Estimated

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE, ALLENTOWN, PA.

LOCATION.--Lat 40°35'47", long 75°28'28", Lehigh County, Hydrologic Unit 02040106, on left bank at the Tenth Street Bridge, 0.9 mi upstream from confluence with Jordan Creek in Allentown, Pa.

DRAINAGE AREA.--98.2 mi^2.

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Datum of gage is 245.63 ft. above National Geodetic Vertical Datum.

REMARKS.--Records good except for periods of estimated record which are poor. Diversion for municipal water supply by city of Allentown. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,370 ft^3/s, Sept. 9, 1987, gage height, 9.47 ft; minimum daily discharge, 46 ft^3/s, Aug. 21, 26, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,370 ft^3/s, Sept. 9, gage height, 9.47 ft; mimimum daily, 46 ft^3/s, Aug. 21, 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e69	e60	108	145	e106	354	166	138	78	118	58	77
2	e70	e61	125	161	e104	342	122	122	82	129	57	56
3	e70	e61	274	155	122	230	118	136	84	101	57	52
4	e71	e62	170	142	128	182	513	187	87	81	53	52
5	e70	e80	135	135	114	148	327	146	85	75	71	54
6	e67	e130	124	128	117	146	329	130	80	64	77	69
7	e65	80	120	124	117	155	252	116	81	67	63	107
8	e63	123	118	e120	117	168	204	115	76	76	56	e2000
9	e62	105	155	e115	113	161	183	114	88	68	72	e5200
10	e61	84	166	138	107	138	172	111	77	68	203	361
11	60	118	132	159	110	136	161	107	73	67	66	159
12	63	120	133	138	110	129	166	101	77	93	60	129
13	59	90	123	129	108	130	197	100	76	70	58	269
14	66	73	115	130	103	127	164	102	72	269	56	193
15	67	78	117	133	102	124	144	119	67	183	54	e140
16	57	78	115	148	100	121	150	107	65	90	55	e130
17	53	78	e110	132	101	121	172	103	63	68	51	165
18	61	92	210	135	101	113	176	106	62	70	49	218
19	60	203	242	173	98	118	153	97	62	66	50	217
20	60	161	154	167	98	109	147	124	63	64	55	153
21	55	419	137	132	97	111	139	118	80	63	46	e140
22	51	167	127	131	96	112	130	106	220	62	55	e180
23	59	123	123	e125	110	e110	125	106	160	59	53	e140
24	53	126	143	e122	108	e108	136	101	82	65	47	119
25	54	109	525	e120	102	107	177	97	71	54	47	118
26	74	188	251	e118	95	107	136	95	72	118	46	114
27	72	207	188	e116	94	105	129	94	91	74	90	110
28	60	136	166	e114	100	111	130	88	79	60	81	108
29	55	129	157	e112	---	102	127	88	67	56	92	106
30	e58	115	149	e110	---	117	130	87	60	55	57	109
31	e59	---	147	e108	---	232	---	80	---	63	51	---
TOTAL	1924	3656	5059	4115	2978	4574	5375	3441	2480	2616	1986	11045
MEAN	62.1	122	163	133	106	148	179	111	82.7	84.4	64.1	368
MAX	74	419	525	173	128	354	513	187	220	269	203	5200
MIN	51	60	108	108	94	102	118	80	60	54	46	52
†	22.3	19.4	15.8	19.6	16.8	17.6	16.7	18.5	23.4	25.1	24.1	20.6
MEAN‡	84.4	141	179	153	123	166	196	130	106	110	88.2	389
CFSM‡	.86	1.44	1.82	1.56	1.25	1.69	1.99	1.32	1.08	1.12	.90	3.96
IN‡	.99	1.60	2.10	1.80	1.31	1.95	2.22	1.53	1.21	1.29	1.04	4.42

WTR YR 1987 TOTAL 49249 MEAN 135 MAX 5200 MIN 46 CFSM 1.37 IN. 18.66

† Diversion, equivalent in cubic feet per second, for Municipal Water Supply, furnished by City of Allentown.
‡ Adjusted for diversion.
e Estimated

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi downstream from Mill Creek, and 1.1 mi southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 2, 1973, nonrecording gage at bridge 54 ft upstream at same datum.

REMARKS.--Records good except for periods of estimated record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 92.6 ft³/s, 23.73 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft³/s, June 22, 1972, gage height, 12.32 ft, from floodmark, from rating curve extended above 680 ft³/s, on basis of contracted-opening measurement of peak flow; minimum observed, 0.4 ft³/s, July 26, 1966; minimum gage height observed, 1.74 ft, July 19, 26, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 8	2315	*6380	*11.57	No other peaks above base discharge			

Minimum discharge, 4.1 ft³/s, Jun. 20, 21, gage height, 2.51 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	11	117	92	57	401	54	43	15	8.5	8.2	17
2	20	13	127	104	59	521	39	41	14	13	7.2	13
3	20	13	415	87	64	391	41	49	13	18	8.6	11
4	31	12	317	73	67	266	325	113	15	11	7.0	9.4
5	28	16	235	e67	60	198	374	70	17	8.3	7.4	8.3
6	21	58	177	e60	e58	165	348	61	13	6.7	16	12
7	17	34	143	e55	e54	159	303	56	11	6.4	9.8	193
8	16	70	120	51	e52	166	250	50	12	12	7.1	1330
9	16	87	145	47	e50	159	198	46	13	8.5	21	2800
10	15	76	147	50	e48	126	159	43	15	6.4	173	852
11	14	100	121	64	e46	103	131	39	11	5.5	44	480
12	13	121	122	55	e44	91	125	36	11	7.4	31	341
13	16	107	108	49	e42	80	116	33	14	24	25	682
14	26	88	99	50	e40	71	89	31	11	111	21	555
15	21	75	e90	68	e38	64	78	34	8.6	88	19	392
16	16	67	82	108	e36	56	71	30	6.8	42	17	286
17	14	58	76	111	e36	50	84	27	5.6	31	20	269
18	14	59	234	116	e36	46	84	25	5.0	25	24	298
19	12	210	323	136	e36	43	67	30	4.6	21	15	300
20	12	189	264	121	36	41	59	46	4.5	19	15	275
21	12	599	200	102	35	39	55	38	6.2	17	13	228
22	12	350	154	92	38	37	51	29	26	15	17	190
23	11	229	127	e88	44	34	48	27	33	12	17	158
24	11	182	117	e84	42	32	54	25	15	11	12	129
25	11	134	408	e79	40	30	92	22	11	11	9.5	106
26	19	197	313	e74	40	30	59	22	8.7	26	9.1	89
27	26	286	248	e70	43	28	54	22	36	23	21	78
28	17	238	194	e67	40	29	54	21	18	13	25	68
29	13	189	153	e64	---	27	53	19	12	10	47	61
30	12	147	129	e62	---	29	48	19	10	8.4	21	60
31	11	---	110	e58	---	78	---	17	---	11	14	---
TOTAL	518	4015	5615	2404	1281	3590	3563	1164	396.0	630.1	701.9	10290.7
MEAN	16.7	134	181	77.5	45.7	116	119	37.5	13.2	20.3	22.6	343
MAX	31	599	415	136	67	521	374	113	36	111	173	2800
MIN	11	11	76	47	35	27	39	17	4.5	5.5	7.0	8.3
CFSM	.32	2.53	3.42	1.46	.86	2.19	2.24	.71	.25	.38	.43	6.47
IN.	.36	2.82	3.94	1.69	.90	2.52	2.50	.82	.28	.44	.49	7.22

CAL YR 1986 TOTAL 31996.8 MEAN 87.7 MAX 1270 MIN 3.2 CFSM 1.65 IN. 22.46
WTR YR 1987 TOTAL 34168.7 MEAN 93.6 MAX 2800 MIN 4.5 CFSM 1.77 IN. 23.98

e Estimated

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28,58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft upstream from bridge on State Highway 145, 0.5 mi northwest of city limits of Allentown, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--75.8 mi^2.

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder and rubble masonry control, crest raised 1 ft in August 1958 and further modified by filling in square notches on sides and notching center of dam at 17:1 slope in August 1974. Datum of gage is 259.82 ft above Pennsylvania Department of Transportation datum.

REMARKS.--Records good, except periods of estimated daily discharges which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 113 ft^3/s, 20.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft^3/s, June 23, 1972, gage height, 11.61 ft, floodmark, from rating curve extended above 6,100 ft^3/s, on basis of slope-area measurement of peak flow; no flow on many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft, from floodmarks 650 ft downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 9	0645	*14,300	*10.91	No other peaks above base discharge			

Minimum discharge, 11.0 ft^3/s, Jul. 7, gage height, 2.27 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	19	144	123	e54	e500	74	58	23	16	14	24
2	29	20	136	135	e59	697	56	56	23	18	14	21
3	30	20	442	122	e68	e480	55	58	21	23	13	17
4	39	19	395	100	e80	e340	289	93	23	19	12	15
5	38	24	287	82	e75	e250	470	74	26	15	15	14
6	32	61	218	75	e71	e195	351	69	23	13	14	15
7	25	56	180	e72	e68	e190	304	66	19	11	14	85
8	24	75	156	e71	e64	e195	252	64	19	12	14	791
9	24	123	159	70	e61	e180	200	61	19	12	31	6650
10	23	107	195	73	e59	e160	166	59	e23	13	194	1040
11	21	115	155	85	e56	128	141	56	20	12	63	457
12	20	163	156	78	e55	119	132	52	18	20	42	282
13	20	139	144	72	e53	104	136	50	18	14	33	592
14	29	117	e130	71	e51	92	117	46	20	54	27	587
15	36	100	e110	79	e48	84	107	51	16	156	25	376
16	27	90	e100	127	e47	75	99	49	14	56	22	264
17	24	79	e90	139	e46	69	106	43	13	41	23	232
18	22	77	220	145	e45	65	116	39	12	33	28	268
19	21	237	428	161	e44	61	94	41	12	28	22	281
20	19	210	349	160	e43	59	84	60	12	24	17	257
21	19	773	259	132	e42	58	80	59	17	22	16	217
22	19	487	199	108	48	55	76	50	21	e20	18	180
23	19	294	165	e96	57	52	71	46	49	18	17	153
24	18	225	152	84	57	49	72	43	31	17	17	131
25	19	170	502	e76	52	47	98	36	22	19	13	112
26	21	175	423	e70	52	45	73	33	17	19	12	96
27	35	353	329	e66	55	43	65	32	28	20	18	86
28	32	283	250	e62	55	43	65	31	38	21	28	76
29	25	227	198	e60	---	42	65	29	21	16	48	71
30	22	179	169	e58	---	41	62	28	16	15	37	68
31	20	---	145	e56	---	71	---	26	---	16	22	---
TOTAL	783	5017	6985	2908	1565	4589	4076	1558	634	793	883	13458
MEAN	25.3	167	225	93.8	55.9	148	136	50.3	21.1	25.6	28.5	449
MAX	39	773	502	161	80	697	470	93	49	156	194	6650
MIN	18	19	90	56	42	41	55	26	12	11	12	14
CFSM	.33	2.21	2.97	1.24	.74	1.95	1.79	.66	.28	.34	.38	5.92
IN.	.38	2.46	3.43	1.43	.77	2.25	2.00	.76	.31	.39	.43	6.60

CAL YR 1986 TOTAL 39381.2 MEAN 108 MAX 1460 MIN 9.3 CFSM 1.42 IN. 19.33
WTR YR 1987 TOTAL 43249 MEAN 118 MAX 6650 MIN 11 CFSM 1.56 IN. 21.23

e Estimated

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22,47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--44.5 mi^2.

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

GAGE.--Water-stage recorder. Concrete control since July 17, 1969. Datum of gage is 247.24 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft upstream at same datum.

REMARKS.--Records fair except for periods of estimated daily discharges, which are poor. Some regulation at low flow by mill above station since April 1954. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 53.0 ft^3/s, 16.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,490 ft^3/s Jan. 25, 1979, gage height, 8.19 ft; minimum, 3.0 ft^3/s Jan. 9, 1966, gage height, 1.67 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft, from floodmarks, discharge, 5,200 ft^3/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 9	2215	401	3.68	Sept. 8	2145	*1410	*5.47

Minimum daily discharge, 21 ft^3/s, Oct. 29-31, Nov. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	21	62	e59	48	107	64	52	39	35	30	36
2	29	21	62	e63	48	138	59	51	42	41	30	33
3	31	21	e110	e59	49	129	55	53	41	43	31	32
4	32	21	e82	e54	49	107	161	68	41	38	30	29
5	33	23	e64	e53	50	92	187	61	41	33	34	29
6	29	33	e59	e52	49	84	161	59	40	31	32	32
7	28	26	e54	e51	48	80	137	56	38	33	31	51
8	28	33	e51	e51	47	79	120	52	37	38	31	281
9	28	34	e60	e51	46	79	106	53	41	48	63	609
10	27	30	e70	e54	40	74	95	53	e40	40	126	246
11	26	35	62	e60	47	69	88	52	e39	35	46	145
12	26	44	61	e52	47	66	80	50	e37	32	38	110
13	e27	38	59	e52	43	62	81	49	e36	31	36	143
14	e28	36	53	e53	40	59	74	46	e35	75	36	130
15	e27	34	53	e57	37	56	70	48	e33	62	37	114
16	e26	34	51	e51	35	54	69	47	32	40	34	e97
17	e25	32	51	e51	e35	52	71	47	32	37	34	e105
18	e25	32	75	e59	e34	52	70	45	31	33	36	114
19	e24	59	87	e62	e34	51	66	43	31	33	34	95
20	e24	61	86	e62	e34	50	61	48	31	33	34	86
21	e23	168	78	e60	e33	49	61	48	41	34	33	82
22	e22	128	70	e58	e33	46	59	43	50	33	34	81
23	e23	94	68	56	39	46	57	44	40	32	31	73
24	e24	82	64	52	39	45	57	44	34	32	29	71
25	e24	68	171	51	39	46	65	43	33	31	30	66
26	e25	78	129	51	40	45	59	42	33	41	28	61
27	e26	101	109	48	39	44	56	41	42	34	38	59
28	e24	90	93	45	39	44	59	41	35	31	35	55
29	21	80	e78	47	---	43	54	42	32	32	39	54
30	21	70	e68	48	---	44	52	41	33	33	34	54
31	21	---	e61	49	---	67	---	40	---	32	33	---
TOTAL	806	1627	2301	1671	1161	2059	2454	1502	1110	1156	1167	3173
MEAN	26.0	54.2	74.2	53.9	41.5	66.4	81.8	48.5	37.0	37.3	37.6	106
MAX	33	168	171	63	50	138	187	68	50	75	126	609
MIN	21	21	51	45	33	43	52	40	31	31	28	29
CFSM	.58	1.22	1.67	1.21	.93	1.49	1.84	1.09	.83	.84	.85	2.38
IN.	.67	1.36	1.92	1.40	.97	1.72	2.05	1.26	.93	.97	.98	2.65

CAL YR 1986 TOTAL 22860 MEAN 62.6 MAX 365 MIN 21 CFSM 1.41 IN. 19.11
WTR YR 1987 TOTAL 20187 MEAN 55.3 MAX 609 MIN 21 CFSM 1.24 IN. 16.88

e Estimated

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft upstream from New Street Bridge at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.
DRAINAGE AREA.--1,279 mi² includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi².
PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.
REVISED RECORDS.--WSP 261: 1903-5, WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.
GAGE.--Water-stage recorder. Datum of gage is 210.94 ft above National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.
REMARKS.--Records good except for periods of estimated record, which are fair. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--80 years (water years 1902-04, 1909-87), 2,344 ft³/s, 24.88 in/yr, adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft³/s May 23, 1942, gage height, about 25.9 ft, from floodmark, present site and datum, from rating curve extended above 48,000 ft³/s; minimum, 125 ft³/s June 28, 1965, gage height, 0.94 ft.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902, reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft³/s.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,400 ft³/s, Sept. 9, gage height, 15.94 ft; minimum daily, 519 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	913	668	3180	2920	1620	2730	4990	2180	1150	923	699	1760
2	867	740	3030	3040	1680	4950	4170	2040	1160	929	633	1820
3	928	725	5150	2850	1730	5000	4020	2080	1050	1060	690	1710
4	1130	713	5300	2580	1750	4340	7730	2640	942	1180	676	1460
5	1580	733	4840	2430	1630	3600	11800	2730	1010	1100	740	1150
6	1660	1110	4040	2250	1490	3100	9990	2500	938	1150	868	1100
7	1130	1200	3540	2190	1490	2990	11800	2300	1080	1130	968	1770
8	981	1400	3280	2140	1540	3320	13000	2110	1050	1050	864	7180
9	960	1730	3250	2030	1530	4130	11700	1940	1030	2100	977	33100
10	808	1990	3710	2040	1320	4950	9590	1870	873	2060	2400	9940
11	725	2370	3520	2160	1560	4320	4800	1830	792	1540	1410	7700
12	741	2510	3310	2050	1470	3760	4490	1710	782	1550	1110	5640
13	760	2110	2990	1960	e1400	3430	4570	1610	958	1290	899	17500
14	908	1830	2650	1910	e1200	2990	4290	1570	1290	2140	723	17100
15	1050	1650	2650	1930	e1100	2830	4020	1630	1110	3820	672	14200
16	978	1490	2580	2140	1010	2680	3650	1530	721	3340	650	13200
17	921	1460	2480	2180	1270	2380	3280	1440	674	2710	691	10600
18	976	1600	3170	2200	1320	2230	3370	1420	650	1860	657	7520
19	1170	2490	4770	2370	1290	2240	3210	1650	599	1690	575	6800
20	827	2340	4240	2410	1250	2220	3200	1820	588	1380	571	5780
21	779	5700	3820	2320	1170	2150	3080	1750	725	992	595	5360
22	696	5750	3480	2140	1130	2090	2740	1650	1140	945	609	6550
23	599	4710	2810	1990	1260	2060	2620	1570	1180	895	616	4850
24	668	3750	2770	1750	1270	2030	2540	1590	975	879	563	4630
25	693	3570	5530	e1700	1270	2130	2830	1550	791	781	529	4070
26	760	3580	5410	e1650	1190	2150	2530	1530	785	1070	519	3390
27	863	5270	5120	1620	1110	1680	2390	1520	1060	1050	778	3210
28	887	5410	4220	1570	1110	2030	2540	1430	1310	838	1180	3070
29	931	4470	3770	1660	---	2100	2380	1320	1040	853	1910	2740
30	850	3900	3660	1700	---	2110	2200	1240	716	836	1720	2310
31	679	---	3460	1710	---	2900	---	1170	---	877	1520	---
TOTAL	28418	76969	115730	65590	38160	91620	153520	54920	28169	44018	28012	207210
MEAN	917	2566	3733	2116	1363	2955	5117	1772	939	1420	904	6907
MAX	1660	5750	5530	3040	1750	5000	13000	2730	1310	3820	2400	33100
MIN	599	668	2480	1570	1010	1680	2200	1170	588	781	519	1100
CFSM	.72	2.01	2.92	1.65	1.07	2.31	4.00	1.39	.73	1.11	.71	5.40
IN.	.83	2.24	3.37	1.91	1.11	2.66	4.47	1.60	.82	1.28	.81	6.03

CAL YR 1986 TOTAL 903086 MEAN 2474 MAX 20800 MIN 587 CFSM 1.93 IN. 26.3
WTR YR 1987 TOTAL 932336 MEAN 2554 MAX 33100 MIN 519 CFSM 2.00 IN. 27.1

e Estimated

01454700 LEHIGH RIVER AT GLENDON, PA

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft upstream from highway bridge in Hugh Moore Parkway at Glendon, 1.9 mi upstream from mouth, and 2.0 mi southwest of Easton.

DRAINAGE AREA.--1,359 mi².

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

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 164.30 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated discharge, which are fair. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), and Wild Creek Reservoir (station 01449700) and since February 1971, Beltzville Lake (station 01449790) about 60 mi upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 2,910 ft³/s, 29.09 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,600 ft³/s, June 23, 1972, gage height, 24.86 ft from rating curve extended above 36,000 ft³/s; minimum daily discharge, 330 ft³/s, Jan. 31, Feb. 1, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,600 ft³/s, Sept. 9, gage height, 20.82 ft; minimum daily discharge, 639 ft³/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	761	3780	3410	1820	3280	e5400	2430	1300	998	846	1860
2	963	843	3450	3520	1870	6190	e4800	2290	1350	1270	779	1920
3	1010	825	6080	3340	1950	6090	4710	2350	1230	1160	815	1800
4	1200	823	6400	2950	1970	5280	7550	3080	1110	e1400	832	1570
5	1600	810	5820	2760	1860	4300	14700	3160	1180	e1300	926	1260
6	1770	1240	4840	2550	1700	3650	11800	2860	1100	e1300	1010	1190
7	1290	1280	4170	2470	1680	3500	13200	2600	1210	e1250	1080	1690
8	1040	1480	3810	2410	1740	3870	14700	2390	1190	e1200	991	6160
9	1060	1850	3760	2280	1720	4830	13400	2190	1230	2580	1040	e40000
10	931	2060	4380	2280	1480	5920	11300	2090	1060	2290	3310	11700
11	828	2550	4120	2480	1750	5140	5950	2050	977	1680	1600	9270
12	849	2910	3830	2330	1640	4430	5440	1940	968	1600	1250	6990
13	874	2380	3460	2200	1600	4000	5560	1830	1080	1440	1040	14200
14	1010	2000	3000	2140	1450	3450	5160	1780	1420	2320	890	21500
15	1130	1820	2980	2180	1320	3220	4820	1860	1270	4640	828	14900
16	1070	1600	2920	2400	1150	3050	4340	1750	902	3760	790	15000
17	1030	1550	2780	2450	1430	2700	3940	1630	847	3130	819	12800
18	1020	1620	3660	2490	1480	2490	4020	1610	823	2020	806	9970
19	1300	2840	5850	2750	1450	2490	3780	1800	769	1810	714	8630
20	946	2520	5070	2800	1420	2460	3750	2070	745	1540	685	7300
21	885	6790	4520	2660	1340	2380	3610	1970	981	1140	715	6660
22	815	7020	4070	2470	1290	2320	3190	1860	1340	1080	733	7290
23	707	5770	3280	2240	1430	e2300	3010	1760	1440	1030	734	6660
24	760	4530	3140	1980	1430	e2200	2930	1760	1130	997	678	5520
25	792	4200	7130	1840	1430	e2300	3380	1730	935	926	649	4860
26	864	4200	6590	e1820	1370	e2400	2930	1690	921	1220	639	3920
27	958	6440	6220	1810	1280	e2000	2720	1690	1140	1210	918	3700
28	960	6410	5150	1780	1270	e2200	2860	1600	1410	971	1190	3530
29	1010	5490	4480	1830	---	e2300	2720	1490	1180	971	1970	3130
30	948	4640	4330	1910	---	e2400	2480	1410	879	947	1820	2630
31	794	---	4070	1910	---	e3200	---	1320	---	1020	1600	---
TOTAL	31444	89252	137140	74440	43320	106340	178150	62040	33117	50200	32697	237610
MEAN	1014	2975	4424	2401	1547	3430	5938	2001	1104	1619	1055	7920
MAX	1770	7020	7130	3520	1970	6190	14700	3160	1440	4640	3310	40000
MIN	707	761	2780	1780	1150	2000	2480	1320	745	926	639	1190

CAL YR 1986 TOTAL 1053063 MEAN 2885 MAX 25800 MIN 702
WTR YR 1987 TOTAL 1075750 MEAN 2947 MAX 40000 MIN 639

e Estimated

01454720 LEHIGH RIVER AT EASTON, PA

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,364 mi².

PERIOD OF RECORD.--October 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1972 to September 1974, October 1975 to current year.
WATER TEMPERATURE: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1961.

REMARKS.--Station not operated Nov. 4 to Mar. 11. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 581 microsiemens Aug. 19, 1963; minimum, 70 microsiemens Nov. 14, 1970.
pH: Maximum, 8.4 Aug. 8, 1980; minimum, 6.0 Mar. 16, 1978.
WATER TEMPERATURE: Maximum, 30.5°C July 29, 1970, and July 21, 1980; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L April 14, 1986; minimum, 0.0 mg/L Aug. 4, 1966.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	302	269	278	330	304	319	---	---	---	---	---	---
2	316	304	309	345	328	339	---	---	---	---	---	---
3	331	317	325	341	323	334	---	---	---	---	---	---
4	336	315	326	---	---	---	---	---	---	---	---	---
5	319	280	303	---	---	---	---	---	---	---	---	---
6	278	214	237	---	---	---	---	---	---	---	---	---
7	229	211	220	---	---	---	---	---	---	---	---	---
8	286	229	246	---	---	---	---	---	---	---	---	---
9	294	287	291	---	---	---	---	---	---	---	---	---
10	312	290	296	---	---	---	---	---	---	---	---	---
11	321	312	315	---	---	---	---	---	---	---	---	---
12	339	323	333	---	---	---	---	---	---	---	---	---
13	347	323	336	---	---	---	---	---	---	---	---	---
14	325	316	320	---	---	---	---	---	---	---	---	---
15	326	318	322	---	---	---	---	---	---	---	---	---
16	322	298	306	---	---	---	---	---	---	---	---	---
17	308	296	301	---	---	---	---	---	---	---	---	---
18	305	293	298	---	---	---	---	---	---	---	---	---
19	316	274	303	---	---	---	---	---	---	---	---	---
20	270	244	253	---	---	---	---	---	---	---	---	---
21	290	261	273	---	---	---	---	---	---	---	---	---
22	312	291	302	---	---	---	---	---	---	---	---	---
23	332	313	326	---	---	---	---	---	---	---	---	---
24	354	331	343	---	---	---	---	---	---	---	---	---
25	367	352	360	---	---	---	---	---	---	---	---	---
26	355	338	348	---	---	---	---	---	---	---	---	---
27	345	324	336	---	---	---	---	---	---	---	---	---
28	326	302	314	---	---	---	---	---	---	---	---	---
29	328	314	324	---	---	---	---	---	---	---	---	---
30	322	303	311	---	---	---	---	---	---	---	---	---
31	311	298	305	---	---	---	---	---	---	---	---	---
MONTH	367	211	305	345	323	330	---	---	---	---	---	---

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	207	138	159	228	217	223
2	---	---	---	---	---	---	145	139	142	224	218	221
3	---	---	---	---	---	---	146	138	143	230	215	223
4	---	---	---	---	---	---	152	133	145	221	207	214
5	---	---	---	---	---	---	130	114	121	207	189	199
6	---	---	---	---	---	---	135	124	128	200	193	196
7	---	---	---	---	---	---	125	111	117	208	199	205
8	---	---	---	---	---	---	118	102	108	218	208	213
9	---	---	---	---	---	---	111	104	108	229	218	224
10	---	---	---	---	---	---	114	100	108	235	227	231
11	---	---	---	---	---	---	159	115	139	232	225	229
12	---	---	---	164	151	157	161	149	154	239	227	235
13	---	---	---	172	165	167	156	151	153	250	238	245
14	---	---	---	182	171	174	156	153	154	259	248	253
15	---	---	---	187	178	182	158	152	156	260	250	256
16	---	---	---	184	179	182	168	158	164	261	254	258
17	---	---	---	202	186	195	187	169	175	265	254	259
18	---	---	---	219	204	213	188	173	178	261	253	258
19	---	---	---	220	215	217	177	172	175	275	260	267
20	---	---	---	220	209	216	177	167	171	267	234	246
21	---	---	---	219	210	214	179	175	177	247	233	241
22	---	---	---	221	210	216	---	---	---	252	238	246
23	---	---	---	217	208	212	---	---	---	259	247	253
24	---	---	---	221	210	218	---	---	---	257	251	254
25	---	---	---	227	212	220	---	---	---	251	240	245
26	---	---	---	215	210	213	---	---	---	248	237	243
27	---	---	---	214	210	212	---	---	---	254	239	246
28	---	---	---	259	216	241	---	---	---	261	249	254
29	---	---	---	223	199	212	---	---	---	274	260	267
30	---	---	---	206	197	200	---	---	---	287	271	279
31	---	---	---	214	198	208	---	---	---	295	281	286
MONTH	---	---	---	259	151	203	207	100	146	295	189	241

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	294	280	287	327	291	306	345	332	338	246	223	237
2	298	279	288	347	286	318	353	334	347	243	216	227
3	306	292	300	335	289	314	377	351	364	224	214	219
4	323	304	311	335	323	331	371	362	367	230	220	225
5	340	326	330	321	292	303	379	364	373	251	221	232
6	341	322	333	292	278	286	378	338	362	272	248	255
7	336	322	330	288	271	279	375	355	364	271	243	256
8	326	294	307	287	267	279	359	337	346	249	142	213
9	303	296	299	310	212	283	338	309	332	186	141	158
10	309	295	304	215	203	209	305	214	242	213	175	189
11	337	312	326	220	205	215	273	247	267	173	158	165
12	352	337	344	250	222	240	302	275	288	177	162	168
13	368	353	359	266	243	255	329	302	310	179	89	143
14	369	313	345	290	254	262	346	329	337	138	90	115
15	305	269	283	258	188	207	360	344	355	136	103	116
16	282	265	269	203	180	195	387	362	377	102	94	97
17	332	287	314	184	176	180	393	370	382	112	97	104
18	362	334	352	225	186	204	386	368	379	145	111	131
19	369	356	364	251	227	241	389	369	382	153	138	144
20	385	365	376	248	240	244	410	378	397	150	145	147
21	398	380	388	291	241	258	425	403	416	152	146	149
22	385	322	360	329	290	309	424	413	420	156	124	136
23	340	307	314	346	328	335	420	402	414	158	128	138
24	350	307	320	351	332	343	413	401	407	159	146	152
25	350	326	338	354	340	349	400	387	393	163	151	155
26	355	338	347	360	343	353	419	397	405	181	164	172
27	359	347	353	349	302	319	429	408	421	184	177	181
28	352	301	332	327	298	305	420	375	393	186	178	182
29	299	283	289	348	332	340	372	270	324	194	182	189
30	290	278	284	353	335	345	269	229	244	219	194	207
31	---	---	---	348	339	344	233	222	228	---	---	---
MONTH	398	265	325	360	176	282	429	214	354	272	89	173

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	7.0	7.1	7.4	7.0	7.2	---	---	---	---	---	---
2	7.3	7.1	7.2	7.3	7.0	7.1	---	---	---	---	---	---
3	7.3	7.1	7.2	7.3	7.0	7.1	---	---	---	---	---	---
4	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
5	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
6	7.1	7.0	7.1	---	---	---	---	---	---	---	---	---
7	7.1	7.0	7.0	---	---	---	---	---	---	---	---	---
8	7.3	7.0	7.1	---	---	---	---	---	---	---	---	---
9	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
10	7.4	7.0	7.2	---	---	---	---	---	---	---	---	---
11	7.5	7.2	7.3	---	---	---	---	---	---	---	---	---
12	7.5	7.2	7.3	---	---	---	---	---	---	---	---	---
13	7.3	7.2	7.3	---	---	---	---	---	---	---	---	---
14	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
15	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
16	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
17	7.2	7.2	7.2	---	---	---	---	---	---	---	---	---
18	7.3	7.0	7.1	---	---	---	---	---	---	---	---	---
19	7.2	7.1	7.2	---	---	---	---	---	---	---	---	---
20	7.4	7.1	7.2	---	---	---	---	---	---	---	---	---
21	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
22	7.5	7.1	7.2	---	---	---	---	---	---	---	---	---
23	7.5	7.0	7.2	---	---	---	---	---	---	---	---	---
24	7.6	7.2	7.3	---	---	---	---	---	---	---	---	---
25	7.6	7.2	7.3	---	---	---	---	---	---	---	---	---
26	7.3	7.2	7.2	---	---	---	---	---	---	---	---	---
27	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
28	7.2	7.0	7.1	---	---	---	---	---	---	---	---	---
29	7.2	7.0	7.1	---	---	---	---	---	---	---	---	---
30	7.4	7.0	7.2	---	---	---	---	---	---	---	---	---
31	7.4	7.1	7.2	---	---	---	---	---	---	---	---	---
MONTH	7.6	7.0	7.2	7.4	7.0	7.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	7.0	6.6	6.8	7.5	7.2	7.4
2	---	---	---	---	---	---	6.9	6.6	6.7	7.4	7.3	7.3
3	---	---	---	---	---	---	6.9	6.8	6.9	7.3	7.1	7.2
4	---	---	---	---	---	---	6.9	6.8	6.9	7.2	7.1	7.1
5	---	---	---	---	---	---	6.8	6.7	6.7	7.1	6.9	7.1
6	---	---	---	---	---	---	6.8	6.7	6.7	7.2	7.0	7.1
7	---	---	---	---	---	---	6.7	6.4	6.6	7.3	7.1	7.2
8	---	---	---	---	---	---	6.6	6.5	6.6	7.4	7.1	7.2
9	---	---	---	---	---	---	6.6	6.6	6.6	7.4	7.3	7.4
10	---	---	---	---	---	---	6.7	6.6	6.6	7.5	7.3	7.4
11	---	---	---	---	---	---	6.9	6.7	6.8	7.5	7.3	7.4
12	---	---	---	7.2	7.1	7.2	6.9	6.8	6.9	7.5	7.2	7.3
13	---	---	---	7.2	7.1	7.1	6.9	6.9	6.9	7.4	7.3	7.3
14	---	---	---	7.2	7.1	7.1	6.9	6.8	6.9	7.4	7.3	7.4
15	---	---	---	7.2	7.1	7.1	6.8	6.8	6.8	7.4	7.1	7.3
16	---	---	---	7.2	7.1	7.1	6.9	6.8	6.8	7.2	7.1	7.1
17	---	---	---	7.1	7.1	7.1	7.1	6.8	6.9	7.3	7.2	7.2
18	---	---	---	7.2	7.1	7.2	7.1	7.0	7.0	7.4	7.2	7.3
19	---	---	---	7.2	7.1	7.1	7.0	7.0	7.0	7.2	6.9	7.1
20	---	---	---	7.1	7.1	7.1	7.0	7.0	7.0	7.0	6.9	7.0
21	---	---	---	7.1	7.0	7.1	7.0	6.8	6.9	7.1	7.0	7.0
22	---	---	---	7.2	7.0	7.1	---	---	---	7.2	7.0	7.1
23	---	---	---	7.2	7.1	7.2	---	---	---	7.2	7.1	7.2
24	---	---	---	7.1	6.7	7.1	---	---	---	7.2	7.1	7.1
25	---	---	---	7.2	7.1	7.2	---	---	---	7.3	7.2	7.2
26	---	---	---	7.2	7.1	7.2	---	---	---	7.2	7.1	7.1
27	---	---	---	7.3	6.9	7.2	---	---	---	7.2	7.0	7.1
28	---	---	---	7.2	7.1	7.2	---	---	---	7.2	7.1	7.1
29	---	---	---	7.2	7.0	7.1	---	---	---	7.3	7.2	7.2
30	---	---	---	7.2	7.0	7.1	---	---	---	7.3	7.2	7.2
31	---	---	---	7.0	6.9	6.9	---	---	---	7.4	7.2	7.3
MONTH	---	---	---	7.3	6.7	7.1	7.1	6.4	6.8	7.5	6.9	7.2

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.6	7.2	7.3	8.0	7.1	7.5	8.1	7.1	7.5	7.0	6.9	6 9
2	7.3	7.2	7.2	7.4	7.0	7.2	7.9	7.1	7.4	7.0	6.8	6 9
3	7.1	7.0	7.1	7.4	6.9	7.1	7.8	7.1	7.4	7.0	6.8	6 9
4	7.2	7.1	7.1	7.4	7.1	7.2	8.0	7.1	7.3	7.2	6 2	6 9
5	7.3	7.1	7.2	7.9	7.1	7.4	7.9	7.1	7.4	7.3	6.9	7.1
6	7.3	7.2	7.2	7.9	7.2	7.5	7.3	7.1	7.1	7.1	7.0	7.0
7	7.3	7.2	7.2	7.4	7.1	7.2	7.6	7.0	7.2	7.0	6.8	6.9
8	7.5	7.1	7.3	7.6	7.0	7.2	7.8	7.1	7.4	6.8	6.7	6 7
9	7.3	7.2	7.2	7.2	6.9	7.1	7.6	7.3	7.5	6.9	6.6	6.7
10	7.4	7.2	7.3	7.1	6.8	6.9	7.2	6.9	7.0	6.8	6.6	6.7
11	7.8	7.2	7.4	7.2	6.9	7.0	7.1	7.0	7.0	6.7	6.6	6.6
12	7.5	7.2	7.4	7.2	7.1	7.2	7.3	7.1	7.2	6.8	6.7	6.7
13	7.5	7.2	7.3	7.3	7.0	7.1	7.5	7.1	7.2	6.8	6.1	6.6
14	7.5	7.2	7.4	7.2	7.0	7.1	7.6	7.0	7.2	6.4	6.1	6.3
15	7.6	7.3	7.4	7.0	6.8	6.9	7.8	7.2	7.4	6.5	6.3	6.4
16	8.1	7.2	7.6	6.9	6.9	6.9	7.9	7.3	7.6	6.3	6.2	6.3
17	8.3	7.2	7.6	6.9	6.7	6.8	8.0	7.2	7.5	6.4	6.3	6.3
18	8.3	7.3	7.8	7.0	6.8	6.9	8.1	7.3	7.6	6.7	6.3	6 5
19	8.2	7.4	7.7	7.1	7.0	7.0	8.1	7.2	7.6	6.8	6 7	6.7
20	8.1	7.3	7.7	7.2	7.0	7.1	8.1	7.3	7.7	6.7	6 7	6 7
21	7.9	7.2	7.4	7.5	7.0	7.2	8 2	7.3	7.8	6.7	6 7	6 7
22	7.2	7.0	7.1	7.7	7.0	7.3	8.1	7.4	7.7	6.7	6 5	6 6
23	7.1	7.0	7.0	7.9	7.1	7.4	7.8	7.3	7.5	6.8	6.6	6 7
24	7.3	7.0	7.1	8.1	7.1	7.5	8.0	7.3	7.5	6.8	6 7	6 8
25	7.5	7.1	7.2	8.0	7.2	7.5	8.0	7.4	7.6	6.8	6 7	6 8
26	7.2	7.0	7.2	7.5	7.1	7.2	8.0	7.4	7.6	6.9	6 8	6 9
27	7.4	7.1	7.2	7.5	7.1	7.2	7.8	7.3	7.4	6.9	6.9	6 9
28	7.4	7.2	7.3	7.8	7.1	7.3	7.3	7.0	7.2	6.9	6.8	6 8
29	7.8	7.2	7.4	8.0	7.1	7.5	7.0	7.0	7.0	6 9	6.8	6 8
30	8.0	7.2	7.5	8.0	7.1	7.5	7.1	6.9	7.0	6.9	6.8	6 9
31	---	---	---	7.9	7.1	7.4	7.0	6.9	7.0	---	---	---
MONTH	8.3	7.0	7.3	8.1	6.7	7.2	8.2	6.9	7.4	7.3	6.1	6.7

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	20.0	20.5	13.0	12.0	12.5	---	---	---	---	---	---
2	22.0	21.0	21.5	13.0	13.0	13.0	---	---	---	---	---	---
3	21.0	20.0	21.0	13.0	12.0	12.5	---	---	---	---	---	---
4	21.0	20.0	20.0	---	---	---	---	---	---	---	---	---
5	20.0	19.0	20.0	---	---	---	---	---	---	---	---	---
6	19.0	17.0	18.0	---	---	---	---	---	---	---	---	---
7	17.0	15.0	16.0	---	---	---	---	---	---	---	---	---
8	16.0	15.0	15.5	---	---	---	---	---	---	---	---	---
9	17.0	15.0	16.0	---	---	---	---	---	---	---	---	---
10	16.0	16.0	16.0	---	---	---	---	---	---	---	---	---
11	15.0	14.0	15.0	---	---	---	---	---	---	---	---	---
12	15.0	14.0	14.5	---	---	---	---	---	---	---	---	---
13	16.0	15.0	15.0	---	---	---	---	---	---	---	---	---
14	17.0	15.0	16.0	---	---	---	---	---	---	---	---	---
15	16.0	15.0	16.0	---	---	---	---	---	---	---	---	---
16	15.0	14.0	15.0	---	---	---	---	---	---	---	---	---
17	14.0	14.0	14.0	---	---	---	---	---	---	---	---	---
18	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
19	13.0	12.0	13.0	---	---	---	---	---	---	---	---	---
20	13.0	12.0	12.5	---	---	---	---	---	---	---	---	---
21	14.0	12.0	13.0	---	---	---	---	---	---	---	---	---
22	15.0	13.0	13.5	---	---	---	---	---	---	---	---	---
23	15.0	14.0	14.5	---	---	---	---	---	---	---	---	---
24	15.0	14.0	14.5	---	---	---	---	---	---	---	---	---
25	15.0	14.0	14.5	---	---	---	---	---	---	---	---	---
26	14.0	14.0	14.0	---	---	---	---	---	---	---	---	---
27	14.0	13.0	13.0	---	---	---	---	---	---	---	---	---
28	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
29	15.0	13.0	13.5	---	---	---	---	---	---	---	---	---
30	15.0	13.0	14.0	---	---	---	---	---	---	---	---	---
31	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
MONTH	22.0	12.0	15.5	13.0	12.0	12.5	---	---	---	---	---	---

01454720 LEHIGH RIVER AT EASTON, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.0	9.0	10.0	14.0	12.0	12.5
2	---	---	---	---	---	---	8.0	8.0	8.0	13.0	13.0	13.0
3	---	---	---	---	---	---	8.0	7.0	8.0	13 0	12.0	13.0
4	---	---	---	---	---	---	9.0	8.0	8.5	12.0	11 0	11 5
5	---	---	---	---	---	---	18.0	9.0	10.0	11 0	10.0	10 0
6	---	---	---	---	---	---	11.0	9.0	9.5	13.0	11.0	11.5
7	---	---	---	---	---	---	10.0	10.0	10.0	15.0	13.0	14.0
8	---	---	---	---	---	---	11.0	10.0	10.5	16.0	14 0	15 0
9	---	---	---	---	---	---	12.0	11.0	11.0	16.0	14 0	15 5
10	---	---	---	---	---	---	12.0	9.0	10.0	17.0	15 0	16.0
11	---	---	---	---	---	---	12.0	9.0	10.5	18.0	17.0	17 5
12	---	---	---	4.0	4.0	4.0	12.0	11.0	11.5	19.0	18.0	18 5
13	---	---	---	5.0	4.0	4.5	11.0	11.0	11.0	19.0	18.0	18 0
14	---	---	---	6.0	5.0	5.5	12.0	11.0	11.5	17.0	16.0	17.0
15	---	---	---	7.0	6.0	6.5	12.0	11.0	12.0	18.0	17.0	17.0
16	---	---	---	7.0	6.0	6.5	11.0	10.0	10.5	18.0	17.0	17.5
17	---	---	---	7.0	6.0	6.5	10.0	10.0	10.0	18.0	17.0	17.5
18	---	---	---	8.0	6.0	7.0	11.0	10.0	10.5	20.0	18.0	19.0
19	---	---	---	9.0	7.0	7.5	14.0	11.0	12.0	20.0	17.0	18.5
20	---	---	---	8.0	8.0	8.0	15.0	13.0	14.0	17.0	15.0	16.0
21	---	---	---	8.0	7.0	8.0	16.0	14.0	15.0	15.0	14.0	14.5
22	---	---	---	9.0	7.0	8.0	23.0	16.0	20.0	17.0	15.0	16.0
23	---	---	---	10.0	9.0	9.5	---	---	---	19.0	17.0	18.0
24	---	---	---	11.0	10.0	10.5	---	---	---	20.0	19.0	19 5
25	---	---	---	12.0	11.0	11.5	---	---	---	20.0	19.0	19.5
26	---	---	---	12.0	12.0	12.0	---	---	---	19.0	17.0	18.0
27	---	---	---	12.0	12.0	12.0	---	---	---	17.0	16.0	16.5
28	---	---	---	13.0	12.0	12.0	---	---	---	18.0	16 0	17 0
29	---	---	---	13.0	12.0	12.5	---	---	---	21 0	18.0	19.5
30	---	---	---	13.0	12.0	12.0	---	---	---	24.0	21.0	23 0
31	---	---	---	12.0	11.0	12.0	---	---	---	24.0	24 0	24.0
MONTH	---	---	---	13.0	4.0	8.8	23.0	7.0	11.1	24.0	10.0	16.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	24.0	24.0	25.0	23.0	24.0	25.0	24.0	24.5	20.0	19.0	19.5
2	24.0	23.0	24.0	24.0	22.0	23.5	25.0	24.0	24 0	19.0	19 0	19.0
3	23.0	22.0	23.0	23.0	22.0	22.5	25.0	23.0	24.0	19.0	18.0	19.0
4	22.0	20.0	20.5	24.0	23.0	23.5	26.0	24.0	24.5	19.0	19.0	19.0
5	21.0	19.0	20.0	25.0	23.0	24.0	26.0	25.0	25.0	20.0	19.0	19.0
6	22.0	20.0	20.5	25.0	24.0	24.5	25.0	23.0	23.5	19.0	19.0	19.0
7	21.0	20.0	20.5	24.0	23.0	23.5	24.0	23.0	23.0	19.0	18.0	18.5
8	22.0	20.0	21.0	24.0	22.0	23.0	25.0	23.0	23.5	19.0	18.0	19.0
9	22.0	21.0	21.5	24.0	23.0	23.5	24.0	23.0	24.0	20.0	18.0	18.5
10	22.0	21.0	21.5	24.0	23.0	23.5	23.0	22.0	22.0	18.0	17.0	17.5
11	22.0	20.0	21.0	25.0	24.0	24.5	23.0	22.0	22.0	18.0	17.0	17.5
12	21.0	20.0	20.5	26.0	25.0	25.5	23.0	22.0	22.5	18.0	17.0	17.5
13	22.0	20.0	20.5	26.0	25.0	26.0	24.0	22.0	22.5	17.0	17.0	17.0
14	22.0	21.0	21.5	26.0	24.0	25.5	24.0	22.0	23.0	17.0	17.0	17.0
15	24.0	22.0	23.0	24.0	21.0	22.0	25.0	23.0	23.5	17.0	16.0	16 5
16	25.0	23.0	24.0	21.0	19.0	20.0	25.0	24.0	24.0	18.0	17.0	17 0
17	25.0	23.0	24.0	20.0	19.0	19.5	26.0	24.0	25.0	18.0	17.0	17 5
18	25.0	23.0	24.0	22.0	20.0	20.5	27.0	25.0	25.5	18.0	17.0	17 0
19	25.0	24.0	24.5	24.0	22.0	22.5	26.0	25.0	25.5	17.0	15.0	16 0
20	26.0	24.0	25.0	24.0	24.0	24.0	26.0	25.0	25.5	16 0	15.0	15.0
21	26.0	25.0	25.0	26.0	24.0	24.5	25.0	24.0	24.5	16.0	15 0	15.5
22	24.0	23.0	23.5	27.0	24.0	25.5	25.0	23.0	24.0	17.0	16.0	16.0
23	23.0	22.0	22.0	28.0	25.0	26.5	24.0	23.0	23.0	16.0	16.0	16.0
24	24.0	22.0	23.0	28.0	26.0	26.5	23.0	21.0	22.0	16.0	15.0	16.0
25	25.0	23.0	24.0	28.0	26.0	27.0	22.0	20.0	21.0	16.0	15.0	15.5
26	25.0	23.0	23.5	27.0	25.0	26.0	21.0	20.0	20.5	15.0	14.0	15.0
27	23.0	22.0	22.5	25.0	24.0	24.5	21.0	19.0	20.0	16.0	14.0	15.0
28	22.0	21.0	22.0	26.0	24.0	24.5	19.0	18.0	18.5	17.0	15.0	15.5
29	23.0	21.0	22.0	25.0	23.0	24.0	19.0	18.0	18.5	17.0	16.0	16.5
30	24.0	22.0	23.0	25.0	23.0	24.0	19.0	18.0	18.5	17.0	17.0	17.0
31	---	---	---	25.0	23.0	24.0	19.0	19.0	19.0	---	---	---
MONTH	26.0	19.0	22.5	28.0	19.0	24.0	27.0	18.0	22.8	20.0	14.0	17.1

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	11.0	9.2	9.8	---	---	---	---	---	---
2	---	---	---	10.0	9.1	9.5	---	---	---	---	---	---
3	---	---	---	11.0	9.0	9.7	---	---	---	---	---	---
4	8.0	7.0	7.4	---	---	---	---	---	---	---	---	---
5	8.1	7.2	7.6	---	---	---	---	---	---	---	---	---
6	8.6	7.8	8.2	---	---	---	---	---	---	---	---	---
7	9.4	8.4	8.9	---	---	---	---	---	---	---	---	---
8	9.6	8.7	9.1	---	---	---	---	---	---	---	---	---
9	9.4	8.6	9.0	---	---	---	---	---	---	---	---	---
10	9.7	8.3	8.9	---	---	---	---	---	---	---	---	---
11	10.1	8.4	9.0	---	---	---	---	---	---	---	---	---
12	10.2	8.7	9.3	---	---	---	---	---	---	---	---	---
13	9.1	8.5	8.7	---	---	---	---	---	---	---	---	---
14	8.7	7.9	8.3	---	---	---	---	---	---	---	---	---
15	9.0	7.8	8.2	---	---	---	---	---	---	---	---	---
16	9.8	8.1	8.8	---	---	---	---	---	---	---	---	---
17	9.4	8.7	9.0	---	---	---	---	---	---	---	---	---
18	10.2	8.8	9.3	---	---	---	---	---	---	---	---	---
19	10.3	9.2	9.7	---	---	---	---	---	---	---	---	---
20	10.7	9.6	9.9	---	---	---	---	---	---	---	---	---
21	10.3	9.3	9.6	---	---	---	---	---	---	---	---	---
22	10.5	8.9	9.5	---	---	---	---	---	---	---	---	---
23	10.2	8.7	9.2	---	---	---	---	---	---	---	---	---
24	10.5	8.3	9.1	---	---	---	---	---	---	---	---	---
25	10.4	8.1	9.0	---	---	---	---	---	---	---	---	---
26	9.0	8.4	8.6	---	---	---	---	---	---	---	---	---
27	9.1	8.5	8.7	---	---	---	---	---	---	---	---	---
28	9.8	8.5	9.0	---	---	---	---	---	---	---	---	---
29	10.1	8.6	9.1	---	---	---	---	---	---	---	---	---
30	10.5	8.8	9.4	---	---	---	---	---	---	---	---	---
31	10.9	8.9	9.5	---	---	---	---	---	---	---	---	---
MONTH	10.9	7.0	8.9	11.0	9.0	9.7	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.0	9.8	10.6	---	---	---
2	---	---	---	---	---	---	11.4	11.1	11.3	---	---	---
3	---	---	---	---	---	---	11.5	11.2	11.4	---	---	---
4	---	---	---	---	---	---	11.3	9.5	10.5	---	---	---
5	---	---	---	---	---	---	9.5	6.9	8.5	---	---	---
6	---	---	---	---	---	---	8.5	6.7	7.5	9.2	8.7	9.0
7	---	---	---	---	---	---	9.6	5.8	7.3	8.8	8.3	8.6
8	---	---	---	---	---	---	9.5	8.7	9.2	8.4	8.0	8.2
9	---	---	---	---	---	---	9.4	8.7	9.1	---	---	---
10	---	---	---	---	---	---	11.1	7.6	9.9	---	---	---
11	---	---	---	---	---	---	10.8	10.1	10.4	---	---	---
12	---	---	---	12.1	11.9	12.0	10.1	9.9	10.0	---	---	---
13	---	---	---	11.9	11.7	11.8	10.3	9.9	10.1	---	---	---
14	---	---	---	12.0	11.7	11.8	10.8	10.2	10.4	---	---	---
15	---	---	---	11.9	11.5	11.7	10.5	10.2	10.3	---	---	---
16	---	---	---	11.8	11.4	11.6	10.6	10.3	10.5	10.7	9.4	10.0
17	---	---	---	11.9	11.4	11.6	10.6	10.3	10.5	10.8	9.6	10.1
18	---	---	---	11.8	11.2	11.5	10.3	10.2	10.2	10.6	8.8	9.6
19	---	---	---	11.6	11.0	11.3	10.2	9.7	9.9	8.7	8.2	8.4
20	---	---	---	11.4	10.9	11.1	9.7	9.4	9.5	9.5	8.4	9.0
21	---	---	---	11.5	10.8	11.1	9.6	9.0	9.2	10.3	9.5	9.9
22	---	---	---	11.7	10.9	11.2	9.2	8.0	8.5	10.0	9.2	9.7
23	---	---	---	11.3	10.4	10.9	8.2	7.1	7.7	9.3	8.6	8.9
24	---	---	---	11.5	10.2	10.7	---	---	---	9.3	8.3	8.7
25	---	---	---	10.9	10.0	10.3	---	---	---	8.9	8.3	8.5
26	---	---	---	10.6	9.6	10.1	---	---	---	9.1	8.3	8.7
27	---	---	---	11.5	9.6	10.5	---	---	---	9.5	8.8	9.2
28	---	---	---	11.1	10.1	10.5	---	---	---	9.8	9.0	9.4
29	---	---	---	11.3	10.0	10.5	---	---	---	9.4	8.4	8.9
30	---	---	---	10.8	10.0	10.3	---	---	---	9.0	7.9	8.3
31	---	---	---	9.9	9.3	9.6	---	---	---	8.5	7.3	7.8
MONTH	---	---	---	12.1	9.3	1.0	11.5	5.8	9.7	10.8	7.3	9.0

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	9.0	7.1	7.9	9.8	6.4	7.9	10.0	6.3	7.9	9.1	7.9	8.3
2	8.2	7.0	7.5	7.2	6.5	6.8	9.1	6.5	7.8	9.4	8.4	8 7
3	7.6	6.6	7.0	9.0	6.4	7.5	9.9	7.1	8.1	9.4	8.4	8.7
4	7.9	7.1	7.5	9.1	7.0	7.9	9.6	7.3	8.2	9.9	8.3	9.0
5	9.0	7.6	8.2	10.5	7.2	8.4	8.4	5.6	6.8	10.1	8.6	9.2
6	9.1	7.8	8.3	10.5	7.3	8.6	7.9	6.2	6.8	9.4	8.7	9.0
7	9.0	7.7	8.2	8.3	7.2	7.6	9.3	6.5	7.7	8.8	8.4	8.6
8	9.4	7.8	8.4	9.5	6.6	7.6	9.8	6.9	8.1	8.5	5.7	8.2
9	8.8	7.7	8.1	8.0	6.6	7.1	8.7	6.5	7.4	8.6	6.4	8.0
10	9.3	7.5	8.1	7.2	6.5	6.9	7.6	7.1	7.3	9.1	8.6	8.8
11	10.2	7.5	8.7	8.0	6.8	7.2	7.9	7.2	7.5	9.5	9.0	9.3
12	8.7	7.6	8.1	8.0	6.7	7.1	8.6	7.3	7.8	9.5	9.4	9.4
13	9.7	7.5	8.4	8.0	6.3	6.9	9.4	7.5	8.2	9.5	8.7	9.3
14	9.2	7.5	8.2	7.3	6.2	6.5	9.2	7.3	8.0	9.4	8.7	9.2
15	9.3	7.4	8.2	7.8	6.4	7.2	9.0	6.7	7.6	11.6	8.7	9.3
16	10.5	6.9	8.3	8.5	7.9	8.1	8.7	6.3	7.2	11.8	9.0	10.1
17	11.4	6.5	8.5	8.5	8.2	8.5	9.1	5.4	6.8	11.3	9.1	10.8
18	11.7	6.8	8.9	8.6	7.8	8.2	10.1	6.3	7.8	12.5	9.4	11 1
19	10.4	6.9	8.3	8.1	7.4	7.7	10.4	6.0	7.8	12.5	11.9	12.2
20	9.4	5.8	7.4	8.0	7.1	7.4	10.6	6.4	8.1	12.8	10.4	12.3
21	8.2	5.5	6.2	8.6	6.9	7.5	11.5	6.5	8.8	12.9	10.2	11.2
22	6.5	5.9	6.2	8.8	6.6	7.4	10.6	7.5	9.0	14.0	10.3	12.0
23	7.4	6.4	6.8	9.2	6.2	7.3	11.6	8.5	9.8	14.3	12.1	13.6
24	8.2	6.6	7.1	9.4	6.0	7.3	10.6	8.4	9.5	14.4	10.8	13.1
25	8.7	6.5	7.4	9.2	6.2	7.4	10.3	8.1	9.0	14.2	12.4	12 9
26	7.4	6.0	6.7	7.6	5.8	6.6	10.8	7.5	8.8	14.3	13 5	13.8
27	8.9	6.3	7.6	8.7	6.4	7.3	10.2	7.7	8.3	14.5	9.9	13 5
28	8.7	7.1	7.8	9.2	6.5	7.4	8.1	7.6	7.9	9.8	9.0	9 3
29	9.8	7.2	8.2	9.5	6.2	7.6	8.9	8.0	8.5	9.3	9.0	9.1
30	10.5	7.0	8.3	9.3	6.2	7.5	9.4	8.5	8.8	9.2	9.1	9.1
31	---	---	---	9.4	6.2	7.6	9.1	8.3	8.6	---	---	---
MONTH	11.7	5.5	7.8	10.5	5.8	7.5	11.6	5.4	8.1	14.5	5.7	10.2

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir) --Lat 41°06'45" long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek and 5 mi northeast of White Haven. DRAINAGE AREA, 289 mi². PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft. Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft, conservation pool. Dead storage is 2,000 acre-ft. Reservoir is used for flood control and recreation. Flow regulated by three gates and low-flow by-pass system. Records furnished by the Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 62,100 acre-ft Sept. 28, 1985, elevation, 1,417.08 ft; minimum (after establishment of conservation pool), 980 acre-ft July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 62,100 acre-ft Sept. 28, elevation, 1,417.08 ft; minimum, 1,340 acre-ft Feb. 18, elevation, 1,293.00 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 29,800 acre-ft, Apr. 6, elevation, 1,382.60 ft; minimum, 1,510 acre-ft, Jul. 19, elevation, 1,295.11 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi upstream from Hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10 mi northeast of Palmerton. DRAINAGE AREA, 16.5 mi. PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft. Storage began in October 1958. Capacity at elevation 1,000.00 ft is 19,980 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin in to Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum, 176 acre-ft, Oct. 6, 1965, elevation, 902.40 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,390 acre-ft, Apr. 5, elevation, 1,000.71 ft; minimum, 14,980 acre-ft, Nov. 20, elevation, 988.28 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi upstream from mouth, 2.4 mi south of Hatchery, and 7.5 mi northeast of Palmerton. DRAINAGE AREA, 22.2 mi. PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft. Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplised by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,280 acre-ft, Apr. 5, elevation, 820.92 ft; minimum, 11,000 acre-ft, Feb. 28, elevation, 816.06 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi upstream from gaging station on Pohopoco Creek, 0.55 mi upstream from Sawmill Run and 2.3 mi northeast of Parryville. DRAINAGE AREA, 96.3 mi. PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum (conservation) pool elevation is 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Reservoir is used for recreation, flood control, low flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 49,730 acre-ft, Jan. 29, 1976, elevation, 636.30 ft minimum, 15,110 acre-ft, Mar. 31, 1983, elevation, 588.79 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 45,460 acre-ft, Sept. 14, elevation, 632.26 ft; minimum, 35,800 acre-ft, Sept. 30, elevation 621.94.

LAKES AND RESERVIORS IN LEHIGH RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01447780 Francis E. Walter Reservoir			01449400 Penn Forest Reservoir		
Sept. 30	1299.74	1970	--	994.10	17350	--
Oct. 31	1301.62	2160	+ 3.1	990.20	15720	- 26.5
Nov. 30	1300.32	2030	- 2.2	991.19	16140	+ 7.1
Dec. 31	1301.40	2140	+ 1.8	999.06	19560	+ 55.6
CAL YR 1986	--	--	+ 0.1	--	--	+ 9.3
Jan. 31	1300.77	2080	- 1.0	1000.15	20070	+ 8.3
Feb. 28	1302.06	2210	+ 2.3	1000.06	20010	- 1.1
Mar. 31	1311.33	3250	+ 16.9	1000.25	20120	+ 1.8
Apr. 30	1301.82	2180	- 18.0	1000.14	20060	- 1.0
May 31	1301.09	2110	- 1.1	1000.08	20020	- 0.7
June 30	1300.21	2020	- 1.5	997.58	18890	- 19.0
July 31	1300.90	2090	+ 1.1	994.80	17640	- 20.3
Aug. 31	1312.12	3360	+ 20.6	990.92	16020	- 26.3
Sept. 30	1308.13	2860	- 8.4	1000.22	20110	+ 68.7
WTR YR 1987	--	--	+ 1.2	--	--	+ 3.8
	01449700 Wild Creek Reservoir			01449790 Beltzville Lake		
Sept. 30	816.39	11090	--	628.08	41330	--
Oct. 31	817.21	11310	+ 3.6	628.04	41290	- 0.7
Nov. 30	819.69	11940	+ 10.6	628.04	41290	0
Dec. 31	817.77	11460	- 7.8	628.33	41560	+ 4.4
CAL YR 1986	--	--	+ 1.3	--	--	+ 0.5
Jan. 31	818.23	11600	+ 2.3	628.04	41290	- 4.4
Feb. 28	816.06	11000	- 10.8	628.02	41270	- 0.4
Mar. 31	820.18	12050	+ 17.1	628.15	41390	+ 2.0
Apr. 30	820.13	12040	- 0.2	628.10	41340	- 0.8
May 31	819.17	11830	- 3.4	628.12	41360	+ 0.4
June 30	818.84	11760	- 1.2	628.06	41310	- 0.8
July 31	818.76	11740	- 0.3	628.06	41310	0
Aug. 31	819.00	11800	+ 1.0	628.01	41260	- 0.8
Sept. 30	819.71	11940	+ 2.4	621.94	35800	- 91.7
WTR YR 1987	--	--	+ 1.2	--	--	- 7.6

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at highway bridge, 1.5 mi northeast of Pipersville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--97.4 mi².

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 258.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges during water year: Oct. 1-3, Jan. 12 to Feb.15, Sept. 5-20. Record good except for periods of estimated record, which are fair. Regulated since December 1973 by Nockamixon Lake about 6.2 mi upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 147 ft³/s, 20.50 in/yr, adjusted for storage since December 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s, July 7, 1984, gage height, 11.32 ft from rating curve extended above 3,600 ft³/s, on basis of slope-area measurement at gage height 10.48 ft; minimum, 0.05 ft³/s, Sept. 24, 29, Oct. 6, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,200 ft³/s, Apr. 4, gage height, 7.05 ft; minimum daily discharge, 4.3 ft³/s, Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	275	108	89	e66	1520	374	104	19	20	5.0	6.6
2	11	334	116	153	e63	2030	246	84	22	35	4.6	6.7
3	11	10	1030	195	122	927	154	78	20	36	4.3	6.1
4	13	5.7	554	179	240	526	2600	181	19	27	5.4	5.5
5	15	6.3	273	149	251	331	1740	305	26	23	5.6	5.2
6	14	17	161	116	198	248	1250	253	21	18	97	5.1
7	12	10	113	100	e170	257	783	168	18	15	139	5.6
8	8.6	16	91	93	e140	293	432	118	16	25	76	9.0
9	7.4	19	266	83	e120	254	268	89	16	73	45	57
10	7.1	14	474	92	e98	183	185	71	15	61	51	110
11	6.9	34	331	210	e85	127	137	57	12	30	44	68
12	5.6	77	247	232	e75	102	116	51	10	23	31	42
13	5.5	103	188	192	e66	91	146	40	9.4	19	23	118
14	7.2	73	125	188	e60	80	139	33	8.8	21	19	364
15	7.3	53	97	283	e53	71	114	36	8.2	35	16	194
16	7.9	44	83	331	e50	67	93	36	7.5	22	14	96
17	7.1	38	79	223	e45	64	142	31	6.5	18	12	65
18	6.7	35	547	187	e41	54	262	29	5.8	15	11	112
19	6.3	415	1040	401	e38	46	219	29	5.4	13	8.8	131
20	6.0	352	454	497	e36	45	163	30	5.3	11	7.4	108
21	5.7	1460	249	353	e33	290	130	33	5.2	9.1	6.3	78
22	5.6	656	159	254	e32	353	106	35	9.8	8.1	5.6	66
23	5.6	275	116	e190	80	14	85	36	29	7.0	5.5	130
24	5.4	187	99.7	e150	92	9.3	123	36	35	6.2	5.2	107
25	5.4	175	2260	e120	86	8.5	676	32	30	5.7	4.6	67
26	7.6	867	1010	e100	86	8.3	414	29	25	6.9	4.4	42
27	8.8	1440	402	e90	90	7.9	226	27	24	7.6	5.1	32
28	7.2	543	238	e82	97	8.9	163	25	22	6.6	5.6	26
29	8.2	270	165	e78	---	8.4	187	24	18	5.8	6.9	23
30	11	163	128	e73	---	9.0	145	22	15	5.4	7.4	22
31	11	---	109	e68	---	100	---	21	---	5.3	6.8	---
TOTAL	258.1	7967.0	11312.7	5551	2613	8133.3	11818	2143	483.9	613.7	682.5	2107.8
MEAN	8.33	266	365	179	93.3	262	394	69.1	16.1	19.8	22.0	70.3
MAX	15	1460	2260	497	251	2030	2600	305	35	73	139	364
MIN	5.4	5.7	79	68	32	7.9	85	21	5.2	5.3	4.3	5.1
MEAN‡	8.33	275	364	178	94.6	239	414	64.5	14.9	19.8	25.4	76.2
CFSM‡	.09	2.82	3.74	1.83	.97	2.45	4.25	.66	.15	.20	.26	.78
IN‡	.10	3.15	4.31	2.11	1.01	2.83	4.74	.76	.17	.23	.30	.87

CAL YR 1986 TOTAL 57481.8 MEAN 157 MAX 2670 MIN 4.8 MEAN‡ 157 CFSM‡ 1.62 IN‡ 21.95
WTR YR 1987 TOTAL 53684.0 MEAN 147 MAX 2600 MIN 4.3 MEAN‡ 148 CFSM‡ 1.52 IN‡ 20.63

‡ Adjusted for change in contents in Nockamixon Lake.
e Estimated

RESERVOIR IN TOHICKON CREEK BASIN

01459350 NOCKAMIXON RESERVOIR.--Lat 40°28'13", long 75°11'10", Bucks County, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 2.9 mi upstream from Mink Run, 1.3 mi east of Ottsville. DRAINAGE AREA, 73.3 mi². PERIOD OF RECORD, December 1973 to current year. GAGE, water stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservior formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began December 1973. Total capacity 66,500 acre-ft at elvation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control. Records furnished by Pennsylvania Department of Enviromental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 44,380 acre-ft, Jan. 20, 1979, elevation 397.85 ft: minimum (after first filling) 15,900 acre-ft, around Dec. 31, 1975, elevation 372.78 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 42,200 acre-ft, Apr. 5, elevation 396.40 ft; minimum, 38,800 acre-ft, Nov. 2, elevation 394.00 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
		01459350 NOCKAMIXON RESERVOIR	
Sept. 30	394.75	39850	--
Oct. 31	394.75	39850	0
Nov. 30	395.15	40410	+ 9.4
Dec. 31	395.10	40340	- 1.1
CAL YR 1986	--	--	+ 0.4
Jan. 31	395.05	40270	- 1.1
Feb. 28	395.10	40340	+ 1.3
Mar. 31	394.10	38940	- 22.8
Apr. 30	394.95	40130	+ 20.0
May 31	394.75	39850	- 4.6
June 30	394.70	39780	- 1.2
July 31	394.70	39780	0
Aug. 31	394.85	39990	+ 3.4
Sept. 30	395.10	40340	+ 5.9
WTR YR 1987	--	--	+ 0.7

01463500 DELAWARE RIVER AT TRENTON, NJ
(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.
DRAINAGE AREA.--6,780 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.
REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.
GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913 to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.
REMARKS.--Records excellent except for period of ice effect, Jan. 25-30, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River basin, diversions). Gage height satellite telemeter at station.
AVERAGE DISCHARGE.--75 years, 11,690 ft^3/s, unadjusted.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft^3/s, Aug. 20, 1955, elevation, 28.60 ft, from high-water mark in gage house, from rating curve extended above 230,000 ft^3/s; minimum, 1,180 ft^3/s Oct. 31, 1963, elevation, 7.26 ft. Flow in Delaware and Raritan Canal not included.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft^3/s. Maximum elevation since 1903, 30.6 ft above National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Elevation (ft)	Date	Time	Discharge (ft^3/s)	Elevation (ft)
Apr. 6	0815	*90,700	*17.43	Sep. 14	0715	61,400	15.21
Sep. 9	1645	63.900	15.42				

Minimum discharge, 2,900 ft^3/s, Aug. 24, 25, gage height, 7.99 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3770	3310	19700	14300	8190	10200	21800	9840	5340	3850	4290	6580
2	3840	3530	17000	14200	7850	20300	26700	9280	4850	6090	3950	6120
3	3980	3310	24700	14100	7920	19200	22800	8580	5410	7790	3850	5820
4	3840	3030	25100	13100	8690	19500	37400	9450	6460	5310	3510	5440
5	4660	3100	24400	12100	8820	17700	67100	11500	7120	5500	3700	4620
6	7660	3940	20900	10600	7980	15200	83600	12200	6030	5300	5430	3850
7	7020	4690	17300	10400	7440	14000	65700	11200	5790	4630	5300	3670
8	5540	5030	15100	10100	7540	15200	57300	9980	5080	4540	4820	5490
9	4730	5920	15100	9960	7240	19200	48900	9220	4550	5850	4440	40600
10	4120	7200	17300	9550	6630	29400	42300	8470	4450	8480	7250	44400
11	3650	14500	17100	9870	6500	27800	33600	7680	4650	7220	6400	33100
12	3520	14500	17400	9480	7190	23100	27900	7290	4660	6620	4800	22500
13	3400	12000	16300	9070	6820	20400	25900	7020	4460	5730	4640	20900
14	3210	10400	14400	9600	6240	18100	29800	6460	4190	6490	4030	57500
15	3430	9080	12600	9560	5940	16000	32500	6230	4660	14200	3640	51100
16	3810	7760	11400	9880	5370	13600	27600	6230	4410	15500	3400	38900
17	4460	6880	11900	10400	4420	12500	25200	5880	4560	15300	3320	31100
18	4490	6510	13500	10700	5050	12200	24000	5610	4340	11000	3300	26600
19	4130	9410	18700	10600	5500	11600	22300	5540	4090	8400	3530	28600
20	3890	10500	16900	11100	5660	11300	20600	6270	3990	6810	3890	35600
21	3270	20300	15400	11000	5590	11500	18800	6490	4010	5830	3090	29300
22	3280	28500	13100	10600	5540	11400	15900	6540	4500	5640	3080	25400
23	3450	29700	11600	9660	5420	10100	14300	6260	4810	5730	3150	22200
24	3330	22000	10800	9030	5200	9830	13600	6170	4220	5390	3010	18900
25	3100	18800	24700	e7600	4940	11400	16500	6780	4010	5220	2940	17000
26	3670	22300	23400	e7900	4930	12300	14800	7010	4680	5290	3020	14900
27	3570	29600	22400	e8600	5080	13400	13000	6820	4630	6070	3320	13400
28	3600	39200	20400	e8700	5110	15200	12000	6340	4450	4980	4280	12800
29	3750	33000	16800	e8600	---	15400	11500	6010	4340	4900	5700	11900
30	4090	24700	15100	e8400	---	14200	10500	5800	4120	4630	7210	10700
31	3730	---	15300	8580	---	15900	---	5890	---	4510	7140	---
TOTAL	125990	412700	535800	317340	178800	487130	883900	234040	142860	212800	133430	648990
MEAN	4064	13760	17280	10240	6386	15710	29460	7550	4762	6865	4304	21630
MAX	7660	39200	25100	14300	8820	29400	83600	12200	7120	15500	7250	57500
MIN	3100	3030	10800	7600	4420	9830	10500	5540	3990	3850	2940	3670

CAL YR 1986 TOTAL 4562220 MEAN 12500 MAX 128000 MIN 3030
WTR YR 1987 TOTAL 4313780 MEAN 11820 MAX 83600 MIN 2940

e Estimated

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1979, February 1980 to August 1982, April 1983 to current year.
WATER TEMPERATURE: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962. Monitor probes are located within raw water intake of Trenton Filtration Plant.

REMARKS.--Missing continuous water-quality records are the result of malfunctions of the instrument. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 microsiemens, Jan. 24, 1959; minimum, 50 microsiemens, Mar. 19, 1945.
pH: Maximum, 10.3, August 9, 10, 1983; minimum, 5.3, June 22, 1972.
WATER TEMPERATURE: Maximum, 34.0°C, June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 19.7 mg/L, February 28, 1987; minimum, 4.0 mg/L, Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 246 microsiemens, Aug. 24; minimum, 72 microsiemens, July 3.
pH: Maximum, 9.9, Feb. 28; minimum 6.6, July 3.
WATER TEMPERATURE: Maximum, 31.5°C, July 24, 25; minimum 0.0°C on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 19.7 mg/L, Feb. 28; minimum, 5.9 mg/L, June 22, Aug. 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
DEC 1986												
08...	1300	14900	125	8.1	3.5	1.0	13.6	101	3.0	K50	--	46
FEB 1987												
20...	1300	5350	225	9.4	4.0	1.0	17.2	130	1.2	K6	160	82
MAY												
01...	1200	9920	177	7.9	14.0	2.0	10.6	103	2.0	K10	1400	64
AUG												
28...	1200	4330	233	7.8	21.0	11	7.7	86	1.3	130	290	81

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	ALKA-LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC 1986												
08...	12	3.8	5.8	1.0	--	--	--	19	9.4	<0.1	4.9	72
FEB 1987												
20...	21	7.1	11	1.4	--	--	--	27	16	0.1	2.6	120
MAY												
01...	16	5.7	8.3	1.4	58	48	50	20	11	<0.1	3.8	95
AUG												
28...	20	7.5	11	1.5	77	63	64	28	15	0.1	2.6	120

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
DEC 1986											
08...	7	282	84	0.010	0.87	0.14	0.130	0.50	0.040	0.030	0.020
FEB 1987											
20...	8	116	58	0.040	1.40	0.26	0.240	1.4	0.220	0.040	0.040
MAY											
01...	4	107	91	0.030	0.94	0.06	0.020	1.0	0.050	0.040	0.020
AUG											
28...	--	--	--	0.060	1.50	0.20	0.190	0.80	0.100	0.060	0.060

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC 1986										
08...	1300	50	<1	29	<0.5	<1	<1	<3	3	33
FEB 1987										
20...	1300	30	<1	31	<0.5	<1	<1	<3	6	39
MAY										
01...	1200	40	<1	24	<0.5	<1	<1	<3	3	54
AUG										
28...	1200	<10	<1	29	<0.5	<1	<1	<3	3	20

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC 1986										
08...	<5	5	14	<0.1	<10	<1	<1	<1	49	<6
FEB 1987										
20...	<5	6	25	<0.1	<10	<1	<1	<1	82	<6
MAY										
01...	<5	<4	12	<0.1	<10	<1	<1	<1	64	<6
AUG										
28...	5	<4	8	<0.1	<10	<1	<1	<1	81	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
DEC 1986									
08...	15	--	--	--	--	--	--	--	--
FEB 1987									
20...	17	<0.4	<0.4	1.7	<0.4	1.5	<0.4	0.03	0.14
MAY									
01...	15	--	--	--	--	--	--	--	--
AUG									
28...	6	0.7	<0.4	1.9	<0.4	1.6	<0.4	0.04	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	21.5	22.5	13.0	11.0	12.0	5.0	4.5	4.5	3.5	2.5	3.0
2	24.0	22.0	23.0	14.0	12.5	13.0	5.5	4.0	4.5	2.5	2.5	2.5
3	22.5	21.0	21.5	13.5	11.0	12.0	6.5	5.5	6.5	2.5	2.0	2.0
4	22.5	20.5	21.5	11.5	11.0	11.5	6.0	5.0	5.5	2.5	2.0	2.0
5	22.0	20.5	21.0	11.0	9.5	10.0	5.0	4.0	4.5	2.5	1.5	2.0
6	20.0	17.5	19.0	11.0	9.5	10.0	4.0	3.5	4.0	2.5	1.5	2.0
7	17.5	16.0	17.0	10.0	9.5	9.5	4.0	3.0	3.5	2.0	2.0	2.0
8	17.5	15.5	16.5	10.5	10.0	10.5	4.0	3.5	4.0	2.5	2.0	2.0
9	18.5	16.0	17.0	12.0	10.5	11.5	4.5	4.0	4.5	2.5	2.0	2.5
10	17.0	15.0	16.0	11.0	10.0	10.5	5.5	4.5	5.0	3.0	2.5	2.5
11	15.5	13.5	14.5	9.5	8.5	9.0	5.0	4.0	4.5	3.5	2.5	3.0
12	16.5	14.0	15.0	8.5	8.0	8.5	4.0	3.5	4.0	3.0	2.5	2.5
13	16.0	15.5	15.5	8.0	6.0	7.0	3.5	2.5	3.0	4.0	2.5	3.0
14	17.5	15.5	16.5	6.0	5.5	6.0	2.5	2.0	2.0	4.0	3.0	3.5
15	16.0	14.0	15.0	5.0	4.5	5.0	2.0	1.5	2.0	4.5	4.0	4.5
16	15.0	13.5	14.5	6.5	5.0	5.5	2.0	1.5	2.0	5.0	4.0	4.5
17	14.0	13.0	13.5	7.0	6.0	6.5	2.5	2.0	2.5	4.0	3.5	4.0
18	15.0	13.0	13.5	7.0	6.0	6.5	4.0	2.5	3.5	3.5	2.5	3.0
19	14.5	12.0	13.0	7.0	6.0	6.5	5.0	4.0	4.5	2.5	2.0	2.5
20	15.0	12.0	13.5	6.0	5.0	5.5	4.5	4.0	4.0	2.5	1.5	2.0
21	15.0	12.0	13.5	7.5	5.0	6.0	4.5	3.5	4.0	2.5	2.0	2.5
22	16.0	13.0	14.5	5.0	4.0	4.5	4.0	3.0	3.5	2.0	.0	1.0
23	15.5	13.5	14.5	4.0	3.5	4.0	3.5	2.5	3.0	.5	.0	.0
24	16.5	14.0	15.0	5.0	4.0	4.5	3.0	2.5	3.0	.5	.0	.0
25	14.5	13.0	13.5	5.5	4.5	5.0	5.0	3.5	4.5	.0	.0	.0
26	13.5	13.0	13.5	7.5	5.0	5.5	4.5	4.0	4.0	.5	.0	.0
27	13.5	13.0	13.5	8.0	6.5	7.0	4.5	4.0	4.0	.5	.0	.0
28	15.0	13.0	14.0	6.0	5.5	6.0	4.0	3.5	4.0	.0	.0	.0
29	15.0	12.5	14.0	6.0	5.5	5.5	4.0	3.0	3.5	.5	.0	.5
30	15.5	13.0	14.0	5.5	5.0	5.5	3.5	3.5	3.5	1.0	.5	.5
31	14.0	12.0	13.0	---	---	---	4.0	3.5	3.5	2.0	1.0	1.0
MONTH	24.0	12.0	16.0	14.0	3.5	7.5	6.5	1.5	4.0	5.0	.0	2.0

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

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.5	25.0	26.5	29.0	25.5	27.0	30.0	26.0	27.5	22.5	20.5	21.5
2	28.5	25.5	27.0	26.5	22.5	25.5	27.5	26.0	26.5	22.5	19.5	21.0
3	26.0	23.5	24.5	26.5	22.0	24.0	29.5	25.5	27.0	23.5	20.0	21.5
4	23.5	22.0	22.5	28.0	25.0	26.5	31.0	26.5	29.0	23.0	20.0	21.5
5	24.5	21.0	22.5	28.5	25.0	27.0	30.0	27.5	28.5	23.5	20.0	21.5
6	25.0	22.0	23.5	28.0	25.5	26.5	27.5	26.0	26.5	22.0	21.0	21.5
7	23.5	22.0	22.5	26.0	24.5	25.5	27.5	25.0	26.0	23.5	21.0	22.0
8	25.5	22.0	23.5	27.5	24.0	25.5	28.5	25.0	26.5	22.0	21.5	22.0
9	25.0	23.0	24.0	28.5	25.5	27.0	28.5	26.0	27.0	21.5	19.5	21.0
10	25.0	21.0	23.0	27.0	26.0	26.5	27.5	24.5	26.0	21.0	19.0	20.0
11	25.5	21.0	23.0	29.0	26.0	27.5	27.0	24.0	25.5	20.5	19.5	20.0
12	23.0	22.0	22.5	30.5	26.0	28.0	27.5	24.0	25.5	20.0	19.5	19.5
13	25.5	22.0	23.5	30.5	27.0	28.5	26.5	24.0	25.0	20.5	19.5	20.0
14	28.0	23.0	25.0	30.0	24.5	27.5	27.5	23.5	25.5	19.5	19.0	19.0
15	28.5	24.5	26.5	26.5	22.5	24.5	29.0	25.0	26.5	19.0	18.5	19.0
16	29.5	25.5	27.0	25.5	24.0	25.0	30.5	26.0	28.0	19.5	18.0	18.5
17	28.5	25.5	27.0	25.0	23.0	24.0	31.0	27.0	29.0	19.5	19.0	19.0
18	29.0	24.5	26.5	25.5	23.0	24.5	31.0	28.0	29.5	19.5	19.0	19.5
19	29.0	25.0	27.0	26.5	24.0	25.5	30.5	27.0	28.5	19.0	17.5	18.5
20	30.5	26.0	28.0	27.5	25.0	26.0	30.0	27.0	28.0	17.5	16.5	17.0
21	28.5	26.5	27.5	29.5	25.5	27.5	29.5	25.0	27.0	17.0	16.0	16.5
22	26.5	24.5	25.5	30.5	27.0	28.5	27.0	25.5	26.0	18.0	16.5	17.0
23	27.0	24.5	25.5	31.0	28.0	29.5	26.0	24.0	25.0	19.0	16.5	17.5
24	28.5	24.0	26.0	31.5	28.5	30.0	25.0	22.0	23.5	18.5	17.0	18.0
25	29.5	25.0	26.5	31.5	29.0	30.0	24.5	21.0	22.5	19.0	17.0	17.5
26	26.0	24.0	25.0	30.0	28.0	28.5	24.5	21.0	23.0	17.5	16.0	16.5
27	25.5	23.0	24.0	29.5	26.5	28.0	22.5	20.5	21.5	17.5	16.0	17.0
28	26.0	23.0	24.5	30.5	27.0	28.5	21.0	20.5	21.0	18.0	16.5	17.0
29	27.5	23.0	25.0	29.5	26.5	28.0	23.0	20.5	21.5	19.0	17.0	18.0
30	28.5	24.0	26.0	29.0	25.5	27.0	23.0	20.5	21.5	18.5	18.0	18.5
31	---	---	---	28.5	26.0	27.0	22.0	20.5	21.0	---	---	---
MONTH	30.5	21.0	25.0	31.5	22.0	27.0	31.0	20.5	25.5	23.5	16.0	19.0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	211	208	210	206	201	203	110	103	106	142	139	140
2	208	197	201	205	203	204	120	110	113	152	140	146
3	204	194	197	207	200	203	136	99	119	168	150	158
4	203	192	197	222	208	214	140	121	131	167	162	165
5	215	202	207	224	215	222	120	114	115	169	161	165
6	215	185	206	220	216	218	118	115	116	167	158	162
7	183	152	165	222	216	218	124	118	120	170	164	166
8	153	149	151	222	216	219	130	125	128	168	162	166
9	159	154	157	216	209	212	134	130	132	169	164	166
10	174	159	167	209	199	205	147	132	143	176	164	169
11	192	175	184	199	131	163	146	139	143	181	171	176
12	200	193	196	137	127	133	140	135	138	196	180	188
13	203	198	200	137	134	135	143	136	141	195	188	191
14	212	194	204	140	137	138	143	138	141	187	183	185
15	225	212	219	142	137	139	143	139	141	182	174	178
16	226	222	224	147	142	144	152	142	147	181	174	178
17	225	218	221	154	145	148	152	147	150	180	176	178
18	216	195	205	161	154	158	154	139	148	195	170	178
19	194	188	192	167	157	161	166	150	157	189	169	178
20	199	187	192	175	154	169	160	151	155	209	183	195
21	208	200	203	164	123	144	152	146	150	209	197	204
22	208	198	202	162	121	148	---	---	---	196	191	193
23	206	198	200	119	106	110	---	---	---	210	182	188
24	206	199	202	114	107	111	---	---	---	198	186	190
25	205	197	201	122	113	118	146	96	123	199	191	195
26	215	198	207	122	113	119	146	137	141	---	---	---
27	217	212	215	129	108	121	138	127	134	206	197	201
28	215	205	209	124	90	104	129	121	126	202	188	195
29	219	215	217	92	90	91	135	129	132	193	182	187
30	215	208	211	102	92	97	141	135	138	196	184	188
31	208	204	207	---	---	---	143	138	140	198	185	190
MONTH	226	149	199	224	90	159	166	96	135	210	139	179

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	191	183	187	242	147	209	142	132	137	181	172	177
2	196	188	192	201	145	181	131	101	113	184	179	181
3	---	---	---	189	175	180	107	101	104	185	182	183
4	---	---	---	179	158	168	111	87	102	187	184	185
5	207	191	198	158	155	157	116	90	104	189	183	187
6	198	188	193	162	156	159	89	82	86	182	165	175
7	200	192	196	168	162	166	91	85	89	167	164	166
8	202	194	199	---	---	---	93	90	92	173	167	170
9	206	198	203	---	---	---	95	91	93	176	173	175
10	211	204	207	---	---	---	98	94	96	181	175	178
11	212	206	210	---	---	---	106	98	102	186	180	182
12	218	205	212	---	---	---	116	106	111	191	184	187
13	212	200	205	---	---	---	119	114	116	195	192	193
14	210	203	206	---	---	---	120	108	116	196	192	194
15	220	208	214	---	---	---	107	100	103	201	195	197
16	224	212	217	---	---	---	109	103	106	203	198	200
17	223	212	216	143	138	141	115	109	112	207	203	205
18	235	219	227	144	142	143	124	115	122	208	205	207
19	237	228	234	149	142	146	123	121	122	210	205	208
20	228	211	221	153	148	151	125	121	122	212	207	209
21	215	206	210	151	147	150	129	123	126	212	209	211
22	212	203	208	148	145	147	137	128	133	208	205	206
23	218	201	209	152	144	147	144	138	141	206	201	204
24	221	208	213	153	150	152	148	145	147	206	203	204
25	232	222	228	153	141	149	154	142	147	204	199	202
26	241	228	236	142	134	139	160	155	158	201	185	193
27	238	233	237	135	126	131	160	158	159	185	177	181
28	233	225	229	127	113	120	164	159	161	184	179	181
29	---	---	---	121	112	118	168	163	167	190	184	187
30	---	---	---	118	116	117	174	167	171	193	190	191
31	---	---	---	138	116	125	---	---	---	197	193	195
MONTH	241	183	212				174	82	122	212	164	191
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	199	187	194	222	203	214	213	205	208	189	169	178
2	196	187	192	207	86	183	215	211	212	179	169	173
3	206	197	202	204	72	145	217	213	215	189	181	187
4	207	191	200	222	206	214	216	212	213	190	183	188
5	192	168	178	217	208	213	229	213	220	187	183	185
6	191	184	187	215	199	210	230	210	225	195	186	190
7	198	192	196	200	195	196	211	202	207	202	194	197
8	196	192	194	204	196	200	210	206	208	221	198	209
9	207	194	201	211	197	206	221	209	215	227	149	191
10	212	207	209	215	197	203	209	102	176	149	125	139
11	218	212	215	219	189	201	226	194	212	124	120	122
12	211	202	205	190	108	173	214	201	205	131	121	125
13	206	171	201	186	166	181	221	208	217	143	132	135
14	217	192	206	200	113	176	217	215	216	146	97	112
15	235	216	223	213	135	178	217	209	212	103	96	100
16	236	224	233	191	155	167	223	217	221	100	96	98
17	223	207	215	154	140	144	227	223	226	106	100	102
18	207	190	201	148	140	145	234	228	232	120	106	113
19	200	189	194	156	146	149	238	231	234	129	118	124
20	212	199	206	165	156	159	239	228	236	117	99	104
21	215	209	212	178	167	174	226	204	211	109	100	104
22	215	172	207	181	178	180	223	205	214	118	109	113
23	225	190	215	186	181	184	237	224	231	118	112	115
24	243	221	231	189	182	186	246	239	244	129	117	122
25	243	229	236	195	185	191	245	238	242	133	128	130
26	230	223	226	198	185	193	239	233	237	137	131	134
27	229	201	216	194	187	191	233	142	219	143	137	140
28	213	205	210	208	189	202	229	220	226	145	143	144
29	231	210	221	205	194	199	239	223	233	149	144	147
30	233	226	230	204	195	200	226	219	223	157	147	152
31	---	---	---	209	192	201	220	191	203	---	---	---
MONTH	243	168	209	222	72	186	246	102	219	227	96	142

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.1	7.1	7.8	12.1	9.0	10.2	---	---	---	13.6	13.4	13.5
2	9.2	6.6	7.7	11.0	8.5	9.3	11.4	11.0	11.3	13.5	13.3	13.4
3	8.6	7.1	7.6	12.0	8.4	9.8	11.8	11.5	11.6	13.7	13.4	13.5
4	10.5	7.5	8.9	11.1	8.7	9.5	12.9	12.6	12.7	13.9	13.5	13.7
5	10.9	8.6	9.5	9.6	8.7	9.1	13.1	12.7	12.9	14.1	13.6	13.8
6	10.2	9.0	9.6	11.5	8.7	9.6	13.5	13.1	13.2	14.1	13.7	13.8
7	12.4	10.3	11.4	11.0	9.3	9.9	13.5	13.2	13.3	13.8	13.5	13.6
8	11.8	10.6	11.3	9.7	9.1	9.4	13.3	13.0	13.1	13.8	13.4	13.5
9	11.5	10.1	10.7	9.8	8.7	9.1	13.0	12.6	12.8	13.7	13.4	13.5
10	11.9	9.7	10.6	10.3	8.7	9.4	12.7	12.5	12.6	13.4	13.0	13.3
11	11.8	9.7	10.6	9.8	9.4	9.6	12.8	12.5	12.7	13.2	12.8	13.0
12	11.8	9.7	10.5	10.2	9.9	10.0	13.0	12.7	12.9	13.3	12.8	13.0
13	10.3	8.9	9.6	10.6	10.0	10.3	13.4	12.9	13.2	13.5	12.9	13.1
14	9.8	7.2	8.7	11.5	10.5	11.1	13.9	13.4	13.6	13.6	12.9	13.2
15	9.5	7.1	8.0	11.9	11.2	11.5	14.0	13.6	13.8	13.1	12.4	12.8
16	9.6	7.4	8.3	---	---	---	13.9	13.6	13.7	13.2	12.4	12.7
17	9.3	7.8	8.4	---	---	---	13.7	13.2	13.5	13.4	12.7	13.0
18	9.9	7.8	8.7	---	---	---	13.3	12.4	12.9	13.2	13.0	13.1
19	10.7	8.2	9.3	---	---	---	12.5	12.2	12.4	13.2	13.0	13.1
20	11.1	8.6	9.6	---	---	---	12.6	12.3	12.5	14.0	13.1	13.5
21	12.3	8.6	10.1	---	---	---	12.9	12.6	12.8	14.2	13.5	13.8
22	---	---	---	---	---	---	13.1	12.8	12.9	13.8	13.4	13.6
23	---	---	---	---	---	---	13.3	12.9	13.1	14.5	13.4	14.0
24	---	---	---	---	---	---	13.3	13.0	13.1	15.0	14.2	14.6
25	---	---	---	---	---	---	13.0	12.5	12.7	15.4	14.6	14.9
26	---	---	---	---	---	---	12.9	12.7	12.8	15.3	14.7	14.9
27	---	---	---	---	---	---	13.0	12.9	12.9	15.4	14.7	15.0
28	---	---	---	---	---	---	13.2	13.0	13.1	15.1	14.4	14.8
29	---	---	---	---	---	---	13.4	13.1	13.2	15.3	14.6	14.9
30	---	---	---	---	---	---	13.2	13.0	13.1	14.7	14.0	14.4
31	---	---	---	---	---	---	13.6	13.1	13.3	15.1	14.0	14.5
MONTH							14.0	11.0	12.9	15.4	12.4	13.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.5	14.4	14.8	13.8	12.0	12.4	10.1	9.6	9.9	11.5	10.3	10.8
2	15.6	14.2	14.8	12.4	11.9	12.3	10.6	10.0	10.4	11.2	10.0	10.5
3	15.7	13.8	14.6	13.0	12.4	12.8	11.1	10.5	10.8	11.1	9.9	10.4
4	15.6	13.7	14.6	13.5	12.8	13.2	10.9	10.3	10.6	10.4	9.6	10.0
5	16.1	14.0	14.9	14.4	13.2	13.7	10.6	10.4	10.5	11.1	10.1	10.5
6	16.5	14.3	15.2	15.0	13.2	14.0	10.8	10.4	10.7	12.4	10.4	11.3
7	16.7	14.2	15.2	15.1	13.0	13.9	11.0	10.3	10.9	12.7	10.2	11.3
8	16.5	13.9	14.9	---	---	---	11.0	10.9	10.9	13.1	9.5	11.1
9	16.0	13.6	14.5	---	---	---	11.0	10.9	10.9	13.9	9.5	11.5
10	16.9	14.2	15.4	---	---	---	11.0	10.8	10.9	13.9	9.0	11.2
11	17.5	14.3	15.7	---	---	---	10.8	10.6	10.7	14.0	8.1	10.9
12	15.7	14.0	14.8	---	---	---	10.5	10.3	10.4	13.9	7.8	10.8
13	17.0	13.7	15.2	---	---	---	10.3	10.1	10.3	14.7	7.7	11.1
14	17.9	14.4	15.9	---	---	---	10.6	10.3	10.4	15.1	8.5	11.6
15	18.2	14.4	16.1	---	---	---	10.6	10.4	10.5	12.1	8.0	9.7
16	18.5	15.0	16.5	---	---	---	10.4	10.3	10.4	13.8	7.7	10.5
17	19.2	14.8	16.6	13.9	12.3	13.0	10.5	10.4	10.5	13.8	7.9	10.6
18	17.8	14.4	15.9	14.0	12.1	12.9	10.6	10.4	10.5	13.1	7.3	9.9
19	17.4	13.4	15.2	14.2	11.8	12.9	10.7	10.4	10.5	8.2	6.6	7.4
20	17.5	13.1	15.1	13.9	11.6	12.5	10.5	10.1	10.3	8.8	6.7	7.7
21	17.8	13.2	15.2	13.4	11.4	12.4	10.2	9.7	10.0	10.7	7.2	8.9
22	18.1	13.0	15.2	14.5	11.5	12.8	9.8	9.4	9.6	10.5	7.5	8.9
23	17.6	12.6	14.7	14.9	11.5	13.0	9.5	9.2	9.4	9.6	7.1	8.1
24	18.1	12.9	15.2	15.4	11.1	12.9	9.5	9.3	9.4	9.6	6.5	7.9
25	18.8	12.9	15.5	14.7	10.8	12.5	9.9	9.6	9.8	9.3	6.5	7.7
26	19.5	12.9	15.8	14.0	10.3	11.9	10.4	9.9	10.1	8.3	6.7	7.4
27	18.1	12.8	15.2	13.1	10.3	11.6	10.5	9.9	10.2	8.5	7.0	7.7
28	19.7	12.8	15.7	12.5	10.0	11.1	10.3	9.9	10.0	9.6	7.3	8.3
29	---	---	---	12.6	10.0	11.2	10.8	9.9	10.3	10.1	7.0	8.5
30	---	---	---	11.6	10.1	10.7	10.9	10.0	10.4	10.9	6.8	8.7
31	---	---	---	10.0	9.4	9.7	---	---	---	11.3	6.9	9.1
MONTH	19.7	12.6	15.3				11.1	9.2	10.3	15.1	6.5	9.7

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.3	7.0	9.5	11.1	7.4	9.1	10.6	6.7	8.5	8.8	7.6	8.1
2	12.0	7.0	9.3	7.7	6.7	7.1	10.0	6.4	7.9	9.0	7.7	8.3
3	9.8	6.7	8.0	7.7	6.9	7.2	10.0	6.1	8.0	9.1	7.6	8.3
4	8.1	6.5	7.1	8.6	6.7	7.5	10.3	6.3	8.2	9.4	7.7	8.5
5	8.8	6.7	7.6	9.6	6.7	8.1	9.6	6.4	7.5	9.7	7.8	8.6
6	9.7	6.8	8.2	10.0	7.1	8.5	8.6	6.0	7.0	9.3	7.6	8.2
7	9.7	7.1	8.2	9.2	7.2	8.1	8.9	6.1	7.4	9.8	7.3	8.4
8	10.6	7.0	8.8	9.4	7.1	8.1	9.1	6.3	7.6	8.3	7.4	7.7
9	9.9	7.1	8.3	8.9	6.9	7.8	9.3	6.1	7.4	8.1	6.2	7.3
10	11.4	7.2	9.2	7.5	6.6	7.0	7.3	6.3	6.7	8.3	7.9	8.2
11	12.3	7.6	9.8	7.6	6.4	6.9	7.4	6.0	6.5	8.2	8.0	8.2
12	11.1	7.9	9.4	8.7	6.6	7.3	8.2	6.1	7.0	8.2	8.1	8.2
13	11.7	7.2	9.3	9.3	6.3	7.6	8.5	6.5	7.4	8.3	8.2	8.2
14	11.8	6.9	9.2	8.4	6.6	7.3	9.0	6.6	7.6	8.6	8.3	8.5
15	12.6	6.9	9.7	6.9	6.2	6.6	9.0	6.4	7.4	8.7	8.5	8.6
16	12.6	7.2	9.9	6.9	6.2	6.6	9.1	6.2	7.5	8.8	8.7	8.8
17	13.0	7.0	10.0	7.5	6.9	7.2	9.1	5.9	7.4	8.7	8.5	8.6
18	13.6	7.4	10.4	7.9	7.1	7.5	9.0	6.0	7.4	8.5	8.3	8.4
19	13.6	7.4	10.4	8.2	7.0	7.6	8.8	6.3	7.4	8.6	8.3	8.4
20	13.2	7.1	10.0	8.4	6.8	7.5	9.2	6.4	7.7	8.8	8.7	8.7
21	9.0	6.6	7.7	8.7	6.7	7.7	9.5	6.6	8.0	8.9	8.8	8.8
22	8.7	5.9	7.1	9.2	6.6	7.8	8.9	6.8	7.6	8.8	8.7	8.8
23	8.7	6.0	7.2	9.3	6.5	7.9	9.2	6.5	7.8	8.8	8.7	8.8
24	9.8	6.3	8.0	9.5	6.5	7.9	9.2	7.0	8.0	8.8	8.7	8.7
25	10.6	6.8	8.6	9.3	6.3	7.7	9.3	7.2	8.2	8.9	8.7	8.8
26	8.5	6.7	7.6	7.8	6.0	7.0	9.5	7.3	8.2	9.1	8.8	9.0
27	8.7	6.7	7.5	8.9	6.3	7.5	8.2	7.0	7.7	9.2	8.9	9.0
28	9.3	6.8	8.0	9.8	6.2	7.9	7.5	7.0	7.2	9.3	8.9	9.1
29	10.2	7.2	8.6	10.3	6.7	8.4	8.4	7.0	7.7	9.1	8.7	8.9
30	10.8	7.5	9.1	10.2	6.8	8.4	8.5	7.3	7.9	8.8	8.5	8.6
31	---	---	---	10.1	6.7	8.3	8.6	7.5	8.0	---	---	---
MONTH	13.6	5.9	8.7	11.1	6.0	7.7	10.6	5.9	7.6	9.8	6.2	8.5

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.1	7.3	7.7	8.9	7.6	8.0	7.6	7.5	7.5	7.7	7.7	7.7
2	8.2	7.5	7.8	8.4	7.6	7.8	7.7	7.6	7.6	7.7	7.7	7.7
3	7.7	7.3	7.6	8.9	7.6	8.0	7.7	7.5	7.5	7.8	7.7	7.7
4	8.0	7.5	7.6	8.5	7.6	7.9	7.7	7.6	7.7	7.8	7.7	7.8
5	8.0	7.6	7.8	7.8	7.6	7.7	7.7	7.6	7.7	7.8	7.7	7.8
6	7.9	7.6	7.7	8.5	7.5	7.8	7.7	7.6	7.7	7.8	7.7	7.8
7	7.8	7.5	7.6	8.2	7.7	7.8	7.7	7.7	7.7	7.8	7.7	7.8
8	7.8	7.5	7.6	7.7	7.6	7.7	7.8	7.7	7.7	7.8	7.7	7.8
9	7.9	7.4	7.6	7.8	7.6	7.6	7.8	7.7	7.7	7.8	7.7	7.8
10	8.2	7.4	7.7	8.0	7.6	7.7	7.8	7.7	7.7	7.8	7.7	7.7
11	8.3	7.6	7.8	7.7	7.4	7.6	7.8	7.8	7.8	7.8	7.7	7.8
12	8.3	7.6	7.8	7.4	7.4	7.4	7.8	7.8	7.8	7.9	7.7	7.8
13	7.8	7.5	7.6	7.6	7.4	7.5	7.8	7.8	7.8	8.0	7.8	7.9
14	8.0	7.4	7.6	7.7	7.6	7.6	7.9	7.8	7.8	8.0	7.8	7.9
15	8.4	7.6	7.9	7.7	7.6	7.6	7.9	7.8	7.8	8.0	7.8	7.8
16	8.3	7.6	7.8	7.9	7.6	7.7	7.9	7.8	7.9	8.1	7.8	7.9
17	8.1	7.6	7.8	8.0	7.6	7.7	7.9	7.7	7.8	8.1	7.9	8.0
18	8.2	7.6	7.8	8.1	7.7	7.9	7.8	7.7	7.7	7.9	7.8	7.9
19	8.4	7.5	7.9	7.8	7.7	7.7	7.8	7.6	7.7	7.8	7.7	7.7
20	8.6	7.6	7.9	7.8	7.4	7.7	7.8	7.7	7.7	8.0	7.7	7.8
21	8.7	7.5	8.0	7.8	7.3	7.6	7.8	7.7	7.7	8.1	7.8	7.9
22	8.9	7.6	8.0	7.8	7.6	7.7	7.8	7.7	7.7	7.9	7.8	7.8
23	8.9	7.5	8.0	7.6	7.5	7.5	7.8	7.7	7.8	8.0	7.7	7.9
24	9.1	7.6	8.1	7.5	7.4	7.5	7.8	7.7	7.8	8.1	7.8	7.9
25	9.1	7.6	8.2	7.4	7.3	7.4	7.7	7.3	7.5	8.1	7.8	8.0
26	7.9	7.6	7.7	7.4	7.2	7.3	7.7	7.6	7.6	8.2	7.9	8.0
27	7.9	7.6	7.7	7.7	7.1	7.5	7.6	7.6	7.6	8.3	8.0	8.1
28	8.6	7.5	7.9	7.7	7.4	7.6	7.6	7.6	7.6	8.3	7.9	8.1
29	8.7	7.5	7.9	7.5	7.3	7.4	7.7	7.6	7.6	8.2	7.9	8.0
30	8.8	7.6	8.0	7.4	7.4	7.4	7.7	7.6	7.6	7.9	7.8	7.9
31	8.9	7.6	8.1	---	---	---	7.7	7.6	7.7	8.2	7.8	7.9
MONTH	9.1	7.3	7.8	8.9	7.1	7.6	7.9	7.3	7.7	8.3	7.7	7.9

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.3	7.9	8.0	9.1	7.5	8.2	7.7	7.5	7.6	8.3	7.8	8.0
2	8.4	7.9	8.1	7.8	7.5	7.6	7.6	7.4	7.5	8.3	7.9	8.0
3	8.6	7.8	8.1	7.7	7.6	7.7	7.6	7.4	7.5	8.2	7.8	8.0
4	8.6	7.9	8.2	7.8	7.7	7.8	7.5	7.1	7.3	7.8	7.7	7.8
5	8.7	7.9	8.2	8.1	7.7	7.9	7.6	7.2	7.4	8.0	7.7	7.8
6	8.9	7.9	8.3	8.6	7.7	8.0	7.2	7.1	7.2	8.6	7.8	8.1
7	8.9	7.9	8.4	8.8	7.8	8.2	7.3	7.2	7.3	8.8	7.8	8.2
8	9.0	8.0	8.4	---	---	---	7.4	7.3	7.4	9.1	7.7	8.3
9	8.9	7.9	8.3	---	---	---	7.3	7.3	7.3	9.2	7.8	8.6
10	9.0	8.0	8.5	---	---	---	7.4	7.3	7.4	9.3	7.8	8.6
11	9.2	8.0	8.6	---	---	---	7.5	7.3	7.4	9.4	7.7	8.6
12	8.7	8.0	8.4	---	---	---	7.6	7.4	7.5	9.4	7.8	8.7
13	9.1	7.9	8.4	---	---	---	7.6	7.5	7.6	9.5	7.7	8.8
14	9.2	8.1	8.6	---	---	---	7.6	7.5	7.6	9.6	8.1	9.0
15	9.3	8.0	8.7	---	---	---	7.7	7.4	7.6	9.3	8.0	8.6
16	9.3	8.1	8.8	---	---	---	7.7	7.6	7.6	9.5	7.8	8.7
17	9.4	8.0	8.7	8.8	7.9	8.3	7.7	7.6	7.6	9.6	8.1	8.9
18	9.4	8.2	8.9	9.0	8.0	8.4	7.7	7.6	7.7	9.5	8.0	8.8
19	9.4	8.4	8.9	9.1	8.0	8.5	7.8	7.7	7.7	8.4	7.7	8.0
20	9.4	8.4	9.0	9.1	8.0	8.5	7.8	7.6	7.7	8.0	7.5	7.7
21	9.5	8.4	9.0	9.0	8.0	8.5	7.8	7.6	7.7	8.6	7.6	8.0
22	9.6	8.4	9.1	9.4	8.0	8.7	7.8	7.6	7.7	8.7	7.6	8.0
23	9.6	8.4	9.0	9.5	8.1	8.9	7.8	7.7	7.7	8.5	7.6	7.9
24	9.7	8.5	9.1	9.6	8.2	9.0	7.7	7.6	7.7	8.6	7.5	7.9
25	9.7	8.5	9.2	9.6	8.3	9.0	7.7	7.6	7.6	8.5	7.5	7.9
26	9.8	8.7	9.3	9.5	8.1	8.8	7.8	7.7	7.7	8.0	7.6	7.7
27	9.7	8.8	9.2	9.3	8.0	8.7	7.9	7.7	7.8	7.9	7.6	7.7
28	9.9	8.8	9.4	9.0	7.7	8.3	7.8	7.7	7.7	8.4	7.5	7.9
29	---	---	---	9.0	7.6	8.2	8.0	7.7	7.8	8.7	7.5	8.0
30	---	---	---	8.4	7.6	7.9	8.0	7.8	7.9	9.0	7.6	8.2
31	---	---	---	7.6	7.5	7.6	---	---	---	9.2	7.6	8.4
MONTH	9.9	7.8	8.7				8.0	7.1	7.6	9.6	7.5	8.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.3	7.7	8.6	9.1	8.0	8.6	8.9	7.6	8.1	7.6	7.3	7.4
2	9.3	7.7	8.6	8.2	6.8	7.6	8.7	7.5	7.9	7.6	7.3	7.4
3	8.8	7.7	8.2	7.3	6.6	7.0	8.6	7.4	7.8	7.7	7.3	7.5
4	7.9	7.5	7.7	7.9	7.3	7.6	8.7	7.4	7.9	7.9	7.3	7.6
5	8.1	7.3	7.6	8.6	7.4	7.9	8.5	7.5	7.8	8.1	7.4	7.6
6	8.7	7.5	8.0	8.8	7.7	8.2	8.0	7.4	7.6	7.8	7.3	7.5
7	8.7	7.6	8.0	8.6	7.7	8.1	8.0	7.4	7.6	8.0	7.3	7.6
8	9.0	7.6	8.2	8.5	7.5	7.9	8.1	7.4	7.7	7.6	7.4	7.5
9	8.8	7.7	8.2	8.3	7.5	7.8	8.2	7.4	7.7	7.8	7.4	7.5
10	9.2	7.7	8.5	7.7	7.5	7.6	7.6	6.9	7.3	7.4	7.2	7.3
11	9.3	8.0	8.7	7.7	7.4	7.5	7.5	7.3	7.4	7.2	7.1	7.1
12	9.2	8.3	8.8	8.3	7.0	7.5	7.7	7.3	7.5	7.2	7.2	7.2
13	9.2	7.8	8.5	8.5	7.2	7.8	7.8	7.4	7.6	7.3	7.2	7.3
14	9.2	7.6	8.4	8.3	6.9	7.6	7.9	7.4	7.6	7.3	6.9	7.1
15	9.3	7.7	8.6	7.6	6.9	7.4	8.0	7.4	7.6	7.1	6.9	7.0
16	9.5	8.0	8.8	7.6	7.5	7.5	8.1	7.4	7.7	7.1	7.0	7.0
17	9.6	8.3	9.1	7.6	7.5	7.5	8.2	7.4	7.7	7.1	7.1	7.1
18	9.7	8.5	9.2	7.7	7.5	7.5	8.3	7.5	7.8	7.4	7.2	7.3
19	9.8	8.6	9.3	7.9	7.4	7.6	8.2	7.5	7.8	7.5	7.4	7.5
20	9.7	8.6	9.2	8.1	7.5	7.7	8.4	7.6	7.9	7.5	7.3	7.4
21	9.1	7.9	8.6	8.4	7.5	7.9	8.5	7.4	7.9	7.4	7.3	7.4
22	8.4	7.3	7.8	8.7	7.6	8.1	8.3	7.6	7.8	7.4	7.3	7.4
23	8.3	7.4	7.8	8.9	7.7	8.2	8.1	7.4	7.7	7.4	7.1	7.3
24	8.8	7.6	8.1	9.0	7.7	8.3	8.0	7.4	7.7	7.5	7.4	7.4
25	9.0	7.7	8.4	9.0	7.8	8.3	8.0	7.4	7.6	7.5	7.4	7.5
26	8.4	7.8	8.1	8.0	7.4	7.7	8.0	7.4	7.6	7.5	7.4	7.5
27	8.3	7.5	7.8	8.4	7.5	7.9	7.6	7.1	7.5	7.5	7.5	7.5
28	8.5	7.6	7.9	8.8	7.5	8.0	7.5	7.4	7.4	7.5	7.4	7.5
29	8.8	7.6	8.2	8.9	7.6	8.2	7.7	7.4	7.5	7.5	7.4	7.5
30	9.1	7.9	8.5	8.9	7.6	8.2	7.7	7.4	7.5	7.6	7.4	7.5
31	---	---	---	8.7	7.5	8.1	7.6	7.4	7.4	---	---	---
MONTH	9.8	7.3	8.4	9.1	6.6	7.8	8.9	6.9	7.7	8.1	6.9	7.4

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at mile 117.54.

DRAINAGE AREA.--7,160 mi^2.

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft below National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--No gage-height or doubtful record: Jan. 27 to Feb. 2. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.74 ft, Oct. 25, 1980; minimum, -6.60 ft, Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft, Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft, Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.46 ft, Jan. 2; minimum recorded, -5.07 ft, Feb. 9.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.77	6.19	7.37	7.46	e5.6	6.59	7.05	5.97	6.29	6.61	6.75	6.79
high tide	Date	4,8	20	3	2	2	31	15	15	12	13	10	20
Minimum	Elevation	-3.73	-3.59	-3.55	-4.53	-5.07	-2.71	-2.76	-3.56	-3.50	-3.03	-3.29	-2.91
low tide	Date	6	13	13	24	9	7	30	16	10	1	23	4
Mean high tide		4.90	4.86	4.98	4.54	4.23	5.21	5.69	5.06	5.15	5.30	5.20	5.50
Mean water level		1.43	1.48	1.58	1.22	0.86	1.90	2.30	1.44	1.49	1.65	1.62	2.03
Mean low tide		-2.35	-2.16	-2.09	-2.41	-2.76	-1.64	-1.36	-2.49	-2.50	-2.38	-2.30	-1.70

e - Estimated

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITIAN, PA

LOCATION.--Lat 40°19'01", long 75°12'15", Bucks County, Hydrologic Unit 02040201, on left bank, 2.0 miles north of Chalfont on Callowhill Road, and 0.3 mile below Lake Galena (Peace Valley Reservoir).

DRAINAGE AREA.--16.2 mi².

PERIOD OF RECORD.--November 1985 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 280 ft., from Topographic map.

REMARKS.--Records fair except for periods of estimated discharges, which are poor. Flow regulated by Peace Valley Reservoir (Lake Galena) about 0.3 mile upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 357 ft³/s, Nov. 28, 29, 1985 gage height, 3.18 ft; mininum daily discharge, 3.7 ft³/s, Mar. 27, 29, 30, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft³/s, Dec. 1, gage height, 2.99 ft; minimum daily discharge, 3.7 ft³/s, Mar. 27, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.5	61	74	3.8	25	5.0	18	5.0	5.6	4.8	4.8
2	5.8	5.5	28	8.7	3.9	48	4.4	16	5.2	8.6	4.8	4.8
3	5.9	5.5	160	6.6	4.7	99	4.4	15	5.1	6.8	4.8	4.8
4	5.8	5.3	103	5.5	6.7	97	30	17	5.3	6.0	4.8	4.8
5	5.9	5.3	115	85	19	96	10	20	5.3	5.8	4.9	4.8
6	5.5	5.5	107	136	60	94	71	21	5.2	5.8	5.0	4.8
7	5.5	5.5	101	133	60	93	86	19	5.4	5.8	5.1	4.8
8	5.4	5.5	97	130	60	93	66	17	5.3	6.7	5.1	4.8
9	5.2	5.5	11	53	60	112	46	15	5.5	7.2	5.2	4.8
10	5.4	5.5	94	5.4	59	82	35	13	5.5	6.6	5.2	4.8
11	5.2	5.5	151	6.0	58	4.5	28	11	5.5	6.2	5.1	4.8
12	5.2	6.2	148	5.4	58	4.5	23	9.5	5.5	6.2	5.1	4.6
13	5.2	6.6	156	5.4	49	4.2	21	8.3	5.5	6.1	5.1	5.5
14	5.3	6.6	188	5.1	4.2	4.1	19	6.5	5.4	6.7	5.1	4.8
15	5.3	6.6	184	5.3	4.0	4.1	17	6.6	5.5	6.4	5.1	4.8
16	5.4	6.6	180	5.0	3.8	4.1	15	6.0	5.5	6.0	5.1	4.8
17	5.5	5.9	117	4.8	3.8	3.9	19	5.5	5.5	5.8	5.1	5.4
18	5.5	7.0	15	6.6	3.8	3.8	25	5.6	5.5	5.8	5.3	8.0
19	5.5	9.8	61	11	3.8	3.8	24	5.8	5.7	5.8	5.5	5.2
20	5.5	12	96	7.8	3.8	3.8	21	6.1	5.8	5.8	5.2	5.1
21	5.5	14	94	6.6	3.8	3.8	19	5.9	5.9	5.8	4.7	4.9
22	5.6	7.1	93	9.8	3.8	3.8	17	5.7	6.6	5.3	4.8	5.0
23	5.8	6.0	57	86	4.0	3.8	14	5.8	6.0	5.1	4.8	5.0
24	5.8	6.9	7.6	136	4.0	3.8	21	5.5	5.6	5.1	4.8	5.0
25	5.8	6.0	26	134	4.1	3.8	73	5.4	5.5	5.1	4.8	5.0
26	5.8	26	8.4	52	4.3	3.8	55	5.1	5.7	5.1	4.8	4.9
27	5.8	12	8.1	4.4	4.3	3.7	38	5.1	5.7	5.1	4.9	4.8
28	5.8	7.7	7.6	4.1	5.1	3.8	29	5.1	5.7	5.1	4.8	4.8
29	5.8	6.8	6.7	4.0	---	3.7	25	5.1	5.6	5.1	4.8	4.8
30	5.7	6.7	6.6	3.8	---	3.7	21	5.0	5.5	5.1	4.8	5.0
31	5.5	---	66	3.8	---	7.5	---	4.8	---	4.8	4.8	---
TOTAL	172.8	226.6	2554.0	1144.1	562.7	925.0	881.8	300.4	166.0	182.4	154.2	150.2
MEAN	5.57	7.55	82.4	36.9	20.1	29.8	29.4	9.69	5.53	5.88	4.97	5.01
MAX	5.9	26	188	136	60	112	86	21	6.6	8.6	5.5	8.0
MIN	5.2	5.3	6.6	3.8	3.8	3.7	4.4	4.8	5.0	4.8	4.7	4.6
†	-4.9	32.6	-22.8	-7.8	-3.1	8.9	26.9	-3.4	-4.4	0.5	-6.3	-3.4
MEAN‡	0.67	40.2	59.6	29.1	17.0	38.7	56.3	6.29	1.13	6.38	0	1.61
CFSM‡	0.04	2.48	3.68	1.80	1.05	2.39	3.48	0.39	0.07	0.39	0	0.10
IN.‡	0.05	2.77	4.24	2.07	1.09	2.76	3.88	0.45	0.08	0.45	0	0.11

CAL YR 1986 TOTAL 7417.8 MEAN 20.3 MAX 188 MIN 3.8 MEAN‡ 21.9 CFSM‡ 1.35 IN.‡ 18.35
WTR YR 1987 TOTAL 7420.2 MEAN 20.3 MAX 188 MIN 3.7 MEAN‡ 21.3 CFSM‡ 1.31 IN.‡ 17.86

† Change in contents of Lake Galena.
‡ Adjusted for change in contents.

01464741 COOKS RUN AT NEW BRITAIN, PA

LOCATION.--Lat 40°17'48", long 75°10'42", Bucks County, Hydrologic Unit 02040201, on private drive off Tamenend Road, at New Britain.

DRAINAGE AREA.--3.08 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 240 ft., from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 778 ft³/s, Jul. 2, 1987, gage height, 5.43 ft; minimum daily discharge, 0.74 ft³/s, Sept. 5, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 778 ft³/s Jul. 2, gage height, 5.43 ft; minimum daily discharge, 0.74 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	1.9	2.6	e2.0	39	4.5	3.6	1.6	2.8	1.1	1.1
2	2.3	1.2	16	10	3.8	13	3.1	3.6	7.9	92	.97	.84
3	3.6	1.2	31	6.9	6.9	8.0	2.8	3.4	2.0	9.6	1.2	.83
4	1.8	1.6	4.5	4.0	6.8	5.7	56	7.5	9.3	3.0	1.1	.81
5	2.1	4.7	3.1	3.3	4.5	4.8	11	6.2	4.9	2.0	1.8	.74
6	1.0	6.9	2.6	3.1	3.8	4.5	21	4.4	2.0	1.8	2.3	.95
7	1.1	1.3	2.3	3.2	4.2	4.4	8.7	3.8	1.7	1.8	1.2	1.2
8	1.0	9.6	2.2	3.1	3.9	4.2	6.5	3.7	1.7	5.7	1.2	3.6
9	1.1	2.0	15	2.9	3.8	4.1	5.6	3.4	2.2	3.1	.97	2.3
10	1.0	1.4	6.5	5.1	3.3	3.7	5.1	3.4	1.6	2.3	5.6	.95
11	.92	11	3.6	5.2	3.3	3.6	4.7	3.5	1.5	1.8	1.3	.90
12	.78	2.9	5.0	3.6	3.4	3.7	4.4	3.4	1.6	1.8	1.2	.82
13	1.2	1.4	3.1	3.2	3.2	3.7	4.2	3.2	1.5	1.9	1.2	5.1
14	3.6	1.3	2.4	3.0	2.9	3.5	3.9	3.2	1.4	8.6	1.1	1.4
15	1.1	1.2	2.4	3.2	2.6	3.4	3.8	4.1	1.4	3.1	1.1	.97
16	.99	1.0	2.3	2.9	e2.5	e3.2	3.7	2.8	1.3	1.9	.88	.93
17	.99	1.1	2.3	2.6	e2.4	e3.1	7.7	2.7	1.3	1.6	1.0	4.6
18	.94	6.7	21	7.7	e2.3	e3.0	4.7	2.8	1.3	1.5	.97	9.6
19	.81	15	7.6	16	e2.3	e2.9	3.6	3.7	1.3	1.4	.94	2.2
20	.85	15	3.7	8.7	e2.2	e2.8	3.5	4.8	1.4	1.5	.98	1.4
21	.88	24	3.1	5.3	e2.2	e2.7	3.5	3.3	7.3	1.4	.94	1.2
22	.88	3.4	2.8	5.0	e2.1	e2.7	3.4	2.6	12	1.4	1.4	1.5
23	.92	2.4	2.7	4.3	3.8	2.7	3.3	3.4	3.7	1.3	.79	1.4
24	1.0	5.3	7.8	3.4	3.9	2.7	12	2.2	1.8	1.3	.81	1.2
25	1.0	2.6	49	e3.1	3.6	2.6	13	2.1	1.6	2.1	.84	1.1
26	3.7	60	6.3	e2.9	3.7	2.5	4.8	2.1	2.3	2.6	.83	1.0
27	1.4	13	3.9	e2.8	3.3	2.4	4.2	2.1	4.2	1.3	4.7	.88
28	1.1	3.3	3.3	e2.6	4.5	3.1	5.0	2.1	1.4	1.2	2.4	.92
29	1.2	2.5	3.2	e2.5	---	2.2	4.2	2.0	1.3	1.1	1.2	.97
30	1.1	2.1	3.2	e2.4	---	3.5	3.9	1.8	1.3	1.2	.93	1.6
31	1.2	---	2.8	e2.2	---	17	---	1.6	---	1.3	.83	---
TOTAL	42.66	206.3	226.6	136.8	97.2	168.4	225.8	102.5	85.8	165.4	43.78	53.01
MEAN	1.38	6.88	7.31	4.41	3.47	5.43	7.53	3.31	2.86	5.34	1.41	1.77
MAX	3.7	60	49	16	6.9	39	56	7.5	12	92	5.6	9.6
MIN	.78	1.0	1.9	2.2	2.0	2.2	2.8	1.6	1.3	1.1	.79	.74

CAL YR 1986 TOTAL 1432.55 MEAN 3.92 MAX 60 MIN .78
WTR YR 1987 TOTAL 1554.25 MEAN 4.26 MAX 92 MIN .74

e Estimated

01464750 NESHAMINY CREEK NEAR RUSHLAND, PA

LOCATION.--Lat 40°15'27", long 75°02'03", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on Rushland Road at Rusland, 2000 ft upstream from confluence with Little Neshaminy Creek.

DRAINAGE AREA.--91.0 mi².

PERIOD OF RECORD.--December 1986 to September 1987.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft., from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft³/s, Jul. 2, 1987, gage height, 10.33 ft; minimum daily discharge, 15 ft³/s, Aug. 14, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,500 ft³/s, Jul. 2, gage height, 10.33 ft; minimum daily discharge, 15 ft³/s, Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e140	e98	e2000	232	111	28	28	18	e29
2	---	---	---	305	e95	e1000	113	99	46	468	17	e28
3	---	---	---	343	e200	e560	90	93	52	851	16	e26
4	---	---	---	228	321	e370	1660	124	417	114	24	e24
5	---	---	282	179	247	e270	751	160	331	71	27	e22
6	---	---	251	e150	223	e220	983	132	94	53	58	e26
7	---	---	215	e140	236	e180	581	108	60	46	23	e35
8	---	---	222	e120	258	e150	406	96	52	61	36	e50
9	---	---	473	e110	231	e130	304	87	47	106	31	e70
10	---	---	522	139	187	e120	253	77	59	120	e130	e57
11	---	---	359	265	182	e110	219	70	44	e72	50	e35
12	---	---	383	201	182	e95	195	67	39	e280	23	e25
13	---	---	300	157	168	e87	182	62	39	66	18	e50
14	---	---	303	152	101	e80	165	57	39	164	15	e100
15	---	---	290	155	86	e75	152	59	35	237	23	e70
16	---	---	278	151	77	e71	144	69	26	75	22	e40
17	---	---	269	119	e72	e68	187	55	32	54	21	e45
18	---	---	516	166	e71	65	247	46	30	46	21	e270
19	---	---	655	637	e70	63	146	47	24	39	20	e140
20	---	---	340	520	e70	61	162	62	23	35	20	e85
21	---	---	276	288	69	61	152	76	50	33	21	e60
22	---	---	243	214	71	57	105	59	112	29	20	e70
23	---	---	224	e180	92	55	131	50	149	26	22	e130
24	---	---	147	e160	100	54	241	63	52	26	31	e100
25	---	---	1160	e150	103	52	888	40	35	25	21	e70
26	---	---	457	e140	103	49	291	36	28	64	19	e58
27	---	---	237	e130	103	48	197	34	54	37	38	e44
28	---	---	188	e120	e130	51	167	36	39	26	86	e39
29	---	---	180	e110	---	52	155	33	34	e23	e58	e33
30	---	---	e170	e105	---	48	132	31	25	20	e40	e37
31	---	---	e160	e100	---	340	---	30	---	18	e28	---
MEAN	---	---	---	196	141	214	321	70.0	69.8	107	32.2	62.3
MAX	---	---	---	637	321	2000	1660	160	417	851	130	270
MIN	---	---	---	100	69	48	90	30	23	18	15	22
CFSM	---	---	---	2.15	1.55	2.35	3.53	.77	.77	1.17	.35	.68
IN.	---	---	---	2.48	1.61	2.72	3.94	.89	.86	1.35	.41	.76

e Estimated

01464984 LITTLE NESHAMINY CREEK AT WALTON ROAD NEAR JACKSONVILLE, PA

LOCATION.--Lat 40°14'26", long 75°03'15", Bucks County, Hydrologic Unit 02040203, on right bank, 15 ft downstream from old bridge abutment on Walton Road, 2.0 mi upstream from mouth and 1.0 mi northwest of Jacksonville.

DRAINAGE AREA.--40.06 mi².

PERIOD OF RECORD.--November 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 146.27 ft. above Philadelphia Electric Co. datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft³/s, Jul. 2, 1987, gage height, 9.67 ft; minimum daily discharge, 4.6 ft³/s, July 8, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,400 ft³/s, Jul. 2, gage height, 9.67 ft, from indirect determination of discharge; minimum daily discharge, 11 ft³/s, Oct. 11, 12, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	59	60	e42	1030	105	44	14	76	23	18
2	29	20	311	237	e41	376	53	43	43	952	22	17
3	26	21	1240	176	129	155	44	43	22	661	20	16
4	39	23	148	114	182	111	1250	83	471	85	23	14
5	25	59	96	83	111	84	282	87	315	52	27	13
6	19	202	79	71	77	74	435	57	53	44	69	15
7	15	44	71	73	86	72	155	45	37	43	31	18
8	15	146	66	68	94	67	109	40	33	40	24	36
9	14	90	364	63	82	61	86	38	41	232	25	42
10	13	54	211	94	61	53	74	35	37	74	152	e33
11	11	440	109	144	59	46	64	33	27	46	35	e23
12	11	138	132	91	61	46	58	31	25	236	25	e18
13	13	55	101	72	53	45	55	33	39	98	21	e36
14	38	41	69	69	48	43	50	30	121	565	19	e80
15	27	38	66	71	44	41	47	34	30	256	18	e47
16	17	36	62	62	43	39	46	32	123	76	17	e28
17	14	33	60	51	42	37	103	28	32	55	17	e30
18	13	55	441	128	42	35	90	25	26	46	17	e200
19	12	451	219	440	39	33	58	34	23	42	16	e130
20	11	269	98	206	38	33	50	43	23	39	15	e85
21	12	946	78	126	38	33	47	44	26	38	15	e54
22	12	100	67	103	40	32	44	32	259	35	18	e66
23	12	67	61	92	53	30	41	39	105	33	17	e120
24	13	120	82	78	54	29	124	37	37	31	17	e58
25	14	85	1430	e70	54	28	426	26	29	29	16	e50
26	29	879	169	e63	54	27	93	23	29	42	16	e42
27	38	710	107	e57	57	27	66	22	47	37	62	e37
28	24	118	90	e53	67	30	62	22	31	29	85	e34
29	20	85	78	e49	---	28	59	20	25	26	37	e30
30	24	69	74	e46	---	29	50	17	23	22	21	e35
31	15	---	66	e44	---	371	---	15	---	22	17	---
TOTAL	593	5409	6304	3154	1791	3145	4226	1135	2146	4062	937	1425
MEAN	19.1	180	203	102	64.0	101	141	36.6	71.5	131	30.2	47.5
MAX	39	946	1430	440	182	1030	1250	87	471	952	152	200
MIN	11	15	59	44	38	27	41	15	14	22	15	13

CAL YR 1986 TOTAL 30044.1 MEAN 82.3 MAX 1500 MIN 4.6
WTR YR 1987 TOTAL 34327 MEAN 94.0 MAX 1430 MIN 11

e Estimated

01465050 MILL CREEK NEAR WYCOMBE, PA

LOCATION.--Lat 40°17'30", long 75°02'19", Bucks County, Hydrologic Unit 02040201, on Creek Road at Briarwood Day Camp about 3 miles southeast of Doylestown.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--November 1985 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 210 ft, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 858 ft³/s, Nov. 26, 1986, gage height, 6.98 ft; minimum daily discharge, 0.66 ft³/s, Sept. 14, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 858 ft³/s, Nov. 26, gage height, 6.98 ft; minimum daily discharge, 0.75 ft³/s, Oct. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	2.5	14	20	e6.2	155	20	19	7.2	6.1	5.8	2.3
2	1.3	3.1	46	37	e13	71	16	18	9.0	110	5.6	2.0
3	1.1	3.5	199	30	24	47	14	18	7.4	106	5.5	1.9
4	2.0	4.1	32	23	26	36	231	22	78	15	4.8	1.7
5	1.6	6.1	24	20	20	31	54	21	30	12	5.2	1.6
6	1.2	6.1	21	19	19	29	86	18	13	11	7.3	2.0
7	1.3	1.4	19	19	21	28	48	17	11	9.9	5.1	2.3
8	1.1	5.9	18	18	21	27	38	16	11	13	4.7	4.1
9	1.1	3.5	57	17	19	25	33	15	11	55	4.7	4.3
10	1.0	1.9	37	22	17	22	29	14	9.3	24	12	2.3
11	1.0	11	24	25	17	20	27	13	8.6	12	5.0	1.9
12	.98	7.9	26	20	17	20	25	13	8.6	11	4.3	1.8
13	1.1	4.5	21	19	16	19	23	12	8.6	10	3.9	5.1
14	2.2	3.3	18	19	15	18	22	12	8.1	48	3.7	3.3
15	1.4	2.9	17	19	14	17	21	13	7.3	31	3.7	2.3
16	1.1	3.0	17	17	e13	16	22	11	6.9	14	3.4	2.0
17	.96	2.7	16	16	e12	16	30	11	6.4	13	3.3	3.9
18	.75	5.0	62	27	e12	15	25	10	6.0	13	4.2	11
19	.75	32	38	58	e11	15	21	11	5.9	11	3.1	4.2
20	.84	33	23	38	e10	14	19	12	5.7	10	2.5	3.2
21	.89	103	21	29	e9.3	14	19	11	7.0	9.3	2.4	2.7
22	.95	14	19	25	e9.0	13	17	10	13	7.9	2.6	e3.3
23	.93	11	18	e21	15	13	17	11	9.7	7.3	2.4	e2.8
24	1.0	14	27	e18	14	12	41	10	6.7	6.8	2.2	e2.4
25	1.1	11	243	e17	13	12	60	9.5	6.1	8.0	2.2	e2.2
26	2.2	181	40	e15	13	12	27	9.2	7.3	9.3	2.0	e2.0
27	2.2	145	32	e13	13	11	23	9.1	11	7.4	4.8	e1.7
28	1.9	24	28	e11	15	12	23	8.7	7.4	6.6	4.0	e1.9
29	1.9	20	25	e9.0	---	11	23	8.2	6.3	6.1	3.1	e2.1
30	2.0	16	24	e7.9	---	12	20	7.8	5.2	5.8	2.5	e3.2
31	2.2	---	21	e7.0	---	43	---	7.5	---	6.8	2.3	---
TOTAL	41.02	682.4	1227	655.9	424.5	806	1074	398.0	338.7	616.3	128.3	87.5
MEAN	1.32	22.7	39.6	21.2	15.2	26.0	35.8	12.8	11.3	19.9	4.14	2.92
MAX	2.2	181	243	58	26	155	231	22	78	110	12	11
MIN	.75	1.4	14	7.0	6.2	11	14	7.5	5.2	5.8	2.0	1.6

CAL YR 1986 TOTAL 5693.69 MEAN 15.6 MAX 268 MIN .66
WTR YR 1987 TOTAL 6479.62 MEAN 17.8 MAX 243 MIN .75

e Estimated

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi downstream from Mill Creek, and 1.7 mi west of Langhorne.

DRAINAGE AREA.--210 mi^2.

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37. WDR PA-83-1: 1982(P)

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft). Occasional regulation by Springfield Lake, capacity, 650 mil gal, completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, September, October 1961. Interceptor sewer installed along left bank in May, June 1966.

AVERAGE DISCHARGE.--53 years, 292 ft^3/s, 18.90 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft^3/s, Aug. 19, 1955, gage height, 22.84 ft, from floodmarks, from rating curve extended above 4,700 ft^3/s, on basis of contracted-opening measurement at gage height 15.94 ft, and slope-area measurement of peak flow; minimum discharge, 1.9 ft^3/s, Sept. 8, 1957; minimum gage height, 0.35 ft, Sept. 1, 2, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23, 1933, reached a stage of 17.3 ft, from floodmark, discharge, 30,000 ft^3/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft^3/s, Jul. 2, gage height, 11.40 ft; minimum daily discharge, 37 ft^3/s, Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	42	286	471	e170	3340	654	247	75	118	100	64
2	60	45	484	992	e160	2150	314	228	94	2540	89	55
3	86	46	4970	799	375	958	256	222	120	3250	86	50
4	91	50	1030	557	661	737	4350	315	500	517	84	46
5	97	69	565	436	518	557	1700	397	1270	262	168	44
6	64	437	494	e440	411	494	1840	312	255	195	275	44
7	49	223	428	e420	428	476	969	260	166	169	155	48
8	44	278	401	e390	475	458	666	236	138	170	106	90
9	43	386	924	e370	443	433	517	217	132	374	187	142
10	41	239	1190	e380	358	416	435	204	146	545	808	115
11	39	651	649	590	346	309	379	192	107	214	225	67
12	38	850	659	445	343	258	341	186	96	385	124	55
13	39	280	579	372	325	256	315	174	409	452	98	177
14	65	190	491	344	262	239	287	158	388	991	86	284
15	99	152	470	354	226	226	265	156	165	1130	78	113
16	64	133	447	352	e180	217	251	162	200	347	72	75
17	51	120	430	298	e170	206	352	137	109	250	68	78
18	46	121	999	379	e170	192	443	118	88	209	64	730
19	42	1440	1590	1320	e160	186	316	131	78	184	60	375
20	39	456	594	1210	e150	180	276	160	74	167	57	188
21	39	3750	479	614	e135	179	256	177	75	158	55	131
22	39	604	415	494	e130	174	237	145	620	147	56	160
23	39	341	384	425	e231	164	220	130	531	131	56	420
24	38	372	329	e370	243	160	353	156	180	123	54	165
25	37	398	5680	e300	238	153	1780	120	123	119	49	127
26	58	1330	1250	e260	233	148	587	104	110	205	48	105
27	91	4320	626	e240	243	144	397	101	189	172	126	87
28	81	694	501	e220	242	155	351	99	136	127	229	79
29	59	429	434	e190	---	154	340	94	97	107	147	74
30	50	342	504	e180	---	146	290	87	82	115	86	86
31	49	---	486	e170	---	918	---	80	---	122	66	---
TOTAL	1729	18788	28768	14382	8026	14783	19737	5505	6753	13995	3962	4274
MEAN	55.8	626	928	464	287	477	658	178	225	451	128	142
MAX	99	4320	5680	1320	661	3340	4350	397	1270	3250	808	730
MIN	37	42	286	170	130	144	220	80	74	107	48	44

CAL YR 1986 TOTAL 120823 MEAN 331 MAX 5830 MIN 28
WTR YR 1987 TOTAL 140702 MEAN 385 MAX 5680 MIN 37

e Estimated

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft upstream from Delaware River Expressway and 3,000 ft upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi².

PERIOD OF RECORD.--July 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORD.--WDR PA-86-1:1985.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 2.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except periods of estimated daily discharges which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 33.4 ft³/s, 21.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s, July 28, 1982, gage height, 15.35 ft, from flood-mark, from rating curve extended above 550 ft³/s, on basis of slope-area measurement of peak flow; minimum, 1.1 ft³/s, Aug. 9, 1966, gage height, 2.43 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0045	1500	7.57	July 2	2030	2600	9.17
Dec. 2	2400	1370	7.34	July 12	1930	2040	8.41
Dec. 25	0230	*3820	*10.63	July 14	1715	1370	7.35
Apr. 4	1245	1240	7.11	Aug. 05	1830	1400	7.39
July 1	2345	2320	8.80	Aug. 10	0115	1410	7.41

Minimum daily discharge, 2.3 ft³/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	6.0	12	19	e8.2	233	36	15	10	255	9.0	43
2	20	16	212	256	39	79	17	16	10	696	7.9	8.4
3	5.9	6.5	338	54	84	36	15	18	11	107	7.3	5.7
4	12	15	26	27	62	25	448	162	59	23	6.7	4.9
5	5.4	67	17	20	38	20	70	49	64	33	267	4.6
6	4.4	116	15	19	22	19	153	27	10	9.6	83	6.8
7	4.0	11	13	19	21	18	42	18	9.2	16	12	19
8	4.6	109	13	17	22	18	27	17	8.9	9.0	8.8	79
9	4.8	48	132	16	23	18	22	16	15	61	57	27
10	4.5	18	49	36	20	17	20	16	12	11	297	9.2
11	4.4	215	38	26	e18	16	19	16	8.1	8.5	16	6.6
12	4.9	34	50	18	e16	17	19	15	8.1	355	11	5.4
13	10	12	19	16	e15	20	18	15	36	54	9.4	89
14	66	11	15	14	e14	17	17	13	29	323	8.6	19
15	8.0	9.9	14	15	e13	16	23	16	9.3	70	8.3	8.2
16	5.2	9.3	14	14	e12	15	15	15	16	15	8.1	7.2
17	5.3	8.9	13	13	e12	15	98	13	8.8	12	7.8	6.3
18	4.6	61	169	121	e12	15	30	15	7.1	13	7.5	201
19	4.3	178	51	212	e11	15	18	36	6.9	12	7.1	20
20	4.3	91	19	73	e11	15	17	59	6.9	11	6.7	24
21	4.4	262	16	30	e11	15	17	36	10	9.9	6.3	11
22	4.6	18	14	20	e10	15	17	14	15	9.4	7.6	7.3
23	4.4	13	14	e17	33	14	15	23	51	9.3	12	5.2
24	4.5	39	83	e16	46	13	72	18	9.0	9.0	8.8	4.2
25	4.7	15	920	e15	30	13	101	11	6.3	8.6	6.9	3.7
26	86	226	46	e14	22	13	23	11	6.5	16	5.9	3.3
27	15	75	27	e13	20	13	17	19	144	20	84	2.9
28	7.2	18	22	e12	18	36	26	13	12	13	154	2.6
29	5.9	15	19	e11	---	15	24	11	7.5	9.3	39	2.3
30	6.0	13	19	e10	---	15	17	10	7.0	21	14	3.9
31	6.0	---	17	e9.3	---	179	---	10	---	26	8.5	---
TOTAL	336.9	1736.6	2426	1172.3	663.2	985	1453	743	613.6	2245.6	1193.2	640.7
MEAN	10.9	57.9	78.3	37.8	23.7	31.8	48.4	24.0	20.5	72.4	38.5	21.4
MAX	86	262	920	256	84	233	448	162	144	696	297	201
MIN	4.0	6.0	12	9.3	8.2	13	15	10	6.3	8.5	5.9	2.3
CFSM	.51	2.70	3.66	1.77	1.11	1.48	2.26	1.12	.96	3.38	1.80	1.00
IN.	.59	3.02	4.22	2.04	1.15	1.71	2.53	1.29	1.07	3.90	2.07	1.11

CAL YR 1986 TOTAL 11999.0 MEAN 32.9 MAX 920 MIN 2.4 CFSM 1.54 IN. 20.86
WTR YR 1987 TOTAL 14209.1 MEAN 38.9 MAX 920 MIN 2.3 CFSM 1.82 IN. 24.70

e Estimated

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft downstream from Lower Rhawn Street bridge, 0.8 mi upstream from Wooden Bridge Run, in Philadelphia.

DRAINAGE AREA.--49.8 mi^2.

PERIOD OF RECORD.--June 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORDS.--WDR PA-81-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 21.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for periods of estimated discharges, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 92.8 ft^3/s, 25.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,770 ft^3/s, July 28, 1982, gage height, 13.15 ft, from rating curve extended above 3,900 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 6.0 ft^3/s, Oct. 11, 1966, gage height, 1.97 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 21	0400	2720	6.85	July 2	1800	*3250	*7.49
Nov. 27	0100	2600	6.70	July 3	0400	2410	6.46
Dec. 3	0315	2610	6.71	Aug. 5	1545	3230	7.46
Dec. 25	0630	3010	7.20	Aug. 10	0330	2160	6.12
Apr. 4	1630	1780	5.63				

Minimum daily discharge, 12.0 ft^3/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e24	24	64	82	e30	683	97	66	45	160	35	68
2	e56	37	318	482	88	256	66	68	62	1050	34	33
3	28	28	1080	e230	125	122	60	70	47	718	32	29
4	39	35	121	e160	123	100	1050	254	135	74	32	27
5	26	107	94	e120	91	89	182	111	180	64	521	27
6	22	278	85	e92	79	84	373	82	50	53	228	37
7	22	44	77	e82	79	82	133	71	44	64	46	41
8	22	212	74	e70	80	78	109	68	44	53	39	96
9	23	116	288	e66	81	76	97	64	52	84	66	64
10	22	76	148	e160	75	70	91	62	46	75	575	34
11	20	499	103	e130	e70	67	86	60	39	51	52	30
12	21	129	118	e110	e66	69	83	65	39	e800	42	29
13	28	56	83	e90	e63	68	80	66	72	e220	38	367
14	114	46	74	e81	e61	64	77	57	97	e900	36	73
15	36	42	73	73	e58	62	75	64	45	e180	35	38
16	26	41	70	69	e55	61	73	58	93	e90	34	34
17	24	39	68	66	e52	59	203	54	39	e67	33	e30
18	22	121	427	231	e49	58	97	53	36	e58	31	e700
19	21	408	167	418	e47	57	78	104	35	e53	30	e90
20	21	196	88	173	e44	56	73	121	35	e50	29	e120
21	22	919	79	102	e41	57	72	83	97	e48	29	e65
22	23	83	75	e81	e40	56	69	58	110	e46	39	e45
23	22	66	73	e70	88	54	67	73	246	44	36	e35
24	22	103	165	e62	91	52	127	64	49	42	28	e27
25	21	69	1300	e58	79	50	270	51	40	41	27	e22
26	111	515	134	e52	72	51	84	51	39	89	27	e18
27	53	550	107	e47	71	50	74	67	293	51	163	e16
28	28	91	97	e43	70	69	86	53	47	41	303	e14
29	25	76	91	e40	---	50	82	49	38	37	63	e12
30	25	69	87	e37	---	60	71	47	36	46	34	e20
31	24	---	81	e33	---	491	---	45	---	40	30	---
TOTAL	993	5075	5909	3610	1968	3301	4185	2259	2230	5389	2747	2241
MEAN	32.0	169	191	116	70.3	106	139	72.9	74.3	174	88.6	74.7
MAX	114	919	1300	482	125	683	1050	254	293	1050	575	700
MIN	20	24	64	33	30	50	60	45	35	37	27	12
CFSM	.64	3.40	3.83	2.34	1.41	2.14	2.80	1.46	1.49	3.49	1.78	1.50
IN.	.74	3.79	4.41	2.70	1.47	2.47	3.13	1.69	1.67	4.03	2.05	1.67

CAL YR 1986 TOTAL 32230 MEAN 88.3 MAX 1300 MIN 14 CFSM 1.77 IN. 24.08
WTR YR 1987 TOTAL 39907 MEAN 109 MAX 1300 MIN 12 CFSM 2.20 IN. 29.81

e Estimated

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi upstream from Tacony-Palmyra Bridge, 3.5 mi downstream from Rancocas Creek, and at mile 107.55.

DRAINAGE AREA.--7,850 mi^2.

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft below National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--No gage-height or doubtful record: Sept. 1-30. Some periods of low tide are affected by sluggish or plugged intake and the record is estimated with negligible loss in accuracy. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.23 ft, Oct. 25, 1980; minimum, -8.6 ft, Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft, Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 6.96 ft, Dec. 2, Jan. 2; minimum recorded, -4.05 ft; minimum estimated, 4.8 ft, Feb. 9 (bottom of stilling well at 4.0 ft).

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	5.35	5.69	6.96	6.96	5.07	6.10	6.58	5.53	5.77	6.06	6.23	--
high tide	Date	8	20	2	2	2	31	15	15	12	13	10	--
Minimum	Elevation	-3.48	-3.41	-3.36	e-4.4	e4.8	-2.70	-2.62	-3.27	-3.17	-2.67	-2.96	--
low tide	Date	6	13	13	24	9	7	1	16	10	1	23	--
Mean high tide		4.43	4.37	4.45	4.20	3.77	4.71	5.16	4.57	4.65	4.81	4.71	--
Mean water level		1.35	1.32	1.38	1.16	0.77	1.71	2.08	1.36	1.43	1.57	1.57	--
Mean low tide		-3.48	-2.02	-1.99	-2.22	-2.57	-1.64	-1.33	-2.23	-2.22	-2.07	-1.99	--

e - Estimated

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'57", long 75°05'50", Philadelphia County, Hydrologic Unit 02040203, on left bank at upstream side of Castor Avenue bridge 2.8 mi upstream from mouth in Northeast Philadelphia.

DRAINAGE AREA.--30.4 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 44.8 ft^3/s, 20.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft^3/s, July 31, 1985, gage height, 11.82 ft, from rating curve extended above 8,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum, 1.1 ft^3/s, Sept. 5, 1985, gage height, 1.40 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base 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)
Dec. 24	2345	4390	7.32	July 9	1900	*6230	*8.80
June 27	0500	3150	6.20	Aug. 5	1530	5290	8.07
July 2	1730	3920	6.91	Aug. 28	0745	5000	7.83

Minimum daily discharge, 4.8 ft^3/s, Aug. 20, 21, 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.2	e16	24	e8.0	358	23	22	16	29	11	65
2	36	26	510	217	32	75	19	27	26	566	12	9.2
3	6.3	5.6	320	37	51	36	38	25	13	68	11	7.4
4	9.3	13	39	27	33	36	492	192	170	e30	13	6.9
5	6.1	107	e23	25	25	34	119	35	35	e50	460	7.9
6	5.7	93	e17	23	23	32	114	22	14	e16	64	35
7	5.9	9.1	e14	22	22	30	37	18	19	e22	11	15
8	6.7	147	13	20	22	29	29	20	20	e15	8.5	57
9	7.4	62	130	20	22	30	28	19	33	e90	83	16
10	6.4	13	41	46	18	26	28	18	23	e14	94	6.8
11	5.9	275	43	28	17	30	29	15	21	e11	7.6	6.5
12	6.6	30	34	22	e16	33	29	e14	24	208	7.2	5.5
13	14	12	18	20	e15	30	35	e14	36	59	6.7	298
14	101	8.6	14	19	e14	30	23	17	22	369	6.7	14
15	7.9	8.6	13	19	e13	30	22	24	14	56	6.7	11
16	6.5	8.6	13	34	e12	30	21	19	43	28	7.4	9.9
17	6.5	8.3	13	52	e11	30	117	17	39	14	6.1	20
18	5.6	193	256	154	e10	30	22	18	14	13	6.0	1390
19	5.5	121	35	202	e10	23	18	87	17	14	5.1	e120
20	5.4	287	19	44	e9.5	e23	19	97	14	13	4.8	e140
21	6.1	156	17	26	e9.0	e23	20	38	331	12	4.8	e55
22	5.3	14	16	21	e8.7	23	20	23	72	12	23	e32
23	5.1	17	16	e18	38	21	19	37	33	11	6.1	e20
24	5.3	60	274	e17	32	20	118	21	17	12	4.8	e15
25	5.6	41	417	e16	23	19	104	20	14	11	4.8	10
26	108	473	35	e15	20	19	27	21	12	38	4.8	9.1
27	12	177	28	e14	45	19	40	57	292	14	136	7.3
28	9.1	e40	26	e13	62	50	44	23	13	12	287	7.4
29	8.2	e22	22	e12	---	23	38	20	11	11	74	7.9
30	5.6	e18	20	e10	---	77	29	19	11	11	9.0	48
31	5.9	---	20	e9.2	---	243	---	16	---	12	12	---
TOTAL	437.1	2452.0	2472	1226.2	621.2	1512	1721	1015	1419	1841	1398.1	2452.8
MEAN	14.1	81.7	79.7	39.6	22.2	48.8	57.4	32.7	47.3	59.4	45.1	81.8
MAX	108	473	510	217	62	358	492	192	331	566	460	1390
MIN	5.1	5.6	13	9.2	8.0	19	18	14	11	11	4.8	5.5
CFSM	.46	2.69	2.62	1.30	.73	1.60	1.89	1.08	1.56	1.95	1.48	2.69
IN.	.53	3.00	3.02	1.50	.76	1.85	2.11	1.24	1.74	2.25	1.71	3.00

CAL YR 1986 TOTAL 16487.36 MEAN 45.2 MAX 640 MIN .00 CFSM 1.49 IN. 20.18
WTR YR 1987 TOTAL 18567.4 MEAN 50.9 MAX 1390 MIN 4.8 CFSM 1.67 IN. 22.72

e Estimated

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line 200 ft upstream of bridge from the north side of pier 12 north through channel station +14.3 to pierhead line on New Jersey side of river.

DRAINAGE AREA.--7,993 mi².

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to current year.
pH: October 1967 to current year.
WATER TEMPERATURE: November 1960 to current year.
DISSOLVED OXYGEN: November 1960 to current year.

INSTRUMENTATION.--Water-quality monitor (39°57'10", 75°08'18") located at river end of pier 11 north about 100 ft downstream from bridge since November 1960.

REMARKS.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0. Station not operated Dec. 5 to March 2. Other interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,450 microsiemens, Nov. 20, 1964; minimum, 65 microsiemens, Sept. 15, 1979.
pH: Maximum, 8.7, Oct. 14, 1979; minimum, 4.7, Dec. 29, 1978.
WATER TEMPERATURE: Maximum, 31.0°C, July 13-15, 1966; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L, Dec. 14, 1962; minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	330	283	308	322	278	299	149	125	139	---	---	---
2	334	290	311	320	271	297	150	124	139	---	---	---
3	342	290	317	325	269	297	145	126	134	---	---	---
4	339	294	318	329	282	306	144	124	133	---	---	---
5	336	293	316	336	277	304	---	---	---	---	---	---
6	---	---	---	329	279	304	---	---	---	---	---	---
7	---	---	---	330	273	301	---	---	---	---	---	---
8	---	---	---	322	273	300	---	---	---	---	---	---
9	---	---	---	311	269	290	---	---	---	---	---	---
10	---	---	---	309	258	282	---	---	---	---	---	---
11	336	289	312	303	256	280	---	---	---	---	---	---
12	339	292	312	299	253	269	---	---	---	---	---	---
13	335	288	312	278	248	259	---	---	---	---	---	---
14	330	285	309	265	250	257	---	---	---	---	---	---
15	331	284	304	263	249	257	---	---	---	---	---	---
16	327	287	308	262	244	255	---	---	---	---	---	---
17	333	287	311	268	244	257	---	---	---	---	---	---
18	332	284	309	273	237	255	---	---	---	---	---	---
19	331	285	308	292	216	249	---	---	---	---	---	---
20	331	280	307	270	191	235	---	---	---	---	---	---
21	329	280	308	234	179	199	---	---	---	---	---	---
22	328	277	307	188	176	181	---	---	---	---	---	---
23	322	277	303	193	181	186	---	---	---	---	---	---
24	321	278	298	191	180	186	---	---	---	---	---	---
25	327	271	302	191	170	183	---	---	---	---	---	---
26	321	281	302	190	161	176	---	---	---	---	---	---
27	320	270	295	167	143	152	---	---	---	---	---	---
28	315	271	296	154	142	150	---	---	---	---	---	---
29	314	270	293	150	140	146	---	---	---	---	---	---
30	313	270	293	153	135	146	---	---	---	---	---	---
31	319	272	295	---	---	---	---	---	---	---	---	---
MONTH	342	270	307	336	135	242	150	124	136	---	---	---

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	204	190	195
2	---	---	---	---	---	---	---	---	---	213	195	202
3	---	---	---	273	251	263	---	---	---	213	204	208
4	---	---	---	262	242	254	---	---	---	218	205	211
5	---	---	---	256	217	239	---	---	---	217	207	212
6	---	---	---	236	212	223	---	---	---	223	212	216
7	---	---	---	227	206	215	---	---	---	225	214	219
8	---	---	---	217	200	210	---	---	---	231	218	224
9	---	---	---	214	192	204	---	---	---	234	222	229
10	---	---	---	202	181	192	---	---	---	236	228	232
11	---	---	---	195	182	189	---	---	---	237	227	232
12	---	---	---	195	168	184	---	---	---	241	228	235
13	---	---	---	200	166	183	---	---	---	244	227	237
14	---	---	---	194	154	175	145	132	137	245	226	238
15	---	---	---	183	150	166	152	136	143	247	227	239
16	---	---	---	170	148	160	157	142	149	248	228	239
17	---	---	---	167	154	162	159	147	153	252	227	242
18	---	---	---	170	161	165	153	137	146	253	227	241
19	---	---	---	177	159	170	147	134	141	256	232	246
20	---	---	---	184	165	177	178	139	148	259	234	247
21	---	---	---	188	174	179	162	147	154	256	235	246
22	---	---	---	191	177	183	165	151	158	---	---	---
23	---	---	---	192	183	188	169	160	165	---	---	---
24	---	---	---	199	187	194	172	161	168	---	---	---
25	---	---	---	205	193	199	176	160	168	---	---	---
26	---	---	---	209	196	203	175	163	169	---	---	---
27	---	---	---	---	---	---	182	168	174	---	---	---
28	---	---	---	---	---	---	190	175	182	---	---	---
29	---	---	---	---	---	---	194	182	188	---	---	---
30	---	---	---	---	---	---	197	135	185	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	273	148	195	197	132	161	259	190	228

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	293	259	277	247	212	233	266	242	253
2	---	---	---	289	252	271	248	216	233	273	246	255
3	293	272	284	269	229	248	244	218	233	275	250	259
4	294	273	285	257	224	241	251	226	237	286	255	267
5	290	261	280	254	225	239	249	221	239	284	262	273
6	283	255	273	259	227	241	255	221	237	285	264	274
7	281	251	269	268	228	246	256	223	241	288	267	277
8	280	250	266	269	233	251	260	233	248	289	265	279
9	280	248	265	282	232	257	266	230	249	291	238	276
10	281	246	264	275	227	250	261	224	243	257	219	236
11	282	249	266	266	221	244	247	218	232	230	201	220
12	280	257	270	259	221	242	242	222	232	220	185	205
13	284	258	273	253	220	235	245	224	235	204	172	190
14	285	261	274	248	215	233	246	222	234	175	144	157
15	302	262	278	232	211	221	246	223	236	159	146	152
16	297	259	281	225	209	217	251	225	237	149	120	130
17	---	---	---	224	206	216	255	224	239	132	120	124
18	---	---	---	225	203	216	256	229	241	130	120	124
19	293	265	285	222	201	213	261	225	244	129	121	125
20	297	267	282	225	201	213	262	226	245	132	122	127
21	297	267	283	227	205	217	259	230	244	159	125	134
22	305	264	282	229	214	221	262	226	245	154	136	146
23	300	260	284	231	215	224	257	228	242	148	131	140
24	302	266	285	235	221	228	260	230	243	141	129	137
25	305	267	286	239	217	228	263	233	248	143	133	137
26	308	272	288	242	215	229	265	236	250	149	136	142
27	306	261	283	244	209	229	267	236	252	150	140	146
28	297	263	280	244	211	230	271	238	255	155	143	149
29	300	261	280	247	212	230	263	238	250	160	150	153
30	297	265	278	248	213	233	270	232	250	167	153	160
31	---	---	---	243	215	231	276	239	255	---	---	---
MONTH	308	246	278	293	201	235	276	212	242	291	120	188

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.8	6.7	6.8	7.0	6.9	6.9	7.0	6.9	6.9	---	---	---
2	6.8	6.7	6.8	7.0	6.9	6.9	7.0	6.9	6.9	---	---	---
3	6.9	6.7	6.8	7.0	6.9	6.9	6.9	6.8	6.8	---	---	---
4	6.8	6.8	6.8	7.0	6.9	6.9	6.9	6.8	6.9	---	---	---
5	6.9	6.8	6.8	7.0	6.9	6.9	---	---	---	---	---	---
6	---	---	---	7.0	6.9	6.9	---	---	---	---	---	---
7	---	---	---	7.0	6.9	6.9	---	---	---	---	---	---
8	---	---	---	7.0	6.9	6.9	---	---	---	---	---	---
9	---	---	---	7.0	6.9	6.9	---	---	---	---	---	---
10	---	---	---	7.0	6.9	6.9	---	---	---	---	---	---
11	7.0	6.9	6.9	7.1	6.9	6.9	---	---	---	---	---	---
12	7.0	6.9	7.0	7.1	6.9	6.9	---	---	---	---	---	---
13	7.0	6.9	7.0	7.1	7.0	7.0	---	---	---	---	---	---
14	7.0	6.9	7.0	7.2	7.0	7.0	---	---	---	---	---	---
15	7.0	6.9	6.9	7.2	7.1	7.1	---	---	---	---	---	---
16	7.0	6.9	6.9	7.2	7.1	7.1	---	---	---	---	---	---
17	7.0	6.9	6.9	7.1	7.1	7.1	---	---	---	---	---	---
18	7.0	6.9	6.9	7.1	7.0	7.0	---	---	---	---	---	---
19	7.0	6.9	6.9	7.1	7.0	7.0	---	---	---	---	---	---
20	7.0	6.9	6.9	7.1	7.0	7.0	---	---	---	---	---	---
21	7.0	6.8	6.9	7.1	7.0	7.0	---	---	---	---	---	---
22	6.9	6.8	6.9	7.1	7.0	7.0	---	---	---	---	---	---
23	6.9	6.8	6.9	7.1	7.0	7.0	---	---	---	---	---	---
24	6.9	6.8	6.9	7.1	7.0	7.0	---	---	---	---	---	---
25	6.9	6.8	6.9	7.1	7.0	7.0	---	---	---	---	---	---
26	6.9	6.8	6.8	7.1	6.9	6.9	---	---	---	---	---	---
27	6.9	6.8	6.8	7.0	6.9	6.9	---	---	---	---	---	---
28	6.8	6.8	6.8	7.0	6.9	6.9	---	---	---	---	---	---
29	6.9	6.8	6.8	7.0	6.9	6.9	---	---	---	---	---	---
30	6.9	6.8	6.8	7.0	6.9	6.9	---	---	---	---	---	---
31	7.0	6.8	6.8	---	---	---	---	---	---	---	---	---
MONTH	7.0	6.7	6.9	7.2	6.9	7.0	7.0	6.8	6.9	---	---	---

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

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	---	---	---	6.6	6.5	6.5	6.8	6.7	6.8	6.8	6.7	6.8
2	---	---	---	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
3	---	---	---	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
4	---	---	---	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
5	6.7	6.6	6.6	6.6	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
6	6.7	6.6	6.6	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
7	6.7	6.5	6.6	6.6	6.5	6.5	6.8	6.7	6.8	6.8	6.7	6.8
8	6.6	6.5	6.6	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8
9	6.6	6.5	6.6	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8
10	6.6	6.5	6.6	6.6	5.9	6.5	6.8	6.7	6.8	---	---	---
11	6.6	6.5	6.6	6.5	5.9	6.4	6.8	6.7	6.8	6.8	6.4	6.8
12	6.6	6.5	6.6	6.6	5.9	6.3	6.8	6.7	6.8	6.8	6.3	6.7
13	6.6	6.5	6.6	6.6	6.5	6.5	6.8	6.7	6.8	---	---	---
14	6.6	6.5	6.6	6.6	5.8	6.4	6.8	6.7	6.8	---	---	---
15	6.6	6.5	6.6	6.8	5.6	6.4	6.8	6.7	6.8	6.3	5.5	6.1
16	6.6	6.6	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.5	6.1	6.2
17	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.2	6.5
18	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
19	6.7	6.6	6.6	6.8	6.7	6.8	6.8	6.7	6.8	---	---	---
20	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.0	6.5
21	6.7	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
22	6.6	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
23	6.6	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
24	6.6	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
25	6.6	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
26	6.6	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
27	6.6	6.5	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.7
28	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.7
29	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
30	6.6	6.5	6.5	6.8	6.7	6.8	6.8	6.7	6.8	6.8	6.7	6.8
31	---	---	---	6.8	6.7	6.8	6.8	6.7	6.8	---	---	---
MONTH	6.7	6.4	6.6	6.8	5.6	6.7	6.8	6.7	6.8	6.8	5.5	6.5

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	22.5	22.0	22.0	16.5	15.5	16.0	7.0	6.5	6.5	---	---	---
2	22.5	22.0	22.5	16.0	15.5	16.0	7.0	6.5	7.0	---	---	---
3	22.5	22.0	22.5	17.0	15.0	15.5	7.5	7.0	7.0	---	---	---
4	22.5	22.0	22.5	15.5	15.0	15.5	7.0	6.5	6.5	---	---	---
5	22.5	22.0	22.5	15.5	14.5	15.0	---	---	---	---	---	---
6	---	---	---	15.0	14.5	14.5	---	---	---	---	---	---
7	---	---	---	14.5	14.0	14.5	---	---	---	---	---	---
8	---	---	---	14.5	14.0	14.0	---	---	---	---	---	---
9	---	---	---	14.5	14.0	14.0	---	---	---	---	---	---
10	---	---	---	14.0	13.5	14.0	---	---	---	---	---	---
11	20.5	20.0	20.0	14.0	13.5	13.5	---	---	---	---	---	---
12	20.0	19.5	19.5	14.0	13.0	13.5	---	---	---	---	---	---
13	19.5	19.0	19.5	13.5	12.0	12.5	---	---	---	---	---	---
14	19.5	19.0	19.5	12.5	11.5	12.0	---	---	---	---	---	---
15	19.5	19.0	19.0	12.0	11.0	11.5	---	---	---	---	---	---
16	19.0	18.5	19.0	11.5	10.5	11.0	---	---	---	---	---	---
17	19.0	18.5	18.5	11.0	10.5	11.0	---	---	---	---	---	---
18	18.5	18.0	18.0	11.0	10.0	10.5	---	---	---	---	---	---
19	18.0	17.5	18.0	11.0	10.0	10.5	---	---	---	---	---	---
20	18.0	17.0	17.5	10.5	9.5	10.0	---	---	---	---	---	---
21	17.5	17.0	17.5	10.0	8.5	9.0	---	---	---	---	---	---
22	17.5	17.0	17.0	8.5	7.5	8.0	---	---	---	---	---	---
23	17.5	17.0	17.0	8.0	7.0	7.5	---	---	---	---	---	---
24	17.5	17.0	17.0	7.5	7.0	7.5	---	---	---	---	---	---
25	17.0	16.5	17.0	7.5	6.5	7.0	---	---	---	---	---	---
26	17.5	16.5	17.0	7.0	6.0	6.5	---	---	---	---	---	---
27	17.0	16.5	16.5	7.0	6.5	6.5	---	---	---	---	---	---
28	17.0	16.5	16.5	8.0	7.0	7.0	---	---	---	---	---	---
29	16.5	16.0	16.5	8.0	7.0	7.5	---	---	---	---	---	---
30	16.5	16.0	16.5	7.5	6.5	7.0	---	---	---	---	---	---
31	16.5	16.0	16.0	---	---	---	---	---	---	---	---	---
MONTH	22.5	16.0	18.5	17.0	6.0	11.3	7.0	6.5	6.0	---	---	---

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.0	25.0	25.5	28.5	27.5	28.0	24.5	24.0	24.5
2	---	---	---	26.0	25.5	25.5	28.0	27.5	27.5	24.5	24.0	24.0
3	22.5	22.0	22.5	26.0	25.5	26.0	28.0	27.5	27.5	24.5	24.0	24.0
4	23.0	22.0	22.5	26.0	25.5	26.0	28.5	27.5	28.0	24.0	23.5	24.0
5	23.0	22.5	22.5	26.0	26.0	26.0	28.5	27.5	28.0	24.0	23.5	24.0
6	23.5	22.5	23.0	26.5	25.5	26.0	28.0	27.5	27.5	24.0	23.5	23.5
7	23.5	22.5	23.0	26.5	26.0	26.0	27.5	27.5	27.5	23.5	23.5	23.5
8	23.5	22.5	23.0	26.5	25.5	26.0	28.0	27.0	27.5	23.5	23.5	23.5
9	23.5	23.0	23.0	26.5	26.0	26.5	27.5	27.5	27.5	24.0	23.0	23.5
10	23.5	23.0	23.0	27.0	26.5	26.5	28.0	27.5	27.5	23.5	22.5	23.5
11	23.5	23.0	23.0	27.0	26.5	26.5	27.5	27.0	27.5	23.5	22.0	23.0
12	23.5	23.0	23.0	27.5	26.5	27.0	27.5	27.0	27.0	22.5	21.5	22.0
13	23.5	23.0	23.0	27.5	27.0	27.0	27.5	27.0	27.0	22.0	21.5	21.5
14	24.0	23.0	23.5	27.5	27.0	27.5	27.5	26.5	27.0	21.5	21.0	21.5
15	24.5	23.5	24.0	27.5	26.5	27.0	27.0	26.5	27.0	21.0	20.5	21.0
16	24.5	24.0	24.0	27.5	26.5	27.0	27.0	26.5	27.0	21.0	20.0	20.5
17	---	---	---	27.0	26.5	27.0	27.5	26.5	27.0	21.0	20.0	20.5
18	---	---	---	27.0	26.5	27.0	28.0	27.0	27.5	20.5	20.0	20.5
19	25.0	24.5	24.5	27.0	26.5	26.5	28.0	27.0	27.5	20.5	20.0	20.0
20	25.5	24.5	25.0	27.0	26.5	27.0	28.0	27.5	27.5	20.0	19.5	20.0
21	25.5	25.0	25.0	27.5	26.5	27.0	27.5	27.0	27.5	20.0	19.0	19.5
22	25.5	25.0	25.5	27.5	27.0	27.0	27.5	27.0	27.0	19.5	18.5	19.5
23	25.5	25.0	25.5	27.5	27.0	27.5	27.0	26.5	27.0	19.5	18.5	19.0
24	26.0	25.0	25.5	28.5	27.5	28.0	26.5	26.0	26.5	19.0	18.0	18.5
25	26.0	25.5	26.0	28.5	28.0	28.0	26.0	25.5	26.0	18.5	18.0	18.5
26	26.0	25.5	25.5	28.0	28.0	28.0	26.0	25.5	25.5	18.5	18.0	18.5
27	26.0	25.5	25.5	28.5	28.0	28.0	25.5	25.0	25.5	19.0	18.0	18.5
28	26.0	25.0	25.5	28.5	28.0	28.0	25.5	24.5	25.0	19.0	18.5	18.5
29	26.0	25.0	25.5	28.0	27.5	28.0	25.0	24.5	25.0	19.5	18.5	19.0
30	26.0	25.0	25.5	28.0	27.5	28.0	25.0	24.5	24.5	19.5	19.0	19.0
31	---	---	---	28.0	27.5	28.0	24.5	24.0	24.5	---	---	---
MONTH	26.0	22.0	24.0	28.5	25.0	26.9	28.5	24.0	26.9	24.5	18.0	21.2

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	4.0	2.6	3.0	5.2	4.0	4.5	6.3	6.1	6.2	---	---	---
2	3.6	2.5	2.9	5.5	3.9	4.5	6.3	6.1	6.2	---	---	---
3	3.5	2.6	2.9	5.5	4.0	4.5	6.2	6.0	6.1	---	---	---
4	3.4	2.4	2.8	5.0	3.9	4.3	6.3	6.1	6.2	---	---	---
5	3.5	2.4	2.8	4.9	4.0	4.4	---	---	---	---	---	---
6	---	---	---	4.7	4.0	4.3	---	---	---	---	---	---
7	---	---	---	4.9	3.9	4.3	---	---	---	---	---	---
8	---	---	---	4.9	4.0	4.3	---	---	---	---	---	---
9	---	---	---	4.8	4.0	4.3	---	---	---	---	---	---
10	---	---	---	5.3	4.2	4.6	---	---	---	---	---	---
11	4.7	3.8	4.2	5.4	4.3	4.8	---	---	---	---	---	---
12	4.8	4.0	4.3	5.5	4.4	5.0	---	---	---	---	---	---
13	4.8	3.9	4.2	5.6	4.8	5.2	---	---	---	---	---	---
14	4.5	3.7	4.0	5.7	5.2	5.4	---	---	---	---	---	---
15	4.6	3.6	4.0	5.7	5.2	5.5	---	---	---	---	---	---
16	4.4	3.6	3.9	5.7	5.4	5.5	---	---	---	---	---	---
17	4.4	3.5	3.8	5.7	5.4	5.6	---	---	---	---	---	---
18	4.5	3.4	3.9	5.7	5.3	5.5	---	---	---	---	---	---
19	4.5	3.6	4.0	5.7	5.3	5.5	---	---	---	---	---	---
20	4.8	3.7	4.2	5.7	5.3	5.5	---	---	---	---	---	---
21	4.8	3.8	4.2	6.0	5.4	5.7	---	---	---	---	---	---
22	4.9	3.9	4.3	6.4	5.9	6.2	---	---	---	---	---	---
23	5.0	3.9	4.3	6.5	6.2	6.4	---	---	---	---	---	---
24	5.1	4.0	4.5	6.7	6.4	6.6	---	---	---	---	---	---
25	5.2	3.8	4.4	7.0	6.6	6.8	---	---	---	---	---	---
26	4.9	3.7	4.2	7.2	6.8	7.0	---	---	---	---	---	---
27	4.8	3.5	4.1	7.4	6.3	7.1	---	---	---	---	---	---
28	4.7	3.5	4.0	6.4	6.1	6.3	---	---	---	---	---	---
29	4.9	3.6	4.1	6.4	6.2	6.3	---	---	---	---	---	---
30	5.0	3.6	4.2	6.3	6.1	6.2	---	---	---	---	---	---
31	5.4	3.8	4.5	---	---	---	---	---	---	---	---	---
MONTH	5.4	3.4	3.9	7.4	3.9	5.4	6.3	6.0	6.2	---	---	---

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	---	---	---	---	---	---	---	---	---	8.9	8.4	8.6
2	---	---	---	---	---	---	---	---	---	8.6	8.2	8.4
3	---	---	---	12.7	12.0	12.4	---	---	---	8.6	8.0	8.2
4	---	---	---	13.1	12.2	12.6	---	---	---	8.3	7.7	7.9
5	---	---	---	12.8	12.2	12.6	---	---	---	8.0	7.5	7.8
6	---	---	---	12.5	11.9	12.2	---	---	---	8.1	7.5	7.8
7	---	---	---	12.4	11.8	12.1	---	---	---	8.3	7.5	7.9
8	---	---	---	12.7	12.1	12.3	---	---	---	8.2	7.6	7.9
9	---	---	---	13.0	12.2	12.5	---	---	---	8.1	7.6	7.9
10	---	---	---	12.6	12.1	12.4	---	---	---	8.3	7.7	7.9
11	---	---	---	12.7	12.2	12.4	---	---	---	8.5	7.7	8.1
12	---	---	---	13.3	12.3	12.8	---	---	---	8.3	7.7	8.0
13	---	---	---	13.0	11.6	12.1	---	---	---	8.3	7.3	7.8
14	---	---	---	11.6	11.4	11.5	8.6	7.6	8.1	8.2	7.4	7.8
15	---	---	---	11.8	11.3	11.5	8.2	7.8	8.0	8.0	7.5	7.7
16	---	---	---	11.8	11.4	11.6	8.3	8.0	8.1	8.1	7.0	7.6
17	---	---	---	11.8	11.5	11.7	8.6	8.2	8.4	8.3	7.2	7.8
18	---	---	---	12.0	11.5	11.7	8.7	6.9	8.5	8.7	7.5	8.1
19	---	---	---	12.0	11.5	11.7	8.9	8.6	8.8	8.2	7.2	7.6
20	---	---	---	12.2	11.6	11.9	9.0	8.7	8.9	7.3	6.7	7.1
21	---	---	---	12.1	11.7	11.9	9.3	8.8	9.0	7.5	6.5	6.9
22	---	---	---	12.1	11.7	11.8	9.9	8.9	9.4	---	---	---
23	---	---	---	12.0	11.6	11.7	10.5	9.2	10.0	---	---	---
24	---	---	---	11.9	11.5	11.7	9.3	8.7	9.1	---	---	---
25	---	---	---	12.0	11.5	11.6	8.8	8.4	8.6	---	---	---
26	---	---	---	11.8	11.0	11.3	8.9	8.3	8.6	---	---	---
27	---	---	---	---	---	---	9.3	8.4	8.8	---	---	---
28	---	---	---	---	---	---	9.1	8.5	8.8	---	---	---
29	---	---	---	---	---	---	8.7	1.9	8.0	---	---	---
30	---	---	---	---	---	---	9.2	1.6	6.7	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	13.3	11.0	12.0	10.5	1.6	8.6	8.9	6.5	7.9

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	---	---	---	3.4	2.3	2.8	5.0	3.2	3.8	3.3	2.3	2.8
2	---	---	---	3.6	2.3	2.8	5.1	3.3	4.0	3.5	2.3	2.8
3	4.3	3.2	3.6	3.9	2.0	2.8	4.9	3.6	4.1	3.7	2.6	3.0
4	3.9	2.7	3.2	3.9	2.3	3.1	4.6	3.5	3.9	4.0	2.7	3.1
5	3.6	2.0	2.7	3.8	2.5	3.2	4.7	3.4	3.9	4.0	2.7	3.2
6	3.3	1.8	2.4	3.5	2.6	3.1	3.8	3.0	3.3	3.8	2.8	3.2
7	2.9	1.6	2.1	3.1	2.3	2.8	3.3	2.6	2.9	3.8	2.7	3.0
8	2.9	1.5	2.0	2.8	1.9	2.3	3.4	2.4	2.7	3.6	2.7	2.9
9	2.7	1.7	2.0	2.2	1.5	2.0	3.5	2.4	2.8	4.7	2.6	3.1
10	2.5	1.7	2.0	2.4	1.3	1.9	3.7	2.4	2.8	5.0	3.9	4.6
11	2.7	1.8	2.1	3.0	1.7	2.0	3.9	2.4	3.1	4.8	4.5	4.6
12	3.0	2.0	2.4	2.9	1.7	2.1	3.8	2.6	3.2	4.7	4.3	4.5
13	3.4	2.2	2.6	3.3	1.8	2.4	3.5	2.8	3.2	4.7	4.3	4.5
14	3.6	2.3	2.8	3.8	2.0	2.6	3.5	2.8	3.2	5.0	4.4	4.7
15	3.9	2.5	3.1	3.8	1.7	2.7	3.3	2.8	3.1	5.3	4.9	5.1
16	4.4	2.7	3.4	4.1	2.4	3.3	3.5	2.8	3.2	5.2	5.0	5.1
17	---	---	---	4.8	2.9	3.8	3.5	2.9	3.2	5.1	4.8	5.0
18	---	---	---	5.1	3.6	4.3	3.5	2.8	3.1	5.2	4.8	5.0
19	5.0	3.0	3.5	5.4	3.9	4.6	3.4	2.8	3.1	5.2	4.7	5.0
20	5.0	3.1	3.8	5.7	4.3	4.9	3.4	2.6	2.9	5.2	4.8	5.1
21	4.6	2.6	3.4	6.1	4.6	5.1	3.5	2.6	2.9	5.2	5.0	5.1
22	3.2	2.0	2.6	6.5	4.8	5.4	3.8	2.6	3.0	5.2	4.9	5.0
23	2.4	1.7	1.9	7.0	5.0	5.7	3.5	2.6	3.0	5.1	4.9	5.0
24	2.5	1.5	1.9	6.2	4.7	5.4	3.6	2.8	3.1	5.1	4.9	5.0
25	2.7	1.5	1.8	5.9	4.5	5.1	3.3	2.8	3.0	5.3	4.8	5.1
26	2.5	1.5	1.9	5.8	4.4	4.8	3.0	2.5	2.8	5.2	5.0	5.1
27	2.4	1.6	1.9	5.5	3.9	4.5	2.8	2.3	2.5	5.3	4.9	5.1
28	2.8	1.4	1.9	5.3	3.5	4.2	2.8	2.1	2.4	5.2	4.9	5.1
29	3.3	1.7	2.3	5.0	3.3	4.0	2.6	2.1	2.3	5.1	4.8	4.9
30	3.4	2.3	2.8	4.9	3.2	3.8	3.4	2.0	2.5	4.9	4.6	4.7
31	---	---	---	4.9	3.1	3.9	3.3	2.1	2.6	---	---	---
MONTH	5.0	1.4	2.5	7.0	1.3	3.6	5.1	2.0	3.1	5.3	2.3	4.3

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft upstream from highway bridge at Landingville, 0.1 mi upstream from Mahannon Creek, and 5 mi downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi².

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 470.64 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1947, nonrecording gage 10 ft downstream at same datum.

REMARKS.--Records good except for periods of estimated record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years (water years 1948-52, 1964-65, 1975-87), 282 ft³/s, 28.83 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,570 ft³/s, Nov. 25, 1950; maximum gage height, 13.60 ft Apr. 16, 1983; minimum discharge, 19 ft ³/s, Oct. 30, 31, Nov. 4, 1963; minimum gage height, 2.75 ft, Sept. 13, 21, 22, 23, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft, discharge, 14,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 8	1730	1810	7.49	Sept. 13	1245	*4060	*11.16

Minimum discharge, 54 ft³/s, Aug. 22, 24, gage height, 2.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	96	284	312	146	456	353	239	125	99	69	103
2	132	98	308	322	156	515	313	229	122	116	70	75
3	148	97	681	300	169	462	330	259	121	137	73	73
4	168	100	504	270	168	402	714	359	137	96	75	72
5	170	120	432	253	160	360	737	275	124	91	81	62
6	134	183	383	245	156	331	787	264	116	90	89	80
7	129	132	348	240	153	344	710	256	121	86	78	219
8	128	181	316	231	157	411	633	249	114	127	67	746
9	128	206	336	223	154	487	560	232	118	93	79	503
10	123	185	342	217	152	463	493	225	108	87	118	255
11	115	235	304	212	153	415	438	227	107	83	81	197
12	110	249	287	199	155	382	447	221	126	84	78	297
13	122	226	254	193	150	350	444	207	115	88	72	3010
14	184	209	235	190	145	317	372	198	104	141	74	1240
15	142	194	232	195	140	294	346	198	103	111	64	738
16	128	188	231	208	e140	275	318	182	105	96	62	560
17	122	180	228	193	140	262	342	172	103	91	64	518
18	113	183	394	193	135	247	319	166	101	80	65	544
19	109	361	371	e190	131	237	301	182	98	77	65	548
20	108	314	332	e190	128	229	292	216	87	79	85	466
21	113	734	306	e185	121	207	276	195	87	82	66	414
22	111	485	284	e185	121	199	269	174	225	79	91	382
23	110	387	268	e180	e131	193	259	163	192	81	64	339
24	108	365	300	e175	e134	189	285	169	126	81	61	306
25	103	313	810	e175	130	186	339	160	116	121	65	274
26	127	398	603	e170	129	187	273	154	109	103	66	249
27	121	435	524	e170	128	177	268	146	143	81	88	230
28	106	370	464	e165	125	167	266	142	99	83	92	e232
29	100	342	411	e165	---	161	264	139	96	80	89	e228
30	99	310	377	e160	---	177	253	133	93	72	66	e230
31	102	---	339	152	---	397	---	128	---	83	66	---
TOTAL	3851	7876	11488	6458	4007	9479	12001	6259	3541	2898	2323	13190
MEAN	124	263	371	208	143	306	400	202	118	93.5	74.9	440
MAX	184	734	810	322	169	515	787	359	225	141	118	3010
MIN	99	96	228	152	121	161	253	128	87	72	61	62
CFSM	.93	1.97	2.79	1.57	1.08	2.30	3.01	1.52	.89	.70	.56	3.31
IN.	1.08	2.20	3.21	1.81	1.12	2.65	3.36	1.75	.99	.81	.65	3.69

CAL YR 1986 TOTAL 87993 MEAN 241 MAX 2790 MIN 67 CFSM 1.81 IN. 24.61
WTR YR 1987 TOTAL 83371 MEAN 228 MAX 3010 MIN 61 CFSM 1.72 IN. 23.32

e Estimated

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank at pumping plant of Panther Valley Water Co., 0.6 mi upstream from Tamaqua, and 0.8 mi upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi².

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 21, 1929, nonrecording gage at site 3,600 ft downstream at datum 28.64 ft lower.

REMARKS.--Record good except for periods of estimated record, which are fair. Flow regulated by Still Creek Reservoir (station 01469200) 6.5 mi upstream. Figures of daily discharge do not include water diverted from reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 92.6 ft³/s, 29.32 in/yr, adjusted for diversion and, since February 1933, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,790 ft³/s, Aug. 18, 1955, gage height, 11.10 ft, from rating curve extended above 3,200 ft³/s, on basis of contracted-opening measurement of peak flow; minimum, 1.8 ft³/s, Dec. 18, 1931, gage height, 1.21 ft; minimum daily, 2.9 ft³/s, Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1670 ft³/s, Sept. 13, gage height, 5.57 ft; minimum daily discharge, 12.0 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	22	111	100	38	94	183	64	34	27	31	57
2	19	35	111	100	38	159	151	61	33	32	29	35
3	21	34	283	90	40	149	144	65	32	41	18	29
4	26	31	232	78	40	131	415	91	34	32	17	27
5	31	28	193	71	37	116	440	74	33	26	17	29
6	26	34	162	65	37	106	374	64	29	24	17	34
7	23	29	139	63	36	123	306	59	28	22	16	47
8	21	39	122	59	36	189	282	57	28	38	15	355
9	20	54	123	55	35	243	205	54	30	31	16	541
10	20	52	132	56	e34	227	169	54	26	32	52	232
11	19	56	109	55	e33	191	145	52	24	41	31	152
12	19	67	98	51	e32	160	142	50	26	39	22	148
13	20	63	90	48	e31	134	163	48	28	38	18	1320
14	29	59	82	46	e31	114	139	46	25	52	17	1010
15	27	57	81	48	e30	100	123	46	24	70	16	560
16	22	56	77	56	e30	88	116	43	22	52	16	301
17	21	53	74	51	e29	79	119	41	21	44	15	258
18	19	53	118	49	e29	72	115	41	21	41	16	272
19	19	81	140	e47	e29	68	105	51	19	40	14	249
20	19	79	120	e46	30	64	98	55	19	38	14	222
21	20	267	113	e45	30	60	89	52	20	33	13	212
22	26	213	105	e44	30	57	81	47	69	32	15	189
23	40	173	98	e43	31	55	75	42	96	31	14	162
24	40	155	98	e42	30	52	79	54	49	32	13	141
25	35	129	258	e42	30	50	102	46	35	31	13	122
26	39	138	222	e41	28	50	83	42	29	58	12	107
27	40	178	197	e40	27	47	75	41	32	51	21	96
28	25	154	171	e39	27	45	73	40	27	39	24	86
29	22	144	147	e38	---	43	71	38	24	35	29	77
30	21	128	129	e38	---	45	68	37	23	32	21	74
31	21	---	114	e38	---	153	---	35	---	32	25	---
TOTAL	770	2661	4249	1684	908	3264	4730	1590	940	1166	607	7144
MEAN	24.8	88.7	137	54.3	32.4	105	158	51.3	31.3	37.6	19.6	238
MAX	40	267	283	100	40	243	440	91	96	70	52	1320
MIN	19	22	74	38	27	43	68	35	19	22	12	27
†	10.8	9.1	8.4	8.9	9.7	10.6	10.6	11.5	11.2	10.2	11.8	11.6
MEAN‡	21.0	101	173	70.5	39.0	126	189	62.8	35.8	41.9	22.5	271
CFSM‡	.49	2.35	4.03	1.64	.91	2.94	4.41	1.46	.83	.98	.52	6.32
IN‡	.56	2.63	4.65	1.90	.95	3.39	4.92	1.69	.93	1.13	.60	7.05

CAL YR 1986 TOTAL 29050 MEAN 79.6 MAX 1340 MIN 13 MEAN‡ 87.4 CFSM‡ 3.04 IN‡ 27.67
WTR YR 1987 TOTAL 29713 MEAN 81.4 MAX 1320 MIN 12 MEAN‡ 96.1 CFSM‡ 2.24 IN‡ 30.42

† Diversion from Still Creek Reservoir, equivalent in cubic feet per second, furnished by Panther Valley Water Company.
‡ Adjusted for diversion and change in contents in Still Creek Reservoir.
e Estimated

01470500 SCHUYLKILL RIVER AT BERNE, PA

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft upstream from highway bridge at Berne, 0.5 mi upstream from Mill Creek, and 6.5 mi downstream from Little Schuylkill River. Water-quality sampling site at bridge 50 ft downstream.

DRAINAGE AREA.--355 mi².

PERIOD OF RECORD.--August 1947 to current year. Monthly discharge only for August 1947, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of estimated discharge which are poor. Some regulation at low flow by mine pumpage and by Still Creek Reservoir (station 01469200) about 25 mi upstream.

AVERAGE DISCHARGE.--40 years, 711 ft³/s, 27.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft³/s, June 22, 1972, gage height, 19.0 ft, from floodmark in gage shelter, from rating curve extended above 17,000 ft³/s; minimum, 31 ft³/s, Sept. 2, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1942 reached a stage of 15.0 ft, from floodmarks, discharge, 26,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,400 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage Height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
Sept. 8	2245	5970	8.73	Sept. 13	1615	*13000	*11.38

Minimum daily discharge, 121 ft³/s, Aug. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	181	800	839	e380	1370	e900	546	237	179	146	197
2	234	192	763	861	356	2230	e830	516	232	191	155	176
3	223	194	2170	789	402	1770	e810	535	227	241	162	157
4	329	193	1810	701	405	1440	e1250	958	245	194	155	146
5	314	207	1430	625	394	1180	e2300	742	254	171	151	138
6	267	405	1190	585	366	1030	e2200	702	220	162	168	147
7	230	309	1040	567	371	1030	e1990	666	207	171	151	337
8	225	384	918	549	395	1220	e1800	625	210	197	139	1860
9	224	534	919	506	392	1460	e1700	568	211	194	134	3020
10	211	479	998	500	335	1410	e1450	532	207	164	258	1140
11	205	488	860	507	e330	1220	e1300	506	195	157	193	727
12	200	673	810	474	e310	1090	e1250	482	199	156	157	761
13	206	549	744	442	e300	966	e1200	438	220	168	150	8600
14	296	471	658	429	e295	860	e950	407	194	186	148	5250
15	286	418	634	450	e290	787	e890	414	183	302	145	2760
16	230	399	610	517	e280	699	e880	379	179	195	143	1800
17	217	376	586	499	e275	652	e920	355	171	171	136	1520
18	208	356	1120	504	e260	602	e890	338	170	159	129	1630
19	201	940	1540	573	e260	561	e800	376	170	161	129	1650
20	195	773	1230	596	e258	527	e700	468	164	157	145	1400
21	194	2590	1050	528	e254	490	e660	429	160	156	130	1240
22	195	1690	909	e505	262	460	e625	380	299	150	133	1130
23	198	1240	811	e500	302	434	590	337	603	143	161	1030
24	204	1080	782	e495	291	408	595	346	282	138	121	891
25	193	898	2490	e480	281	e380	883	327	223	140	121	782
26	213	975	2120	e470	274	e360	706	309	200	212	123	698
27	253	1560	1700	e460	271	e355	656	286	297	191	150	636
28	214	1240	1420	e430	272	e350	640	279	206	160	186	579
29	190	1080	1200	e415	---	e345	625	267	182	157	212	517
30	185	930	1070	e405	---	e340	598	258	175	147	162	504
31	183	---	951	387	---	e500	---	251	---	146	139	---
TOTAL	6964	21804	35333	16588	8861	26526	31588	14022	6722	5416	4732	41423
MEAN	225	727	1140	535	316	856	1053	452	224	175	153	1381
MAX	329	2590	2490	861	405	2230	2300	958	603	302	258	8600
MIN	183	181	586	387	254	340	590	251	160	138	121	138
CFSM	.63	2.05	3.21	1.51	.89	2.41	2.97	1.27	.63	.49	.43	3.89
IN.	.73	2.28	3.70	1.74	.93	2.78	3.31	1.47	.70	.57	.50	4.34

CAL YR 1986 TOTAL 238654 MEAN 654 MAX 10300 MIN 128 CFSM 1.84 IN. 25.01
WTR YR 1987 TOTAL 219979 MEAN 603 MAX 8600 MIN 121 CFSM 1.70 IN. 23.05

e Estimated

01470756 MAIDEN CREEK AT VIRGINVILLE, PA

LOCATION.--Lat 40°30'51", long 75°53'00", Berks County, Hydrologic Unit 02040203, on right bank 0.9 mi downstream from Sacony Creek, 0.9 mi southwest of Virginville, and 1.0 mi upstream from Moselem Creek.
DRAINAGE AREA.--159 mi².
PERIOD OF RECORD.--January 1973 to current year.
REVISED RECORD.--WDR PA-87-1: 1975(P), 1976(P), 1978(P), 1979(P), 1982-1984(P).
GAGE.--Water-stage recorder. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Records good except for periods of estimated records which are poor. Several observation of water temtemperature were made during the year.
AVERAGE DISCHARGE.--14 years, 264 ft³/s, 22.55 in/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft³/s, Jan. 24, 1979, gage height, 12.67 ft; minimum, 11 ft³/s, Aug. 25, Sept. 24, 25, 1980; minimum gage height, 1.88 ft, Aug. 25, 1980.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 17.2 feet, from floodmarks, discharge, about 40,000 ft³/s.
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0415	2120	5.95	Sept. 13	1330	2610	6.60
Sept. 9	0315	*12,200	*11.47				

Minimum daily discharge, 16 ft³/s, Aug. 21, 25, 26.
REVISIONS.--The maximum discharges (above gage height, 8.8 ft) for some water years have been revised, as shown in the following table. They supersede figures published in reports for 1975, 1976, 1978, 1979, 1982 to 1984.

Date	Discharge (ft³/s)	Gage height (ft)	Date	Discharge (ft³/s)	Gage height (ft)
Sept. 24, 1975	4890	8.92	Feb. 4, 1982	5700	9.41
Jan. 26, 1976	12,400	11.51	Apr. 16, 1983	7150	10.07
Jan. 26, 1978	9980	10.93	Dec. 14, 1983	7570	10.21
Jan. 24, 1979	17,000	12.67	Apr. 6, 1984	6380	9.79
Feb. 24, 1979	4970	8.97	May 29, 1984	6380	9.79
Feb. 26, 1979	6380	9.79			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	44	300	255	e130	437	238	139	60	43	27	44
2	73	54	297	284	e170	1050	170	135	56	63	26	30
3	69	54	940	256	180	894	177	153	55	67	27	24
4	115	51	695	220	205	649	727	338	65	47	23	21
5	102	65	532	196	193	498	827	226	69	38	27	19
6	79	236	416	186	193	422	859	199	54	34	53	27
7	64	145	351	176	197	399	773	181	48	35	31	103
8	61	257	304	168	212	421	623	165	51	47	24	512
9	59	296	363	158	203	410	496	151	53	36	21	6030
10	55	241	403	166	208	345	411	142	53	32	165	1340
11	50	294	328	205	178	294	355	133	41	29	56	715
12	49	377	320	187	170	270	340	124	47	43	36	508
13	56	298	287	175	158	249	350	115	57	92	28	1860
14	100	238	246	181	159	227	279	106	48	66	24	1250
15	82	204	237	220	137	214	251	123	40	153	22	737
16	58	183	218	288	e140	197	235	109	35	59	21	521
17	51	160	208	274	e130	182	251	97	32	44	20	535
18	48	e350	587	280	123	170	262	91	29	37	26	564
19	44	e670	830	332	116	164	221	107	28	33	19	612
20	44	460	633	325	111	158	204	162	28	30	17	519
21	43	1570	487	277	109	152	189	143	30	28	16	426
22	42	848	386	241	111	145	178	114	117	24	20	396
23	40	555	327	e230	137	138	163	102	185	22	26	337
24	39	453	303	e210	130	133	174	96	70	21	18	269
25	38	342	967	e180	127	127	280	84	53	22	16	223
26	66	486	691	e170	125	126	194	82	45	45	16	188
27	102	827	566	e165	130	119	170	81	127	56	42	164
28	69	608	463	e155	129	120	165	78	73	29	51	148
29	56	472	383	e150	---	113	162	71	51	23	100	140
30	50	371	335	e150	---	117	152	70	43	30	44	138
31	46	---	295	e148	---	261	---	62	---	48	28	---
TOTAL	1925	11209	13698	6608	4311	9201	9876	3979	1743	1376	1070	18400
MEAN	62.1	374	442	213	154	297	329	128	58.1	44.4	34.5	613
MAX	115	1570	967	332	212	1050	859	338	185	153	165	6030
MIN	38	44	208	148	109	113	152	62	28	21	16	19
CFSM	.39	2.35	2.78	1.34	.97	1.87	2.07	.81	.37	.28	.22	3.86
IN.	.45	2.62	3.20	1.55	1.01	2.15	2.31	.93	.41	.32	.25	4.30

CAL YR 1986 TOTAL 88881 MEAN 244 MAX 3310 MIN 27 CFSM 1.53 IN. 20.79
WTR YR 1987 TOTAL 83396 MEAN 228 MAX 6030 MIN 16 CFSM 1.44 IN. 19.51

e Estimated

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit 02040203, on left bank 30 ft downstream from Kricks Mill Bridge, 0.4 mi upstream from Mill Creek, and 3.5 mi west of Bernville.

DRAINAGE AREA.--66.5 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 311.26 ft above Pennsylvania Department of Transportation Datum.

REMARKS.--Records good, except periods of estimated daily discharge which are poor.

AVERAGE DISCHARGE.--12 years, 107 ft³/s, 21.89 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s, Jan. 24, 1979, gage height, 10.16 ft, from rating curve extended above 740 ft³/s, on basis of contracted-opening measurement of peak flow; minimum daily, 25 ft³/s, Oct. 14, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft, from information by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0600	*860	*4.70	No other peak greater than base discharge.			

Minimum daily discharge, 42 ft³/s, Aug. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	46	129	125	e86	409	95	84	96	50	58	54
2	66	60	118	135	e92	317	87	86	69	53	73	46
3	61	57	235	129	105	253	91	99	71	53	67	45
4	94	48	154	e130	108	216	153	127	77	60	47	45
5	85	53	139	e120	104	191	145	89	72	72	49	51
6	76	91	142	e110	100	175	222	80	80	72	55	66
7	57	64	145	e105	106	179	178	76	93	53	48	115
8	55	87	135	e102	112	180	157	72	91	51	56	333
9	54	99	135	e100	100	168	144	72	69	49	64	205
10	51	92	134	115	81	139	135	98	64	48	65	102
11	54	91	118	124	e78	130	131	91	61	51	47	84
12	59	106	114	116	e76	127	138	68	61	109	46	111
13	61	88	117	106	e74	123	133	64	73	93	46	312
14	63	81	124	109	e73	130	113	70	90	128	45	188
15	55	81	121	115	e71	136	114	79	84	96	45	128
16	51	87	104	114	e70	129	112	88	55	64	53	114
17	51	83	103	112	e68	110	117	97	55	58	55	104
18	58	75	197	121	e67	107	115	96	54	54	43	160
19	68	133	169	140	e65	105	119	117	53	54	42	178
20	65	108	156	137	e62	102	114	115	63	52	44	157
21	48	344	156	127	e60	111	103	105	78	49	44	139
22	47	167	142	125	e80	117	99	95	87	48	57	111
23	46	150	113	115	98	114	97	108	72	48	60	104
24	46	144	127	e105	78	94	100	112	52	46	57	98
25	53	120	479	e102	70	91	106	106	51	46	45	95
26	75	145	221	e100	76	90	106	86	50	51	44	100
27	74	176	204	e96	77	88	102	83	59	50	49	106
28	51	136	190	e93	88	98	91	80	62	48	57	103
29	47	141	170	e92	---	106	89	77	61	48	62	79
30	46	140	145	e90	---	106	86	84	52	48	63	77
31	45	---	134	e88	---	109	---	99	---	52	61	---
TOTAL	1815	3293	4870	3498	2325	4550	3592	2803	2055	1854	1647	3610
MEAN	58.5	110	157	113	83.0	147	120	90.4	68.5	59.8	53.1	120
MAX	94	344	479	140	112	409	222	127	96	128	73	333
MIN	45	46	103	88	60	88	86	64	50	46	42	45
CFSM	.88	1.65	2.36	1.70	1.25	2.21	1.80	1.36	1.03	.90	.80	1.81
IN.	1.02	1.84	2.72	1.96	1.30	2.55	2.01	1.57	1.15	1.04	.92	2.02

CAL YR 1986 TOTAL 36835 MEAN 101 MAX 619 MIN 34 CFSM 1.52 IN. 20.61
WTR YR 1987 TOTAL 35912 MEAN 98.4 MAX 479 MIN 42 CFSM 1.48 IN. 20.09

e Estimated

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1977 to current year.

INSTRUMENTATION.--Temperature record since October 1977.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27°C, July 21, 1985, July 22, 1987; minimum, 0.0°C, on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27.0°C, July 22; minimum, 0.0°C, on several days during winter period.

TEMPERATURE, WATER, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.5	9.5	8.0	9.0	6.5	5.5	6.0	5.5	4.0	4.5
2	20.5	19.0	20.0	11.5	10.0	11.0	7.0	5.5	5.5	4.5	3.5	4.0
3	19.5	16.5	18.0	10.5	8.5	9.5	9.0	7.0	8.5	5.0	4.0	4.5
4	18.5	16.5	17.5	10.5	9.5	10.0	8.5	6.0	7.0	5.0	3.5	4.0
5	18.5	16.5	17.5	9.5	6.5	8.5	6.0	5.5	5.5	4.5	2.5	3.5
6	16.0	13.0	14.5	8.5	6.5	7.5	6.0	4.5	5.0	4.5	2.5	3.5
7	13.0	11.5	12.0	8.0	7.0	7.5	7.0	5.5	6.5	5.0	4.0	4.5
8	13.5	11.0	12.5	11.0	8.0	9.5	7.5	7.0	7.5	5.5	4.5	5.0
9	16.0	13.5	15.0	13.0	11.0	12.0	7.0	6.5	6.5	5.5	5.0	5.5
10	15.0	11.0	13.5	11.5	8.5	9.5	8.0	6.5	7.5	5.5	4.5	5.0
11	12.0	10.0	11.0	8.5	7.0	7.5	7.5	5.0	5.5	5.5	5.0	5.5
12	14.0	11.5	12.5	8.0	6.5	7.0	6.0	5.0	5.5	5.0	4.0	4.5
13	14.5	11.0	14.0	8.0	5.5	7.0	5.5	3.5	4.5	5.5	4.5	5.0
14	15.5	14.5	15.0	5.5	3.5	4.5	3.5	2.0	3.0	6.0	4.0	5.0
15	14.0	12.0	12.5	6.0	3.5	4.5	5.5	3.0	4.0	7.0	6.0	6.5
16	12.0	11.0	11.5	8.0	6.0	7.0	6.0	4.0	5.0	7.0	6.0	6.5
17	11.5	10.0	11.0	9.0	8.0	8.5	7.0	6.0	6.5	6.0	3.5	4.5
18	11.0	10.0	10.5	8.5	7.5	8.0	6.5	6.0	6.5	5.0	4.5	4.5
19	10.5	9.0	10.0	8.0	5.5	7.0	6.5	5.5	6.0	---	---	---
20	11.0	9.0	10.0	5.5	4.5	4.5	6.5	6.0	6.0	5.5	4.0	4.5
21	11.5	9.5	10.5	7.5	5.0	7.0	6.0	5.5	6.0	5.5	5.0	5.5
22	13.5	11.0	12.0	8.0	7.0	7.5	5.5	4.0	5.0	5.0	1.0	3.0
23	13.5	12.0	12.5	8.5	6.5	7.5	5.0	3.5	4.5	3.0	1.0	2.0
24	14.0	11.5	12.5	9.0	8.0	8.5	5.0	4.5	5.0	2.0	.0	.5
25	11.5	10.5	11.0	8.0	6.5	7.0	8.5	4.5	7.0	2.5	.5	1.5
26	11.5	10.5	11.0	8.0	7.0	7.5	8.0	7.0	7.5	3.0	2.0	2.5
27	12.5	11.5	12.0	9.0	8.0	8.5	7.5	6.5	7.0	2.0	.0	1.0
28	13.5	12.0	12.5	8.0	6.5	7.0	7.0	6.0	7.0	1.5	.0	1.0
29	13.0	10.5	12.0	8.0	6.5	7.5	6.0	4.5	5.5	4.0	1.0	2.5
30	13.0	11.0	11.5	7.5	6.5	7.0	5.5	5.0	5.5	4.0	3.5	3.5
31	11.0	8.5	10.0	---	---	---	6.0	5.5	6.0	5.0	4.0	4.5
MONTH	21.0	8.5	13.1	13.0	3.5	7.8	9.0	2.0	5.9	---	---	---

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	4.5	2.5	3.5	6.0	4.0	4.5	9.0	6.5	8.0	14.5	11.0	13.0
2	6.5	4.5	5.5	6.5	6.0	6.0	---	---	---	14.5	13.0	13.5
3	6.5	5.0	6.0	7.5	5.0	6.5	---	---	---	13.0	12.0	12.5
4	6.0	5.0	5.5	6.5	5.0	6.0	---	---	---	---	---	---
5	5.5	3.0	4.0	7.5	4.0	6.0	---	---	---	11.0	10.0	10.5
6	5.0	2.5	4.0	9.0	5.0	7.0	8.5	7.0	7.5	16.0	11.0	13.5
7	6.0	3.5	5.0	10.5	6.5	8.5	10.0	8.0	9.0	17.0	14.0	15.5
8	5.5	4.0	4.5	11.5	8.0	10.0	12.5	8.5	10.5	17.0	14.5	16.0
9	5.0	2.5	4.0	11.0	8.5	10.0	---	---	---	16.5	13.5	15.0
10	4.0	1.0	2.0	8.5	4.5	6.0	---	---	---	18.5	14.5	16.5
11	5.0	3.0	4.0	6.0	3.0	5.0	14.5	10.5	12.5	19.5	16.5	18.0
12	5.0	3.0	4.0	7.5	4.5	6.0	13.5	11.0	12.0	19.5	17.5	18.5
13	4.0	2.5	3.5	7.5	5.5	6.5	11.5	10.0	10.5	18.0	15.5	17.0
14	3.5	2.5	3.0	7.5	5.0	6.5	---	---	---	16.5	14.5	15.0
15	3.5	2.0	2.5	8.5	6.5	7.5	---	---	---	17.5	15.5	16.5
16	3.0	.5	1.5	8.0	5.5	7.0	11.0	9.5	10.0	17.0	14.0	16.0
17	4.5	2.0	3.0	8.0	5.0	7.0	11.0	9.0	10.0	19.0	15.0	17.0
18	5.0	4.0	4.5	9.0	5.5	7.5	13.0	11.0	11.5	19.5	17.0	18.5
19	5.0	3.0	4.0	9.5	6.5	8.5	16.0	12.0	14.0	19.0	13.0	16.0
20	5.0	3.0	4.0	10.0	7.0	9.0	16.0	14.0	15.0	13.0	11.5	12.0
21	5.5	3.0	4.5	9.5	7.5	8.5	18.0	14.0	16.0	14.5	12.0	13.0
22	6.5	3.5	5.0	10.0	7.5	8.5	18.0	15.5	17.0	18.5	14.5	16.0
23	6.0	3.5	4.5	---	---	---	16.5	13.0	14.0	18.5	17.0	18.0
24	5.5	3.5	4.5	---	---	---	---	---	---	19.0	17.0	18.0
25	5.5	3.5	5.0	---	---	---	---	---	---	18.5	15.5	16.5
26	5.5	3.5	5.0	---	---	---	---	---	---	15.5	15.0	15.5
27	5.5	4.0	5.0	---	---	---	---	---	---	15.5	14.5	15.0
28	6.0	4.5	5.0	---	---	---	13.5	11.5	12.5	19.0	15.0	16.5
29	---	---	---	14.5	11.0	13.0	14.0	10.5	12.0	21.0	19.0	20.0
30	---	---	---	14.0	12.0	12.0	14.0	12.0	13.0	---	---	---
31	---	---	---	12.5	9.5	11.5	---	---	---	20.0	19.5	20.0
MONTH	6.5	.5	4.2	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	21.0	18.0	19.5	23.5	22.0	23.0	23.0	22.0	22.5	18.5	17.0	17.5
2	22.0	20.0	21.0	22.5	20.0	21.5	22.0	20.5	21.0	18.5	16.5	17.5
3	21.5	18.0	20.0	23.0	19.5	21.0	21.0	16.5	18.5	19.5	17.0	18.0
4	18.0	17.0	17.0	23.5	22.5	23.0	20.0	17.0	18.0	19.0	17.0	17.5
5	20.0	16.0	18.0	23.0	20.5	22.0	21.5	19.0	20.0	18.0	16.5	17.0
6	20.0	18.5	19.5	22.5	21.0	21.5	21.0	19.0	20.0	17.5	17.0	17.0
7	19.5	16.5	18.0	21.5	20.0	20.5	20.0	18.5	19.5	18.5	16.5	17.5
8	20.5	17.5	19.0	23.5	20.5	21.5	21.5	18.5	20.0	19.0	16.0	17.5
9	20.0	19.0	19.5	25.0	23.0	24.0	---	---	---	19.5	16.5	17.5
10	19.5	17.0	18.5	24.5	23.0	23.5	21.0	19.0	20.0	19.5	17.5	18.5
11	19.5	16.5	18.0	25.0	22.0	23.5	19.5	19.0	19.5	19.0	17.0	18.0
12	19.0	17.5	18.5	---	---	---	21.0	19.0	20.0	18.5	17.0	18.0
13	20.0	17.5	18.5	23.5	20.5	21.5	22.0	19.5	20.5	18.0	16.5	17.0
14	21.5	18.0	20.0	23.5	21.5	22.5	20.5	19.0	20.0	17.5	17.0	17.0
15	22.5	20.0	21.0	21.0	18.5	19.5	22.0	20.0	21.0	17.5	16.0	17.0
16	23.5	20.5	22.0	20.5	19.0	20.0	23.5	21.0	22.5	19.0	16.5	17.5
17	23.0	21.0	22.0	21.5	19.0	20.5	24.0	20.5	22.5	19.0	17.5	18.5
18	22.5	20.0	21.0	23.0	20.0	21.5	23.5	21.5	22.5	18.5	17.0	18.0
19	23.5	21.0	22.0	24.0	21.5	23.0	24.5	22.0	23.0	---	---	---
20	23.5	22.0	22.5	25.0	23.0	24.0	23.0	22.0	22.5	---	---	---
21	22.5	20.0	21.0	26.5	23.0	24.5	---	---	---	---	---	---
22	21.0	19.0	20.0	27.0	24.0	25.5	---	---	---	---	---	---
23	22.5	20.0	21.0	26.5	24.0	25.5	---	---	---	---	---	---
24	23.5	21.0	22.0	26.5	23.5	25.0	---	---	---	---	---	---
25	24.5	21.5	22.5	26.0	24.0	25.0	---	---	---	---	---	---
26	23.0	20.0	21.5	24.5	22.5	23.5	---	---	---	---	---	---
27	21.5	19.0	20.5	24.0	21.0	22.5	---	---	---	---	---	---
28	21.0	19.0	20.5	---	---	---	17.0	17.0	17.0	---	---	---
29	21.5	18.5	20.0	23.0	21.0	22.0	18.5	17.0	17.5	---	---	---
30	23.5	21.0	22.0	23.5	21.5	22.0	18.5	16.5	18.0	---	---	---
31	---	---	---	23.5	22.0	23.0	18.5	17.0	18.0	---	---	---
MONTH	24.5	16.0	20.2	---	---	---	---	---	---	---	---	---

01470853 FURNACE CREEK AT ROBESONIA, PA.

LOCATION.--Lat 40°20'24", long 76°08'37", Berks County, Hydrologic Unit 02040202, left bank 500 ft upstream of Furnace Street in Robesonia
DRAINAGE AREA.--4.18 mi².
PERIOD OF RECORD.--October 1982 to current year.
REVISED RECORDS.--WDR PA-87-1; 1986 (P).
GAGE.--Water-stage recorder. Altitude of gage is 510 ft, from topographic map.
REMARKS.--Records fair except periods of estimated daily discharges, which are poor. Diversion above station for municipal supply. Gage moved 700 ft. upstream on Mar. 27, 1986 at datum 19.5 feet higher. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--5 years 7.50 ft³/s, 24.37 in/yr, adjusted for diversion.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 342 ft³/s, Sept. 8, 1987, gage height, 3.32 ft, from slope-area measurement; minimum, 0.05 ft³/s, Sept. 11, 20, 1983, gage height, 2.71 ft.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	2300	88	1.75	Sept. 8	1800	*342	*3.32
Dec. 24	2400	79	1.69				

Minimum daily discharge, 0.78 ft³/s, Aug. 21.

REVISIONS.--The peak discharges and annual maximum (*) reported for year 1986 have been revised as shown in the following table. They supersede figures published in WDR PA-86-1.

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Apr. 16, 1986	1830	108	1.87	Aug. 10, 1986	2315	*258	*2.80
May 22, 1986	0300	81	1.70	Aug. 24, 1986	0030	113	1.90
Jul. 26, 1986	2300	185	2.35				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	7.9	4.0	8.8	e5.0	32	11	4.4	3.1	3.5	1.3	1.1
2	5.7	8.8	5.2	9.4	6.0	20	8.7	4.4	3.3	5.4	1.7	1.0
3	6.4	8.3	13	8.8	6.9	15	8.8	5.0	3.4	4.1	1.5	.94
4	8.3	7.5	7.4	8.3	7.0	13	19	9.0	4.2	2.7	1.3	.89
5	5.6	9.7	6.3	7.7	6.0	11	14	6.8	3.9	2.4	1.4	.92
6	4.5	16	5.9	7.5	5.6	11	26	5.6	3.0	2.1	1.7	1.4
7	4.0	11	5.5	7.4	5.6	14	19	5.0	3.1	2.1	1.4	4.4
8	4.5	15	5.2	7.2	5.8	19	16	4.7	3.0	2.1	1.3	62
9	4.5	15	8.2	6.8	5.4	18	13	4.5	3.4	2.0	1.2	5.0
10	4.8	13	8.1	7.1	4.8	15	12	4.2	2.9	2.3	1.6	1.7
11	5.8	16	6.9	7.3	e4.6	13	11	4.0	2.7	2.0	1.2	1.2
12	5.2	17	6.3	6.8	e4.5	12	11	3.7	2.9	5.4	1.1	1.3
13	7.6	14	5.9	6.5	e4.3	11	10	3.6	2.9	3.8	1.1	11
14	9.4	12	5.5	6.5	e4.2	11	9.4	3.6	2.8	3.3	1.1	2.5
15	6.3	12	5.5	8.9	e4.1	10	8.5	5.5	2.5	3.6	1.0	1.9
16	6.6	12	5.3	9.7	e4.1	10	8.1	4.3	2.5	2.3	1.0	1.6
17	7.0	11	5.3	8.0	e3.9	9.1	9.1	3.6	2.4	2.0	.93	1.8
18	7.0	11	18	7.8	e3.8	9.1	8.6	4.0	2.3	1.8	.88	3.3
19	6.2	9.2	11	10	e3.7	8.9	7.7	6.8	2.3	1.7	.84	2.4
20	5.6	13	8.9	9.6	e3.6	8.8	6.8	5.7	2.2	1.6	.86	2.3
21	5.5	17	8.3	8.2	e3.5	8.6	6.7	8.6	2.4	1.5	.78	2.1
22	3.4	6.9	7.7	7.6	4.0	8.3	6.3	7.6	3.4	1.4	.97	2.0
23	5.1	5.6	7.5	e7.1	5.1	7.8	6.2	7.1	3.8	1.3	.99	1.8
24	5.3	5.6	11	e6.8	3.9	7.6	6.8	6.5	2.6	1.3	.85	1.7
25	5.1	4.5	33	e6.4	3.8	7.3	7.4	6.1	2.4	1.6	.83	2.1
26	10	8.0	15	e6.0	3.6	7.3	6.2	5.8	2.3	2.2	.85	1.6
27	9.2	8.0	14	e5.8	3.7	6.8	5.6	5.5	4.8	1.7	1.5	1.7
28	6.3	5.8	12	e5.6	3.8	6.9	5.3	5.1	2.6	1.4	1.9	1.6
29	6.1	5.1	11	e5.3	---	6.4	5.0	4.2	2.3	1.4	1.7	1.7
30	8.0	4.6	10	e5.1	---	7.0	4.7	4.0	2.2	1.4	1.2	1.8
31	7.9	---	9.4	e5.0	---	16	---	4.0	---	1.6	1.1	---
TOTAL	191.8	310.5	286.3	229.0	130.3	360.9	297.9	162.9	87.6	73.0	37.08	126.75
MEAN	6.19	10.3	9.24	7.39	4.65	11.6	9.93	5.25	2.92	2.35	1.20	4.22
MAX	10	17	33	10	7.0	32	26	9.0	4.8	5.4	1.9	62
MIN	3.4	4.5	4.0	5.0	3.5	6.4	4.7	3.6	2.2	1.3	.78	.89
†	.61	.60	.63	.59	.59	.58	.62	.57	.62	.70	.68	.55
MEAN‡	6.80	10.9	9.87	7.98	5.24	12.2	10.6	5.82	3.54	3.05	1.88	4.77
CFSM‡	.63	2.61	2.36	1.91	1.25	2.92	2.52	1.39	.85	.73	.45	1.14
IN‡	.88	2.91	2.72	2.20	1.31	3.37	2.82	1.61	.95	.84	.52	1.27

CAL YR 1986 TOTAL 3208.7 MEAN 8.79 MAX 56 MIN 1.7 MEAN‡ 9.42 CFSM‡ 2.25 IN‡ 30.60
WTR YR 1987 TOTAL 2294.03 MEAN 6.29 MAX 62 MIN .78 MEAN‡ 6.89 CFSM‡ 1.65 IN‡ 22.38

† Diversion, equivalent in cubic ft per second, furnished by Womelsdorf-Robesonia joint water authority.
‡ Adjusted for diversion
e Estimated

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1 mi upstream from Rebers Bridge and Plum Creek, 1 mi east of Blue Marsh, 3 mi north of Sinking Spring, and 5.5 mi northwest of Reading. Water-quality sampling site at Rebers bridge 1.0 mi downstream.

DRAINAGE AREA.--175 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR PA-72-1: 1969-1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft above Western Berks Water Authority datum. Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi downstream at same datum.

REMARKS.--Records fair. Flow regulated since April 1979 by Blue Marsh Reservoir (station 01470870) 0.8 mi upstream.

AVERAGE DISCHARGE.--22 years, 271 ft³/s, 21.05 in/yr, adjusted for storage since April 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, June 22, 1972, gage height, 18.7 ft, from flood-marks, from rating curve extended above 3,000 ft³/s, on basis of runoff comparison with downstream station; minimum since construction of dam, 5.8 ft³/s, Nov. 17, 1977; minimum gage height, 1.45 ft July 29, 30, 31, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s, Sept. 9, gage height, 5.14 ft; minimum daily discharge, 51 ft³/s, Aug. 29-31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	88	466	408	313	688	302	192	192	e140	69	83
2	338	89	312	413	294	1300	136	171	213	e140	72	118
3	334	118	674	402	264	1590	146	187	178	e140	92	116
4	339	165	915	396	273	1260	200	408	182	e140	113	137
5	329	191	675	365	319	695	188	392	179	e140	111	177
6	382	312	479	323	315	493	253	232	175	e160	118	181
7	446	286	473	297	307	492	233	211	175	e150	106	195
8	407	206	440	318	303	489	518	207	149	119	83	603
9	316	201	416	322	309	634	634	206	129	107	83	1050
10	298	289	443	324	293	603	448	205	141	95	86	1310
11	244	312	474	327	272	337	419	206	110	68	81	532
12	244	478	414	323	239	335	420	177	95	89	80	374
13	247	473	330	310	284	356	389	157	96	105	79	423
14	252	288	326	236	281	304	314	164	93	163	80	767
15	301	220	323	371	278	303	284	169	182	229	79	1360
16	243	219	322	380	275	353	289	165	206	256	79	1110
17	122	216	302	327	238	362	328	163	107	125	79	419
18	88	242	439	330	200	276	352	191	91	86	113	509
19	88	565	713	379	203	264	346	294	91	83	171	534
20	116	498	855	520	212	255	288	405	90	107	168	524
21	117	764	669	515	212	233	237	366	91	120	168	586
22	86	975	435	360	212	232	236	262	e105	65	174	523
23	86	808	441	376	252	249	234	239	e300	66	175	331
24	88	607	400	410	324	275	236	230	e270	66	171	246
25	90	433	490	370	262	248	239	224	e110	69	173	227
26	100	471	747	343	182	221	233	372	e95	83	168	252
27	198	483	1060	344	175	198	282	414	e95	75	159	249
28	266	536	1040	263	200	200	305	199	e95	86	114	250
29	106	631	970	257	---	198	212	192	e95	115	66	249
30	87	619	621	318	---	201	210	184	e120	104	62	249
31	88	---	431	318	---	340	---	182	---	71	61	---
TOTAL	6677	11783	17095	10945	7291	13984	8911	7366	4250	3562	3433	13684
MEAN	215	393	551	353	260	451	297	238	142	115	111	456
MAX	446	975	1060	520	324	1590	634	414	300	256	175	1360
MIN	86	88	302	236	175	198	136	157	90	65	61	83
MEAN‡	110	330	469	287	213	376	323	204	122	95.0	71.6	401
CFSM‡	1.68	1.88	2.68	1.64	1.22	2.15	1.85	1.17	.70	.54	.41	.29
IN‡	1.72	2.10	3.09	1.89	1.27	2.48	2.06	1.34	.78	.63	.47	.56

CAL YR 1986 TOTAL 118598 MEAN 325 MAX 2030 MIN 58 MEAN‡ 273 CFSM‡ 1.56 IN‡ 21.18
WTR YR 1987 TOTAL 108981 MEAN 299 MAX 1590 MIN 61 MEAN‡ 250 CFSM‡ 1.43 IN‡ 19.38

‡ Adjusted for change in contents of Blue Marsh Reservoir.
e Estimated

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1968 to current year.

INSTRUMENTATION.--Temperature recorder since October 1968.

REMARKS.--Temperature recorder located at gaging station 1.0 mi upstream from sampling site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 34.0°C Oct. 2, 1968; minimum, freezing point on several days during Dec. 1970, Jan., Mar. 1971, Feb. 1975, Feb. 1979.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.5	21.0	14.5	13.0	13.5	---	---	---	---	---	---
2	21.0	20.0	20.5	14.5	13.0	13.5	---	---	---	---	---	---
3	21.0	20.5	20.5	14.0	13.0	13.5	---	---	---	---	---	---
4	21.5	20.0	21.0	14.0	13.0	13.5	---	---	---	---	---	---
5	21.0	20.5	21.0	14.5	12.5	13.0	---	---	---	---	---	---
6	21.5	20.5	21.0	12.5	12.0	12.5	---	---	---	---	---	---
7	21.0	20.5	20.5	12.5	12.0	12.0	---	---	---	---	---	---
8	20.5	20.0	20.5	12.0	12.0	12.0	---	---	---	---	---	---
9	21.5	19.5	20.5	12.0	11.0	11.5	---	---	---	---	---	---
10	20.5	18.5	19.5	12.0	11.0	11.5	---	---	---	---	---	---
11	19.0	18.5	18.5	11.5	10.5	11.0	---	---	---	---	---	---
12	19.0	18.0	18.5	10.5	10.5	10.5	---	---	---	---	---	---
13	19.0	17.5	18.5	10.5	9.5	10.0	---	---	---	---	---	---
14	18.0	17.5	17.5	10.0	9.5	9.5	---	---	---	---	---	---
15	17.5	17.0	17.0	9.5	9.0	9.0	---	---	---	---	---	---
16	17.0	16.0	16.5	9.5	9.0	9.5	---	---	---	---	---	---
17	16.0	15.5	16.0	10.0	9.0	9.5	---	---	---	---	---	---
18	16.5	13.0	15.5	9.0	8.0	8.5	---	---	---	---	---	---
19	16.5	13.0	15.5	8.0	7.5	7.5	---	---	---	---	---	---
20	15.5	12.5	15.0	8.0	7.5	7.5	---	---	---	---	---	---
21	15.5	14.5	15.0	8.0	7.0	7.5	---	---	---	---	---	---
22	15.5	14.0	14.5	7.5	7.0	7.0	---	---	---	---	---	---
23	15.0	13.5	14.0	7.0	6.5	7.0	---	---	---	---	---	---
24	14.5	13.5	14.0	7.0	6.5	7.0	---	---	---	---	---	---
25	14.0	13.0	13.5	7.5	6.5	7.0	---	---	---	---	---	---
26	13.5	13.5	13.5	7.0	6.5	6.5	---	---	---	---	---	---
27	14.5	13.5	14.0	6.5	6.5	6.5	---	---	---	---	---	---
28	15.0	13.5	14.0	---	---	---	---	---	---	---	---	---
29	14.5	13.5	14.0	---	---	---	---	---	---	---	---	---
30	14.5	13.0	13.5	---	---	---	---	---	---	---	---	---
31	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
MONTH	21.5	12.5	17.0	14.5	6.5	10.2	---	---	---	---	---	---

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
2	---	---	---	---	---	---	---	---	---	13.0	12.5	13.0
3	---	---	---	---	---	---	---	---	---	13.5	12.0	12.5
4	---	---	---	---	---	---	---	---	---	12.5	12.0	12.0
5	---	---	---	---	---	---	---	---	---	12.5	12.0	12.5
6	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
7	---	---	---	---	---	---	---	---	---	14.0	13.0	13.5
8	---	---	---	---	---	---	---	---	---	14.0	13.5	14.0
9	---	---	---	---	---	---	---	---	---	14.5	13.5	14.0
10	---	---	---	---	---	---	---	---	---	15.0	13.5	14.5
11	---	---	---	---	---	---	---	---	---	15.5	14.5	15.0
12	---	---	---	---	---	---	---	---	---	16.0	14.0	15.0
13	---	---	---	---	---	---	---	---	---	16.0	14.0	14.5
14	---	---	---	---	---	---	---	---	---	15.5	14.0	15.0
15	---	---	---	---	---	---	---	---	---	16.0	14.0	15.0
16	---	---	---	---	---	---	---	---	---	16.0	14.5	15.5
17	---	---	---	---	---	---	---	---	---	16.5	15.0	15.5
18	---	---	---	---	---	---	---	---	---	16.5	15.5	16.0
19	---	---	---	---	---	---	---	---	---	16.0	15.0	15.5
20	---	---	---	---	---	---	---	---	---	15.0	15.0	15.0
21	---	---	---	---	---	---	---	---	---	15.5	15.0	15.0
22	---	---	---	---	---	---	12.5	10.5	11.5	16.0	15.0	15.5
23	---	---	---	---	---	---	11.5	10.5	11.0	16.5	15.5	16.0
24	---	---	---	---	---	---	12.0	11.0	11.5	17.0	15.5	16.0
25	---	---	---	---	---	---	11.5	10.5	11.0	16.5	15.5	16.0
26	---	---	---	---	---	---	12.0	11.5	11.5	16.0	14.5	15.5
27	---	---	---	---	---	---	12.5	11.5	12.0	16.0	15.0	15.5
28	---	---	---	---	---	---	12.5	11.0	12.0	17.0	16.0	16.5
29	---	---	---	---	---	---	13.0	12.5	12.5	17.5	16.5	17.0
30	---	---	---	---	---	---	13.5	12.0	13.0	18.5	17.0	17.5
31	---	---	---	---	---	---	---	---	---	18.5	17.0	18.0
MONTH	---	---	---	---	---	---	13.5	10.5	11.8	18.5	12.0	14.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	17.5	18.0	20.0	19.0	19.5	---	---	---	---	---	---
2	19.0	17.5	18.0	19.5	19.0	19.0	---	---	---	---	---	---
3	17.5	17.0	17.0	21.0	19.0	20.0	---	---	---	---	---	---
4	17.5	17.0	17.5	20.5	19.5	20.0	---	---	---	---	---	---
5	19.0	17.5	18.0	21.0	19.5	20.0	---	---	---	---	---	---
6	19.5	17.5	18.5	21.0	19.5	20.0	---	---	---	---	---	---
7	19.0	17.5	18.0	20.5	19.5	20.0	---	---	---	---	---	---
8	20.5	17.5	18.0	21.0	19.5	20.0	---	---	---	---	---	---
9	---	---	---	21.0	19.0	20.0	---	---	---	---	---	---
10	---	---	---	21.0	19.5	20.0	---	---	---	---	---	---
11	---	---	---	22.5	20.0	20.5	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	22.5	21.0	21.5	---	---	---	---	---	---	---	---	---
25	22.5	18.5	20.5	---	---	---	---	---	---	---	---	---
26	19.5	18.0	19.0	---	---	---	---	---	---	---	---	---
27	21.0	18.5	19.5	---	---	---	---	---	---	---	---	---
28	21.0	19.0	19.5	---	---	---	---	---	---	---	---	---
29	21.0	18.5	19.5	---	---	---	---	---	---	---	---	---
30	21.5	18.5	20.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	22.5	17.0	18.8	22.5	19.0	20.0	---	---	---	---	---	---

01471000 TULPEHOCKEN CREEK NEAR READING, PA

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank 15 ft upstream from covered bridge, 1 mi downstream from Cacoosing Creek, 2.5 mi upstream from mouth, and 3.5 mi northwest of square at Reading. Water-quality sampling site at covered bridge 15 ft downstream.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October, November 1950, published in WSP 1722.

REVISED RECORDS.--WSP 1382: 1951-53, 1954(M). WSP 2102: 1965(M). WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft above Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of estimated daily discharge which are fair. Flow regulated since April 1979 by Blue Marsh Reservoir (station 01470870) 3.9 mi upstream. Several observations of water temperature were during the year.

AVERAGE DISCHARGE.--37 years, 309 ft^3/s, 19.90 in/yr, adjusted for storage since April 1979. 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s, June 23, 1972, gage height, 15.65 ft, from flood-mark in gage shelter, from rating curve extended above 3,500 ft^3/s, on basis of contracted-opening measurement of peak flow; minimum, 23 ft^3/s, Dec. 1, 1964, gage height, 0.94 ft, result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft^3/s, Sept. 8, gage height, 3.97 ft; minimum daily discharge, 61 ft^3/s, Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	88	466	408	313	688	302	192	192	e140	69	83
2	338	89	312	413	294	1300	136	171	213	e140	72	118
3	334	118	674	402	264	1590	146	187	178	e140	92	116
4	339	165	915	396	273	1260	200	408	182	e140	113	137
5	329	191	675	365	319	695	188	392	179	e140	111	177
6	382	312	479	323	315	493	253	232	175	e160	118	181
7	446	286	473	297	307	492	233	211	175	e150	106	195
8	407	206	440	318	303	489	518	207	149	119	83	603
9	316	201	416	322	309	634	634	206	129	107	83	1050
10	298	289	443	324	293	603	448	205	141	95	86	1310
11	244	312	474	327	272	337	419	206	110	68	81	532
12	244	478	414	323	239	335	420	177	95	89	80	374
13	247	473	330	310	284	356	389	157	96	105	79	423
14	252	288	326	236	281	304	314	164	93	163	80	767
15	301	220	323	371	278	303	284	169	182	229	79	1360
16	243	219	322	380	275	353	289	165	206	256	79	1110
17	122	216	302	327	238	362	328	163	107	125	79	419
18	88	242	439	330	200	276	352	191	91	86	113	509
19	88	565	713	379	203	264	346	294	91	83	171	534
20	116	498	855	520	212	255	288	405	90	107	168	524
21	117	764	669	515	212	233	237	366	91	120	168	586
22	86	975	435	360	212	232	236	262	e105	65	174	523
23	86	808	441	376	252	249	234	239	e300	66	175	331
24	88	607	400	410	324	275	236	230	e270	66	171	246
25	90	433	490	370	262	248	239	224	e110	69	173	227
26	100	471	747	343	182	221	233	372	e95	83	168	252
27	198	483	1060	344	175	198	282	414	e95	75	159	249
28	266	536	1040	263	200	200	305	199	e95	86	114	250
29	106	631	970	257	---	198	212	192	e95	115	66	249
30	87	619	621	318	---	201	210	184	e120	104	62	249
31	88	---	431	318	---	340	---	182	---	71	61	---
TOTAL	6677	11783	17095	10945	7291	13984	8911	7366	4250	3562	3433	13684
MEAN	215	393	551	353	260	451	297	238	142	115	111	456
MAX	446	975	1060	520	324	1590	634	414	300	256	175	1360
MIN	86	88	302	236	175	198	136	157	90	65	61	83
MEAN‡	130	393	551	352	264	454	381	240	142	114	89.1	478
CFSM‡	.62	1.86	2.61	1.67	1.25	2.15	1.81	1.14	.67	.54	.42	.27
IN‡	.71	2.08	3.01	1.92	1.30	2.48	2.02	1.31	.75	.62	.49	.53

CAL YR 1986 TOTAL 118598 MEAN 325 MAX 2030 MIN 58 MEAN‡ 324 CFSM‡ 1.54 IN‡ 20.85
WTR YR 1987 TOTAL 108981 MEAN 299 MAX 1590 MIN 61 MEAN‡ 299 CFSM‡ 1.42 IN‡ 19.21

‡ Adjusted for change in contents in Blue Marsh Reservoir.
e Estimated

01471510 SCHUYLKILL RIVER AT READING PA

LOCATION.--Lat 40°20'10", long 75°56'15", Berks County, Hydrologic Unit 02040203, on Penn Avenue Bridge at West Reading, 0.8 mi downstream from Tulpehocken Creek.

DRAINAGE AREA.--880 mi².

PERIOD OF RECORD.--May 1914 to September 1915, October 1919 to September 1930 and June 30, 1977 to current year. Monthly discharge only prior to current year published in WSP 1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

REVISED RECORDS.--WDR PA-78-1: 1977.

GAGE.--Nonrecording gage. Datum of gage is 185.50 ft above Pennsylvania Railroad Datum. May 7, 1914 to Sept. 30, 1930, nonrecording gage. June 30, 1977 to July 5, 1979, water-stage recorder at site 1,500 ft downstream at same datum.

REMARKS.--Records fair, except for periods of estimated record which are poor. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1915, 1920-30, 1978-87), 1,542 ft³/s, 23.80 in/yr, 1914-15 adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 ft³/s, Jan. 25, 1979, gage height, 17.36 ft, at site 1,500 ft downstream, from rating curve extended above 16,000 ft³/s; minimum observed, 82 ft³/s, Aug. 12, 1930, gage height, -1.19 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft at site 1,500 ft downstream, present datum, from floodmarks, discharge, about 90,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,500 ft³/s, Sept. 9, gage height, 12.75 ft; minimum daily, 312 ft³/s, July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	385	2050	1900	1100	2720	2410	1110	e825	e700	319	387
2	799	377	1720	1920	1080	5550	1820	1040	e815	e1120	335	466
3	797	405	3830	1860	1100	4950	1910	1080	e815	e950	351	405
4	894	446	4180	1690	1160	3980	3360	1910	e840	e700	389	391
5	898	536	3350	1530	1210	2890	5180	1760	e920	e580	401	419
6	888	1010	2640	1400	1160	2270	4950	1440	e730	e560	426	451
7	912	1050	2340	1340	1180	2140	4700	1390	e650	e580	398	611
8	903	980	2120	1320	1200	2250	4380	1290	e615	e600	350	3940
9	817	1320	2020	1270	1220	2600	4000	1200	578	e670	346	14200
10	709	1320	2290	1260	1120	2740	3380	1150	594	e600	407	e6100
11	599	1340	2110	1300	e1070	2410	2920	1130	538	e525	475	e3250
12	581	1850	1970	1290	e1000	2130	2730	1060	487	e520	377	e1870
13	607	1770	1810	1230	e970	2050	2750	969	499	e645	352	e4000
14	703	1340	1610	1140	e925	1810	2410	936	497	e1100	348	e7400
15	857	1120	1520	1300	e875	1710	2160	978	506	e1300	357	e5000
16	712	1060	1480	1460	e850	1630	2030	932	554	e900	358	e3680
17	513	1010	1430	1430	e830	1580	2080	859	419	e700	364	e2400
18	445	999	2110	1440	e820	1410	2160	861	392	e560	365	e3250
19	429	2190	3820	1640	e815	1340	2040	1060	391	e520	408	e3250
20	423	2200	3470	1880	814	1300	1870	e1320	390	e485	406	e2820
21	431	5190	2940	1870	810	1220	1690	e1450	376	e490	420	e2600
22	408	4580	2250	1540	803	1170	1590	e1320	462	e450	447	e2400
23	397	3400	2030	1480	917	1140	1520	e1260	1210	e420	435	2070
24	397	2760	1930	e1440	1030	1140	1360	e1140	967	e405	423	1770
25	399	2200	4230	e1330	969	1100	1600	e1070	549	e425	391	1580
26	446	2170	4380	e1290	851	1040	1460	e1030	464	e630	387	1460
27	586	3470	4120	e1210	807	978	1360	e1160	618	e570	494	1360
28	720	3090	3630	1070	822	963	1370	e980	e710	336	477	1280
29	458	2770	3200	1070	---	954	1220	e920	e640	354	495	1190
30	408	2430	2560	1170	---	933	1190	e875	e575	349	409	1160
31	404	---	2130	1150	---	1430	---	e850	---	312	342	---
TOTAL	19185	54768	81270	44220	27508	61528	73600	35530	18626	19056	12252	81160
MEAN	619	1826	2622	1426	982	1985	2453	1146	621	615	395	2705
MAX	912	5190	4380	1920	1220	5550	5180	1910	1210	1300	495	14200
MIN	397	377	1430	1070	803	933	1190	850	376	312	319	387

CAL YR 1986 TOTAL 544330 MEAN 1491 MAX 13900 MIN 347
WTR YR 1987 TOTAL 528703 MEAN 1449 MAX 14200 MIN 312

e Estimated

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA

LOCATION.--Lat 40°16'22", long 75°40'49", Berks County, Hydrologic Unit 02040203, on left bank about 180 ft upstream from bridge on Manatawny Street, 0.7 mi downstream from Ironstone Creek, 2.4 mi northwest of Pottstown, 3.1 mi upstream from mouth, and 4.7 mi southwest of Boyertown.

DRAINAGE AREA.--85.5 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 134 ft³/s, 21.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,550 ft³/s, Sept. 9, 1987, gage height, 11.46 ft; minimum, 13 ft³/s, Aug. 26, 1981, gage height, 1.65 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a stage of 17.1 ft, from floodmarks, discharge, about 9,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,200 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0630	1340	4.81	July 14	2115	1270	4.71
Mar. 1	1700	1240	4.66	Sept. 9	0215	*7550	*11.46
Apr. 4	1230	1330	4.79				

Minimum daily discharge, 24 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	28	107	133	e72	693	160	73	32	54	32	34
2	53	29	145	185	124	499	97	72	31	199	40	34
3	51	31	529	183	158	311	84	81	31	142	36	27
4	92	31	212	151	185	244	691	185	46	51	31	25
5	57	66	157	130	163	196	356	138	57	37	41	24
6	39	226	136	126	136	180	628	94	35	31	70	27
7	30	97	124	117	140	183	335	77	31	31	44	48
8	29	193	116	115	142	191	246	70	31	38	35	642
9	29	167	192	111	121	175	206	63	33	124	34	2270
10	28	105	230	133	127	143	184	61	34	76	43	208
11	27	186	161	203	100	126	162	57	28	37	42	114
12	27	228	155	165	99	122	166	54	29	33	32	78
13	29	114	135	143	95	117	213	49	31	36	30	284
14	62	84	134	138	e83	109	162	47	31	303	30	218
15	56	72	130	157	e80	104	140	69	28	342	30	100
16	33	64	104	170	e75	95	135	60	27	78	31	73
17	29	57	103	133	e72	89	177	48	26	52	30	71
18	29	82	489	155	e70	84	189	43	25	41	30	261
19	28	320	381	349	e67	80	142	70	25	37	27	271
20	27	207	203	294	e65	78	128	103	25	35	26	e201
21	27	590	167	215	63	76	117	95	45	33	27	145
22	27	187	144	177	66	72	108	63	123	31	29	105
23	27	135	132	e170	93	69	98	70	245	30	30	100
24	26	169	157	e150	85	66	117	59	51	28	27	72
25	26	138	785	e140	80	64	196	47	35	30	25	62
26	58	371	269	e130	78	63	118	45	31	60	25	53
27	86	384	206	e120	80	61	99	44	37	50	53	48
28	49	184	183	e105	80	64	91	42	33	35	67	42
29	35	145	163	e93	---	63	89	38	28	31	57	40
30	31	123	153	e85	---	70	81	38	28	30	39	46
31	29	---	144	e80	---	232	---	33	---	31	29	---
TOTAL	1209	4813	6446	4756	2799	4719	5715	2088	1292	2166	1122	5723
MEAN	39.0	160	208	153	100	152	190	67.4	43.1	69.9	36.2	191
MAX	92	590	785	349	185	693	691	185	245	342	70	2270
MIN	26	28	103	80	63	61	81	33	25	28	25	24
CFSM	.46	1.88	2.43	1.79	1.17	1.78	2.23	.79	.50	.82	.42	2.23
IN.	.53	2.09	2.80	2.07	1.22	2.05	2.49	.91	.56	.94	.49	2.49

CAL YR 1986 TOTAL 44765 MEAN 123 MAX 815 MIN 24 CFSM 1.43 IN. 19.48
WTR YR 1987 TOTAL 42848 MEAN 117 MAX 2270 MIN 24 CFSM 1.37 IN. 18.64

e Estimated

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft upstream from Hanover Street Bridge in Pottstown and 0.4 mi downstream from Manatawny Creek.

DRAINAGE AREA.--1,147 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1926 to current year. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft above National Geodetic Vertical Datum of 1929. October 1926 to Nov. 22, 1928, nonrecording gage and Nov. 23, 1928, to Dec. 26, 1972, recording gage, at site 100 ft downstream at same datum. Dec. 27, 1972, to May 10, 1974, nonrecording gage 1.0 mi downstream at datum 2.83 ft lower.

REMARKS.--Records good. Flow regulated by Still Creek Reservoir (station 01470870) since April 1979 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years, 1,897 ft³/s, 22.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,900 ft³/s, June 23, 1972, gage height, 29.97 ft, from floodmark; minimum, 87 ft³/s, Aug. 13, 1930, gage height, 0.43 ft; minimum daily, 175 ft³/s, Sept. 19, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft Feb. 28, 1902, from floodmarks, discharge, 53,900 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,200 ft³/s, Sept. 9, gage height, 15.34 ft; minimum daily, 434 ft³/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	735	512	2560	2390	1490	6420	2530	1460	894	867	470	505
2	1110	511	2210	2510	1510	7120	1880	1390	888	1490	484	557
3	968	537	4860	2480	1620	6410	1770	1380	881	1240	488	542
4	1180	600	5070	2230	1760	5380	3520	2100	908	841	498	492
5	1140	730	4070	2010	1740	3980	5530	2490	e1200	719	541	486
6	1040	1480	3170	1830	1650	3340	6180	1870	e900	655	638	533
7	1060	1460	2810	1770	1640	3160	5370	1690	780	690	578	693
8	1010	1450	2550	1730	1670	3190	4630	1600	757	684	514	6100
9	897	1670	2680	1670	1660	3370	4340	1500	717	815	495	22500
10	856	1600	2980	1700	1520	3550	3510	1410	757	713	647	7480
11	765	1910	2660	1900	e1400	3000	3060	1370	691	581	651	3700
12	729	2360	2510	1790	e1350	2580	2840	1330	626	619	552	2510
13	747	2250	2220	1690	e1300	2520	2930	1220	627	951	482	6810
14	888	1690	1970	1620	e1250	2170	2590	1160	664	1310	460	11300
15	978	1420	1880	1680	e1200	2010	2250	1240	618	1720	452	6590
16	961	1310	1840	1900	e1150	1910	2120	1230	758	1110	446	4980
17	709	1240	1800	1840	e1140	1880	2220	1100	635	826	439	3240
18	606	1230	3180	1910	e1130	1690	2350	1060	569	648	434	4290
19	563	2790	4770	2730	e1120	1590	2140	1460	546	571	457	4300
20	550	2930	4190	2870	1110	1530	1990	1710	538	551	482	3590
21	594	6260	3580	2530	1110	1470	1820	1790	574	578	484	3200
22	547	5630	2790	2130	1100	1410	1730	1500	692	554	527	3010
23	529	4020	2500	e2000	1230	1380	1650	1450	1560	484	530	2590
24	526	3430	2390	e1800	1160	1370	1630	1320	1360	465	518	2170
25	528	2740	6110	e1700	966	1320	2020	1220	833	483	490	1950
26	648	3330	5290	e1650	952	1260	1940	1160	704	843	475	1770
27	740	4470	4860	e1600	e900	1210	1730	1450	746	706	694	1650
28	917	3700	4260	e1500	e850	1200	e1700	1120	885	559	776	1550
29	717	3350	3790	e1400	---	1170	e1600	1020	682	512	686	1450
30	565	2930	3220	1600	---	1150	e1500	964	609	523	601	1420
31	536	---	2660	1560	---	1620	---	919	---	516	483	---
TOTAL	24339	69540	101430	59720	36678	81360	81070	43683	23599	23824	16472	111958
MEAN	785	2318	3272	1926	1310	2625	2702	1409	787	769	531	3732
MAX	1180	6260	6110	2870	1760	7120	6180	2490	1560	1720	776	22500
MIN	526	511	1800	1400	850	1150	1500	919	538	465	434	486

CAL YR 1986 TOTAL 685636 MEAN 1878 MAX 14600 MIN 448
WTR YR 1987 TOTAL 673673 MEAN 1846 MAX 22500 MIN 434

e Estimated

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1985.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 629 microsiemens, Aug. 15, 1987; minimum, 87 microsiemens, Jan. 31, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 629 microsiemens, Aug. 15; minimum, 206 micorsiemens, Dec. 25.

SPECIFIC CONDUCTANCE MICROSIEMENS PER CENTIMETERS AT 25° C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	543	527	536	---	---	---	431	409	422
2	514	511	512	544	522	530	---	---	---	457	445	449
3	---	---	---	523	509	517	---	---	---	475	458	465
4	456	417	441	512	495	505	---	---	---	---	---	---
5	453	444	448	513	506	511	---	---	---	---	---	---
6	451	426	438	---	---	---	---	---	---	---	---	---
7	442	434	437	---	---	---	---	---	---	---	---	---
8	456	442	451	---	---	---	---	---	---	366	337	349
9	616	457	527	---	---	---	---	---	---	360	340	349
10	516	497	505	509	447	482	---	---	---	361	343	349
11	503	484	492	---	---	---	233	209	218	431	348	388
12	487	484	486	470	406	428	265	226	245	357	351	354
13	486	481	484	463	362	387	266	244	259	380	356	367
14	---	---	---	593	475	524	279	261	268	383	362	374
15	514	504	509	---	---	---	306	280	289	390	365	378
16	568	503	514	---	---	---	339	308	330	370	355	365
17	620	504	538	---	---	---	356	339	349	369	352	361
18	524	504	512	---	---	---	348	263	307	371	343	356
19	534	522	529	---	---	---	298	267	281	431	295	361
20	534	522	529	---	---	---	280	269	273	380	304	359
21	538	515	520	---	---	---	281	268	275	397	354	374
22	544	522	530	---	---	---	279	272	275	368	338	356
23	551	527	544	---	---	---	292	279	287	354	341	349
24	558	549	552	---	---	---	304	256	292	372	351	363
25	568	550	558	---	---	---	255	206	225	381	361	373
26	560	551	557	---	---	---	259	237	251	379	351	361
27	551	505	527	---	---	---	280	251	266	398	355	381
28	506	490	499	---	---	---	314	280	296	---	---	---
29	515	505	510	---	---	---	348	314	331	---	---	---
30	522	502	507	---	---	---	380	348	364	---	---	---
31	537	514	529	---	---	---	408	381	394	---	---	---
MONTH	620	417	507	593	362	491	408	206	288	475	304	374

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS PER CENTIMETER AST 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	412	317	350	---	---	---	---	---	---
2	---	---	---	322	319	321	---	---	---	---	---	---
3	---	---	---	321	310	315	---	---	---	---	---	---
4	---	---	---	319	310	313	---	---	---	---	---	---
5	422	398	411	311	303	307	---	---	---	344	336	338
6	439	398	409	314	310	312	---	---	---	354	334	345
7	412	392	403	318	312	314	---	---	---	340	321	333
8	432	393	408	321	311	317	---	---	---	327	315	322
9	402	385	391	335	317	325	---	---	---	353	322	340
10	556	403	430	336	328	332	---	---	---	379	350	356
11	580	405	433	335	327	331	---	---	---	---	---	---
12	423	394	411	338	324	332	---	---	---	---	---	---
13	447	393	415	331	317	325	---	---	---	---	---	---
14	418	385	403	325	317	321	---	---	---	413	406	409
15	410	385	399	321	312	316	---	---	---	424	413	418
16	422	394	408	326	312	317	---	---	---	430	419	425
17	437	402	423	334	322	329	---	---	---	437	426	432
18	441	425	435	346	330	338	---	---	---	438	391	414
19	463	437	450	345	330	339	---	---	---	404	333	375
20	458	438	450	352	330	344	---	---	---	404	352	374
21	446	437	442	352	339	346	---	---	---	375	357	369
22	446	422	439	343	339	342	---	---	---	377	371	374
23	434	410	421	---	---	---	---	---	---	392	368	380
24	489	417	447	---	---	---	---	---	---	372	341	352
25	438	423	431	---	---	---	---	---	---	361	351	356
26	449	424	440	---	---	---	---	---	---	361	351	358
27	473	441	457	---	---	---	---	---	---	392	358	380
28	457	407	448	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	580	385	425	412	303	327	---	---	---	438	315	373

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	549	329	481	587	552	569	609	550	561
2	---	---	---	443	270	357	582	544	564	631	586	604
3	527	444	477	462	269	381	544	507	524	602	560	575
4	---	---	---	494	442	471	547	505	515	615	580	594
5	---	---	---	483	460	474	552	485	534	604	583	594
6	---	---	---	480	446	461	543	524	534	605	525	561
7	---	---	---	486	449	465	533	481	504	529	491	512
8	437	421	432	480	459	470	543	532	537	494	317	437
9	433	427	430	489	447	478	589	535	547	393	356	381
10	457	431	446	495	477	485	532	477	500	441	353	392
11	455	426	439	503	478	490	618	534	567	---	---	---
12	427	402	422	506	484	497	---	---	---	---	---	---
13	---	---	---	499	324	398	---	---	---	---	---	---
14	---	---	---	431	302	386	618	579	596	---	---	---
15	---	---	---	417	330	373	629	590	609	---	---	---
16	---	---	---	449	411	437	611	579	597	---	---	---
17	---	---	---	479	427	456	---	---	---	---	---	---
18	---	---	---	474	451	462	---	---	---	---	---	---
19	---	---	---	486	467	473	---	---	---	---	---	---
20	---	---	---	494	463	479	---	---	---	---	---	---
21	---	---	---	538	469	488	597	578	587	321	282	295
22	---	---	---	544	514	527	613	557	583	380	278	314
23	---	---	---	568	516	528	559	538	549	383	296	338
24	486	453	470	549	525	537	561	535	544	424	335	379
25	514	455	482	551	515	536	585	555	562	518	379	470
26	617	513	550	517	400	466	617	585	600	558	501	528
27	566	530	548	436	380	405	---	---	---	550	503	529
28	562	484	547	531	437	471	528	419	450	560	370	468
29	519	478	496	544	512	529	523	447	481	447	382	419
30	535	466	502	536	511	525	555	524	535	447	399	423
31	---	---	---	576	516	543	566	555	563	---	---	---
MONTH	617	402	446	576	269	469	629	419	548	631	278	469

401138075342201 SCHUYLKILL RIVER AT CITIZENS WATER COMPANY NEAR SPRING CITY, PA

LOCATION.--Lat 40°11'38", long 75°34'22", Chester County, Hydrologic Unit 02040203, on right bank, 1.3 mi above Vincent Dam, 2 mi northwest of Spring City.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--January 1986 to June 1987 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1986 to June 1987 (discontinued).

INSTRUMENTATION.--Water-quality monitor since January 1986.

REMARKS.--Interruptions in daily record due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 705 microsiemens, March 7, 1986; minimum, 35 microsiemens, Feb. 17, 1986.

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25° C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	558	536	551	542	535	540	---	---	---	274	267	272
2	---	---	---	534	524	527	---	---	---	299	264	271
3	---	---	---	523	512	517	---	---	---	320	295	305
4	---	---	---	511	496	501	---	---	---	327	293	307
5	---	---	---	520	479	507	---	---	---	298	293	296
6	---	---	---	469	412	429	---	---	---	318	297	309
7	474	451	459	466	389	427	---	---	---	333	312	322
8	471	447	455	467	407	437	---	---	---	348	320	334
9	460	443	451	413	389	403	---	---	---	344	326	334
10	476	460	466	413	404	410	---	---	---	337	327	330
11	490	470	477	421	344	398	---	---	---	397	327	360
12	498	491	495	363	350	355	320	285	302	354	336	340
13	497	477	486	---	---	---	311	296	305	358	340	348
14	489	451	467	---	---	---	309	298	304	362	346	354
15	499	469	482	---	---	---	312	301	308	368	349	358
16	495	480	488	---	---	---	337	308	326	362	349	354
17	492	468	478	385	374	379	343	331	338	353	345	349
18	528	484	509	402	319	384	335	235	291	348	335	343
19	543	529	536	338	262	316	293	252	274	391	237	319
20	540	524	533	362	226	346	276	265	271	351	274	315
21	525	519	522	284	204	255	281	268	277	371	340	356
22	555	522	541	282	262	273	277	269	274	343	336	340
23	559	533	547	280	268	274	291	274	284	333	316	326
24	564	550	555	285	274	281	301	185	289	346	320	332
25	569	522	559	295	286	291	238	155	201	355	330	339
26	560	504	533	298	195	256	251	227	242	356	314	340
27	519	476	504	269	225	254	245	240	242	361	329	346
28	515	469	481	267	256	260	253	244	249	371	363	368
29	529	493	508	275	267	271	264	253	260	386	352	371
30	506	498	502	275	268	272	277	266	273	386	366	375
31	548	503	528	---	---	---	278	269	275	375	347	357
MONTH	---	---	---	---	---	---	---	---	---	397	237	335

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	362	338	347	---	---	---	---	---	---	364	352	358
2	---	---	---	---	---	---	---	---	---	366	347	356
3	---	---	---	---	---	---	---	---	---	356	300	331
4	---	---	---	---	---	---	---	---	---	301	285	293
5	---	---	---	---	---	---	---	---	---	332	288	312
6	---	---	---	---	---	---	---	---	---	358	319	341
7	---	---	---	---	---	---	---	---	---	351	342	347
8	---	---	---	---	---	---	---	---	---	342	333	337
9	---	---	---	---	---	---	---	---	---	353	332	341
10	---	---	---	---	---	---	---	---	---	363	347	355
11	---	---	---	---	---	---	---	---	---	364	357	360
12	---	---	---	---	---	---	---	---	---	395	358	371
13	---	---	---	---	---	---	---	---	---	333	306	317
14	---	---	---	---	---	---	---	---	---	324	306	316
15	---	---	---	---	---	---	---	---	---	325	301	312
16	---	---	---	---	---	---	---	---	---	318	311	315
17	---	---	---	---	---	---	---	---	---	318	312	315
18	---	---	---	---	---	---	---	---	---	345	313	330
19	---	---	---	---	---	---	---	---	---	332	323	327
20	---	---	---	---	---	---	---	---	---	336	323	329
21	---	---	---	---	---	---	---	---	---	348	331	337
22	---	---	---	---	---	---	335	308	330	347	332	338
23	---	---	---	---	---	---	334	321	327	342	334	337
24	---	---	---	---	---	---	---	---	---	332	318	327
25	---	---	---	---	---	---	---	---	---	328	318	325
26	---	---	---	---	---	---	---	---	---	338	322	330
27	---	---	---	---	---	---	333	331	332	333	326	328
28	---	---	---	---	---	---	365	333	349	324	316	319
29	---	---	---	---	---	---	353	342	346	332	313	321
30	---	---	---	---	---	---	356	342	349	343	330	335
31	---	---	---	---	---	---	---	---	---	343	337	340
MONTH	---	---	---	---	---	---	---	---	---	395	285	332

401138075342201 SCHUYLKILL RIVER AT CITIZENS WATER COMPANY NEAR SPRING CITY, PA

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	371	337	348	---	---	---	---	---	---	---	---	---
2	373	359	366	---	---	---	---	---	---	---	---	---
3	379	366	373	---	---	---	---	---	---	---	---	---
4	378	363	371	---	---	---	---	---	---	---	---	---
5	373	360	367	---	---	---	---	---	---	---	---	---
6	377	361	368	---	---	---	---	---	---	---	---	---
7	378	367	373	---	---	---	---	---	---	---	---	---
8	379	370	374	---	---	---	---	---	---	---	---	---
9	371	332	351	---	---	---	---	---	---	---	---	---
10	371	338	350	---	---	---	---	---	---	---	---	---
11	363	356	359	---	---	---	---	---	---	---	---	---
12	366	358	363	---	---	---	---	---	---	---	---	---
13	370	343	360	---	---	---	---	---	---	---	---	---
14	347	337	342	---	---	---	---	---	---	---	---	---
15	348	342	345	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA

LOCATION.--Lat 40°12'22", long 75°33'57", Montgomery County, Hydrologic Unit 02040203, on left bank 100 feet above Vincent Dam, 0.3 mi south of Linfield.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--January 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1986 to current year.

DISSOLVED OXYGEN: January 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1986.

REMARKS.--Interruptions in daily record due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 667 microsiemens, Oct. 31, 1986; minimum, 118 microsiemens, Sept. 15, 1987.

DISSOLVED OXYGEN: Maximum, 19.0 mg/L, March 25, 1987; minimum, 0.9 mg/L, July 26, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 667 microsiemens, Oct. 31; minimum, 118 microsiemens, Sept. 15.

DISSOLVED OXYGEN: Maximum, 19.0 mg/L, March 25; minimum, 1.6 mg/L, July 14.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	618	564	600	661	636	647	275	266	272	249	241	247
2	620	574	595	644	627	637	294	275	287	309	147	260
3	571	459	498	646	602	621	282	249	264	331	308	316
4	497	456	476	651	589	611	291	271	281	341	300	315
5	471	430	444	663	631	653	277	267	272	306	294	300
6	473	438	452	594	494	528	275	265	270	331	299	314
7	463	424	440	526	430	470	288	268	282	351	318	332
8	465	433	447	457	398	429	309	285	299	376	332	351
9	464	440	450	409	379	395	318	296	311	362	342	352
10	547	465	514	415	401	410	314	296	306	350	333	342
11	541	514	525	411	335	391	313	295	304	411	339	371
12	557	531	548	337	314	326	355	306	330	366	341	349
13	560	543	554	354	323	339	330	314	323	382	354	364
14	559	530	545	369	329	350	312	300	308	387	359	371
15	578	527	548	367	339	350	323	299	310	406	375	387
16	588	536	561	370	358	365	364	314	338	400	374	381
17	586	459	506	381	354	369	381	344	360	349	333	341
18	513	478	491	400	376	385	372	249	330	346	330	338
19	531	508	521	388	293	314	297	245	276	386	266	328
20	525	508	516	326	273	300	280	268	276	344	258	302
21	520	501	511	235	213	223	287	271	282	419	389	402
22	559	506	526	---	---	---	277	265	270	397	361	382
23	581	541	554	---	---	---	285	265	274	381	356	367
24	651	569	616	---	---	---	296	273	286	384	364	375
25	647	624	633	265	259	262	238	166	194	395	375	384
26	635	576	612	267	208	247	230	208	222	385	368	376
27	570	524	556	241	205	227	225	216	218	397	369	387
28	551	511	522	236	226	232	228	214	223	413	389	399
29	583	537	558	239	232	236	241	228	235	397	370	384
30	570	545	555	264	246	255	250	242	246	397	371	387
31	667	551	612	---	---	---	259	246	254	420	380	402
MONTH	667	424	532	663	205	391	381	166	281	420	147	352

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	419	390	405	328	186	258	317	292	303	333	322	326
2	438	354	422	262	193	226	322	310	316	353	328	338
3	391	350	364	223	203	213	325	312	319	349	331	336
4	331	301	312	207	197	201	316	193	248	337	296	319
5	325	300	314	203	182	194	228	199	213	307	296	302
6	316	279	294	204	181	196	198	175	182	338	305	319
7	308	288	297	197	185	191	199	187	191	364	323	341
8	316	291	301	188	162	178	209	193	202	361	332	345
9	310	297	302	165	144	157	238	218	227	374	339	353
10	323	295	307	219	127	160	250	237	241	395	350	367
11	335	312	322	189	168	176	254	249	251	398	378	388
12	329	303	316	265	241	258	267	254	262	429	385	400
13	346	313	326	249	233	242	264	259	263	426	403	408
14	346	315	325	263	241	250	288	266	278	438	407	418
15	320	290	306	257	254	256	296	279	288	436	385	406
16	316	293	303	266	247	256	317	280	293	393	370	381
17	336	295	311	282	264	271	302	295	299	410	373	391
18	338	315	327	299	271	282	301	293	297	419	387	401
19	338	318	328	301	292	296	325	298	310	419	379	403
20	339	313	330	316	285	297	343	325	333	388	323	355
21	336	323	331	312	301	306	388	339	359	378	317	348
22	340	319	333	312	300	306	385	365	375	425	356	390
23	343	315	329	317	312	314	382	365	373	426	385	406
24	391	320	344	351	316	332	391	314	340	417	390	403
25	383	347	358	367	342	350	318	299	307	402	390	396
26	352	309	335	383	360	368	316	299	307	407	386	396
27	368	315	338	383	364	372	334	310	319	438	397	411
28	347	325	333	386	369	378	367	322	341	432	400	417
29	---	---	---	379	357	367	346	324	336	448	410	427
30	---	---	---	372	341	352	349	310	327	---	---	---
31	---	---	---	339	293	320	---	---	---	474	453	470
MONTH	438	279	329	386	127	268	391	175	290	474	296	379

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	475	438	460	462	448	455	486	449	470	590	535	554
2	493	445	466	447	291	350	495	449	472	591	533	561
3	522	475	501	380	222	275	468	435	451	621	539	592
4	485	454	472	436	330	385	457	420	440	583	516	537
5	491	448	470	482	435	456	491	428	448	605	559	578
6	490	447	470	480	447	470	473	344	420	589	563	578
7	484	434	466	479	464	470	475	446	461	567	495	524
8	490	436	465	496	444	475	465	425	445	524	184	442
9	497	460	482	498	465	479	485	446	467	---	---	---
10	525	479	506	450	341	403	453	327	389	---	---	---
11	557	504	521	504	455	478	457	417	436	---	---	---
12	546	491	516	493	484	487	552	432	489	---	---	---
13	513	498	503	516	433	499	539	481	511	---	---	---
14	544	504	522	426	313	356	530	475	502	---	---	---
15	539	481	507	458	352	408	564	519	532	210	118	171
16	526	477	500	429	355	396	600	549	570	262	211	236
17	576	489	546	466	427	446	558	524	538	283	261	275
18	577	516	539	486	444	469	526	492	513	---	---	---
19	599	564	581	477	451	460	512	483	491	300	234	276
20	595	554	569	498	457	470	556	517	544	310	293	303
21	589	542	572	510	458	479	564	495	524	315	293	304
22	537	488	506	540	469	505	524	506	513	330	299	313
23	535	376	452	568	519	536	525	494	505	318	303	312
24	570	409	498	548	512	521	497	477	487	343	314	331
25	526	493	512	565	515	533	518	489	499	363	341	347
26	547	510	531	546	427	497	560	520	529	394	354	366
27	583	538	565	424	313	367	581	515	553	399	359	371
28	574	494	543	391	332	359	564	433	508	397	360	374
29	510	442	474	456	385	415	461	422	435	442	386	404
30	474	459	468	474	431	457	510	458	479	433	411	423
31	---	---	---	477	449	465	553	511	525	---	---	---
MONTH	599	376	506	568	222	446	600	327	489	621	118	399

01472104 SCHYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.6	5.4	6.8	11.3	9.2	10.2	12.7	11 9	12.3	12.7	12.4	12.5
2	7.5	5.3	6.2	11.2	9.0	9.9	13.1	11.6	12.0	12.6	11.7	12.1
3	6.4	5.2	5.8	11.4	8.5	9.4	11.6	9.2	10.4	12.1	11.7	11.9
4	6.8	5.7	6.2	11.5	9.3	10.2	---	---	---	12.2	11.7	12.0
5	7.5	6.0	6.7	10.8	8.8	9.5	11.5	11.1	11.2	13.2	12.0	12.7
6	8.7	6.8	7.6	8.8	8.2	8.6	11.6	9.9	11.0	13.1	12.8	12.9
7	9.3	7.7	8.4	9.2	8.5	8.9	12.6	10.8	12.0	12.9	12.0	12.5
8	9.5	8.0	8.6	9.3	8.5	9.0	12.2	11.2	11.7	12.8	11.5	12.3
9	9.4	7.8	8.4	8.4	8.1	8.3	11.7	8.9	10.4	12.8	12.4	12.5
10	9.6	7.2	8.2	9.3	8.2	8.7	10.9	10.7	10.8	12.4	12.0	12.2
11	10.5	8.1	9.0	9.4	9.1	9.3	11.2	10.9	11.0	12.1	11.7	12.0
12	10.7	8.8	9.5	10.0	9.5	9.7	11.3	11.1	11.2	13.5	12.0	12.7
13	10.2	8.3	8.8	10.3	9.9	10.1	11.9	11.2	11.5	13.2	12.0	12.6
14	8.4	7.1	7.7	11.1	10.3	10.7	12.4	11.9	12.2	12.9	12.1	12.4
15	9.4	5.3	7.9	11.6	9.1	11.1	12.8	12.3	12.5	12.4	11.6	12.1
16	10.1	8.1	9.0	11.4	10.7	11.1	12.5	11.8	12.2	12.6	11.4	11.9
17	9.6	8.5	8.9	10.8	10.1	10.4	12.5	11.5	12.0	12.9	11.9	12.3
18	10.0	7.9	8.6	10.1	9.5	9.8	12.2	11.6	11.9	12 6	12.0	12.2
19	10.9	8.6	9.4	9.8	9.2	9.6	11.6	10.3	11.2	12.1	11.7	11.9
20	11.0	9.1	9.9	10.5	9.4	10.0	12.1	10.5	11.6	12.3	11.7	12.0
21	11.2	9.1	10.0	11.9	7.6	9.7	12.4	11.7	12.1	12.7	12.1	12.4
22	11.0	8.6	9.6	---	---	---	12.6	11.9	12.4	12.6	12.1	12.2
23	10.9	8.3	9.4	---	---	---	12.8	11.5	12.4	13.2	12.1	12.6
24	11.0	8.3	9.4	---	---	---	12.8	12.1	12.6	14.3	12.8	13.6
25	11.0	8.5	9.5	12.8	6.3	10.5	12.6	11.0	11.7	14.4	14.0	14.2
26	10.9	8.7	9.4	13.0	10.9	12.3	12.2	11.6	12.1	14.1	13.3	13.9
27	8.9	7.6	8.1	11.5	10.1	10.8	12.3	11.6	12.0	13.9	13.4	13.8
28	10.7	7.6	9.0	11.7	8.0	10.5	12.5	11.0	12.0	13.9	13.6	13.8
29	10.8	7.2	9.3	11.9	11.6	11.7	12.5	11.9	12.2	13.6	13.1	13.4
30	11.1	8.4	9.3	12.3	9.7	11.9	12.6	11.8	12.3	---	---	---
31	11.2	8.8	9.8	---	---	---	12.5	12.1	12.3	---	---	---
MONTH	11.2	5.2	8.5	13.0	6.3	10.1	13.1	8.9	11.8	14.4	11.4	12.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.8	12.6	13.2	13.9	10.8	11.6	10.4	7.1	8.7	7.9	7.6	7.8
2	14.0	12.0	13.2	11.8	9.2	10.2	11.6	9.4	10.3	8.1	7.3	7.7
3	12.8	11.9	12.2	12.3	10.8	11.9	12.8	9.0	10.6	7.4	7.0	7.2
4	13.0	11.8	12.3	12.8	11.9	12.4	11.3	8.2	9.5	8.1	7.0	7.5
5	13.6	11.2	12.6	13.2	12.2	12.6	10.1	6.5	8.9	11.2	8.0	9.9
6	14.3	12.5	13.2	---	---	---	10.7	8.9	10.4	9.0	8.2	8.7
7	14.4	12.6	13.4	---	---	---	10.8	10.4	10.6	8.0	6.6	7.6
8	13.9	12.4	13.1	---	---	---	10.9	10.3	10.6	7.0	5.9	6.5
9	13.9	12.2	12.9	---	---	---	10.9	9.9	10.4	6.5	5.8	6.1
10	15.1	10.0	13.5	---	---	---	11.4	9.8	10.4	7.8	5.8	6.9
11	15.6	13.2	14.2	---	---	---	11.6	9.3	10.4	7.3	5.7	6.4
12	14.3	11.4	13.3	13.9	11.9	13.0	10.3	8.9	9.7	---	---	---
13	15.1	11.4	13.3	14.1	11.6	12.8	10.5	8.9	9.6	5.8	4.4	4.8
14	15.4	12.7	13.8	14.3	11.1	12.6	11.7	9.1	10.2	4.9	3.9	4.1
15	15.6	13.0	14.1	14.2	11.1	12.5	10.4	8.5	9.2	---	---	---
16	16.3	13.4	14.7	14.7	10.7	12.5	9.3	7.9	8.6	6.8	4.3	5.4
17	15.7	13.2	14.5	14.8	10.6	12.5	8.5	7.0	7.4	7.5	5.5	6.4
18	15.9	12.8	13.9	15.5	9.7	12.3	9.9	6.5	8.3	7.5	5.0	6.2
19	16.0	12.6	14.1	16.3	10.0	12.3	10.4	8.9	9.5	6.5	4.7	5.2
20	16.0	12.6	14.1	15.2	8.9	11.6	9.9	6.0	7.6	8.8	5.0	7.2
21	16.1	12.4	14.2	15.4	8.9	11.6	7.7	2.7	5.8	9.4	7.0	8.1
22	16.4	12.6	14.3	18.6	9.7	13.0	8.4	1.8	4.8	7.6	6.7	7.1
23	15.7	11.9	13.9	14.3	9.6	12.4	9.2	4.0	7.2	7.6	6.7	7.2
24	15.8	12.2	13.9	17.7	9.0	12.1	8.6	7.5	8.1	6.2	5.0	5.8
25	16.9	12.2	14.2	19.0	9.0	13.0	9.3	7.7	8.4	7.1	5.5	6.3
26	17.7	12.6	14.7	---	---	---	9.7	8.0	8.8	6.7	6.0	6.3
27	17.1	12.6	14.9	16.6	9.2	12.7	8.8	7.7	8.3	6.4	5.3	5.8
28	15.9	12.0	14.2	17.6	8.5	12.8	7.8	6.4	7.1	7.0	5.8	6.2
29	---	---	---	16.2	7.9	11.1	8.5	6.9	7.5	6.3	4.6	5.3
30	---	---	---	12.3	8.6	10.2	8.9	6.7	7.8	6.3	3.6	4.9
31	---	---	---	8.8	6.4	7.2	---	---	---	5.9	3.4	4.6
MONTH	17.7	10.0	13.7	19.0	6.4	12.0	12.8	1.8	8.8	11.2	3.4	6.5

01472104 SCHYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	7.3	3.9	5.4	9.0	5.2	6.9	9.2	5.4	6.7	6.5	3.7	5.0
2	6.8	3.8	5.4	6.4	3.9	4.7	9.1	5.9	7.6	5.7	4.0	4.9
3	6.7	4.0	5.2	4.8	3.7	4.3	8.8	4.9	6.6	6.0	3.6	4.7
4	6.1	4.5	5.1	5.5	3.8	4.5	8.8	4.5	6.5	6.5	4.5	5.5
5	7.7	4.5	5.9	6.7	3.9	5.2	8.9	5.1	7.0	6 4	4.4	5.4
6	8.2	5.4	6.7	7.5	4.0	5.7	7.4	3.1	5.1	6.4	4.4	5.2
7	8.2	5.5	6.7	7.1	4.3	5.5	8.9	4.7	6.4	5 8	4.2	4.9
8	9.9	5.9	7.7	8.0	3.8	5.3	8.8	5.1	6.6	5.7	3.9	4.6
9	12.4	5.1	8.3	6.6	3.5	4.9	7.5	4.5	5.7	---	---	---
10	12.1	8.0	9.5	4.6	3.0	3.6	7.0	4.5	5.3	---	---	---
11	9.5	5.8	7.8	6.8	3.3	4.5	7.2	3.9	5.2	---	---	---
12	9.4	6.1	7.9	7.1	4.7	5.6	8.4	4.6	6.2	---	---	---
13	10.9	8.2	9.4	5.0	2.9	3.9	12.8	6.0	8.7	---	---	---
14	10.7	5.5	8.3	4.1	1.6	2.8	12.6	5.9	8.2	9.4	7.4	8.2
15	10.6	5.7	8.4	5.9	4.3	5.1	7.5	4.8	5.9	8.4	7.8	8.2
16	10.2	4.5	7.5	5.8	4.0	4.9	7.9	5.1	6.3	8.2	6.1	7.4
17	---	---	---	6.8	4.6	5.7	7.8	4.3	5.9	8.0	6.7	7.7
18	8.7	4.7	6.7	9.5	4.4	5.8	12.2	4.7	7.2	7.3	5.5	6.4
19	8.2	4.3	6.3	7.6	4.4	5.9	11.9	5.7	8.4	7.7	3.7	6.5
20	8.1	3.6	6.1	9.1	4.5	6.3	9.4	4.9	7.1	8.1	6.0	7.0
21	7.1	2.5	4.2	9.0	4.4	6.6	9.5	4.9	7.0	8.2	7.0	7.4
22	4.3	2.4	3.3	10.0	3.9	6.7	8.7	4.2	5.9	7.8	6.2	7.1
23	3.8	2.7	3.4	9.8	4.2	6.7	7.4	3.7	5.2	6.6	6.2	6.4
24	5.2	2.9	3.9	9.5	4.5	6.6	11.2	4.6	6.1	8.1	6.2	7.3
25	6.8	2.7	5.0	12.2	5.7	7.8	9.1	4.7	6.0	7.9	5.8	7.2
26	6.4	3.8	5.1	10.4	3.8	7.0	7.2	4.9	6.0	8.2	5.5	7.2
27	5.9	3.4	4.5	7.8	3.4	5.5	6.4	4.3	5.3	8.4	8.1	8.2
28	8.3	3.4	5.8	7.7	3.7	5.3	5.4	4.6	5.0	8.4	7.4	8.2
29	8.3	4.7	7.1	8.2	4.3	6.1	6.2	4.5	5.0	8.2	6.6	7.7
30	9.1	5.2	7.5	8.0	4.6	6.6	6.5	5.0	5.6	7.3	6.4	6.8
31	---	---	---	8.5	4.3	6.3	6.6	4.8	5.7	---	---	---
MONTH	12.4	2.4	6.4	12.2	1.6	5.6	12.8	3.1	6.3	---	---	---

01472119 SCHUYLKILL RIVER AT BLACK ROCK DAM AT MONT CLARE, PA

LOCATION.--Lat 40°08'52", long 75°30'21", Montgomery County, Hydrologic Unit 02040203, on left bank 100 feet upstream of Black Rock Dam, 0.7 mi north of Mont Clare.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--January 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1986 to current year.
DISSOLVED OXYGEN: January 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1986.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 701 microsiemens, Sept. 20, 1986; minimum, 122 microsiemens, Sept. 9, 1987.
DISSOLVED OXYGEN: Maximum, 16.9 mg/L, Mar. 23, 1987; minimum, 0.8 mg/L, Sept. 9, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 652 microsiemens, Nov. 3; minimum, 122 microsiemens, Sept. 9.
DISSOLVED OXYGEN: Maximum, 16.9 mg/L, Mar. 23; minimum 0.8 mg/L, Sept. 9.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	602	579	591	277	259	266	282	271	282
2	597	496	579	636	593	616	299	272	282	291	266	275
3	602	474	587	652	611	636	256	243	252	338	293	314
4	574	434	510	615	565	601	272	244	261	333	298	309
5	494	438	467	583	565	571	275	254	267	332	290	305
6	484	431	450	566	458	515	261	252	257	306	288	298
7	444	425	436	455	428	442	276	249	261	315	306	308
8	464	425	442	498	444	485	295	270	279	327	316	322
9	467	442	453	482	429	455	300	287	294	342	319	329
10	466	447	454	456	435	447	302	283	293	335	321	328
11	461	446	451	457	428	442	302	286	291	366	328	333
12	457	443	450	427	352	371	320	281	298	384	335	357
13	490	471	480	380	353	368	331	302	314	347	282	333
14	492	485	488	363	353	357	312	294	301	361	323	349
15	507	455	480	357	350	354	311	285	296	369	340	364
16	501	453	469	373	355	366	333	300	312	377	366	371
17	505	463	486	390	368	378	357	336	344	367	351	359
18	518	478	501	392	381	386	362	278	341	358	342	352
19	507	479	492	394	300	338	289	243	266	363	331	352
20	542	501	525	331	292	315	274	259	267	363	288	310
21	552	532	542	307	215	239	278	267	272	393	367	378
22	546	528	534	249	219	235	272	260	266	391	357	369
23	555	527	538	249	243	245	282	264	272	360	334	348
24	575	554	564	262	244	253	290	275	282	360	333	346
25	586	568	577	277	261	268	279	194	213	366	346	359
26	594	570	584	275	232	262	233	211	220	368	350	363
27	571	552	561	248	213	229	235	220	227	368	354	361
28	554	512	538	248	234	240	242	227	234	400	377	386
29	521	485	499	260	244	253	258	236	245	402	380	389
30	563	519	545	263	253	258	270	252	260	393	375	384
31	594	501	549	---	---	---	290	267	277	378	368	374
MONTH	602	425	508	652	213	384	362	194	275	402	266	342

01472119 SCHUYLKILL RIVER AT BLACK ROCK DAM AT MONT CLARE, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	390	368	379	350	257	300	374	346	360	361	349	356
2	393	378	385	236	212	220	396	373	383	382	354	367
3	416	382	398	304	218	261	391	375	382	369	349	360
4	429	393	412	284	265	276	381	253	331	348	340	344
5	398	386	392	265	256	260	278	234	258	339	321	329
6	393	281	326	281	256	270	248	220	234	344	336	340
7	304	281	296	279	270	274	243	232	240	361	343	351
8	296	285	292	274	267	270	246	241	244	352	339	346
9	299	289	295	274	258	266	263	239	250	354	329	344
10	289	275	284	277	264	271	278	263	271	356	334	348
11	312	288	299	276	259	267	277	270	274	364	349	358
12	320	306	312	280	265	272	286	268	275	384	360	371
13	320	307	315	282	266	273	286	275	278	416	386	400
14	321	304	313	286	279	283	308	279	295	435	388	409
15	311	295	303	293	273	283	309	293	301	425	395	415
16	318	288	302	281	274	277	315	295	303	402	389	395
17	320	304	314	301	283	296	322	295	307	406	378	395
18	343	312	326	318	302	308	303	291	299	408	395	401
19	345	328	338	346	317	333	302	294	297	406	392	400
20	351	327	338	341	332	335	312	300	306	410	341	382
21	352	334	345	361	335	347	330	309	319	395	358	373
22	356	343	350	344	334	341	351	333	343	382	367	376
23	350	325	335	343	333	337	354	332	343	387	368	382
24	359	327	341	349	339	345	360	334	348	380	368	372
25	397	354	371	368	350	363	335	322	329	370	348	355
26	371	336	358	384	365	376	340	325	333	388	352	370
27	379	347	363	421	370	394	339	323	332	398	379	386
28	375	345	355	409	390	403	355	337	341	431	382	409
29	---	---	---	402	385	394	371	356	364	418	402	411
30	---	---	---	404	381	393	372	345	361	---	---	---
31	---	---	---	383	361	376	---	---	---	466	423	441
MONTH	429	275	337	421	212	312	396	220	310	466	321	364

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	467	423	439	492	478	485	527	498	511	553	519	530
2	435	419	429	490	370	448	---	---	---	611	555	581
3	470	430	441	375	262	333	---	---	---	603	577	586
4	483	434	455	351	257	292	534	519	528	615	596	607
5	441	405	424	434	354	393	520	486	510	594	574	579
6	443	402	425	454	436	445	520	475	489	594	578	588
7	450	399	422	461	454	457	486	430	463	589	569	583
8	408	395	401	460	455	457	495	476	489	580	435	536
9	425	403	413	478	457	466	504	491	498	343	122	203
10	429	419	425	479	459	473	508	463	491	235	212	223
11	490	424	450	455	407	422	471	409	440	267	238	256
12	507	466	481	482	430	452	483	421	452	291	268	279
13	502	477	490	487	462	473	534	482	498	297	253	290
14	534	473	504	493	378	472	555	533	546	260	157	195
15	524	492	508	340	250	296	560	554	557	232	190	211
16	499	461	488	330	252	288	562	555	557	258	234	248
17	481	455	465	396	326	365	581	560	574	273	258	269
18	543	458	499	412	396	403	576	568	573	305	243	272
19	546	501	527	429	412	420	582	542	564	270	235	251
20	---	---	---	442	428	433	555	536	545	289	271	282
21	---	---	---	461	434	445	627	570	611	290	278	284
22	---	---	---	470	462	466	624	593	615	309	282	295
23	513	428	487	497	462	472	604	580	593	319	298	309
24	452	373	409	528	500	513	587	556	577	339	314	324
25	503	460	491	536	514	525	569	554	560	371	339	343
26	502	482	492	543	516	531	588	563	572	363	337	348
27	531	493	508	515	480	502	592	567	582	361	350	354
28	553	529	540	482	399	453	598	550	576	364	357	360
29	544	504	531	448	393	418	593	475	547	388	364	380
30	511	476	498	475	439	451	480	457	470	432	385	409
31	---	---	---	511	479	501	517	481	498	---	---	---
MONTH	553	373	468	543	250	437	627	409	534	615	122	366

01472119 SCHUYLKILL RIVER AT BLACK ROCK DAM AT MONT CLARE, PA--continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.6	7.9	8.8	12.1	11 6	11 8	12 8	12.4	12.6
2	7.1	6.2	6.7	9.4	8.4	8.8	1.8	11.6	11 7	12.7	12.0	12 5
3	6.9	4.9	5.8	9.1	7.6	8.3	11.4	10 6	10.9	12.0	11 7	11 9
4	6.1	4.9	5.4	8.2	7.6	7.9	11.6	10 7	11 1	12 0	11.5	11.7
5	6.5	5.6	6.2	9.1	7.9	8.5	11.6	10.9	11 5	11.8	11.3	11 5
6	7.3	5.9	6.6	9.6	8.3	9.1	12.0	11.5	11 7	11.6	11 2	11 4
7	8.6	7.5	8.0	9.7	8.8	9.2	12.2	11.8	12 0	11 4	10 6	10 9
8	9.7	8.0	8.7	9.6	8.7	9.0	12 2	11.7	12.0	11 9	9 6	10.5
9	9.3	7.5	8.1	9.0	7.9	8.3	12.2	11.7	11.9	12 1	8.8	9 7
10	8.8	7.3	7.8	9.9	7.8	8.6	11.8	11.2	11.5	10 7	8.6	10 2
11	---	---	---	9.8	9.2	9.5	11.6	10.9	11 2	12 2	9 6	10 5
12	---	---	---	9.9	9.4	9.7	11.5	11.1	11.3	12 8	10.0	11.2
13	---	---	---	10.5	9.5	10.1	12.0	11.2	11.6	12.6	11.5	12 0
14	---	---	---	11.4	10.2	10.7	12.7	11.8	12.2	12.6	11.3	11.7
15	8.1	7.0	7.5	12.0	10.8	11.2	12.9	12.3	12.6	12.2	11.1	11.7
16	8.7	7.7	8.1	11.9	10.9	11.3	13.0	12.5	12.7	11 9	10.5	11.2
17	9.1	8.1	8.4	11.9	9.8	10.7	12.6	12.0	12.3	12.9	11.2	11.8
18	8.5	8.0	8.2	10.9	8.6	9.6	12.0	11.4	11.7	12.7	12.0	12 4
19	9.8	8.0	8.8	9.6	8.6	9.2	11.5	10.9	11.3	12 5	11.8	12.2
20	10.6	8.0	9.2	11.5	9.2	10.5	11.3	11.1	11.2	12.3	12.1	12.2
21	9.4	8.3	8.8	11.8	11.0	11.5	11.4	11.0	11.2	13.0	12.2	12 6
22	9.8	8.2	9.1	12.0	11.6	11.8	12.8	11.3	12.1	12.7	12.4	12 6
23	9.6	8.0	8.7	12.5	11.9	12.2	12.7	12 2	12 5	13.5	12.4	12.8
24	10.9	7.9	9.3	12.4	12.0	12.2	12.6	12 1	12.3	13.2	12.2	12.9
25	11.2	8.2	9.6	12.0	11.1	11.5	12.3	11 1	11.9	14.3	12 4	13 2
26	11.2	8.0	9.1	11.4	11.1	11.3	12.0	11.6	11 8	14 1	12.6	13.2
27	9.5	7.8	8.3	11.2	10.7	10.9	12 1	11 8	12.0	13.1	12.4	12.6
28	9.0	7.7	8.0	11.3	10.9	11.1	12.1	12.0	12.1	14 1	12.1	13 0
29	9.6	8.2	8.7	11.2	10.7	10.9	12.4	11 9	12.1	14 1	12.9	13 4
30	9.7	7.9	8.7	11.7	10.7	11.1	12 3	11 7	12.2	13 6	12.6	12 9
31	11.1	8.2	9.3	---	---	---	12.8	12.0	12 4	12.9	11 9	12 3
MONTH	11.2	4.9	8.1	12.5	7.6	10.1	13.0	10.6	11.8	14.3	8 6	12 0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.9	11.7	12.2	14.5	11.8	12.7	9.3	7.1	8.0	10.0	7.6	8.5
2	13.6	12.0	12.6	11.8	11.2	11.4	11.8	8.9	9.9	9.7	6.9	8.1
3	13.2	11.6	12.4	12.2	11.6	12.0	11.9	9.0	10.2	8.4	7 2	7.8
4	13.7	11.0	12.3	13.0	12.0	12.5	11.9	8.8	9.7	8.2	7.4	7 7
5	14.2	12.1	12.9	13.3	12.5	12.9	10.1	8.7	9.4	8.4	7.6	8.0
6	14.5	12.6	13.3	13.6	12.1	12.7	10.5	9.9	10.2	8.6	8.1	8.4
7	14.4	12.5	13.3	13.4	11.8	12.6	10.0	9.6	9.9	8.3	7.2	7.6
8	14.1	12.3	13.1	13.0	11.0	12.0	10.6	9.7	10.1	7.7	6.3	6.9
9	13.9	12.0	12.7	12.3	10.6	11.4	10.9	9.7	10.2	8.1	6.1	6 9
10	14.9	12.5	13.2	12.6	11.0	11.6	11.4	9.8	10.4	8.1	6.0	6 8
11	15.5	12.7	13.8	14.2	11.8	12.8	10.6	9.1	9.8	7.6	5 8	6 5
12	14.8	12.6	13.4	13.7	12.4	13.1	9.2	7 6	8.5	7 3	5.4	6 2
13	15.5	12.5	13.3	14.5	12.2	13.2	8.6	7 3	7.9	7.7	5 2	6 1
14	---	---	---	14.9	11.9	13.2	11.5	7.8	9.7	7 9	6 3	6 9
15	16.0	13.6	14.3	15.1	11.6	13.1	10.5	8.9	9.6	7.9	6.1	6 9
16	16.7	13.5	14.5	15.3	11.6	13.2	9.7	8.7	9.2	8.1	6 2	6 7
17	16.9	12.7	14.3	15.2	11.7	13 2	9.7	8.9	9.2	8 1	6.0	6 8
18	15.1	12.5	13.7	15.6	11.4	12.9	9.8	8.7	9.1	7 9	6 1	6 8
19	15.0	11.4	12.7	16.0	11.5	13.2	11.2	8.7	9.7	7 0	5 6	6 2
20	13.7	11.0	12.0	15.5	10.9	12.9	10.2	8.3	9.1	7 0	6.0	6.3
21	13.6	11.4	12.5	15.1	10.7	12.3	11.5	8.3	9.7	8.0	7.0	7.4
22	15.3	11.9	13.3	16.8	10.9	12.9	10.9	8.2	9.5	7.9	6.5	7 3
23	15.8	11.5	13.1	16.9	11.4	13.8	10.1	7.4	8.4	7.8	6.2	6 8
24	16.6	11.7	13.8	16.7	10.9	13.3	9.3	7.5	8.3	7.2	5.5	6 1
25	16.6	12.2	13.7	16.2	10.7	12.4	9.1	7.5	8.0	6.9	5.5	6.0
26	15.6	12.3	13.8	15.6	10.5	12.1	10.5	8.1	9.0	6.9	6.1	6.4
27	15.9	13.1	13.7	15.3	10.0	11.8	10.1	8.5	9.2	7.8	6.6	7.0
28	15.5	13.1	13.7	14.7	9.5	11.2	9.9	7.8	8.6	7.9	6.6	7.2
29	---	---	---	14.7	9.3	11.0	10.2	7.6	8.6	8.1	6.3	6.9
30	---	---	---	14.7	8.9	10.7	10.3	7.7	8.9	---	---	---
31	---	---	---	10.7	7.6	8.4	---	---	---	7.0	5.2	6 0
MONTH	16.9	11.0	13.2	16.9	7.6	12.3	11.9	7.1	9.3	10.0	5.2	7.0

01472119 SCHUYLKILL RIVER AT BLACK ROCK DAM AT MONT CLARE, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	7.0	4.9	6.0	8.8	5.8	7.3	6.9	4.3	5.8	8.2	6.1	6.5
2	7.3	4.5	6.0	6.6	4.6	5.2	---	---	---	7.1	4.8	6 3
3	6.7	4.7	5.4	5.9	4.2	5.3	---	---	---	7.0	5 0	6.5
4	7.0	5.2	5.9	5.1	4.4	4.8	5.9	4.7	5.3	8.8	6.2	7 6
5	7.9	4.9	6.0	6.4	4.1	5.1	5.4	3.8	4 7	8 8	6.2	7 7
6	8.5	6.0	7.2	7.9	4.4	6.1	4.5	2.7	3.6	7.9	6.2	7 3
7	8.3	6.1	7.3	---	---	---	4.5	3.1	3.6	6 6	5 9	6 1
8	10.3	7.1	8.2	---	---	---	6.2	3.5	4.9	6.7	2.5	6 0
9	10.1	6.3	8.6	7.1	4.2	5.5	6.9	5.2	6.0	4.8	8	4 0
10	10.4	5.2	8.4	5.4	2.9	4.4	5.9	4.1	5.1	7.1	4.7	6 1
11	11.5	7.4	9.5	4.9	3.3	4.0	5.0	3.3	4.2	7 1	6.7	6 9
12	10.1	6.1	8.0	5.9	3.8	4.9	5.1	3.5	4.5	6.8	6 3	6 6
13	10.0	5.3	7.0	6.7	4.0	5.8	---	---	---	6.7	6.3	6 4
14	11.0	5.5	8.5	7.1	5.3	6.3	---	---	---	8.2	6.4	7 5
15	10.5	7.2	9.0	6.1	4.7	5.3	7.9	4.1	5.7	8.3	7 6	8 0
16	9.2	5.7	7.5	5.6	4.7	5.3	7.6	4.9	6.5	8.0	7 3	7.8
17	10.3	4.2	7.4	6.0	5.0	5.4	7.7	5.8	6.6	7.7	7.4	7.5
18	11.2	5.3	8.2	7.0	3.5	5.7	7.7	5.9	7.0	7.3	4.9	7 0
19	10.8	5.6	8.6	7.2	5.9	6.7	8.8	4.0	6.4	7.7	6.9	7.3
20	---	---	---	8.8	6.1	7.4	8.1	4.4	6.5	8.0	7.7	7.9
21	---	---	---	8.1	5.6	7.1	6.8	1.5	4.7	8.0	7.5	7.9
22	---	---	---	7.7	4.3	6.2	7.9	2.1	5.0	7.7	7.5	7.6
23	6.3	3.0	5.0	---	---	---	6.3	4.4	5.1	7 6	7 5	7.6
24	7.1	5.1	5.7	7.2	2.8	4.6	8.3	6.1	6.9	7.8	7.4	7.6
25	6.8	5.7	6.2	8.0	2.6	6.7	7.6	4.3	6.4	7 9	7.3	7.7
26	6.7	5.1	6.0	---	---	---	6.9	4.3	6.0	8.3	7 5	7 8
27	6.0	4.1	5.2	8.1	6.2	7.0	7.1	5.1	6.3	8.4	7 7	8 0
28	7.3	4.6	5.9	8.0	5.5	7.0	5.8	5.0	5.5	8 9	7 7	8 1
29	8.2	6.4	7.1	---	---	---	6.0	5.2	5.6	8 8	7 6	8.1
30	8.9	6.1	7.4	8.0	3.9	6.1	6.0	5.4	5.8	8.6	6.9	7 4
31	---	---	---	7.8	6.1	7.0	6.5	5.7	6.2	---	---	---
MONTH	11.5	3.0	7.1	8.8	2.6	5.9	8.8	1.5	5.6	8 9	8	7.2

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 mi northwest of Phoenixville, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--59.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 160 ft, from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft upstream at same datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 90.5 ft³/s, 20.79 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s, June 22, 1972, gage height, 13.66 ft, from rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 8.9 ft³/s Aug. 25-29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0145	953	7.07	Sept. 9	0515	*3180	*9.43
Mar. 1	1615	872	6.94	Sept. 18	0415	767	6.76

Minimum daily discharge, 11 ft³/s, Oct. 10-12, 23-25, Aug. 21, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	48	70	e60	540	124	59	42	24	20	20
2	19	17	77	117	79	393	78	61	40	36	18	19
3	19	17	373	110	116	217	68	66	38	86	18	17
4	22	17	119	90	148	167	307	112	49	37	17	16
5	21	33	77	74	110	128	193	112	57	28	17	16
6	17	152	63	66	87	115	301	77	41	24	32	18
7	15	47	56	66	87	117	184	65	37	25	21	27
8	15	84	52	66	89	115	137	60	37	27	18	176
9	15	67	134	63	82	103	112	55	37	24	18	1120
10	14	40	142	72	76	89	100	52	35	25	121	101
11	14	93	84	105	69	80	93	49	31	23	39	52
12	14	119	80	87	70	80	92	46	32	22	23	38
13	15	48	71	77	68	79	93	44	34	23	20	102
14	25	33	59	81	66	74	85	42	31	62	19	127
15	24	28	54	114	59	73	82	48	29	137	18	52
16	18	26	53	107	e58	70	80	50	28	42	17	40
17	16	24	55	76	e57	66	127	43	26	30	17	36
18	16	30	276	95	e56	64	128	40	25	26	16	463
19	15	203	228	283	e55	62	96	91	25	24	15	354
20	15	103	107	235	e54	61	94	174	24	23	15	131
21	15	357	84	143	53	62	84	165	26	22	14	87
22	15	91	69	106	54	62	77	89	38	23	15	66
23	14	58	63	e100	73	59	72	84	59	22	17	62
24	14	72	90	e94	69	57	77	91	35	20	15	55
25	14	66	573	e90	64	55	125	67	28	20	14	55
26	24	277	174	e86	62	55	86	60	27	23	14	49
27	36	264	116	e81	63	54	73	61	39	25	17	44
28	23	97	98	e76	62	57	69	59	30	20	110	42
29	20	71	85	e71	---	56	68	53	26	18	48	40
30	18	57	80	e68	---	59	65	47	24	18	24	41
31	17	---	76	e64	---	197	---	43	---	20	20	---
TOTAL	555	2607	3716	3033	2046	3466	3370	2165	1030	979	807	3466
MEAN	17.9	86.9	120	97.8	73.1	112	112	69.8	34.3	31.6	26.0	116
MAX	36	357	573	283	148	540	307	174	59	137	121	1120
MIN	14	16	48	63	53	54	65	40	24	18	14	16
CFSM	.30	1.47	2.03	1.66	1.24	1.89	1.90	1.18	.58	.53	.44	1.95
IN.	.35	1.64	2.34	1.91	1.29	2.18	2.12	1.36	.65	.62	.51	2.18

CAL YR 1986 TOTAL 26772 MEAN 73.3 MAX 585 MIN 11 CFSM 1.24 IN. 16.85
WTR YR 1987 TOTAL 27240 MEAN 74.6 MAX 1120 MIN 14 CFSM 1.26 IN. 17.15

e Estimated

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECOD.--February 1969 to current year.

WATER QUALITY DATA, WATER OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC 05...	1530	73	138	7.60	3.0	3.0	2.7	13.6	48	13	12

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
DEC 05...	4.5	6.2	1.8	36	18	8.8	15	98	96	--	<0.01

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
DEC 05...	1.70	0.02	0.48	0.5	--	0.3	--	0.03	0.02	0.01	30

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 05...	--	--	--	--	110	--	16	--	--	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39251)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)
DEC 05...	<0.1	1.0	<0.1	0.2	<0.1	0.1	<0.1	<0.1	3	<1.0	<0.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39758)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG) (81886)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)
DEC 05...	<0.1	<0.1	<0.1	<0.1	<1.00	<10

01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA

Location.--Lat 40°23'38", long 75°30'57", Montgomery County, Hydrologic Unit 02040203, on right bank 100 ft upstream from Church Road Bridge, 0.9 mi upstream of Molasses Creek, and 1 mi southwest of East Greenville.

DRAINAGE AREA.--38.0 mi²

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 288.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated record which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 61.7 ft³/s, 22.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s, June 25, 1984, gage height, 7.07 ft; minimum, 3.8 ft³/s, Sept. 5, 1985, gage height, 1.20 ft; minimum daily, 4.2 ft³/s, Aug. 21, 23, 24, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0315	1090	3.65	Sept. 8	2315	*15,300	*6.30

Minimum daily discharge, 12 ft³/s, Aug. 19-21, 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	46	53	e51	391	86	48	24	19	16	33
2	19	16	55	74	55	231	62	47	26	29	20	17
3	18	16	187	68	67	148	55	51	25	32	17	15
4	27	16	78	58	70	112	392	88	27	22	15	16
5	23	23	59	51	62	90	166	69	33	20	22	13
6	17	76	51	47	55	84	276	55	25	19	38	17
7	15	29	48	48	e50	91	156	48	23	19	20	37
8	16	81	45	48	e47	91	117	45	23	26	18	1230
9	14	53	92	45	e45	81	97	42	25	21	17	863
10	13	34	91	55	e44	66	86	39	22	20	29	74
11	13	80	65	76	e42	59	77	40	21	20	18	48
12	14	67	61	61	e40	58	83	33	22	38	16	40
13	15	40	53	56	e37	56	115	33	23	33	15	175
14	25	29	42	55	e36	52	78	32	23	140	15	91
15	20	27	43	67	e34	51	70	44	20	77	15	53
16	15	26	43	61	e33	48	67	37	19	29	14	43
17	15	24	43	52	e33	46	84	33	18	24	14	49
18	15	29	244	60	e33	44	83	32	18	22	13	82
19	15	139	140	115	e33	44	69	39	17	21	12	68
20	15	93	84	97	e33	42	67	53	18	20	12	54
21	14	286	69	75	34	42	62	45	25	18	12	46
22	14	75	58	e71	35	41	58	36	138	18	14	60
23	14	55	53	e69	46	39	55	36	81	16	14	53
24	14	63	58	e68	43	38	64	35	32	16	12	43
25	14	51	394	e66	41	37	107	33	26	16	12	36
26	26	247	115	e64	39	37	66	30	23	36	12	30
27	27	165	88	e62	41	35	60	30	26	25	30	28
28	20	81	76	e59	42	38	57	29	22	18	28	27
29	17	64	66	e57	---	36	56	26	20	17	28	25
30	16	53	62	e55	---	40	52	26	19	16	17	28
31	16	---	58	e53	---	175	---	25	---	18	15	---
TOTAL	530	2053	2667	1946	1221	2443	2923	1259	864	865	550	3394
MEAN	17.1	68.4	86.0	62.8	43.6	78.8	97.4	40.6	28.8	27.9	17.7	113
MAX	27	286	394	115	70	391	392	88	138	140	38	1230
MIN	13	15	42	45	33	35	52	25	17	16	12	13
CFSM	.45	1.80	2.26	1.65	1.15	2.07	2.56	1.07	.76	.73	.47	2.98
IN.	.52	2.01	2.61	1.91	1.20	2.39	2.86	1.23	.85	.85	.54	3.32

CAL YR 1986 TOTAL 21227.7 MEAN 58.2 MAX 507 MIN 8.0 CFSM 1.53 IN. 20.78
WTR YR 1987 TOTAL 20715 MEAN 56.8 MAX 1230 MIN 12 CFSM 1.49 IN. 20.28

e Estimated

01472199 NORTHWEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA

Location.--Lat 40°22'26", long 75°31'22", Montgomery County, Hydrologic Unit 02040203, on left bank 0.3 mi downstream of bridge on private road, and 0.5 mi north of Hillegass.

DRAINAGE AREA.--23.0 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 290.00 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--6 years, 38.4 ft³/s, 22.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,690 ft³/s, Dec. 28, 1983, gage height, 5.52 ft; minimum, 4.2 ft³/s, Sept. 21, 1983, gage height, 1.38 ft; minimum daily, 4.4 ft³/s, Sept. 20, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s, revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Sept. 9	0045	*1890	*5.08	No other peaks greater than base discharge			

Minimum daily discharge, 5.5 ft³/s, Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	8.1	28	31	e27	272	58	29	13	11	8.7	15
2	11	8.6	42	41	31	164	36	28	13	24	12	9.1
3	10	9.1	162	38	42	103	32	30	13	24	9.9	7.6
4	18	8.9	55	33	45	74	278	56	18	14	8.7	6.9
5	14	12	38	30	36	57	111	42	22	12	16	6.7
6	11	55	32	28	33	54	194	32	14	10	25	8.5
7	8.4	23	30	28	e29	63	102	29	13	11	12	21
8	8.0	59	28	28	e27	65	74	27	13	15	9.8	235
9	7.9	38	62	27	e26	53	61	26	14	12	9.1	348
10	7.4	25	61	33	e25	40	52	25	13	11	13	32
11	7.7	61	39	47	e25	35	46	23	11	10	9.7	23
12	7.3	51	37	36	e24	34	51	22	12	46	8.3	18
13	9.1	28	32	33	e23	33	74	21	13	31	7.8	92
14	15	23	26	33	e21	31	48	20	12	86	7.5	48
15	12	20	27	46	e20	31	42	26	11	61	7.5	27
16	8.9	19	27	44	e20	29	40	23	9.8	21	7.3	22
17	8.3	17	28	32	e20	28	57	20	8.9	16	7.1	22
18	8.1	25	183	38	e20	27	59	19	8.6	13	6.7	45
19	7.6	93	99	84	e20	27	44	25	8.7	12	6.3	44
20	7.5	73	54	70	e20	26	41	34	8.7	13	6.1	32
21	7.4	183	42	49	e20	26	37	32	16	11	6.0	26
22	7.3	48	35	e45	22	26	34	25	134	10	6.8	27
23	7.0	34	32	e42	28	25	33	23	68	9.5	7.7	26
24	6.3	43	44	e40	25	24	40	21	23	9.0	6.1	21
25	5.5	34	273	e38	24	24	66	19	17	9.2	5.9	19
26	13	162	76	e36	24	24	39	19	14	19	6.0	16
27	18	110	55	e35	24	23	34	19	20	16	16	15
28	12	52	46	e33	25	24	34	18	16	10	15	14
29	9.7	39	39	e32	---	23	33	17	12	8.8	16	13
30	8.9	32	36	e31	---	25	30	16	11	8.5	9.6	15
31	8.3	---	34	e28	---	129	---	14	---	9.1	7.6	---
TOTAL	298.1	1393.7	1802	1189	726	1619	1880	780	580.7	573.1	301.2	1254.8
MEAN	9.62	46.5	58.1	38.4	25.9	52.2	62.7	25.2	19.4	18.5	9.72	41.8
MAX	18	183	273	84	45	272	278	56	134	86	25	348
MIN	5.5	8.1	26	27	20	23	30	14	8.6	8.5	5.9	6.7
CFSM	.42	2.02	2.53	1.67	1.13	2.27	2.72	1.09	.84	.80	.42	1.82
IN.	.48	2.25	2.91	1.92	1.17	2.62	3.04	1.26	.94	.93	.49	2.03

CAL YR 1986 TOTAL 13108.3 MEAN 35.9 MAX 335 MIN 4.9 CFSM 1.56 IN. 21.20
WTR YR 1987 TOTAL 12397.6 MEAN 34.0 MAX 348 MIN 5.5 CFSM 1.48 IN. 20.05

e Estimated

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA

LOCATION.--Lat 40°24'14", long 75°14'05", Bucks County, Hydrologic Unit 02040203, on right bank 40 ft downstream of bridge on Bucks Road, 4.5 miles northeast of Perkasie, and 5 miles southeast of Quakertown.

DRAINAGE AREA.--4.05 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 334.124 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2270 ft³/s, July 7,1984, gage height 8.41 ft, from slope-area measurement; minimum, no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s and maximum (*): ft;

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	2345	484	4.16	Apr. 4	1330	503	4.23
Dec. 25	0130	*738	*5.04				

No flow many days during June through September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.11	2.6	2.4	e2.8	118	6.6	2.0	.09	.03	.03	e.04
2	.10	.12	21	9.7	4.0	46	3.4	1.6	.12	.04	.05	e.02
3	.09	.10	58	10	13	22	2.6	1.8	.10	.12	.04	.01
4	.17	.11	9.2	6.6	18	12	142	10	.14	.04	.03	.00
5	.24	.20	5.2	4.2	10	8.0	22	8.3	.25	.05	.03	.00
6	.21	1.6	3.7	3.2	7.3	7.3	56	5.6	.13	.05	.05	.01
7	.15	.75	3.2	3.1	e6.0	7.9	18	3.0	.09	.06	.04	.04
8	.13	2.3	2.9	3.2	e5.4	6.8	8.9	2.0	.08	.09	.04	.07
9	.10	1.9	34	2.9	e4.7	5.3	5.0	1.5	.13	4.1	.04	.13
10	.08	1.4	19	5.7	e4.2	3.3	3.6	1.1	.06	.97	.04	.10
11	.08	7.5	7.8	14	e3.7	2.5	2.8	.87	.04	.27	.04	.05
12	.08	5.1	11	7.5	e3.2	e2.3	2.6	.71	.04	.16	.03	.04
13	.09	1.9	6.7	9.3	e2.7	e2.1	4.1	.56	.04	.14	.02	.36
14	.20	1.2	3.5	11	e2.4	e1.9	2.6	.49	.0	.23	.02	.24
15	.17	.91	3.1	18	e2.0	1.8	2.1	.78	.01	.39	.03	.08
16	.14	.84	3.1	8.3	e1.8	1.6	1.9	.55	.01	.13	.02	.08
17	.15	.71	3.5	4.3	e1.8	1.4	8.7	.40	.0	.13	.02	.19
18	.15	4.0	62	12	e1.8	1.3	7.2	.32	.00	.11	.01	1.3
19	.13	30	21	33	e1.8	1.2	4.3	.32	.0	.07	e.00	.52
20	.11	35	7.8	17	e1.8	1.3	3.1	.64	.0	.03	e.00	.32
21	.10	60	5.4	9.9	e1.9	1.4	2.5	.62	.01	.01	e.01	.21
22	.08	7.5	3.6	6.0	e2.0	1.1	1.9	.40	.33	.03	e.03	.18
23	.08	4.2	2.9	e5.5	e3.1	.92	1.6	.38	.59	.03	e.01	.15
24	.07	9.1	9.7	e4.8	e2.8	.86	11	.36	.15	.04	e.00	.13
25	.06	5.7	128	e4.5	e2.8	.82	30	.25	.09	.03	e.00	.10
26	.15	100	14	e4.2	e2.8	.82	6.2	.23	.06	.04	.00	.09
27	.32	24	7.2	e3.9	e2.8	.76	3.7	.21	.05	.03	.03	.09
28	.24	8.1	5.3	e3.6	e2.8	.97	3.9	.21	.07	.02	.04	.09
29	.18	5.1	3.9	e3.4	---	.92	5.4	.17	.01	.03	e.04	.09
30	.15	3.5	3.5	e3.2	---	1.1	3.0	.14	.02	.03	e.03	.09
31	.13	---	3.0	e3.0	---	15	---	.11	---	.04	e.01	---
TOTAL	4.22	322.95	474.8	237.4	119.4	278.67	376.7	45.62	2.71	7.54	0.78	4.82
MEAN	.14	10.8	15.3	7.66	4.26	8.99	12.6	1.47	.090	.24	.025	.16
MAX	.32	100	128	33	18	118	142	10	.59	4.1	.05	1.3
MIN	.06	.10	2.6	2.4	1.8	.76	1.6	.11	.00	.01	.00	.00
CFSM	.03	2.66	3.78	1.89	1.05	2.22	3.10	.36	.02	.06	.01	.04
IN.	.04	2.97	4.36	2.18	1.10	2.56	3.46	.42	.02	.07	.01	.04

CAL YR 1986 TOTAL 2093.73 MEAN 5.74 MAX 143 MIN .00 CFSM 1.42 IN. 19.23
WTR YR 1987 TOTAL 1875.61 MEAN 5.14 MAX 142 MIN .00 CFSM 1.27 IN. 17.23

e Estimated

01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft upstream from highway bridge at Graterford, 0.5 mi upstream from Landis Brook and 2.5 mi north of Collegeville.

DRAINAGE AREA.--279 mi².

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford."

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P).

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft above National Geodetic Vertical Datum of 1929. June 1914 to Sept. 6, 1921, nonrecording gage at site 1,650 ft downstream at datum 3.29 ft lower. Sept. 7, 1921, to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Some regulation by Green Lane Reservoir (station 01472200) 10.5 mi upstream since December 21, 1956.

AVERAGE DISCHARGE.--73 years, 391 ft³/s, 19.03 in/yr, adjusted for storage since December 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,900 ft³/s, July 9, 1935, gage height, 18.26 ft, from rating curve extended above 12,000 ft³/s, on basis of slope-area measurement at gage height 16.23 ft; minimum, 4.7 ft³/s, Oct. 5, 1941; minimum daily, 5.6 ft³/s, Oct. 5, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s, Dec. 25, gage height, 9.28 ft; minimum daily, 38 ft³/s, Aug. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	105	388	317	e220	4100	1270	268	72	58	48	49
2	116	107	370	586	e200	3260	642	231	68	124	48	50
3	113	108	2690	762	487	1970	476	226	68	521	79	47
4	210	101	1180	602	916	1430	4560	476	76	135	51	43
5	146	111	745	453	750	998	2220	572	105	88	54	41
6	129	627	564	366	532	837	3340	403	86	60	204	44
7	103	317	470	338	529	765	1750	277	69	59	91	59
8	95	609	436	324	588	759	1090	206	78	130	70	181
9	87	586	918	308	484	661	773	175	65	97	67	3050
10	83	363	1440	361	339	509	599	155	69	291	103	446
11	81	681	806	896	322	403	494	145	58	105	70	217
12	79	967	674	686	302	351	443	135	55	78	54	147
13	83	402	607	531	275	321	542	119	58	110	49	827
14	121	273	409	549	228	283	454	105	81	135	45	726
15	130	231	359	627	205	247	355	125	65	641	49	289
16	106	226	341	627	e190	221	316	150	55	184	48	188
17	94	188	333	436	e180	208	371	118	51	104	47	158
18	88	178	2310	467	e170	180	609	105	52	71	47	1040
19	83	1960	2740	1670	159	168	436	129	51	60	48	777
20	74	613	1250	1550	152	165	371	188	54	54	47	401
21	75	3520	861	918	146	165	318	212	65	55	47	275
22	74	917	666	667	e140	161	276	162	93	54	49	234
23	74	548	550	570	217	153	237	157	668	52	48	342
24	74	582	483	517	232	150	344	148	190	54	39	203
25	74	623	5940	436	227	148	1700	116	108	55	38	165
26	95	2460	1530	380	219	146	795	103	79	68	38	132
27	160	3240	894	e330	241	140	546	99	77	78	73	108
28	130	1010	644	e300	239	147	460	97	76	63	88	97
29	111	659	506	e270	---	148	436	95	63	47	68	92
30	109	482	430	e260	---	148	351	89	55	45	64	99
31	103	---	383	e240	---	944	---	78	---	47	50	---
TOTAL	3187	22794	31917	17344	8889	20286	26574	5664	2810	3723	1921	10527
MEAN	103	760	1030	559	317	654	886	183	93.7	120	62.0	351
MAX	210	3520	5940	1670	916	4100	4560	572	668	641	204	3050
MIN	74	101	333	240	140	140	237	78	51	45	38	41
CFSM	.37	2.72	3.69	2.01	1.14	2.35	3.17	.65	.34	.43	.22	1.26
IN.	.42	3.04	4.26	2.31	1.19	2.70	3.54	.76	.37	.50	.26	1.40
MEAN‡	80.4	814	1030	559	317	656	884	182	91.3	115	47.4	373
CFMS‡	.29	.92	3.69	2.01	1.14	2.35	3.17	.65	.33	.41	.17	1.34
IN‡	.33	.26	4.26	2.31	1.19	2.71	3.54	.75	.37	.48	.20	1.49

CAL YR 1986 TOTAL 164501 MEAN 451 MAX 6300 MIN 45 MEAN‡ 451 CFSM‡ 1.62 IN‡ 21.93
WTR YR 1987 TOTAL 155636 MEAN 426 MAX 5940 MIN 38 MEAN‡ 428 CFSM‡ 1.53 IN‡ 20.83

‡ Adjusted for change in contents in Green Lane Reservoir.
e Estimated

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft downstream from two-span highway bridge, 1.5 mi upstream from mouth, and 2 mi southeast of Collegeville.

DRAINAGE AREA.--53.7 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1967, nonrecording gage at site 60 ft upstream at same datum.

REMARKS.--Records fair except for periods of missing record which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 77.7 ft³/s, 19.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,400 ft³/s, Sept. 13, 1971, gage height, 22.5 ft, from floodmark, from rating curve extended above 8,400 ft³/s, on basis of slope-area measurement of peak flow; minimum, 0.1 ft³/s, Sept. 12, 13, 1966; minimum gage height, 0.79 ft Oct. 3, 1968, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 19	0145	2740	6.71	Jan. 19	1630	2180	6.09
Nov. 21	0130	4450	8.27	Mar. 1	1200	3820	7.74
Nov. 26	2130	5600	9.14	Apr. 4	1415	3440	7.40
Dec. 18	1600	2370	6.31	Apr. 25	0015	2320	6.25
Dec. 25	0315	*8610	*11.03				

Minimum daily discharge, 1.1 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	8.4	50	44	e51	1450	51	45	13	6.7	3.8	6.3
2	28	8.5	126	159	48	332	35	42	15	25	2.5	5.7
3	15	8.9	713	139	124	146	30	40	15	58	2.1	4.6
4	36	9.3	118	91	174	101	1100	66	49	16	2.2	2.6
5	19	21	76	66	103	76	205	62	68	11	2.7	3.0
6	13	181	60	57	74	65	585	47	25	7.9	14	2.9
7	11	45	52	54	77	59	172	40	20	8.6	7.8	5.8
8	9.6	159	46	51	76	55	109	37	19	16	5.7	9.8
9	8.7	78	285	47	64	51	82	33	19	12	5.2	49
10	7.8	49	178	75	51	43	67	30	21	15	53	15
11	7.2	345	90	133	46	38	57	27	15	8.9	14	9.1
12	6.4	153	104	81	45	37	51	26	14	7.1	8.2	7.7
13	6.3	64	79	72	40	35	49	24	14	9.7	5.8	54
14	25	45	56	67	36	32	42	22	16	12	4.7	31
15	17	38	52	67	33	30	39	24	12	36	4.2	14
16	11	33	48	58	e30	28	37	24	23	11	2.3	9.9
17	9.3	28	45	48	e28	26	52	20	11	8.3	2.0	19
18	8.2	34	677	118	27	25	51	18	9.1	7.2	2.6	333
19	6.5	602	226	607	26	25	40	25	8.0	5.4	2.4	112
20	6.3	184	95	239	24	24	36	36	8.0	5.5	1.8	39
21	6.8	985	69	133	23	23	34	30	13	5.1	1.9	28
22	6.5	104	57	94	22	22	31	23	20	5.3	2.8	45
23	6.2	68	49	e85	28	21	29	47	30	3.6	2.3	57
24	5.6	105	136	e80	32	20	225	35	14	3.8	1.5	27
25	6.0	77	2180	e77	31	18	667	24	10	2.5	1.2	24
26	15	1560	154	e72	29	18	120	22	10	12	1.1	19
27	21	430	96	e68	31	18	82	21	22	11	24	16
28	13	117	76	e64	33	19	70	21	12	6.1	34	14
29	11	81	63	e60	---	18	65	19	8.4	4.0	16	13
30	10	61	58	e56	---	18	53	16	7.5	4.4	8.5	13
31	8.9	---	50	e53	---	89	---	14	---	4.5	4.7	---
TOTAL	371.0	5682.1	6164	3115	1406	2962	4266	960	541.0	349.6	245.0	989.4
MEAN	12.0	189	199	100	50.2	95.5	142	31.0	18.0	11.3	7.90	33.0
MAX	36	1560	2180	607	174	1450	1100	66	68	58	53	333
MIN	5.6	8.4	45	44	22	18	29	14	7.5	2.5	1.1	2.6
CFSM	.22	3.53	3.70	1.87	.94	1.78	2.65	.58	.34	.21	.15	.61
IN.	.26	3.94	4.27	2.16	.97	2.05	2.96	.67	.37	.24	.17	.69

CAL YR 1986 TOTAL 27701.2 MEAN 75.9 MAX 2180 MIN 4.8 CFSM 1.41 IN. 19.19
WTR YR 1987 TOTAL 27051.1 MEAN 74.1 MAX 2180 MIN 1.1 CFSM 1.38 IN. 18.74

e Estimated

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA.

LOCATION.--Lat 40°04'45", long 75°27'40", Chester County, Hydrologic Unit 02040202, on right bank, 100 ft. upstream of Pennsylvania turnpike bridge, 0.9 miles downstream of confluence with Little Valley Creek, near Valley Forge.

DRAINAGE AREA.--20.8 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 108.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of estimated daily discharges which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 34.0 ft^3/s, 22.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,210 ft^3/s, Sept. 27, 1985, gage height, 8.21 ft, minimum daily, 12 ft^3/s, Oct. 5, 6, 10, 11, 17, 18, 1983, Sept. 14, 1985, Sept. 13-16, 29, 30, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	1915	797	7.21	Dec. 25	0100	*838	*7.31

Minimum daily discharge, 12 ft^3/s, Oct. 1, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	27	34	34	173	35	32	26	80	19	20
2	26	15	58	58	37	59	32	33	28	74	18	18
3	15	16	89	44	46	46	31	33	27	28	18	18
4	17	17	35	37	42	42	150	51	61	25	18	17
5	15	68	31	35	37	40	58	37	39	24	35	17
6	14	87	33	34	36	38	71	34	28	23	48	23
7	13	20	30	34	36	38	47	32	27	26	20	21
8	13	79	29	33	36	38	42	32	26	23	19	52
9	13	38	55	32	35	37	40	31	26	28	29	53
10	12	20	37	39	34	36	38	30	25	25	84	21
11	12	147	34	37	34	35	37	29	24	25	22	20
12	13	53	34	33	34	35	36	35	25	33	20	19
13	13	36	30	32	33	34	35	30	27	24	19	74
14	26	26	29	32	32	33	36	30	25	85	19	27
15	13	24	29	33	32	33	34	33	24	34	19	21
16	13	22	29	32	31	33	35	29	23	24	18	20
17	13	21	28	31	32	32	49	28	23	23	18	22
18	13	40	87	48	31	32	37	28	22	22	18	40
19	13	90	41	103	31	32	35	34	22	21	18	23
20	13	79	33	52	31	32	34	48	22	21	17	21
21	15	99	31	41	31	32	34	41	37	20	17	20
22	13	30	31	42	31	31	33	30	27	20	20	20
23	13	26	30	40	35	30	32	46	26	19	18	19
24	13	32	78	37	33	30	58	32	23	19	17	19
25	13	25	199	36	32	30	63	30	22	19	17	19
26	31	184	45	36	32	29	37	29	23	20	17	19
27	15	61	39	35	31	29	35	31	23	19	27	19
28	14	36	37	37	34	33	35	29	22	19	33	18
29	14	31	36	35	---	29	34	28	21	18	24	18
30	16	28	35	36	---	34	33	27	21	19	18	19
31	16	---	34	35	---	64	---	26	---	20	18	---
TOTAL	465	1465	1393	1223	953	1249	1306	1018	795	880	722	737
MEAN	15.0	48.8	44.9	39.5	34.0	40.3	43.5	32.8	26.5	28.4	23.3	24.6
MAX	31	184	199	103	46	173	150	51	61	85	84	74
MIN	12	15	27	31	31	29	31	26	21	18	17	17
CFSM	.72	2.35	2.16	1.90	1.64	1.94	2.09	1.58	1.27	1.36	1.12	1.18
IN.	.83	2.62	2.49	2.19	1.70	2.23	2.34	1.82	1.42	1.57	1.29	1.32

CAL YR 1986 TOTAL 11443 MEAN 31.4 MAX 246 MIN 12 CFSM 1.51 IN. 20.47
WTR YR 1987 TOTAL 12206 MEAN 33.4 MAX 199 MIN 12 CFSM 1.61 IN. 21.83

01473499 SCHUYLKILL RIVER AT NORRISTOWN DAM AT BRIDGEPORT, PA

LOCATION.--Lat 40°06'33", long 75°20'52", Montgomery County, Hydrologic Unit 02040203, on right bank, 100 ft above Norristown Dam, in Bridgeport.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to to current year.
DISSOLVED OXYGEN: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

REMARKS.--Interruptions in daily record due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 725 microsiemens, July 10, 1986, minimum, 132 microsiemens, Dec. 25, 1986.
DISSOLVED OXYGEN: Maximum, 16.1 mg/L, Feb. 19, 28, 1987; minimum, 1.3 mg/L, June 13, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 600 microsiemens, Oct. 26; minimum, 132 microsiemens, Dec. 25.
DISSOLVED OXYGEN: Maximum, 16.1 mg/L, Feb. 19, 28; minimum, 1.4 mg/L, June 22.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	533	496	520	569	514	543	269	257	264	286	275	281
2	533	501	516	544	514	523	282	264	274	328	269	290
3	566	517	540	599	501	535	262	229	245	301	276	283
4	569	506	548	523	511	517	264	232	249	313	297	305
5	501	467	475	517	439	491	268	261	265	309	290	298
6	467	431	450	---	---	---	271	259	263	302	291	297
7	453	420	430	452	441	444	275	253	268	310	297	302
8	456	444	449	477	429	444	284	271	277	321	305	311
9	478	452	460	493	475	486	290	278	286	323	301	313
10	484	468	478	506	461	476	304	287	293	317	302	309
11	471	466	469	544	397	488	317	305	313	317	303	309
12	482	466	473	446	405	422	330	316	326	331	303	313
13	486	479	482	431	399	415	344	328	335	326	306	311
14	489	445	474	438	417	430	336	328	333	320	305	310
15	471	320	371	447	410	425	336	323	329	334	322	326
16	330	284	307	453	426	445	341	326	332	352	324	337
17	564	267	432	486	454	474	378	336	352	352	336	341
18	572	511	528	487	450	475	382	280	357	361	323	339
19	532	317	412	470	329	379	274	228	252	348	252	309
20	504	307	431	354	325	339	295	270	279	272	251	258
21	533	493	504	309	198	240	285	277	281	318	261	297
22	563	532	547	255	221	237	281	270	275	330	286	314
23	564	555	561	262	249	257	286	273	280	300	286	294
24	584	564	574	268	256	260	293	266	278	311	277	294
25	584	568	573	283	269	274	215	132	155	308	292	299
26	600	572	584	287	182	259	210	162	191	308	281	294
27	580	557	571	234	185	203	223	211	219	304	296	299
28	580	553	570	250	246	249	232	222	226	322	298	306
29	564	546	557	263	242	254	247	231	236	331	315	324
30	551	525	540	264	259	261	264	248	254	344	332	340
31	572	513	528	---	---	---	278	265	273	366	351	359
MONTH	600	267	495	599	182	388	382	132	276	366	251	308

01473499 SCHUYLKILL RIVER AT NORRISTOWN DAM AT BRIDGEPORT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	355	341	349	457	244	368	349	314	330	348	340	344
2	376	341	358	301	224	258	371	346	362	356	346	351
3	414	372	390	300	284	294	382	369	374	362	344	354
4	415	372	386	289	279	285	382	212	302	351	326	341
5	384	349	360	281	274	278	277	223	243	327	322	324
6	362	285	319	287	272	277	273	224	244	335	325	329
7	297	284	289	292	283	288	248	226	237	351	334	338
8	293	283	287	290	280	285	255	245	251	352	341	346
9	287	274	283	284	275	280	264	246	255	350	337	344
10	299	287	293	287	280	283	280	265	273	348	334	342
11	402	286	345	288	279	283	285	281	283	349	340	345
12	413	393	401	290	281	287	289	278	284	360	345	354
13	418	397	410	293	284	290	294	266	285	362	356	360
14	413	395	406	297	284	291	293	285	289	391	362	378
15	410	391	401	315	297	304	301	289	296	402	385	394
16	398	385	392	311	302	306	307	288	299	397	385	393
17	393	384	387	321	310	314	318	287	300	393	381	388
18	390	385	388	330	317	325	306	299	302	386	375	379
19	411	390	402	336	330	334	304	298	302	381	362	373
20	415	403	410	351	336	344	309	302	305	362	354	358
21	424	406	415	347	337	341	312	299	309	358	324	340
22	429	423	426	358	346	350	335	311	318	361	343	352
23	425	409	415	353	343	349	338	324	330	370	237	362
24	453	415	429	352	340	347	---	---	---	370	359	363
25	433	417	426	359	348	352	292	272	281	367	359	363
26	458	419	439	375	360	367	316	292	305	363	349	354
27	437	420	429	384	370	377	325	316	319	363	351	359
28	437	419	429	392	374	383	333	324	327	371	354	366
29	---	---	---	398	386	393	352	333	339	390	372	385
30	---	---	---	400	387	394	357	343	349	---	---	---
31	---	---	---	388	343	371	---	---	---	413	406	408
MONTH	458	274	381	457	224	323	357	212	300	413	237	360
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	423	414	418	509	469	491	432	398	411	461	442	449
2	422	408	417	466	377	419	457	435	451	485	460	471
3	414	403	409	431	349	392	469	458	465	521	487	502
4	407	393	402	365	308	346	465	459	462	554	523	540
5	415	384	396	307	279	289	462	456	460	556	550	553
6	417	411	413	373	311	346	449	413	430	565	556	561
7	427	414	423	410	375	397	425	405	416	554	524	535
8	425	414	420	428	410	421	442	425	433	537	530	533
9	421	406	417	434	428	431	445	413	425	521	135	249
10	421	407	414	442	419	428	462	420	438	246	221	232
11	429	420	425	459	426	443	436	393	415	274	239	254
12	435	424	429	421	282	396	447	432	442	284	273	276
13	450	436	445	396	282	336	439	407	421	291	251	276
14	464	451	457	442	367	422	447	440	445	282	170	219
15	462	446	454	399	297	339	486	461	466	224	179	201
16	467	458	461	306	263	285	498	479	489	253	225	237
17	467	457	462	309	263	283	511	508	509	272	254	260
18	458	447	453	349	311	324	511	507	509	272	235	247
19	462	447	452	379	353	371	526	511	518	254	234	242
20	475	462	467	388	379	383	527	523	525	283	251	265
21	478	464	470	401	389	396	524	499	510	291	286	289
22	484	448	471	411	402	407	512	492	498	292	291	291
23	487	435	472	432	412	422	557	514	535	309	293	302
24	436	397	419	437	433	435	559	546	556	311	302	308
25	404	380	393	454	432	439	552	540	545	328	309	318
26	467	407	440	476	457	468	554	542	550	332	328	329
27	466	457	461	488	469	480	541	518	530	347	333	343
28	469	454	459	489	465	478	528	464	500	349	343	345
29	516	473	497	467	434	456	526	465	497	354	345	350
29	516	473	497	467	434	456	526	465	497	354	345	350
30	521	510	516	434	395	420	501	460	475	370	351	364
31	---	---	---	399	376	393	501	443	472	---	---	---
MONTH	521	380	441	509	263	398	559	393	477	565	135	345

01473499 SCHUYLKILL RIVER AT NORRISTOWN DAM AT BRIDGEPORT, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.3	5.3	5.8	8.5	7.5	8.0	12.8	12.2	12.5	13.4	12.9	13.1
2	5.7	4.5	5.1	9.0	8.2	8.6	12.7	12.0	12.3	13.3	12.9	13.1
3	6.1	4.5	5.3	8.8	7.4	8.1	11.6	11.3	11.4	13.3	12.9	13.1
4	5.4	4.6	5.0	8.7	7.6	8.0	11.7	11.3	11.5	13.5	12.8	13.0
5	6.2	5.2	5.9	9.1	7.9	8.5	12.2	11.7	12.0	13.5	12.7	13.0
6	7.2	6.2	7.0	9.4	8.4	8.9	12.7	12.1	12.3	13.3	12.6	12.8
7	7.9	6.7	7.3	9.6	9.2	9.3	12.8	12.4	12.6	13.3	12.6	12.9
8	8.1	6.7	7.5	9.4	9.0	9.2	12.7	12.2	12.3	12.8	12.4	12.6
9	8.7	7.5	8.1	9.2	8.7	9.0	12.4	11.9	12.0	12.9	12.3	12.5
10	8.5	7.3	7.9	9.1	8.5	8.7	11.8	11.6	11.8	12.8	12.4	12.6
11	8.7	7.2	7.9	9.9	9.1	9.4	11.8	11.4	11.5	12.7	12.2	12.4
12	9.0	7.7	8.3	10.4	9.9	10.1	12.2	11.7	11.9	12.7	12.1	12.4
13	8.8	7.7	8.3	10.6	10.1	10.2	12.4	11.8	12.0	12.6	12.2	12.4
14	8.8	7.3	7.8	11.4	10.5	10.9	12.7	12.1	12.3	12.8	12.1	12.4
15	8.2	7.3	7.7	11.7	11.5	11.6	12.7	12.4	12.5	12.8	11.8	12.2
16	8.5	7.5	7.9	11.8	11.4	11.6	12.7	12.3	12.4	12.5	11.7	12.0
17	8.4	7.5	7.9	11.6	10.4	11.0	12.6	11.7	12.1	12.6	11.9	12.2
18	7.9	7.1	7.5	10.7	9.8	10.3	12.1	11.5	11.8	12.9	12.3	12.5
19	8.4	7.6	7.8	10.6	9.9	10.2	11.8	11.6	11.7	12.6	12.4	12.5
20	9.5	8.0	8.6	11.4	10.5	10.9	12.0	11.6	11.8	13.0	12.6	12.8
21	9.4	8.5	9.0	11.7	10.9	11.3	12.2	11.9	12.0	13.2	12.6	12.8
22	9.5	8.2	8.9	12.3	11.7	12.1	13.0	12.1	12.5	13.0	12.5	12.6
23	8.7	7.8	8.2	12.4	11.8	12.1	13.2	12.6	12.8	13.5	12.4	12.7
24	8.9	8.1	8.5	12.3	11.9	12.1	13.1	12.7	12.9	14.0	13.0	13.3
25	8.9	7.8	8.3	12.1	11.8	11.9	12.7	11.5	12.4	14.5	13.6	13.9
26	9.3	8.2	8.8	12.0	11.0	11.7	12.4	12.2	12.3	14.6	13.6	14.0
27	9.1	7.7	8.2	11.6	11.1	11.3	12.5	12.3	12.4	14.4	13.5	13.8
28	8.5	7.5	8.0	11.8	11.4	11.6	12.5	12.5	12.5	14.4	13.3	13.7
29	8.6	7.7	8.1	11.5	11.3	11.4	12.8	12.4	12.6	14.3	13.3	13.7
30	8.6	7.6	8.1	12.3	11.4	11.8	12.9	12.5	12.7	14.4	13.2	13.6
31	8.4	7.3	7.9	---	---	---	13.5	12.6	13.0	13.8	13.0	13.3
MONTH	9.5	4.5	7.6	12.4	7.4	10.3	13.5	11.3	12.2	14.6	11.7	12.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.2	13.3	13.6	15.1	11.8	12.9	9.9	8.4	9.0	8.7	7.7	8.2
2	14.5	13.0	13.6	12.2	11.7	12.0	11.3	9.3	9.8	8.4	7.1	7.6
3	14.1	12.7	13.2	12.5	11.9	12.2	11.3	9.4	10.1	7.7	7.1	7.4
4	13.9	12.5	13.0	12.8	12.3	12.5	11.4	9.6	10.3	8.6	7.5	7.9
5	13.9	12.7	13.0	13.6	12.4	12.8	10.4	10.0	10.2	8.9	8.4	8.6
6	14.1	12.9	13.3	14.1	12.5	13.0	10.8	10.2	10.4	9.1	8.4	8.7
7	14.3	12.8	13.3	14.0	12.3	12.9	10.7	9.4	10.4	9.0	7.5	8.0
8	14.3	12.7	13.2	13.5	11.4	12.4	11.1	9.5	10.3	8.2	6.7	7.2
9	13.8	12.2	12.8	13.1	11.0	11.9	11.5	9.8	10.4	7.6	6.5	7.0
10	14.1	12.5	13.1	13.2	10.9	11.8	12.4	8.3	10.7	7.6	6.6	7.0
11	14.7	13.0	13.6	14.6	11.6	12.5	11.7	9.8	10.6	7.4	6.0	6.6
12	15.0	12.6	13.5	14.6	12.2	13.0	11.2	9.6	10.3	7.0	5.0	6.0
13	13.4	12.3	12.8	15.0	12.1	13.2	10.4	8.6	9.7	6.5	5.6	6.0
14	15.0	12.7	13.5	15.1	12.1	13.2	11.6	9.5	10.3	7.0	5.6	6.3
15	15.0	13.3	13.9	15.2	11.8	13.0	11.5	9.1	9.9	7.1	5.6	6.5
16	15.5	13.9	14.9	15.3	11.7	13.1	10.3	9.0	9.5	6.6	5.7	6.3
17	16.0	13.8	14.8	14.5	11.4	12.4	10.0	9.4	9.7	7.5	5.9	6.7
18	16.0	14.0	14.9	15.1	11.3	12.7	10.1	9.3	9.6	7.0	5.0	6.1
19	16.1	13.2	14.5	14.6	10.9	12.4	10.3	9.1	9.5	6.6	5.0	5.6
20	15.8	13.0	14.3	14.6	10.7	12.4	10.5	9.1	9.6	7.0	5.6	6.3
21	15.6	12.7	14.1	13.9	10.4	11.9	10.0	8.1	9.2	7.7	6.9	7.2
22	16.0	12.7	14.3	13.9	9.4	11.8	10.4	8.0	9.0	7.8	6.5	7.0
23	15.6	12.4	13.8	14.5	10.8	12.5	10.5	7.0	8.1	8.6	5.4	6.4
24	15.5	12.6	13.8	14.8	10.0	12.0	---	---	---	6.0	5.5	5.7
25	16.1	12.6	14.1	14.4	9.9	11.8	8.6	7.9	8.2	6.1	5.2	5.6
26	15.9	12.3	14.0	13.8	9.3	11.5	8.7	7.9	8.2	6.0	5.3	5.6
27	15.9	12.1	13.9	13.3	9.0	11.0	8.7	7.9	8.1	6.3	5.5	5.9
28	16.1	12.0	13.9	12.4	8.3	10.3	8.7	7.6	8.1	6.4	5.9	6.3
29	---	---	---	12.3	8.5	10.1	8.8	7.8	8.2	6.9	6.3	6.6
30	---	---	---	12.2	7.7	9.9	8.9	8.0	8.4	---	---	---
31	---	---	---	9.8	7.3	8.4	---	---	---	5.3	3.9	4.9
MONTH	16.1	12.0	13.7	15.3	7.3	12.0	11.4	7.0	9.5	9.1	3.9	6.7

01473499 SCHUYLKILL RIVER AT NORRISTOWN DAM AT BRIDGEPORT, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.3	3.6	4.3	6.6	4.1	5.4	6.0	4.8	5.5	5.1	4.9	5.0
2	5.2	3.6	4.4	4.7	3.5	4.2	6.1	5.7	5.9	5.3	5.1	5.2
3	4.9	3.2	3.8	5.4	4.4	4.9	6.7	4.8	5.7	5.8	5.3	5.5
4	4.6	3.0	3.7	5.4	4.3	5.0	5.0	3.3	4.3	5.9	5.6	5.7
5	5.3	4.3	5.0	4.3	3.4	3.7	3.5	3.3	3.4	7.6	5.9	6.5
6	5.8	4.8	5.4	3.7	3.5	3.6	4.4	3.4	3.8	7.7	7.4	7.5
7	6.3	4.9	5.5	8.3	3.2	5.2	4.9	4.3	4.5	8.0	7.6	7.8
8	6.9	4.7	5.7	8.4	4.2	5.9	5.2	4.9	5.0	8.0	6.1	7.4
9	6.8	5.1	6.0	4.2	4.0	4.2	5.7	3.5	5.5	9.7	5.4	7.4
10	7.6	4.5	6.1	4.9	3.2	4.4	5.0	3.8	4.9	8.6	7.9	8.2
11	6.9	5.6	6.3	5.1	4.5	4.8	5.3	4.9	5.1	8.1	7.9	8.0
12	6.3	5.4	5.8	5.1	3.4	4.7	5.3	4.5	5.2	8.1	8.0	8.1
13	6.6	4.4	5.8	5.2	4.7	4.9	5.2	4.0	4.8	---	---	---
14	6.4	5.0	5.7	5.2	4.9	5.1	4.7	4.6	4.7	---	---	---
15	8.3	4.7	6.5	5.0	4.5	4.9	4.8	4.4	4.7	9.0	8.0	8.5
16	6.8	3.7	5.4	5.3	4.5	4.9	4.4	3.9	4.2	---	---	---
17	6.3	2.6	4.6	5.2	5.0	5.2	4.7	4.3	4.6	---	---	---
18	5.9	3.4	4.7	5.2	4.4	5.0	5.4	4.4	4.7	8.2	7.8	7.9
19	5.7	3.3	4.4	5.1	4.7	5.0	4.6	3.2	4.3	8.3	7.9	8.1
20	4.8	2.8	4.1	5.1	5.0	5.0	4.7	3.3	4.2	8.7	7.4	7.9
21	4.4	1.8	3.2	4.9	4.6	4.8	4.4	3.7	4.0	7.8	7.4	7.6
22	3.2	1.4	2.0	4.8	4.5	4.7	4.3	3.5	3.9	8.6	7.4	7.9
23	3.8	1.5	2.5	4.8	4.2	4.4	6.0	3.9	4.5	8.8	8.3	8.5
24	4.6	3.6	4.1	4.7	4.3	4.6	6.0	4.2	5.2	8.5	7.8	8.1
25	4.6	3.8	4.3	4.5	4.4	4.5	5.3	3.5	4.6	8.5	7.6	7.9
26	5.2	3.7	4.3	4.4	4.3	4.4	4.3	3.3	4.0	8.1	7.2	7.7
27	3.9	2.9	3.3	4.5	3.6	4.3	5.1	3.6	4.3	7.5	6.9	7.2
28	4.4	2.6	3.5	4.4	4.1	4.2	5.2	4.8	5.0	7.4	6.8	6.9
29	5.8	3.7	4.6	4.2	3.1	3.7	5.0	4.2	4.7	7.4	6.6	6.9
30	6.7	4.2	5.5	3.7	3.1	3.4	4.9	4.5	4.6	7.9	6.7	7.3
31	---	---	---	5.2	3.3	3.9	5.1	4.7	4.9	---	---	---
[illegible]	8.3	1.4	4.7	8.4	3.1	4.6	6.7	3.2	4.7	9.7	4.9	7.3

01473675 SCHUYLKILL RIVER AT PLYMOUTH DAM, PA

LOCATION.--Lat 40°04'28", long 75°19'01", Montgomery County, Hydrological Unit 02040203, on right bank, 100 feet upstream of Plymouth Dam, 0.5 mi north of West Conchohocken.

DRAINAGE AREA.--Not Determined.

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
DISSOLVED OXYGEN: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 630 microsiemens, Spet. 10, 1986; minimum, 76 microsiemens, June 25, 1986.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L, September 19, 1986; minimum, 2.1 mg/L, July 6, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 604 microsiemens, Nov. 9; minimum, 142 microsiemens, Sept. 9.
DISSOLVED OXYGEN: Maximum, 14.7 mg/L, Feb. 10, 19, 23; minimum, 2.6 mg/L, June 17.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	505	481	489	546	515	528	299	287	294	353	307	313
2	---	---	---	548	530	541	306	286	299	351	315	334
3	---	---	---	543	527	533	263	230	247	330	313	319
4	510	478	495	556	532	541	271	238	254	349	329	342
5	476	343	445	568	535	558	290	271	281	348	331	339
6	441	319	365	513	450	478	299	281	286	346	335	340
7	321	302	310	498	450	482	304	290	294	355	342	344
8	323	312	320	486	400	432	305	296	301	363	349	356
9	328	318	324	604	427	523	306	294	301	374	353	363
10	489	329	413	602	527	575	293	283	288	382	359	371
11	486	470	477	---	---	---	328	286	300	375	354	363
12	481	473	476	366	342	355	324	303	314	390	352	363
13	494	482	489	377	355	359	342	318	329	391	362	378
14	503	487	494	399	382	394	351	326	336	370	357	362
15	534	500	524	402	393	396	351	338	342	379	362	373
16	523	500	510	410	399	404	358	345	349	385	360	372
17	517	496	505	425	402	410	372	353	361	382	364	372
18	514	501	508	425	409	415	388	276	359	407	369	381
19	511	506	509	385	310	340	268	241	253	395	304	357
20	521	511	517	333	306	320	296	274	286	311	289	297
21	527	504	514	316	226	257	297	286	290	357	289	327
22	543	511	525	277	255	266	336	294	301	368	357	363
23	559	543	550	297	276	288	310	295	303	369	348	357
24	570	554	561	295	289	291	319	283	312	372	347	359
25	562	550	556	306	292	298	274	166	191	377	359	367
26	558	545	553	322	202	295	242	193	221	380	367	373
27	552	541	547	239	191	212	259	244	253	385	373	381
28	554	542	548	274	268	271	262	255	256	389	377	382
29	568	546	559	290	274	280	275	263	266	409	390	399
30	548	528	540	296	290	293	290	275	282	417	399	411
31	526	508	516	---	---	---	308	291	300	437	416	426
MONTH	570	302	488	604	191	376	388	166	292	437	289	361

01473675 SCHUYLKILL RIVER AT PLYMOUTH DAM, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	427	407	416	475	210	383	369	314	335	373	353	360
2	421	414	417	297	185	235	367	334	357	368	359	362
3	447	429	438	297	283	291	385	368	374	379	362	369
4	445	413	427	297	274	283	391	208	304	361	340	354
5	431	391	408	291	272	280	255	204	224	339	331	335
6	409	395	400	292	275	283	262	210	231	354	334	339
7	414	399	406	302	289	295	231	206	219	363	344	353
8	407	390	398	301	286	292	238	228	234	363	354	358
9	413	391	399	294	279	287	252	239	244	368	350	359
10	425	395	410	292	283	286	272	254	264	369	353	359
11	427	404	415	296	280	289	284	270	276	368	348	354
12	448	407	421	299	290	294	288	274	280	380	355	365
13	443	423	433	307	293	298	294	279	286	381	363	368
14	440	422	431	312	293	300	297	286	290	393	368	378
15	430	413	422	326	307	311	306	294	299	415	393	400
16	425	405	412	339	314	323	321	305	313	414	394	403
17	415	405	409	335	309	319	329	315	320	406	385	396
18	420	402	410	343	328	335	325	305	312	403	385	392
19	440	409	418	358	336	342	316	308	312	394	377	383
20	436	424	430	364	346	355	321	312	315	393	362	370
21	447	428	434	369	344	355	328	318	322	373	334	354
22	457	443	449	385	350	361	335	327	330	374	355	363
23	464	442	450	376	357	368	350	339	344	383	370	376
24	467	454	461	379	353	364	356	319	344	383	367	374
25	472	438	454	377	353	363	336	282	300	377	364	370
26	494	444	463	384	368	375	334	301	318	376	357	366
27	470	432	435	392	371	379	338	324	331	374	359	365
28	456	428	441	413	382	392	348	325	337	377	362	370
29	---	---	---	409	383	396	360	343	349	389	377	384
30	---	---	---	428	391	402	375	359	367	406	386	396
31	---	---	---	421	362	390	---	---	---	415	406	410
MONTH	494	390	425	475	185	330	391	204	304	415	331	370

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	428	414	422	524	487	513	411	392	400	508	465	486
2	432	421	426	481	384	427	448	413	429	478	464	471
3	423	417	419	434	379	406	476	452	465	504	479	491
4	419	375	409	376	361	371	485	477	481	536	506	520
5	406	363	392	358	295	323	486	445	474	566	538	554
6	423	398	416	352	295	315	447	417	432	566	558	563
7	437	420	427	397	355	375	451	431	440	564	549	561
8	444	424	434	429	400	417	454	442	446	546	532	538
9	446	425	432	444	431	439	475	447	466	532	142	267
10	440	416	425	437	428	432	465	435	442	244	223	233
11	435	423	430	463	430	446	448	417	433	274	239	257
12	441	429	434	462	382	446	474	439	455	298	276	285
13	454	435	445	361	322	339	474	450	461	306	267	285
14	463	447	454	426	364	393	464	445	455	290	175	230
15	468	456	462	401	311	358	480	466	475	229	180	202
16	469	454	461	319	288	309	570	482	497	258	231	241
17	471	463	467	292	272	282	531	510	523	283	261	268
18	490	465	474	335	294	318	546	531	538	286	245	258
19	485	478	481	382	336	355	543	536	539	258	241	248
20	494	477	487	408	384	396	553	538	548	286	249	267
21	498	420	489	416	397	404	558	525	539	---	---	---
22	463	422	449	427	412	416	538	513	525	---	---	---
23	504	491	499	431	422	425	531	512	519	---	---	---
24	487	435	450	449	431	442	564	535	552	324	313	318
25	448	399	420	450	446	448	575	556	567	338	320	328
26	467	419	437	463	443	451	563	554	557	343	331	338
27	496	470	484	475	464	469	554	509	538	366	336	347
28	495	467	475	484	474	481	516	448	494	364	349	353
29	503	468	483	481	460	467	530	490	508	372	356	362
30	541	504	518	462	429	447	520	481	500	378	355	367
31	---	---	---	428	394	409	512	487	502	---	---	---
MONTH	541	363	450	524	272	404	575	392	490	566	142	357

01473675 SCHUYLKILL RIVER AT PLYMOUTH DAM, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	5.9	6.3	8.7	8.0	8.3	12.8	12.3	12.5	12.6	10.8	11.6
2	6.7	5.1	5.8	8.6	7.7	8.1	12.9	11.2	12.0	14.2	11.7	12.3
3	6.2	5.4	5.7	9.1	8.2	8.5	11.7	11.1	11.4	12.1	9.2	10.4
4	6.6	5.5	6.0	9.2	7.8	8.2	12.2	11.5	11.9	12.0	8.2	9.8
5	7.5	6.0	6.5	9.1	8.0	8.6	12.0	11.5	11.8	13.8	11.4	12.5
6	8.2	6.8	7.2	9.9	9.1	9.6	12.6	11.9	12.2	14.6	9.8	11.9
7	8.8	7.4	7.9	10.3	9.8	10.0	12.5	12.2	12.4	12.6	11.5	12.1
8	8.5	7.5	8.0	9.8	9.5	9.6	12.4	12.0	12.2	13.0	11.9	12.5
9	9.0	7.9	8.3	9.6	8.9	9.3	12.1	11.5	11.8	12.4	11.1	11.9
10	8.8	7.8	8.4	9.3	9.0	9.1	11.6	9.8	10.8	11.7	11.2	11.4
11	8.9	7.7	8.2	10.1	9.2	9.6	12.0	9.9	10.7	---	---	---
12	9.1	8.0	8.5	10.8	10.2	9.4	12.4	10.9	11.8	12.4	12.1	12.3
13	9.1	7.8	8.2	11.1	10.4	10.5	12.8	11.7	12.3	12.4	12.1	12.3
14	7.9	7.0	7.5	11.9	11.2	11.6	13.6	11.8	12.5	---	---	---
15	8.5	7.0	7.6	12.1	11.7	11.9	13.1	12.3	12.8	---	---	---
16	8.4	7.6	8.0	11.8	11.4	11.6	13.0	11.6	12.3	---	---	---
17	8.3	7.6	7.8	11.4	10.8	11.2	11.9	10.8	11.5	12.4	11.6	12.2
18	8.6	7.9	8.2	10.9	10.2	10.7	11.9	10.6	11.2	12.3	12.0	12.1
19	8.9	7.9	8.3	11.2	10.0	10.8	11.9	9.7	10.8	12.0	11.3	11.6
20	8.9	8.3	8.6	11.2	11.0	11.2	11.9	9.6	11.1	13.2	11.8	12.2
21	9.4	8.5	8.8	11.8	10.9	11.3	12.1	11.8	11.9	12.6	11.7	12.3
22	10.0	4.8	9.1	12.3	10.4	11.3	13.3	12.1	12.6	12.6	11.7	12.1
23	10.0	8.2	8.9	12.4	10.1	11.4	13.8	13.3	13.5	11.9	11.6	11.7
24	9.0	7.8	8.5	12.2	11.9	12.0	13.9	11.3	13.0	11.8	11.5	11.7
25	9.3	8.2	8.6	12.0	11.8	11.9	13.0	11.4	12.2	11.9	11.6	11.8
26	9.3	8.0	8.5	11.9	10.3	11.5	12.3	11.4	11.9	13.2	11.9	12.5
27	8.5	8.2	8.4	11.8	10.9	11.3	12.4	11.2	11.9	13.7	11.6	12.0
28	8.9	7.8	8.2	10.6	10.1	10.3	12.0	11.2	11.5	---	---	---
29	8.9	8.1	8.5	12.9	11.1	11.7	12.2	11.1	11.6	---	---	---
30	8.9	7.8	8.3	13.0	12.3	12.7	11.8	10.8	11.3	---	---	---
31	8.9	7.8	8.3	---	---	---	11.9	10.5	11.2	---	---	---
MONTH	10.0	4.8	7.9	13.0	7.7	10.4	13.9	9.6	11.9	14.6	8.2	11.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	13.0	11.3	11.9	9.5	8.4	9.1	8.3	7.8	8.0
2	---	---	---	13.3	12.5	12.8	10.1	9.1	9.5	7.7	7.3	7.6
3	---	---	---	12.9	12.5	12.7	10.6	9.1	9.8	7.6	6.9	7.2
4	12.5	11.4	11.6	13.5	12.6	13.1	9.8	8.9	9.4	8.3	7.2	7.7
5	13.2	11.6	12.4	13.6	12.8	13.2	10.1	9.5	9.7	8.7	8.4	8.6
6	13.8	13.2	13.4	13.2	12.4	12.8	10.7	10.1	10.5	8.7	8.1	8.5
7	13.6	13.1	13.4	12.4	11.4	12.0	10.7	10.6	10.6	8.1	7.1	7.9
8	13.4	12.6	12.9	11.5	11.0	11.3	11.0	10.6	10.7	7.3	6.8	7.1
9	13.2	12.0	12.5	11.3	10.7	10.9	10.6	10.0	10.3	7.5	6.5	7.0
10	14.7	10.5	12.6	12.1	11.3	11.5	10.8	9.9	10.3	7.5	6.4	6.9
11	14.2	10.8	12.4	12.8	11.9	12.3	10.6	9.5	10.0	7.3	6.3	6.8
12	14.6	12.7	14.0	12.6	11.8	12.2	10.3	9.3	9.7	8.6	5.6	6.2
13	15.2	13.9	14.5	12.8	12.1	12.5	10.3	8.9	9.6	7.1	5.1	6.1
14	15.2	12.1	13.8	12.9	11.6	12.1	10.7	9.5	10.0	7.3	5.7	6.5
15	14.6	12.8	13.7	12.5	11.7	12.1	9.8	9.0	9.5	6.6	5.6	6.1
16	14.2	11.7	13.1	12.4	11.3	12.0	9.5	8.9	9.2	7.6	5.7	6.6
17	15.6	13.0	14.3	12.3	10.4	11.3	9.6	9.0	9.3	7.7	6.2	6.9
18	15.5	13.5	14.4	12.9	10.3	11.6	9.6	9.2	9.4	7.1	5.8	6.4
19	14.7	12.8	13.9	13.5	10.3	11.7	9.6	8.7	9.3	6.3	5.4	5.9
20	14.4	13.1	13.8	13.4	10.0	11.5	9.7	8.3	9.1	7.2	6.2	6.7
21	15.2	13.5	14.5	13.3	9.7	11.2	9.3	7.7	8.6	7.8	7.1	7.5
22	15.0	14.4	14.7	13.8	9.7	11.6	8.9	7.7	8.2	7.5	6.7	7.3
23	14.7	14.2	14.6	14.3	9.8	11.7	8.5	7.6	8.1	6.8	6.1	6.5
24	15.1	12.6	13.7	14.5	9.4	11.6	7.9	6.9	7.4	6.9	5.8	6.3
25	13.2	11.8	12.5	13.3	8.6	11.2	8.8	7.7	8.6	7.0	5.9	6.4
26	12.3	10.2	11.7	12.8	8.4	10.0	8.7	8.2	8.5	7.1	6.2	6.5
27	11.8	11.5	11.7	12.8	8.1	9.8	8.6	8.2	8.4	7.2	6.1	6.6
28	11.9	11.5	11.7	12.1	7.8	9.9	8.3	7.8	8.1	7.8	6.4	6.9
29	---	---	---	12.2	7.3	9.4	8.3	7.7	8.0	6.9	5.9	6.4
30	---	---	---	10.7	7.4	8.9	8.4	7.7	8.1	6.7	5.1	5.8
31	---	---	---	8.3	7.3	7.8	---	---	---	5.7	4.3	4.7
MONTH	15.6	10.2	13.3	14.5	7.3	11.4	11.0	6.9	9.2	8.7	4.3	6.8

01473675 SCHUYLKILL RIVER AT PLYMOUTH DAM, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	5.9	4.0	4.7	6.4	4.3	5.4	6.0	3.7	4.9	6.5	5.6	6.0
2	5.6	3.5	4.5	6.1	3.8	4.5	6.2	3.9	5.0	6.5	5.2	5.9
3	5.4	3.6	4.5	5.9	3.9	4.9	6.6	4.4	5.5	6.7	5.3	6.1
4	5.3	4.4	4.8	5.2	4.6	4.8	5.6	3.8	4.7	6.7	5.4	6.1
5	6.3	5.0	5.5	4.8	3.8	4.2	5.6	3.8	4.9	6.6	5.4	6.1
6	6.5	5.0	5.6	5.1	3.2	4.0	5.2	3.9	4.6	6.8	5.3	6.0
7	6.6	5.2	5.7	5.1	3.8	4.3	5.5	4.0	4.5	6.5	5.4	5.9
8	6.9	5.2	5.9	5.3	4.0	4.4	6.1	4.7	5.3	6.6	5.3	5.8
9	6.8	5.2	5.7	6.3	3.8	4.7	---	---	---	6.6	3.8	5.6
10	7.5	5.4	6.2	5.1	3.6	4.5	5.3	3.7	4.5	7.3	6.4	7.1
11	10.0	6.8	8.4	5.4	3.7	4.4	5.5	3.9	4.5	7.6	7.1	7.3
12	9.9	6.3	8.2	5.4	3.5	4.4	5.5	3.6	4.5	7.5	7.0	7.2
13	9.6	7.7	8.8	4.5	3.1	3.7	5.6	3.3	4.6	7.6	7.2	7.3
14	8.4	5.7	6.9	5.2	3.1	3.9	5.8	4.3	5.1	8.4	6.8	7.7
15	7.7	4.2	5.8	5.7	4.5	5.2	5.8	3.9	4.8	8.6	8.0	8.3
16	7.5	4.2	5.5	5.6	5.4	5.5	---	---	---	8.2	7.7	7.9
17	6.1	2.6	4.8	5.6	4.9	5.2	5.7	3.9	4.6	7.7	7.3	7.5
18	5.7	3.4	4.5	6.1	4.6	5.2	5.2	4.0	4.5	7.7	7.3	7.5
19	5.1	3.6	4.5	6.1	4.6	5.3	5.3	3.7	4.5	8.1	7.5	7.8
20	5.0	3.5	4.3	6.2	4.7	5.3	5.2	3.7	4.5	8.1	7.9	8.0
21	4.7	3.1	4.0	5.9	4.7	5.3	5.4	3.7	4.7	---	---	---
22	4.1	3.2	3.4	6.0	4.2	5.1	5.5	3.7	4.6	---	---	---
23	4.7	2.8	3.7	5.8	4.2	5.2	5.6	4.1	4.6	---	---	---
24	5.8	4.4	5.0	5.9	4.1	5.2	5.8	4.3	5.1	7.8	7.6	7.7
25	5.7	4.3	4.9	5.9	4.1	5.3	6.1	4.7	5.3	7.7	7.5	7.7
26	5.2	3.9	4.5	5.8	3.2	4.6	6.3	4.7	5.4	7.9	7.5	7.7
27	5.3	3.6	4.3	6.1	4.3	5.2	6.6	4.9	5.8	8.2	7.6	7.8
28	5.2	3.4	4.2	7.0	4.0	5.7	6.9	5.8	6.3	8.1	7.6	7.8
29	6.5	3.9	5.0	6.9	4.7	5.9	7.1	5.7	6.6	8.0	7.6	7.7
30	6.3	4.2	5.2	6.3	3.8	5.0	7.6	6.3	6.8	7.5	7.2	7.3
31	---	---	---	5.8	3.6	4.8	7.5	5.4	6.4	---	---	---
MONTH	10.0	2.6	5.3	7.0	3.1	4.9	7.6	3.3	5.1	8.6	3.8	7.1

01473780 SCHUYLKILL RIVER AT FLAT ROCK DAM AT WEST MANAYUNK, PA

LOCATION.--Lat 40°02"23", long 75°14'56", Montgomery County, Hydrologic Unit 02040203, on right bank, 100 ft upstream of Flat ROck Dam, 1 mi morthwest of West Manayunk.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1985 to current year.
DISSOLVED OXYGEN: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

REMARKS.--Interruptions in record due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 616 microsiemens, Sept. 22, 1986; minimum, 99 microsiemens, Feb. 21, 1986,
DISSOLVED OXYGEN: Maximum, 15.5 mg/L, Dec. 27, 1985; minimum, 2.4 mg/L, April 29, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 564 microsiemens, Aug. 26; minimum, 135 microsiemens, Dec. 25.
DISSOLVED OXYGEN: Maximum, 14.7 mg/L, Dec. 30; minimum, 2.5 mg/L, Sept. 9.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	492	478	488	537	515	528	257	232	247	309	271	276
2	495	468	478	520	510	514	279	219	252	345	306	330
3	506	474	492	533	515	524	272	206	250	323	304	309
4	512	472	484	516	500	507	236	205	221	337	310	325
5	525	492	514	505	489	498	251	230	242	329	315	321
6	491	448	460	496	423	453	254	247	250	340	327	332
7	451	433	440	442	413	429	279	254	268	342	338	340
8	432	398	414	440	404	417	372	206	268	352	334	345
9	436	418	428	430	396	412	277	263	267	352	340	346
10	447	433	441	401	387	393	279	271	275	352	340	345
11	470	449	460	388	345	367	304	271	283	343	328	336
12	464	458	461	350	269	325	312	300	305	328	307	317
13	462	450	457	354	333	343	316	303	309	335	311	326
14	467	426	449	387	355	374	320	302	311	311	303	306
15	473	460	465	387	379	383	308	300	305	319	308	313
16	479	473	477	396	378	385	303	294	300	326	310	315
17	488	477	482	404	388	398	313	303	309	322	301	311
18	486	476	480	426	364	412	328	261	316	342	288	320
19	489	481	485	374	260	319	250	201	214	330	261	298
20	491	482	487	271	232	258	247	213	239	258	226	240
21	495	487	492	224	183	198	245	234	241	287	234	253
22	496	485	492	249	207	233	250	243	247	290	284	288
23	502	484	492	---	---	---	245	240	242	283	265	272
24	528	488	516	---	---	---	254	207	246	276	255	265
25	487	448	464	249	211	241	219	135	158	271	264	267
26	446	385	412	250	222	246	225	149	190	274	265	270
27	393	371	380	189	164	177	241	222	234	280	270	274
28	375	360	367	227	190	214	240	236	238	280	274	277
29	369	361	364	239	219	229	246	240	243	301	276	286
30	370	359	366	255	241	251	260	246	254	332	299	311
31	555	346	438	---	---	---	274	259	267	333	327	330
MONTH	555	346	456	537	164	358	372	135	258	352	226	305

01473780 SCHUYLKILL RIVER AT FLAT ROCK DAM AT WEST MANAYUNK, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETERS AT 25°, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	328	322	324	438	206	362	360	296	327	349	346	347
2	344	315	328	284	189	228	333	305	319	351	331	345
3	355	345	349	291	274	282	347	333	342	353	334	346
4	351	325	337	290	277	285	346	186	276	362	339	350
5	325	301	316	289	275	282	234	189	209	340	326	330
6	310	295	304	281	270	276	239	196	222	329	320	324
7	315	303	309	290	273	283	217	197	204	338	330	334
8	311	297	305	285	280	283	224	217	221	351	339	345
9	305	280	299	283	272	279	235	228	232	354	344	350
10	313	295	303	280	272	277	255	233	245	352	346	349
11	316	303	311	284	277	282	265	255	261	352	342	346
12	348	305	322	288	278	281	269	262	265	354	343	351
13	367	347	354	291	282	286	268	262	265	370	353	363
14	348	327	336	292	284	289	277	272	275	370	357	365
15	326	269	306	298	292	296	282	275	280	393	353	378
16	299	269	287	311	297	306	300	284	292	405	370	392
17	287	278	283	311	304	306	307	300	303	406	390	399
18	315	283	302	323	306	312	311	298	304	400	381	390
19	340	318	327	330	324	328	305	301	302	395	380	386
20	418	341	391	339	330	335	301	276	291	374	357	367
21	420	409	415	347	336	344	308	273	289	366	347	360
22	431	417	422	346	337	341	318	302	311	368	336	353
23	448	421	429	359	340	350	337	318	328	380	360	365
24	468	444	456	357	343	352	338	330	335	386	378	381
25	447	425	434	358	334	351	329	255	289	391	384	388
26	440	426	435	364	349	357	355	334	346	397	389	394
27	458	435	447	385	364	376	311	310	310	395	384	390
28	440	428	435	397	366	384	323	311	318	402	391	398
29	---	---	---	393	350	372	333	322	328	419	400	411
30	---	---	---	393	376	387	353	334	345	438	417	431
31	---	---	---	375	346	365	---	---	---	426	420	422
MONTH	468	269	352	438	189	317	360	186	288	438	320	369

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	438	428	433	518	499	503	458	426	446	504	485	492
2	446	429	438	518	411	465	426	417	421	508	485	501
3	442	422	431	420	369	395	448	423	433	482	474	477
4	429	380	416	418	370	390	485	447	466	492	477	483
5	389	313	365	373	354	369	492	484	489	524	496	505
6	394	372	384	353	299	325	---	---	---	549	526	537
7	408	403	406	337	297	310	---	---	---	557	536	549
8	421	408	415	379	337	360	---	---	---	560	517	540
9	421	414	417	408	318	381	---	---	---	519	141	284
10	424	413	416	---	---	---	---	---	---	245	223	231
11	416	405	410	---	---	---	---	---	---	257	230	237
12	414	409	411	---	---	---	---	---	---	272	258	267
13	412	405	408	---	---	---	---	---	---	268	222	255
14	414	409	411	---	---	---	---	---	---	284	173	236
15	422	411	417	---	---	---	---	---	---	211	173	190
16	423	417	418	---	---	---	---	---	---	239	212	226
17	458	414	439	314	282	297	---	---	---	257	241	250
18	476	446	460	296	278	285	496	484	488	257	241	252
19	---	---	---	336	299	318	503	493	497	254	239	246
20	476	441	471	362	336	348	503	500	502	269	240	253
21	465	424	442	395	362	384	516	508	512	291	270	284
22	---	---	---	407	395	400	521	512	518	292	289	291
23	489	435	456	415	407	412	521	517	519	303	292	296
24	495	436	475	422	413	418	517	509	513	308	304	306
25	434	422	429	441	419	429	551	517	529	314	307	311
26	422	399	414	447	438	443	564	551	558	335	321	328
27	428	425	427	468	441	453	563	537	547	343	334	336
28	475	454	470	482	467	474	541	467	505	354	344	351
29	473	463	467	491	481	486	480	428	455	360	350	355
30	487	467	477	491	478	486	517	480	498	358	353	356
31	---	---	---	479	459	475	517	487	508	---	---	---
MONTH	495	313	429	518	278	400	564	417	495	560	141	341

01473780 SCHUYLKILL RIVER AT FLAT ROCK DAM AT WEST MANAYUNK, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	6.3	5.8	6.1	8.0	7.7	7.8	11.8	11.1	11.6	12.6	12.2	12.4
2	5.7	5.0	5.4	8.1	7.8	7.9	12.2	10.1	11.3	12.8	12.2	12.5
3	5.5	4.8	5.2	8.0	7.9	7.9	11.3	9.2	10.7	13.0	12.5	12.9
4	5.2	4.7	4.9	8.3	7.9	8.1	11.9	11.3	11.6	13.0	12.8	12.9
5	5.7	5.2	5.5	8.4	8.0	8.2	12.0	11.7	11.8	13.0	12.6	12.8
6	6.6	5.7	6.3	9.6	8.3	9.1	12.2	12.0	12.1	13.0	12.4	12.6
7	6.9	6.5	6.7	10.1	9.6	9.9	12.3	11.6	12.3	12.5	12.2	12.3
8	7.4	6.5	7.0	10.0	9.6	9.9	12.4	11.1	11.7	12.7	12.1	12.4
9	7.4	7.1	7.2	9.6	9.3	9.5	12.1	11.3	12.0	12.7	12.5	12.6
10	7.6	7.1	7.4	9.4	9.2	9.2	11.9	10.0	11.1	12.5	12.4	12.4
11	7.6	7.3	7.4	9.9	9.4	9.6	11.7	11.6	11.7	12.4	12.2	12.3
12	8.1	7.3	7.6	10.5	9.9	10.3	11.9	11.7	11.8	12.4	12.2	12.3
13	7.8	7.6	7.8	10.9	10.5	10.7	12.1	11.8	12.0	12.5	12.2	12.3
14	7.6	7.2	7.4	11.3	10.8	11.1	12.4	12.1	12.3	12.5	12.2	12.3
15	7.6	7.3	7.5	11.6	11.3	11.5	13.1	12.2	12.6	12.2	11.9	12.1
16	7.9	7.6	7.8	11.6	11.4	11.5	13.0	12.8	12.9	12.0	11.7	11.9
17	7.9	7.6	7.7	11.4	11.0	11.2	12.8	12.6	12.7	12.3	11.9	12.1
18	7.7	7.3	7.6	11.0	10.4	10.7	12.6	11.9	12.3	12.2	9.9	11.3
19	7.8	7.5	7.6	10.6	10.2	10.4	12.5	12.0	12.2	12.8	10.0	11.5
20	8.2	7.5	7.9	11.6	10.5	11.0	12.5	12.4	12.5	13.2	12.7	13.0
21	8.0	7.8	7.9	12.7	9.5	11.0	12.6	12.5	12.5	13.0	12.7	12.8
22	8.2	7.8	7.9	12.3	10.1	11.4	12.6	12.4	12.5	12.9	12.6	12.7
23	8.2	7.9	8.0	---	---	---	13.0	12.4	12.7	13.0	12.7	12.9
24	8.1	7.5	7.8	---	---	---	13.0	12.4	12.8	13.8	13.0	13.5
25	7.5	7.4	7.5	12.2	11.4	11.8	14.3	9.8	12.8	14.1	13.7	13.9
26	7.8	7.3	7.6	11.4	10.3	11.0	13.4	11.2	12.7	13.9	13.7	13.9
27	7.9	7.7	7.8	10.7	10.3	10.4	12.2	11.0	11.8	13.9	13.7	13.8
28	8.4	7.8	8.2	11.2	10.4	10.9	11.5	10.9	11.3	13.9	13.6	13.7
29	8.2	7.9	8.1	10.8	10.5	10.7	12.8	10.8	11.8	13.8	13.6	13.7
30	8.2	7.9	8.0	11.6	10.4	11.1	14.7	12.4	12.7	13.8	13.4	13.5
31	8.0	7.6	7.8	---	---	---	12.7	12.4	12.6	13.4	13.0	13.1
MONTH	8.4	4.7	7.2	12.7	7.7	10.1	14.7	9.2	12.1	14.1	9.9	12.7

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	13.6	13.0	13.2	12.8	4.6	11.5	9.5	8.5	9.2	8.6	8.3	8.5
2	13.6	12.8	13.0	11.8	4.4	9.4	10.0	9.1	9.6	8.5	8.0	8.2
3	12.9	12.4	12.6	12.3	8.2	10.0	10.6	9.6	10.1	8.1	7.8	7.9
4	12.7	12.2	12.4	12.8	9.7	12.4	10.2	4.6	9.2	8.7	8.0	8.3
5	12.8	12.4	12.6	12.8	12.5	12.7	11.3	5.1	8.0	9.2	8.8	9.1
6	13.0	12.5	12.8	12.8	12.3	12.5	11.5	11.0	11.2	9.4	9.1	9.3
7	12.9	12.4	12.6	12.5	11.9	12.4	11.3	10.3	10.9	9.0	8.5	8.7
8	12.7	12.2	12.4	11.9	11.4	11.8	10.7	9.9	10.2	8.3	7.8	7.9
9	12.6	12.1	12.3	11.5	11.0	11.3	11.9	9.5	10.0	7.8	7.2	7.4
10	13.1	12.3	12.6	11.8	11.0	11.3	10.1	9.0	9.6	7.6	7.2	7.4
11	13.1	12.5	12.8	12.6	11.5	12.0	10.7	9.3	9.8	7.6	7.1	7.3
12	13.0	12.4	12.6	12.7	12.0	12.4	10.0	9.1	9.7	7.2	6.1	6.7
13	13.1	12.2	12.6	12.8	11.5	12.2	10.1	9.2	9.7	6.9	6.3	6.6
14	13.5	12.6	12.9	13.0	11.9	12.6	10.2	9.1	9.8	7.1	6.7	6.8
15	13.5	12.9	13.2	12.9	11.6	12.2	9.7	8.9	9.5	7.2	6.4	6.7
16	14.1	13.4	13.7	13.1	11.5	12.2	9.7	8.9	9.4	7.4	6.0	6.8
17	14.1	13.6	13.9	12.9	11.5	12.2	9.7	8.9	9.4	7.4	7.1	7.3
18	14.2	13.2	13.7	13.0	11.2	12.0	9.6	8.8	9.2	7.7	6.8	7.2
19	13.6	13.0	13.3	12.8	10.9	11.8	9.1	8.1	8.7	7.0	6.3	6.7
20	13.7	12.9	13.3	12.6	10.7	11.6	10.4	7.7	8.7	7.5	6.9	7.1
21	13.4	12.9	13.2	12.1	10.3	10.9	10.1	7.1	8.3	8.2	7.6	7.9
22	14.4	12.6	13.2	12.3	10.4	11.1	9.2	8.0	8.6	8.1	7.8	7.9
23	13.0	12.2	12.6	12.3	10.6	11.4	9.4	7.3	8.5	7.8	6.9	7.3
24	13.7	12.4	12.8	12.4	10.2	11.1	8.9	7.6	8.0	7.3	6.7	6.9
25	13.8	12.5	13.1	12.2	9.5	10.6	9.0	8.1	8.6	7.1	6.7	6.9
26	13.8	12.7	13.2	11.0	8.9	9.8	9.2	8.9	9.1	7.1	6.8	6.9
27	13.5	11.9	12.6	11.1	9.5	10.2	9.0	8.9	8.9	7.2	6.9	7.1
28	13.1	12.0	12.5	10.4	9.1	9.7	8.8	8.5	8.6	7.5	7.0	7.3
29	---	---	---	10.4	9.1	9.5	8.7	8.4	8.5	7.5	7.1	7.2
30	---	---	---	9.5	8.3	8.8	8.8	8.2	8.5	6.6	5.7	6.4
31	---	---	---	8.9	8.1	8.5	---	---	---	5.7	5.1	5.6
MONTH	14.4	11.9	12.9	13.1	4.4	11.2	11.9	4.6	9.2	9.4	5.1	7.4

01473780 SCHUYLKILL RIVER AT FLAT ROCK DAM AT WEST MANAYUNK, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	5.6	5.0	5.3	6.5	5.3	5.7	5.6	4.0	4.8	6.1	5.7	5.9
2	5.2	4.3	4.9	5.9	5.1	5.4	5.8	4.0	4.9	5.7	4.9	5.5
3	4.9	4.0	4.7	6.3	4.9	5.5	6.0	5.1	5.5	5.5	5.0	5.3
4	5.0	4.2	4.6	6.2	5.5	5.8	5.9	5.0	5.4	5.7	5.0	5.3
5	5.5	3.9	5.3	5.6	5.2	5.5	5.5	4.8	5.0	6.1	5.5	5.7
6	6.0	5.7	5.8	5.2	4.6	4.9	---	---	---	6.3	5.1	5.8
7	6.2	5.7	6.0	5.3	4.5	4.9	---	---	---	6.3	5.8	5.9
8	6.2	5.7	6.0	5.0	4.6	4.8	---	---	---	6.1	5.8	5.9
9	6.1	5.5	5.7	6.4	4.8	5.3	---	---	---	8.7	2.5	6.2
10	6.3	5.6	6.0	---	---	---	---	---	---	9.5	7.1	8.2
11	7.4	6.0	6.4	---	---	---	---	---	---	7.5	7.4	7.4
12	10.4	8.2	9.2	---	---	---	---	---	---	7.4	7.1	7.3
13	8.9	6.8	7.7	---	---	---	---	---	---	7.1	5.6	6.3
14	9.2	7.8	8.6	---	---	---	---	---	---	7.7	5.5	6.8
15	8.5	7.0	7.8	---	---	---	---	---	---	7.9	7.1	7.5
16	7.0	6.0	6.3	---	---	---	---	---	---	7.9	5.8	6.5
17	5.9	4.1	5.0	6.5	5.8	6.2	---	---	---	7.1	5.5	5.7
18	5.1	3.8	4.4	5.9	5.4	5.7	6.2	5.4	5.8	7.4	5.8	7.0
19	---	---	---	7.9	5.3	5.7	5.5	4.3	4.9	7.5	5.2	5.6
20	5.0	3.6	4.0	5.9	5.5	5.7	5.9	5.0	5.5	6.7	5.6	6.0
21	4.4	3.4	3.9	6.2	5.5	5.8	---	---	---	6.8	5.9	6.4
22	---	---	---	6.0	4.8	5.5	6.0	5.2	5.8	6.4	5.8	6.0
23	5.2	3.8	4.1	6.0	4.8	5.4	6.5	5.5	5.9	6.3	6.1	6.1
24	5.5	5.0	5.3	5.9	3.8	5.2	6.1	5.6	5.8	6.1	6.0	6.1
25	5.5	4.9	5.2	7.7	4.9	6.6	5.7	5.3	5.5	6.1	6.0	6.0
26	5.9	4.4	5.1	7.6	5.4	6.7	5.4	4.9	5.2	6.9	5.9	6.2
27	5.5	5.2	5.3	5.9	5.0	5.5	5.5	4.8	5.2	6.2	5.9	6.1
28	6.3	5.1	5.7	5.9	5.3	5.6	5.8	4.8	5.4	6.4	5.8	6.2
29	6.7	6.0	6.3	7.6	4.7	5.5	6.7	5.8	6.3	6.3	6.1	6.2
30	6.8	4.1	6.3	7.5	6.0	6.7	6.7	6.5	6.6	5.7	5.3	5.6
31	---	---	---	7.1	5.2	5.9	6.6	6.0	6.3	---	---	---
MONTH	10.4	3.4	5.8	7.7	4.5	5.6	6.7	4.0	5.4	9.5	2.5	6.2

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft upstream from dam at Ridge Ave., 750 ft upstream from mouth, 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Records for 1971-74 published in WDR PA-81-1. Prior to October 1965 published as "near Philadelphia."

REVISED RECORDS.--WSP 1302: 1905.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 26.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--Records good, except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 103 ft³/s, 21.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,870 ft³/s, June 29, 1973, gage height, 7.92 ft; minimum daily observed, 2.0 ft³/s, July 18, 19, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0615	2840	5.37	Dec. 25	0730	*3450	*5.86
Nov. 27	0130	3390	5.81	Apr. 4	1745	2380	4.98
Dec. 3	0500	2540	5.12				

Minimum daily discharge, 17 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	29	85	100	97	1050	134	93	50	38	34	50
2	60	40	236	359	99	382	92	99	57	372	35	34
3	41	35	1230	204	144	185	83	102	48	416	34	31
4	50	39	173	146	179	147	1260	211	180	67	33	29
5	39	85	126	118	132	125	269	139	270	57	60	29
6	35	252	113	108	105	117	511	100	72	49	174	39
7	29	64	105	107	106	117	203	95	59	60	45	43
8	29	183	96	102	112	114	160	90	48	53	38	47
9	30	133	302	98	113	107	138	87	46	221	49	78
10	29	89	223	120	99	95	127	80	48	68	315	40
11	28	502	132	154	98	89	122	76	42	53	50	32
12	32	197	146	115	100	87	117	82	42	213	39	31
13	33	81	116	102	97	92	107	67	50	175	34	434
14	86	62	96	99	89	93	97	60	66	228	29	96
15	48	57	91	100	84	91	94	65	43	64	28	46
16	31	58	89	95	86	86	90	68	74	54	27	39
17	28	51	83	87	87	83	171	62	44	56	26	41
18	27	83	490	189	79	80	126	58	40	54	25	480
19	27	485	255	524	78	80	100	104	39	48	24	123
20	27	195	122	262	77	77	94	126	40	46	23	60
21	25	1100	106	146	77	80	97	96	116	43	22	48
22	26	125	96	135	79	78	92	66	83	41	28	43
23	28	95	91	130	105	71	88	82	151	39	31	91
24	28	129	151	120	108	70	137	87	52	41	26	49
25	28	100	1500	113	102	67	440	64	42	60	24	46
26	77	652	194	113	94	65	131	58	41	54	17	45
27	65	978	147	110	98	64	108	e94	97	41	91	43
28	40	137	129	108	93	84	114	e65	44	35	248	40
29	33	112	116	106	---	73	110	57	38	34	62	37
30	31	98	112	105	---	85	97	56	37	35	39	51
31	30	---	105	100	---	434	---	54	---	36	32	---
TOTAL	1156	6246	7056	4475	2817	4468	5509	2643	2059	2851	1742	2295
MEAN	37.3	208	228	144	101	144	184	85.3	68.6	92.0	56.2	76.5
MAX	86	1100	1500	524	179	1050	1260	211	270	416	315	480
MIN	25	29	83	87	77	64	83	54	37	34	17	29
CFSM	.58	3.25	3.56	2.26	1.57	2.25	2.87	1.33	1.07	1.44	.88	1.20
IN.	.67	3.63	4.10	2.60	1.64	2.60	3.20	1.54	1.20	1.66	1.01	1.33

CAL YR 1986 TOTAL 39218 MEAN 107 MAX 1710 MIN 21 CFSM 1.68 IN. 22.80
WTR YR 1987 TOTAL 43317 MEAN 119 MAX 1500 MIN 17 CFSM 1.85 IN. 25.18

e Estimated

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hyrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi upstream from mouth. Water-quality sampling site 1.6 mi upstream. Water-quality monitor intake at gage.
DRAINAGE AREA.--1,893 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, 381 have been found to be unreliable and should not be used.
REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmount Dam at same datum.
REMARKS.--Records good. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee, capacity 518,600,000. Records of discharge do not include diversion above station by City of Philadelphia for municipal water supply.
AVERAGE DISCHARGE.--56 years, 2,928 ft³/s, 21.00 in/yr, adjusted for diversion from October 1931 to September 1982.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s June 23, 1972, gage height, 14.65 ft; no flow over dam at times; minimum daily, 0.6 ft³/s Sept. 2, 1966.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869, reached a stage of 17.0 ft, discharge, 135,000 ft³/s, from rating extended above 46,000 ft³/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft, discharge, 98,000 ft³/s.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,400 ft³/s, Sept. 9, gage height, 10.02 ft; minimum daily, 482 ft³/s, July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	898	677	3100	2920	1970	7370	3760	1950	1120	774	581	710
2	1000	719	2870	3520	1990	12700	2820	1840	1070	1990	572	620
3	1170	710	8810	3860	2240	8520	2130	1820	1050	2550	639	643
4	1190	688	6500	3310	3090	6820	8520	2400	1280	1420	605	583
5	1310	827	4830	2860	2990	5040	9490	3290	1850	1080	730	548
6	1220	1920	3840	2500	2500	3950	10400	2650	1240	949	1270	610
7	1090	2160	3270	2330	2340	3520	7900	2200	1090	898	908	761
8	1090	2020	3010	2250	2450	3470	5810	1980	1100	920	733	904
9	1070	2630	3420	2160	2460	3540	4970	1850	1040	1100	680	19600
10	924	2260	4990	2190	2140	3610	4210	1750	1010	1270	1540	12700
11	925	2350	3770	2920	2040	3280	3640	1710	989	1000	998	4790
12	844	4190	3350	2890	1990	2860	3300	1730	896	1110	804	2930
13	834	2890	3120	2470	1910	2680	3290	1570	905	1470	703	3380
14	1060	2330	2650	2360	1830	2540	3250	1440	941	1390	599	11300
15	1090	1840	2390	2300	1710	2350	2790	1410	966	3060	572	7480
16	1070	1630	2290	2570	1560	2260	2560	1550	868	1810	551	4990
17	981	1520	2240	2460	e1500	2130	2710	1500	934	1310	601	3730
18	816	1410	3820	2550	e1480	2030	3110	1400	816	1010	521	5480
19	745	4330	9290	4300	e1430	1880	2820	1580	713	861	497	5510
20	706	3740	5290	6670	e1400	1790	2550	2170	711	793	552	4140
21	650	10400	4290	4040	1380	1750	2360	2350	998	720	535	3460
22	686	7210	3620	3420	1390	1670	2160	2000	1140	710	603	3030
23	732	4870	3040	2960	1590	1650	2030	1780	1670	678	691	3020
24	646	4010	2850	e2600	1770	1560	2120	2020	1810	566	678	2520
25	615	3690	16700	2390	1760	1500	4890	1580	1400	482	598	2120
26	769	4810	7920	e2200	1670	1480	3270	1500	999	646	533	1880
27	991	12800	5780	e2100	1550	1410	2550	1530	1070	1020	773	1740
28	970	5190	4890	e2000	1510	1440	2340	1630	998	826	1570	1640
29	1000	4030	4310	1910	---	1410	2310	1260	1050	667	1220	1500
30	867	3530	3830	2110	---	1440	2090	1190	839	596	878	1470
31	681	---	3310	2090	---	2340	---	1120	---	596	783	---
TOTAL	28640	101381	143390	87210	53640	99990	116150	55750	32563	34272	23518	113789
MEAN	924	3379	4625	2813	1916	3225	3872	1798	1085	1106	759	3793
MAX	1310	12800	16700	6670	3090	12700	10400	3290	1850	3060	1570	19600
MIN	615	677	2240	1910	1380	1410	2030	1120	711	482	497	548
CFSM	.49	1.79	2.44	1.49	1.01	1.70	2.05	.95	.57	.58	.40	2.00
IN.	.56	1.99	2.82	1.71	1.05	1.96	2.28	1.10	.64	.67	.46	2.24
†	245	248	250	262	278	261	232	270	276	291	281	290

CAL YR 1986 TOTAL 907159 MEAN 2485 MAX 18100 MIN 400 CFSM 1.31 IN. 17.8
WTR YR 1987 TOTAL 890293 MEAN 2439 MAX 19600 MIN 482 CFSM 1.29 IN. 17.5

† Diversion, equivalent in cubic feet per second, for municipal supply, furnished by City of Philadelphia.
e Estimated

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to November 1980, January 1986 to current year.
pH: January 1968 to November 1980 (discontinued).
WATER TEMPERATURES: October 1945 to November 1980 (discontinued).
DISSOLVED OXYGEN: January 1966 to November 1980, January 1986 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 972 microsiemens, June 25, 1965; minimum, 92 microsiemens, Feb. 26, 1979.
DISSOLVED OXYGEN: Maximum, 18.3 mg/l, Jan. 11, 1978; minimum, 0.4 mg/l July 24, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 596 microsiemens, Nov. 3; minimum, 109 microsiemens, Dec. 25.
DISSOLVED OXYGEN: Maximum. 14.8 mg/l, Feb. 2, Aug. 17; minimum, 2.4 mg/l, Aug. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
DEC 1986											
10...	0900	6570	281	7.20	7.5	740	5.2	12.0	--	K1300	110
MAR 1987											
18...	1130	2500	330	7.42	6.5	745	1.3	11.6	4400	K910	120
JUN											
16...	1100	927	443	8.80	26.0	--	1.8	11.0	K400	27	150
SEP											
23...	1200	3660	297	7.45	19.0	738	3.5	8.1	4800	510	110

DATE	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH IT FIELD MG/L AS HCO3	CAR-BONATE WATER WH IT FIELD MG/L AS CO3	ALKA-LINITY WAT WH TOT FET LAB MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC 1986											
10...	110	28	9.6	14	2.9	71	0	58	45	19	0.1
MAR 1987											
18...	58	30	11	17	2.4	79	0	--	47	25	0.1
JUN											
16...	73	36	15	30	4.0	--	--	--	74	44	0.2
SEP											
23...	54	27	10	13	3.6	84	0	--	49	15	0.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC 1986											
10...	9.6	176	143	0.24	3120	3.10	0.29	0.9	0.18	0.13	0.10
MAR 1987											
18...	5.9	178	189	0.24	1200	2.70	0.25	1.6	0.18	0.15	0.12
JUN											
16...	0.8	267	263	0.36	668	2.40	0.05	2.9	0.39	0.27	0.20
SEP											
23...	10	178	174	0.24	1760	2.80	0.10	0.4	0.14	0.15	0.10

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
DEC 1986										
10...	10	1	34	<0.5	<1	<1	<3	5	32	<5
MAR 1987										
18...	30	<1	35	<0.5	<1	<1	<3	5	41	<5
JUN										
16...	50	2	34	<0.5	<1	<1	<3	7	69	<5
SEP										
23...	20	2	32	<0.5	1	<1	<3	8	41	8

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 1986										
10...	8	77	<0.1	<10	6	<1	<1	130	<6	20
MAR 1987										
18...	7	140	<0.1	<10	5	<1	<1	140	<6	<3
JUN										
16...	16	67	0.2	<10	8	<1	<1	190	<6	12
SEP										
23...	6	92	<0.1	<10	7	<1	1	140	<6	23

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETERS AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	495	458	475	562	549	555	291	275	281	222	209	217
2	505	470	488	561	534	548	312	257	273	251	208	227
3	490	477	481	596	523	546	252	211	226	239	220	231
4	498	480	490	561	493	515	241	214	224	243	220	230
5	509	485	493	568	549	563	262	242	250	246	238	243
6	538	508	526	548	518	532	268	252	258	251	230	240
7	523	449	484	517	436	477	265	249	255	241	225	233
8	448	433	441	438	384	414	274	256	264	246	230	239
9	432	400	419	---	---	---	272	253	261	259	237	246
10	540	409	422	---	---	---	283	257	266	258	228	243
11	427	422	424	388	340	367	267	227	243	261	229	247
12	441	423	431	362	328	343	239	229	235	261	245	252
13	446	435	442	347	325	335	256	234	245	271	242	253
14	442	435	439	343	301	327	266	240	251	273	247	261
15	440	420	432	344	299	330	246	237	242	272	251	262
16	479	435	446	345	338	340	246	234	242	316	272	292
17	485	435	465	388	341	368	288	233	251	319	305	312
18	530	482	489	391	373	382	258	245	251	319	285	299
19	508	488	495	380	294	350	244	175	202	320	260	301
20	504	495	499	286	259	268	218	186	202	257	215	232
21	549	491	512	267	210	239	232	210	219	244	225	230
22	548	518	537	281	226	250	245	219	231	287	246	271
23	527	514	519	275	233	251	245	218	232	318	281	298
24	526	517	521	281	266	271	226	208	219	302	290	295
25	544	520	527	289	262	274	206	109	142	---	---	---
26	571	522	548	278	270	274	172	125	147	---	---	---
27	589	541	568	202	179	191	189	169	177	---	---	---
28	542	527	536	246	198	221	192	185	189	198	188	193
29	538	525	533	269	244	255	203	191	196	---	---	---
30	542	527	535	279	252	264	205	196	201	---	---	---
31	553	526	542	---	---	---	216	205	211	305	280	289
MONTH	589	400	489	596	179	359	312	109	229	320	188	255

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	290	264	275	444	250	392	377	339	362	354	343	350
2	267	241	253	271	220	233	334	306	317	353	348	350
3	262	225	247	296	267	284	352	326	341	357	346	351
4	263	250	259	297	284	291	351	226	309	358	343	352
5	248	234	238	291	282	287	215	196	204	340	331	336
6	273	220	250	290	282	286	246	207	228	327	323	325
7	269	258	265	298	285	290	218	197	205	336	323	329
8	266	256	261	303	294	298	247	218	234	358	336	347
9	260	244	254	297	289	293	---	---	---	367	357	363
10	259	237	248	291	285	288	---	---	---	369	364	366
11	265	242	256	296	290	292	290	280	286	369	363	366
12	277	260	266	296	290	293	295	291	293	371	356	364
13	294	268	282	301	292	296	298	293	295	365	350	360
14	299	286	294	304	294	300	---	---	---	387	367	380
15	294	289	292	307	297	302	---	---	---	390	383	387
16	292	279	284	317	305	310	311	295	302	414	389	401
17	358	290	307	322	318	320	294	289	292	421	409	414
18	434	366	414	320	316	317	308	289	298	420	414	417
19	428	420	424	337	320	328	310	294	302	415	409	412
20	429	414	420	345	337	340	307	302	304	408	370	390
21	433	414	423	356	346	349	312	302	306	380	356	370
22	438	419	430	373	357	367	322	311	317	378	359	371
23	462	421	441	374	362	368	327	320	324	380	361	373
24	493	458	472	---	---	---	---	---	---	390	368	379
25	497	462	478	---	---	---	---	---	---	391	387	389
26	464	443	454	---	---	---	---	---	---	391	385	389
27	455	443	450	---	---	---	309	287	295	---	---	---
28	468	447	461	---	---	---	316	309	312	---	---	---
29	---	---	---	422	405	414	330	316	323	---	---	---
30	---	---	---	434	411	425	342	329	335	---	---	---
31	---	---	---	409	371	396	---	---	---	400	388	393
MONTH	497	220	336	444	220	321	377	196	295	421	323	371

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	403	399	400	473	465	467	---	---	---	503	468	487
2	---	---	---	484	464	458	---	---	---	507	500	504
3	---	---	---	446	322	376	---	---	---	502	497	500
4	428	420	425	414	369	393	---	---	---	505	502	504
5	420	381	398	412	383	398	---	---	---	504	495	500
6	383	367	375	383	378	379	---	---	---	495	487	491
7	384	368	378	379	359	373	---	---	---	514	487	498
8	423	382	401	356	325	336	---	---	---	547	505	526
9	433	423	426	383	327	354	---	---	---	557	150	329
10	436	432	434	408	374	390	445	412	431	248	213	233
11	438	433	436	405	392	399	427	398	414	247	230	238
12	441	434	437	---	---	---	451	424	431	273	248	260
13	438	430	435	438	407	423	462	453	458	274	254	270
14	446	436	442	419	340	384	463	455	460	292	188	257
15	455	445	450	387	314	350	459	454	456	202	177	186
16	467	456	460	401	365	382	---	---	---	234	204	221
17	474	467	470	360	335	343	473	469	471	256	235	246
18	480	473	476	339	329	335	476	468	471	276	237	256
19	482	476	479	331	319	323	485	475	479	255	245	250
20	486	480	482	352	324	335	498	483	490	256	241	247
21	489	485	487	381	352	366	496	475	488	289	257	273
22	485	421	456	412	382	392	502	480	491	296	290	292
23	450	428	439	427	398	417	510	500	504	302	293	298
24	495	434	473	434	416	425	521	509	516	319	301	309
25	496	450	477	443	428	437	527	521	524	316	310	313
26	450	438	441	454	443	449	526	524	525	328	315	319
27	441	402	424	478	455	466	532	519	523	340	328	335
28	425	395	409	486	475	479	576	507	540	352	339	343
29	472	425	452	488	484	486	508	476	495	362	353	358
30	475	468	472	---	---	---	473	447	457	363	358	361
31	---	---	---	---	---	---	474	451	464	---	---	---
MONTH	496	367	440	488	314	397	576	398	480	557	150	340

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	6.1	5.5	5.8	6.3	5.6	5.9	12.1	11.4	11.8	12.7	12.1	12.5
2	5.4	4.7	5.1	6.2	5.6	5.9	12.0	11.2	11.7	12.2	11.3	11.7
3	5.0	4.6	4.8	7.8	5.8	6.7	11.8	10.5	11.1	13.1	12.3	12.8
4	4.8	4.2	4.6	7.6	7.0	7.2	12.0	11.8	11.9	13.1	12.6	12.9
5	5.6	4.8	5.2	7.5	7.0	7.2	12.2	11.7	12.0	13.1	12.7	12.9
6	6.0	5.3	5.7	8.8	7.3	8.1	12.4	11.8	12.0	13.0	12.6	12.9
7	6.2	5.8	6.0	9.1	8.7	9.0	12.3	11.4	11.8	12.6	11.9	12.3
8	6.8	6.1	6.4	9.3	9.0	9.1	12.4	11.5	11.9	12.9	11.9	12.6
9	6.9	6.7	6.8	---	---	---	12.2	10.8	11.3	12.6	11.6	12.1
10	7.1	6.6	6.8	---	---	---	11.9	10.6	11.3	12.4	11.1	11.8
11	6.9	6.4	6.6	9.6	8.8	9.1	11.9	10.9	11.5	12.6	11.0	11.8
12	7.5	6.4	7.0	10.6	9.7	10.1	11.1	10.6	10.9	12.5	11.9	12.3
13	7.6	7.2	7.4	10.8	10.0	10.4	11.9	10.7	11.5	12.7	12.0	12.3
14	7.3	6.6	7.0	11.2	10.4	10.7	12.0	11.3	11.7	12.6	11.5	12.2
15	7.1	6.9	7.0	10.7	10.5	10.7	11.6	11.1	11.5	12.5	11.5	12.0
16	7.2	7.0	7.1	10.8	10.5	10.7	11.6	10.3	11.4	12.1	11.9	12.0
17	7.3	7.1	7.2	11.3	10.5	10.9	11.8	11.3	11.5	12.4	11.8	12.1
18	7.6	7.1	7.3	11.1	9.9	10.5	11.5	10.5	11.1	12.5	10.8	11.6
19	7.6	6.8	7.2	10.4	9.5	10.0	12.0	11.2	11.7	11.5	10.7	11.1
20	7.7	7.0	7.4	10.2	10.0	10.1	11.6	10.8	11.2	11.8	11.2	11.6
21	7.6	7.2	7.5	10.7	9.9	10.2	11.9	10.8	11.4	11.9	11.4	11.8
22	7.4	6.9	7.2	11.2	10.6	10.8	13.1	11.1	12.1	12.1	11.1	11.7
23	7.2	6.7	7.0	11.1	10.6	10.9	13.1	11.7	12.8	12.7	11.4	11.9
24	6.9	6.3	6.6	10.9	10.1	10.5	13.0	11.8	12.5	12.9	12.3	12.6
25	6.5	6.1	6.3	11.0	10.1	10.5	12.6	11.2	11.7	---	---	---
26	6.9	6.1	6.3	10.5	9.7	10.1	12.6	12.2	12.5	---	---	---
27	7.4	6.8	7.1	10.6	9.5	10.4	12.6	11.9	12.3	---	---	---
28	7.5	6.9	7.2	10.7	9.8	10.3	12.6	12.1	12.5	13.7	12.5	13.2
29	9.5	7.3	7.6	11.5	10.0	10.7	13.1	12.1	12.7	---	---	---
30	8.6	7.7	8.0	11.7	10.7	11.2	12.7	11.8	12.3	---	---	---
31	7.8	6.4	7.3	---	---	---	12.8	12.1	12.4	14.4	13.6	13.9
MONTH	9.5	4.2	6.7	11.7	5.6	9.57	13.1	10.3	11.8	14.4	10.7	12.3

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	14.5	10.0	13.3	12.6	10.5	11.3	10.3	9.0	9.6	9.0	8.6	8.8
2	14.8	12.7	13.7	12.8	10.8	12.3	10.1	9.8	10.0	8.8	8.3	8.6
3	13.1	12.0	12.7	15.0	10.4	12.4	10.4	9.7	9.9	8.4	8.1	8.2
4	12.9	12.3	12.7	15.6	12.4	14.0	10.4	8.9	9.8	8.6	7.6	8.2
5	13.2	12.6	12.9	13.2	11.9	12.6	10.4	10.1	10.2	9.5	8.6	9.0
6	13.2	12.5	12.9	12.7	11.6	12.2	10.9	10.4	10.6	9.9	8.0	9.3
7	13.2	12.4	12.8	12.8	11.8	12.2	10.8	10.5	10.8	9.9	8.9	9.3
8	12.9	12.0	12.6	12.3	11.6	11.9	11.1	10.6	10.8	8.9	8.2	8.5
9	---	---	---	11.6	5.9	9.2	---	---	---	8.3	7.9	8.1
10	13.3	12.6	13.0	13.1	4.6	10.2	---	---	---	7.9	7.5	7.7
11	13.5	12.8	13.1	13.2	11.8	12.5	10.8	9.9	10.3	7.8	7.2	7.5
12	13.2	11.6	12.4	12.8	11.9	12.3	10.5	9.6	10.0	9.7	6.6	7.3
13	12.8	11.6	12.4	13.2	12.0	12.4	10.4	9.4	9.9	6.5	5.5	6.1
14	13.1	11.9	12.5	13.7	12.0	12.6	---	---	---	6.8	6.3	6.5
15	12.9	12.2	12.7	13.7	11.7	12.4	---	---	---	6.8	5.6	6.2
16	13.1	12.8	12.9	12.9	11.6	12.0	9.9	9.4	9.7	6.7	5.5	6.0
17	13.9	13.3	13.6	13.0	11.5	12.2	9.7	9.1	9.4	6.9	6.3	6.6
18	14.0	13.4	13.6	13.0	11.4	12.1	10.1	9.1	9.6	7.4	6.7	6.9
19	13.6	12.8	13.2	13.1	11.3	12.1	9.8	8.8	9.4	7.2	6.3	6.8
20	13.4	12.8	13.0	13.1	10.9	11.7	9.9	8.9	9.5	7.1	6.5	6.8
21	13.6	12.6	13.1	11.9	10.4	11.2	10.2	9.2	9.7	7.6	6.5	7.1
22	13.5	12.5	12.9	12.3	10.7	11.6	9.9	8.9	9.4	7.9	7.2	7.5
23	12.9	11.9	12.4	---	---	---	9.4	.2	8.7	7.8	7.2	7.5
24	13.0	12.3	12.6	---	---	---	---	---	---	7.3	6.7	7.0
25	13.5	12.5	12.9	---	---	---	---	---	---	6.8	6.5	6.7
26	13.6	12.6	13.0	---	---	---	---	---	---	6.9	6.6	6.8
27	13.5	12.1	12.7	---	---	---	9.1	8.4	8.8	---	---	---
28	12.9	11.9	12.3	---	---	---	9.1	8.6	9.0	---	---	---
29	---	---	---	10.0	9.0	9.4	9.1	8.8	8.9	---	---	---
30	---	---	---	9.9	8.7	9.4	9.0	8.5	8.7	---	---	---
31	---	---	---	9.0	7.9	8.6	---	---	---	7.4	6.2	6.8
MONTH	14.8	10.0	12.9	15.6	4.6	11.6	11.1	8.4	9.7	9.9	5.5	7.5

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	8.5	5.8	7.0	13.1	7.7	9.4	---	---	---	6.5	6.2	6.4
2	---	---	---	9.6	6.1	7.2	---	---	---	6.4	5.7	6.1
3	---	---	---	6.5	5.9	6.2	---	---	---	6.5	5.9	6.2
4	5.9	5.4	5.6	7.4	6.0	6.4	---	---	---	6.2	6.0	6.1
5	6.7	5.4	6.2	8.7	5.8	6.7	---	---	---	6.3	5.5	6.0
6	6.1	5.5	5.8	8.4	6.2	7.2	---	---	---	6.5	5.6	6.2
7	---	---	---	8.5	5.4	6.6	---	---	---	6.2	5.5	5.9
8	7.5	6.0	6.8	6.0	4.8	5.4	---	---	---	6.4	5.6	6.0
9	8.4	6.0	6.8	7.9	4.9	6.0	---	---	---	6.8	4.6	6.0
10	8.0	6.2	7.0	5.9	5.1	5.5	7.0	3.7	5.1	7.2	6.0	6.5
11	9.7	6.7	7.8	6.9	5.2	5.6	10.4	4.9	6.7	8.0	5.2	5.7
12	8.7	6.7	7.7	---	---	---	5.4	2.4	4.3	6.5	5.0	5.6
13	13.4	5.3	8.3	6.1	5.2	5.5	5.5	3.8	4.4	7.8	5.1	7.0
14	---	---	---	5.9	4.6	5.2	6.6	3.4	5.7	8.4	5.5	7.3
15	---	---	---	6.3	5.1	5.9	8.3	6.1	7.1	8.5	8.4	8.5
16	---	---	---	6.2	---	---	---	---	---	8.5	6.8	8.4
17	---	---	---	---	---	---	14.8	5.2	8.6	8.2	5.1	6.4
18	14.4	8.8	10.9	---	---	---	---	---	---	7.7	5.0	6.4
19	10.8	8.0	9.3	---	---	---	7.9	4.4	6.8	7.7	7.2	7.5
20	10.1	6.9	8.7	---	---	---	8.7	6.0	7.1	7.7	7.5	7.6
21	8.2	5.3	6.7	---	---	---	13.1	5.3	7.9	10.7	7.6	8.3
22	5.1	3.2	4.0	---	---	---	7.1	4.7	5.6	8.9	7.2	8.2
23	5.1	3.7	4.3	---	---	---	6.3	4.7	5.5	8.3	7.3	7.7
24	5.9	5.1	5.4	---	---	---	5.6	4.3	5.0	8.7	7.2	7.8
25	6.4	5.6	6.0	---	---	---	6.7	4.9	5.7	10.7	7.7	8.2
26	6.2	5.4	5.9	---	---	---	6.2	5.0	5.4	11.2	6.9	8.2
27	6.0	5.2	5.5	---	---	---	6.6	4.7	5.6	7.7	5.4	6.6
28	8.8	5.0	5.8	---	---	---	7.0	5.8	6.3	8.6	5.6	7.1
29	6.9	5.7	6.1	---	---	---	7.3	6.4	6.8	8.8	5.8	7.9
30	11.6	6.1	8.1	---	---	---	6.6	6.3	6.4	8.7	8.4	8.6
31	---	---	---	---	---	---	6.6	6.0	6.3	---	---	---
MONTH	14.4	3.2	6.5	13.1	4.6	6.3	14.8	2.4	6.1	11.2	4.6	7.0

01474505 SCHUYLKILL RIVER ABOVE PASSYUNK AVENUE AT PHILADELPHIA, PA

LOCATION.--Lat 39°55'18", long 75°12'16", Philadelphia County, Hydrologic Unit 02040203, on west face of Philadelphia Fire Department dock in the embayment off the main channel of the Schuylkill River on left bank 1,200 feet upstream from Passyunk Avenue at Philadelphia.

DRAINAGE AREA.--1,900 mi².

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

GAGE.--Water stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Corps of Engineers benchmark).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.03 ft, Oct. 25, 1980; minimum, -5.50 ft, Dec. 3, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 5.98 ft, Apr. 17; minimum recorded, -4.39 ft, May 20.

Summaries of tide elevations during current year are as follows:

	Maximum elevation	High tide date	Minimum elevation	Low tide date	Mean high tide	Mean water level	Mean low tide
Oct.	---	---	---	---	---	---	---
Nov.	---	---	---	---	---	---	---
Dec.	---	---	---	---	---	---	---
Jan.	---	---	---	---	---	---	---
Feb.	---	---	---	---	---	---	---
Mar.	---	---	---	---	---	---	---
Apr.	5.98	17	- 4.31	20	5.47	2.33	- 1.32
May	5.57	3	- 4.39	20	4.36	1.20	- 2.44
June	5.95	7	- 3.80	17	4.30	1.09	- 2.48
July	5.44	31	- 2.81	21	4.41	1.62	- 1.90
Aug.	5.84	8	- 2.68	21	4.89	1.75	- 1.83
Sept.	5.94	19	- 2.35	27	4.91	1.83	- 1.56

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi upstream from mouth and 2.3 mi north of Hometown, Pa. DRAINAGE AREA, 7.19 mi². PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Water Co.).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft. Storage began in February 1933. Capacity at elevation 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft, Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 or 1951 water years; minimum (after first filling), 588 acre-ft, Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,350 acre-ft, Sept. 21, elevation, 1,182.2 ft; minimum, 3,840 acre-ft, Nov. 8, elevation, 1,165.1 ft.

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek, 1.0 mi northeast of Blue Marsh, 1.9 mi upstream from Reber's Bridge, and 5.1 mi southeast of Bernville. DRAINAGE AREA, 175 mi. PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft, Apr. 17, 1983, elevation, 301.65 ft; mini-mum (after first filling), 15,770 acre-ft, Mar. 21, 1986, elevation, 283.00 ft .

EXTREMES FOR CURRENT YEAR: Maximum contents, 25,970 acre-ft, Sept. 14, elevation, 292.56 ft; minimum, 17,340 acre-ft, Nov. 20, Mar. 5, elevation, 284.70 ft.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi west of Green Lane and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi². PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft. Storage began December 21, 1956. Capacity at elevation 286.00 ft is 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft, June 23, 1972, elevation, 290.05 ft; minimum (after first filling), 1,270 acre-ft, Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,320 acre-ft, Sept. 9, elevation, 287.00 ft; minimum, 19,890 acre-ft, Nov. 4, elevation, 281.21 ft.

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01469200 Still Creek Reservoir			01470870 Blue Marsh Dam		
Sept. 30	1170.90	5190	--	290.01	22910	--
Oct. 31	1167.30	4290	- 14.6	285.06	17680	- 85.0
Nov. 30	1168.20	4490	+ 3.4	285.04	17660	- 0.3
Dec. 31	1174.50	6180	+ 27.5	285.02	17640	- 0.3
CAL YR 1986	--	--	- 2.4	--	--	- 1.4
Jan. 31	1176.10	6630	+ 7.3	284.93	17560	- 1.3
Feb. 29	1175.50	6460	- 3.1	285.14	17770	+ 3.8
Mar. 31	1177.75	7080	+ 10.1	285.30	17940	+ 2.8
Apr. 30	1182.10	8320	+ 20.8	290.02	22920	+ 83.6
May 31	1182.10	8320	0	290.10	23020	+ 1.6
June 30	1180.75	7920	- 6.7	290.12	23050	+ 0.5
July 31	1179.50	7560	- 5.9	290.06	22970	- 1.3
Aug. 31	1177.50	7010	- 8.9	288.79	21620	- 21.9
Sept. 30	1182.00	8290	+ 21.5	290.04	22950	+ 22.3
WTR YR 1987	--	--	+ 4.3	--	--	+ 0.1
	01472200 Green Lane Reservoir					
Sept. 30	283.81	11610	--			
Oct. 31	281.76	10220	- 22.6			
Nov. 30	286.03	13460	+ 54.4			
Dec. 31	286.00	13430	- 0.5			
CAL YR 1986	--	--	+ 0.1			
Jan. 31	285.96	13400	- 0.5			
Feb. 29	285.95	13390	- 0.2			
Mar. 31	286.11	13530	+ 2.3			
Apr. 30	286.00	13430	- 1.7			
May 31	285.93	13370	- 1.0			
June 30	285.77	13230	- 2.4			
July 31	285.40	12900	- 5.4			
Aug. 31	284.33	12000	- 14.6			
Sept. 30	285.88	13330	+ 22.3			
WTR YR 1987	--	--	+ 2.4			

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA

WATER-QUALITY RECORDS

LOCATION.--Lat 39°52'45", long 75°12'11", Philadelphia County, Hydrologic Unit 02040202, water-quality recorder on right bank at outer end of L-shaped pier at Fort Mifflin, 0.4 mi downstream from mouth of Schuylkill River, in Philadelphia.

DRAINAGE AREA.--10,000 mi², approximately.

PERIOD OF RECORD.--July 1970 to June 1976, February 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1970 to December 1971, February 1981 to current year.
WATER TEMPERATURE: June 1972 to September 1976, February 1981 to current year.

INSTRUMENTATION.--Water-quality monitor July 1970 to June 1976, February 1981 to current year.

REMARKS.--Station not operated Dec. 5 to Mar. 13. Other interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,230 microsiemens Oct. 27, 1981; minimum, 90 microsiemens Apr. 11, 17, 19, 19, 29 1983, April 29, 1984.
WATER TEMPERATURE: Maximum, 31.0°C Aug. 4-6, 13, 1975; minimum, 0.5°C Feb. 5, 1981.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	450	380	398	280	200	233	---	---	---
2	---	---	---	430	380	404	300	200	229	---	---	---
3	450	400	424	440	370	395	310	200	261	---	---	---
4	500	410	436	490	380	411	280	200	243	---	---	---
5	510	410	439	480	390	411	---	---	---	---	---	---
6	490	410	435	490	400	436	---	---	---	---	---	---
7	460	400	416	460	390	422	---	---	---	---	---	---
8	470	390	416	---	---	---	---	---	---	---	---	---
9	460	400	412	---	---	---	---	---	---	---	---	---
10	490	390	415	---	---	---	---	---	---	---	---	---
11	460	390	417	---	---	---	---	---	---	---	---	---
12	480	410	425	---	---	---	---	---	---	---	---	---
13	440	380	415	---	---	---	---	---	---	---	---	---
14	430	390	409	---	---	---	---	---	---	---	---	---
15	430	370	399	330	290	310	---	---	---	---	---	---
16	430	380	399	320	290	308	---	---	---	---	---	---
17	450	380	404	330	300	310	---	---	---	---	---	---
18	440	380	404	330	300	313	---	---	---	---	---	---
19	450	370	400	400	310	349	---	---	---	---	---	---
20	440	370	397	380	300	340	---	---	---	---	---	---
21	450	360	396	360	270	302	---	---	---	---	---	---
22	440	380	407	270	220	247	---	---	---	---	---	---
23	430	380	403	280	220	245	---	---	---	---	---	---
24	420	380	395	310	220	258	---	---	---	---	---	---
25	430	370	400	330	220	265	---	---	---	---	---	---
26	440	380	402	310	220	262	---	---	---	---	---	---
27	440	380	403	310	200	252	---	---	---	---	---	---
28	430	380	405	390	190	214	---	---	---	---	---	---
29	440	370	401	260	190	223	---	---	---	---	---	---
30	420	360	395	280	200	239	---	---	---	---	---	---
31	440	360	394	---	---	---	---	---	---	---	---	---
MONTH	510	360	409	490	190	318	---	---	---	---	---	---

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETERS AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	390	240	301	330	210	248
2	---	---	---	---	---	---	400	250	300	330	220	256
3	---	---	---	---	---	---	400	230	295	360	220	270
4	---	---	---	---	---	---	360	200	263	460	220	299
5	---	---	---	---	---	---	350	180	240	400	240	310
6	---	---	---	---	---	---	270	160	211	390	240	296
7	---	---	---	---	---	---	270	160	211	330	250	273
8	---	---	---	---	---	---	230	150	194	330	240	275
9	---	---	---	---	---	---	300	150	214	330	250	278
10	---	---	---	---	---	---	270	150	202	340	250	283
11	---	---	---	---	---	---	280	150	206	330	250	282
12	---	---	---	---	---	---	280	150	205	370	250	294
13	---	---	---	---	---	---	280	150	204	360	260	291
14	---	---	---	375	242	288	290	160	206	420	260	299
15	---	---	---	350	251	285	290	170	213	320	250	279
16	---	---	---	365	252	292	310	170	220	320	250	278
17	---	---	---	370	252	308	---	---	---	320	260	279
18	---	---	---	380	262	304	---	---	---	320	260	284
19	---	---	---	415	263	315	---	---	---	330	270	292
20	---	---	---	350	210	283	---	---	---	400	270	306
21	---	---	---	320	210	251	---	---	---	390	280	320
22	---	---	---	410	210	265	---	---	---	410	277	329
23	---	---	---	360	200	258	---	---	---	375	271	310
24	---	---	---	340	220	256	---	---	---	409	275	319
25	---	---	---	350	230	262	340	190	252	383	270	302
26	---	---	---	350	230	268	350	200	258	347	264	291
27	---	---	---	340	230	265	360	210	255	349	260	287
28	---	---	---	340	230	267	280	210	234	346	267	296
29	---	---	---	340	230	266	310	200	240	330	250	285
30	---	---	---	360	220	264	340	200	259	320	260	279
31	---	---	---	400	230	290	---	---	---	320	260	282
MONTH	---	---	---	415	200	277	400	150	236	460	210	289

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	320	260	284	370	320	336	289	159	211	370	300	322
2	310	260	285	420	320	345	300	150	198	330	300	310
3	320	260	286	440	310	347	311	151	207	370	300	316
4	320	270	292	390	300	329	321	161	201	520	300	347
5	521	280	362	400	290	322	302	162	200	350	300	317
6	354	305	325	360	280	306	363	162	209	360	310	325
7	360	304	330	380	290	316	443	163	237	360	310	329
8	369	315	333	360	280	309	374	174	221	350	310	323
9	365	321	336	340	290	307	354	174	219	540	170	336
10	378	327	347	350	290	312	440	175	287	290	230	254
11	387	332	351	350	290	310	380	270	298	260	230	243
12	390	310	336	350	290	302	330	270	286	250	230	238
13	370	300	321	330	280	298	310	260	274	270	230	241
14	360	300	316	340	280	295	320	260	277	330	210	263
15	360	300	317	390	260	309	350	260	282	280	170	213
16	360	310	323	380	260	294	330	260	281	210	160	180
17	450	310	337	468	245	281	330	260	281	240	160	192
18	370	310	329	376	225	255	320	270	288	260	160	200
19	360	300	326	356	213	251	310	270	286	280	160	215
20	360	310	330	351	203	244	330	270	291	260	150	205
21	400	320	341	340	192	239	330	270	292	250	160	192
22	450	330	359	319	186	237	350	280	295	250	160	195
23	400	330	351	413	181	226	420	280	315	290	170	207
24	420	330	366	317	169	207	370	290	308	340	170	230
25	410	340	364	312	170	216	340	290	302	290	170	210
26	380	330	351	323	164	211	340	290	306	290	160	205
27	380	330	350	308	159	216	390	290	314	300	170	209
28	380	320	338	313	163	223	460	300	327	290	170	207
29	420	330	349	310	161	207	470	310	354	290	170	209
30	420	320	351	291	147	185	410	300	327	280	180	214
31	---	---	---	291	159	210	370	300	317	---	---	---
MONTH	521	260	333	468	147	272	470	150	274	540	150	248

01474703 DELAWARE RIVER AT FORT MIFFLIN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	16.0	15.0	15.5	7.0	6.5	7.0			
2	---	---	---	16.0	15.0	15.5	7.0	6.5	6.5			
3	23.0	22.5	22.5	15.5	15.0	15.0	7.5	6.5	7.0			
4	23.0	22.5	23.0	15.0	14.5	15.0	7.5	7.0	7.5			
5	23.0	22.5	22.5	15.0	14.0	14.5	---	---	---			
6	22.5	22.0	22.0	14.5	13.5	14.0	---	---	---			
7	22.0	21.0	21.5	14.0	13.5	14.0	---	---	---			
8	21.5	20.5	21.0	---	---	---	---	---	---			
9	21.5	21.0	21.0	---	---	---	---	---	---			
10	21.0	20.0	20.5	---	---	---	---	---	---			
11	20.5	19.5	20.0	---	---	---	---	---	---			
12	20.0	19.5	19.5	---	---	---	---	---	---			
13	19.5	19.5	19.5	---	---	---	---	---	---			
14	19.5	19.5	19.5	---	---	---	---	---	---			
15	19.5	18.5	19.0	11.0	10.0	10.5	---	---	---			
16	19.0	18.5	18.5	11.0	9.5	10.0	---	---	---			
17	18.5	17.5	18.0	11.0	9.5	10.0	---	---	---			
18	18.0	17.5	18.0	10.5	9.5	10.0	---	---	---			
19	18.0	17.0	17.5	10.5	8.0	9.0	---	---	---			
20	17.5	17.0	17.0	9.5	8.0	9.0	---	---	---			
21	17.5	17.0	17.0	6.5	7.0	8.5	---	---	---			
22	17.5	17.0	17.0	8.0	6.0	7.0	---	---	---			
23	17.5	17.0	17.0	7.5	6.0	7.0	---	---	---			
24	17.5	17.0	17.0	7.0	6.0	6.5	---	---	---			
25	17.0	16.5	17.0	7.0	6.5	6.5	---	---	---			
26	17.0	16.5	16.5	7.5	6.5	7.0	---	---	---			
27	16.5	16.5	16.5	9.0	7.0	8.0	---	---	---			
28	16.5	16.5	16.5	8.0	7.0	7.5	---	---	---			
29	16.5	16.0	16.5	8.0	7.0	7.5	---	---	---			
30	16.5	16.0	16.0	7.5	7.0	7.5	---	---	---			
31	16.0	15.5	16.0	---	---	---	---	---	---			
MONTH	23.0	15.5	18.5	16.0	6.0	10.0	7.5	6.5	7.0			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	14.5	12.0	13.0	16.0	14.5	15.0
2				---	---	---	14.0	12.0	13.0	15.5	15.0	15.5
3				5.5	4.5	5.5	14.0	12.5	13.0	16.5	15.5	15.5
4				5.5	4.5	5.5	13.0	12.0	13.0	16.0	15.0	15.5
5				5.5	4.5	5.0	12.5	11.0	12.0	16.0	15.0	15.5
6				5.5	4.5	5.0	11.5	10.0	10.5	16.0	15.0	15.5
7				7.0	4.5	5.0	10.0	9.0	9.5	16.0	15.0	15.5
8				7.5	4.5	6.0	10.0	9.0	9.5	16.0	15.0	15.5
9				7.5	5.5	7.0	11.5	9.5	10.0	16.5	15.5	16.0
10				7.5	5.5	7.0	12.5	10.0	11.0	17.0	16.0	16.5
11				7.5	6.5	6.5	12.5	10.5	11.5	18.0	16.5	17.0
12				7.0	5.0	6.5	13.5	11.0	12.0	18.5	17.0	17.5
13				7.5	5.5	6.5	13.5	11.0	12.0	18.5	17.5	18.0
14				6.5	6.0	6.5	14.0	11.5	12.5	19.0	17.0	18.0
15				6.5	5.5	6.0	13.5	12.0	12.5	19.0	18.0	18.5
16				6.5	5.5	6.0	13.0	12.0	12.5	19.0	17.5	18.5
17				6.5	5.5	6.0	---	---	---	19.5	18.0	18.5
18				7.0	5.5	6.0	---	---	---	20.0	18.5	19.0
19				7.5	5.5	6.0	---	---	---	20.0	18.5	19.0
20				8.0	5.5	6.5	---	---	---	19.5	18.5	19.0
21				7.5	5.5	6.5	---	---	---	20.0	18.0	19.0
22				8.5	6.0	6.5	---	---	---	20.0	18.5	19.5
23				8.5	6.0	7.0	---	---	---	20.0	19.0	19.5
24				10.0	6.5	7.5	---	---	14.5	20.5	19.5	20.0
25				9.5	7.0	8.0	16.5	14.0	15.0	20.0	19.5	20.0
26				11.0	8.0	9.0	16.0	14.0	15.0	20.0	19.5	20.0
27				11.5	9.0	10.0	15.5	14.5	15.0	20.0	19.5	20.0
28				12.0	9.5	10.5	15.0	14.5	14.5	21.0	19.5	20.0
29				13.0	10.5	11.5	15.0	14.5	15.0	21.0	20.0	20.5
30				13.0	11.0	11.5	15.5	14.5	15.0	22.0	20.5	21.5
31				14.0	11.5	12.5	---	---	---	22.5	21.5	22.0
MONTH				14.0	4.5	7.0	16.5	9.0	12.5	22.5	14.5	18.0

01474703 DELAWARE RIVER AT FORT MIFFLIN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	23.0	22.0	22.5	27.0	24.5	25.5	29.0	28.0	28.5	26.0	25.5	25.5
2	23.5	22.5	23.0	27.0	15.5	25.5	29.0	25.5	28.5	26.0	22.5	25.5
3	23.5	23.0	23.0	27.5	26.5	27.0	29.0	27.5	28.5	26.5	19.5	24.5
4	23.5	23.0	23.0	27.5	26.5	27.0	29.5	28.5	29.0	25.5	21.5	24.5
5	24.0	23.0	23.5	27.5	26.5	27.0	29.5	27.5	29.0	24.5	24.0	24.5
6	24.0	23.0	23.5	28.0	27.0	27.0	29.0	27.0	28.5	24.5	24.0	24.0
7	24.0	23.0	23.5	27.5	27.0	27.0	29.0	28.0	28.5	25.0	24.0	24.5
8	24.5	23.5	24.0	27.5	27.0	27.0	29.0	27.5	28.5	24.5	24.0	24.5
9	24.0	23.5	24.0	28.0	27.0	27.5	28.5	27.5	28.0	24.5	22.5	24.0
10	24.0	23.5	23.5	28.0	27.5	27.5	28.5	28.0	28.5	24.5	22.5	23.5
11	24.0	23.0	23.5	28.5	27.5	28.0	28.5	25.5	28.0	24.5	23.0	23.5
12	24.0	23.5	23.5	28.5	27.5	28.0	28.5	25.5	27.5	24.0	23.0	23.5
13	24.5	23.5	24.0	29.0	27.5	28.0	27.5	20.5	26.5	23.5	23.0	23.0
14	24.5	23.5	24.0	29.0	28.0	28.5	28.0	25.0	27.5	23.0	22.0	23.0
15	25.0	24.0	24.5	28.5	27.5	28.0	28.0	27.0	27.5	22.5	21.5	22.0
16	25.5	24.5	25.0	28.5	27.5	28.0	28.5	27.0	27.5	22.0	21.5	22.0
17	25.5	24.5	25.0	28.0	25.0	27.0	28.5	28.0	28.0	22.0	21.5	21.5
18	26.0	25.0	25.5	28.0	27.0	27.5	28.5	28.0	28.5	22.5	20.0	21.5
19	26.5	25.0	25.5	28.0	27.5	28.0	28.5	28.0	28.5	22.0	21.0	21.5
20	26.5	25.5	26.0	28.5	27.5	28.0	28.5	28.0	28.5	21.5	20.5	21.0
21	26.0	25.5	26.0	28.5	28.0	28.5	28.5	27.5	28.0	20.5	20.0	20.5
22	26.5	26.0	26.0	29.0	28.0	28.5	28.5	27.5	28.0	20.5	20.0	20.0
23	26.5	26.0	26.5	29.5	28.5	29.0	27.5	24.5	27.0	20.0	19.5	20.0
24	27.0	26.0	26.5	29.5	28.5	29.0	27.0	26.5	27.0	20.0	19.5	20.0
25	27.0	26.0	26.5	30.0	29.0	29.0	26.5	25.5	26.5	20.0	19.5	19.5
26	26.5	25.0	26.5	30.0	29.0	29.5	26.5	26.5	26.0	19.5	19.0	19.5
27	27.0	26.0	26.0	30.0	28.5	29.0	26.0	26.0	25.5	20.0	19.0	19.5
28	26.5	25.5	26.0	29.5	29.0	29.0	26.0	25.5	25.5	20.0	18.5	19.5
29	26.5	25.5	26.0	29.5	28.5	29.0	26.0	25.5	25.5	20.0	17.0	19.5
30	26.5	21.5	24.5	29.0	28.0	28.5	26.0	25.0	25.5	20.0	17.5	19.5
31	---	---	---	29.0	28.0	28.5	26.0	25.0	25.5	---	---	---
MONTH	27.0	21.5	24.5	30.0	15.5	28.0	29.5	20.5	27.5	26.5	17.0	22.0

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA

LOCATION.--Lat 40°01'21", long 75°25'20", Chester County, Hydrologic Unit 02040202, on left bank 125 ft upstream from bridge on Waterloo Road, 2 mi south of Devon, and 2.5 mi northwest of Newtown Square.

DRAINAGE AREA.--5.15 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 310 ft, from topographic map.

REMARKS.--Records good except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 9.10 ft³/s, 23.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s, Sept. 6, 1979, gage height, 6.71 ft; minimum, 0.74 ft³/s, Aug. 26, 1983, gage height, 1.18 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	2300	326	3.84	Dec. 25	0100	705	4.98
Nov. 26	1945	*864	*5.35	Apr. 24	2000	359	3.96

Minimum daily discharge, 1.4 ft³/s, Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.6	5.6	8.4	e6.3	64	9.3	8.5	6.1	7.8	2.4	e4.6
2	4.8	3.6	33	17	9.0	16	7.8	9.2	6.2	12	2.4	e3.0
3	3.7	2.9	37	12	12	12	7.2	9.0	6.4	5.9	2.3	e2.4
4	2.6	3.8	8.6	9.9	11	10	58	17	18	6.4	2.3	e2.3
5	1.4	12	7.2	8.9	9.3	9.4	16	11	10	6.0	9.9	e2.2
6	1.9	11	6.6	8.4	8.7	9.2	21	9.4	6.9	4.5	11	e2.8
7	2.2	3.5	6.3	8.6	8.9	9.2	12	8.6	6.4	5.1	2.9	e3.3
8	2.2	11	6.0	8.6	8.8	9.0	10	8.1	6.3	4.8	2.7	e2.9
9	2.3	11	14	8.0	8.6	8.7	9.7	7.8	6.5	5.2	8.1	e3.9
10	2.2	5.2	9.5	11	7.7	8.0	9.5	7.5	6.0	5.2	16	2.7
11	2.2	33	7.8	10	7.8	7.8	9.2	7.3	5.9	4.4	3.0	2.4
12	2.2	6.9	8.4	8.9	7.9	7.9	8.8	9.9	6.0	5.9	2.7	2.4
13	2.6	4.2	6.7	8.2	7.6	7.8	8.6	7.9	6.9	5.1	2.6	24
14	4.8	3.7	5.9	7.9	7.3	7.5	8.3	7.0	6.1	22	2.4	4.7
15	2.6	3.4	5.9	8.3	7.0	7.5	8.2	11	4.9	5.5	2.4	3.0
16	2.2	3.4	5.8	7.6	e6.9	7.3	8.3	8.1	5.3	3.6	2.4	2.8
17	2.2	3.3	5.8	7.3	e6.7	7.2	13	7.0	5.1	3.2	2.4	6.0
18	2.6	7.4	27	13	e6.4	7.0	9.9	6.7	5.0	3.1	2.4	13
19	2.1	13	9.9	30	e6.2	6.9	8.9	8.6	4.9	3.0	2.3	4.0
20	2.1	34	7.4	13	e6.0	6.9	8.3	15	4.9	2.9	2.2	3.3
21	2.1	27	6.7	10	e5.8	7.1	8.0	12	7.5	2.8	2.1	2.8
22	2.0	5.5	6.4	e9.0	e5.6	6.9	7.9	7.9	6.4	2.7	3.1	2.8
23	2.1	4.7	6.2	e8.6	8.8	6.6	7.5	18	6.1	2.7	2.5	2.6
24	2.2	7.2	36	e8.0	7.9	6.8	55	9.1	5.1	2.6	2.2	2.4
25	2.2	4.9	105	e7.7	7.6	6.5	27	7.6	4.9	2.6	2.1	2.4
26	5.7	118	11	e7.5	7.6	6.5	11	7.3	4.8	2.8	2.1	2.3
27	2.9	16	10	e7.2	7.4	6.3	9.9	8.7	5.0	2.6	4.6	2.2
28	2.3	7.9	9.6	e7.0	8.3	8.0	9.6	7.3	4.6	2.5	e4.0	2.3
29	2.3	6.6	9.1	e6.8	---	6.6	9.5	6.7	4.4	2.4	e7.0	2.2
30	2.5	5.9	9.0	e6.6	---	8.9	8.9	6.5	4.2	2.4	e3.0	2.6
31	2.5	---	8.6	e6.5	---	22	---	6.2	---	2.8	e3.7	---
TOTAL	80.4	382.6	442.0	299.9	219.1	321.5	406.3	281.9	186.8	150.5	121.2	120.3
MEAN	2.59	12.8	14.3	9.67	7.82	10.4	13.5	9.09	6.23	4.85	3.91	4.01
MAX	5.7	118	105	30	12	64	58	18	18	22	16	24
MIN	1.4	2.6	5.6	6.5	5.6	6.3	7.2	6.2	4.2	2.4	2.1	2.2
CFSM	.50	2.48	2.77	1.88	1.52	2.01	2.63	1.77	1.21	.94	.76	.78
IN.	.58	2.76	3.19	2.17	1.58	2.32	2.93	2.04	1.35	1.09	.88	.87

CAL YR 1986 TOTAL 2514.4 MEAN 6.89 MAX 118 MIN 1.4 CFSM 1.34 IN. 18.16
WTR YR 1987 TOTAL 3012.5 MEAN 8.25 MAX 118 MIN 1.4 CFSM 1.60 IN. 21.76

e Estimated

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECOD.--November 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 14...	1400	3.5	235	7.70	1.0	4.5	6.9	121	97	23	23

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV 14...	9.6	10	2.3	74	23	15	15	154	149	--	<0.01

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV 14...	1.50	0.05	0.55	0.6	--	0.6	--	0.07	0.02	0.01	<10

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 14...	--	--	--	--	110	--	28	--	--	--	--

DATE	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 14...	<0.1	<1.0	0.8	1.7	1.0	2.7	<0.1	<0.1	95	<1.0	<0.1

DATE	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
NOV 14...	<0.1	<0.1	<0.1	<0.1	<1.00	<10

01475510 DARBY CREEK NEAR DARBY, PA

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, Hydrologic Unit 02040202, on right bank 20 ft upstream from Providence Road Bridge, 1.1 mi northwest of Upper Darby, 2.3 mi upstream from Cobbs Creek, and 8.4 mi upstream from mouth.

DRAINAGE AREA.--37.4 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 19.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except for periods estimated daily discharges, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 65.5 ft³/s, 23.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,920 ft³/s, Aug. 23, 1974, gage height, 10.23 ft, from rating curve extended above 920 ft³/s, on basis of step-backwater analysis; minimum, 8.2 ft³/s, Sept. 12, 13, 1980; minimum gage height, 1.16 ft Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	2315	1440	4.87	July 9	1830	2230	6.02
Nov. 26	1915	1730	5.32	Aug. 9	2400	1330	4.69
Dec. 25	0100	*2510	*6.38	Sept. 13	1345	1300	4.63

Minimum daily discharge, 10 ft³/s, Oct. 7, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e12	34	53	e43	430	64	50	34	22	16	37
2	32	e32	247	185	57	130	48	55	35	179	15	15
3	14	e18	330	83	75	79	44	64	34	44	15	13
4	17	e39	64	64	75	66	383	174	98	45	15	13
5	13	e130	49	55	60	59	117	76	90	48	78	13
6	11	e110	44	53	52	56	185	57	38	25	137	22
7	10	e27	41	52	53	55	81	52	35	30	24	28
8	11	e130	39	50	53	54	66	50	34	26	19	23
9	11	e58	121	48	54	53	60	47	39	131	56	34
10	11	e36	73	65	50	50	56	45	33	39	230	16
11	10	e260	62	64	50	48	54	42	31	26	23	14
12	11	e60	58	51	50	48	53	139	30	29	19	14
13	14	e30	45	47	48	48	52	58	34	33	17	341
14	58	26	40	46	45	47	50	43	33	134	16	48
15	17	24	39	47	42	46	50	80	29	61	16	22
16	13	22	38	45	e40	45	50	54	27	26	16	18
17	12	22	37	42	e38	44	94	41	26	23	15	44
18	12	92	228	123	e37	43	62	40	26	22	15	160
19	12	120	81	240	e36	43	52	50	25	21	14	40
20	12	240	50	109	e35	43	50	106	25	21	14	26
21	12	238	45	67	e34	43	48	72	50	20	13	22
22	11	42	42	60	e33	43	46	47	50	19	26	25
23	11	33	41	e55	61	41	45	107	45	18	18	20
24	11	53	214	e53	56	40	178	57	28	18	13	18
25	11	34	748	e52	49	39	263	45	26	17	12	17
26	53	488	84	e50	47	39	68	42	25	23	13	17
27	26	157	68	e49	47	39	58	57	66	18	49	16
28	15	52	60	e47	50	50	61	44	25	16	31	16
29	13	43	56	e46	---	40	56	40	23	16	85	16
30	13	37	53	e45	---	55	51	37	22	15	17	29
31	12	---	51	e44	---	185	---	36	---	17	22	---
TOTAL	502	2665	3182	2090	1370	2101	2545	1907	1116	1182	1069	1137
MEAN	16.2	88.8	103	67.4	48.9	67.8	84.8	61.5	37.2	38.1	34.5	37.9
MAX	58	488	748	240	75	430	383	174	98	179	230	341
MIN	10	12	34	42	33	39	44	36	22	15	12	13
CFSM	.43	2.38	2.74	1.80	1.31	1.81	2.27	1.64	.99	1.02	.92	1.01
IN.	.50	2.65	3.16	2.08	1.36	2.09	2.53	1.90	1.11	1.18	1.06	1.13

CAL YR 1986 TOTAL 18137.8 MEAN 49.7 MAX 778 MIN 8.6 CFSM 1.33 IN. 18.04
WTR YR 1987 TOTAL 20866 MEAN 57.2 MAX 748 MIN 10 CFSM 1.53 IN. 20.75

e Estimated

01475550 COBBS CREEK AT DARBY, PA

LOCATION.--Lat 39°55'02", long 75°14'52", Delaware County, Hydrologic Unit 02040202, on right bank 60 ft upstream from dam, 200 ft upstream from bridge on Woodland Avenue, at Darby, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--22.0 mi².

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

REVISED RECORDS.--WDR PA-75-1: 1974(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 11.93 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 30.8 ft³/s, 19.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,490 ft³/s, June 29, 1973, gage height, 10.98 ft, from rating curve extended above 850 ft³/s, on basis of computation of peak flow through culvert; maximum gage height, 12.85 ft Aug. 23, 1974, backwater from storage tank; minimum discharge, no flow on many days in 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0015	*2270	*5.43	No other peaks above base discharge.			

Minimum daily discharge, 7.9 ft³/s, Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.9	14	31	23	215	20	19	17	11	10	49
2	31	25	215	146	32	39	17	26	19	271	9.5	9.7
3	10	10	201	29	37	25	15	36	16	30	9.2	8.7
4	15	20	25	24	29	22	234	120	92	110	9.0	8.8
5	11	87	22	22	24	21	61	28	32	35	111	8.9
6	9.4	65	20	21	22	20	74	22	16	14	34	25
7	8.7	11	18	21	22	20	26	20	16	24	11	15
8	8.8	84	17	20	22	20	22	20	15	16	9.7	23
9	8.7	33	74	19	23	20	21	19	21	94	41	16
10	7.9	17	29	32	22	21	20	19	14	22	177	9.1
11	8.0	160	36	20	e20	21	20	19	13	15	12	8.6
12	8.1	24	30	18	e19	22	20	146	13	85	10	8.5
13	14	13	20	17	e19	22	19	25	17	21	9.3	276
14	77	10	19	17	e19	21	19	19	17	156	9.0	21
15	13	10	18	19	e18	20	19	69	15	29	9.1	12
16	10	9.9	17	18	e18	20	19	22	14	17	8.8	10
17	9.5	9.6	17	17	e17	19	58	18	13	14	9.0	36
18	9.4	97	170	100	e17	19	23	18	12	13	8.9	112
19	9.1	93	30	157	e17	19	20	26	12	14	8.4	23
20	9.0	166	22	39	e16	19	20	70	12	13	8.4	13
21	8.9	142	21	27	e16	19	20	32	28	11	8.1	11
22	8.8	21	20	26	e16	18	19	20	23	11	28	17
23	8.7	15	19	27	38	15	20	49	25	11	9.7	10
24	8.4	33	172	23	29	17	86	21	13	11	8.1	9.4
25	8.4	16	333	24	20	15	66	19	12	11	8.3	9.0
26	68	285	29	25	19	16	21	19	12	22	8.4	8.8
27	17	44	25	23	18	16	20	32	117	12	64	8.7
28	11	22	23	22	21	25	28	19	14	10	16	8.6
29	9.4	19	22	24	---	16	23	18	12	10	129	8.6
30	9.0	16	22	25	---	32	20	18	12	10	10	26
31	8.8	---	22	25	---	95	---	17	---	11	50	---
TOTAL	458.0	1566.4	1722	1058	613	909	1070	1025	664	1134	853.9	810.4
MEAN	14.8	52.2	55.5	34.1	21.9	29.3	35.7	33.1	22.1	36.6	27.5	27.0
MAX	77	285	333	157	38	215	234	146	117	271	177	276
MIN	7.9	8.9	14	17	16	15	15	17	12	10	8.1	8.5
CFSM	.67	2.37	2.52	1.55	1.00	1.33	1.62	1.50	1.01	1.66	1.25	1.23
IN.	.77	2.65	2.91	1.79	1.04	1.54	1.81	1.73	1.12	1.92	1.44	1.37

CAL YR 1986 TOTAL 10467.2 MEAN 28.7 MAX 706 MIN 3.3 CFSM 1.30 IN. 17.70
WTR YR 1987 TOTAL 11883.7 MEAN 32.6 MAX 333 MIN 7.9 CFSM 1.48 IN. 20.09

e Estimated

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA

Location.--Lat 39°58'35", long 75°26'13", Delaware County, Hydrologic Unit 02040202, at Castle Rock Bridge on State Highway 3, 0.6 mi upstream from Preston Run, 0.8 mi upstream from Geist Reservoir and 2.0 mi west of Newtown Square.

DRAINAGE AREA.--15.8 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1932, 1949, 1970-1977, and annual maximum 1977-1981. October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 225.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for periods of estimated record which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 22.1 ft^3/s, 18.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft^3/s, March 21, 1983, gage height, 7.08 ft, from rating curve extended above 830 ft^3/s; minimum daily dischagre 3.2 ft^3/s, August 15, 16, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 26	2045	842	6.24	Dec. 25	0145	*887	*6.39

Minimum daily discharge, 3.4 ft^3/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	12	60	21	20	214	28	20	14	9.6	5.7	8.1
2	11	15	44	50	23	53	21	21	13	39	5.7	5.4
3	7.1	15	37	34	30	33	19	22	17	15	5.6	4.3
4	7.8	15	31	27	31	28	155	42	38	11	5.3	3.7
5	8.1	24	28	23	26	25	39	31	36	14	6.9	3.4
6	7.5	39	27	22	22	24	67	24	17	8.6	24	6.9
7	7.6	17	26	22	24	24	35	22	15	9.4	8.1	13
8	7.8	36	17	21	24	23	29	20	14	9.7	6.7	11
9	7.9	23	37	21	24	23	27	19	14	8.4	8.3	e8.5
10	7.8	22	33	27	20	20	25	18	13	13	51	e6.0
11	7.8	92	23	30	21	20	24	18	13	8.3	8.3	e4.8
12	8.0	30	26	24	21	20	23	22	12	15	7.5	e4.7
13	9.8	16	22	23	20	20	22	21	12	13	6.4	e55
14	17	13	17	20	19	19	22	18	15	50	6.2	e18
15	10	12	17	22	17	19	21	25	12	27	6.1	e6.0
16	7.5	11	16	19	17	19	20	22	10	12	5.7	e5.6
16	7.5	11	16	19	17	19	20	22	10	12	5.7	e5.6
17	7.1	10	17	18	18	18	34	18	9.7	11	6.0	e12
18	7.0	12	82	29	18	18	28	17	9.5	9.2	6.1	34
19	7.4	45	37	96	18	18	23	19	9.3	8.8	5.1	20
20	7.9	41	23	42	18	18	21	33	9.4	8.3	4.8	14
21	7.9	133	20	29	18	18	20	35	15	7.7	4.2	12
22	7.9	23	18	30	19	17	19	22	17	7.2	6.5	12
23	8.2	19	19	30	23	17	19	34	14	6.8	6.6	9.8
24	9.3	22	35	22	20	17	71	25	11	6.7	4.3	8.7
25	9.3	19	244	23	20	16	94	20	9.7	6.6	3.8	7.9
26	19	203	32	23	20	17	30	19	9.4	6.9	4.1	7.4
27	15	68	26	22	20	16	26	21	11	7.0	12	7.3
28	9.7	26	24	21	21	20	24	19	8.9	6.1	8.2	7.5
29	9.8	21	23	21	---	17	23	17	7.9	5.9	11	7.4
30	12	86	23	22	---	19	21	15	7.6	5.7	6.1	8.8
31	12	---	21	22	---	58	---	14	---	6.0	5.3	---
TOTAL	288.0	1120	1105	856	592	888	1030	693	414.4	372.9	261.6	333.2
MEAN	9.29	37.3	35.6	27.6	21.1	28.6	34.3	22.4	13.8	12.0	8.44	11.1
MAX	19	203	244	96	31	214	155	42	38	50	51	55
MIN	5.8	10	16	18	17	16	19	14	7.6	5.7	3.8	3.4
CFSM	.59	2.36	2.26	1.75	1.34	1.81	2.17	1.41	.87	.76	.53	.70
IN.	.68	2.64	2.60	2.02	1.39	2.09	2.43	1.63	.98	.88	.62	.78

CAL YR 1986 TOTAL 7033.2 MEAN 19.3 MAX 274 MIN 3.2 CFSM 1.22 IN. 16.56
WTR YR 1987 TOTAL 7954.1 MEAN 21.8 MAX 244 MIN 3.4 CFSM 1.38 IN. 18.73

e Estimated

01476480 RIDLEY CREEK AT MEDIA, PA

LOCATION.--Lat 39°54'58", long 75°24'13", Delaware County, Hydrologic Unit 02040202, on right bank 400 ft downstream from Route 1 bridge (Baltimore Pike) at Media.

DRAINAGE AREA.--30.50 mi².

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Altitude of gage is 110 ft., from topographic map.

REMARKS.-- Records poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 968 ft³/s, Dec. 25, 1986, gage height, 5.77 ft; minimum daily discharge, 5.7 ft³/s, Oct. 7, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	0030	776	5.49	Dec. 25	0500	*968	*5.77

Minimum daily discharge, 5.7 ft³/s, Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	9.4	34	e47	e41	e470	e60	e41	e40	e28	11	e13
2	11	14	80	e100	e46	e120	e45	e41	e40	e100	9.4	e9.0
3	7.9	16	264	e74	e61	e71	e40	e43	e55	e38	9.4	e7.3
4	8.3	15	66	e58	e63	e58	277	e88	e102	e30	9.1	e6.5
5	8.0	35	50	e48	e55	e52	e75	e62	e101	e33	14	e5.9
6	6.4	88	45	e46	e45	e49	e130	e50	e53	e21	35	e12
7	5.7	63	42	e45	e50	e48	e70	e47	e45	e23	16	e21
8	6.3	161	40	e44	e50	e48	e60	e41	e41	e23	12	e19
9	6.1	42	78	e43	e50	e47	e52	e40	e40	e22	22	e14
10	6.3	39	80	e53	e41	e44	e48	e38	e39	e30	96	e11
11	6.9	130	56	e58	e43	e42	e47	e38	e38	e22	23	e8.2
12	6.4	74	63	e50	e42	e40	e46	e44	e36	e35	e13	e9.5
13	8.9	30	53	e48	e41	e40	e45	e43	e34	e32	e12	e85
14	21	23	43	e43	e39	e40	e44	e38	e41	e102	e11	e33
15	12	21	42	e44	e34	e40	e43	e49	e35	e74	e10	e12
16	7.8	20	41	e40	e37	e39	e42	e47	e29	e32	e9.5	e9.5
17	8.2	18	42	e38	e37	e38	e68	e38	e29	e28	e10	e22
18	8.8	25	154	e60	e37	e38	e57	e36	e29	e24	e10	e55
19	7.7	91	102	e190	e37	e38	e44	e40	e29	e22	e8.8	e34
20	6.8	62	60	e92	e37	e37	e41	e70	e28	e21	e7.8	e23
21	6.8	212	53	e60	e37	e36	e39	e71	e44	e18	e7.0	e21
22	7.1	42	50	e60	e38	e36	e38	e47	e51	e16	e11	e20
23	8.3	30	48	e60	e47	e35	e41	e70	e40	e13	e12	e17
24	8.4	39	79	e48	e42	e35	e140	e52	e32	12	e7.3	e16
25	7.7	33	648	e47	e42	e33	e190	e41	e28	12	e6.5	e14
26	20	180	e70	e47	e42	e32	e60	e40	e28	12	e6.9	e13
27	19	223	e50	e45	e42	e32	e50	e42	e32	13	e19	e13
28	9.9	54	e45	e42	e43	e36	e47	e39	e27	12	e15	e13
29	8.9	44	e43	e43	---	e35	e43	e35	e23	10	e18	e12
30	10	38	e42	e45	---	e39	e41	e30	e23	11	e11	e13
31	9.8	---	e42	e46	---	e120	---	e28	---	10	e9.0	---
TOTAL	282.4	1871.4	2605	1764	1219	1868	2023	1429	1212	879	471.7	561.9
MEAN	9.11	62.4	84.0	56.9	43.5	60.3	67.4	46.1	40.4	28.4	15.2	18.7
MAX	21	223	648	190	63	470	277	88	102	102	96	85
MIN	5.7	9.4	34	38	34	32	38	28	23	10	6.5	5.9

WTR YR 1987 TOTAL 16186.4 MEAN 44.3 MAX 648 MIN 5.7

e Estimated

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft downstream from Dutton Mill Bridge and 3 mi northwest of Chester.

DRAINAGE AREA.--61.1 mi².

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft above Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft upstream and June 28, 1966, to Oct. 4, 1967, nonrecording gage 150 ft upstream, all at same datum.

REMARKS.--Records fair except for periods of estimated discharge, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 88.2 ft³/s, 19.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s, Sept. 13, 1971, gage height, 24.59 ft, from floodmark, from rating curve extended above 2,400 ft³/s, on basis of contracted-opening measurement at gage height 13.57 ft and slope-area measurement of peak flow; minimum, 0.3 ft³/s, Aug. 7, 1934, gage height, 0.28 ft; minimum daily, 6.5 ft³/s, Sept. 25, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 26	2115	1930	7.43	Dec. 25	0215	*2840	*8.98
Dec. 3	0330	1420	6.39				

Minimum daily discharge, 26 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	33	56	91	e70	661	105	93	e56	e130	43	71
2	54	41	176	253	90	260	80	101	e56	e310	41	45
3	34	37	652	166	123	143	73	136	e55	e140	39	35
4	35	36	125	123	136	111	401	261	e160	e90	38	30
5	33	90	86	103	108	97	186	150	e140	e100	50	27
6	32	186	72	96	93	91	318	102	e105	e55	90	30
7	36	48	66	94	94	88	172	86	e62	e61	55	54
8	31	148	63	90	97	85	131	80	e58	e57	48	63
9	31	91	140	88	96	82	114	77	e62	e200	45	159
10	31	78	143	106	83	75	106	73	e58	e100	132	63
11	30	272	91	112	82	74	100	70	e57	55	61	45
12	30	143	110	91	84	74	99	86	e53	361	49	39
13	32	58	82	77	81	72	98	104	e58	177	44	319
14	73	46	66	71	77	71	94	77	e58	188	42	171
15	39	44	62	73	71	69	92	90	e54	163	39	61
16	34	41	61	72	e67	68	95	93	e50	72	38	47
17	33	41	61	67	e63	67	144	84	e47	60	35	51
18	32	49	310	159	e61	65	114	81	e45	52	34	180
19	32	196	178	383	e59	66	100	e95	e44	49	32	142
20	32	116	92	227	e57	71	97	e130	e43	47	30	64
21	31	468	77	128	e55	67	93	e100	e82	45	27	53
22	31	90	69	e100	e54	66	91	e80	e80	45	35	71
23	32	63	80	e90	92	64	91	e130	e68	46	46	54
24	32	79	128	e85	87	67	228	e100	e58	48	33	48
25	32	66	946	e81	84	69	302	e80	e50	50	27	44
26	70	415	156	e80	82	69	136	e70	e44	52	26	40
27	48	403	119	e78	84	66	113	e80	e100	53	32	38
28	38	99	107	e76	84	76	109	e65	e60	51	39	38
29	35	74	99	e74	---	69	105	e60	e52	48	87	40
30	34	62	98	e72	---	82	99	e58	e48	46	45	50
31	33	---	94	e71	---	209	---	e57	---	45	35	---
TOTAL	1131	3613	4665	3477	2314	3294	4086	2949	1963	2996	1417	2172
MEAN	36.5	120	150	112	82.6	106	136	95.1	65.4	96.6	45.7	72.4
MAX	73	468	946	383	136	661	401	261	160	361	132	319
MIN	30	33	56	67	54	64	73	57	43	45	26	27
CFSM	.60	1.97	2.46	1.84	1.35	1.74	2.23	1.56	1.07	1.58	.75	1.18
IN.	.69	2.20	2.84	2.12	1.41	2.01	2.49	1.80	1.20	1.82	.86	1.32

CAL YR 1986 TOTAL 27403 MEAN 75.1 MAX 978 MIN 23 CFSM 1.23 IN. 16.68
WTR YR 1987 TOTAL 34077 MEAN 93.4 MAX 946 MIN 26 CFSM 1.53 IN. 20.75

e Estimated

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'33", long 75°21'28", Delaware County, Hydrologic Unit 02040202, in the pumping house of Scott Paper Company.

DRAINAGE AREA.--10,300 mi².

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURE: December 1961 to current year.
DISSOLVED OXYGEN: December 1961 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1961.

REMARKS.--Prior to April 1981, sampling site was located at (latitude 39°50'12", longitude 75°22'00") auxiliary tidal-gaging station at the end of Reynolds Aluminum Company pier, 0.5 mi downstream from Chester Creek in Chester. Station not operated Dec. 5 to Mar. 2. Other interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,900 microsienmens, Oct. 7, 1965; minimum, 103 microsiemens. June 2, 1984 Apr. 9, 1987.
pH: Maximum, 8.7, Sept. 13, 14, 1971 and Oct. 16, 1979; minimum, 5.5, Dec. 10, 11, 1969.
WATER TEMPERATURE: Maximum, 33.0°C, July 21, 1977; minimum, 0.0°C, on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Apr. 20, 1979, minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1320	630	900	1750	600	989	172	161	167	---	---	---
2	1360	650	973	1720	615	954	169	158	164	---	---	---
3	1580	625	1060	1920	605	993	181	160	167	---	---	---
4	1630	645	1050	2110	710	1160	188	169	177	---	---	---
5	1380	615	983	2270	725	1180	---	---	---	---	---	---
6	1400	545	912	2140	745	1260	---	---	---	---	---	---
7	1350	580	854	1790	705	1080	---	---	---	---	---	---
8	1520	575	904	1560	675	1020	---	---	---	---	---	---
9	1320	585	858	1260	625	870	---	---	---	---	---	---
10	1620	565	892	930	485	679	---	---	---	---	---	---
11	1740	585	980	870	445	625	---	---	---	---	---	---
12	1660	615	942	660	390	495	---	---	---	---	---	---
13	1410	625	893	565	350	423	---	---	---	---	---	---
14	1450	610	888	455	340	386	---	---	---	---	---	---
15	1260	550	802	422	319	369	---	---	---	---	---	---
16	1240	555	854	396	314	354	---	---	---	---	---	---
17	1540	580	909	421	311	359	---	---	---	---	---	---
18	1610	590	951	430	309	354	---	---	---	---	---	---
19	1600	615	958	382	282	321	---	---	---	---	---	---
20	1540	610	940	347	278	311	---	---	---	---	---	---
21	1680	660	992	320	248	278	---	---	---	---	---	---
22	1490	665	953	271	238	259	---	---	---	---	---	---
23	---	---	---	260	211	241	---	---	---	---	---	---
24	---	---	---	235	197	217	---	---	---	---	---	---
25	---	---	---	206	180	192	---	---	---	---	---	---
26	---	---	---	192	177	184	---	---	---	---	---	---
27	---	---	---	197	152	177	---	---	---	---	---	---
28	---	---	---	218	181	203	---	---	---	---	---	---
29	---	---	---	212	172	191	---	---	---	---	---	---
30	---	---	---	183	164	172	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	1680	545	930	2270	152	543	188	158	169	---	---	---

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	228	217	222	214	192	202
2	---	---	---	---	---	---	232	217	224	217	196	205
3	---	---	---	354	303	341	234	223	228	219	196	206
4	---	---	---	340	288	315	234	212	223	214	197	208
5	---	---	---	309	284	296	220	197	211	218	204	211
6	---	---	---	304	280	291	220	135	180	226	207	218
7	---	---	---	296	278	286	168	128	150	239	213	226
8	---	---	---	287	270	281	167	116	137	242	222	231
9	---	---	---	285	261	275	137	103	122	252	225	239
10	---	---	---	272	251	263	148	107	125	251	229	241
11	---	---	---	266	241	255	145	113	127	254	230	244
12	---	---	---	254	227	243	144	115	129	261	236	248
13	---	---	---	264	217	242	146	118	132	263	238	252
14	---	---	---	253	226	240	147	122	134	262	244	253
15	---	---	---	242	224	236	147	124	138	268	248	256
16	---	---	---	239	222	231	156	134	144	272	250	260
17	---	---	---	234	217	227	177	134	155	270	250	261
18	---	---	---	230	212	223	176	151	164	276	255	264
19	---	---	---	228	209	221	179	153	165	280	260	268
20	---	---	---	224	204	215	186	157	168	279	265	272
21	---	---	---	222	202	212	187	161	171	286	265	274
22	---	---	---	215	198	209	186	166	175	285	267	276
23	---	---	---	213	196	206	193	172	182	285	270	278
24	---	---	---	212	198	206	202	176	188	289	269	280
25	---	---	---	219	202	208	192	177	185	293	275	283
26	---	---	---	214	203	209	201	177	187	292	274	282
27	---	---	---	220	205	211	204	179	193	301	281	290
28	---	---	---	220	207	214	209	182	197	299	285	290
29	---	---	---	223	207	215	212	189	201	304	287	293
30	---	---	---	225	209	218	209	191	200	297	284	291
31	---	---	---	228	215	220	---	---	---	302	289	295
MONTH	---	---	---	354	196	242	234	103	172	304	192	255

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	301	288	295	489	366	425	304	257	278	612	328	441
2	302	292	298	503	340	410	336	261	289	727	326	440
3	312	293	304	433	322	357	335	262	289	682	319	425
4	321	299	313	369	312	338	417	262	310	739	321	438
5	329	312	321	353	304	328	441	276	321	791	323	452
6	333	323	329	365	304	330	465	276	320	799	324	477
7	338	323	331	365	302	327	450	281	324	997	334	545
8	345	330	337	396	303	333	496	280	336	938	353	584
9	347	333	342	384	311	337	445	280	335	1100	331	559
10	350	333	341	379	291	321	500	274	328	372	274	328
11	392	336	351	351	295	315	375	278	311	303	259	276
12	456	320	353	363	280	318	360	281	311	272	244	259
13	405	319	346	336	289	308	375	280	318	250	218	238
14	421	321	353	337	277	304	374	285	320	226	209	218
15	462	325	361	305	266	285	394	289	326	213	194	204
16	445	322	361	292	268	279	404	293	335	197	156	173
17	482	326	385	282	261	273	456	295	345	170	150	157
18	496	333	394	277	252	266	465	306	353	167	144	156
19	503	339	405	269	241	258	589	316	389	162	151	156
20	577	350	417	266	242	256	616	329	409	164	148	155
21	657	361	442	267	242	257	619	310	418	159	144	152
22	623	367	459	273	242	256	712	320	434	153	143	147
23	693	371	467	274	243	257	598	312	408	167	141	149
24	643	385	475	276	245	259	715	319	444	167	144	154
25	764	387	487	270	248	259	767	338	487	174	150	159
26	668	369	480	270	247	259	755	344	505	172	152	162
27	768	372	487	277	249	261	838	364	543	175	158	164
28	628	368	449	283	250	263	940	373	612	173	159	166
29	556	370	442	282	253	265	848	354	536	172	162	166
30	553	370	436	319	255	276	771	342	491	170	161	166
31	---	---	---	300	259	276	810	351	508	---	---	---
MONTH	768	288	385	503	241	299	940	257	385	1100	141	276

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.7	6.6	6.6	7.1	6.8	6.9	6.7	6.6	6.6	---	---	---
2	6.8	6.7	6.7	7.1	6.8	6.9	6.7	6.6	6.6	---	---	---
3	7.0	6.8	6.9	7.1	6.8	6.9	6.7	6.6	6.7	---	---	---
4	7.0	6.8	6.9	7.1	6.8	6.9	6.8	6.6	6.7	---	---	---
5	7.0	6.8	6.9	7.1	6.8	6.9	---	---	---	---	---	---
6	7.0	6.8	6.9	7.1	6.9	7.0	---	---	---	---	---	---
7	7.0	6.8	6.9	7.1	6.8	6.9	---	---	---	---	---	---
8	7.1	6.9	7.0	7.1	6.9	7.0	---	---	---	---	---	---
9	7.0	6.9	6.9	7.0	6.9	6.9	---	---	---	---	---	---
10	7.1	6.9	7.0	7.0	6.9	6.9	---	---	---	---	---	---
11	7.1	6.9	7.0	6.9	6.8	6.9	---	---	---	---	---	---
12	7.1	6.9	7.0	6.9	6.8	6.8	---	---	---	---	---	---
13	7.1	6.9	7.0	6.9	6.7	6.8	---	---	---	---	---	---
14	7.1	6.9	7.0	6.8	6.8	6.8	---	---	---	---	---	---
15	7.1	6.8	6.9	6.8	6.8	6.8	---	---	---	---	---	---
16	7.1	6.9	7.0	6.8	6.8	6.8	---	---	---	---	---	---
17	7.1	6.9	7.0	6.8	6.8	6.8	---	---	---	---	---	---
18	7.1	6.8	7.0	6.8	6.8	6.8	---	---	---	---	---	---
19	7.1	6.9	7.0	6.8	6.8	6.8	---	---	---	---	---	---
20	7.1	6.9	7.0	6.9	6.8	6.8	---	---	---	---	---	---
21	7.1	6.9	7.0	6.9	6.8	6.9	---	---	---	---	---	---
22	7.1	6.9	7.0	6.9	6.9	6.9	---	---	---	---	---	---
23	---	---	---	6.9	6.8	6.9	---	---	---	---	---	---
24	---	---	---	6.8	6.7	6.8	---	---	---	---	---	---
25	---	---	---	6.7	6.7	6.7	---	---	---	---	---	---
26	---	---	---	6.7	6.7	6.7	---	---	---	---	---	---
27	---	---	---	6.8	6.6	6.7	---	---	---	---	---	---
28	---	---	---	7.0	6.7	6.8	---	---	---	---	---	---
29	---	---	---	6.8	6.6	6.7	---	---	---	---	---	---
30	---	---	---	6.7	6.6	6.6	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.1	6.6	9.1	7.1	6.6	6.8	6.8	6.6	6.7	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	6.8	6.7	6.7	6.7	6.6	6.6
2	---	---	---	---	---	---	6.9	6.7	6.8	6.7	6.6	6.6
3	---	---	---	6.9	6.8	6.9	6.9	6.8	6.8	6.6	6.6	6.6
4	---	---	---	6.9	6.8	6.9	6.9	6.8	6.9	6.6	6.5	6.5
5	---	---	---	6.9	6.8	6.9	6.8	6.8	6.8	6.5	6.4	6.5
6	---	---	---	6.9	6.8	6.9	6.8	6.6	6.7	6.4	6.4	6.4
7	---	---	---	7.0	6.9	6.9	6.6	6.5	6.6	6.4	6.4	6.4
8	---	---	---	7.0	6.9	6.9	6.6	6.5	6.6	6.4	6.3	6.4
9	---	---	---	6.9	6.9	6.9	6.5	6.4	6.5	6.4	6.4	6.4
10	---	---	---	6.9	6.9	6.9	6.6	6.4	6.5	6.5	6.4	6.5
11	---	---	---	6.9	6.9	6.9	6.6	6.5	6.5	6.6	6.5	6.5
12	---	---	---	6.9	6.8	6.9	6.6	6.5	6.5	6.6	6.5	6.6
13	---	---	---	6.9	6.8	6.8	6.6	6.5	6.5	6.6	6.5	6.6
14	---	---	---	6.9	6.8	6.8	6.6	6.5	6.5	6.7	6.6	6.6
15	---	---	---	6.8	6.8	6.8	6.5	6.5	6.5	6.8	6.6	6.7
16	---	---	---	6.8	6.8	6.8	6.6	6.5	6.5	6.8	6.7	6.7
17	---	---	---	6.8	6.8	6.8	6.6	6.5	6.6	6.9	6.7	6.8
18	---	---	---	6.8	6.8	6.8	6.6	6.6	6.6	6.9	6.8	6.9
19	---	---	---	6.8	6.7	6.8	6.6	6.6	6.6	6.9	6.8	6.8
20	---	---	---	6.8	6.7	6.7	6.6	6.6	6.6	6.8	6.7	6.8
21	---	---	---	7.5	6.7	6.8	6.7	6.6	6.6	6.8	6.7	6.8
22	---	---	---	6.8	6.7	6.7	6.6	6.6	6.6	6.9	6.7	6.8
23	---	---	---	6.8	6.7	6.7	6.6	6.6	6.6	6.9	6.8	6.8
24	---	---	---	6.7	6.7	6.7	6.6	6.6	6.6	6.8	6.7	6.8
25	---	---	---	6.7	6.7	6.7	6.6	6.5	6.6	6.8	6.7	6.7
26	---	---	---	6.7	6.7	6.7	6.6	6.5	6.6	6.7	6.6	6.7
27	---	---	---	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6
28	---	---	---	6.7	6.6	6.7	6.6	6.6	6.6	6.6	6.6	6.6
29	---	---	---	6.7	6.6	6.7	6.6	6.5	6.6	6.6	6.6	6.6
30	---	---	---	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6
31	---	---	---	6.8	6.7	6.7	---	---	---	6.6	6.5	6.6
MONTH	---	---	---	7.5	6.6	6.8	6.9	6.4	6.6	6.9	6.3	6.6

01477050 DELAWARE RIVER AT CHESTER PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	6.6	6.5	6.6	6.8	6.7	6.8	6.7	6.6	6.6	6.6	6.4	6.5
2	6.5	6.5	6.5	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.5	6.5
3	6.5	6.5	6.5	6.7	6.6	6.7	6.6	6.6	6.6	6.6	6.5	6.5
4	6.5	6.5	6.5	6.7	6.6	6.7	6.8	6.5	6.7	6.7	6.5	6.6
5	6.6	6.5	6.5	6.7	6.6	6.7	6.8	6.7	6.7	6.7	6.5	6.6
6	6.6	6.5	6.6	6.8	6.6	6.7	6.8	6.7	6.7	6.7	6.5	6.6
7	6.6	6.5	6.6	6.7	6.6	6.7	6.8	6.6	6.7	6.8	6.5	6.6
8	6.6	6.5	6.6	6.7	6.6	6.7	6.8	6.6	6.7	6.7	6.5	6.6
9	6.6	6.6	6.6	6.7	6.6	6.7	6.8	6.6	6.7	6.8	6.5	6.6
10	6.6	6.6	6.6	6.7	6.6	6.6	6.8	6.6	6.7	6.5	6.5	6.5
11	6.7	6.6	6.6	6.7	6.6	6.6	6.7	6.6	6.6	6.5	6.4	6.5
12	6.7	6.6	6.7	6.7	6.6	6.6	6.7	6.6	6.7	6.6	6.5	6.5
13	6.7	6.6	6.7	6.6	6.6	6.6	6.7	6.6	6.7	6.6	6.5	6.6
14	6.7	6.6	6.7	6.6	6.6	6.6	6.7	6.7	6.7	6.6	6.5	6.5
15	6.8	6.6	6.7	6.6	6.6	6.6	6.7	6.6	6.7	6.6	6.5	6.6
16	6.8	6.6	6.7	6.6	6.5	6.6	6.7	6.6	6.7	6.5	6.4	6.4
17	6.8	6.7	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.4	6.3	6.4
18	6.8	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.3	6.4
19	6.8	6.7	6.7	6.7	6.6	6.6	6.7	6.6	6.6	6.5	6.4	6.5
20	6.8	6.7	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.5	6.4	6.4
21	6.8	6.6	6.7	6.7	6.6	6.6	6.7	6.5	6.6	6.4	6.4	6.4
22	6.8	6.6	6.7	6.7	6.6	6.6	6.8	6.6	6.7	6.4	6.3	6.4
23	6.8	6.6	6.6	6.7	6.6	6.6	6.8	6.6	6.7	7.6	6.3	6.4
24	6.8	6.6	6.7	6.7	6.6	6.6	6.7	6.6	6.6	6.5	6.3	6.4
25	6.8	6.6	6.7	6.7	6.6	6.6	6.7	6.5	6.6	6.5	6.4	6.4
26	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.4	6.5	6.5	6.4	6.4
27	6.9	6.7	6.7	6.7	6.6	6.6	6.6	6.4	6.5	6.5	6.4	6.4
28	6.8	6.6	6.7	6.7	6.6	6.6	6.6	6.4	6.5	6.4	6.4	6.4
29	6.8	6.7	6.7	6.7	6.6	6.6	6.6	6.4	6.5	6.4	6.4	6.4
30	6.9	6.7	6.8	6.7	6.6	6.6	6.6	6.4	6.5	6.4	6.4	6.4
31	---	---	---	6.7	6.6	6.6	6.6	6.4	6.5	---	---	---
MONTH	6.9	6.5	6.6	6.8	6.5	6.6	6.8	6.4	6.6	7.6	6.3	6.5

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	24.0	22.5	23.0	16.0	15.0	15.5	7.0	6.5	6.5	---	---	---
2	24.0	23.0	23.5	16.0	15.5	15.5	7.5	6.5	7.0	---	---	---
3	23.5	23.0	23.0	15.5	15.0	15.5	8.0	7.0	7.5	---	---	---
4	23.5	23.0	23.0	15.5	15.0	15.0	8.0	7.0	7.5	---	---	---
5	23.5	22.5	23.0	15.5	14.0	14.5	---	---	---	---	---	---
6	22.5	21.0	22.0	14.5	14.0	14.0	---	---	---	---	---	---
7	21.5	21.0	21.0	14.5	14.0	14.0	---	---	---	---	---	---
8	21.5	20.5	21.0	14.5	14.0	14.0	---	---	---	---	---	---
9	21.5	20.5	21.0	14.5	14.0	14.5	---	---	---	---	---	---
10	22.0	19.5	20.5	14.5	14.0	14.0	---	---	---	---	---	---
11	19.5	19.5	19.5	14.0	12.5	13.5	---	---	---	---	---	---
12	19.5	19.0	19.0	13.0	12.5	13.0	---	---	---	---	---	---
13	19.5	19.0	19.0	13.0	12.0	12.5	---	---	---	---	---	---
14	20.0	19.0	19.5	12.0	11.0	11.5	---	---	---	---	---	---
15	19.0	18.5	19.0	11.5	11.0	11.0	---	---	---	---	---	---
16	18.5	18.0	18.5	11.5	11.0	11.0	---	---	---	---	---	---
17	18.5	17.5	18.0	11.5	11.0	11.5	---	---	---	---	---	---
18	18.0	17.0	17.5	11.5	11.0	11.5	---	---	---	---	---	---
19	17.5	16.5	17.0	11.5	10.5	11.0	---	---	---	---	---	---
20	17.5	17.0	17.0	11.0	10.0	10.5	---	---	---	---	---	---
21	17.5	17.0	17.0	10.5	9.0	10.0	---	---	---	---	---	---
22	17.5	17.0	17.0	9.5	8.5	9.0	---	---	---	---	---	---
23	---	---	---	9.0	8.0	8.5	---	---	---	---	---	---
24	---	---	---	8.5	8.0	8.5	---	---	---	---	---	---
25	---	---	---	8.5	7.5	8.0	---	---	---	---	---	---
26	---	---	---	8.5	7.5	8.0	---	---	---	---	---	---
27	---	---	---	9.5	8.0	8.0	---	---	---	---	---	---
28	---	---	---	8.0	7.5	8.0	---	---	---	---	---	---
29	---	---	---	8.0	7.5	7.5	---	---	---	---	---	---
30	---	---	---	7.5	7.0	7.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	24.0	16.5	20.0	16.0	7.0	11.5	8.0	6.5	7.1	---	---	---

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

WATER TEMPERATURE, (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.5	10.5	11.0	15.5	14.0	15.0
2	---	---	---	---	---	---	12.0	11.0	11.5	15.5	14.5	15.0
3	---	---	---	6.0	5.0	5.5	12.5	11.5	12.0	15.5	15.0	15.5
4	---	---	---	5.5	5.0	5.5	13.0	11.5	12.5	15.5	15.0	15.0
5	---	---	---	6.0	5.0	5.5	12.5	11.5	12.0	15.0	14.5	15.0
6	---	---	---	6.5	5.0	6.0	11.5	10.5	11.5	15.5	14.5	15.0
7	---	---	---	7.0	5.5	6.5	11.0	10.0	10.5	16.5	15.0	15.5
8	---	---	---	7.5	6.0	7.0	10.5	9.5	10.0	16.5	15.5	16.0
9	---	---	---	8.0	7.0	7.5	10.5	9.5	10.0	17.0	16.0	16.5
10	---	---	---	7.5	6.5	7.0	11.0	9.5	10.5	17.5	16.0	17.0
11	---	---	---	7.0	6.0	6.5	11.5	10.0	11.0	18.5	17.0	17.5
12	---	---	---	7.0	6.0	6.5	12.0	11.0	11.5	18.5	17.5	18.0
13	---	---	---	7.0	6.0	6.5	12.5	11.0	11.5	18.5	17.5	18.0
14	---	---	---	7.0	6.0	6.5	12.5	11.0	11.5	18.5	17.5	18.0
15	---	---	---	7.0	6.5	6.5	12.0	11.5	12.0	19.0	18.0	18.0
16	---	---	---	7.5	6.5	7.0	12.0	11.5	11.5	18.5	17.5	18.0
17	---	---	---	7.5	6.5	7.0	12.5	11.0	11.5	19.5	18.0	18.5
18	---	---	---	7.5	6.5	7.0	12.5	11.5	12 0	20.0	18.5	19.5
19	---	---	---	8.0	7.0	7.5	13.5	12.0	12.5	19.5	18.5	19.0
20	---	---	---	8.0	7.0	7.5	13.5	12.5	13.0	18.5	17.5	18.0
21	---	---	---	7.5	7.0	7.5	14.5	13.0	14.0	18.5	17.5	18.0
22	---	---	---	8.0	7.0	7.5	15.0	14.0	14.5	19.5	18.0	19.0
23	---	---	---	8.5	7.5	8.0	14.5	14.0	14.5	20.0	19.0	19.5
24	---	---	---	9.0	8.0	8.5	14.5	14.0	14.0	20.5	19.0	19.5
25	---	---	---	10.0	8.5	9.0	14.5	13.5	14.0	20.0	19.5	19.5
26	---	---	---	10.5	9.0	9.5	14.0	13.0	13.5	20.0	19.5	19.5
27	---	---	---	10.5	9.0	10.0	14.5	13.5	14.0	20.0	19.0	19.5
28	---	---	---	10.5	10.0	10.0	14.5	13.5	14.0	21.0	19.5	20.0
29	---	---	---	11.5	10.0	10.5	15.0	14.0	14.5	22.0	20.0	20.5
30	---	---	---	11.5	10.5	11.0	15.0	14.0	14.5	22.5	20.5	21.5
31	---	---	---	12.0	11.0	11.5	---	---	---	23.0	21.0	22.0
MONTH	---	---	---	12.0	5.0	7.7	15.0	9.5	12.4	23.0	14.0	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.5	22.0	22.5	27.5	26.0	26.5	29.5	29.0	29.0	25.5	25.0	25.0
2	24.0	22.5	23.0	27.0	26.0	27.0	29.5	28.5	29.0	25.5	24.5	25.0
3	23.5	23.0	23.5	27.5	26.5	27.0	29.5	28.5	29.0	25.0	24.5	24.5
4	23.5	23.0	23.0	27.5	26.5	27.0	30.0	29.0	29.5	25.0	24.0	24.5
5	23.5	22.5	23.0	27.5	27.0	27.5	30.5	29.0	29.5	24.5	24.0	24.5
6	23.5	23.0	23.5	28.0	27.0	27.5	29.5	28.5	29.0	24.0	24.0	24.0
7	23.5	23.0	23.0	28.0	27.0	27.0	29.5	28.0	28.5	24.5	24.0	24.5
8	24.5	23.0	23.5	28.0	26.5	27.0	29.5	28.0	28.5	25.0	24.0	24.5
9	24.5	23.5	24.0	28.5	27.0	28.0	29.5	28.5	28.5	25.5	24.0	24.5
10	24.5	23.0	23.5	28.5	27.5	28.0	29.0	28.0	28.5	25.0	24.0	24.5
11	24.5	23.0	23.5	29.0	28.0	28.0	29.0	28.0	28.5	24.5	24 0	24.0
12	24.0	23.0	23.5	29.0	28.0	28.5	28.5	28.0	28.0	24.0	23.5	24.0
13	24.5	23.5	24.0	29.5	28.0	28.5	28.5	27.5	28.0	24.0	23.5	24.0
14	25.0	23.5	24.0	29.0	28.0	28.5	28.5	27.5	28.0	23.5	23.0	23.5
15	25.5	24.0	25.0	28.0	27.5	28.0	28.5	27.5	28.0	23.5	22.5	23.0
16	25.5	24.5	25.0	28.0	27.5	27.5	28.5	28.0	28.0	23.0	22.0	22.5
17	26.0	25.0	25.5	28.0	27.0	27.5	29.5	28.0	28.5	23.0	22.0	22.5
18	26.0	25.0	25.5	28.0	27.5	27.5	29.5	28.5	29.0	23.0	22.0	22.5
19	26.0	25.0	25.5	28.5	27.5	28.0	29.5	28.5	29.0	22.0	21.0	21.5
20	27.0	25.5	26.0	29.0	28.0	28.5	29.5	28.5	29.0	21.5	20.5	21.0
21	27.0	26.0	26.5	29.5	28.5	29.0	29.5	28.0	28.5	21.0	20.5	21.0
22	27.0	26.0	26.5	30.0	28.5	29.0	28.5	28.0	28.0	21.0	20.0	20.5
23	27.5	26.0	26.5	30.5	29.0	29.5	28.0	27.0	27.5	20.5	20.0	20.5
24	27.0	26.0	26.5	30.5	29.0	29.5	27.5	26.5	27.0	20.5	20.0	20.0
25	27.5	26.0	26.5	30.5	29.5	30.0	26.5	26.0	26.5	20.5	19.5	20.0
26	27.0	26.0	26.5	30.0	29.5	30.0	26.5	26.0	26.5	20.0	19.5	20.0
27	27.0	26.0	26.5	30.5	29.5	30.0	26.5	26.0	26.0	20.0	19.5	20.0
28	26.5	25.5	26.0	30.5	29.5	29.5	26.0	25.5	25.5	20.5	19.5	20.0
29	26.5	25.5	26.0	29.5	29.0	29.0	26.0	25.0	25.5	20.5	20.0	20.0
30	27.0	25.5	26.5	29.5	28.5	29.0	25.5	25.0	25.0	20.5	20.0	20.5
31	---	---	---	29.5	29.0	29.0	25.5	25.0	25.5	---	---	---
MONTH	27.5	22.0	24.8	30.5	26.0	28.3	30.5	25.0	27.9	25.5	19.5	22.5

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	5.4	6.3	9.4	8.1	8.8	14.4	13.9	14.1	---	---	---
2	6.9	5.2	6.2	9.2	7.9	8.5	14.5	13.8	14.2	---	---	---
3	7.2	4.9	6.4	9.4	7.9	8.6	14.1	13.6	13.8	---	---	---
4	7.0	4.8	6.1	9.5	8.1	8.8	14.0	13.5	13.8	---	---	---
5	6.7	4.9	6.1	10.0	8.5	9.1	---	---	---	---	---	---
6	7.3	5.9	6.6	10.0	9.0	9.6	---	---	---	---	---	---
7	7.7	6.4	7.0	9.7	8.7	9.2	---	---	---	---	---	---
8	8.1	6.5	7.5	9.5	8.6	9.0	---	---	---	---	---	---
9	7.9	7.0	7.5	9.1	8.2	8.8	---	---	---	---	---	---
10	8.6	6.5	7.7	8.9	8.3	8.7	---	---	---	---	---	---
11	9.2	7.9	8.5	9.8	8.4	8.8	---	---	---	---	---	---
12	9.2	8.4	8.8	9.2	8.4	8.7	---	---	---	---	---	---
13	9.1	8.2	8.7	9.2	8.0	8.6	---	---	---	---	---	---
14	9.0	7.8	8.3	9.4	8.4	9.0	---	---	---	---	---	---
15	8.7	7.2	8.1	9.6	9.0	9.3	---	---	---	---	---	---
16	8.8	7.5	8.2	9.8	8.9	9.3	---	---	---	---	---	---
17	8.8	7.4	8.1	9.6	9.0	9.3	---	---	---	---	---	---
18	8.7	7.3	8.2	9.9	9.0	9.4	---	---	---	---	---	---
19	9.0	7.5	8.4	10.7	9.4	10.2	---	---	---	---	---	---
20	9.1	7.7	8.4	10.9	10.1	10.5	---	---	---	---	---	---
21	9.1	7.8	8.5	12.5	10.7	11.4	---	---	---	---	---	---
22	9.0	7.9	8.5	12.6	12.0	12.3	---	---	---	---	---	---
23	---	---	---	12.6	11.9	12.2	---	---	---	---	---	---
24	---	---	---	12.9	12.0	12.4	---	---	---	---	---	---
25	---	---	---	13.4	12.0	12.8	---	---	---	---	---	---
26	---	---	---	13.4	12.7	13.0	---	---	---	---	---	---
27	---	---	---	13.8	12.8	13.3	---	---	---	---	---	---
28	---	---	---	13.8	13.3	13.5	---	---	---	---	---	---
29	---	---	---	14.2	13.4	13.7	---	---	---	---	---	---
30	---	---	---	14.2	13.7	13.9	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	9.1	4.8	7.6	14.2	7.9	10.4	14.5	13.5	14.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	8.2	8.0	8.1	7.1	6.6	6.9
2	---	---	---	---	---	---	8.2	7.9	8.0	7.0	6.3	6.7
3	---	---	---	11.7	11.0	11.2	8.0	7.6	7.8	6.7	5.9	6.4
4	---	---	---	11.7	11.1	11.3	7.9	7.4	7.7	6.6	6.1	6.3
5	---	---	---	11.8	11.2	11.5	7.6	7.2	7.4	6.2	5.9	6.1
6	---	---	---	11.9	11.2	11.6	8.1	7.4	7.7	6.0	5.7	5.8
7	---	---	---	11.9	11.4	11.7	8.3	7.9	8.0	5.9	5.6	5.7
8	---	---	---	11.8	11.3	11.5	8.4	8.0	8.2	6.0	5.4	5.7
9	---	---	---	11.6	11.2	11.3	8.6	8.2	8.3	6.0	5.4	5.7
10	---	---	---	11.5	11.3	11.3	8.8	8.3	8.5	6.3	5.5	5.9
11	---	---	---	11.4	11.2	11.3	8.7	8.5	8.6	6.5	5.4	6.0
12	---	---	---	11.5	11.2	11.3	8.6	8.3	8.4	6.6	5.5	6.1
13	---	---	---	11.7	11.2	11.4	8.5	8.1	8.3	6.9	5.0	6.2
14	---	---	---	11.7	11.3	11.5	8.1	7.7	7.9	7.2	5.7	6.6
15	---	---	---	11.6	11.3	11.4	7.8	7.5	7.6	6.9	6.2	6.7
16	---	---	---	11.5	11.3	11.4	7.8	7.5	7.6	7.3	6.1	6.7
17	---	---	---	11.5	11.2	11.3	8.3	7.7	8.0	7.8	6.7	7.2
18	---	---	---	11.5	11.2	11.3	8.2	7.8	8.0	8.0	6.9	7.4
19	---	---	---	11.4	11.1	11.2	7.9	7.6	7.8	7.5	6.4	6.7
20	---	---	---	11.3	11.0	11.1	7.7	7.5	7.6	6.5	6.3	6.4
21	---	---	---	11.4	11.0	11.1	7.7	7.5	7.6	7.0	6.2	6.5
22	---	---	---	11.4	11.0	11.1	7.6	7.3	7.4	7.0	6.1	6.4
23	---	---	---	11.3	11.0	11.1	7.4	7.2	7.3	6.7	5.9	6.3
24	---	---	---	11.1	10.8	10.9	7.2	6.9	7.1	6.4	5.5	5.9
25	---	---	---	10.8	10.6	10.7	7.2	6.8	7.1	5.7	5.2	5.5
26	---	---	---	10.7	9.0	9.8	7.2	6.8	7.1	5.2	4.8	5.1
27	---	---	---	9.0	8.9	9.0	7.1	6.8	7.0	4.8	4.3	4.6
28	---	---	---	8.9	8.7	8.8	7.2	6.7	6.9	4.6	4.1	4.3
29	---	---	---	8.8	8.5	8.6	7.1	6.5	6.8	4.2	3.8	4.0
30	---	---	---	8.6	8.4	8.5	7.0	6.7	6.9	3.9	3.4	3.7
31	---	---	---	8.5	8.0	8.3	---	---	---	3.8	3.3	3.5
MONTH	---	---	---	11.9	8.0	10.8	8.8	6.5	7.7	8.0	3.3	5.9

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3.4	3.1	3.2	2.9	2.3	2.7	2.6	2.4	2.5	2.2	1.9	2.1
2	3.2	2.8	3.0	2.9	2.4	2.7	2.8	2.3	2.6	2.3	1.7	2.0
3	3.0	2.8	2.9	2.7	1.9	2.3	3.0	2.5	2.7	2.3	1.8	2.1
4	2.9	2.4	2.7	2.4	1.8	2.2	2.8	2.4	2.7	2.4	1.7	2.1
5	2.5	1.7	2.2	2.5	1.9	2.2	2.8	2.3	2.6	2.7	2.1	2.4
6	1.9	1.5	1.7	2.7	1.9	2.3	2.6	2.3	2.5	2.9	2.5	2.7
7	1.9	1.3	1.6	2.8	2.2	2.5	2.7	2.1	2.4	3.2	2.7	3.0
8	2.4	1.4	1.9	2.6	2.2	2.4	2.9	2.2	2.5	3.5	3.1	3.3
9	2.5	1.9	2.2	2.5	1.5	2.0	2.7	2.2	2.4	3.9	3.4	3.6
10	2.6	1.9	2.3	2.4	1.5	1.8	2.5	2.1	2.3	3.9	3.4	3.5
11	3.2	1.8	2.6	2.1	1.2	1.6	2.4	1.9	2.2	5.0	3.2	3.8
12	3.5	2.6	3.1	2.0	1.3	1.7	2.5	1.9	2.2	5.5	3.6	4.6
13	3.4	2.6	3.0	2.0	1.3	1.6	2.6	2.2	2.4	5.7	4.5	5.2
14	3.3	2.2	2.8	2.3	1.4	1.7	2.7	2.3	2.5	5.5	4.9	5.2
15	3.3	2.5	2.9	2.2	1.6	1.9	2.6	2.3	2.4	5.8	5.1	5.5
16	3.2	2.3	2.7	2.0	1.7	1.8	2.6	2.3	2.5	6.4	5.7	6.0
17	3.1	2.5	2.8	2.1	1.6	1.8	2.6	2.3	2.4	6.4	5.8	6.2
18	3.2	2.7	2.9	2.7	1.8	2.1	2.6	2.2	2.4	6.4	6.0	6.2
19	3.3	2.8	3.0	2.6	1.9	2.3	2.5	2.1	2.3	6.4	6.0	6.2
20	3.3	2.5	2.9	2.7	2.0	2.3	2.5	2.1	2.3	6.4	6.0	6.2
21	3.2	2.0	2.5	2.8	2.1	2.4	2.5	1.9	2.3	6.4	6.0	6.2
22	2.9	1.6	2.2	2.9	2.2	2.4	2.5	2.1	2.3	6.6	5.9	6.2
23	2.7	1.3	1.9	2.9	2.2	2.4	2.6	2.2	2.4	6.6	5.9	6.3
24	3.0	1.9	2.5	2.9	2.2	2.4	2.5	2.1	2.3	6.8	6.0	6.4
25	3.0	2.0	2.5	2.8	2.3	2.5	2.5	2.2	2.4	6.6	5.7	6.1
26	3.0	1.9	2.6	2.5	2.0	2.2	2.5	2.1	2.3	6.4	5.6	6.0
27	3.2	1.8	2.5	2.5	1.8	2.0	2.4	2.1	2.3	6.3	5.6	6.0
28	2.8	1.7	2.3	2.5	1.8	2.1	2.4	2.0	2.2	6.1	5.5	5.8
29	3.1	2.3	2.7	2.6	1.9	2.2	2.4	2.0	2.2	5.9	5.5	5.7
30	3.3	2.7	3.1	2.7	2.1	2.4	2.4	2.0	2.1	5.8	5.4	5.6
31	---	---	---	2.7	2.3	2.5	2.4	1.9	2.1	---	---	---
MONTH	3.5	1.3	2.6	2.9	1.2	2.2	3.0	1.9	2.4	6.8	1.7	4.7

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, at right upstream end of bridge on Legislative Route 15185, at Birdell, 0.4 mi downstream from Two Log Run, and 3.0 mi southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi².

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

REVISED RECORDS.--WDR PA-73-1: 1972(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 591.20 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for periods of estimated record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 26.1 ft³/s, 18.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft³/s, June 22, 1972, July 1, 1984, gage height, 11.41 ft, from rating curve extended above 1,900 ft³/s, on basis of slope-area measurement of peak flow; minimum, 1.7 ft³/s Aug. 15-19, 1963; minimum gage height, 1.07 ft, Feb. 21, 22, 1977, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	0330	502	5.87	Mar. 1	1545	855	6.91
Dec. 25	0345	788	6.75	Sept. 8	2115	*6330	*10.86

Minimum daily discharge, 4.6 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.3	17	23	e22	392	27	16	14	12	6.5	5.9
2	13	6.0	38	35	30	128	22	16	14	13	6.6	5.2
3	8.4	6.3	146	32	36	54	20	17	13	12	6.6	5.3
4	11	6.7	28	28	46	38	140	32	16	10	6.5	5.0
5	8.2	16	20	26	33	32	47	25	18	9.7	10	4.6
6	7.6	39	18	24	24	30	104	19	13	9.2	15	6.8
7	7.2	14	18	24	26	29	50	17	12	9.8	7.8	7.9
8	7.2	39	18	24	27	28	34	16	13	12	6.6	854
9	7.2	20	50	24	25	27	29	15	13	12	11	345
10	6.3	15	38	30	e22	24	25	14	13	9.7	52	16
11	6.3	48	24	44	21	23	22	14	12	9.2	8.7	12
12	6.6	29	25	31	22	23	22	15	11	18	7.4	9.3
13	8.4	16	20	30	22	23	22	14	12	12	7.0	124
14	14	13	17	32	21	22	20	13	11	75	6.7	73
15	9.7	12	18	48	21	22	20	18	11	32	6.2	16
16	7.6	12	19	32	e21	22	20	17	11	12	6.0	13
17	6.4	12	20	24	e20	21	32	13	9.9	11	6.4	12
18	6.4	17	143	36	e19	20	25	13	9.8	9.6	5.9	68
19	6.0	84	48	148	e18	20	22	26	9.6	9.2	5.3	50
20	6.6	37	25	69	e18	20	20	48	9.6	9.3	5.3	21
21	6.5	173	21	41	e17	19	20	31	10	8.8	4.9	17
22	5.5	22	19	27	e17	19	18	19	23	7.8	5.2	15
23	5.4	17	18	e26	23	19	18	79	78	8.0	5.7	13
24	5.7	40	33	e26	22	19	26	32	15	7.8	5.2	12
25	4.9	24	287	e26	23	18	40	20	12	7.2	5.0	11
26	10	152	42	e25	23	18	21	19	13	7.2	4.9	10
27	9.5	92	32	e25	23	18	19	20	14	7.6	5.3	9.6
28	9.5	26	28	e25	24	18	18	19	11	7.4	7.7	9.8
29	6.9	20	26	e24	---	17	18	17	11	6.5	7.1	10
30	6.3	18	26	e24	---	21	17	15	10	7.0	5.7	11
31	5.3	---	25	e23	---	50	---	14	---	6.8	6.0	---
TOTAL	236.8	1031.3	1307	1056	666	1234	938	663	442.9	388.8	256.2	1772.4
MEAN	7.64	34.4	42.2	34.1	23.8	39.8	31.3	21.4	14.8	12.5	8.26	59.1
MAX	14	173	287	148	46	392	140	79	78	75	52	854
MIN	4.9	5.3	17	23	17	17	17	13	9.6	6.5	4.9	4.6
CFSM	.41	1.84	2.25	1.82	1.27	2.13	1.67	1.14	.79	.67	.44	3.16
IN.	.47	2.05	2.60	2.10	1.32	2.45	1.87	1.32	.88	.77	.51	3.53

CAL YR 1986 TOTAL 8500.0 MEAN 23.3 MAX 287 MIN 4.4 CFSM 1.25 IN. 16.91
WTR YR 1987 TOTAL 9992.4 MEAN 27.4 MAX 854 MIN 4.6 CFSM 1.46 IN. 19.88

e Estimated

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft upstream from bridge on old Lincoln Highway, and 0.6 mi downstream from Rock Run.
DRAINAGE AREA.--45.8 mi².
PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.
GAGE.--Water-stage recorder and V-notch sharp crested weir. Altitude of gage is 305 ft, from topographic map. Sept. 10, 1943, to Dec. 31, 1951, nonrecording gage at site 1,100 ft downstream at different datum.
REMARKS.--Records good except for periods of estimated record, which are poor. Diversion above station from Rock Run Reservoir, capacity, 320 mil. gal, 2.6 mi upstream for municipal supply of City of Coatesville. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--25 years (water years 1943-51, 1970-87), 70.0 ft³/s, 20.77 in/yr, adjusted for storage and diversion.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s, June 29, 1973, gage height, 10.08 ft, from rating curve extended above 2,200 ft³/s, on basis of slope-area measurement at gage height 9.92 ft; minimum observed, 4.6 ft³/s, Sept. 10, 1944, gage height, 0.70 ft, site and datum then in use; minimum daily, 7.7 ft³/s, Sept. 14, 1981.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942 reached a stage of 12.3 ft, site and datum then in use, discharge, 8,600 ft³/s, by slope-area measurement.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0045	914	5.76	Sept. 9	0245	*3720	*7.98
Mar. 1	2000	1250	6.13				

Minimum daily discharge, 8.4 ft³/s, Oct. 12, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	33	48	e38	675	68	37	27	17	12	14
2	15	11	62	78	55	344	49	40	26	21	11	11
3	15	11	297	68	77	129	44	43	25	22	11	9.4
4	14	12	67	57	100	91	280	67	32	18	11	9.0
5	14	23	46	50	75	72	112	64	39	17	23	8.7
6	11	74	39	46	58	68	219	47	28	16	32	11
7	9.8	26	36	46	60	67	116	41	24	18	16	17
8	9.8	56	36	47	62	65	76	39	25	18	14	460
9	9.7	39	86	45	55	61	63	36	24	19	15	1030
10	9.3	25	88	51	45	54	58	34	24	17	80	49
11	8.5	62	52	77	47	51	55	33	21	16	20	32
12	8.4	73	52	61	48	52	53	33	21	68	15	26
13	11	29	46	54	45	51	53	35	24	43	14	86
14	18	22	35	58	43	49	50	31	21	141	13	172
15	17	19	37	85	37	49	49	37	19	119	13	40
16	13	18	38	66	36	47	50	40	19	29	12	30
17	11	17	38	50	e35	45	72	31	17	22	14	28
18	10	19	227	69	e33	44	62	29	17	19	14	78
19	9.5	127	153	234	e32	43	53	42	17	17	11	108
20	9.2	61	58	182	e31	43	50	84	16	16	10	50
21	10	271	48	90	e30	43	47	68	18	16	9.6	39
22	10	48	43	69	e29	42	45	44	20	15	11	36
23	9.5	34	41	e58	54	41	43	94	101	14	13	31
24	8.4	57	74	e51	46	41	49	76	28	14	10	27
25	9.4	47	540	e47	44	40	84	42	21	14	9.7	25
26	16	230	94	e45	43	39	52	38	20	13	9.6	23
27	19	229	65	e43	44	40	45	42	30	14	12	21
28	14	57	57	e42	45	43	44	39	21	13	14	20
29	14	43	52	e41	---	41	43	34	18	12	16	20
30	12	37	52	e40	---	46	39	31	17	11	13	21
31	11	---	50	e39	---	115	---	28	---	12	11	---
TOTAL	366.5	1787	2642	2037	1347	2631	2123	1379	760	821	489.9	2532.1
MEAN	11.8	59.6	85.2	65.7	48.1	84.9	70.8	44.5	25.3	26.5	15.8	84.4
MAX	19	271	540	234	100	675	280	94	101	141	80	1030
MIN	8.4	10	33	39	29	39	39	28	16	11	9.6	8.7
†	3.6	3.6	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.8	4.2
MEAN‡	15.4	63.2	88.9	69.3	51.7	88.5	74.4	48.1	28.9	30.1	19.6	88.6
CFSM‡	.34	1.38	1.94	1.51	1.13	1.93	1.62	1.05	.63	.66	.43	1.93
IN‡	.39	1.54	2.24	1.74	1.18	2.23	1.81	1.21	.70	.76	.49	2.16

CAL YR 1986 TOTAL 17111.3 MEAN 46.9 MAX 540 MIN 5.5 MEAN‡ 50.8 CFSM‡ 1.11 IN‡ 15.06
WTR YR 1987 TOTAL 18915.5 MEAN 51.8 MAX 1030 MIN 8.4 MEAN‡ 55.5 CFSM‡ 1.21 IN‡ 16.46

† Diversion from Rock Run Reservoir, furnished by City of Coatesville.
e Estimated

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on Legislative Route 15068 at Modena, and 300 ft upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74-1: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder. Altitude of gage is 265 ft, from topographic map.

REMARKS.--Records fair except for periods of estimated discharges, which are poor. Flow regulated by Rock Run Reservoir, capacity, 320 Mgal 5.6 mi upstream and by Lukens Steel Company.

AVERAGE DISCHARGE.--17 years, 91.4 ft³/s, 22.57 in/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft³/s, June 29, 1973, gage height, 12.47 ft, from rating curve extended above 920 ft³/s, on basis of slope-area measurement at gage height 11.48 ft, minimum, 1.8 ft³/s, Aug. 29, 1974; minimum gage height, 2.27 ft, Oct. 14, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s, revised and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 25	0130	1220	5.45	Sept. 9	0300	*4960	*9.22
Mar. 1	1945	1590	5.94				

Minimum daily discharge, 16 ft³/s, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	19	31	44	e60	863	90	57	41	30	22	36
2	26	20	58	87	75	352	69	59	40	39	21	20
3	24	19	332	71	100	143	64	62	39	39	20	18
4	22	22	74	55	128	108	309	90	53	39	22	18
5	22	54	46	46	98	90	138	85	57	33	43	18
6	17	118	37	42	79	86	218	66	43	29	48	28
7	20	42	35	43	79	85	140	60	38	38	25	32
8	17	92	34	43	83	82	98	57	39	35	20	805
9	17	61	88	42	75	82	85	54	41	33	22	1360
10	18	39	95	48	61	71	81	52	40	37	95	77
11	16	101	53	73	65	69	76	50	36	33	30	50
12	17	109	52	58	65	69	73	52	38	114	23	41
13	22	44	44	48	64	69	74	50	39	58	24	115
14	32	35	33	52	59	66	70	48	36	157	21	174
15	26	31	34	103	51	66	69	57	35	130	23	56
16	21	31	34	85	52	66	70	60	34	37	21	42
17	20	27	36	65	e50	64	92	50	33	31	27	43
18	20	41	233	108	e49	62	83	46	31	27	25	111
19	17	157	175	262	e48	60	73	64	31	25	22	116
20	18	71	59	219	e46	60	70	105	31	24	20	67
21	19	307	48	118	e46	58	67	87	32	25	20	54
22	20	51	42	93	e48	58	65	63	36	23	27	49
23	19	33	38	e80	73	58	62	101	106	23	21	41
24	19	59	77	e75	65	e58	67	95	41	24	20	38
25	21	48	625	e73	61	56	105	59	34	24	17	36
26	38	259	99	e72	59	56	73	54	35	24	20	33
27	38	266	68	e70	61	56	64	63	43	25	29	31
28	26	61	56	e68	64	59	63	56	33	24	25	30
29	24	43	50	e65	---	56	63	50	30	23	34	31
30	22	35	49	e63	---	64	59	43	31	22	21	33
31	20	---	48	e60	---	138	---	41	---	23	20	---
TOTAL	683	2295	2783	2431	1864	3330	2730	1936	1196	1248	828	3603
MEAN	22.0	76.5	89.8	78.4	66.6	107	91.0	62.5	39.9	40.3	26.7	120
MAX	38	307	625	262	128	863	309	105	106	157	95	1360
MIN	16	19	31	42	46	56	59	41	30	22	17	18
†	3.6	3.6	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.8	4.2
MEAN‡	25.6	80.1	93.5	82.0	70.2	111	94.6	66.1	43.5	43.9	30.5	124
CFSM‡	.47	1.46	1.70	1.49	1.28	2.02	1.72	1.20	.79	.80	.55	2.25
IN.‡	.54	1.63	1.96	1.72	1.33	2.33	1.92	1.39	.88	.92	.64	2.52

CAL YR 1986 TOTAL 22221 MEAN 60.9 MAX 625 MIN 16 MEAN‡ 64.8 CFSM‡ 1.18 IN.‡ 16.00
WTR YR 1987 TOTAL 24927 MEAN 68.3 MAX 1360 MIN 16 MEAN‡ 72.0 CFSM‡ 1.31 IN.‡ 17.78

† Diversion from Rock Run Reservoir, furnished by City of Coatesville.
‡ Adjusted for diversion.
e Estimated

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PERIOD OF RECORD.--October 1969 to October 1978, August 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1971 to October 1978, August 1981 to current year.
pH: May 1971 to October 1978, August 1981 to current year.
WATER TEMPERATURES: May 1971 to October 1978, August 1981 to current year.
DISSOLVED OXYGEN: May 1971 to October 1978, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1978, August 1981 to current year.

REMARKS.--Not operated Dec 1 to March 1. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 858 microsiemens, Jan. 10, 1977; minimum, 72 microsiemens, Nov. 16, 1985.
pH: Maximum, 10.0, Dec. 21, 1971, minimum, 6.3, April 3, 1975.
WATER TEMPERATURE: Maximum, 33.5°C, July 19, 1977; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L, Dec. 30, 1976; minimum, 0.6 mg/L, Nov. 1, 3, 1974.

WATER QUALITY DATA, WATER OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
06...	1500	22	333	7.9	18.5	9.4	270
14...	1500	38	301	7.6	19.0	9.1	K1360
20...	1430	19	326	8.0	14.0	11.8	470
28...	1130	29	299	8.4	15.0	10.4	520
NOV							
03...	1500	28	336	6.8	13.5	11.4	K54
12...	1200	94	265	7.1	9.0	11.5	--
18...	1230	34	319	7.4	11.5	11.6	--
24...	1430	92	272	7.8	9.0	11.3	2800
MAR							
02...	1600	--	183	7.7	6.0	13.0	--
09...	1500	--	249	8.3	12.5	11.4	--
16...	1500	71	259	8.4	9.5	13.4	--
24...	1430	62	270	8.7	13.5	13.0	K9
30...	1130	60	258	8.4	14.0	11.7	K1100
APR							
06...	1500	253	200	7.3	8.0	11.9	1600
13...	1500	80	252	8.6	12.5	12.3	370
20...	1400	78	246	8.7	11.5	11.7	K820
28...	1500	68	251	8.7	14.0	12.2	K180
MAY							
05...	1500	87	237	8.4	13.0	11.6	390
18...	1200	51	273	8.5	20.5	11.5	K120
26...	1430	31	269	7.9	17.0	9.9	450
JUN							
02...	1400	38	283	8.4	24.5	9.5	K150
08...	1300	37	287	8.4	23.0	10.4	--
15...	1230	34	294	8.6	25.5	11.6	--
24...	1330	37	267	7.9	25.0	8.8	K7200
29...	1430	30	307	8.5	24.5	10.3	440
JUL							
07...	1400	37	287	8.0	24.0	8.6	14000
13...	1430	46	267	7.7	26.5	8.3	24000
20...	1400	30	323	8.6	27.5	10.7	K160
27...	1430	31	344	8.7	27.0	10.2	K130
AUG							
03...	1500	27	336	8.9	28.5	11.2	K45
12...	1430	28	321	7.9	25.0	9.4	480
18...	1330	30	319	8.5	27.5	10.2	K990
25...	1400	6	337	8.6	21.0	11.5	--
SEP							
03...	1400	24	366	8.0	22.5	9.7	280
15...	1300	51	301	7.7	21.0	7.7	110
23...	1400	38	320	7.7	19.0	8.6	240
30...	1430	32	327	7.6	20.0	9.1	--

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	373	337	346	368	328	344	---	---	---	---	---	---
2	337	199	295	369	306	342	---	---	---	---	---	---
3	342	308	329	370	329	340	---	---	---	---	---	---
4	350	321	331	379	313	327	---	---	---	---	---	---
5	360	311	327	355	202	280	---	---	---	---	---	---
6	372	306	337	270	206	232	---	---	---	---	---	---
7	364	344	355	324	270	300	---	---	---	---	---	---
8	388	343	353	325	217	260	---	---	---	---	---	---
9	377	328	348	310	250	283	---	---	---	---	---	---
10	369	335	349	323	303	314	---	---	---	---	---	---
11	384	338	348	333	201	265	---	---	---	---	---	---
12	371	320	345	291	189	252	---	---	---	---	---	---
13	373	315	338	320	282	298	---	---	---	---	---	---
14	335	246	305	336	299	317	---	---	---	---	---	---
15	307	281	298	342	311	324	---	---	---	---	---	---
16	355	305	324	340	316	327	---	---	---	---	---	---
17	368	304	335	345	327	335	---	---	---	---	---	---
18	375	328	347	343	176	320	---	---	---	---	---	---
19	391	324	345	260	180	225	---	---	---	---	---	---
20	359	328	340	293	184	264	---	---	---	---	---	---
21	390	314	346	217	147	174	---	---	---	---	---	---
22	376	326	339	263	203	234	---	---	---	---	---	---
23	369	308	350	274	248	261	---	---	---	---	---	---
24	378	330	352	---	---	---	---	---	---	---	---	---
25	371	331	351	---	---	---	---	---	---	---	---	---
26	354	244	287	295	148	228	---	---	---	---	---	---
27	301	273	286	228	157	192	---	---	---	---	---	---
28	---	---	---	281	229	250	---	---	---	---	---	---
29	---	---	---	288	266	277	---	---	---	---	---	---
30	353	320	335	319	285	295	---	---	---	---	---	---
31	362	326	340	---	---	---	---	---	---	---	---	---
MONTH	391	199	334	379	147	281	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	255	205	232	279	258	268
2	---	---	---	---	---	---	260	235	251	296	256	265
3	---	---	---	219	191	207	274	249	259	264	244	255
4	---	---	---	243	207	224	262	151	185	262	213	234
5	---	---	---	250	227	238	216	180	202	248	208	228
6	---	---	---	260	235	247	205	181	195	252	240	246
7	---	---	---	258	242	251	234	201	224	273	246	255
8	---	---	---	256	240	248	248	231	239	276	250	261
9	---	---	---	278	240	251	256	244	250	273	254	263
10	---	---	---	261	248	255	270	247	258	275	260	267
11	---	---	---	262	250	258	270	252	260	276	261	268
12	---	---	---	259	250	254	264	251	256	283	263	271
13	---	---	---	264	250	257	267	250	255	286	258	270
14	---	---	---	269	251	256	270	251	258	291	270	279
15	---	---	---	260	249	253	268	258	263	283	255	266
16	---	---	---	268	251	259	266	254	260	267	247	257
17	---	---	---	265	253	259	251	229	237	294	266	275
18	---	---	---	265	254	260	246	228	236	283	272	277
19	---	---	---	269	260	265	248	236	242	290	224	262
20	---	---	---	274	255	263	260	242	250	262	213	227
21	---	---	---	279	260	265	274	233	254	252	219	231
22	---	---	---	266	254	260	269	253	258	284	242	256
23	---	---	---	269	258	262	270	254	263	266	184	241
24	---	---	---	270	258	264	273	243	258	232	193	213
25	---	---	---	271	259	266	243	203	222	264	232	248
26	---	---	---	278	260	268	245	231	237	272	257	265
27	---	---	---	277	262	267	257	240	248	281	234	261
28	---	---	---	281	255	266	269	248	255	271	253	265
29	---	---	---	270	252	260	278	252	258	283	261	273
30	---	---	---	264	235	257	295	256	263	283	269	278
31	---	---	---	243	179	213	---	---	---	293	271	282
MONTH	---	---	---	281	179	254	295	151	244	296	184	258

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	294	276	285	346	298	313	386	316	345	361	163	297
2	294	278	286	324	280	302	387	314	345	394	276	348
3	316	283	293	329	284	303	389	313	343	393	327	368
4	295	214	274	322	182	293	393	329	351	403	335	369
5	273	251	261	319	191	288	379	151	315	402	331	365
6	298	268	280	334	292	317	294	242	259	392	279	339
7	314	280	289	331	209	294	353	295	323	335	297	311
8	310	280	294	320	295	308	384	320	337	---	---	---
9	304	288	297	322	295	310	375	309	334	---	---	---
10	328	278	294	331	303	315	295	181	227	---	---	---
11	320	296	308	348	304	315	324	266	297	---	---	---
12	318	299	308	362	126	267	368	298	321	---	---	---
13	311	288	299	308	194	247	354	322	337	---	---	---
14	318	287	295	325	132	253	384	307	335	---	---	---
15	314	291	302	270	154	217	373	329	346	---	---	---
16	323	290	304	300	271	286	387	308	339	---	---	---
17	331	298	312	335	291	312	385	255	327	---	---	---
18	343	307	318	342	309	320	347	310	320	260	185	238
19	340	301	320	338	309	318	---	---	---	270	191	235
20	335	302	315	347	308	322	---	---	---	288	267	277
21	333	296	307	362	322	335	---	---	---	320	284	296
22	432	299	330	362	314	326	---	---	---	309	288	299
23	300	185	226	371	315	345	---	---	---	333	298	313
24	281	228	258	378	325	346	360	330	342	333	301	318
25	303	274	291	383	310	337	394	326	353	331	307	322
26	316	293	306	373	314	341	390	336	366	334	311	324
27	320	266	280	377	312	339	374	251	328	339	315	325
28	311	280	292	---	---	---	372	308	331	340	312	324
29	325	289	304	364	334	348	347	252	314	336	307	321
30	322	292	307	393	311	349	382	305	336	339	299	322
31	---	---	---	388	322	354	379	319	352	---	---	---
MONTH	432	185	294	393	126	311	394	151	328	403	163	316

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	8.5	7.6	8.0	8.9	7.5	8.2
2	---	---	---	---	---	---	8.6	7.6	8.0	8.6	7.5	8.0
3	---	---	---	7.7	7.5	7.5	8.7	7.6	8.0	8.8	7.5	8.0
4	---	---	---	7.7	7.5	7.6	7.7	7.4	7.5	8.0	7.5	7.7
5	---	---	---	7.7	7.5	7.6	7.7	7.5	7.6	8.5	7.5	7.9
6	---	---	---	7.8	7.4	7.6	7.7	7.3	7.5	8.6	7.5	8.0
7	---	---	---	7.8	7.4	7.6	8.1	7.5	7.7	8.8	7.4	8.0
8	---	---	---	8.0	7.4	7.6	8.4	7.5	7.8	8.8	7.4	8.0
9	---	---	---	8.3	7.4	7.8	8.5	7.5	7.9	8.8	7.4	8.1
10	---	---	---	8.3	7.6	7.9	8.5	7.5	7.9	8.9	7.4	8.1
11	---	---	---	8.3	7.6	7.9	8.7	7.5	8.0	8.8	7.4	8.1
12	---	---	---	8.3	7.6	7.8	8.7	7.5	8.0	8.8	7.3	7.9
13	---	---	---	8.3	7.6	7.9	8.8	7.5	8.1	8.7	7.4	8.0
14	---	---	---	8.4	7.6	7.9	8.9	7.5	8.1	8.7	7.4	7.9
15	---	---	---	8.5	7.6	7.9	8.6	7.5	7.9	8.2	7.4	7.6
16	---	---	---	8.4	7.6	7.9	8.5	7.5	7.9	8.7	7.4	8.0
17	---	---	---	8.5	7.6	7.9	8.3	7.5	7.8	8.7	7.4	8.0
18	---	---	---	8.5	7.6	8.0	8.6	7.5	7.9	9.0	7.3	8.1
19	---	---	---	8.6	7.5	7.9	8.8	7.5	8.1	7.8	7.5	7.6
20	---	---	---	8.8	7.5	8.0	8.8	7.4	8.0	7.9	7.6	7.7
21	---	---	---	8.7	7.5	8.0	8.8	7.4	8.1	8.3	7.6	7.9
22	---	---	---	8.8	7.6	8.0	8.9	7.4	8.1	8.6	7.6	8.0
23	---	---	---	8.7	7.5	8.0	8.6	7.5	7.9	8.0	7.4	7.6
24	---	---	---	8.8	7.5	8.0	8.5	7.5	7.8	7.8	7.4	7.6
25	---	---	---	8.9	7.5	8.1	8.6	7.5	7.9	8.3	7.5	7.8
26	---	---	---	9.0	7.5	8.2	8.8	7.5	8.1	8.2	7.5	7.8
27	---	---	---	8.9	7.5	8.1	8.8	7.5	8.1	8.1	7.5	7.7
28	---	---	---	8.9	7.5	8.1	8.8	7.5	8.1	8.2	7.4	7.8
29	---	---	---	9.0	7.5	8.2	8.9	7.5	8.2	8.3	7.3	7.8
30	---	---	---	8.7	7.5	7.9	8.9	7.5	8.2	8.4	7.3	7.8
31	---	---	---	8.2	7.5	7.6	---	---	---	8.4	7.3	7.8
MONTH	---	---	---	9.0	7.4	7.9	8.9	7.3	7.9	9.0	7.3	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.3	7.8	8.7	7.4	8.0	9.0	7.5	8.4	8.0	7.3	7.6
2	8.6	7.2	7.8	8.0	7.4	7.6	9.0	7.5	8.4	8.0	6.5	7.6
3	8.1	7.4	7.7	8.5	7.4	7.8	9.0	7.4	8.4	8.3	7.2	7.7
4	7.9	7.5	7.7	8.6	7.3	7.8	8.9	7.4	8.3	8.7	7.4	7.9
5	8.4	7.6	7.9	8.5	7.3	7.8	8.6	7.4	8.0	8.5	7.4	7.9
6	8.5	7.6	8.0	8.6	7.3	7.9	8.4	7.5	7.9	8.1	7.3	7.6
7	8.4	7.6	7.9	8.4	7.3	7.8	8.7	7.6	8.1	8.2	7.3	7.6
8	8.6	7.6	8.0	8.6	7.5	8.0	8.8	7.5	8.2	---	---	---
9	8.2	7.5	7.8	9.0	7.4	8.1	8.8	7.5	8.2	---	---	---
10	8.6	7.6	8.1	8.6	7.3	7.9	7.9	7.5	7.7	---	---	---
11	9.0	7.5	8.1	8.8	7.3	8.1	8.3	7.5	7.8	---	---	---
12	8.3	7.5	7.8	8.6	7.3	7.8	8.6	7.3	7.9	---	---	---
13	8.7	7.5	8.0	8.2	7.4	7.8	8.7	7.4	8.1	---	---	---
14	8.9	7.5	8.1	8.3	7.3	7.7	8.8	7.4	8.2	---	---	---
15	9.0	7.4	8.1	7.9	7.5	7.7	8.8	7.5	8.2	---	---	---
16	9.0	7.4	8.2	8.1	7.6	7.8	8.8	7.4	8.3	---	---	---
17	9.0	7.4	8.2	8.0	7.6	7.8	8.8	7.3	8.0	---	---	---
18	9.0	7.4	8.2	8.4	7.5	7.9	---	---	---	---	---	---
19	9.3	7.4	8.2	8.7	7.5	8.1	---	---	---	7.7	7.6	7.6
20	9.1	7.4	8.2	9.0	7.5	8.2	---	---	---	7.8	7.6	7.7
21	8.8	7.4	8.0	9.0	7.5	8.3	---	---	---	7.9	7.6	7.7
22	8.6	7.4	7.9	9.1	7.6	8.4	---	---	---	7.8	7.5	7.6
23	7.6	7.4	7.4	8.9	7.5	8.3	---	---	---	8.0	7.5	7.7
24	8.0	7.4	7.7	8.9	7.5	8.2	---	---	---	8.0	7.5	7.8
25	8.3	7.3	7.7	9.0	7.5	8.3	9.0	7.4	8.1	8.2	7.5	7.8
26	8.0	7.4	7.6	8.9	7.5	8.2	8.7	7.4	8.1	8.3	7.5	7.8
27	8.2	7.4	7.7	---	---	---	8.0	7.3	7.6	8.4	7.5	7.9
28	8.6	7.4	8.0	---	---	---	8.1	7.2	7.5	8.4	7.5	7.9
29	8.7	7.5	8.1	---	---	---	8.2	7.3	7.7	8.4	7.4	7.8
30	8.7	7.4	8.0	9.0	7.5	8.3	8.4	7.2	7.8	8.1	7.4	7.6
31	---	---	---	9.0	7.4	8.3	8.1	7.2	7.6	---	---	---
MONTH	9.3	7.2	7.9	9.1	7.3	8.0	9.0	7.2	8.0	8.7	6.5	7.7

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.5	21.5	23.0	15.0	11.0	13.5						
2	24.5	21.5	23.0	15.5	13.5	14.5						
3	22.0	20.0	21.0	14.5	11.0	13.0						
4	22.0	20.5	21.5	14.5	12.0	13.0						
5	22.0	19.5	21.0	13.5	8.5	10.5						
6	19.5	16.5	18.0	10.5	8.5	9.5						
7	17.0	14.0	16.0	11.0	9.0	10.0						
8	18.0	13.0	16.0	12.5	11.0	12.0						
9	19.5	16.0	18.0	15.5	12.5	14.0						
10	17.5	14.0	15.5	13.5	11.0	12.5						
11	15.5	12.5	14.5	11.0	8.5	9.5						
12	17.0	14.0	16.0	10.0	7.5	9.0						
13	17.5	16.0	17.0	9.0	7.0	8.0						
14	19.0	16.5	18.0	8.0	5.5	6.5						
15	17.0	14.0	15.5	7.5	5.0	6.0						
16	16.0	13.0	15.0	10.0	7.0	8.5						
17	14.5	13.0	14.0	12.0	9.5	11.0						
18	15.5	13.0	14.5	11.5	10.0	11.0						
19	14.5	11.5	13.5	10.0	6.5	8.0						
20	14.5	11.0	13.0	8.0	5.5	6.5						
21	15.0	11.0	13.5	10.0	6.0	7.0						
22	16.5	12.5	15.0	11.5	6.0	7.5						
23	17.0	13.5	15.5	10.0	6.0	8.0						
24	17.0	14.5	16.0	---	---	---						
25	16.5	12.5	14.5	---	---	---						
26	15.5	14.0	14.5	8.5	7.0	8.0						
27	15.0	14.0	14.5	10.0	8.5	9.0						
28	---	---	---	9.0	7.0	8.0						
29	---	---	---	9.0	7.0	8.0						
30	16.0	12.5	14.5	8.0	6.5	7.0						
31	14.0	11.0	13.5	---	---	---						
MONTH	24.5	11.0	16.5	15.5	5.0	9.5						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	10.5	7.5	9.0	17.0	12.5	14.5
2				---	---	---	11.0	8.0	9.5	16.0	14.5	15.0
3				7.0	4.0	5.5	11.5	9.0	10.5	16.5	14.5	15.0
4				6.0	4.0	5.0	12.0	10.0	11.0	14.5	12.0	13.0
5				7.0	3.5	5.5	11.0	8.0	10.0	13.0	11.0	12.0
6				8.0	4.0	6.0	8.0	7.0	7.5	17.0	11.5	14.0
7				10.5	5.5	8.5	11.0	7.5	9.0	19.0	13.5	16.5
8				12.0	7.5	10.0	13.5	9.5	11.5	19.5	15.5	17.5
9				13.0	10.0	11.5	13.5	10.0	12.0	18.5	14.0	16.5
10				10.0	6.0	7.5	15.0	9.5	12.5	21.0	15.0	18.0
11				7.0	4.0	5.5	15.5	11.0	13.5	22.5	18.0	20.0
12				7.0	5.0	6.0	14.5	12.0	13.0	22.5	18.5	20.5
13				8.5	5.0	7.0	13.0	11.0	12.0	21.0	17.0	19.0
14				8.0	5.0	6.5	15.0	10.5	13.0	19.5	15.5	17.5
15				8.5	6.5	7.5	14.0	12.0	13.0	19.5	17.0	18.0
16				9.5	6.0	7.5	12.0	10.5	11.0	20.0	15.0	17.5
17				9.0	5.5	7.5	12.0	10.5	11.0	21.5	16.0	18.5
18				10.0	6.0	8.0	14.0	11.5	12.5	23.0	18.0	20.5
19				11.0	7.0	9.0	17.0	13.5	15.0	20.0	15.0	17.5
20				11.5	7.5	9.5	17.0	15.0	16.0	15.0	13.5	14.0
21				10.0	8.0	9.5	19.5	15.5	17.5	18.0	13.5	15.5
22				12.0	8.5	10.0	20.5	16.5	18.5	21.0	15.5	18.0
23				13.0	8.5	11.0	17.5	15.0	15.5	20.5	18.5	19.5
24				14.0	9.5	12.0	15.0	14.0	14.5	21.5	18.5	20.0
25				14.0	10.5	12.0	15.0	12.0	13.5	20.0	18.0	18.5
26				15.5	12.0	13.5	16.0	11.5	13.5	18.0	17.0	17.5
27				13.5	11.0	12.5	16.5	12.0	14.5	17.0	16.0	16.5
28				15.5	12.5	14.0	14.5	12.5	13.5	21.5	16.0	18.5
29				16.0	12.5	14.0	16.0	11.5	13.5	24.5	18.5	21 5
30				14.5	13.0	13.5	17.0	13.0	15.0	25.5	20.5	23.0
31				13.5	10.0	12.5	---	---	---	24.5	21.5	23.0
MONTH				16.0	3.5	9.0	20.5	7.0	12.5	25.5	11.0	17.5

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	20.5	23.0	27.0	22.0	24.5	27.0	23.0	25.5	22.5	19.5	21.0
2	25.5	22.0	23.5	25.0	23.0	23.5	26.5	23.0	25.0	23.0	17.0	20.5
3	23.0	20.5	21.5	27.5	22.5	25.0	29.0	23.5	26.5	23.5	18.5	21.0
4	20.5	19.5	19.5	27.0	23.0	25.0	29.5	24.0	27.0	22.5	17.5	20.5
5	23.5	18.5	20.5	28.0	23.0	25.5	27.0	23.5	25.5	22.0	17.5	20.0
6	23.0	19.0	20.5	27.0	22.5	25.0	24.5	22.5	23.5	21.0	19.0	20.0
7	21.5	18.0	19.5	24.5	22 0	23.5	26.0	21.5	24.0	22.5	20.0	21.0
8	24.5	19.0	21.5	27.5	23 0	25.0	27.5	23.0	25.0	---	---	---
9	23.0	20.5	22.0	29.0	24.0	26.5	27.0	23.5	25.5	---	---	---
10	23.5	18.0	20.5	27.0	24.0	26.0	25.5	23.0	24.5	---	---	---
11	23.5	17.0	20.5	29.5	23.5	26.5	26.5	21.5	24.0	---	---	---
12	21.5	18.5	20.0	28.5	23.0	25.5	25.5	21.0	23.5	---	---	---
13	24.5	19.5	22.0	27.5	22.5	24 5	25.5	20.5	23.0	---	---	---
14	26.5	20.0	23.0	27.0	22.5	24 5	25.0	20.0	23.0	---	---	---
15	27.5	21.0	24.5	24.5	21.0	22.5	26.5	22.0	24.0	---	---	---
16	27.5	22.0	24.5	24.0	20.5	22.0	27.0	22.0	25.0	---	---	---
17	27.0	21.0	24.0	26.0	20.0	22.5	28.5	23.5	26.0	---	---	---
18	26.5	20.0	23.5	26.5	20.5	23.5	---	---	---	---	---	---
19	27.0	21.0	24.0	28.0	22.0	25.0	---	---	---	20.0	18.0	18.5
20	27.5	22.0	24.5	29.0	23.0	26.0	---	---	---	18.5	17.5	18.0
21	25.0	22.5	24.0	30.0	23.5	27.0	---	---	---	19.5	17.5	18.5
22	26.0	23.0	24.5	30.5	24.5	27.5	---	---	---	20.0	17.5	18.5
23	24.5	22.0	23.5	30.0	24.0	27.5	---	---	---	19.5	17.0	18.0
24	26.5	21.5	24.0	30.0	24.5	27.5	---	---	---	20.0	17.0	18.0
25	27.5	21.5	24.5	29.5	25.0	27.5	22.0	17.5	20.0	20.0	17.0	18.0
26	23.5	22.0	22.5	27.0	25.0	26.0	22.5	18.0	20.5	19.0	15.5	17.0
27	26.0	21.5	23.0	---	---	---	21.5	20.0	21.0	19.5	15.5	17.5
28	24.5	20.5	22.5	---	---	---	21.0	19.5	20.5	20.5	16.5	18.0
29	25.5	19.0	22.5	---	---	---	22.5	20.0	21.0	21.0	17.5	19.0
30	26.5	21.0	23.5	27.5	21.5	25.0	23.5	18.0	21.0	20.5	18.5	19.0
31	---	---	---	28.5	23.0	26.0	22.5	18.0	20.5	---	---	---
MONTH	27.5	17.0	22.5	30.5	20.0	25.0	29.5	17.5	23.5	23.5	15.5	19.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	5.1	6.9	11.7	7.7	9 9	---	---	---	---	---	---
2	8.3	5.1	6.6	10.4	7.5	8.8	---	---	---	---	---	---
3	8.0	5.3	6.8	11.4	8.6	9.9	---	---	---	---	---	---
4	8.2	5.1	6.8	10.7	8.2	9.6	---	---	---	---	---	---
5	8.7	5.3	7.1	10.7	8.6	10.1	---	---	---	---	---	---
6	9.4	6.7	8.2	10.5	9.6	10.2	---	---	---	---	---	---
7	9.8	7.0	8.2	10.2	8.6	9.5	---	---	---	---	---	---
8	10.1	7.2	8.8	10.5	8.4	10.0	---	---	---	---	---	---
9	9.9	6.9	8.6	10.0	8.8	9.4	---	---	---	---	---	---
10	10.5	7.3	9.3	10.7	8.4	9.6	---	---	---	---	---	---
11	10.9	8.1	9.7	11.1	8.5	10.2	---	---	---	---	---	---
12	9.7	6.3	8.1	11.5	10.5	11.1	---	---	---	---	---	---
13	9.2	5.3	7.4	11.8	10.4	11.1	---	---	---	---	---	---
14	9.5	6.9	7.9	12.7	11.0	11.8	---	---	---	---	---	---
15	10.4	7.2	8.7	12.8	11.0	12.0	---	---	---	---	---	---
16	10.7	7.5	9.1	12.2	10.5	11.4	---	---	---	---	---	---
17	10.1	7.9	9.3	11.8	9.4	10.6	---	---	---	---	---	---
18	10.9	8.2	9.6	11.7	9.5	10.5	---	---	---	---	---	---
19	11.4	8.3	10.1	11.9	10.6	11.0	---	---	---	---	---	---
20	11.8	8.5	10.1	12.1	10.2	11.3	---	---	---	---	---	---
21	11.6	8.1	10.1	---	---	---	---	---	---	---	---	---
22	11.4	7.9	10.0	---	---	---	---	---	---	---	---	---
23	11.3	8.7	10.1	---	---	---	---	---	---	---	---	---
24	10.2	9.5	9.8	---	---	---	---	---	---	---	---	---
25	11.4	9.3	10.3	---	---	---	---	---	---	---	---	---
26	10.5	9.4	10.0	12.2	11.2	11.7	---	---	---	---	---	---
27	10.3	9.6	10.3	11.8	11.1	11.5	---	---	---	---	---	---
28	---	---	---	11.8	10.5	11.3	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	11.9	8.1	9.8	---	---	---	---	---	---	---	---	---
31	12.3	8.2	10.4	---	---	---	---	---	---	---	---	---
MONTH	12.3	5.1	8.9	12.8	8.2	10.5	---	---	---	---	---	---

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.1	6.1	7.9	10.4	5.1	7.5	11.5	3.8	8.4	8.8	5.2	7.3
2	9.8	5.4	7.5	8.9	5.0	6.8	12.0	4.2	8.2	9.5	4.8	7.1
3	8.8	5.5	7.2	9.8	5.4	7.4	12.1	3.7	8.2	9.7	4.1	7.0
4	8.8	6.7	7.7	9.5	4.5	7.1	11.7	3.1	7.2	10.3	4.0	7.1
5	9.7	7.3	8.5	9.9	4.9	7.2	10.0	2.9	6.9	10.5	4.0	7.4
6	10.3	6.8	8.4	10.2	4.3	7.2	9.2	6.7	7.7	8.6	3.7	6.1
7	10.1	6.5	8.1	8.8	4.4	6.9	10.3	5.2	7.7	9.5	4.2	6.6
8	10.4	6.2	7.9	9.7	4.7	7.0	10.5	4.1	7.3	---	---	---
9	8.6	5.2	7.0	10.2	4.3	7.1	10.6	4.5	7.8	---	---	---
10	10.3	6.4	8.3	9.3	4.1	6.8	8.5	6.4	7.5	---	---	---
11	10.7	6.4	8.4	10.1	4.1	7.1	9.3	5.1	7.1	---	---	---
12	10.1	6.0	8.0	9.9	4.3	7.1	9.9	4.6	7.2	---	---	---
13	11.0	6.6	8.6	8.3	6.2	7.4	10.4	4.5	7.4	---	---	---
14	11.9	6.4	9.0	8.5	5.1	7.0	11.0	4.7	8.0	---	---	---
15	11.8	5.8	8.6	8.5	7.4	8.1	10.7	4.1	7.4	---	---	---
16	11.8	4.5	8.0	9.2	6.9	8.0	11.3	3.6	7.4	---	---	---
17	12.5	4.5	8.1	9.2	6.5	7.9	11.3	3.3	6.9	---	---	---
18	12.3	4.2	8.1	9.9	6.0	8.0	---	---	---	---	---	---
19	13.9	4.5	8.5	10.4	5.9	8.3	---	---	---	9.2	8.6	8.9
20	12.4	4.3	7.9	11.0	5.9	8.3	---	---	---	9.1	8.3	8.7
21	11.1	4.1	7.5	11.1	4.2	7.7	---	---	---	8.9	7.7	8.4
22	10.7	5.0	7.1	11.0	3.9	7.4	---	---	---	8.6	7.2	7.9
23	8.4	5.0	7.3	11.3	3.9	7.9	---	---	---	8.7	6.8	7.8
24	8.9	6.6	7.7	11.0	4.2	7.9	---	---	---	8.7	6.7	7.7
25	9.5	5.7	7.6	11.2	4.2	8.1	11.6	4.5	7.5	9.1	6.5	7.9
26	9.1	5.3	7.2	9.9	4.4	7.5	11.5	4.7	7.6	9.8	6.9	8.2
27	9.5	6.0	7.6	---	---	---	8.5	4.4	6.5	10.0	6.6	8.3
28	10.1	5.5	7.9	---	---	---	8.0	4.2	6.4	10.3	6.5	8.4
29	10.4	5.6	8.0	---	---	---	9.3	5.8	7.4	10.4	6.1	8.1
30	10.4	5.1	7.6	11.5	4.0	7.5	10.2	3.9	7.3	9.7	5.7	7.6
31	---	---	---	11.2	3.9	7.8	9.6	3.9	6.6	---	---	---
MONTH	13.9	4.1	7.9	11.5	3.9	7.8	12.1	2.9	7.1	10.5	3.7	7.7

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank, 200 ft north of Pennsylvania Turnpike, 1.2 mi downstream from Lyons Run, 1.8 mi upstream from Black Horse Creek, and 3 mi northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi².

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

REVISED RECORDS.--WDR PA-74-1: 1967(M), 1971-72(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 450 ft, from topographic map.

REMARKS.--Records good except for periods of estimated discharge, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 12.7 ft³/s, 20.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 946 ft³/s, June 22, 1972, gage height, 4.68 ft; minimum, 0.3 ft³/s, Aug. 31, 1966, gage height, 0.98 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Mar. 1	2245	*170	*2.49	Sept. 9	1015	150	2.42

Minimum daily discharge, .50 ft³/s, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.7	6.6	9.8	e6.9	85	26	6.2	3.3	2.0	.91	1.2
2	2.7	1.9	10	13	12	104	13	6.5	3.1	3.1	.91	.82
3	2.3	1.9	52	15	15	35	11	7.4	3.1	4.0	.86	.67
4	3.2	2.0	25	14	20	22	37	14	4.6	3.1	.80	.74
5	2.9	5.7	11	11	17	16	33	16	6.0	2.2	1.3	.72
6	2.2	21	8.3	9.7	13	15	37	9.8	4.1	1.8	2.1	1.6
7	1.7	14	7.6	9.9	13	16	25	7.5	3.1	1.9	1.8	2.2
8	1.5	13	7.8	10	13	16	14	6.7	2.9	2.2	1.2	27
9	1.4	15	15	10	12	15	11	5.8	3.5	1.9	2.0	125
10	1.3	8.8	23	12	8.9	13	10	5.1	2.9	1.8	13	39
11	1.2	12	13	16	e8.0	12	9.6	4.6	2.5	1.6	8.0	8.1
12	1.2	19	12	14	e7.8	12	9.6	4.6	2.7	1.5	2.7	4.2
13	1.6	11	10	12	e7.5	12	10	4.5	2.9	1.3	1.4	18
14	4.2	5.0	7.4	12	e7.1	11	9.7	4.1	2.6	6.9	1.1	26
15	4.4	3.7	6.5	17	e6.9	11	9.4	6.3	2.2	11	.92	13
16	2.9	4.0	7.4	17	e6.7	11	9.5	6.6	2.1	6.3	.88	6.1
17	2.0	4.0	8.9	12	e6.6	11	14	4.6	1.9	2.4	.79	4.8
18	1.7	5.2	31	13	e6.3	10	15	3.8	1.7	1.7	.69	47
19	1.5	27	54	33	e6.2	10	12	11	1.7	1.4	.62	44
20	1.5	21	16	49	e6.1	9.9	10	30	1.9	1.3	.56	19
21	1.4	55	11	20	e6.0	10	9.5	26	2.0	1.1	.52	10
22	1.4	24	9.0	13	e6.0	9.8	8.5	12	2.9	1.3	.77	7.3
23	1.4	9.6	7.7	11	10	9.4	7.8	13	6.3	1.1	.75	5.4
24	1.4	11	11	e9.7	12	9.3	8.4	14	5.1	.95	.56	4.5
25	1.3	12	86	e9.1	12	9.0	14	8.3	3.0	.97	.54	4.2
26	3.8	29	35	e8.8	11	9.1	10	6.2	3.1	1.1	.50	4.1
27	6.2	66	14	e8.5	11	8.8	7.7	7.0	4.1	1.1	1.3	4.1
28	5.1	18	12	e8.2	11	9.8	7.3	6.8	3.2	.98	3.9	4.1
29	3.2	11	11	e8.0	---	9.4	7.3	5.4	2.2	.89	3.5	4.1
30	2.4	8.4	10	e7.7	---	10	6.8	4.1	1.8	.90	2.4	4.1
31	1.9	---	10	e7.2	---	33	---	3.6	---	1.0	1.5	---
TOTAL	72.9	440.9	549.2	420.6	279.0	574.5	413.1	271.5	92.5	70.79	58.78	441.05
MEAN	2.35	14.7	17.7	13.6	9.96	18.5	13.8	8.76	3.08	2.28	1.90	14.7
MAX	6.2	66	86	49	20	104	37	30	6.3	11	13	125
MIN	1.2	1.7	6.5	7.2	6.0	8.8	6.8	3.6	1.7	.89	.50	.67
CFSM	.27	1.71	2.07	1.58	1.16	2.16	1.61	1.02	.36	.27	.22	1.72
IN.	.32	1.91	2.38	1.83	1.21	2.49	1.79	1.18	.40	.31	.26	1.91

CAL YR 1986 TOTAL 3544.29 MEAN 9.71 MAX 97 MIN .58 CFSM 1.13 IN. 15.38
WTR YR 1987 TOTAL 3684.82 MEAN 10.1 MAX 125 MIN .50 CFSM 1.18 IN. 15.99

e Estimated

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft downstream from Marsh Creek Dam, 0.2 mi upstream from mouth and 3.0 mi north of Downingtown.

DRAINAGE AREA.--20.3 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 280 ft, from topographic map.

REMARKS.--Records good, except periods of estimated record which are poor. Flow completely regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1,000 ft upstream.

AVERAGE DISCHARGE.--14 years, 31.8 ft³/s, 21.29 in/yr, adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s, Dec. 14, 1983, gage height, 3.70 ft, from rating curve extended above 200 ft³/s; minimum daily, 0.31 ft³/s, Dec. 22, 23, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 369 ft³/s, Dec. 16, gage height, 3.36 ft; minimum daily, 0.83 ft³/s, Mar. 26, 27, 29, Apr. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	13	14	59	16	32	.95	20	14	9.5	5.9	10
2	10	13	15	59	16	39	.88	19	13	11	5.8	11
3	10	13	29	59	16	57	.83	19	12	12	5.8	11
4	10	13	34	59	25	187	1.5	20	13	11	8.4	11
5	10	13	33	59	34	117	1.4	22	14	11	11	11
6	10	13	40	59	34	59	8.8	22	14	10	11	11
7	10	13	72	e59	28	59	16	21	13	9.9	11	11
8	10	13	66	e11	18	59	19	20	13	10	11	11
9	10	13	64	e11	18	58	19	19	13	10	12	16
10	10	12	63	e11	22	58	19	19	12	9.9	11	23
11	11	11	62	12	34	58	19	18	11	9.5	9.2	21
12	11	10	62	14	34	14	18	16	11	9.5	9.1	19
13	11	9.9	62	16	34	.92	15	13	11	9.7	8.9	33
14	11	10	62	16	34	.97	12	13	11	12	8.7	68
15	11	10	62	16	34	.97	12	13	11	16	11	64
16	11	9.9	203	16	31	.91	13	12	10	15	13	49
17	11	9.8	286	19	18	.90	15	12	9.9	14	13	12
18	13	10	149	28	2.8	.90	20	12	9.4	13	13	43
19	13	10	47	41	3.3	.90	20	13	9.0	12	12	70
20	13	10	17	42	3.3	.90	18	19	8.8	11	12	66
21	13	10	17	46	4.6	.89	18	30	8.7	11	12	40
22	13	9.8	17	57	8.3	.87	19	50	9.0	9.9	12	12
23	13	9.8	36	57	8.2	.86	19	54	11	9.2	12	12
24	13	9.8	59	57	10	.87	19	54	10	8.7	12	11
25	13	9.8	60	57	13	.85	21	49	10	2.0	12	11
26	13	11	59	57	30	.83	21	33	9.9	2.1	12	10
27	13	10	59	57	55	.83	21	17	11	3.4	12	10
28	13	11	59	57	57	.85	22	16	10	5.5	12	10
29	13	14	59	57	---	.83	22	16	9.7	5.5	12	9.7
30	13	15	59	57	---	.93	21	16	9.2	5.5	12	9.7
31	13	---	59	36	---	1.5	---	15	---	5.9	11	---
TOTAL	359	339.8	1985	1261	641.5	814.48	452.36	692	331.6	294.7	333.8	706.4
MEAN	11.6	11.3	64.0	40.7	22.9	26.3	15.1	22.3	11.1	9.51	10.8	23.5
MAX	13	15	286	59	57	187	22	54	14	16	13	70
MIN	10	9.8	14	11	2.8	.83	.83	12	8.7	2.0	5.8	9.7
MEAN‡	6.2	34.6	41.9	35.8	25.8	39.8	28.7	20.5	9.6	8.01	6.1	29.5
CFSM‡	.31	1.70	2.06	1.76	1.27	1.96	1.41	1.01	.47	.39	.30	1.45
IN‡	.35	1.90	2.38	2.03	1.32	2.26	1.58	1.16	.53	.46	.35	1.62

CAL YR 1986 TOTAL 9105.6 MEAN 24.9 MAX 286 MIN 3.2 MEAN‡ 24.9 CFSM‡ 1.23 IN‡ 16.69
WTR YR 1987 TOTAL 8211.64 MEAN 22.5 MAX 286 MIN .83 MEAN‡ 23.9 CFSM‡ 1.18 IN‡ 15.99

‡ Adjusted for change in contents in Marsh Creek Reservoir.
e Estimated

01480685 MARSH CREEK NEAR DOWNINTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1973 to current year.

INSTRUMENTATION.--Temperature recorder October 1973 to current year.

REMARKS.--Interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.5°C, Aug. 2, 1975, July 19, 1977: minimum, freezing point, February 3, 1980, Feb. 17, 1985.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	14.0	12.0	13.0
2	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
3	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
4	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
5	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
6	---	---	---	---	---	---	---	---	---	15.0	12.0	13.0
7	---	---	---	---	---	---	---	---	---	15.5	12.5	13.5
8	---	---	---	---	---	---	---	---	---	16.0	13.0	15.0
9	---	---	---	---	---	---	---	---	---	16.0	14.0	15.5
10	---	---	---	---	---	---	---	---	---	16.0	13.0	14.5
11	---	---	---	---	---	---	---	---	---	16.0	13.0	15.0
12	---	---	---	---	---	---	---	---	---	16.5	15.5	16.0
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	13.5	12.5	13.0	---	---	---
25	---	---	---	---	---	---	14.5	12.5	13.5	---	---	---
26	---	---	---	---	---	---	14.0	12.0	13.0	---	---	---
27	---	---	---	---	---	---	14.0	12.0	12.5	---	---	---
28	---	---	---	---	---	---	13.5	11.5	13.0	---	---	---
29	---	---	---	---	---	---	13.5	12.0	12.5	---	---	---
30	---	---	---	---	---	---	14.0	12.0	13.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	14.5	11.5	13.0	16.5	12.0	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mi downstream from Shamona Creek, 1.5 mi downstream from Marsh Creek, 2.0 mi upstream from Beaver Creek, and 2.2 mi north of Downingtown.

DRAINAGE AREA.--60.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft, from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 91.8 ft³/s, 20.58 in/yr, adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,070 ft³/s, June 22, 1972, gage height, 12.06 ft , from flood-mark, from rating curve extended above 5,000 ft³/s; minimum, 7.2 ft³/s, Sept. 2, 3, 11, 12, 13. 1966, gage height, 1.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft³/s, Sept. 9, gage height, 5.44 ft; minimum daily, 16 ft³/s, Aug. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	33	55	109	73	646	80	68	50	43	17	25
2	35	35	74	142	76	368	60	68	47	51	16	24
3	30	34	329	135	96	202	55	70	45	43	16	23
4	34	36	111	120	120	308	253	92	53	36	18	21
5	33	51	88	111	111	251	112	93	60	33	29	20
6	29	119	85	107	98	133	203	78	49	30	45	26
7	26	50	115	92	93	135	130	72	46	32	29	35
8	26	87	105	56	83	132	107	69	45	34	27	302
9	25	61	165	56	79	126	105	65	44	41	37	693
10	25	46	157	65	75	118	108	62	43	32	111	385
11	25	97	120	91	88	112	132	60	39	30	36	97
12	25	88	119	79	88	88	124	59	39	59	29	70
13	27	48	112	76	87	58	103	56	42	49	26	157
14	39	39	100	77	84	56	69	52	39	165	25	194
15	35	36	100	97	79	55	68	57	37	117	27	114
16	30	35	250	84	77	54	69	55	35	53	30	91
17	29	32	353	74	67	52	92	50	34	45	29	49
18	31	36	417	107	50	51	88	48	31	40	28	195
19	30	149	187	286	49	51	81	72	30	36	26	201
20	29	92	88	202	48	50	79	127	30	34	25	131
21	29	307	76	142	49	51	77	128	31	31	24	92
22	29	75	69	128	55	50	75	105	33	29	27	53
23	29	58	82	139	71	49	72	148	70	26	27	47
24	28	76	127	119	64	48	74	126	46	25	24	45
25	29	64	576	119	65	47	96	100	39	24	24	44
26	43	295	164	123	77	47	81	81	37	24	24	41
27	47	196	135	117	105	46	75	65	48	23	30	39
28	38	79	123	116	106	49	74	62	37	20	38	37
29	38	67	117	115	---	47	76	58	32	18	34	36
30	35	60	114	115	---	51	72	55	30	17	28	37
31	34	---	111	97	---	157	---	52	---	17	25	---
TOTAL	969	2481	4824	3496	2213	3688	2890	2353	1241	1257	931	3324
MEAN	31.3	82.7	156	113	79.0	119	96.3	75.9	41.4	40.5	30.0	111
MAX	47	307	576	286	120	646	253	148	70	165	111	693
MIN	25	32	55	56	48	46	55	48	30	17	16	20
MEAN‡	25.9	106	134	108	81.9	132	110	74.1	39.9	39.0	25.3	117
CFSM‡	.43	1.75	2.21	1.78	1.35	2.18	1.82	1.22	.66	.64	.42	1.93
IN‡	.49	1.95	2.55	2.06	1.41	2.51	2.03	1.41	.74	.74	.48	2.15

CAL YR 1986 TOTAL 28435 MEAN 77.9 MAX 576 MIN 20 MEAN‡ 77.9 CFSM‡ 1.29 IN‡ 17.46
WTR YR 1987 TOTAL 29667 MEAN 81.3 MAX 693 MIN 16 MEAN‡ 82.7 CFSM‡ 1.36 IN‡ 18.53

‡ Adjusted for change in contents in Marsh Creek Reservoir.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 17...	0930	33	180	7.60	14.5	8.0	1.5	10.8	66	36	17

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 17...	5.7	9.1	30	18	13	14	122	105	--	<0.01	1.80

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV 17...	0.10	0.5	0.6	--	0.3	--	0.04	0.01	<0.01	<10	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 17...	--	--	--	120	--	140	--	--	--	--

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (State Highway 322), 2,000 ft upstream from Valley Creek, 1.5 mi north of Marshallton, and 3.3 mi southeast of Downingtown.

DRAINAGE AREA.--89.9 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder. Altitude of gage is 195 ft, from topographic map. Feb. 1 to Apr. 10, June 25 to Nov. 17, 1972, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated records, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 7.5 mi upstream.

AVERAGE DISCHARGE.--15 years, 153 ft³/s, 23.05 in/yr, adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft³/s, June 22, 1972, gage height, 13.4 ft, from flood-mark, from rating curve extended above 3,600 ft³/s, on basis of slope-area measurement of peak flow; minimum, 22 ft³/s, Sept. 25, 1980; minimum gage height, 1.97 ft, July 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,240 ft³/s, Sept. 9, gage height, 9.24 ft; minimum daily, 29 ft³/s, Aug. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	39	88	e160	121	916	168	108	76	81	30	44
2	53	44	99	225	129	554	119	111	71	121	29	34
3	43	42	476	209	161	302	107	114	69	69	29	32
4	46	45	177	179	194	356	454	161	89	60	29	31
5	44	81	135	163	174	342	239	156	102	57	52	30
6	38	203	114	156	153	198	369	126	75	51	75	42
7	35	75	133	147	151	196	250	114	69	59	42	53
8	34	153	137	100	139	191	203	109	69	56	37	346
9	34	100	227	97	131	183	195	103	67	68	39	1200
10	33	72	237	113	117	174	189	98	66	54	215	504
11	33	188	157	150	135	173	220	95	61	51	51	133
12	34	158	172	127	135	155	208	95	60	80	41	96
13	38	79	131	119	131	113	187	88	65	95	37	197
14	60	63	139	121	126	109	135	82	61	237	36	285
15	47	58	139	144	120	107	133	94	59	235	36	151
16	38	57	235	130	116	104	133	90	56	81	39	127
17	37	54	383	114	109	101	176	81	54	65	40	75
18	38	55	523	167	86	98	164	77	51	58	39	279
19	37	235	315	418	83	98	150	103	51	54	34	294
20	37	110	134	334	82	97	144	190	51	51	33	176
21	36	494	119	216	82	97	140	188	57	48	32	133
22	36	116	112	198	89	95	130	146	57	47	40	76
23	35	89	115	212	110	92	117	212	107	e45	38	66
24	35	106	158	191	107	90	126	181	70	e44	33	62
25	36	97	923	189	105	87	161	141	62	e43	31	61
26	65	369	259	183	111	89	131	120	59	e41	32	57
27	62	384	200	177	147	87	120	104	77	e40	50	55
28	47	124	182	172	147	93	119	97	59	40	50	52
29	45	108	160	166	---	88	120	90	53	38	56	52
30	42	97	170	169	---	97	114	83	49	37	39	54
31	40	---	167	156	---	317	---	78	---	31	34	---
TOTAL	1277	3895	6716	5402	3491	5799	5221	3635	1972	2137	1398	4797
MEAN	41.2	130	217	174	125	187	174	117	65.7	68.9	45.1	160
MAX	65	494	923	418	194	916	454	212	107	237	215	1200
MIN	33	39	88	97	82	87	107	77	49	31	29	30
MEAN‡	35.8	153	195	169	128	200	188	115	64.2	67.4	40.4	166
CFSM‡	.40	1.70	2.17	1.88	1.42	2.22	2.09	1.28	.71	.75	.45	1.85
IN‡	.46	1.90	2.50	2.17	1.48	2.57	2.33	1.48	.80	.86	.52	2.06

CAL YR 1986 TOTAL 44146 MEAN 121 MAX 923 MIN 33 MEAN‡ 121 CFSM‡ 1.35 IN‡ 18.27
WTR YR 1987 TOTAL 45740 MEAN 125 MAX 1200 MIN 29 MEAN‡ 126 CFSM‡ 1.40 IN‡ 19.03

‡ Adjusted for change in contents in Marsh Creek Reservoir.
e Estimated

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURE: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1972.

REMARKS.--Not operated Dec. 3 to Mar. 10. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 652 microsiemens, Feb. 6, 1977; minimum, 67 microsiemens, July 1, 1984.
pH: Maximum, 9.9, May 13, June 5, 1973; minimum, 5.4, Oct. 24, 26, 1973.
WATER TEMPERATURE: Maximum, 33.0°C, July 19, 1977; minimum, 0.0°C, on many days during winter months. of most years.
DISSOLVED OXYGEN: Maximum, 16.9 mg/L, Mar. 28, 1981, Mar. 28, 1982, minimum, 0.8 mg/L, July 23, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
07...	1530	36	332	7.1	17.0	9.4	4800
15...	1200	49	276	6.8	15.5	9.4	--
21...	1400	38	310	6.8	14.5	9.2	380
28...	1430	49	301	6.6	16.5	7.8	500
NOV							
04...	1500	49	317	6.7	13.0	9.5	390
13...	1230	79	281	6.4	9.5	12.7	--
19...	1130	181	194	6.3	9.0	11.6	K8800
25...	1530	91	261	6.4	9.5	12.6	K3400
MAR							
10...	1600	173	215	7.7	7.5	12.7	--
17...	1430	90	265	7.8	9.0	14.0	--
25...	1430	87	258	8.3	14.0	14.3	K54
APR							
01...	1500	142	230	7.7	9.5	13.0	720
07...	1500	235	212	7.7	10.0	13.4	230
14...	1500	138	251	8.1	14.5	13.2	K72
21...	1430	143	241	8.2	17.0	12.0	--
29...	1500	120	246	7.5	14.5	12.5	410
MAY							
06...	1430	126	249	7.7	15.5	12.2	280
20...	1330	213	212	6.7	12.5	10.2	K9400
27...	1500	111	255	7.4	15.0	9.9	K1400
27...	1500	111	255	7.4	15.0	9.9	K1400
JUN							
01...	1530	77	276	7.4	24.5	9.5	4200
08...	1430	70	282	6.8	23.0	9.8	--
15...	1430	59	305	7.7	26.5	10.4	--
24...	1530	70	277	7.6	25.5	9.8	1300
JUL							
08...	1500	54	286	7.9	26.0	11.2	--
15...	1600	140	202	7.1	23.0	8.7	K15000
21...	1130	49	278	7.6	25.0	8.7	K240
29...	1500	34	341	8.5	25.5	12.9	K310
AUG							
04...	1400	31	335	8.2	27.5	12.7	320
13...	1400	39	320	8.0	23.5	10.7	K140
20...	1500	35	347	8.2	25.5	10.3	K120
SEP							
01...	1430	41	314	7.5	21.5	9.2	K1100
10...	1430	470	158	6.5	22.0	8.6	K3500
22...	1400	75	282	6.5	20.0	9.8	540

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	325	292	313	---	---	---	263	241	254	---	---	---
2	310	269	289	---	---	---	282	214	266	---	---	---
3	304	277	294	---	---	---	---	---	---	---	---	---
4	324	280	303	---	---	---	---	---	---	---	---	---
5	321	281	303	---	---	---	---	---	---	---	---	---
6	325	287	313	---	---	---	---	---	---	---	---	---
7	342	296	322	---	---	---	---	---	---	---	---	---
8	347	318	333	---	---	---	---	---	---	---	---	---
9	340	302	326	---	---	---	---	---	---	---	---	---
10	347	307	331	---	---	---	---	---	---	---	---	---
11	354	312	335	---	---	---	---	---	---	---	---	---
12	350	298	326	---	---	---	---	---	---	---	---	---
13	341	270	311	---	---	---	---	---	---	---	---	---
14	312	247	281	296	271	286	---	---	---	---	---	---
15	305	276	295	316	282	300	---	---	---	---	---	---
16	318	277	300	312	281	299	---	---	---	---	---	---
17	323	292	312	309	282	299	---	---	---	---	---	---
18	337	296	318	315	273	299	---	---	---	---	---	---
19	329	290	314	258	175	199	---	---	---	---	---	---
20	321	291	310	268	176	245	---	---	---	---	---	---
21	333	293	314	201	132	158	---	---	---	---	---	---
22	329	292	316	254	205	231	---	---	---	---	---	---
23	329	292	316	274	245	258	---	---	---	---	---	---
24	335	299	325	272	232	249	---	---	---	---	---	---
25	350	306	329	273	234	250	---	---	---	---	---	---
26	333	260	287	276	131	221	---	---	---	---	---	---
27	284	250	267	204	134	172	---	---	---	---	---	---
28	308	278	295	246	206	228	---	---	---	---	---	---
29	306	291	306	267	238	249	---	---	---	---	---	---
30	---	---	---	256	237	248	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	354	247	310	316	131	247	282	214	260	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	246	201	295	259	239	250
2	---	---	---	---	---	---	257	237	247	261	241	253
3	---	---	---	---	---	---	260	242	253	262	242	251
4	---	---	---	---	---	---	258	149	187	258	220	236
5	---	---	---	---	---	---	219	168	198	245	213	228
6	---	---	---	---	---	---	207	180	189	256	231	244
7	---	---	---	---	---	---	228	185	203	263	240	252
8	---	---	---	---	---	---	233	221	228	260	238	251
9	---	---	---	---	---	---	237	224	231	273	242	256
10	---	---	---	---	---	---	244	229	237	267	243	256
11	---	---	---	233	199	217	232	217	224	270	243	256
12	---	---	---	262	218	230	231	213	222	272	253	263
13	---	---	---	264	246	256	248	218	227	---	---	---
14	---	---	---	270	247	260	258	241	248	---	---	---
15	---	---	---	265	247	258	259	244	252	---	---	---
16	---	---	---	266	244	256	261	246	254	---	---	---
17	---	---	---	270	259	263	259	234	244	---	---	---
18	---	---	---	271	239	257	248	230	239	---	---	---
19	---	---	---	269	250	259	253	231	247	---	---	---
20	---	---	---	270	250	261	260	234	250	---	---	---
21	---	---	---	277	250	265	265	198	256	---	---	---
22	---	---	---	270	249	261	---	---	---	---	---	---
23	---	---	---	276	244	262	261	244	251	---	---	---
24	---	---	---	282	254	267	264	241	250	---	---	---
25	---	---	---	275	250	265	240	228	234	---	---	---
26	---	---	---	288	265	276	244	228	236	---	---	---
27	---	---	---	286	264	274	250	232	241	---	---	---
28	---	---	---	276	261	269	256	236	246	---	---	---
29	---	---	---	282	253	268	251	233	241	269	262	264
30	---	---	---	285	259	271	258	239	247	287	252	269
31	---	---	---	262	157	212	---	---	---	281	255	270
MONTH	---	---	---	288	157	257	265	149	237	287	213	253

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	281	255	270	322	190	263	403	359	379	334	257	300
2	288	271	280	274	259	264	395	327	359	354	315	341
3	295	276	286	293	259	275	361	332	350	361	331	350
4	289	250	273	306	273	287	367	335	352	364	329	351
5	271	242	254	293	256	273	352	225	320	366	325	351
6	287	256	273	296	258	277	287	221	256	364	284	331
7	284	259	274	287	247	275	318	282	301	302	254	279
8	286	265	278	290	258	275	338	292	316	300	94	237
9	292	267	279	281	240	265	328	289	311	109	91	100
10	290	261	276	293	257	278	254	161	199	188	107	146
11	296	265	284	299	259	282	302	247	277	242	189	221
12	293	271	285	287	194	256	320	290	307	261	231	246
13	293	262	281	264	189	225	330	298	316	257	187	222
14	301	261	284	269	130	206	344	312	333	216	163	189
15	305	282	294	231	149	193	374	332	352	233	214	224
16	302	277	292	263	232	247	354	316	337	240	217	227
17	305	278	296	281	253	268	333	303	322	276	249	266
18	315	284	302	297	264	282	329	301	318	---	---	---
19	318	292	308	298	275	289	345	311	331	212	178	195
20	335	302	318	299	277	290	357	315	339	222	206	214
21	325	293	306	306	278	297	354	322	344	264	206	227
22	308	282	295	316	275	301	353	306	327	284	251	268
23	295	228	251	322	293	313	320	293	309	297	266	283
24	288	246	264	330	295	317	342	271	304	302	270	287
25	298	266	284	347	306	329	350	312	334	312	283	299
26	303	254	289	354	308	337	348	306	335	316	281	299
27	282	255	272	345	298	324	349	271	310	301	268	288
28	292	266	283	338	311	328	323	299	308	---	---	---
29	311	271	298	352	316	338	326	253	288	---	---	---
30	323	294	313	363	322	348	309	258	284	---	---	---
31	---	---	---	367	336	357	344	269	311	---	---	---
MONTH	335	228	285	367	130	286	403	161	317	366	91	259

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	7.3	7.1	7.2	---	---	---	7.4	7.3	7.3	---	---	---
2	7.2	7.0	7.1	---	---	---	7.4	7.3	7.4	---	---	---
3	7.2	7.0	7.1	---	---	---	---	---	---	---	---	---
4	7.2	7.1	7.1	---	---	---	---	---	---	---	---	---
5	7.3	7.0	7.1	---	---	---	---	---	---	---	---	---
6	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
7	7.5	7.1	7.3	---	---	---	---	---	---	---	---	---
8	7.6	7.3	7.4	---	---	---	---	---	---	---	---	---
9	7.5	7.2	7.3	---	---	---	---	---	---	---	---	---
10	7.7	7.2	7.4	---	---	---	---	---	---	---	---	---
11	7.8	7.3	7.5	---	---	---	---	---	---	---	---	---
12	7.6	7.2	7.4	---	---	---	---	---	---	---	---	---
13	7.3	7.2	7.2	---	---	---	---	---	---	---	---	---
14	7.3	7.1	7.2	7.5	7.3	7.4	---	---	---	---	---	---
15	7.5	6.8	7.3	7.5	7.4	7.4	---	---	---	---	---	---
16	7.6	7.3	7.4	7.5	7.3	7.4	---	---	---	---	---	---
17	7.5	7.3	7.4	7.4	7.3	7.3	---	---	---	---	---	---
18	7.5	7.2	7.3	7.4	7.2	7.3	---	---	---	---	---	---
19	7.3	7.1	7.2	7.2	6.3	7.1	---	---	---	---	---	---
20	7.3	7.1	7.2	7.3	7.2	7.3	---	---	---	---	---	---
21	7.3	6.8	7.2	7.1	6.9	7.0	---	---	---	---	---	---
22	7.4	7.1	7.2	7.3	7.1	7.2	---	---	---	---	---	---
23	7.3	7.1	7.2	7.3	7.3	7.3	---	---	---	---	---	---
24	7.3	7.0	7.1	7.3	7.2	7.3	---	---	---	---	---	---
25	7.1	6.9	7.0	7.3	6.4	7.2	---	---	---	---	---	---
26	6.9	6.9	6.9	7.3	7.0	7.2	---	---	---	---	---	---
27	6.9	6.8	6.8	7.1	6.9	7.0	---	---	---	---	---	---
28	---	---	---	7.3	7.1	7.2	---	---	---	---	---	---
29	---	---	---	7.3	6.9	7.2	---	---	---	---	---	---
30	---	---	---	7.3	7.2	7.3	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.8	6.8	7.2	7.5	6.3	7.2	7.4	7.3	7.3	---	---	---

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.7	7.1	7.3	7.9	6.9	7.2	8.0	7.1	7.4	7.8	7.2	7.5
2	7.8	7.2	7.4	7.3	6.8	7.2	8.2	7.1	7.4	7.9	7.3	7.4
3	7.5	7.2	7.4	7.8	7.2	7.4	8.3	7.0	7.5	7.9	7.3	7.5
4	7.4	7.3	7.3	7.7	7.2	7.4	8.7	7.0	7.7	8.0	7.3	7.5
5	7.5	7.2	7.3	7.8	7.1	7.4	8.5	7.1	7.6	8.1	7.3	7.6
6	7.5	7.2	7.4	7.9	7.1	7.4	8.2	7.1	7.4	7.5	7.2	7.3
7	7.5	7.2	7.3	7.6	7.1	7.3	8.6	7.2	7.8	7.6	7.1	7.3
8	7.6	6.8	7.3	8.3	7.1	7.5	8.5	7.3	7.7	7.2	6.5	7.1
9	7.6	7.2	7.4	8.2	7.2	7.6	8.5	7.2	7.7	6.7	6.5	6.7
10	7.7	7.3	7.5	7.8	7.2	7.5	7.4	7.0	7.2	7.2	6.5	6.9
11	7.7	7.2	7.4	8.5	7.2	7.7	8.1	7.2	7.5	7.5	7.1	7.3
12	7.5	7.3	7.4	8.5	7.1	7.5	8.4	7.3	7.7	7.3	7.2	7.3
13	7.5	7.1	7.3	7.7	7.0	7.3	8.4	7.4	7.7	7.3	7.1	7.2
14	7.6	7.1	7.3	7.6	6.9	7.1	8.4	7.4	7.7	7.2	7.0	7.1
15	7.9	7.1	7.4	7.3	7.0	7.1	8.4	7.3	7.8	7.4	7.2	7.2
16	8.1	7.2	7.5	7.8	7.2	7.4	8.4	7.3	7.7	7.5	7.2	7.3
17	8.0	7.3	7.5	7.9	7.3	7.5	8.4	7.3	7.6	7.4	7.2	7.3
18	8.1	7.3	7.6	8.2	7.3	7.6	8.3	7.2	7.6	---	---	---
19	8.3	7.3	7.6	8.4	7.2	7.8	8.1	7.2	7.5	7.2	7.1	7.2
20	8.1	7.2	7.5	8.7	7.2	7.9	8.3	7.2	7.5	7.4	7.2	7.3
21	7.6	7.1	7.3	8.7	7.3	7.9	8.3	7.3	7.5	7.5	7.2	7.3
22	7.5	7.1	7.2	8.7	7.2	7.8	7.8	7.2	7.4	7.5	6.5	7.4
23	7.3	7.1	7.2	8.7	7.2	7.8	7.9	7.2	7.4	7.7	7.3	7.5
24	7.5	7.1	7.2	8.9	7.2	7.9	8.0	7.2	7.5	7.7	7.3	7.5
25	7.9	7.2	7.4	8.8	7.2	7.9	8.0	7.3	7.5	7.7	7.3	7.5
26	7.5	7.1	7.3	8.2	7.1	7.6	8.2	7.3	7.6	7.8	7.4	7.5
27	7.7	7.1	7.3	8.6	7.1	7.7	7.4	7.2	7.3	7.8	7.3	7.5
28	7.7	7.1	7.4	8.6	7.2	7.7	7.4	7.2	7.3	---	---	---
29	7.8	7.1	7.4	8.6	7.2	7.7	7.7	7.2	7.4	---	---	---
30	7.9	7.1	7.4	8.6	7.2	7.7	7.9	7.2	7.4	---	---	---
31	---	---	---	8.7	7.2	7.7	7.8	7.2	7.4	---	---	---
MONTH	8.3	6.8	7.4	8.9	6.8	7.6	8.7	7.0	7.5	8.1	6.5	7.3

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.0	22.0	23.0	---	---	---	8.5	7.5	8.0	---	---	---
2	23.5	22.0	22.5	---	---	---	9.0	7.5	8.0	---	---	---
3	22.0	20.5	21.0	---	---	---	---	---	---	---	---	---
4	21.5	20.5	21.0	---	---	---	---	---	---	---	---	---
5	21.5	19.5	20.5	---	---	---	---	---	---	---	---	---
6	19.5	16.5	18.0	---	---	---	---	---	---	---	---	---
7	17.5	14.5	16.0	---	---	---	---	---	---	---	---	---
8	18.0	14.5	16.0	---	---	---	---	---	---	---	---	---
9	19.0	16.5	17.5	---	---	---	---	---	---	---	---	---
10	17.5	15.0	16.0	---	---	---	---	---	---	---	---	---
11	16.0	14.0	15.0	---	---	---	---	---	---	---	---	---
12	17.5	15.0	16.0	---	---	---	---	---	---	---	---	---
13	17.5	16.5	17.0	9.5	8.0	9.0	---	---	---	---	---	---
14	18.5	17.5	17.5	8.5	7.0	7.5	---	---	---	---	---	---
15	17.0	15.0	15.5	8.0	6.5	7.5	---	---	---	---	---	---
16	15.5	13.5	14.5	10.0	8.5	9.0	---	---	---	---	---	---
17	14.5	13.5	14.0	11.0	9.5	10.0	---	---	---	---	---	---
18	15.5	13.5	14.5	11.0	9.5	10.5	---	---	---	---	---	---
19	15.0	12.5	13.5	10.5	8.0	9.5	---	---	---	---	---	---
20	15.0	12.0	13.5	9.0	7.5	8.0	---	---	---	---	---	---
21	15.0	12.5	13.5	9.0	8.0	8.5	---	---	---	---	---	---
22	16.0	13.5	14.5	8.5	7.5	8.0	---	---	---	---	---	---
23	16.0	14.0	15.0	9.0	7.5	8.0	---	---	---	---	---	---
24	16.5	14.5	15.0	10.0	9.0	9.5	---	---	---	---	---	---
25	14.5	13.5	14.0	9.5	8.5	9.0	---	---	---	---	---	---
26	15.0	14.5	14.5	9.5	8.5	9.0	---	---	---	---	---	---
27	15.5	15.0	15.0	10.0	9.5	9.5	---	---	---	---	---	---
28	16.5	15.0	15.5	9.5	8.5	9.0	---	---	---	---	---	---
29	---	---	---	9.5	8.0	9.0	---	---	---	---	---	---
30	---	---	---	9.0	8.0	8.5	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	24.0	12.0	16.4	11.0	6.5	8.8	9.0	7.5	8.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.5	8.0	8.5	16.0	13.0	14.5
2	---	---	---	---	---	---	10.0	7.5	9.0	15.5	14.0	14.5
3	---	---	---	---	---	---	10.5	9.0	9.5	15.5	14.0	14.5
4	---	---	---	---	---	---	11.0	10.0	10.5	14.5	13.0	13.5
5	---	---	---	---	---	---	10.0	8.5	9.5	14.0	12.0	13.0
6	---	---	---	---	---	---	8.5	8.0	8.0	16.0	12.5	14.0
7	---	---	---	---	---	---	10.5	8.5	9.5	17.0	13.0	15.0
8	---	---	---	---	---	---	12.5	9.5	11.0	17.0	14.5	15.5
9	---	---	---	---	---	---	12.0	10.0	11.0	16.5	13.0	15.0
10	---	---	---	---	---	---	13.5	9.5	11.5	18.0	14.0	16.0
11	---	---	---	7.0	5.0	6.0	14.0	10.5	12.5	19.0	16.0	17.5
12	---	---	---	7.0	6.0	6.5	13.0	11.5	12.5	19.0	16.5	---
13	---	---	---	8.0	6.0	7.0	13.0	11.5	12.0	---	---	---
14	---	---	---	8.0	6.0	7.0	15.0	11.0	13.0	---	---	---
15	---	---	---	8.5	7.0	7.5	14.0	12.0	13.0	---	---	---
16	---	---	---	9.0	7.0	8.0	12.0	11.0	11.5	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	10.0	7.0	8.5	---	---	---	---	---	---
19	---	---	---	10.5	7.5	9.0	---	---	---	---	---	---
20	---	---	---	11.0	8.5	10.0	---	---	---	---	---	---
21	---	---	---	10.5	9.0	9.5	---	---	---	---	---	---
22	---	---	---	12.0	9.5	10.5	---	---	---	---	---	---
23	---	---	---	13.0	9.5	11.5	16.5	14.5	15.0	---	---	---
24	---	---	---	14.0	10.5	12.0	14.5	14.0	14.0	---	---	---
25	---	---	---	14.0	11.0	12.5	14.5	13.0	14.0	---	---	---
26	---	---	---	15.0	12.0	13.0	15.5	12.0	14.0	---	---	---
27	---	---	---	13.0	11.0	12.5	16.0	12.5	14.0	---	---	---
28	---	---	---	14.5	12.0	13.0	14.5	13.0	14.0	---	---	---
29	---	---	---	14.5	11.5	13.0	15.0	12.0	14.0	20.5	17.5	20.0
30	---	---	---	13.0	12.0	12.5	16.0	13.0	14.5	22.5	19.0	21.0
31	---	---	---	12.5	9.5	11.5	---	---	---	23.0	21.0	22.0
MONTH	---	---	---	15.0	5.0	10.0	16.5	7.5	11.9	23.0	12.0	16.1

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	25.0	21.5	23.0	27.0	24.0	25.0	26.0	23.5	25.0	22.0	19.5	20.5
2	25.0	23.0	24.0	24.0	22.0	23.0	26.0	23.5	25.0	22.0	18.0	20.0
3	24.0	21.5	22.5	25.0	22.0	23.5	27.5	24.5	26.0	22.5	19.0	20.5
4	21.5	20.5	21.0	25.0	23.0	24.0	28.5	25.0	26.5	22.0	18.0	19.5
5	23.5	20.0	21.5	26.0	23.0	24.5	26.5	24.5	25.5	21.0	18.0	19.5
6	23.5	20.0	21.5	25.5	23.0	24.0	24.5	23.0	24.0	20.0	19.5	20.0
7	22.0	19.5	21.0	24.0	23.0	23.5	25.0	22.0	23.5	21.5	19.5	20.5
8	23.5	20.5	22.0	26.5	23.0	24.5	26.5	23.5	24.5	21.0	20.0	20.5
9	22.5	21.5	22.0	27.0	24.0	25.5	26.0	24.0	25.0	22.0	21.0	21.5
10	23.0	19.5	21.0	25.0	24.0	24.5	25.0	23.0	24.0	22.5	20.5	21.5
11	23.0	19.0	21.0	27.0	23.0	25.0	25.0	21.0	23.0	22.5	21.0	22.0
12	21.5	20.5	21.0	27.0	23.5	25.0	25.0	21.5	23.0	22.0	21.5	21.5
13	23.5	20.5	22.0	26.0	23.0	24.5	23.5	20.5	22.0	22.0	21.0	21.5
14	25.5	21.5	23.5	25.0	21.5	23.5	23.0	19.5	21.5	22.5	20.5	21.5
15	27.0	23.0	24.5	23.5	21.0	22.5	25.0	21.5	22.5	22.0	20.0	21.0
16	27.0	23.5	25.0	23.5	21.0	22.0	25.5	21.5	23.5	22.5	20.5	21.5
17	26.5	23.0	24.5	24.5	20.5	22.5	26.5	23.0	24.5	23.5	21.5	22.0
18	26.0	22.0	24.0	25.0	21.0	23.0	27.0	23.5	25.0	23.5	20.5	22.0
19	26.5	22.5	24.0	26.0	22.5	24.5	25.5	22.5	24.0	20.5	19.0	19.5
20	27.0	23.5	25.0	27.0	23.5	25.5	26.0	22.5	24.0	19.5	18.5	19.0
21	25.0	24.0	24.5	28.5	24.0	26.0	25.5	21.0	23.0	20.0	19.0	19.5
22	25.5	24.0	24.5	28.5	25.0	26.5	23.5	22.0	22.5	20.0	18.5	19.0
23	25.0	23.5	24.5	29.0	24.5	26.5	24.0	21.0	22.5	19.5	17.5	18.5
24	25.5	22.5	23.5	28.0	24.5	26.0	22.5	19.0	20.5	19.5	17.5	18.5
25	26.0	22.0	24.0	28.0	25.0	26.5	21.5	18.5	20.0	19.5	17.5	18.5
26	23.5	22.5	23.0	26.5	24.5	25.5	22.0	18.5	20.5	19.5	17.0	18.0
27	25.5	22.0	23.5	26.5	23.0	25.0	21.0	20.0	20.5	20.0	17.0	18.5
28	24.5	21.0	23.0	27.0	23.5	25.0	20.5	20.0	20.5	21.0	17.5	19.0
29	26.0	22.0	24.0	26.0	22.5	24.0	22.5	19.5	21.0	21.5	19.0	20.0
30	27.0	24.0	25.0	26.0	22.0	24.0	22.5	18.5	20.0	21.5	20.0	20.5
31	---	---	---	27.0	23.5	25.0	21.5	18.5	20.0	---	---	---
MONTH	27.0	19.0	23.1	29.0	20.5	24.5	28.5	18.5	23.0	23.5	17.0	20.2

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	7.2	4.1	5.2	---	---	---	---	---	---	---	---	---
2	7.0	3.7	5.2	---	---	---	---	---	---	---	---	---
3	7.1	4.5	5.8	---	---	---	---	---	---	---	---	---
4	7.2	4.8	5.8	---	---	---	---	---	---	---	---	---
5	7.2	4.5	5.6	---	---	---	---	---	---	---	---	---
6	7.8	4.6	6.1	---	---	---	---	---	---	---	---	---
7	9.4	6.2	7.4	---	---	---	---	---	---	---	---	---
8	9.7	6.8	7.9	---	---	---	---	---	---	---	---	---
9	9.1	6.3	7.3	---	---	---	---	---	---	---	---	---
10	10.4	6.2	8.1	---	---	---	---	---	---	---	---	---
11	11.2	7.7	9.0	---	---	---	---	---	---	---	---	---
12	10.2	6.9	8.2	---	---	---	---	---	---	---	---	---
13	7.8	6.3	6.9	12.8	12.4	12.6	---	---	---	---	---	---
14	8.4	6.1	7.2	14.3	12.4	13.4	---	---	---	---	---	---
15	10.5	6.7	8.3	14.4	12.3	13.5	---	---	---	---	---	---
16	11.3	8.4	9.6	12.6	10.0	11.7	---	---	---	---	---	---
17	11.4	9.1	10.0	11.0	9.1	10.0	---	---	---	---	---	---
18	11.9	8.7	10.1	10.7	9.0	9.6	---	---	---	---	---	---
19	11.0	8.2	9.3	11.6	9.0	10.4	---	---	---	---	---	---
20	10.5	7.4	8.7	12.5	11.0	11.9	---	---	---	---	---	---
21	11.0	7.3	8.3	11.3	10.7	11.0	---	---	---	---	---	---
22	10.2	5.0	7.4	11.3	10.1	10.8	---	---	---	---	---	---
23	8.7	5.0	6.4	11.0	9.4	10.4	---	---	---	---	---	---
24	8.7	4.5	6.0	9.4	8.6	9.0	---	---	---	---	---	---
25	8.4	4.7	6.4	12.6	8.7	10.2	---	---	---	---	---	---
26	7.8	5.7	6.8	12.2	11.4	11.9	---	---	---	---	---	---
27	8.4	7.0	7.6	11.6	10.8	11.0	---	---	---	---	---	---
28	8.0	5.7	6.9	12.2	10.8	11.6	---	---	---	---	---	---
29	7.5	5.2	---	13.0	10.7	11.3	---	---	---	---	---	---
30	---	---	---	13.9	12.7	13.3	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	11.9	3.7	7.4	14.4	8.6	11.3	---	---	---	---	---	---

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	13.5	10.2	11.8	13.0	7.9	10.3
2	---	---	---	---	---	---	13.2	9.2	11.2	12.0	7.6	9.6
3	---	---	---	---	---	---	13.8	9.0	11.3	11.7	7.6	9.4
4	---	---	---	---	---	---	10.4	8.1	9.4	10.6	8.2	9.5
5	---	---	---	---	---	---	9.6	8.1	8.8	11.2	8.8	10.1
6	---	---	---	---	---	---	10.2	8.9	9.4	12.2	7.8	10.1
7	---	---	---	---	---	---	13.4	8.8	10.6	12.0	7.2	9.5
8	---	---	---	---	---	---	13.3	9.7	11.6	11.4	6.9	8.9
9	---	---	---	---	---	---	13.5	9.6	11.4	11.4	6.6	8.9
10	---	---	---	---	---	---	13.7	9.0	11.3	10.1	5.4	7.8
11	---	---	---	13.5	11.4	12.4	13.2	8.9	10.9	9.7	4.7	6.9
12	---	---	---	13.4	11.3	12.2	12.7	8.9	10.4	9.3	4.6	7.5
13	---	---	---	13.5	11.0	12.1	12.7	9.1	10.7	---	---	---
14	---	---	---	13.7	10.8	12.2	13.2	8.1	10.6	---	---	---
15	---	---	---	13.5	10.7	11.9	11.8	7.8	9.7	---	---	---
16	---	---	---	13.7	10.8	12.0	11.9	9.2	10.5	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	13.9	10.5	12.0	---	---	---	---	---	---
19	---	---	---	13.9	9.9	11.7	---	---	---	---	---	---
20	---	---	---	14.4	9.9	11.8	---	---	---	---	---	---
21	---	---	---	14.3	9.7	11.7	---	---	---	---	---	---
22	---	---	---	14.3	9.7	11.6	---	---	---	---	---	---
23	---	---	---	13.9	9.3	11.4	10.9	7.0	8.9	---	---	---
24	---	---	---	14.0	9.1	11.1	10.9	8.0	9.2	---	---	---
25	---	---	---	14.3	8.8	11.1	11.2	8.1	9.5	---	---	---
26	---	---	---	14.3	8.5	10.8	11.3	7.8	9.5	---	---	---
27	---	---	---	14.3	8.3	10.8	11.2	7.8	9.4	---	---	---
28	---	---	---	14.1	8.1	10.4	11.0	7.7	9.4	---	---	---
29	---	---	---	13.9	7.7	10.1	12.5	7.9	9.8	9.5	6.6	8.6
30	---	---	---	12.4	7.6	9.4	12.5	7.8	9.9	9.3	6.1	7.6
31	---	---	---	10.4	8.2	9.2	---	---	---	8.8	6.1	7.5
MONTH	---	---	---	14.4	7.6	11.3	13.8	7.0	10.2	13.0	4.6	8.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.6	6.5	7.9	9.6	5.8	7.4	11.1	4.4	7.0	9.7	6.3	7.9
2	9.8	5.9	7.8	7.6	6.5	6.8	11.7	4.4	7.3	9.7	5.9	7.3
3	9.5	6.8	8.2	9.8	6.1	7.7	13.0	5.0	8.0	9.5	5.7	7.0
4	9.7	8.2	8.9	9.1	5.7	7.2	13.4	4.2	7.8	10.3	5.9	7.6
5	9.6	7.7	8.7	9.4	5.3	7.0	11.3	3.6	6.4	10.8	6.4	9.1
6	10.1	7.6	8.8	9.4	5.1	6.8	10.3	5.2	6.9	8.6	6.9	8.0
7	10.1	7.5	8.7	8.1	5.2	6.5	12.1	5.5	7.8	9.5	6.6	7.7
8	11.5	6.3	8.3	11.3	5.2	7.6	10.8	4.2	6.8	8.7	6.5	7.4
9	9.8	6.3	7.9	10.8	5.7	7.6	10.0	3.8	6.3	9.2	8.2	8.6
10	10.8	7.3	8.8	9.9	5.7	7.8	8.9	5.1	6.7	9.1	7.9	8.4
11	11.0	7.6	9.1	11.8	5.7	8.2	11.1	6.8	8.4	9.4	7.7	8.4
12	10.0	7.5	8.7	11.3	5.5	7.3	11.9	6.6	8.4	8.4	7.7	8.0
13	10.1	6.6	8.4	8.7	5.5	7.0	11.1	6.3	8.1	8.3	7.4	7.9
14	10.2	6.6	8.1	8.4	5.4	7.0	11.4	6.1	8.0	8.5	7.8	8.1
15	10.4	5.4	7.7	8.7	7.4	8.3	11.4	6.0	7.9	9.0	7.8	8.3
16	10.3	5.3	7.4	10.7	7.4	9.0	11.1	5.8	7.6	9.0	7.4	8.2
17	10.5	5.7	7.5	11.6	8.0	9.4	11.2	5.5	7.3	8.4	7.2	7.9
18	10.6	5.7	7.7	12.2	7.9	9.6	11.2	5.2	7.2	---	---	---
19	10.5	5.3	7.4	12.8	7.1	9.5	10.4	5.4	7.3	8.8	8.0	8.6
20	10.3	4.5	6.6	13.3	6.8	9.3	10.4	5.3	7.0	9.4	8.6	9.0
21	8.1	3.6	5.8	12.6	5.2	8.2	7.1	3.4	4.9	9.5	8.1	8.8
22	6.4	3.3	4.5	12.5	4.6	7.3	6.1	2.9	4.2	9.8	8.1	8.8
23	5.7	3.3	4.5	13.1	3.9	7.3	7.3	4.4	5.5	10.2	8.2	9.0
24	9.8	3.7	6.1	14.3	4.8	8.2	8.8	4.4	6.2	10.0	8.4	9.0
25	10.5	5.9	7.7	13.5	4.6	7.9	10.2	5.6	7.6	10.2	8.1	9.0
26	9.3	5.9	7.6	10.4	4.2	6.8	10.6	5.9	7.8	10.5	8.6	9.4
27	9.8	5.8	7.5	11.1	4.9	7.5	7.8	5.6	6.7	9.5	8.2	9.0
28	9.4	6.0	7.5	12.2	5.2	7.6	8.2	6.6	7.4	---	---	---
29	9.6	5.8	7.3	12.9	5.3	7.8	9.3	6.9	7.8	---	---	---
30	10.0	5.6	7.2	13.2	4.8	7.7	10.0	7.1	8.3	---	---	---
31	---	---	---	13.4	4.6	7.8	10.0	6.5	7.8	---	---	---
MONTH	11.5	3.3	7.6	14.3	3.9	7.8	13.4	2.9	7.2	10.8	5.7	8.3

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run and 1,200 ft downstream from highway bridge on U.S. Highway 1.
DRAINAGE AREA.--287 mi², including that of Harvey Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.
REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18 (M), 1919-20, 1922-31 (M), 1932-33. 1934 (M), 1936, 1938 (P), 1939 (M), 1942, 1944-46 (M).
GAGE.--Water-stage recorder. Datum of gage is 150.45 ft above National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, nonrecording gage at same site and datum.
REMARKS.--Records good except for periods of estimated record, which are poor. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi upstream.
AVERAGE DISCHARGE.--67 years (water years 1911-53, 1962-87), 398 ft³/s, 18.84 in/yr, adjusted for storage since November 1973.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s June 22, 1972, gage height, 16.56 ft, from rating curve extended above 9,000 ft³/s, on basis of area-velocity study; minimum, 4.9 ft³/s, Oct. 2, 1941, gage height, 0.28 ft; minimum daily, 42 ft³/s, Sept. 12, 1966.
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft³/s, Sept. 9, gage height, 8.48 ft; minimum daily discharge, 94 ft³/s, Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	106	273	439	e340	2410	564	325	253	213	107	197
2	149	119	330	659	408	1990	378	332	250	455	101	142
3	125	117	1510	625	482	898	346	372	248	297	98	123
4	123	118	565	513	593	779	1150	505	340	253	94	121
5	118	177	401	456	524	769	796	520	464	297	98	115
6	108	609	349	426	452	566	976	393	291	225	294	128
7	102	248	360	427	453	552	781	355	261	236	186	187
8	102	418	349	365	448	538	584	333	259	240	159	419
9	101	368	515	355	422	516	524	315	259	300	147	3510
10	99	235	639	389	363	477	487	304	259	237	426	802
11	97	544	442	490	395	455	501	294	234	217	205	334
12	98	668	443	425	390	448	485	308	236	326	150	225
13	106	270	398	385	384	386	473	309	252	479	142	550
14	153	198	335	386	366	376	400	272	242	424	136	764
15	136	175	335	429	345	370	392	300	229	877	132	339
16	115	169	399	435	316	361	393	316	220	307	133	262
17	109	152	571	365	e290	344	496	275	216	249	132	224
18	108	157	1030	477	e260	338	478	262	205	220	136	585
19	106	630	1010	1090	e240	336	425	293	206	202	124	764
20	101	345	456	1180	e245	333	401	504	206	187	120	406
21	101	1490	383	665	e250	332	385	534	281	173	114	320
22	103	439	345	600	e280	324	372	395	340	163	131	256
23	103	294	333	587	371	313	358	489	384	149	149	217
24	102	326	410	515	367	306	386	593	299	142	128	192
25	102	333	2660	510	342	298	533	389	241	136	114	179
26	151	860	821	509	334	301	422	349	230	131	115	166
27	174	1570	594	471	378	291	368	336	271	128	141	158
28	132	474	527	449	380	315	358	328	245	122	146	153
29	120	360	488	e420	---	303	355	296	216	113	202	148
30	115	310	467	e400	---	315	340	275	207	110	147	155
31	108	---	455	e370	---	799	---	260	---	104	131	---
TOTAL	3575	12279	18193	15812	10418	17139	14907	11131	7844	7712	4638	12141
MEAN	115	409	587	510	372	553	497	359	261	249	150	405
MAX	174	1570	2660	1180	593	2410	1150	593	464	877	426	3510
MIN	97	106	273	355	240	291	340	260	205	104	94	115
MEAN‡	110	432	565	505	375	566	511	357	260	248	145	411
CFSM‡	.38	1.51	1.97	1.76	1.31	1.97	1.78	1.24	.91	.86	.51	1.43
IN‡	.44	1.68	2.27	2.03	1.36	2.28	1.99	1.43	1.01	1.00	.58	1.60

CAL YR 1986 TOTAL 120079 MEAN 329 MAX 2660 MIN 86 MEAN‡ 329 CFSM‡ 1.15 IN‡ 15.56
WTR YR 1987 TOTAL 135789 MEAN 372 MAX 3510 MIN 94 MEAN‡ 373 CFSM‡ 1.30 IN‡ 17.65

‡ Adjusted for change in contents in Marsh Creek Reservoir.
e Estimated

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURE: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1978.

INSTRUMENTATION.--Water-quality monitor since August 1971.

REMARKS.--Not operated Nov. 21 to Mar. 4. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 516 microsiemens, July 18, 1986; minimum, 42 microsiemens, Nov. 26, 1979.
pH: Maximum, 9.8, Apr. 9, 1975; minimum, 6.1, Feb. 22, 1976.
WATER TEMPERATURE: Maximum, 31.0°C, July 18, 19, 1977; minimum daily, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 5, 1976; minimum, 3.0 mg/L, June 21, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
01...	1530	106	288	7.6	24.0	8.4	K180
09...	1430	102	309	7.7	17.0	11.1	K144
16...	1500	121	280	7.7	14.5	10.9	K135
22...	1500	104	308	7.5	13.5	12.2	K117
29...	1500	118	288	7.3	14.5	10.3	K144
NOV							
08...	1200	555	351	6.8	11.0	10.7	K7200
14...	1530	195	279	7.3	5.5	12.8	--
20...	1130	283	230	6.9	5.9	12.5	K15000
28...	1430	425	209	7.6	7.0	11.7	--
MAR							
04...	1500	--	215	7.7	6.0	12.4	--
12...	1430	--	226	7.8	6.0	13.1	--
19...	1500	318	231	8.6	9.5	14.4	--
26...	1430	291	232	8.9	13.5	14.1	520
APR							
02...	1430	356	238	7.8	9.5	13.2	K890
08...	1430	575	218	7.6	10.5	12.8	270
15...	1500	384	234	7.4	12.5	12.2	K180
23...	1500	347	231	7.6	15.5	10.5	K210
30...	1500	322	231	8.1	15.0	12.3	K80
MAY							
07...	1530	343	231	7.8	16.5	11.8	K48
22...	1430	384	229	7.2	18.0	9.4	440
28...	1230	322	244	7.2	17.0	9.1	350
JUN							
03...	1200	254	258	7.0	22.5	7.0	210
10...	1530	242	257	7.5	21.5	9.0	--
17...	1500	218	260	7.4	26.0	8.8	--
25...	1530	238	244	7.2	25.5	7.8	K140
JUL							
09...	1430	287	267	6.9	26.5	7.8	K730
16...	1500	287	215	7.0	23.0	8.1	580
22...	1230	207	269	8.1	28.0	8.9	K36
31...	1500	150	291	8.4	27.0	10.6	K45
AUG							
11...	1330	191	235	7.2	25.0	8.5	3400
19...	1330	125	294	7.7	26.0	8.7	K54
26...	1400	121	292	8.0	21.0	10.6	210
SEP							
08...	1330	173	276	7.2	21.0	8.2	510
16...	1400	250	240	7.1	22.0	8.3	800
24...	1430	180	273	7.2	19.0	9.6	340

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	296	272	286	312	300	306	---	---	---	---	---	---
2	292	272	282	316	296	302	---	---	---	---	---	---
3	296	280	286	308	296	303	---	---	---	---	---	---
4	296	272	280	304	284	294	---	---	---	---	---	---
5	292	280	285	316	272	287	---	---	---	---	---	---
6	296	288	291	372	264	297	---	---	---	---	---	---
7	312	292	301	300	280	293	---	---	---	---	---	---
8	312	300	307	368	260	313	---	---	---	---	---	---
9	316	296	308	288	260	270	---	---	---	---	---	---
10	316	308	312	292	260	276	---	---	---	---	---	---
11	320	308	312	296	204	277	---	---	---	---	---	---
12	320	304	311	232	196	214	---	---	---	---	---	---
13	324	304	312	272	228	248	---	---	---	---	---	---
14	320	280	296	288	272	278	---	---	---	---	---	---
15	288	268	278	300	284	295	---	---	---	---	---	---
16	284	276	278	316	296	305	---	---	---	---	---	---
17	292	280	286	312	304	307	---	---	---	---	---	---
18	300	288	294	344	292	311	---	---	---	---	---	---
19	308	292	300	308	212	257	---	---	---	---	---	---
20	308	296	302	264	216	233	---	---	---	---	---	---
21	308	292	300	---	---	---	---	---	---	---	---	---
22	312	296	303	---	---	---	---	---	---	---	---	---
23	312	304	310	---	---	---	---	---	---	---	---	---
24	320	304	314	---	---	---	---	---	---	---	---	---
25	324	308	316	---	---	---	---	---	---	---	---	---
26	332	296	312	---	---	---	---	---	---	---	---	---
27	304	276	287	---	---	---	---	---	---	---	---	---
28	280	268	273	---	---	---	---	---	---	---	---	---
29	292	272	282	---	---	---	---	---	---	---	---	---
30	300	292	297	---	---	---	---	---	---	---	---	---
31	308	300	302	---	---	---	---	---	---	---	---	---
MONTH	332	268	297	372	196	283	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	225	186	210	237	233	235
2	---	---	---	---	---	---	240	225	235	239	232	235
3	---	---	---	---	---	---	243	236	241	235	227	232
4	---	---	---	---	---	---	236	168	207	228	218	224
5	---	---	---	208	203	205	199	169	184	219	211	215
6	---	---	---	223	210	219	209	192	200	227	214	222
7	---	---	---	222	219	222	209	193	200	235	227	231
8	---	---	---	225	216	220	220	210	216	235	230	233
9	---	---	---	223	219	222	224	220	222	236	231	235
10	---	---	---	223	219	221	227	222	224	238	232	236
11	---	---	---	224	219	222	231	219	226	253	235	239
12	---	---	---	226	217	223	226	220	224	241	232	239
13	---	---	---	229	220	225	228	222	225	243	231	239
14	---	---	---	232	228	231	232	224	228	244	239	242
15	---	---	---	235	228	232	235	230	233	250	241	245
16	---	---	---	231	228	230	236	233	235	249	239	245
17	---	---	---	232	228	231	236	229	234	252	240	247
18	---	---	---	235	229	233	229	220	223	254	246	251
19	---	---	---	233	230	231	227	220	225	264	248	254
20	---	---	---	237	231	233	227	223	225	249	223	238
21	---	---	---	237	232	235	229	225	227	226	218	222
22	---	---	---	238	231	234	229	226	227	229	223	226
23	---	---	---	235	230	232	234	227	231	234	217	229
24	---	---	---	246	230	235	234	227	231	223	205	211
25	---	---	---	238	233	235	229	219	225	228	215	223
26	---	---	---	239	231	236	223	219	221	232	228	230
27	---	---	---	243	237	240	227	222	226	244	230	238
28	---	---	---	243	237	240	231	225	229	244	235	242
29	---	---	---	242	236	239	232	228	230	248	240	244
30	---	---	---	244	236	240	234	228	231	250	244	247
31	---	---	---	240	186	227	---	---	---	259	246	250
MONTH	---	---	---	246	186	229	243	168	223	264	205	235

01481000 BRANDYWINE CREEK AT CHADDS FORD PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	252	246	249	276	264	270	288	276	280	296	268	280
2	256	247	251	288	204	241	292	284	287	284	264	274
3	262	253	256	256	236	246	292	284	288	288	264	275
4	260	208	254	268	256	263	288	280	283	292	268	283
5	240	208	226	272	260	266	300	280	286	304	288	300
6	252	228	238	268	256	261	292	252	274	316	296	304
7	256	248	250	272	252	259	260	224	240	312	272	295
8	260	248	253	268	256	261	264	240	252	276	212	264
9	268	248	256	276	220	257	264	260	264	---	---	---
10	264	252	256	263	223	247	284	176	229	---	---	---
11	264	252	256	265	259	262	240	212	225	---	---	---
12	264	256	260	270	198	256	261	228	242	---	---	---
13	268	256	260	253	205	223	277	261	270	---	---	---
14	264	256	259	248	178	209	289	276	283	---	---	---
15	264	256	259	196	154	169	291	287	289	---	---	---
16	272	260	262	228	184	205	296	290	294	---	---	---
17	268	256	262	256	228	242	313	296	301	---	---	---
18	268	256	262	264	248	257	303	294	299	---	---	---
19	268	260	263	272	260	264	292	280	287	---	---	---
20	276	264	268	272	268	270	308	280	288	---	---	---
21	372	224	267	276	268	271	288	280	284	---	---	---
22	256	220	236	276	264	272	332	280	289	---	---	---
23	264	232	249	280	272	275	296	276	286	---	---	---
24	268	228	241	284	276	278	284	276	280	---	---	---
25	248	236	242	284	276	279	288	264	274	279	272	275
26	260	244	254	288	280	285	292	264	278	282	275	279
27	268	256	264	300	284	292	300	280	288	283	276	279
28	272	260	264	296	280	288	300	276	287	281	271	275
29	268	260	264	292	284	287	296	260	273	288	271	275
30	272	260	265	296	288	290	280	260	268	285	274	278
31	---	---	---	300	276	283	284	268	276	---	---	---
MONTH	372	208	255	300	154	259	332	176	276	316	212	281

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

01481000 BRANDYWINE CREEK AT CHADDS FORD PA--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	7.5	7.2	7.4	8.5	7.5	8.0
2	---	---	---	---	---	---	8.0	7.4	7.6	8.3	7.5	7.8
3	---	---	---	---	---	---	8.5	7.4	7.9	7.8	7.3	7.5
4	---	---	---	---	---	---	8.4	7.2	7.5	7.5	7.2	7.3
5	---	---	---	7.8	7.6	7.7	7.3	7.2	7.2	7.6	7.3	7.4
6	---	---	---	7.7	7.5	7.6	7.4	7.3	7.3	7.9	7.3	7.5
7	---	---	---	7.7	7.5	7.6	7.5	7.3	7.4	7.9	7.3	7.6
8	---	---	---	7.8	7.4	7.6	8.1	7.3	7.6	7.9	7.2	7.5
9	---	---	---	8.1	7.4	7.7	8.3	7.3	7.8	8.0	7.3	7.6
10	---	---	---	8.0	7.5	7.7	8.6	7.4	7.9	8.0	7.3	7.6
11	---	---	---	7.9	7.5	7.7	8.7	7.4	8.1	7.9	7.2	7.6
12	---	---	---	8.1	7.4	7.6	8.5	7.4	8.0	7.6	7.2	7.4
13	---	---	---	8.3	7.5	7.9	8.5	7.3	7.9	7.6	7.1	7.4
14	---	---	---	8.4	7.6	8.0	8.8	7.5	8.2	7.8	7.2	7.5
15	---	---	---	8.4	7.6	8.0	8.7	7.4	7.9	7.5	7.2	7.3
16	---	---	---	8.6	7.6	8.1	8.0	7.4	7.7	7.8	7.2	7.4
17	---	---	---	8.6	7.7	8.2	7.8	7.4	7.6	7.8	7.2	7.5
18	---	---	---	8.6	7.6	8.2	8.1	7.4	7.7	7.8	7.2	7.5
19	---	---	---	8.8	7.7	8.3	8.2	7.4	7.8	7.4	7.2	7.2
20	---	---	---	8.9	7.7	8.4	8.2	7.4	7.8	7.3	7.2	7.3
21	---	---	---	8.8	7.8	8.5	8.4	7.4	7.9	7.4	7.3	7.3
22	---	---	---	8.9	7.8	8.5	8.4	7.3	7.9	7.4	7.2	7.3
23	---	---	---	8.9	7.9	8.6	8.2	7.4	7.6	7.3	7.1	7.2
24	---	---	---	8.9	7.9	8.6	7.7	7.3	7.5	7.2	7.1	7.2
25	---	---	---	8.9	7.9	8.6	7.8	7.3	7.5	7.3	7.2	7.2
26	---	---	---	9.1	7.9	8.7	8.2	7.4	7.7	7.3	7.2	7.3
27	---	---	---	9.0	8.3	8.8	8.3	7.4	7.8	7.3	7.2	7.3
28	---	---	---	9.0	7.9	8.6	8.1	7.4	7.8	7.3	7.2	7.3
29	---	---	---	9.0	8.0	8.7	8.5	7.5	7.9	7.3	7.2	7.2
30	---	---	---	9.0	8.1	8.5	8.5	7.5	8.0	7.3	7.1	7.2
31	---	---	---	8.0	7.2	7.4	---	---	---	7.3	7.1	7.2
MONTH	---	---	---	9.1	7.2	8.1	8.8	7.2	7.7	8.5	7.1	7.4

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

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	24.5	22.5	23.5	11.0	9.5	10.5	---	---	---	---	---	---
2	24.0	22.5	23.5	12.0	11.0	11.5	---	---	---	---	---	---
3	23.0	21.5	22.0	12.0	10.0	11.0	---	---	---	---	---	---
4	22.0	21.0	21.5	11.0	10.0	10.5	---	---	---	---	---	---
5	22.5	21.0	21.5	10.0	8.0	9.0	---	---	---	---	---	---
6	20.5	17.0	19.0	9.0	8.0	8.5	---	---	---	---	---	---
7	17.0	15.0	16.0	8.5	7.5	8.0	---	---	---	---	---	---
8	16.0	13.5	15.0	11.0	8.0	9.5	---	---	---	---	---	---
9	17.5	15.0	16.0	13.5	11.0	12.5	---	---	---	---	---	---
10	16.5	14.0	15.5	13.5	10.0	12.0	---	---	---	---	---	---
11	15.0	13.0	14.0	10.0	8.0	9.0	---	---	---	---	---	---
12	15.5	13.5	14.5	8.5	7.5	8.0	---	---	---	---	---	---
13	16.5	15.5	16.0	8.0	5.5	7.0	---	---	---	---	---	---
14	17.5	16.0	17.0	6.0	4.5	5.0	---	---	---	---	---	---
15	16.5	15.0	15.5	4.5	3.5	4.0	---	---	---	---	---	---
16	15.0	13.0	14.0	7.5	4.5	6.0	---	---	---	---	---	---
17	13.0	12.0	12.0	9.5	7.5	8.5	---	---	---	---	---	---
18	13.5	11.0	12.0	10.0	9.0	9.5	---	---	---	---	---	---
19	13.0	10.0	11.5	10.0	7.5	9.0	---	---	---	---	---	---
20	12.5	9.5	11.0	14.5	6.0	6.5	---	---	---	---	---	---
21	12.0	9.5	11.0	---	---	---	---	---	---	---	---	---
22	16.5	11.0	12.5	---	---	---	---	---	---	---	---	---
23	14.5	12.0	13.5	---	---	---	---	---	---	---	---	---
24	15.0	13.0	13.5	---	---	---	---	---	---	---	---	---
25	13.5	12.0	12.5	---	---	---	---	---	---	---	---	---
26	13.0	12.0	12.5	---	---	---	---	---	---	---	---	---
27	14.0	13.0	13.5	---	---	---	---	---	---	---	---	---
28	15.0	13.0	14.0	---	---	---	---	---	---	---	---	---
29	15.0	12.5	14.0	---	---	---	---	---	---	---	---	---
30	14.5	12.0	13.5	---	---	---	---	---	---	---	---	---
31	13.5	11.0	12.0	---	---	---	---	---	---	---	---	---
MONTH	24.5	9.5	15.5	14.5	3.5	9.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.5	8.5	9.5	15.5	13.0	14.5
2	---	---	---	---	---	---	10.0	7.5	9.0	15.5	14.5	15.0
3	---	---	---	---	---	---	10.5	8.5	9.5	15.5	14.0	15.0
4	---	---	---	---	---	---	11.5	10.0	10.5	15.0	12.0	13.0
5	---	---	---	6.5	4.0	5.0	11.0	7.5	9.5	12.5	11.0	11.5
6	---	---	---	7.5	4.5	6.0	7.5	6.0	6.5	15.5	11.5	13.0
7	---	---	---	10.0	6.0	8.0	8.5	6.5	7.5	17.0	14.0	15.5
8	---	---	---	12.0	8.5	10.0	10.5	8.0	9.0	18.0	15.5	17.0
9	---	---	---	13.0	11.5	12.0	10.5	8.5	9.5	17.0	14.5	16.0
10	---	---	---	11.5	7.0	9.0	11.5	8.0	10.0	19.0	15.5	17.5
11	---	---	---	7.0	4.5	5.5	12.5	9.5	11.0	21.0	18.0	19.5
12	---	---	---	6.5	5.0	6.0	12.0	11.0	11.5	21.0	19.5	20.5
13	---	---	---	7.5	5.5	6.5	11.0	9.5	10.0	20.0	18.0	19.0
14	---	---	---	8.0	5.5	7.0	12.0	8.5	10.0	18.5	16.5	17.5
15	---	---	---	8.5	7.0	7.5	12.5	10.5	11.5	18.0	17.0	17.5
16	---	---	---	9.5	7.0	8.5	12.0	10.0	10.5	18.5	15.5	17.0
17	---	---	---	8.5	6.5	8.0	11.0	10.0	10.0	19.5	16.5	18.0
18	---	---	---	9.5	6.5	8.0	13.0	11.0	12.0	21.0	18.5	20.0
19	---	---	---	10.0	7.5	9.0	15.5	13.0	14.0	21.0	16.0	18.5
20	---	---	---	10.5	8.0	9.5	16.5	15.0	15.5	16.0	13.5	14.0
21	---	---	---	10.0	8.5	9.5	18.5	15.5	17.0	16.5	13.0	14.5
22	---	---	---	11.0	8.5	9.5	19.5	17.0	18.5	19.0	16.0	17.5
23	---	---	---	12.0	9.5	11.0	18.5	14.5	16.5	19.5	18.5	19.0
24	---	---	---	13.0	10.5	12.0	14.5	13.5	14.0	20.0	18.5	19.5
25	---	---	---	13.5	11.0	12.5	13.5	12.0	13.0	20.0	18.0	18.5
26	---	---	---	14.0	12.5	13.5	14.5	11.0	13.0	18.0	16.5	17.0
27	---	---	---	13.5	12.0	13.0	15.0	12.0	13.5	16.5	16.0	16.0
28	---	---	---	14.5	12.5	13.5	14.0	12.5	13.5	19.5	16.0	17.5
29	---	---	---	15.5	13.0	14.5	14.0	11.5	13.0	22.5	19.0	20.5
30	---	---	---	14.5	13.5	14.0	15.5	13.0	14.5	24.5	22.0	23.0
31	---	---	---	13.5	11.5	13.0	---	---	---	24.0	23.5	24.0
MONTH	---	---	---	15.5	4.0	9.5	19.5	6.0	12.0	24.5	11.0	17.5

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	24.5	22.5	23.5	26.5	24.0	25.0	26.5	24,5	25.5	21.0	19.5	20.5
2	25.0	23.5	24.0	26.0	23.0	24.5	26.5	24.5	25.5	21,0	18.0	19.5
3	25.5	21.5	23.5	27.0	24.0	25.5	28.0	25.0	26.0	22.0	19.0	20.5
4	21.5	19.5	20.5	27.5	25.0	26.5	29.0	25.5	27.0	21.0	18.0	20.0
5	22.0	18.5	20.0	27.5	25.0	26.5	28.0	26.0	27.0	20.0	18.0	19.5
6	22.0	19.5	21.0	27.5	25.0	26.5	26.0	23.5	24.5	19.5	19.0	19.5
7	21.0	19.5	20.5	26.5	24.5	25.5	25.0	22.5	24.0	21.0	19 0	20.0
8	23.0	19.5	21.0	27.0	24.0	25.5	26.5	23.0	25.0	21.5	20.0	20.5
9	22.5	21.5	22.0	27.5	26.0	26.5	26.5	26.0	26.5	---	---	---
10	22.0	19.5	21.0	27.5	26.0	27.0	26.5	24.0	25.5	---	---	---
11	22.0	19.0	20.5	28.0	25.0	26.5	---	---	---	---	---	---
12	21.0	20.0	20.5	28.0	25.5	27.0	25.5	23.0	24.5	---	---	---
13	23.0	19.5	21.0	27.5	25.0	26.0	25.0	22.0	23.5	---	---	---
14	25.0	21.0	23.0	27.0	23.0	25.5	24.5	21.5	23.5	---	---	---
15	27.0	23.0	25.0	24.0	22.0	23.0	26.0	23.0	24.5	---	---	---
16	27.0	25.0	26.0	23.5	22.0	23.0	26.5	23.5	25.0	---	---	---
17	26.5	24.0	25.0	24.5	21.0	23.0	28.0	25.0	26.5	---	---	---
18	25.5	22.5	24.5	25.5	22.0	24.0	28.5	26.0	27.0	---	---	---
19	26.0	23.0	24.5	27.0	24.0	25.5	27.0	24.5	26.0	---	---	---
20	27.0	24.0	25.0	28.5	25.0	26.5	26.5	24.0	25.0	---	---	---
21	26.0	24.0	25.0	29.5	26.0	28.0	25.5	22.0	24.0	---	---	---
22	25.0	23.5	24.0	30.0	27.0	28.5	24.0	22.5	23 5	---	---	---
23	25.0	23.5	24.5	30.5	27.0	29.0	24.0	21.5	23.0	---	---	---
24	25.5	22.5	24.0	30.0	27.0	29.0	22.5	20.0	21.0	---	---	---
25	26.0	23.0	25.0	30.5	27.5	29.0	21.0	19.0	20.0	18.5	17.0	18.0
26	25.5	23.5	24.0	29.0	27.0	28.5	21.0	18.5	19.5	18.0	15.5	17.0
27	25.0	22.0	23.5	28.0	25.0	26.5	20.5	19.5	20.0	18.0	15.5	16.5
28	24.0	22.0	23.5	28.0	25.0	26.5	20.5	19.5	20.0	18.5	16.0	17.5
29	24.5	21.0	23.0	27.5	24.0	26.0	22.0	19.5	20.5	19.5	17.0	18.5
30	26.0	22.5	24.5	27.0	24.0	25.5	22.5	19.0	20.5	19 5	18.0	19.0
31	---	---	---	27.0	24.5	26.0	21.5	19.0	20 5	---	---	---
MONTH	27.0	18.5	23.0	30.5	21.0	26.0	29.0	18.5	24.0	22.0	15.5	19.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	8.6	6.4	7.2	11.6	9.9	10.6	---	---	---	---	---	---
2	8.0	6.7	7.2	11.0	9.8	10.2	---	---	---	---	---	---
3	7.8	6.8	7.2	11.1	9.4	10.1	---	---	---	---	---	---
4	8.4	7.0	7.6	11.1	9.8	10.3	---	---	---	---	---	---
5	9.0	7.2	7.9	10.7	9.9	10.3	---	---	---	---	---	---
6	9.9	7.6	8.7	11.0	10.4	10.7	---	---	---	---	---	---
7	11.0	8.8	9.7	11.3	10.6	10.9	---	---	---	---	---	---
8	11.8	9.7	10.5	10.8	10.3	10.6	---	---	---	---	---	---
9	11.3	8.8	9.7	10.5	9.7	10.1	---	---	---	---	---	---
10	11.6	8.8	10.0	11.0	9.8	10.4	---	---	---	---	---	---
11	12.2	9.6	10.7	11.8	10.9	11.3	---	---	---	---	---	---
12	12.4	9.8	10.8	12.1	11.6	11.9	---	---	---	---	---	---
13	10.4	9.0	9.6	12.6	11.8	12.2	---	---	---	---	---	---
14	9.7	8.4	8.9	13.3	12.6	12.9	---	---	---	---	---	---
15	10.6	8.5	9.5	13.4	12.9	13.1	---	---	---	---	---	---
16	11.1	9.3	10.1	13.0	12.1	12.6	---	---	---	---	---	---
17	11.1	9.6	10.3	12.0	11.3	11.7	---	---	---	---	---	---
18	11.8	9.8	10.7	11.6	11.0	11.2	---	---	---	---	---	---
19	11.8	10.1	10.8	11.8	10.9	11.3	---	---	---	---	---	---
20	11.9	10.2	10.9	12.8	11.8	12.3	---	---	---	---	---	---
21	11.9	10.2	10.9	---	---	---	---	---	---	---	---	---
22	12.3	9.9	10.8	---	---	---	---	---	---	---	---	---
23	11.8	10.0	10.7	---	---	---	---	---	---	---	---	---
24	11.8	9.5	10.4	---	---	---	---	---	---	---	---	---
25	11.9	9.8	10.7	---	---	---	---	---	---	---	---	---
26	10.6	9.7	10.2	---	---	---	---	---	---	---	---	---
27	9.9	9.4	9.6	---	---	---	---	---	---	---	---	---
28	10.4	9.0	9.6	---	---	---	---	---	---	---	---	---
29	10.6	9.3	9.8	---	---	---	---	---	---	---	---	---
30	10.8	9.1	9.7	---	---	---	---	---	---	---	---	---
31	11.3	9.4	10.1	---	---	---	---	---	---	---	---	---
MONTH	12.4	6.4	9.7	13.4	9.4	11.2	---	---	---	---	---	---

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	12.2	10.1	11.4	13.0	9.4	11.0
2	---	---	---	---	---	---	13.4	11.2	12.3	11.7	8.9	10.2
3	---	---	---	---	---	---	14.2	10.5	12.1	11.5	9.1	10.1
4	---	---	---	---	---	---	11.5	9.9	10.3	10.6	9.1	9.8
5	---	---	---	13.5	12.7	13.1	11.0	9.9	10.5	11.6	10.2	10.7
6	---	---	---	13.5	12.5	12.9	12.0	11.0	11.5	12.1	10.0	10.9
7	---	---	---	13.1	11.7	12.5	12.1	11.1	11.6	11.8	9.0	10.2
8	---	---	---	12.7	11.2	11.9	13.0	11.3	12.6	11.1	8.3	9.7
9	---	---	---	12.3	10.5	11.3	13.1	10.5	11.7	11.9	8.6	10.1
10	---	---	---	13.3	10.9	12.1	13.8	10.6	12.0	11.6	8.5	9.9
11	---	---	---	14.2	12.2	13.1	13.9	10.1	11.8	11.2	7.7	9.3
12	---	---	---	13.5	12.1	12.8	12.6	9.7	11.2	10.1	7.4	8.5
13	---	---	---	13.5	11.6	12.5	13.3	10.0	11.4	10.6	7.2	8.8
14	---	---	---	13.7	11.4	12.5	14.2	10.4	12.0	11.4	8.1	9.6
15	---	---	---	13.6	11.3	12.4	12.4	9.0	10.6	10.0	8.2	9.0
16	---	---	---	13.9	11.3	12.5	12.8	10.4	11.5	11.3	8.3	9.6
17	---	---	---	14.1	11.4	12.7	12.3	10.8	11.5	11.3	8.3	9.6
18	---	---	---	14.5	11.5	12.8	12.7	10.5	11.4	11.1	7.6	9.2
19	---	---	---	14.4	11.3	12.7	12.1	9.9	10.8	8.5	7.1	7.8
20	---	---	---	14.3	10.6	12.4	11.5	8.9	10.1	9.9	8.5	9.3
21	---	---	---	14.2	10.5	12.3	11.4	8.6	9.8	10.3	9.2	9.9
22	---	---	---	14.6	10.6	12.4	11.2	7.8	9.4	9.5	8.2	9.0
23	---	---	---	14.5	10.4	12.3	10.7	9.9	9.5	8.6	7.7	8.0
24	---	---	---	14.6	10.1	12.1	11.1	9.2	10.1	8.3	7.7	8.0
25	---	---	---	14.3	9.8	11.8	11.5	9.5	10.4	8.5	7.6	8.1
26	---	---	---	14.5	9.5	11.7	12.4	10.0	11.1	9.0	8.2	8.6
27	---	---	---	14.4	9.7	11.9	12.5	9.6	11.0	9.1	8.5	8.8
28	---	---	---	14.3	9.6	11.7	12.1	9.4	10.6	9.2	8.2	8.8
29	---	---	---	14.5	9.5	11.7	12.9	9.8	11.2	8.7	7.5	8.1
30	---	---	---	12.2	9.4	10.9	12.6	9.2	10.8	8.2	7.0	7.5
31	---	---	---	10.0	9.1	9.5	---	---	---	7.7	6.6	7.2
MONTH	---	---	---	14.6	9.1	12.2	14.2	7.8	11.1	13.0	6.6	9.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	6.8	7.4	8.7	6.9	7.6	10.3	6.8	8.6	9.0	8.0	8.4
2	8.2	6.5	7.3	7.5	6.4	7.0	10.6	6.7	8.5	9.8	7.9	8.6
3	7.4	6.6	7.1	8.2	6.9	7.5	10.2	6.4	8.1	10.2	8.0	8.7
4	8.2	7.4	7.7	8.4	7.0	7.6	10.9	6.7	8.5	10.4	7.9	8.9
5	8.6	8.0	8.3	8.6	7.1	7.7	10.1	6.5	8.0	10.7	8.5	9.3
6	9.0	7.6	8.2	9.0	7.0	7.9	8.5	6.5	7.3	9.4	8.3	8.7
7	9.2	7.8	8.4	8.6	7.3	7.9	9.9	6.5	8.0	8.9	8.1	8.5
8	9.3	7.8	8.5	8.9	7.3	8.0	10.3	7.0	8.4	8.5	7.0	8.0
9	8.4	7.4	7.8	7.9	6.7	7.4	8.5	7.3	7.9	---	---	---
10	9.3	7.7	8.4	7.8	6.6	7.2	7.5	6.6	6.9	---	---	---
11	9.5	7.8	8.6	8.3	6.8	7.5	8.7	6.6	7.4	---	---	---
12	9.0	7.8	8.3	8.3	6.8	7.2	9.7	6.8	8.0	---	---	---
13	9.4	7.8	8.5	7.2	6.5	6.9	10.5	7.2	8.4	---	---	---
14	9.4	7.4	8.3	7.2	6.3	6.8	10.7	7.4	8.7	---	---	---
15	9.3	7.0	8.0	7.7	7.2	7.5	10.7	7.4	8.6	---	---	---
16	9.0	6.5	7.7	8.2	7.4	7.8	10.7	7.1	8.5	---	---	---
17	8.9	6.6	7.7	8.6	7.7	8.1	10.8	6.8	8.4	---	---	---
18	9.0	6.8	7.8	8.9	7.8	8.2	10.7	6.6	8.2	---	---	---
19	9.1	6.9	8.0	9.0	7.4	8.2	9.1	6.4	7.5	---	---	---
20	9.0	6.8	7.8	9.4	7.3	8.3	10.0	6.2	7.6	---	---	---
21	7.9	6.4	7.0	9.8	7.1	8.3	10.4	6.6	8.0	---	---	---
22	6.6	5.9	6.2	10.1	6.9	8.4	9.0	6.6	7.4	---	---	---
23	7.6	6.2	6.9	10.5	6.6	8.5	9.2	6.4	7.6	---	---	---
24	8.1	6.6	7.2	10.7	6.6	8.7	9.9	7.0	8.1	---	---	---
25	8.0	6.5	7.1	10.6	6.6	8.6	10.4	7.6	8.6	9.5	8.7	9.1
26	7.5	6.6	7.1	9.2	6.3	7.8	10.7	7.8	8.9	10.1	9.0	9.5
27	8.2	6.9	7.4	10.2	6.5	8.1	8.7	7.5	8.1	10.5	9.3	9.9
28	8.4	7.0	7.7	10.6	6.7	8.5	8.2	7.1	7.6	10.9	9.3	10.0
29	8.6	7.4	7.9	10.8	6.7	8.5	8.6	7.3	7.8	10.9	9.1	10.0
30	8.6	7.2	7.8	10.7	7.0	8.6	9.7	7.6	8.3	10.2	8.4	9.3
31	---	---	---	10.4	6.6	8.4	9.9	7.8	8.6	---	---	---
MONTH	9.5	5.9	7.7	10.8	6.3	7.9	10.9	6.2	8.1	10.9	7.0	9.1

RESERVOIR IN CHRISTINA RIVER BASIN

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24" long 75°43'06" Chester County. Hydrologic Unit 02040205 on right bank at dam on Marsh Creek, 0.3 mi upstream from mouth and 3.2 mi north of Downingtown. DRAINAGE AREA 20.1. PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity 22,190 acre-ft at elevation 373 ft. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft. Records furnished by Pennsylvania Department of Environmental Resources. EXTREMES FOR PERIOD OF RECORD: Maximum contents, 16,380 acre-ft Jan. 25, 1979, elevation, 363.49 ft; minimum (after first filling), 10,410 acre-ft Mar. 3, 1976, elevation, 351.75 ft. EXTREMES FOR CURRENT YEAR: Maximum contents, 14,660 acre-ft, Dec. 5, elevation, 360.36 ft; minimum, 12,640 acre-ft, Jan. 7, 356.45 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01480684 Marsh Creek Reservoir		
Sept. 30	357.85	13340	--
Oct. 31	357.20	13010	- 5.4
Nov. 30	359.90	14400	+ 23.3
Dec. 31	357.25	13040	- 22.1
CAL YR 1986	--	--	0
Jan. 31	356.65	12740	- 4.9
Feb. 28	356.98	12900	+ 2.9
Mar. 31	358.64	13730	+ 13.5
Apr. 30	360.14	14540	+ 13.6
May 31	359.95	14430	- 1.8
June 30	359.79	14340	- 1.5
July 31	359.62	14250	- 1.5
Aug. 31	359.10	13960	- 4.7
Sept. 30	359.75	14320	+ 6.0
WTR YR 1987	--	--	+ 1.4

01481602 DELAWARE RIVER BELOW CHRISTINA RIVER AT WILMINGTON, DE

LOCATION.--Lat 39°43'00", long 75°31'03", New Castle County, DE, Hydrologic Unit 02040206, on right bank, 1,000 ft from mouth of Christina River at the Wilmington Marine Terminal at Wilmington, 2.0 mi upstream of Delaware Memorial Bridge, and at mile 69.70.

DRAINAGE AREA.--11,030 mi^2.

PERIOD OF RECORD.--December 1982 to current year. July 1967 to May 1983 published as "Delaware River at Delaware Memorial Bridge, at Wilmington, DE" (station 01482100). Tidal volumes published from July 1967 to September 1973.

GAGE.--Water-stage recorder. Datum of gage is -18.05 ft below National Geodetic Vertical Datum of 1929. Prior to Dec. 1982, water-stage recorder at Delaware River at Delaware Memorial Bridge 2.0 mi downstream at datum 8.05 ft higher. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum 1929 for publication.

REMARKS.--No gage-height or doubtful record: Jan. 24 to Mar. 2. Summaries for months with short periods of no gage-height record have been estimated with negligible or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 7.88 ft, Oct. 25, 1980; minimum, -5.86 ft, Apr. 4, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 8.4 ft, Nov. 23, 1950, furnished by Corps of Engineers, U.S. Army; minimum, -9.1 ft, Dec. 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 6.32 ft, Dec. 2; minimum recorded, -4.42 ft, Jan. 24; minimum estimated, -4.7 ft, Feb. 9.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	4.51	4.87	6.32	5.96	--	5.26	5.65	4.79	5.06	5.45	5.37	5.29
high tide	Date	11	20	2	2	--	31	17	14	11	12	7,9	19
Minimum	Elevation	-3.06	-3.10	-3.31	-4.42	e-4.7	-2.39	-2.63	-2.80	-2.70	-2.31	-2.35	-2.20
low tide	Date	6	13	5	24	9	7	1	16	10	15	23	27
Mean high tide		3.60	3.37	3.44	--	--	3.78	4.13	3.77	3.89	4.00	3.95	4.03
Mean water level		1.08	0.87	0.84	--	--	1.26	1.49	1.12	1.16	1.28	1.35	1.41
Mean low tide		-1.63	-1.77	-1.92	--	--	-1.41	-1.35	-1.77	-1.76	-1.66	-1.49	-1.40

e - Estimated

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, on platform about 0.4 mi downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi² approximately.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURE: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1970.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 microsiemens Nov. 15, 1978, minimum, 100 microsiemens on several days in 1969, 1970, 1974, and 1979.
pH: Maximum, 8.9 Mar. 4, 1980; minimum, 5.4 Dec. 31, 1972.
WATER TEMPERATURE: Maximum 32.5°C July 23, 1987; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19, 1976; minimum, 0.3 mg/L Sept. 16, 17, 1971.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 °C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17700	10100	13000	22000	13000	17000	9080	2200	6540	10900	2160	4910
2	18800	10400	14000	21600	13700	16500	---	---	---	12600	3840	7060
3	19200	11600	14400	22400	14000	16700	---	---	---	7370	2280	3920
4	18800	11500	14500	22900	14700	17900	---	---	---	7090	1560	2860
5	17200	11200	13800	21700	14800	17400	---	---	---	---	---	---
6	17900	10500	13300	22600	14800	18600	---	---	---	---	---	---
7	18000	10400	12900	22000	14700	17200	---	---	---	8450	2160	4190
8	19200	10800	13600	21400	13600	17200	---	---	---	5850	1160	2900
9	17200	10400	12700	19000	13600	16400	---	---	---	7930	2000	4410
10	19500	10000	13200	19000	13000	14700	---	---	---	11200	2680	6180
11	20400	11900	15400	19300	12700	15200	---	---	---	12300	3760	6820
12	20400	12000	15500	19300	11500	15100	7170	1250	2810	---	---	---
13	18100	12300	14800	17300	10700	13500	4670	1280	2020	---	---	---
14	18400	11600	14300	17400	10200	12500	8230	1670	4280	---	---	---
15	17500	11200	13600	15900	9480	11900	7050	1160	3080	11300	3840	6320
16	18400	11600	14000	16800	9520	12000	8650	1280	3130	11300	3920	6080
17	19500	12000	14500	18100	9960	12900	9650	1640	4020	12200	3960	6530
18	19500	12000	15100	18800	10500	13200	10200	2680	4950	11300	3920	6840
19	19600	12500	15700	17800	10100	12700	5770	1880	3020	11200	4080	6660
20	20000	12800	15300	20800	10500	14500	9770	2280	5310	10700	3200	6500
21	20400	12500	16000	19400	8000	13400	10700	2520	6090	10500	3360	6260
22	19600	12400	15200	12700	6160	8870	11300	2480	6220	12800	3040	6700
23	19700	12700	15600	1400	7000	10600	11100	2760	6420	11500	3080	6520
24	18900	12000	14900	16000	6440	11300	12000	2760	6410	---	---	---
25	18900	13100	15900	14600	4800	9080	14700	3200	8640	---	---	---
26	19700	13300	16100	14100	5000	9900	7730	2120	4020	---	---	---
27	20900	12500	16500	12200	4080	7700	8210	1760	3450	---	---	---
28	21700	14000	17900	12500	3240	6840	8930	1720	3470	---	---	---
29	21600	13200	16800	11700	2800	5320	9250	1640	3680	---	---	---
30	20900	13300	16300	10200	2480	4260	9730	1720	3770	---	---	---
31	21200	13400	16800	---	---	---	9690	1720	4020	---	---	---
MONTH	21700	10000	14900	22900	2480	13000	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25 °C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	16000	9210	11800	8890	4460	6100	---	---	---
2	---	---	---	12200	6810	9760	10800	4080	6120	---	---	---
3	---	---	---	10000	5810	7680	5920	2620	3930	---	---	---
4	---	---	---	9490	4480	6320	9480	1930	5450	---	---	---
5	---	---	---	10100	3840	5930	5190	1090	2350	---	---	---
6	---	---	---	10200	3360	5090	---	---	---	9930	3000	6230
7	---	---	---	8370	3160	4450	---	---	---	11000	3000	6830
8	13000	4680	9020	9170	2920	5540	---	---	---	12500	4320	7680
9	10400	3810	7140	10600	4320	7540	---	---	---	13700	4640	8880
10	17700	6530	12100	13400	6050	9500	---	---	---	13900	5160	8780
11	17900	7450	12200	13700	7930	10700	---	---	---	14600	4720	8260
12	14900	5930	9330	15000	7290	11200	---	---	---	14500	4570	8550
13	14900	5530	9380	17700	8090	12100	---	---	---	12900	5210	7690
14	15800	6530	10200	17800	8210	13000	---	---	---	14400	5340	8390
15	15200	6970	10300	18400	8090	12700	10200	2080	4340	14100	5400	8110
16	---	---	---	16500	7850	11100	7290	1920	3180	12200	4280	7000
17	---	---	---	15100	7530	10100	7210	1680	3510	13100	5190	7740
18	16500	7850	11100	14900	7410	9920	6090	1480	2910	11300	4870	6930
19	14100	7450	10400	15900	6530	9810	5930	1360	2390	12700	5290	8520
20	14000	7570	9930	14100	5770	9150	5400	1320	2410	13500	6290	9500
21	14700	6930	10300	14500	5840	9010	5610	1280	2710	13600	6410	9820
22	15900	6970	10700	14000	5960	9530	6410	1160	2610	12300	6410	8960
23	15400	8450	11300	15600	5720	11100	5930	1400	3070	13100	6450	8610
24	17300	7810	11800	16600	7090	11400	6290	1560	3080	15000	6370	8740
25	16100	8370	11100	16500	7490	11000	8810	1440	3570	14300	6770	9330
26	17300	8570	11700	15500	7330	10400	8490	2200	4970	14500	6650	9000
27	18200	8650	11900	14300	6650	9370	---	---	---	13300	6570	8480
28	16200	8810	11700	14500	6250	9450	---	---	---	13600	6370	8620
29	---	---	---	14300	6210	8990	---	---	---	13000	6290	8090
30	---	---	---	11300	6290	8400	---	---	---	13400	6210	8470
31	---	---	---	12900	5570	8910	---	---	---	13900	6370	8840
MONTH	---	---	---	18400	2920	9390	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13400	6210	8690	16100	7250	10500	16100	8170	12000	18100	11200	13500
2	13500	6470	9210	---	---	---	16100	9410	12400	18700	10500	13400
3	14600	7100	10600	---	---	---	15100	8990	11500	18900	9890	12800
4	14300	7750	10400	---	---	---	17300	8160	11500	19100	9810	13200
5	14000	7130	10200	---	---	---	18300	9020	12200	18800	10500	13200
6	15100	7440	10900	---	---	---	18900	9690	12700	18500	10700	13200
7	17800	7230	12000	---	---	---	19500	9640	13200	19200	10700	13300
8	17600	8540	12000	---	---	---	19500	10600	13300	18500	10900	13800
9	17100	7370	11000	---	---	---	19000	10500	12900	18300	9770	13500
10	16900	7410	10300	15600	7250	9830	19000	8820	12300	14400	7330	10700
11	17100	4280	11300	16300	7410	10100	15900	7960	11300	14500	6330	9310
12	18300	8690	11800	16700	7610	10700	16800	8070	11400	13500	6450	9110
13	16500	8010	10800	16100	7570	10300	15900	8120	11300	12500	5730	8290
14	17000	8050	10800	16200	7730	10800	14300	7300	10300	10700	4740	6660
15	16900	8370	11200	12900	6850	9110	13800	7070	9900	8120	3090	5100
16	---	---	---	13000	6330	8690	13500	7540	9560	7280	2600	4430
17	---	---	---	12100	5770	8360	15600	7260	10600	8460	2630	5080
18	---	---	---	12500	5770	8090	15100	8530	11100	20400	3170	6750
19	---	---	---	12500	5770	7870	16800	8930	11900	14300	5120	9070
20	---	---	---	14500	5730	9030	16600	8930	12200	14600	4950	9660
21	---	---	---	15100	5570	8920	18900	9370	12800	13500	4530	8520
22	---	---	---	17400	6250	9700	19000	10400	13600	14100	4840	8010
23	---	---	---	16600	6610	10800	17500	9250	12100	12700	3040	6960
24	---	---	---	16300	7010	11000	18700	9130	13300	10900	2880	5690
25	17800	8770	11700	16700	6930	9970	19000	10000	13500	9690	2840	5030
26	16100	7170	11200	15500	6530	9530	17700	6810	13000	10500	2840	5650
27	14500	7130	10300	16200	6490	10100	18200	10400	13800	9210	2760	4510
28	12900	6690	9230	17100	7730	10800	18400	11000	14500	9650	2640	4980
29	13300	5810	8650	15500	7850	11100	17300	11400	14300	9370	2760	4780
30	14500	6530	9820	16900	8010	12000	---	---	---	9410	3160	5040
31	---	---	---	14800	8490	10900	18900	10900	14200	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	20400	2600	8770

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	7.5	7.5	7.8	7.7	7.7	7.5	7.3	7.5	7.5	7.3	7.4
2	7.6	7.5	7.6	7.7	7.7	7.7	---	---	---	7.6	7.4	7.5
3	7.6	7.5	7.6	7.8	7.7	7.7	---	---	---	7.5	7.4	7.4
4	7.6	7.5	7.5	7.8	7.7	7.7	---	---	---	7.5	7.3	7.4
5	7.6	7.5	7.5	7.8	7.7	7.8	---	---	---	---	---	---
6	7.7	7.5	7.6	7.8	7.7	7.8	---	---	---	---	---	---
7	7.7	7.6	7.6	7.8	7.7	7.7	---	---	---	7.5	6.6	7.4
8	7.7	7.6	7.6	7.7	7.7	7.7	---	---	---	7.4	6.4	7.3
9	7.6	7.5	7.6	7.7	7.7	7.7	---	---	---	7.5	7.3	7.4
10	7.7	7.6	7.7	7.7	7.7	7.7	---	---	---	7.6	7.4	7.5
11	7.8	7.6	7.7	7.8	7.7	7.7	---	---	---	7.6	7.0	7.5
12	7.8	7.7	7.7	7.8	7.7	7.7	7.5	7.2	7.3	---	---	---
13	7.7	7.6	7.7	7.8	7.7	7.7	7.4	7.2	7.3	---	---	---
14	7.7	7.6	7.6	7.9	7.7	7.8	7.6	7.3	7.4	---	---	---
15	7.7	7.6	7.6	7.8	7.7	7.8	7.4	7.3	7.4	7.6	7.4	7.5
16	7.7	7.6	7.6	7.8	7.7	7.8	7.5	7.3	7.3	7.6	7.4	7.5
17	7.7	7.6	7.6	7.8	7.7	7.8	7.5	7.3	7.4	7.7	7.5	7.5
18	7.7	7.6	7.7	7.8	7.7	7.8	7.5	7.3	7.4	7.6	7.4	7.5
19	7.7	7.6	7.7	7.8	7.7	7.7	7.4	7.3	7.4	7.6	7.4	7.5
20	7.7	7.7	7.7	7.9	7.8	7.8	7.6	7.3	7.4	7.6	7.4	7.5
21	7.7	7.6	7.7	7.9	7.8	7.9	7.6	7.4	7.5	7.6	7.3	7.5
22	7.8	7.6	7.7	7.9	7.8	7.8	7.6	7.3	7.5	7.7	7.4	7.5
23	7.7	7.6	7.7	7.9	7.7	7.8	7.6	7.3	7.4	7.7	7.0	7.5
24	7.7	7.6	7.7	7.8	7.6	7.8	7.6	7.3	7.4	---	---	---
25	7.8	7.7	7.7	7.8	7.5	7.8	7.7	7.4	7.5	---	---	---
26	7.7	7.7	7.7	7.7	7.4	7.6	7.5	7.3	7.4	---	---	---
27	7.7	7.6	7.7	7.6	7.4	7.5	7.5	7.3	7.3	---	---	---
28	7.7	7.6	7.7	7.6	7.3	7.4	7.5	7.2	7.3	---	---	---
29	7.7	7.6	7.7	7.5	7.3	7.4	7.5	7.2	7.3	---	---	---
30	7.7	7.6	7.7	7.5	7.3	7.4	7.5	7.2	7.3	---	---	---
31	7.8	7.7	7.8	---	---	---	7.5	7.2	7.3	---	---	---
MONTH	7.8	7.5	7.7	7.9	7.3	7.7	---	---	---	---	---	---

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

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	23.5	22.5	22.5	14.5	13.5	14.0	7.0	7.0	7.0	5.0	4.0	4.5
2	23.5	22.5	23.0	15.0	14.0	14.5	---	---	---	4.5	4.5	4.5
3	23.0	22.5	22.5	14.5	13.0	13.5	---	---	---	4.5	3.5	4.0
4	23.0	22.5	22.5	14.0	13.0	13.5	---	---	---	4.0	3.5	4.0
5	23.0	22.0	22.5	13.0	11.5	12.0	---	---	---	---	---	---
6	22.5	20.5	22.0	12.5	11.5	12.0	---	---	---	---	---	---
7	21.0	20.0	20.5	12.0	11.0	11.5	---	---	---	4.5	3.5	4.0
8	21.0	20.0	20.5	12.5	11.5	12.0	---	---	---	4.5	3.5	4.0
9	21.0	20.0	20.5	13.5	12.0	12.5	---	---	---	4.5	3.0	3.5
10	20.0	18.5	19.5	12.5	11.0	12.0	---	---	---	4.0	3.5	4.0
11	19.0	18.5	18.5	11.5	11.0	11.0	---	---	---	5.0	3.5	4.0
12	19.5	18.0	18.5	12.0	10.5	11.0	7.0	6.0	6.5	---	---	---
13	19.0	18.5	18.5	11.0	9.5	10.5	6.0	5.0	6.0	---	---	---
14	19.5	18.5	19.0	10.0	8.5	9.0	5.5	5.0	5.5	---	---	---
15	19.0	18.0	18.0	9.5	8.0	9.0	6.0	4.5	5.5	5.5	3.5	4.0
16	18.5	17.0	18.0	10.0	9.5	9.5	6.0	4.5	5.5	4.5	4.0	4.0
17	18.0	17.0	17.5	10.5	10.0	10.0	6.0	5.0	5.5	4.5	3.0	4.0
18	17.5	16.5	17.0	10.5	10.0	10.0	6.0	5.5	5.5	4.0	3.5	4.0
19	17.0	16.0	16.5	10.5	9.5	9.5	6.0	5.0	5.5	4.0	3.5	4.0
20	17.0	15.5	16.0	9.5	9.0	9.0	5.5	4.5	5.0	4.0	3.5	4.0
21	16.5	15.0	16.0	9.5	9.0	9.0	5.5	4.5	5.0	4.0	3.5	4.0
22	16.5	15.5	16.0	8.5	8.0	8.0	5.5	4.5	5.0	3.5	3.0	3.5
23	16.5	15.5	16.0	9.0	8.5	8.5	5.5	4.5	5.0	3.0	1.5	2.5
24	16.5	15.5	16.0	9.0	9.0	9.0	5.5	4.5	5.0	---	---	---
25	16.0	15.0	15.5	9.5	9.0	9.0	5.5	5.5	5.5	---	---	---
26	15.5	15.0	15.5	9.5	9.0	9.0	5.5	5.0	5.5	---	---	---
27	15.5	15.0	15.5	9.5	9.0	9.0	5.5	5.0	5.0	---	---	---
28	16.5	15.0	15.5	9.0	8.5	8.5	5.5	5.0	5.0	---	---	---
29	16.0	15.0	15.5	9.5	8.5	8.5	5.5	4.5	5.0	---	---	---
30	16.5	14.5	15.5	8.5	8.0	8.0	5.0	4.5	5.0	---	---	---
31	15.5	13.5	14.5	---	---	---	5.0	4.5	5.0	---	---	---
MONTH	23.5	13.5	18.0	15.0	8.0	10.5	7.0	4.5	5.5	5.5	1.5	4.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	22.0	23.0	28.0	27.0	27.5	30.0	29.0	29.5	25.5	24.5	25.0
2	24.5	22.5	23.5	---	---	---	29.5	28.5	29.5	25.5	24.5	25.0
3	23.5	23.0	23.5	---	---	---	30.0	28.5	29.5	25.5	24.5	25.0
4	24.0	23.0	23.0	---	---	---	31.0	29.5	30.0	25.5	24.0	24.5
5	25.0	23.0	23.5	---	---	---	31.5	29.5	30.0	25.0	24.0	24.5
6	24.5	23.0	23.5	---	---	---	29.5	28.5	29.0	24.5	24.0	24.0
7	25.0	23.0	23.5	---	---	---	29.5	28.5	29.0	25.0	24.0	24.5
8	29.5	23.5	24.5	---	---	---	30.5	28.5	29.0	24.5	24.5	24.5
9	26.0	24.0	24.5	---	---	---	29.5	28.5	29.0	25.5	24.5	25.0
10	25.5	20.5	23.5	29.5	28.0	28.5	29.5	28.5	29.0	25.5	24.5	25.0
11	25.0	22.5	24.0	30.5	28.0	29.0	29.5	28.0	28.5	25.5	25.0	25.5
12	25.0	23.0	23.5	29.5	28.5	29.0	29.0	28.0	28.5	25.5	25.0	25.0
13	26.5	23.5	24.0	30.0	28.5	29.5	28.5	27.5	28.0	25.5	25.0	25.5
14	26.0	24.0	24.5	29.5	28.5	29.0	28.5	27.0	28.0	26.0	25.0	25.5
15	27.0	24.5	25.5	29.0	27.0	28.5	29.0	27.5	28.0	26.0	25.0	25.5
16	---	---	---	28.5	27.5	28.0	29.0	27.5	28.0	26.5	25.0	25.5
17	---	---	---	29.0	27.5	28.0	29.5	28.0	28.5	26.0	25.5	25.5
18	---	---	---	29.0	27.5	28.5	30.0	28.5	29.0	26.5	25.0	25.5
19	---	---	---	30.0	28.0	28.5	29.5	28.5	29.0	25.0	24.0	24.5
20	---	---	---	30.5	28.5	29.0	30.0	28.5	29.0	24.5	23.5	24.0
21	---	---	---	31.0	28.5	29.5	30.0	28.0	28.5	24.5	23.0	24.0
22	---	---	---	32.0	29.0	30.0	28.5	27.5	28.0	24.5	23.0	23.5
23	---	---	---	32.5	29.5	30.0	28.0	27.0	27.5	24.0	22.5	23.0
24	---	---	---	31.0	29.5	30.5	27.5	26.0	27.0	23.5	22.0	23.0
25	28.0	26.5	27.0	32.0	30.0	30.5	26.5	25.5	26.5	23.0	21.5	22.5
26	27.5	26.5	26.5	31.0	30.0	30.5	26.5	24.5	26.0	22.5	21.5	22.0
27	28.5	27.0	27.5	31.5	30.0	30.5	26.5	25.5	26.0	22.5	21.5	22.0
28	28.5	27.5	28.0	31.0	30.0	30.5	26.0	25.5	25.5	22.5	21.5	22.0
29	29.0	27.5	28.0	30.5	29.0	30.0	26.0	22.5	25.5	22.5	22.0	22.0
30	29.0	27.5	28.0	30.5	29.0	29.5	---	---	---	22.5	21.5	22.0
31	---	---	---	30.5	29.5	30.0	---	---	---	---	---	---
MONTH	29.5	20.5	25.0	32.5	27.0	29.5	31.5	22.5	28.0	26.5	21.5	24.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	6.2	6.6	7.7	7.0	7.5	10.3	9.9	10.2	11.0	10.3	10.7
2	7.0	6.4	6.7	7.2	6.8	7.0	---	---	---	10.8	10.0	10.5
3	7.1	6.5	6.8	7.2	6.5	6.8	---	---	---	13.6	9.6	10.1
4	7.0	6.6	6.8	8.3	6.5	7.1	---	---	---	11.4	10.9	11.2
5	7.4	6.7	7.0	8.4	7.6	8.0	---	---	---	---	---	---
6	7.6	6.8	7.1	8.8	8.0	8.4	---	---	---	---	---	---
7	7.6	7.0	7.3	9.1	8.5	8.8	---	---	---	14.4	11.1	11.4
8	7.8	7.1	7.4	8.8	8.3	8.5	---	---	---	14.2	10.9	11.8
9	7.8	6.8	7.2	9.3	8.4	8.7	---	---	---	13.8	10.8	11.3
10	7.9	7.0	7.4	9.2	8.5	8.7	---	---	---	12.6	10.7	11.2
11	7.9	7.4	7.7	9.8	8.6	9.2	---	---	---	12.0	10.8	11.3
12	8.4	7.6	7.9	10.0	9.5	9.8	10.9	10.6	10.8	---	---	---
13	8.0	7.4	7.7	11.3	9.7	10.1	11.6	10.6	11.0	---	---	---
14	7.8	7.2	7.5	---	---	---	11.4	10.6	10.9	---	---	---
15	7.7	7.3	7.5	---	---	---	10.9	10.6	10.8	---	---	---
16	8.0	7.1	7.5	---	---	---	11.0	10.6	10.8	---	---	---
17	7.4	6.5	7.0	---	---	---	11.0	10.7	10.9	12.0	10.2	11.4
18	6.8	5.9	6.4	---	---	---	11.0	10.7	10.9	11.4	9.4	10.8
19	6.4	5.6	6.0	---	---	---	11.4	10.8	11.1	11.5	11.0	11.2
20	6.2	5.3	5.7	---	---	---	11.3	10.9	11.1	11.5	10.0	11.1
21	7.0	5.5	5.9	---	---	---	11.3	10.9	11.1	11.6	10.7	11.2
22	---	---	---	---	---	---	11.6	10.8	11.1	12.1	9.2	11.2
23	6.7	5.9	6.2	---	---	---	11.3	10.9	11.1	11.9	8.9	11.5
24	7.2	6.4	6.8	---	---	---	12.2	11.0	11.5	---	---	---
25	7.7	6.8	7.2	10.3	9.7	9.9	12.4	12.0	12.2	---	---	---
26	8.7	7.0	7.3	10.5	9.7	10.1	12.1	10.9	11.5	---	---	---
27	7.7	7.1	7.5	10.4	9.8	10.1	11.1	10.4	10.7	---	---	---
28	8.1	7.3	7.8	10.0	9.4	9.7	11.2	10.5	10.9	---	---	---
29	---	---	---	9.7	9.1	9.4	11.3	10.3	10.9	---	---	---
30	8.2	7.1	7.5	10.3	9.2	9.8	11.2	10.7	11.0	---	---	---
31	7.9	7.2	7.6	---	---	---	11.3	10.7	11.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.6	11.1	11.9	11.4	8.5	10.0	---	---	---
2	---	---	---	12.5	11.5	12.0	10.7	9.9	10.3	---	---	---
3	---	---	---	12.4	11.5	11.9	10.5	9.2	10.2	---	---	---
4	---	---	---	12.2	11.2	11.5	9.4	8.4	8.7	---	---	---
5	---	---	---	11.9	11.2	11.6	9.6	8.5	9.1	---	---	---
6	---	---	---	11.9	10.9	11.3	---	---	---	9.7	9.0	9.4
7	---	---	---	11.8	11.1	11.4	---	---	---	9.3	8.7	9.0
8	12.1	11.6	11.9	11.8	11.1	11.4	---	---	---	8.9	8.3	8.6
9	15.1	11.8	12.5	12.1	10.9	11.5	9.4	8.9	9.2	8.7	8.0	8.5
10	12.8	12.1	12.4	12.2	11.4	11.8	9.4	8.4	8.9	10	7.9	8.5
11	13.3	12.3	12.5	12.1	11.4	11.8	10.2	8.4	8.8	10.2	8.5	8.8
12	13.4	12.0	12.5	12.1	11.2	11.7	8.7	7.2	8.1	10.1	8.3	8.8
13	15.2	12.6	13.0	12.5	11.5	12.0	10.8	7.2	8.3	11.8	8.5	8.9
14	13.8	12.9	13.2	12.6	11.6	12.1	8.7	7.7	8.2	10.3	8.2	8.8
15	13.9	12.5	12.9	12.5	11.3	12.0	9.2	8.6	8.9	10.5	8.0	8.5
16	---	---	---	12.4	10.9	11.6	10.0	8.9	9.4	11.6	8.1	8.7
17	---	---	---	12.2	11.0	11.4	10.3	9.5	9.9	10.2	7.7	8.4
18	12.7	12.4	12.6	12.2	11.0	11.7	10.2	9.5	9.8	9.8	7.7	8.1
19	13.7	12.4	12.7	12.8	12.0	12.4	10.0	9.4	9.7	8.4	7.5	7.8
20	---	---	---	13.1	12.1	12.5	9.9	9.2	9.6	8.2	7.6	7.8
21	---	---	---	13.2	11.7	12.4	9.9	9.2	9.6	8.5	7.6	8.0
22	---	---	---	13.2	11.5	12.5	10.0	9.0	9.6	8.9	7.6	8.2
23	---	---	---	13.4	12.0	12.8	9.7	8.8	9.4	9.7	7.8	8.4
24	---	---	---	13.9	11.8	12.9	9.5	8.8	9.1	8.4	7.8	8.2
25	---	---	---	13.6	11.9	12.7	10.0	9.2	9.7	8.3	7.6	7.9
26	---	---	---	12.4	9.4	11.1	10.1	9.5	9.8	8.3	7.2	7.6
27	12.6	10.8	11.6	12.6	9.2	10.5	---	---	---	7.6	7.1	7.3
28	12.6	11.0	12.1	12.2	9.2	10.0	---	---	---	7.5	6.9	7.2
29	---	---	---	12.1	8.9	9.6	---	---	---	7.2	6.4	6.8
30	---	---	---	9.2	8.1	8.8	---	---	---	7.1	6.3	6.7
31	---	---	---	10.4	6.7	8.0	---	---	---	7.3	6.6	6.9
MONTH	---	---	---	13.9	6.7	11.5	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	7.4	6.5	6.8	4.5	3.3	3.9	7.0	5.9	6.3	7.1	6.3	6.7
2	7.1	5.9	6.5	---	---	---	6.9	6.1	6.6	7.1	6.0	6.6
3	6.6	5.8	6.3	---	---	---	7.8	5.9	6.5	7.1	6.2	6.8
4	6.1	5.5	5.8	---	---	---	7.4	5.7	6.3	7.3	6.5	6.9
5	5.8	5.3	5.5	---	---	---	6.5	5.1	5.8	7.6	6.5	7.0
6	6.0	5.2	5.6	---	---	---	5.9	4.9	5.3	7.2	6.2	6.8
7	5.7	5.0	5.4	---	---	---	6.0	4.6	5.3	6.6	6.2	6.4
8	7.7	4.8	5.5	---	---	---	5.8	4.6	5.1	6.8	6.2	6.5
9	8.3	5.0	5.7	---	---	---	5.6	4.6	5.0	7.2	6.7	6.9
10	9.2	5.4	6.4	---	---	---	8.4	4.7	5.7	6.8	6.2	6.5
11	8.8	6.0	6.5	---	---	---	6.7	5.6	6.0	6.7	5.8	6.2
12	8.8	5.8	6.2	---	---	---	6.4	5.5	6.0	6.7	6.0	6.3
13	8.4	5.8	6.2	---	---	---	6.6	5.8	6.1	6.6	6.1	6.3
14	7.9	5.3	5.9	---	---	---	6.7	5.6	6.0	7.0	5.9	6.3
15	8.7	5.0	6.0	---	---	---	6.7	5.7	6.2	6.4	5.5	5.9
16	---	---	---	5.8	5.1	5.5	7.1	6.1	6.6	6.2	5.1	5.5
17	---	---	---	5.9	5.1	5.6	7.8	6.6	7.0	5.6	4.6	5.2
18	---	---	---	6.3	5.3	5.7	8.0	6.1	6.8	5.8	4.5	5.1
19	---	---	---	6.4	5.5	5.8	6.9	5.5	6.2	6.0	4.9	5.5
20	---	---	---	6.3	5.3	5.8	6.0	4.9	5.5	5.9	5.1	5.6
21	---	---	---	6.7	5.2	5.9	6.2	4.5	5.2	5.8	5.4	5.6
22	---	---	---	7.2	5.1	5.8	5.5	4.6	5.0	6.0	5.4	5.7
23	---	---	---	6.9	5.0	5.7	8.3	4.7	6.1	6.1	5.3	5.8
24	---	---	---	6.2	4.9	5.7	7.6	6.0	6.6	6.4	5.7	6.0
25	6.5	5.2	6.0	6.2	5.1	5.7	10.0	5.5	6.4	7.0	6.1	6.4
26	6.4	5.4	5.8	7.6	5.2	5.7	9.0	5.2	6.1	7.4	6.4	6.8
27	6.4	5.4	5.8	6.9	4.8	5.7	8.4	5.0	6.4	7.3	6.7	7.0
28	6.1	4.9	5.4	6.2	4.9	5.4	7.2	6.0	6.6	7.0	6.1	6.5
29	5.0	4.2	4.6	7.0	5.1	5.9	9.0	4.9	6.3	6.4	5.7	6.0
30	4.8	4.0	4.4	7.2	5.5	6.2	---	---	---	6.2	5.4	5.7
31	---	---	---	6.8	5.7	6.1	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	7.6	4.5	6.2

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 colleced 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 partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

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

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		LACKAWAXEN RIVER BASIN					
01429300	Dyberry Creek above Reservoir near Honesdale, Pa.	Lat 41°39'26", long 75°17'12", Wayne County, on right bank 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mi downstream from confluence of the east and west branches of Dyberry Creek, and 6 mi north of Dyberry. Datum of gage is 1,023.43 ft National Geodetic Vertical Datum of 1929.	45.8	1975-87	4- 4-87	10.34	2,170
		VANDERMARK CREEK BASIN					
01438300	Vandermark Creek at Milford, Pa.	Lat 41°19'35", long 74°47'50", Pike County, at stone bridge on Broad Street in Milford, and 0.4 mi above mouth. Datum of gage is 490.50 ft National Geodetic Vertical Datum of 1929.	5.36	1962-87	9- 9-87	2.55	80.0
		BRODHEAD CREEK BASIN					
01440300	Mill Creek at Mountainhome, Pa.	Lat 41°09'50", long 75°16'00", Monroe County, at stone-arch bridge on macadam road 0.5 mi east of Mountainhome, and 1.5 mi above mouth.	5.84	1961-87	9-13-87	9.85	790
		LEHIGH RIVER BASIN					
01451192	Lehigh River at Allentown, Pa.	Lat 40°36'23", long 75°27'17", Lehigh County, on upstream side of Hamilton Street Bridge, at Allentown, 200 ft downstream from lock and dam, and 0.7 mi upstream from Little Lehigh Creek.	1,033	1977-81d 1982-87	9- 9-87	46.89	43,200
		SCHUYLKILL RIVER BASIN					
01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville, and 1.7 mi downstream from Mill Creek.	53.4	1975-87	9-13-87	8.37	2,680
01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trail, 0.75 mi upstream from Panther Creek, and 1.0 mi north of Cressona.	52.5	1975-87	9-13-87	5.47	1550

d Operated as low-flow partial-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN					
01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long 76°01'43", Schuylkill County, 0.65 mi upstream from Rattling Run and 0.7 mi north of Port Clinton.	132	1975-87	9-13-87	8.22	4,750
01470766	Schuylkill River at Temple, Pa.	Lat 40°24'52", long 75°56'23", Berks County, at concrete bridge on State Highway Route 383, 0.7 mi downstream from mouth of Maiden Creek, 0.6 mi west of Temple.	641	1978-87	9- 9-87	14.35	17,000
01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mi upstream from Little Northkill Creek and 0.7 mi northwest of Bernville.	18.8	1975-87	9-13-87	5.30	856
01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 mi west of Bernville and 1.6 mi upstream from mouth.	21.2	1975-81 1983-87	9-13-87	5.77	892
01471660	Schuylkill River at Birdsboro, Pa	Lat 40°16'04", long 75°48'40", Berks county, on Railroad Bridge, on right bank 1,000 feet upstream from Route 82 Bridge, crossing Schuylkill River in Birdsboro.	976	1981-87	9- 9-87	156.79	26,000
01472162	Schuylkill River at Phoenixville, Pa.	Lat 40°08'11", long 75°30'41", Chester County, on the downstream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville.	1,280	1971-87	9- 9-87	88.38	38,200
01473193	Schuylkill River at Port Kennedy, Pa.	Lat 40°06'29", long 75°25'16", Montgomery County, on left bank 200 ft upstream from Betzwood Bridge, and 4.0 mi downstream from Perkiomen Creek at Port Kennedy.	1,691	1977-87	9- 9-87	68.92	33,700
01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Steiger Street in Norristown, 0.1 mi downstream from dam, 0.7 mi downstream from unnamed tributary, and 1.1 mi upstream from mouth.	20.4	1975-87	12-25-86	8.00	7,600
01473500	Schuylkill River at Norristown, Pa	Lat 40°06'40", long 75°20'50", Montgomery County, on right bank at Conrail Bridge pier, 600 ft upstream from Dekalb Street Bridge in Norristown.	1,760	1981-87	9- 9-87	61.45	35,800
		CHRISTINA CREEK BASIN					
01478200	Middle Branch White Clay Creek near Landenberg, Pa.	Lat 39°46'54", long 75°48'03", Chester County, at bridge on L.R. 15017, 1.4 mi above mouth, and 1.7 mi west of Landenberg.	12.7	1960-87	9- 9-87	6.86	660
01480610	Sucker Run near Coatesville, Pa.	Lat 39°58'20", long 75°51'03", Chester County, at concrete bridge on South Park Avenue at State Highway 372, 1.6 mi above mouth, and 2 mi west of Coatesville.	2.57	1964-87	9- 9-87	7.01	810

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1987

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		EQUINUNK CREEK BASIN				
01427200	Equinunk Creek near Equinunk, Pa.	Lat 41°50'15", long 75°13'55", Wayne County, at highway bridge 700 ft downstream from South Branch Equinunk Creek, and 1.4 mi above mouth and	56.3	1946-57 1978-87	11- 3-86 11- 7-86 5-15-87 6-25-87 8-24-87	28.7 77.2* 32.0* 15.9* 2.52
		CALKINS CREEK BASIN				
01427700	Calkins Creek at Milanville, Pa.	Lat 41°40'12", long 75°04'07", Wayne County, at Milanville, 300 ft downstream from confluence of North and South Branches, and 0.6 mi upstream from mouth.	44.0	1958-64 1966-69 1981-87	11- 3-86	11.0
		LACKAWAXEN RIVER BASIN				
01428800	West Branch Lackawaxen River at Aldenville, Pa.	Lat 41°38'38", long 75°21'36", Wayne County, at bridge on State Highway 170, 0.3 mi southeast of Aldenville, and 4.5 mi north of Prompton.	48.9	1970-78 1981-87	11- 4-86	38.6
		SHOHOLA CREEK BASIN				
01432500	Shohola Creek at Shohola,Pa.	Lat 41°27'20", long 74°55'25", Pike County, 1.7 mi upstream from mouth, and 1.4 mi south of Shohola. Prior to 1959 at highway bridge 0.4 mi upstream.	83.6	1920-28‡ 1957-80b 1981-87	10- 9-86 11- 3-86 5-18-87 6-24-87 8-18-87	15.2 14.3 89.0* 18.3* 10.2
		BUSH KILL BASIN				
01439700	Little Bush Kill at Bushkill Pa.	Lat 41°05'30", long 75°00'15", Pike County, at highway bridge 175 ft upstream from mouth, at Bush Kill.	33.0	1958-69 1981-87	10-23-86	7.21
		BRODHEAD CREEK BASIN				
01440500	Paradise Creek at Henryville, Pa.	Lat 41°06'00", long 75°15'05", Monroe County, 400 ft upstream from concrete bridge on State Highway 191, about 600 ft upstream from confluence with Cranberry Creek, and 0.5 mi northwest of Henryville.	30.2	1908-14‡ 1981-87	10-22-86	13.5

‡ Operated as a continous-record station.
b Operated as a miscellaneous station.
* Not base flow

Discharge measurements made at low-flow partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		BRODHEAD CREEK BASIN--Continued				
01441000	McMichael Creek at Stroudsburg, Pa.	Lat 40°58'45", long 75°12'05", Monroe County, at bridge on Interstate Highway 80, 0.25 mi upstream from Little Pocono Creek, and 0.7 mi southwest of Stroudsburg.	65.3	1911-38‡ 1970-74 1981-87	11- 4-86	26.7
01441500	Pocono Creek near Stroudsburg, Pa.	Lat 40°59'10", long 75°13'35", Monroe County, at bridge on county road, 0.3 mi upstream from Flagler Run, 1.3 mi west of Stroudsburg, and 1.9 mi upstream from mouth.	41.0	1911-19‡ 1970-76 1982-87	11- 4-86	17.1
01442600	Marshall Creek at Minisink Hills, Pa.	Lat 40°59'53", long 75°08'25", Monroe county, at bridge on rural road, 600 ft upstream from mouth, at Minisink Hills.	27.1	1958-72 1981-87	10-23-86	6.58
		JACOBY CREEK BASIN				
01443100	Jacoby Creek at Portland, Pa.	Lat 40°55'00", long 75°06'19", Northampton County, at county highway bridge, 0.6 mi southwest of Portland and 0.7 mi upstream from mouth.	6.17	1970-87	10-23-86	4.33
		MARTINS CREEK BASIN				
01446650	Martins Creek below Little Martins Creek at Martins Creek, Pa.	Lat 40°47'02", long 75°11'08", Northampton County, at bridge on State Highway 611 in village of Martins Creek and 0.9 mi upstream from mouth.	43.4	1932 1970-87	10-23-86	16.7
		BUSHKILL CREEK BASIN				
01446900	Bushkill Creek near Easton, Pa.	Lat 40°42'38", long 75°14'46", Northampton County, at bridge just west of Bushkill Drive at Coilton, 0.8 mi downstream from Schoeneck Creek and 2.5 mi north of Easton.	72.0	1970-78b 1982-87	10-23-86	33.1
		LEHIGH RIVER BASIN				
01447750	Bear Creek near White Haven, Pa.	Lat 41°10'42", long 75°45'21", Luzerne County, at bridge on State Highway 115, at Bear Creek, 200 ft downstream from Bear Creek Dam, 8 mi southeast of Wilkes-Barre, and 8.3 mi north of White Haven.	35.0	1959-69 1981-87	10-22-86	28.6
01448100	Sandy Run near White Haven, Pa.	Lat 41°00'31", long 75°46'08", Luzerne County, at bridge on L.R. 40118, 800 ft upstream from Pond Creek, and 3.8 mi south of White Haven.	10.9	1970-78 1981-87	10-22-86	5.30
01449300	Mahoning Creek at Lehighton, Pa.	Lat 40°49'30", long 75°42'04", Carbon County, at mouth at Lehighton.	38.3	1946 1955 1981-87	10-30-86	9.72
01449355	Middle Creek at Kresgeville, Pa.	Lat 40°54'03", long 75°29'50", Monroe County, at bridge on U.S. Highway 209 at Kresgeville, 0.5 mi downstream from Dotters Creek, and 0.5 mi upstream from mouth.	18.6	1970-78 1981-87	10-30-86	10.4

‡ Operated as a continous-record station.
b Operated as a miscellaneous station.

Discharge measurements made at low-flow partial-record stations during water year 1986--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		LEHIGH RIVER BASIN--Continued				
01451110	Hokendauqua Creek near Northampton, Pa.	Lat 40°42'50", long 75°29'45", Northampton County, at bridge on county road, 1.7 mi north of Northampton, and 3.3 mi upstream from mouth.	38.1	1970-78 1981-87	11- 5-86	12.1
01451165	Catasauqua Creek at Catasauqua, Pa.	Lat 40°38'52", long 75°28'06", Lehigh County, at bridge on North Daulphin Street, Catasauqua, 0.1 mi upstream from mouth.	15.7	1970-78 1981-87	11- 5-86	2.65
01451900	Jordan Creek near Stetlersville, Pa.	Lat 40°37'46", long 75°33'13", Lehigh County, at covered bridge on rural road, 0.5 mi north of Stetlersville.	70.4	1967-69b 1981-87	11- 5-86	11.1
01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 40863, 1.5 mi southeast of Bath, and 2.5 mi upstream from mouth. Datum of gage is 372.06 ft, National Geodetic Vertical Datum of 1929.	5.35	1962-68‡ 1969-81c 1982-87	11- 5-86	0.05
01457790	Cooks Creek at Durham Furnace, Pa.	Lat 40°34'56", long 75°12'20", Bucks County, on east side of Red Brick Road, 0.1 mi north of State Highway 212, 0.5 mi upstream from mouth and Durham Furnace.	29.4	1934,1944 1949-50 1970-78 1981-87	8-26-87	10.1
		TINICUM CREEK BASIN				
01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mi below confluence of Rapp Creek and Beaver Creek, 1.5 mi east of Ottsville, and 5.3 mi above mouth.	14.7	1971-81c 1982-87	8-26-87	0.41
		TOHICKON CREEK BASIN				
01459100	Beaver Run tributary at Quakertown, Pa.	Lat 40°26'37", long 75°19'42", Bucks County, at concrete weir upstream from twin concrete-arch culvert on Erie Avenue at intersection with Elm Street in Quakertown, 0.2 mi upstream from mouth.	2.42	1961-68 1981-87	8-25-87	0.20
01459150	Tohickon Creek near Quakertown, Pa.	Lat 40°26'26", long 76°18'42", Bucks County, 1,000 ft downstream from county highway bridge and 1 mi east of Quakertown.	27.5	1970-78 1981-87	8-25-87	0.10

‡ Opeated as a continous-record station.
b Operated as a miscellaneous station.
c Operated as a crest-stage partial-record station.
d Published as Wyomissing Creek near Reading.

Discharge measurements made at low-flow partial-record stations during water year 1987--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN				
01467470	Schuylkill River at Port Carbon, Pa.	Lat 40°41'40", long 76°09'55", Schuylkill County, at bridge 550 ft upstream from Mill Creek, at Port Carbon.	27.1	1949-50 1963-64b 1981-87	8-26-87	9.27
01469100	Bear Creek near Auburn, Pa.	Lat 40°35'27", long 76°07'00", Schuylkill County, at bridge on rural road, 1 mi west Auburn, and 2.2 mi upstream from mouth.	Not Determined	1965b 1981-87	8-26-87	1.36
01469290	Pine Creek at Barnesville, Pa.	Lat 40°49'09", long 76°01'06", Schuylkill County, 0.1 mi south of State Highway 45, and 0.8 mi east of Barnesville.	7.33	1964b 1981-87	11- 5-86	3.39
01470700	Maiden Creek near Lenhartsville, Pa.	Lat 40°35'10", long 75°53'40", Berks County, at Zettlemoyers bridge, 1 mi north of Lenhartsville.	75.7	1943-57 1981-87	8-26-87	8.69
01470720	Maiden Creek tributary at Lenhartsville, Pa.	Lat 40°34'23", long 75°52'34", Berks County, at bridge on U.S. Highway 22, 0.5 mi east of Lenhartsville, and 0.5 mi upstream from mouth.	7.46	1961-65* 1965-81‡ 1981-87	8-26-87	0.69
01470758	Moselem Creek near Shoemakersville, Pa.	Lat 40°30'10", long 75°52'47", Berks County, at bridge on county road, 0.35 mi upstream from mouth, 2.8 mi west of Moselem Springs, and 5 mi east of Shoemakersville.	13.5	1970-78 1981-87	9- 4-87	10.9
01470764	Maiden Creek near Temple, Pa.	Lat 40°25'24", long 75°56'54", Berks County, 1,000 ft upstream from mouth, near Temple.	216	1947-52 1981-82 1986-87	9- 4-87	33.3
01470800	Tulpehocken Creek at Bernville, Pa.	Lat 40°25'35", long 76°06'45", Berks County, at a single-span concrete highway bridge on L.R. 06047, 600 ft upstream from confluence with Northkill Creek, and 0.5 mi south of Bernville.	84.8	1944 1951 1955 1957 1972-77b 1981-87	8-25-87	41.2
*01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mi upstream from Little Northkill Creek and 0.7 mi northwest of Bernville.	18.8	1975-77 1979-87	8-25-87	0.79
*01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 mi west of Bernville and 1.6 mi upstream from mouth.	21.2	1975-77c 1979-87	8-25-87	1.24
01471520	Wyomissing Creek at West Reading, Pa.	Lat 40°19'46", long 75°56'23", Berks County, at West Reading, and 180 ft upstream from mouth.	15.6	1948-53d 1981-87	9- 4-87	14.2
01471620	Allegheny Creek at Gilbralter, Pa.	Lat 40°17'06", long 75°52'25", Berks County, 600 ft upstream from Schuylkill Canal, at Gibralter.	17.9	1967b 1981-87	9- 4-87	6.88

* Also a crest-stage partial-record station.
‡ Opeated as a continous-record station.
b Operated as a miscellaneous station.
c Operated as a crest-stage partial-record station.
d Published as Wyomissing Creek near Reading.

Discharge measurements made at low-flow partial-record stations during water year 1987--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN--Continued				
01472080	Pigeon Creek at Parker Ford, Pa.	Lat 40°12'03", long 75°37'10", Chester County, at bridge on Ellis Woods Road, 1.8 mi west of Parker Ford and 3 mi upstream from mouth.	12.0	1970-76 1978-87	10-10-86	3.36
01472190	Pickering Creek near Phoenixville, Pa.	Lat 40°06'33", long 75°31'42", Chester County, at bridge on Creek Road at State Highway 29, 0.3 mi downstream from Conrail bridge, 1 mi south of Phoenixville, and 2.6 mi upstream from Pickering Creek Dam.	31.4	1967-68‡ 1975b 1978-80b 1981-84 1986-87	10- 6-86	11.3
01472280	Macoby Creek at Green Lane, Pa.	Lat 40°20'22", long 75°28'20", Montgomery County, at bridge on State Highway 29, at Green Lane, and 0.1 mi upstream from mouth.	17.4	1949 1981-87	8-25-87	0.47
01472450	Unami Creek at Sumneytown, Pa.	Lat 40°19'34", long 75°27'00", Montgomery County, at bridge on State Highway 63, at Sumneytown.	47	1946a b 1951a,b 1981-87	8-25-87	3.68
01472800	East Branch Perkiomen Creek near Harleysville, Pa.	Lat 40°16'25", long 75°24'55", Montgomery County, at bridge on L.R. 46023, and 1.5 mi southwest of Harleysville.	56.4	1958-69 1981-87	8-25-87	3.21

‡ Operated as a continuous-record station.
a Published as "at Camp Belmont".
b Operated as a miscellaneous station.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)											
OCT 1986 10...	1430	3.4	160	7.70	11.5	12.5	0.9	9.5	58	14	15
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)											
OCT 1986 10...	0900	0.27	300	7.50	10.5	11.0	1.0	9.2	97	25	25
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)											
OCT 1986 22...	0900	5.0	145	7.50	16.0	10.0	1.4	7.1	54	4	14
01472140 - SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)											
OCT 1986 22...	1230	4.4	180	8.00	28.0	12.0	0.3	12.8	68	17	18
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)											
OCT 1986 31...	0900	9.0	160	7.50	8.5	--	0.7	9.4	62	18	16
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10N LONG 075 30 41W)											
OCT 1986 31...	1200	12	220	8.00	12.5	--	0.9	10.4	86	24	23
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)											
OCT 1986 07...	1300	0.57	200	8.0	14.5	15.0	1.5	10.4	80	24	21
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)											
OCT 1986 07...	0900	2.1	195	7.6	12.0	10.0	0.5	9.9	79	23	22
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)											
OCT 1986 08...	0930	8.4	195	7.80	17.5	10.0	0.4	10.2	82	18	22
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57N LONG 075 33 20W)											
OCT 1986 06...	0930	11	210	7.6	15.0	15.5	0.8	8.7	83	25	22
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)											
OCT 1986 06...	1400	11	215	8.10	15.5	15.0	0.5	9.8	83	15	22
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)											
NOV 1986 07...	0900	7.1	480	7.90	7.0	9.5	1.0	11.5	230	49	58

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)											
OCT 1986 10...	4.9	7.8	1.8	44	23	8.2	18	114	112	--	<0.01
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)											
OCT 1986 10...	8.4	21	4.5	72	22	35	20	244	190	2.38	0.02
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)											
OCT 1986 22...	4.7	5.7	1.5	50	11	8.3	16	104	94	--	<0.01
01472140 - SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)											
OCT 1986 22...	5.5	7.4	2.1	51	16	12	18	128	122	--	<0.01
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)											
OCT 1986 31...	5.3	7.2	2.4	44	16	11	17	111	105	--	<0.01
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10N LONG 075 30 41W)											
OCT 1986 31...	6.9	10	2.9	62	24	14	16	147	138	--	<0.01
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)											
OCT 1986 07...	6.6	7.9	1.9	56	15	19	22	150	136	1.89	0.01
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)											
OCT 1986 07...	5.9	7.4	2.2	56	16	12	21	146	128	1.69	0.01
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)											
OCT 1986 08...	6.6	7.9	2.4	64	17	16	20	150	136	--	<0.01
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57N LONG 075 33 20W)											
OCT 1986 06...	6.7	8.7	2.7	58	18	17	20	156	134	0.96	0.01
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)											
OCT 1986 06...	6.9	8.9	2.7	68	19	16	20	152	140	--	<0.01
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)											
NOV 1986 07...	20	25	2.2	178	32	44	7.9	316	306	--	<0.01

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)											
OCT 1986 10...	1.60	<0.01	--	0.3	--	0.4	--	0.06	0.05	0.03	<10
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)											
OCT 1986 10...	2.40	<0.01	--	0.4	--	0.5	--	0.16	0.12	0.11	<10
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)											
OCT 1986 22...	0.72	<0.01	--	0.5	--	0.4	--	0.03	<0.01	0.01	<10
01472140 - SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)											
OCT 1986 22...	2.80	0.01	1.2	1.2	--	1.2	--	<0.01	<0.01	0.01	10
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)											
OCT 1986 31...	0.80	0.05	0.65	0.7	--	0.3	--	0.02	0.01	<0.01	<10
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10N LONG 075 30 41W)											
OCT 1986 31...	0.81	0.05	0.45	0.5	--	0.5	--	0.02	0.02	<0.01	20
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)											
OCT 1986 07...	1.90	0.02	0.58	0.6	--	1.0	--	0.02	0.02	0.01	<10
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)											
OCT 1986 07...	1.70	0.04	--	<0.2	--	1.0	--	0.01	0.02	<0.01	<10
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)											
OCT 1986 08...	1.20	<0.01	--	0.2	--	0.3	--	0.07	0.01	<0.01	<10
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57N LONG 075 33 20W)											
OCT 1986 06...	0.97	<0.01	--	<0.2	--	0.5	--	0.02	0.02	0.01	<10
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)											
OCT 1986 06...	0.84	<0.01	--	0.4	--	<0.2	--	0.03	0.02	0.01	<10
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)											
NOV 1986 07...	2.20	0.01	0.59	0.6	--	<0.2	--	0.02	0.01	<0.01	<10

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03N LONG 075 37 10W)											
OCT 1986 10...	--	--	--	--	64	--	19	--	--	--	--
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11N LONG 075 34 45W)											
OCT 1986 10...	--	--	--	--	62	--	57	--	--	--	--
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)											
OCT 1986 22...	--	--	--	--	88	--	22	--	--	--	--
01472140 - SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18N LONG 075 42 52W)											
OCT 1986 22...	--	--	--	--	35	--	6	--	--	--	--
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17N LONG 075 38 25W)											
OCT 1986 31...	--	--	--	--	83	--	14	--	--	--	--
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10N LONG 075 30 41W)											
OCT 1986 31...	<1	1	<1	4	64	<5	29	<0.1	3	<1	9
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43N LONG 075 39 14W)											
OCT 1986 07...	--	--	--	--	110	--	23	--	--	--	--
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)											
OCT 1986 07...	--	--	--	--	110	--	25	--	--	--	--
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)											
OCT 1986 08...	<1	<1	<1	1	84	<5	10	--	2	<1	<3
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57N LONG 075 33 20W)											
OCT 1986 06...	--	--	--	--	170	--	28	--	--	--	--
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)											
OCT 1986 06...	--	--	--	--	100	--	7	--	--	--	--
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)											
NOV 1986 07...	<1	<1	<1	3	8	<5	8	0.7	3	<1	<3

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)											
NOV 1986 07...	1300	13	498	8.30	10.5	9.0	1.1	11.6	240	43	46
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)											
OCT 1986 09...	1530	2.7	172	7.6	22.0	16.5	0.2	10.2	67	13	14
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)											
OCT 1986 09...	1230	1.5	235	7.8	27.5	16.0	0.4	10.0	85	27	18
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)											
OCT 1986 09...	0900	6.7	215	7.5	19.5	13.5	0.7	8.8	81	27	17
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)											
OCT 1986 15...	0900	0.52	210	7.00	15.0	11.5	0.2	8.8	57	35	11
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)											
OCT 1986 15...	1330	1.7	240	7.50	18.0	15.0	2.6	9.6	94	22	21
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26N LONG 075 32 30W)											
OCT 1986 16...	0900	3.9	250	7.50	12.0	10.0	2.0	9.5	96	28	22
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)											
OCT 1986 16...	1300	28	650	7.70	16.0	14.0	1.4	9.1	130	15	32
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)											
OCT 1986 30...	1430	5.6	315	8.20	15.0	13.0	0.4	11.8	150	49	35
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)											
DEC 1986 02...	1300	8.8	190	7.60	8.0	6.0	2.2	11.8	70	30	16
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)											
NOV 1986 25...	1100	9.8	160	7.50	9.0	6.0	1.4	12.7	52	20	12
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)											
NOV 1986 18...	1000	6.9	305	7.80	10.5	9.5	0.9	10.4	140	62	32

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)											
NOV 1986 07...	31	23	3.0	200	33	36	8.2	305	310	2.08	0.02
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)											
OCT 1986 09...	7.8	7.0	1.9	54	12	11	18	136	109	0.99	0.01
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)											
OCT 1986 09...	9.8	13	1.9	58	16	22	11	140	134	1.59	0.01
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)											
OCT 1986 09...	9.3	13	2.0	54	16	17	15	152	133	--	<0.01
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)											
OCT 1986 15...	7.1	15	1.6	22	12	30	7.9	150	123	--	<0.01
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)											
OCT 1986 15...	10	8.5	4.9	72	22	19	17	178	154	1.79	0.01
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26N LONG 075 32 30W)											
OCT 1986 16...	9.9	13	3.9	68	23	23	15	183	161	2.08	0.02
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)											
OCT 1986 16...	12	84	8.9	114	120	62	18	540	444	6.13	0.57
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)											
OCT 1986 30...	15	7.7	3.3	100	27	15	15	206	196	4.09	0.01
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)											
DEC 1986 02...	7.2	7.4	3.4	40	18	17	16	119	130	4.67	0.03
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)											
NOV 1986 25...	5.3	7.3	4.3	32	20	12	14	103	108	3.19	0.01
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)											
NOV 1986 18...	15	8.1	3.6	80	29	13	17	202	187	--	<0.01

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)											
NOV 1986 07...	2.10	0.07	0.43	0.5	--	0.5	--	0.02	0.02	<0.01	<10
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)											
OCT 1986 09...	1.00	<0.01	--	<0.2	--	<0.2	--	0.02	0.02	0.01	<10
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)											
OCT 1986 09...	1.60	<0.01	--	<0.2	--	0.3	--	0.06	0.05	0.04	<10
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)											
OCT 1986 09...	2.50	<0.01	--	<0.2	--	0.5	--	0.15	0.14	0.13	<10
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)											
OCT 1986 15...	5.80	<0.01	--	0.9	--	0.7	--	0.03	0.02	<0.01	<10
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)											
OCT 1986 15...	1.80	<0.01	--	0.9	--	1.0	--	0.07	0.04	0.02	10
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26N LONG 075 32 30W)											
OCT 1986 16...	2.10	0.04	0.36	0.4	--	0.7	--	0.30	0.28	0.27	<10
01476848 - EAST BRANCH CHESTER CREEL BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)											
OCT 1986 16...	6.70	4.10	1.9	6.0	--	8.0	--	12.0	15.0	1.30	<10
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)											
OCT 1986 30...	4.10	0.01	0.49	0.5	--	0.5	--	0.03	0.02	0.02	<10
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)											
DEC 1986 02...	4.70	0.30	0.7	1.0	--	0.9	--	0.16	0.13	0.11	<10
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)											
NOV 1986 25...	3.20	0.04	0.46	0.5	--	0.3	--	0.05	0.04	0.03	<10
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)											
NOV 1986 18...	4.80	0.06	0.64	0.7	--	1.0	--	0.06	0.03	0.02	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11N LONG 075 28 25W)											
NOV 1986 07...	<1	<1	<1	4	8	<5	12	0.2	3	<1	42
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)											
OCT 1986 09...	--	--	--	--	59	--	7	--	--	--	--
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28N LONG 075 32 40W)											
OCT 1986 09...	--	--	--	--	39	--	11	--	--	--	--
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)											
OCT 1986 09...	--	--	--	--	68	--	26	--	--	--	--
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)											
OCT 1986 15...	--	--	--	--	17	--	12	--	--	--	--
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)											
OCT 1986 15...	--	--	--	--	79	--	40	--	--	--	--
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26N LONG 075 32 30W)											
OCT 1986 16...	<1	1	<1	3	75	<5	54	<1.0	2	<1	<3
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)											
OCT 1986 16...	<1	<1	<1	10	41	<5	59	<1.0	<1	7	16
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42N LONG 075 46 52W)											
OCT 1986 30...	--	--	--	--	18	--	13	--	--	--	--
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)											
DEC 1986 02...	--	--	--	--	58	--	54	--	--	--	--
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56N LONG 075 47 47W)											
NOV 1986 25...	--	--	--	--	80	--	30	--	--	--	--
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)											
NOV 1986 18...	<1	<1	<1	<1	33	5	42	<0.1	1	<1	5

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)											
NOV 1986 18...	1400	7.1	300	7.90	9.0	9.0	0.8	11.1	130	61	31
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)											
NOV 1986 17...	1500	17	210	7.70	11.0	8.5	0.7	11.2	82	49	20
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)											
OCT 1986 30...	0800	8.6	215	7.40	15.0	11.0	1.0	9.6	79	29	20
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)											
OCT 1986 30...	1100	4.6	135	7.60	21.0	12.5	0.6	10.7	50	18	12
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)											
NOV 1986 03...	1130	51	245	7.80	9.0	11.0	1.0	10.3	92	30	23
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)											
OCT 1986 29...	0900	3.1	180	7.50	22.0	10.0	2.6	10.8	68	20	17
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)											
DEC 1986 05...	1000	25	140	7.60	2.0	3.0	2.6	13.4	60	20	15
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)											
OCT 1986 29...	1500	1.8	185	7.50	17.5	13.0	0.4	9.5	68	10	19
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00N LONG 075 39 55W)											
OCT 1986 08...	1330	5.5	345	8.50	22.0	14.5	0.4	12.6	170	62	35
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)											
NOV 1986 03...	1400	50	293	7.90	8.0	12.0	0.7	11.4	110	25	27
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15N LONG 075 35 58W)											
DEC 1986 02...	0930	258	240	7.80	9.0	5.0	1.8	11.8	92	20	22
01494900 - EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)											
OCT 1986 28...	0830	5.0	170	7.40	14.5	12.5	1.2	9.6	57	23	13

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVFD (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)											
NOV 1986 18...	12	10	5.5	66	46	16	19	206	198	4.27	0.03
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)											
NOV 1986 17...	7.9	8.1	3.5	34	22	13	18	145	129	--	<0.01
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)											
OCT 1986 30...	7.0	9.0	3.3	50	19	17	9.0	141	132	--	<0.01
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)											
OCT 1986 30...	4.9	4.9	2.6	32	--	--	10	93	--	--	<0.01
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)											
NOV 1986 03...	8.4	12	4.2	62	22	19	9.6	152	148	2.69	0.01
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)											
OCT 1986 29...	6.2	7.2	3.7	48	17	13	12	119	113	--	<0.01
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)											
DEC 1986 05...	5.5	6.7	3.0	40	18	13	13	101	109	--	<0.01
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)											
OCT 1986 29...	4.9	9.8	2.0	58	10	12	28	145	135	--	<0.01
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00N LONG 075 39 55W)											
OCT 1986 08...	19	11	3.2	104	49	20	6.2	240	216	2.39	0.01
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)											
NOV 1986 03...	10	17	3.9	84	24	25	10	186	180	2.23	0.07
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15N LONG 075 35 58W)											
DEC 1986 02...	8.9	11	3.1	72	25	23	13	150	163	2.97	0.03
01494900 - EAST BRANCH BIG ELK CREEK AT FLKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)											
OCT 1986 28...	5.9	7.4	6.5	34	12	13	13	115	112	4.68	0.02

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)											
NOV 1986 18...	4.30	0.04	0.26	0.3	--	0.6	--	0.02	0.05	0.03	<10
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)											
NOV 1986 17...	3.60	<0.01	--	0.6	--	<0.2	--	0.07	0.06	0.04	<10
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)											
OCT 1986 30...	4.00	0.02	0.38	0.4	--	0.5	--	0.13	0.09	0.09	<10
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)											
OCT 1986 30...	3.30	0.04	0.66	0.7	--	1.8	--	0.01	0.01	0.01	<10
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)											
NOV 1986 03...	2.70	<0.01	--	0.6	--	0.8	--	0.19	0.17	0.14	<10
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)											
OCT 1986 29...	1.80	<0.01	--	0.6	--	0.9	--	0.05	<0.01	<0.01	<10
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)											
DEC 1986 05...	2.40	0.03	0.87	0.9	--	0.9	--	0.06	0.02	0.01	20
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)											
OCT 1986 29...	3.10	0.02	0.38	0.4	--	0.4	--	0.18	0.12	0.12	<10
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00N LONG 075 39 55W)											
OCT 1986 08...	2.40	<0.01	--	<0.2	--	0.7	--	0.05	0.04	0.03	<10
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)											
NOV 1986 03...	2.30	0.17	0.63	0.8	--	0.6	--	0.69	0.66	0.64	<10
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15N LONG 075 35 58W)											
DEC 1986 02...	3.00	0.16	0.34	0.5	--	1.1	--	0.20	0.16	0.13	<10
01494900 - EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)											
OCT 1986 28...	4.70	0.02	1.3	1.3	--	1.5	--	0.19	0.18	0.14	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11N LONG 075 41 29W)											
NOV 1986 18...	<1	<1	<1	4	48	<5	36	<0.1	3	<1	4
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)											
NOV 1986 17...	--	--	--	--	70	--	20	--	--	--	--
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46N LONG 075 49 24W)											
OCT 1986 30...	--	--	--	--	45	--	13	--	--	--	--
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)											
OCT 1986 30...	--	--	--	--	30	--	10	--	--	--	--
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34N LONG 075 39 47W)											
NOV 1986 03...	<1	1	<1	3	65	<5	23	<0.1	11	<1	15
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)											
OCT 1986 29...	--	--	--	--	37	--	27	--	--	--	--
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48N LONG 075 46 44W)											
DEC 1986 05...	--	--	--	--	71	--	18	--	--	--	--
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)											
OCT 1986 29...	--	--	--	--	34	--	6	--	--	--	--
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00N LONG 075 39 55W)											
OCT 1986 08...	--	--	--	--	13	--	8	--	--	--	--
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)											
NOV 1986 03...	<1	1	<1	3	68	<5	38	0.1	3	<1	15
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15N LONG 075 35 58W)											
DEC 1986 02...	--	--	--	--	67	--	44	--	--	--	--
01494900 - EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)											
OCT 1986 28...	<1	2	<1	4	66	<5	13	<0.1	3	1	29

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)
01494950 - WEST BRANCH BIG ELK CREEK NEAR OXFORD, PA (LAT 39 46 45N LONG 075 55 27W)											
OCT 1986 28...	1200	4.9	200	7.60	18.5	15.5	2.8	11.1	56	27	12

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
OCT 1986 28...	6.3	9.5	5.8	29	13	17	12	119	115	4.98	0.02

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1986 28...	5.00	0.03	0.67	0.7	--	1.0	--	0.23	0.13	0.11	<10

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 1986 28...	<1	<1	<1	2	59	<5	32	0.3	3	<1	20

DATE	TIME	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1986 22...	0900	<0.1	<1.0	1.2	1.1	<0.1	0.3	<0.1	<0.1
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1986 07...	0900	<0.1	<1.0	<0.2	0.5	<0.1	<0.1	<0.2	<0.1
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)									
OCT 1986 08...	0930	<0.1	<1.0	0.3	0.4	--	<0.1	0.1	<0.1
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1986 06...	1400	<0.1	<1.0	<0.1	0.4	0.3	<0.1	0.3	<0.1
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. 40 04 00N LONG 075 28 22W)									
NOV 1986 07...	0900	--	--	--	--	--	--	--	--
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)									
OCT 1986 09...	1530	<0.1	7.0	0.1	0.3	2.2	0.1	<0.1	<0.1
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)									
OCT 1986 09...	0900	<0.1	<1.0	0.1	0.1	<0.1	<0.1	<0.1	<0.1
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)									
OCT 1986 15...	0900	<0.1	30	0.8	1.6	1.3	0.5	<0.1	<0.1
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)									
OCT 1986 15...	1330	<0.1	<1.0	0.3	0.6	<0.1	0.4	<0.1	<0.1
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR W CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)									
OCT 1986 16...	1300	<0.1	110	5.0	2.1	1.2	0.6	<0.1	<0.1
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)									
DEC 1986 02...	1300	<0.1	<1.0	1.1	1.2	1.3	0.1	<0.1	<0.1

DATE	TIME	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)									
NOV 1986 18...	1000	<0.1	--	--	--	--	--	<0.1	<0.1
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)									
NOV 1986 17...	1500	<0.1	<1.0	0.2	0.3	<0.1	0.6	<0.1	<0.1
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
OCT 1986 30...	1100	<0.1	4.0	0.6	2.1	<0.1	0.7	<0.1	<0.1
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
OCT 1986 29...	0900	0.1	1.0	0.3	1.8	<0.1	0.4	<0.1	<0.1
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
OCT 1986 29...	1500	<0.1	<1.0	0.4	--	<0.1	0.4	<0.1	<0.1
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
NOV 1986 03...	1400	<0.1	32	4.4	4.1	1.3	3.2	0.2	<0.1
01494900 - EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)									
OCT 1986 28...	0830	<0.1	29	3.2	7.4	0.8	0.9	<0.1	<0.1

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14N LONG 075 41 50W)									
OCT 1986 22...	<1	<1.0	<0.1	<0.1	0.1	<0.1	<0.1	<1.00	<10
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22N LONG 075 37 50W)									
OCT 1986 07...	<5	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIAL (UC/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25N LONG 075 35 34W)									
OCT 1986 08...	<1	<1.0	<0.1	3.8	<0.1	<0.1	<0.1	<1.00	<10
01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33N LONG 075 31 42W)									
OCT 1986 06...	<1	<1.0	<0.1	<0.1	<0.1	<0.1	0.2	<1.00	<10
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00N LONG 075 28 22W)									
NOV 1986 07...	15000	--	--	--	--	55	--	--	--
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54N LONG 075 27 38W)									
OCT 1986 09...	7	<1.0	<0.1	<0.1	<0.1	<0.1	0.7	<1.00	<10
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52N LONG 075 31 02W)									
OCT 1986 09...	<1	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49N LONG 075 35 40W)									
OCT 1986 15...	8	<1.0	<0.1	0.1	0.1	<0.1	<0.1	<1.00	<10
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21N LONG 075 32 57W)									
OCT 1986 15...	4	<1.0	<0.1	0.2	<0.1	<0.1	<0.1	<1.00	<10
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45N LONG 075 32 00W)									
OCT 1986 16...	73	<1.0	0.1	0.1	1.0	<0.1	<0.1	<1.00	<10
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44N LONG 075 49 27W)									
DEC 1986 02...	3	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13N LONG 075 43 33W)									
NOV 1986 18...	1400	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	--	<10
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)									

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39251)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG) (39758)	PERTHANE IN BOTTOM MATERIAL (UG/KG) (81886)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36N LONG 075 49 41W)									
NOV 1986 17...	6	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25N LONG 075 49 42W)									
OCT 1986 30...	<1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1	<1.00	<10
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41N LONG 075 51 14W)									
OCT 1986 29...	<1	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33N LONG 075 46 52W)									
OCT 1986 29...	3	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35N LONG 075 38 54W)									
NOV 1986 03...	14	<1.0	<0.1	<0.1	0.2	0.2	<0.1	<1.00	<10
01494900 - EAST BRANCH BIG ELK CREEK AT ELKVIEW, PA (LAT 39 48 45N LONG 075 54 04W)									
OCT 1986 28...	<1	<1.0	0.5	<0.1	<0.1	<0.1	<0.1	<1.00	<10

Samples collectd at sites other than gaging stations and partial-record stations to give better areal coverage in river basin. Such sites are referred to as miscelanneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

SCHUYLKILL RIVER BASIN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	BORON, DIS-SOLVED (UG/L AS B)	LITHIUM DIS-SOLVED (UG/L AS LI)
		400304075333301 VALLEY CREEK BELOW ROUTE 202 (LITHIUM SITE 1) (LAT 40 03 04N LONG 075 33 33W)					
SEP 02...	1040	0.06	385	8.1	202	<10	<10
		400301075333001 UNNAMED TRIBUTARY TO VALLEY CREEK BELOW ROUTE 401 (LAT 40 03 01N LONG 075 33 30W)					
SEP 02...	1100	0.42	510	8.2	285	30	40
		400303075331701 VALLEY CREEK AT MILL LANE (LAT 40 03 03N LONG 075 33 17W)					
SEP 02...	1630	1.4	656	8.0	367	150	870
		400303075332201 VALLEY CREEK ABOVE MILL LANE (LAT 40 03 03N LONG 075 33 22W)					
SEP 02...	1545	1.0	641	8.1	358	150	860
		400303075332701 VALLEY CREEK BELOW CONFLUENCE WITH UNNAMED TRIBUTARY (LAT 40 03 03N LONG 075 33 27W)					
SEP 02...	1310	0.54	479	7.9	263	20	30

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

CHRISTINA RIVER BASIN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
395302075363501 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 2) (LAT 39 53 02N LONG 075 36 35W)												
AUG 21...	1600	118	280	7.80	27.5	24.5	1.7	8.8	99	25	24	9.5
395308075363701 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 1) (LAT 39 53 08N LONG 075 36 37W)												
AUG 21...	1045	110	280	7.60	27.0	22.5	3.3	7.8	99	27	24	9.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
395302075363501 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 2) (LAT 39 53 02N LONG 075 36 35W)												
AUG 21...	16	3.6	74	25	23	8.0	163	163	1.97	0.03	2.00	0.04
395308075363701 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 1) (LAT 39 53 08N LONG 075 36 37W)												
AUG 21...	16	3.7	72	25	23	8.1	164	162	1.97	0.03	2.00	0.06

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	SEDI-MENT, SUS-PENDED (MG/L)
395302075363501 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 2) (LAT 39 53 02N LONG 075 36 35W)												
AUG 21...	0.66	0.7	-	0.8	--	0.42	0.34	0.25	20	40	42	15
395308075363701 BRANDYWINE CREEK AT BRINTONS BRIDGE (SITE 1) (LAT 39 53 08N LONG 075 36 37W)												
AUG 21...	0.64	0.7	-	1.1	--	0.44	0.35	0.26	10	39	57	3

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.
Owner: Maiden Creek Township Water Authority.
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 385 ft, casing information not available.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 430 ft. Measuring point: Top of plywood shelf, 1.30 ft above land-surface datum. Prior to Apr. 30, 1981, top of casing, 1.30 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction and instrument conversion.
PERIOD OF RECORD.--January 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.55 ft below land-surface datum, June 6, 1984; lowest, 140.82 ft below surface datum, Dec. 23, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134.35	135.68	134.66	131.25	130.95	132.19	130.85	129.16	---	133.81	135.71	137.07
2	134.49	135.68	134.55	131.38	130.89	131.87	130.95	129.22	---	133.81	135.73	137.15
3	134.48	135.68	134.16	131.39	131.07	131.60	130.98	129.34	131.49	133.89	135.81	137.21
4	134.42	135.80	134.02	131.35	131.24	131.36	130.82	129.35	131.53	134.01	135.85	137.23
5	134.53	135.80	133.90	131.33	131.10	131.16	130.49	129.29	131.61	134.09	135.87	137.23
6	134.58	135.83	133.85	---	131.04	131.02	130.08	129.26	131.74	134.13	135.93	137.23
7	134.66	135.83	133.69	130.28	131.31	130.80	129.59	129.40	131.79	134.20	135.93	137.23
8	134.63	135.79	133.58	130.36	131.83	130.58	129.32	129.49	131.91	134.29	135.97	137.23
9	134.76	135.77	133.52	130.41	132.08	130.55	129.19	129.53	132.01	134.33	135.99	136.64
10	134.84	135.83	133.41	130.37	---	130.61	129.09	129.61	132.11	134.43	136.13	135.33
11	134.85	135.78	133.40	130.28	---	130.56	128.98	129.65	132.15	134.51	136.15	134.51
12	134.84	135.69	133.23	130.36	---	130.44	128.95	129.89	132.19	---	136.21	133.89
13	134.85	135.72	133.41	130.51	---	130.33	129.00	129.97	132.31	134.59	136.25	133.39
14	134.97	135.72	133.40	130.51	---	130.29	129.01	129.97	132.39	134.73	136.26	133.05
15	135.00	135.58	133.18	130.52	---	130.29	128.87	130.07	132.51	134.79	136.31	132.95
16	135.04	135.57	133.18	130.64	---	130.29	128.76	130.11	132.57	134.89	136.33	132.83
17	135.13	135.60	133.19	130.67	---	130.28	128.71	130.14	132.73	134.95	136.39	132.77
18	135.17	135.69	133.11	130.63	---	130.26	128.72	130.29	132.77	134.93	136.47	132.79
19	135.16	135.76	132.81	130.50	---	130.24	128.75	130.40	132.81	135.05	136.55	132.81
20	135.14	135.65	132.77	130.62	---	130.25	128.76	130.44	132.89	135.09	136.61	132.79
21	135.16	---	132.76	130.59	---	130.25	128.74	130.48	132.99	135.19	136.65	132.79
22	135.26	---	132.73	130.58	---	130.37	128.87	130.49	133.05	135.23	136.66	132.79
23	135.31	---	132.61	130.52	---	130.38	128.87	130.54	133.23	135.29	136.79	132.83
24	135.41	---	132.55	130.52	---	130.42	128.91	130.68	133.25	135.37	136.81	132.91
25	135.42	135.42	132.20	130.66	132.24	130.44	128.95	130.74	133.35	135.41	136.85	133.02
26	135.38	135.28	132.02	130.66	132.30	130.55	128.97	130.80	133.39	135.41	136.87	133.07
27	135.41	135.07	131.79	130.70	132.36	130.61	128.95	130.85	133.53	135.47	136.91	133.13
28	135.54	134.88	131.65	130.76	132.34	130.72	128.93	130.88	133.60	135.53	136.93	133.15
29	135.54	134.67	131.52	130.86	---	130.75	128.93	---	133.63	---	137.03	133.15
30	135.69	134.66	131.53	130.78	---	130.73	129.15	---	133.75	135.63	137.03	133.21
31	135.72	---	131.53	130.91	---	130.80	---	---	---	135.69	137.05	---
MEAN	134.93	135.50	132.96	130.61	---	130.61	129.23	129.95	132.56	134.75	136.37	134.29
MAX	135.72	135.83	134.66	131.39	---	132.19	130.98	130.88	133.75	135.69	137.05	137.23
MIN	134.23	134.60	131.12	130.10	---	130.13	128.67	129.08	131.45	133.73	135.67	132.70

WTR YR 1987 MEAN 132.89 HIGH 128.67 APR 17 LOW 137.23 SEPT 4-8

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Brunswick Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in, depth 116 ft, cased to 27 ft, open hole.
INSTRUMENTATION.--Digital recorder.
DATUM.--Altitude of land-surface datum is 490 ft. Measuring point: Top of plywood shelf, 3.00 ft above land-surface datum. Prior to Mar. 17, 1980, to top of casing, 1.05 ft above land-surface datum. Prior to June 1970, land surface datum was approximately 16 feet lower.
REMARKS.--None.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.74 ft below land-surface datum, Apr. 29, 1987; lowest, 59.75 ft below land-surface datum, Nov. 26, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.27	47.62	45.17	42.30	41.61	42.05	41.88	40.39	41.74	43.93	45.52	46.68
2	46.44	47.34	44.98	41.67	41.38	41.83	41.89	40.36	41.93	43.93	45.55	46.79
3	46.46	47.35	44.23	42.07	41.66	41.96	41.98	40.57	42.02	43.95	45.45	46.97
4	46.17	47.39	44.36	42.18	41.98	42.04	41.71	40.71	42.05	43.98	45.50	47.08
5	46.30	47.42	44.47	42.19	42.17	42.00	41.49	40.67	42.15	44.19	45.66	47.08
6	46.64	47.54	44.46	42.15	41.98	41.96	41.33	40.42	42.34	44.30	45.85	46.99
7	46.75	47.61	44.25	41.76	41.65	41.64	41.07	40.30	42.42	44.26	45.89	46.89
8	46.72	47.49	44.03	41.92	41.43	41.26	40.97	40.41	42.26	44.23	45.78	46.88
9	46.67	47.26	43.98	42.00	41.63	41.27	40.96	40.48	42.34	44.31	45.75	46.85
10	46.92	47.51	43.69	41.97	41.70	41.64	40.86	40.34	42.60	44.30	45.82	46.96
11	46.97	47.39	43.74	41.49	41.71	41.72	40.83	40.43	42.71	44.36	40.88	47.03
12	46.83	47.24	43.41	41.64	41.56	41.60	40.83	40.52	42.54	44.38	45.98	47.02
13	46.68	47.35	43.90	41.91	41.62	41.40	41.10	40.80	42.55	44.38	46.05	46.92
14	46.53	47.35	43.85	41.91	41.65	41.35	41.13	40.77	42.64	44.38	46.07	46.98
15	46.78	47.02	43.42	41.82	41.89	41.46	41.01	40.54	42.73	44.60	46.06	47.03
16	46.81	46.67	43.38	42.06	41.91	41.48	40.87	40.69	42.85	44.82	46.00	46.98
17	46.97	46.63	43.33	42.12	41.71	41.39	40.64	40.57	43.14	44.95	45.96	46.76
18	47.16	46.64	43.15	42.01	41.85	41.40	40.79	40.66	43.43	44.89	46.08	46.73
19	47.15	46.84	42.92	41.52	42.06	41.35	40.89	40.97	43.40	44.86	46.15	46.89
20	47.00	46.79	42.99	41.70	42.14	41.23	40.88	41.07	43.35	44.91	46.88	46.84
21	46.94	46.23	43.08	41.61	42.02	41.21	40.84	41.16	43.29	44.92	47.15	46.75
22	47.00	46.35	43.07	41.58	41.99	41.49	40.94	41.14	43.33	45.00	46.94	46.70
23	46.99	46.32	42.86	41.36	41.99	41.57	40.94	41.11	43.49	45.05	46.79	46.60
24	47.17	45.92	42.72	41.69	42.26	41.63	40.77	41.27	43.61	45.13	46.81	46.54
25	47.22	45.91	42.42	41.70	42.41	41.66	40.88	41.44	43.58	45.18	46.78	46.67
26	47.08	45.70	42.51	41.46	42.49	41.60	40.87	41.53	43.59	45.13	46.77	46.70
27	46.92	45.40	42.53	41.58	42.50	41.69	40.84	41.60	43.50	45.18	46.69	46.80
28	47.22	45.34	42.39	41.61	42.44	41.84	40.54	41.52	43.81	45.27	46.62	46.79
29	47.26	45.00	42.33	41.68	---	41.99	40.29	41.49	43.90	45.41	46.74	46.69
30	47.52	45.11	42.08	41.55	---	41.92	40.38	41.54	43.90	45.41	46.84	46.36
31	47.70	---	42.33	41.49	---	41.71	---	41.64	---	45.46	46.79	---
MEAN	46.8	46.6	43.3	41.6	41.8	41.5	40.9	40.8	42.8	44.6	46.1	46.8
MAX	47.70	47.62	45.17	42.30	42.50	42.05	41.98	41.64	43.90	45.46	47.15	47.08
MIN	46.04	44.93	41.77	40.52	41.11	40.88	39.74	40.18	41.65	43.83	45.38	46.13

WTR YR 1987 MEAN 43.6 HIGH 39.74 APR 29 LOW 47.70 OCT 31

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Late Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in, depth 125 ft, cased to 20 ft, open hole.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 1,305 ft. Measuring point: Top of plywood shelf, 3.12 ft above land-surface datum. Prior to May 28, 1980, top of casing, 3.00 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction and instrument conversion.
PERIOD OF RECORD.--September 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.44 ft below land-surface datum, Apr. 17, 1983; lowest, 90.58 ft below land-surface datum, Jan. 31, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.29	76.67	---	34.90	51.39	61.63	45.12	43.31	58.45	71.19	76.25	---
2	69.69	76.85	---	35.93	51.93	61.51	39.41	44.04	59.09	71.40	76.39	---
3	69.94	77.01	---	37.19	52.67	59.44	36.51	44.82	59.74	71.59	76.58	---
4	70.29	77.16	35.24	38.21	53.34	56.33	35.08	45.21	60.22	72.07	76.74	---
5	70.55	77.23	33.89	39.24	53.80	53.24	29.44	45.21	60.75	72.65	76.93	---
6	70.90	77.50	33.41	39.97	54.19	50.61	24.46	---	61.31	72.92	77.09	---
7	71.17	77.63	33.44	41.06	54.60	48.43	22.55	---	61.76	73.19	77.26	---
8	71.43	77.76	34.01	42.01	54.98	46.44	22.26	---	62.24	73.46	77.40	---
9	71.74	77.78	34.43	42.94	55.54	42.98	22.90	---	62.78	73.63	---	---
10	72.02	77.77	35.11	43.47	55.90	38.75	23.81	---	63.27	73.76	77.71	---
11	72.27	77.45	35.17	44.32	56.15	36.02	24.96	---	63.66	73.91	77.84	---
12	72.52	76.99	35.21	45.22	56.42	34.62	26.01	---	64.11	---	77.98	43.73
13	72.76	76.48	35.91	46.06	56.82	34.10	27.24	---	64.57	74.20	78.09	39.89
14	73.05	75.47	36.34	46.66	57.15	34.25	28.00	---	65.02	74.39	78.19	29.01
15	73.30	74.49	37.17	47.45	57.53	34.75	28.78	---	65.47	---	78.30	23.54
16	73.52	73.53	37.96	48.00	57.77	35.33	29.59	---	65.92	---	78.41	23.12
17	73.79	72.80	38.73	48.09	58.09	36.15	30.61	---	66.37	---	78.55	23.48
18	74.01	71.99	39.20	47.95	58.50	36.96	31.66	---	66.76	---	78.67	23.53
19	74.18	71.16	39.20	47.49	58.88	37.81	32.64	---	67.16	---	78.82	23.31
20	74.41	70.67	38.38	47.35	59.15	38.68	33.57	---	67.55	---	78.94	23.33
21	74.63	69.76	37.46	47.25	59.46	39.50	34.45	---	67.95	74.62	79.05	24.36
22	74.81	---	37.12	47.24	59.64	40.55	35.57	---	68.31	74.73	79.19	25.63
23	75.00	---	37.34	47.49	60.10	41.36	36.50	---	68.75	74.87	79.29	27.06
24	75.22	---	37.57	47.91	60.47	42.18	37.62	---	69.10	74.99	79.42	28.59
25	75.41	---	37.57	48.17	60.82	42.85	38.66	---	69.43	75.12	79.53	30.05
26	75.57	---	35.76	48.62	61.16	43.65	39.58	---	69.70	75.29	79.62	31.37
27	75.79	---	33.86	49.03	61.44	44.36	40.34	---	70.03	75.43	79.74	32.66
28	76.01	---	33.13	49.57	61.61	45.19	41.08	---	70.34	75.60	79.77	33.97
29	76.15	---	33.17	49.99	---	45.87	41.70	---	70.62	75.75	---	35.09
30	76.38	---	33.65	50.29	---	46.35	42.64	---	70.92	75.91	---	35.50
31	76.55	---	34.42	51.01	---	46.58	---	---	---	76.09	---	---
MEAN	73.18	---	35.56	44.85	56.93	43.13	32.04	---	65.24	73.94	78.17	---
MAX	76.55	77.78	39.20	51.01	61.61	61.63	45.12	---	71.15	76.09	79.77	---
MIN	68.97	---	33.02	34.46	51.03	33.99	22.00	---	57.87	70.92	76.09	22.77

WTR YR 1987 MEAN 55.90 HIGH 22.00 APR 8 LOW 79.77 AUG 28

395450075485401. Local number, CH 10.

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, at intersection of Routes 82 and 841, Doe Run.
Owner: Robert J. Kleberg, Jr.
AQUIFER.--Cockeysville Marble of Paleozoic age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 34 ft, casing information not available.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 300 ft. Measuring point: Top of plywood shelf, 5.23 ft above land-surface datum. Prior to June 24, 1981, top of casing, 1.00 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction, and instrument conversion.
PERIOD OF RECORD.--August 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.28 ft below land-surface datum, Mar. 30, 1958; lowest, 16.22 ft below land-surface datum, Nov. 3, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.58	15.71	14.00	12.06	11.89	12.93	12.73	12.78	---	14.07	14.57	15.01
2	15.58	15.71	14.00	12.03	11.93	11.44	12.71	12.84	---	14.09	14.58	15.02
3	15.57	15.71	13.89	11.97	11.97	11.10	12.73	12.86	---	14.09	14.61	15.04
4	15.57	15.71	13.48	11.94	11.98	11.10	12.71	12.89	13.55	14.10	14.62	15.05
5	15.57	15.71	13.40	11.97	11.98	11.14	12.20	12.86	13.55	14.12	14.64	15.06
6	15.60	15.68	13.41	11.99	11.97	11.18	12.00	12.84	13.57	14.15	14.67	15.06
7	15.61	15.60	13.43	12.05	11.97	11.22	11.60	12.88	13.58	14.15	14.67	15.06
8	15.61	15.57	13.50	12.11	11.95	11.29	11.47	12.92	13.61	14.17	14.68	15.06
9	15.62	15.50	13.50	12.17	12.03	11.42	11.51	12.96	13.62	14.18	---	14.85
10	15.63	15.45	13.45	12.17	12.10	11.54	11.56	13.00	13.65	14.19	14.71	14.54
11	15.64	15.42	13.38	12.08	12.13	11.64	11.66	13.04	13.68	14.20	14.73	14.47
12	15.64	15.33	13.31	12.05	12.16	11.69	11.73	13.09	13.69	---	14.75	14.45
13	15.65	15.23	13.30	12.11	12.25	11.78	11.89	13.14	13.72	14.23	14.77	14.45
14	15.65	15.20	13.30	12.13	12.31	11.89	11.94	13.16	13.75	14.23	14.79	14.35
15	15.64	15.20	13.33	12.19	12.39	11.95	11.97	13.19	13.77	14.25	14.80	14.17
16	15.65	15.23	13.41	12.25	12.43	12.02	12.01	13.22	13.80	14.26	14.81	14.12
17	15.65	15.25	13.45	12.29	12.50	12.10	12.05	13.25	13.83	14.28	14.83	14.12
18	15.65	15.27	13.46	12.30	12.55	12.14	12.11	13.29	13.85	14.29	14.85	14.12
19	15.65	15.27	13.12	12.20	12.64	12.20	12.15	13.33	13.87	14.31	14.87	14.03
20	15.67	15.14	12.87	11.51	12.67	12.29	12.21	13.35	13.89	14.33	14.89	13.87
21	15.67	15.04	12.85	11.22	12.71	12.33	12.27	13.36	13.90	14.35	14.91	13.81
22	15.68	14.79	12.87	11.18	12.73	12.43	12.34	13.37	13.93	14.37	14.92	13.78
23	15.69	14.67	12.89	11.29	12.78	12.49	12.38	13.37	13.93	14.39	14.94	13.77
24	15.70	14.64	12.93	11.36	12.84	12.54	12.44	13.32	13.95	14.41	14.95	13.77
25	15.70	14.63	12.64	11.38	12.87	12.60	12.49	13.29	13.97	14.43	14.97	13.83
26	15.70	14.60	11.89	11.47	12.91	12.65	12.53	13.33	13.99	14.45	14.98	13.88
27	15.69	14.40	11.75	11.51	12.94	12.70	12.57	---	14.00	14.47	14.99	13.94
28	15.68	14.05	11.81	11.59	12.95	12.76	12.61	---	14.03	---	15.00	13.99
29	15.69	13.96	11.87	11.67	---	12.80	12.64	---	14.05	---	15.00	14.02
30	15.70	13.95	11.93	11.69	---	12.82	12.73	---	14.07	14.53	15.00	14.05
31	15.71	---	12.03	11.83	---	12.80	---	---	---	14.55	15.01	---
MEAN	15.64	15.09	13.00	11.82	12.36	11.97	12.16	13.10	13.79	14.26	14.81	14.33
MAX	15.71	15.71	14.00	12.30	12.95	12.93	12.73	13.37	14.07	14.55	15.01	15.06
MIN	15.57	13.92	11.74	11.07	11.84	11.06	11.45	12.73	13.53	14.07	14.55	13.76

WTR YR 1987 MEAN 13.53 HIGH 11.06 MAR 3 LOW 15.71 OCT 31 - NOV 5

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.
Owner: Mrs. Hope W. Ebert.
AQUIFER.--Oligoclase-mica schist of Wissahickon Formation (age uncertain, Early Paleozoic to Precambrian).
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 42 in, depth 18.5 ft, (formerly reported as 22 ft), cased with stone.
INSTRUMENATION.--Daily observer readings with chalked steel tape.
DATUM.--Altitude of land-surface datum is 280 ft. Measuring point: Top of concrete base, 1.80 ft above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.90 ft below land-surface datum, Aug. 22, 1955; lowest measured, dry many times since 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	>18.40	>18.40	>18.40	12.54	12.07	13.06	13.55	13.37	13.95	15.22	16.03	17.13
2	>18.40	>18.40	>18.40	12.32	12.07	12.77	13.57	13.38	13.99	15.25	16.06	17.17
3	>18.40	>18.40	>18.40	12.27	12.15	12.77	13.64	13.42	14.05	15.28	16.09	17.21
4	>18.40	>18.40	>18.40	12.24	12.27	12.74	13.59	13.45	14.09	15.31	16.13	17.26
5	>18.40	>18.40	>18.40	12.17	12.36	12.67	13.52	13.41	14.13	15.36	16.16	17.29
6	>18.40	>18.40	18.28	12.13	12.38	12.60	13.53	13.35	14.18	15.40	16.20	17.31
7	>18.40	>18.40	17.95	12.02	12.39	12.51	13.46	13.35	14.23	15.44	16.23	17.34
8	>18.40	>18.40	17.69	12.05	12.41	12.43	13.44	13.37	14.25	15.47	16.26	17.38
9	>18.40	>18.40	17.49	12.06	12.44	12.37	13.40	13.38	14.29	15.51	16.29	17.40
10	>18.40	>18.40	17.29	12.04	12.56	12.45	13.39	13.33	14.35	15.54	16.31	17.44
11	>18.40	>18.40	17.14	11.97	12.60	12.49	13.32	13.35	14.40	15.58	16.36	17.48
12	>18.40	>18.40	16.96	12.03	12.58	12.47	13.25	13.30	14.41	15.62	16.40	17.52
13	>18.40	>18.40	16.82	12.10	12.64	12.47	13.19	13.36	14.45	15.53	16.44	17.54
14	>18.40	>18.40	16.70	12.16	12.70	12.52	13.21	13.35	14.50	15.56	16.48	17.57
15	>18.40	>18.40	16.51	12.17	12.75	12.57	13.13	13.31	14.54	15.55	16.50	17.60
16	>18.40	>18.40	16.37	12.25	12.79	12.64	13.09	13.37	14.60	15.58	16.54	17.63
17	>18.40	>18.40	16.22	12.33	12.79	12.67	13.04	13.37	14.64	15.63	16.57	17.65
18	>18.40	>18.40	16.05	12.34	12.83	12.74	13.05	13.39	14.70	15.66	16.60	17.67
19	>18.40	>18.40	15.84	12.30	12.90	12.78	13.08	13.44	14.73	15.67	16.64	17.68
20	>18.40	>18.40	15.67	12.14	12.85	12.83	13.09	13.50	14.76	15.69	16.69	17.70
21	>18.40	>18.40	15.50	12.09	12.97	12.89	13.10	13.53	14.80	15.73	16.74	17.73
22	>18.40	>18.40	15.34	12.03	13.00	12.94	13.11	13.57	14.84	15.75	16.76	17.74
23	>18.40	>18.40	15.14	11.91	12.96	13.05	13.17	13.60	14.87	15.78	16.80	17.77
24	>18.40	>18.40	14.96	11.94	13.10	13.11	13.16	13.63	14.94	15.81	16.85	17.79
25	>18.40	>18.40	14.56	11.92	13.16	13.17	13.21	13.69	14.97	15.84	16.89	17.81
26	>18.40	>18.40	14.14	11.82	13.20	13.20	13.24	13.73	15.00	15.85	16.92	17.84
27	>18.40	>18.40	13.82	11.89	13.24	13.28	13.27	13.77	15.03	15.89	16.95	17.86
28	>18.40	>18.40	13.43	11.88	13.27	13.31	13.25	13.80	15.09	15.91	16.99	17.88
29	>18.40	>18.40	13.12	11.94	---	13.40	13.28	13.83	15.13	15.95	17.01	17.90
30	>18.40	>18.40	12.83	11.92	---	13.43	13.30	13.87	15.17	15.98	17.02	17.89
31	>18.40	---	12.67	11.94	---	13.40	---	13.91	---	16.00	17.10	---
MEAN	>18.40	>18.40	16.14	12.09	12.69	12.83	13.29	13.50	14.57	15.62	16.55	17.57
MAX	>18.40	>18.40	>18.40	12.54	13.27	13.43	13.64	13.91	15.17	16.00	17.10	17.90
MIN	>18.40	>18.40	12.67	11.82	12.07	12.37	13.04	13.30	13.95	15.22	16.03	17.13

WTR YR 1987 MEAN 15.10 HIGH 11.82 JAN 26 LOW 18.40 MANY DAYS

> Actual value is known to be greater than the value shown

395512075293701, Local number, DE 723.

LOCATION.--Lat 39°55'12", long 75°29'37", Hydrologic Unit 02040203, at Glen Mills School, in Thornbury Township.
Owner: Glen Mills School.
AQUIFER.--Felsic Hornblende bearing Gneiss of Precambian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 300 ft, casing information not available.
INSTRUMENTATION.--Digital recorder.
DATUM.--Altitude of land-surface datum is 280 ft. Measuring point: Top of plywood shelf, 2.66 ft above land-surface datum. Prior to May 11, 1984, top of plywood shelf, 1.20 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction.
PERIOD OF RECORD.--April 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.78 ft below land-surface datum, April 25, 1983; lowest, 9.95 ft below land-surface datum, Aug. 3, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.39	8.43	6.91	6.55	6.66	---	6.50	6.55	6.77	7.07	7.39	7.48
2	8.40	8.41	6.91	6.51	6.66	---	6.53	6.60	6.78	7.07	7.40	7.50
3	8.40	8.40	5.97	6.38	6.65	---	6.55	6.62	6.79	7.07	7.40	7.51
4	8.38	8.40	6.29	6.44	6.62	---	6.55	6.62	6.79	7.08	7.41	7.56
5	8.38	8.39	6.48	6.50	6.60	---	6.01	6.34	6.77	7.09	7.41	7.58
6	8.39	8.20	6.60	6.52	6.60	---	5.95	6.38	6.79	7.10	7.41	7.58
7	8.39	8.02	6.71	6.57	6.58	---	5.69	6.47	6.79	7.10	7.41	7.58
8	8.39	8.02	6.79	6.62	6.56	---	5.86	6.52	6.79	7.11	7.42	7.58
9	8.40	7.74	6.79	6.65	6.56	---	5.96	6.54	6.80	7.12	7.43	7.52
10	8.40	7.73	6.60	6.65	6.57	---	6.06	6.58	6.81	7.14	7.39	7.53
11	8.40	7.74	6.62	6.64	6.60	---	6.15	6.60	6.83	7.16	7.41	7.55
12	8.40	7.30	6.64	6.69	6.61	---	6.18	6.62	6.82	7.16	7.42	7.56
13	8.40	7.42	6.75	6.74	6.63	---	6.27	6.63	6.82	7.15	7.44	7.56
14	8.40	7.47	6.77	6.77	6.64	---	6.28	6.63	6.86	7.13	7.44	7.00
15	8.40	7.53	6.83	6.79	6.70	---	6.29	6.63	6.86	7.07	7.45	7.11
16	8.40	7.66	6.85	6.81	6.71	---	6.31	6.63	6.87	7.09	7.45	7.22
17	8.40	7.68	6.92	6.82	6.71	---	6.33	6.63	6.90	7.13	7.46	7.25
18	8.40	7.69	6.92	6.82	6.72	---	6.38	6.65	6.91	7.15	7.47	7.25
19	8.41	7.48	6.45	6.59	6.73	---	6.44	6.69	6.91	7.19	7.51	6.76
20	8.41	7.40	6.56	6.08	6.73	---	6.46	6.69	6.91	7.20	7.55	6.90
21	8.41	6.73	6.68	6.16	6.73	---	6.47	6.69	6.91	7.23	7.56	7.00
22	8.42	6.93	6.72	6.21	6.72	---	6.53	6.63	6.91	7.23	7.56	7.07
23	8.43	7.07	6.79	6.38	---	---	6.54	6.63	6.92	7.27	7.56	7.10
24	8.43	7.09	6.80	6.46	---	6.52	6.54	6.56	6.93	7.27	7.58	7.14
25	8.43	7.14	5.43	6.49	---	6.52	6.43	6.61	6.94	7.29	7.60	7.21
26	8.43	7.14	5.79	6.53	---	6.53	6.37	6.63	6.96	7.30	7.61	7.23
27	8.43	6.28	6.02	6.54	---	6.54	6.44	6.66	6.97	7.31	7.61	7.27
28	8.43	6.51	6.20	6.60	---	6.56	6.46	6.67	7.02	7.32	7.61	7.30
29	8.43	6.70	6.33	6.61	---	6.59	6.49	6.70	7.03	7.34	7.60	7.30
30	8.43	6.84	6.47	6.61	---	6.59	6.54	6.73	7.06	7.38	7.47	7.30
31	8.43	---	6.55	6.64	---	6.55	---	6.76	---	7.39	7.48	---
MEAN	8.41	7.44	6.48	6.62	6.64	---	6.27	6.59	6.87	7.17	7.47	7.27
MAX	8.43	8.43	6.92	6.82	6.73	---	6.55	6.76	7.06	7.39	7.61	7.58
MIN	8.37	5.81	5.30	5.94	6.53	---	5.56	6.29	6.76	7.05	7.37	6.61

WTR YR 1987 MEAN 7.02 HIGH 5.30 DEC 25 LOW 8.43 OCT 23 - 31, NOV 1

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.
Owner: Kohl Brothers, Inc.
AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 80 ft, casing information not available, open hole.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 444 ft. Measuring point: Top of plywood shelf, 2.70 ft above land-surface datum. Prior to Apr. 22, 1981, measuring point was 3.50 ft. above land-surface datum.
REMARKS.--Missing record due to instrumrnt conversion.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.02 ft below land-surface datum, Jan. 27, 1976; lowest, 11.32 ft below land-surface datum, Jan. 23, 30, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.93	10.24	8.04	7.32	8.12	8.38	8.25	8.45	8.74	9.53	9.80	9.88
2	9.81	10.26	8.08	7.34	8.14	6.69	8.31	8.45	8.84	9.51	9.64	10.03
3	9.86	10.21	7.57	7.40	8.15	6.83	8.31	8.45	8.90	9.52	9.58	10.10
4	9.56	10.28	7.58	7.44	8.15	6.92	8.28	8.17	8.85	9.52	9.74	10.12
5	9.61	10.30	7.67	7.57	8.17	7.03	7.91	8.35	8.96	9.42	9.78	10.12
6	9.64	9.93	7.68	7.63	8.20	7.13	7.74	8.42	8.95	9.47	9.68	10.06
7	9.71	10.00	7.70	7.70	8.21	7.16	7.48	8.49	8.83	9.57	9.76	9.88
8	9.75	10.00	7.84	7.75	8.15	7.16	7.58	8.56	8.84	9.65	9.74	9.88
9	9.82	9.76	7.84	7.81	8.27	7.28	7.65	8.58	8.94	9.70	9.55	9.32
10	9.92	9.65	7.85	7.81	8.32	7.38	7.72	8.52	9.02	9.73	9.40	9.58
11	9.88	9.78	7.90	7.78	8.35	7.48	7.74	8.54	---	9.74	9.63	9.72
12	9.83	9.38	7.93	7.89	8.37	7.54	7.76	8.63	9.09	9.65	9.78	9.73
13	9.82	9.32	7.96	7.92	8.43	7.61	7.83	8.67	9.13	9.61	9.85	8.99
14	9.88	9.40	7.98	7.95	8.42	7.64	7.91	8.73	9.19	9.65	9.86	8.63
15	9.88	9.43	8.10	7.96	8.42	7.65	7.98	8.73	9.19	9.22	9.88	8.93
16	9.95	9.40	8.15	7.95	8.45	7.71	8.02	8.69	9.19	9.32	9.78	9.11
17	10.03	9.40	8.19	7.95	8.50	7.79	7.99	8.63	9.25	9.38	9.55	9.22
18	10.11	9.44	8.20	7.95	8.55	7.87	8.04	8.63	9.33	9.42	9.86	9.18
19	10.01	9.04	7.69	7.91	8.61	7.90	8.07	8.52	9.33	9.44	9.98	8.98
20	10.02	9.07	7.74	7.71	8.68	7.96	8.11	8.31	9.30	9.56	10.04	8.90
21	10.12	7.66	7.75	7.74	8.67	8.00	8.16	8.36	9.24	9.68	10.10	9.01
22	10.19	7.74	7.78	7.74	8.65	8.00	8.21	8.45	9.15	9.66	10.06	9.10
23	10.17	7.84	7.86	7.83	8.60	8.05	8.24	8.45	9.31	9.70	9.86	9.18
24	10.18	7.93	7.90	7.84	8.67	8.13	8.21	8.44	9.35	9.78	10.00	9.24
25	10.26	8.09	6.61	7.84	8.68	8.14	8.18	8.46	9.45	9.74	10.06	9.30
26	10.13	8.10	6.81	7.93	8.75	8.20	8.24	8.59	9.49	9.68	10.10	9.31
27	10.00	7.67	6.88	8.01	8.75	8.22	8.26	8.66	9.49	9.74	10.10	9.34
28	10.12	7.78	6.98	8.05	8.77	8.24	8.32	8.69	9.39	9.78	10.03	9.42
29	10.18	7.90	7.08	8.06	---	8.24	8.35	8.78	9.39	9.81	9.86	9.48
30	10.19	7.96	7.20	8.09	---	8.24	8.44	8.81	9.49	9.83	9.85	9.61
31	10.23	---	7.27	8.12	---	8.22	---	8.73	---	9.76	9.95	---
MEAN	9.92	9.03	7.61	7.78	8.42	7.63	8.60	8.52	9.12	9.56	9.78	9.34
MAX	10.26	10.30	8.20	8.12	8.77	8.38	8.44	8.81	9.49	9.83	10.10	10.12
MIN	9.48	7.50	6.44	7.27	8.12	6.43	7.37	8.12	8.68	8.99	9.31	8.00

WTR YR 1987 MEAN 8.72 HIGH 6.43 MAR 1 LOW 10.30 NOV 5

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville. State Park.
Owner: Charles J. Haaf.
AQUIFER.--Beekmantown Group of middle Ordovician age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 10 in, depth 184 ft, cased to 63 ft, open hole.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 470 ft. Measuring point: Top of plywood shelf, 2.65 ft above land-surface datum. Prior to Mar. 18, 1981, top of casing, 1.45 ft above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office. Missing record due to instrument conversion.
PERIOD OF RECORD.--January 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.65 ft below land-surface datum, June 27, 1972; lowest, 93.42 ft below land-surface datum, Feb. 6, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61.03	65.58	58.76	52.25	53.18	55.99	55.35	53.83	57.56	62.77	66.07	69.44
2	61.27	65.52	58.64	51.93	53.35	55.03	55.46	53.82	57.95	62.69	66.03	69.67
3	61.34	65.56	58.42	51.91	53.56	54.68	55.63	53.84	58.19	62.49	66.24	69.95
4	61.21	65.92	57.81	51.96	53.75	54.42	55.51	53.89	58.42	62.43	66.45	70.19
5	61.23	66.00	57.61	52.12	53.92	54.33	54.79	53.99	58.58	62.55	66.59	70.44
6	61.68	65.96	57.29	52.19	54.00	54.19	54.25	54.04	58.64	62.85	66.74	70.37
7	61.95	66.01	56.95	52.32	53.89	53.86	53.92	---	58.66	63.05	66.88	70.19
8	62.03	65.89	56.85	52.49	53.73	53.48	53.68	---	58.92	63.42	66.97	69.76
9	62.31	65.34	56.86	52.59	54.03	53.44	53.36	---	59.24	63.64	---	67.42
10	62.43	65.36	56.66	52.50	54.23	53.72	53.26	---	59.47	63.89	66.94	63.47
11	62.42	65.36	56.57	52.17	54.24	53.83	53.10	---	59.65	64.07	67.08	61.77
12	62.39	64.98	56.56	52.33	54.23	53.84	52.91	---	59.87	---	67.24	60.95
13	62.67	64.97	56.44	52.56	54.38	53.84	53.02	---	60.10	64.16	67.35	60.42
14	62.91	64.97	56.40	52.65	54.38	53.75	53.09	---	60.17	64.35	67.47	59.50
15	63.10	64.72	56.41	52.66	54.47	53.58	53.12	---	60.49	64.06	67.47	58.92
16	63.33	64.48	56.59	52.70	54.67	53.65	53.08	---	60.69	64.00	---	58.49
17	63.44	64.63	56.60	52.70	54.92	53.85	53.00	---	60.98	64.10	67.68	58.25
18	63.44	64.66	56.44	52.66	55.06	53.92	52.80	---	61.16	64.05	68.08	57.97
19	63.44	64.62	56.00	52.56	55.32	53.93	52.76	---	61.34	63.92	68.28	57.70
20	63.75	64.27	55.59	52.70	55.44	54.01	52.89	---	61.41	64.15	---	57.36
21	64.05	63.69	55.28	52.79	55.36	53.96	53.03	---	61.46	64.35	---	56.98
22	64.15	62.16	55.06	52.75	55.30	54.01	53.20	---	61.47	64.67	---	56.96
23	64.43	61.19	55.10	52.75	55.48	54.25	53.23	---	61.66	64.88	68.61	56.89
24	64.56	60.57	55.13	52.77	55.71	54.48	53.28	---	61.80	65.08	68.93	56.99
25	64.52	60.49	54.55	52.73	55.94	54.64	53.24	---	61.95	65.20	69.15	57.15
26	64.48	60.38	53.63	52.89	56.17	54.83	53.19	---	62.07	65.08	69.30	57.15
27	64.70	59.74	53.05	52.96	56.25	54.92	53.28	---	61.99	65.18	69.34	57.12
28	65.01	59.33	52.62	53.06	56.18	54.89	53.43	---	62.01	65.41	69.36	57.29
29	65.14	59.00	52.33	53.22	---	54.95	53.51	---	62.31	65.70	69.34	57.35
30	65.46	58.84	52.36	53.21	---	55.03	53.73	---	62.60	65.92	69.04	57.39
31	65.60	---	52.36	53.18	---	55.22	---	---	---	66.04	69.23	---
MEAN	63.10	63.50	55.69	52.49	54.58	54.16	53.50	---	60.21	64.04	67.66	61.53
MAX	65.60	66.01	58.76	53.22	56.25	55.99	55.63	---	62.60	66.04	69.36	70.44
MIN	60.86	58.68	52.18	51.80	53.10	53.18	52.66	---	57.23	62.38	65.96	56.78

WTR YR 1987 MEAN 59.13 HIGH 51.80 JAN 2 LOW 70.44 SEPT 5

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in, depth 98 ft, cased to 59 ft, open hole.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 1,990 ft. Measuring point: Top of plywood shelf, 2.96 ft above land-surface datum. Prior to Mar. 28, 1980, top of plywood cover, 2.57 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction and instrument conversion.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.83 ft below land-surface datum, Apr. 5, 1984; lowest, 16.87 ft below land-surface datum, Oct. 24, 25, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.62	12.24	8.72	8.75	10.74	11.83	8.18	9.16	10.44	12.62	12.45	12.38
2	12.64	12.23	8.72	8.75	10.75	11.54	7.92	9.28	10.56	12.62	12.50	12.23
3	12.64	12.23	8.50	9.18	10.86	11.48	8.02	9.37	10.61	12.46	12.50	12.12
4	12.44	12.32	7.94	9.30	10.91	11.37	7.92	9.27	10.69	12.45	12.51	12.09
5	12.25	12.32	8.12	9.40	10.98	11.26	7.27	8.89	10.82	12.58	12.59	12.08
6	12.23	12.29	8.23	9.45	10.96	11.20	7.29	---	10.91	12.59	12.43	12.05
7	12.21	12.21	8.31	9.56	10.95	11.10	7.31	---	10.99	12.64	12.43	11.99
8	12.21	12.20	8.58	9.64	10.98	10.78	7.53	---	11.06	12.63	12.46	11.89
9	12.19	11.96	8.58	9.75	11.11	10.25	7.70	---	11.18	12.18	---	11.10
10	12.22	11.81	8.38	9.75	11.16	9.88	7.90	---	11.29	12.00	12.50	10.64
11	12.22	11.72	8.18	9.85	11.17	9.73	8.06	---	11.34	11.95	12.51	10.50
12	12.20	11.59	8.37	9.96	11.19	9.63	8.06	---	11.39	---	12.76	10.39
13	12.18	11.49	8.66	10.09	11.25	9.55	8.05	---	11.40	11.96	12.65	10.11
14	12.17	11.44	8.66	10.09	11.30	9.57	8.07	---	11.59	11.95	12.90	8.63
15	12.04	11.40	8.86	10.09	11.37	9.64	8.20	---	11.69	11.77	12.77	8.46
16	12.04	11.32	8.99	9.97	11.39	9.66	8.32	---	11.78	11.69	---	8.44
17	12.05	11.31	9.08	9.88	11.42	9.66	8.36	---	11.90	11.69	12.88	8.44
18	12.07	11.29	9.08	9.87	11.49	9.69	8.12	---	11.99	11.69	12.95	8.19
19	12.07	11.32	9.11	9.76	11.56	9.68	8.10	---	12.09	11.78	12.99	7.70
20	12.07	11.32	9.19	---	11.60	9.55	8.26	---	12.1	11.79	13.05	7.65
21	12.03	11.00	9.30	---	11.60	9.50	8.37	---	12.1	11.79	13.13	7.87
22	12.04	10.45	9.35	---	11.62	9.58	8.62	---	12.1	11.85	13.13	8.07
23	12.05	10.23	9.41	---	11.71	9.51	8.66	---	12.1	11.93	13.23	8.25
24	12.12	10.00	9.48	---	11.75	9.25	8.81	---	12.2	12.03	13.27	8.44
25	12.12	9.73	9.34	---	11.81	9.02	8.81	---	12.3	12.09	13.33	8.59
26	12.12	9.49	8.37	---	11.82	8.89	8.73	---	12.3	12.09	13.37	8.75
27	12.07	8.85	8.13	---	11.83	8.95	8.80	---	12.33	12.04	13.37	8.92
28	12.12	8.47	8.30	---	11.83	9.08	8.87	---	12.40	12.13	13.03	9.03
29	12.12	8.50	8.35	10.61	---	9.15	8.87	---	12.48	12.21	12.87	9.06
30	12.20	8.61	8.58	10.61	---	9.16	9.13	---	12.55	12.27	12.71	9.19
31	12.24	---	8.75	10.72	---	8.99	---	---	---	12.39	12.64	---
MEAN	12.18	11.00	8.60	9.72	11.30	9.80	8.13	---	11.59	12.09	12.78	9.66
MAX	12.64	12.32	9.48	10.72	11.83	11.83	9.13	---	12.55	12.64	13.37	12.38
MIN	12.03	8.38	7.90	8.75	10.73	8.20	7.05	---	10.35	11.67	12.39	7.59

WTR YR 1987 MEAN 10.63 HIGH 7.05 APR 4 LOW 13.37 AUG 26, 27

400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Street, Norristown.
Owner: Norristown State Hospital.
AQUIFER.--Sanstone of Stockton Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in, depth 300 ft, casing information not available.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 165 ft. Measuring point: Top of plywood shelf, 2.35 ft above land-surface datum. Prior to Mar. 17, 1981, top of casing, 0.75 ft above land-surface datum.
REMARKS.--Missing record due to instrument conversion.
PERIOD OF RECORD.--September 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.00 ft below land-surface datum, May 31, 1984; lowest, 60.25 ft below land-surface datum, Nov. 5, 6, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.73	27.91	18.01	15.50	16.64	18.38	19.13	16.23	---	20.06	19.56	21.78
2	26.79	27.89	18.01	15.46	16.71	17.04	19.14	16.30	---	20.02	19.63	21.83
3	26.79	27.89	17.68	15.36	16.77	16.76	19.22	16.36	18.72	19.76	19.68	21.88
4	26.69	27.86	16.79	15.34	16.74	16.78	19.13	16.43	18.74	19.62	19.81	21.90
5	26.66	27.87	16.61	15.32	16.63	16.79	17.50	16.46	18.58	19.62	19.92	21.95
6	26.69	27.64	16.62	15.34	16.52	16.79	16.90	16.48	18.55	19.64	19.86	21.94
7	26.75	27.06	16.60	15.38	16.42	17.31	16.24	16.57	18.60	19.68	19.93	21.85
8	26.85	26.82	16.67	15.51	16.36	17.91	16.02	16.64	18.66	19.81	19.99	21.81
9	26.95	26.39	16.67	15.69	16.57	17.33	15.99	16.70	18.80	19.93	19.97	21.74
10	27.06	26.05	16.39	15.74	16.70	17.22	15.97	16.75	18.92	20.02	19.96	21.79
11	27.11	25.85	16.43	15.91	16.77	17.24	16.02	16.86	19.00	20.09	20.11	21.84
12	27.09	25.02	16.40	16.06	16.80	17.23	16.04	17.07	18.98	20.06	20.22	21.85
13	27.06	24.07	16.56	16.29	16.92	17.34	16.16	17.24	19.03	19.76	20.33	21.85
14	27.03	23.85	16.54	16.34	16.98	17.48	16.24	17.26	19.07	19.56	20.37	21.23
15	27.18	23.60	16.58	16.49	17.12	17.61	16.35	17.17	19.17	19.07	20.36	21.09
16	27.22	23.40	16.72	16.65	17.12	17.73	16.42	17.17	19.31	18.56	20.34	21.11
17	27.29	23.34	16.82	16.73	17.25	17.86	16.45	17.10	19.44	18.50	20.45	21.10
18	27.32	23.36	16.82	16.74	17.49	17.93	16.53	17.31	19.49	18.44	20.62	20.95
19	27.32	23.27	16.35	16.61	17.64	17.99	16.58	17.53	19.53	18.44	21.74	20.09
20	27.32	22.78	16.17	16.15	17.74	18.07	16.70	17.56	19.56	18.50	22.60	20.01
21	27.45	22.14	16.17	15.94	17.83	18.16	16.80	17.58	19.61	18.62	23.08	19.99
22	27.55	20.76	16.23	15.91	17.90	18.32	16.96	17.63	19.38	18.69	23.46	19.95
23	27.59	20.47	16.36	15.91	18.02	18.49	16.98	17.73	19.53	18.76	23.88	19.84
24	27.67	20.37	16.42	16.04	18.20	18.69	17.00	17.84	19.62	18.81	24.24	19.80
25	27.69	20.38	16.14	16.06	18.35	18.81	16.92	17.92	19.64	18.85	24.53	19.92
26	27.66	20.32	14.77	16.18	18.44	18.93	16.27	18.02	19.69	18.83	24.62	19.97
27	27.51	19.22	14.73	16.33	18.49	19.01	16.15	18.14	19.68	18.91	23.53	20.02
28	27.66	18.10	14.86	16.46	18.48	19.12	16.14	---	19.75	19.10	22.86	20.12
29	27.68	17.83	14.96	16.52	---	19.19	16.14	---	19.86	19.25	22.24	20.14
30	27.81	17.92	15.15	16.52	---	19.19	16.21	---	20.00	19.33	22.08	20.19
31	27.91	---	15.50	16.61	---	19.16	---	---	---	19.46	21.94	---
MEAN	27.17	23.43	16.22	15.95	17.20	17.82	16.71	17.06	19.20	19.19	21.28	20.91
MAX	27.91	27.91	18.01	16.74	18.49	19.19	19.22	18.14	20.00	20.09	24.62	21.95
MIN	26.59	17.76	14.65	15.28	16.28	16.68	15.92	16.18	18.46	18.38	19.47	19.72

WTR YR 1987 MEAN 19.34 HIGH 14.65 DEC 27 LOW 27.91 OCT 31, NOV 1

401310075181702. Local number, MG 884

LOCATION.--Lat 40°13'10", long 75°18'17", Hydrologic Unit 02040203, at Upper Gwyned Township, near West Point. Owner: Merck, Sharp, and Dohme, Inc.
AQUIFER.--Shale of Brunswick Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in to 10 in, depth 600 ft, casing information not available.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 351 ft. Measuring point: Top of plywood shelf, 2.55 ft above ladn-surface datum. Prior to May 1, 1981, top of casing, 1.30 ft above land-surface datum.
REMARKS.--Well originally drilled to 300 ft. Water-level data for August 1956 to December 1965 published in U.S. Geological Survey Water-Supply Papers under local number MG-127. Well deepened to 600 ft in December 1965 and assigned local number MG-884. Missing recorded due to recorder malfunction and instrument conversion.
PERIOD OF RECORD.--March 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.03 ft below land-surface datum, Apr. 29, 1987; lowest, 93.17 ft below land-surface datum, Oct. 20, 1966.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.64	47.87	45.43	---	40.93	40.01	39.71	38.58	---	41.43	---	47.34
2	47.74	47.53	45.27	---	40.70	39.68	39.71	38.56	---	41.42	---	47.46
3	47.74	47.55	44.56	---	40.81	39.79	39.79	38.69	39.93	41.38	---	47.57
4	47.35	47.55	44.68	---	41.11	39.87	39.56	38.83	39.92	41.43	---	47.63
5	47.40	47.58	44.84	---	41.27	39.87	39.28	38.82	40.09	41.71	---	47.57
6	47.59	47.59	44.84	---	41.06	39.87	39.20	38.60	40.22	42.33	---	47.51
7	47.66	47.65	44.64	---	40.65	39.60	38.99	38.55	40.23	42.29	45.72	47.45
8	47.53	47.49	44.48	---	40.39	39.22	38.92	38.79	39.97	42.13	45.71	47.45
9	47.41	47.20	44.47	---	40.46	39.16	38.92	38.88	39.95	42.00	---	47.45
10	47.59	47.41	44.16	---	40.46	39.53	39.10	38.77	40.15	42.17	45.98	47.53
11	47.58	47.27	44.21	---	40.46	39.66	39.25	38.80	40.19	42.15	46.08	47.57
12	47.42	47.06	44.19	---	40.34	39.71	39.24	38.91	40.02	---	46.19	47.57
13	47.28	47.10	45.37	---	40.33	39.71	39.40	39.14	40.27	42.13	46.29	47.43
14	47.17	47.10	45.45	---	40.33	39.64	39.47	39.12	40.29	42.07	46.33	47.37
15	47.33	46.77	45.13	---	40.41	39.59	39.29	39.03	40.25	42.26	46.51	47.37
16	47.32	46.41	44.95	---	40.53	39.59	39.12	39.10	40.29	42.43	---	47.25
17	47.39	46.39	44.66	---	40.28	39.50	38.88	39.01	40.48	42.81	46.59	47.09
18	47.50	46.40	44.44	---	40.29	39.45	39.04	39.05	40.53	42.84	46.87	46.98
19	47.49	46.60	44.03	---	40.48	39.36	39.11	39.19	40.60	42.74	46.99	---
20	47.31	46.60	44.06	---	40.53	39.23	39.11	39.23	40.71	42.77	47.29	---
21	47.27	46.05	44.07	---	40.40	39.21	39.10	39.53	40.66	42.78	47.33	---
22	47.32	46.21	44.06	---	40.28	39.41	39.16	39.52	40.63	42.84	47.23	---
23	47.35	46.21	43.83	---	40.18	39.50	39.16	39.36	40.75	42.98	47.34	---
24	47.52	45.88	43.64	---	40.37	39.55	39.29	39.37	40.83	42.98	47.38	---
25	47.57	45.96	43.23	---	40.48	39.57	39.41	39.46	40.82	42.83	47.39	---
26	47.45	45.77	43.31	---	40.52	39.50	39.33	39.53	40.82	---	47.39	46.55
27	47.37	45.49	43.32	---	40.51	39.61	39.17	39.55	41.08	---	47.35	46.60
28	47.63	45.46	43.21	41.13	40.45	39.68	38.84	---	41.47	---	47.33	46.61
29	47.63	45.21	---	41.17	---	39.83	38.57	---	41.53	---	47.56	46.47
30	47.81	45.37	---	41.08	---	39.78	38.58	---	41.42	---	47.59	46.07
31	47.94	---	---	40.86	---	39.51	---	---	---	---	47.49	---
MEAN	47.41	46.55	44.11	---	40.44	39.48	39.08	38.96	40.42	42.23	46.79	47.12
MAX	47.94	47.87	45.45	---	41.27	40.01	39.79	39.55	41.53	42.98	47.59	47.63
MIN	46.93	45.12	42.63	---	39.75	38.85	38.03	38.42	39.81	41.31	45.55	45.91

WTR YR 1987 MEAN 42.96 HIGH 38.03 APR 29 LOW 47.94 OCT 31

403618075203801. Local number, NP 85.

LOCATION.--Lat 40°36'18", long 75°20'38", Hydrologic Unit 02040106, at Bethlehem.
Owner: City of Bethlehem.
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 12 in, depth 344 ft, cased to 73 ft, open hole.
INSTRUMENTATION.--Graphic recorder.
DATUM.--Altitude of land-surface datum is 230 ft. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction.
PERIOD OF RECORD.--July 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.33 ft below land-surface datum, Sept. 24, 1975; lowest, 4.60 ft below land-surface datum, June 29, 30, July 1, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3.55	3.09	---	---	---	2.72	3.04	---	---	3.39	3.51
2	3.49	3.52	3.10	---	---	---	2.92	3.06	---	---	3.44	3.54
3	3.48	3.53	2.58	---	---	---	3.02	2.96	---	---	3.42	3.28
4	3.39	3.53	2.81	---	---	---	3.04	2.78	---	---	3.42	3.26
5	3.42	---	2.93	---	3.00	---	1.69	2.89	---	---	3.45	2.94
6	3.45	---	3.02	---	---	---	1.69	2.96	---	---	3.27	2.00
7	3.48	---	3.07	---	---	---	1.80	3.03	---	---	3.36	2.61
8	3.49	---	3.14	---	---	---	2.00	3.06	---	---	3.43	2.84
9	3.51	---	3.03	---	---	---	2.15	3.10	---	---	3.44	2.85
10	3.51	---	2.94	---	---	---	2.31	3.13	---	---	3.45	2.76
11	3.52	---	3.00	---	---	---	2.43	3.17	---	---	2.69	3.06
12	3.52	---	3.07	---	---	3.14	2.48	3.21	---	---	2.94	2.99
13	3.51	---	3.15	3.19	---	3.15	2.48	3.22	---	---	3.07	3.05
14	3.47	---	---	3.23	---	3.16	2.44	3.22	---	---	3.18	3.19
15	3.47	---	---	3.21	---	3.18	2.56	3.19	---	---	3.25	3.33
16	3.51	---	---	3.24	---	3.20	2.64	3.21	3.36	---	3.30	3.36
17	3.52	---	---	3.28	---	3.22	2.66	3.22	---	---	3.37	3.41
18	3.54	3.38	---	3.30	---	3.22	2.42	3.22	---	---	3.38	---
19	3.54	2.96	---	3.22	---	3.24	2.60	3.22	---	---	3.42	---
20	3.55	3.08	---	3.06	---	3.25	2.70	3.17	---	---	3.44	---
21	3.54	2.40	---	3.13	---	3.25	---	3.24	---	---	3.46	---
22	3.54	2.75	---	3.19	---	3.27	---	---	---	---	3.44	---
23	3.57	2.94	---	3.21	---	3.27	---	---	---	---	3.45	---
24	3.55	2.97	---	---	---	3.28	---	---	---	---	3.49	---
25	3.55	3.07	---	---	---	3.30	---	---	---	---	---	---
26	3.51	3.09	---	---	---	3.31	---	---	---	---	---	---
27	3.48	2.52	---	---	---	3.32	---	---	---	---	3.09	---
28	3.51	2.76	---	---	---	3.29	---	---	---	---	3.31	---
29	3.53	2.91	---	---	---	3.30	---	---	---	---	3.26	---
30	3.53	3.03	---	---	---	3.30	3.00	---	---	---	3.38	---
31	3.55	---	---	---	---	3.27	---	---	---	3.33	3.46	---
MAX	3.57	3.55	3.15	3.30	---	3.32	3.04	3.24	---	---	3.49	3.54

395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia. Owner: U.S. Naval Base.
AQUIFER.--Middle Sand Unit of Potomac-Raritan-Magothy aquifer system of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in, depth 104 ft, cased to 94 ft, screened 94-104 ft.
INSTRUMENTATION.--Digital recorder.
DATUM.--Altitude of land-surface datum is 8.64 ft. Measuring point: Top of casing, 1.80 ft above land-surface datum.
REMARKS.--Mean daily fluctuation caused by tidal loading, 0.20 ft. Missing record due to recorder malfunction.
PERIOD OF RECORD.--January 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.67 ft below land-surface datum, Jan. 22, 1987; lowest, 39.60 ft below land-surface datum, July 20, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.24	15.59	15.32	14.66	14.60	14.63	14.79	14.39	14.60	15.58	15.41	15.74
2	15.24	15.25	15.14	14.08	14.29	14.56	14.78	14.39	14.75	15.55	15.37	15.82
3	15.29	15.28	14.42	14.67	14.54	14.84	14.89	14.53	14.78	15.42	15.24	16.05
4	14.96	15.12	14.90	14.79	14.88	14.97	14.39	14.59	14.75	15.38	15.31	16.11
5	15.00	15.22	15.19	14.73	15.11	14.99	14.36	14.60	14.72	15.49	15.45	16.09
6	15.43	15.16	15.20	14.74	14.99	14.99	14.26	14.34	14.80	15.57	15.64	15.99
7	15.59	15.38	15.10	14.32	14.66	14.82	14.25	14.25	14.85	15.51	15.65	15.82
8	15.52	15.27	14.97	14.60	14.37	14.56	14.34	14.37	14.63	15.45	15.50	15.71
9	15.36	14.97	14.91	14.74	14.80	14.42	14.36	14.44	14.62	15.48	15.47	15.66
10	15.67	15.37	14.68	14.63	14.94	14.84	14.35	14.38	14.91	15.46	15.47	15.79
11	15.66	15.31	14.84	14.24	14.89	14.90	14.39	14.50	14.99	15.50	15.55	15.83
12	15.42	15.15	14.58	14.51	14.73	14.74	14.51	14.55	14.78	15.50	15.61	15.82
13	15.18	15.38	15.17	14.84	14.85	14.60	14.84	14.85	14.74	15.44	15.65	15.50
14	14.93	15.51	15.14	14.84	14.89	14.65	14.85	14.78	14.75	15.35	15.64	15.25
15	15.23	15.25	14.82	14.67	15.00	14.71	14.60	14.54	14.74	15.47	15.60	15.31
16	15.24	14.96	14.88	14.91	15.02	14.73	14.40	14.69	14.85	15.57	15.49	15.28
17	15.27	14.94	14.84	15.01	14.82	14.74	14.30	14.54	15.01	15.69	15.40	15.23
18	15.41	14.99	14.63	14.89	14.84	14.75	14.50	14.51	15.13	15.61	15.49	---
19	15.34	15.33	14.74	14.40	15.06	14.66	14.54	14.68	15.01	15.47	15.59	---
20	15.15	15.33	14.82	14.53	15.10	14.59	14.56	14.68	14.84	15.50	15.79	---
21	15.00	14.99	14.92	14.39	14.99	14.59	14.51	14.61	14.85	15.45	15.92	---
22	15.00	15.30	14.93	14.39	14.89	14.73	14.60	14.60	14.88	15.50	15.79	---
23	14.99	15.31	14.83	14.34	14.73	14.77	14.63	14.57	14.98	15.46	15.96	---
24	15.10	15.08	14.80	14.85	14.99	14.83	14.39	14.59	15.10	15.50	16.08	15.54
25	15.13	15.21	14.41	14.96	15.12	14.83	14.61	14.72	15.09	15.51	16.10	15.79
26	14.98	15.17	14.72	14.61	15.20	14.84	14.55	14.73	15.12	15.44	16.07	15.89
27	14.76	15.00	14.78	14.74	15.15	14.88	14.50	14.74	15.09	15.47	15.94	16.09
28	14.99	15.10	14.75	14.62	15.01	14.85	14.26	14.62	15.40	15.46	15.84	16.11
29	15.14	14.95	14.76	14.76	---	14.98	14.11	14.55	15.47	15.56	15.83	16.07
30	15.27	15.17	14.44	14.55	---	14.77	14.35	14.57	15.54	15.51	16.00	15.72
31	15.60	---	14.74	14.40	---	14.56	---	14.58	---	15.42	15.91	---
MEAN	15.12	15.05	14.70	14.46	14.74	14.62	14.39	14.47	14.83	15.42	15.58	15.67
MAX	15.67	15.59	15.32	15.01	15.20	14.99	14.89	14.85	15.54	15.69	16.10	16.11
MIN	14.71	14.47	14.07	13.37	14.08	13.92	13.69	14.16	14.50	15.13	15.16	15.11

WTR YR 1987 MEAN 14.92 HIGH 13.37 JAN 22 LOW 16.11 SEPT 4, 28

410940074583401. Local number, PI 200.

LOCATION.--Lat 41°09'40", long 74°58'34", Hydrologic Unit 02040104, at Pocono Mountain Lake Estates.
Owner: Pocono Mountain Lake Estates.
AQUIFER.--Sandstone and siltstone of Towamensing Member of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 799 ft, cased to 86 ft, open hole.
INSTRUMENTATION.--Digital recorder.
DATUM.--Altitude of land-surface datum is 1,180 ft. Measuring point: Top of plywood shelf, 1.40 ft above land-surface datum.
REMARKS.--Missing record due to recorder malfunction.
PERIOD OF RECORD.--July 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft below land-surface datum, Apr. 18, 1983; lowest, 64.57 ft below land-surface datum, June 28, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.04	46.94	31.04	32.58	---	38.87	36.37	35.46	---	51.10	49.68	49.38
2	46.92	47.49	31.11	33.06	---	37.15	33.29	36.23	---	48.66	50.50	48.58
3	46.87	47.68	31.06	33.89	---	34.70	31.81	37.74	---	46.74	50.50	48.02
4	46.74	47.68	29.29	34.91	---	33.31	31.27	37.87	---	46.57	49.63	48.22
5	47.25	47.43	28.33	35.33	---	32.56	28.72	37.14	---	47.38	48.36	48.46
6	47.48	47.19	28.86	35.37	36.41	32.25	26.82	35.29	---	47.43	47.38	48.46
7	47.39	46.88	29.67	35.30	36.71	31.97	25.92	33.97	---	46.85	46.62	48.46
8	46.99	46.56	30.01	35.48	---	31.22	25.44	33.49	---	45.57	47.68	48.46
9	46.58	46.07	30.98	35.70	---	29.99	25.86	33.70	---	44.69	48.80	48.46
10	46.54	45.71	31.05	36.15	---	28.98	26.66	34.61	---	44.41	48.93	42.87
11	46.93	45.47	30.95	36.69	---	28.54	27.86	35.57	---	45.40	48.95	40.11
12	47.94	44.62	30.79	36.88	---	28.74	29.11	35.58	---	46.48	49.01	38.79
13	48.32	43.25	31.40	36.89	---	29.07	29.85	35.96	---	46.49	49.08	38.51
14	48.33	41.80	32.37	36.81	---	30.05	30.07	36.35	---	45.97	49.47	34.41
15	47.79	40.63	32.91	36.52	---	31.10	30.69	36.86	---	43.76	50.57	33.07
16	47.30	39.29	33.03	36.13	---	31.70	31.56	37.19	---	40.32	52.22	31.94
17	46.88	39.23	33.10	35.21	---	32.09	32.30	38.15	---	39.43	52.84	31.01
18	47.00	38.64	33.15	35.04	38.35	32.45	33.45	38.92	---	40.17	52.84	31.19
19	47.59	37.69	33.02	35.11	38.25	32.71	34.88	38.92	---	41.59	52.44	31.34
20	47.67	37.23	32.03	35.10	38.25	33.05	35.52	38.39	---	41.84	51.93	30.13
21	47.71	36.60	31.67	35.05	38.65	33.73	35.85	37.73	---	41.73	51.32	30.16
22	47.43	32.74	32.01	34.52	39.28	34.66	36.25	37.27	---	42.09	51.18	30.95
23	47.13	31.39	32.18	34.14	39.33	35.13	36.38	37.59	---	42.59	52.05	31.88
24	46.95	31.31	32.36	34.63	39.27	35.26	36.45	37.59	---	43.16	52.14	32.90
25	47.40	30.84	32.37	35.08	38.95	35.28	36.45	35.06	57.23	44.07	52.01	33.96
26	47.54	30.08	30.69	35.09	38.74	35.41	37.08	33.99	61.61	48.05	51.55	35.52
27	47.54	29.12	30.13	35.09	38.63	35.60	37.57	34.24	64.16	52.47	51.13	38.96
28	47.25	27.72	30.92	35.00	38.76	35.93	37.54	34.05	64.57	52.44	50.31	39.59
29	47.01	28.82	31.19	34.90	---	36.62	36.77	33.24	61.79	52.39	49.57	39.64
30	46.85	30.36	31.46	34.88	---	37.73	35.81	34.49	55.15	51.27	49.58	39.46
31	46.78	---	31.97	35.08	---	37.88	---	35.58	---	49.96	49.67	---
MEAN	47.08	39.12	31.05	35.04	---	33.02	32.00	35.68	---	45.22	49.92	38.57
MAX	48.33	47.68	33.15	36.89	39.33	38.87	37.57	38.92	---	52.47	52.84	49.38
MIN	46.37	27.52	28.25	32.02	---	28.43	25.30	30.45	---	39.24	46.37	29.39

WTR YR 1987 MEAN 38.67 HIGH 25.30 APR 8 LOW 64.57 JUN 28

SCHUYLKILL COUNTY

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Mauch Chunk Formation of Early Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in, depth 242 ft, cased to 40 ft, open hole.
open hole.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 1,290 ft. Measuring point: Top of plywood shelf, 2.78 ft above land-surface datum. Prior to June 26, 1980, top of casing, 2.30 ft above land-surface datum.
REMARKS.--Missing record due to instrument conversion.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.99 ft below land-surface datum, Sept. 15, 1987; lowest, 55.86 ft below land-surface datum, Nov. 14, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49.22	49.38	39.19	37.65	44.38	44.96	41.11	41.82	44.93	46.28	48.57	48.74
2	49.40	49.39	39.19	38.11	44.45	39.71	41.24	42.08	44.99	46.30	48.72	48.74
3	49.43	49.42	39.02	39.24	44.51	39.43	41.22	42.17	45.00	46.15	48.76	48.98
4	49.20	49.53	36.88	39.95	44.52	39.40	40.79	42.05	45.10	46.17	48.79	49.24
5	48.96	49.61	36.85	40.51	44.34	38.92	35.62	42.25	45.24	46.38	48.89	49.46
6	47.88	49.49	36.95	40.94	44.34	38.31	34.93	42.47	45.46	46.55	48.88	49.52
7	48.08	48.73	36.89	41.43	44.34	37.21	33.62	---	45.42	46.66	48.85	49.45
8	48.18	48.76	37.15	41.86	44.32	35.26	32.96	---	45.44	46.67	48.88	48.68
9	48.34	47.63	37.16	42.33	44.46	34.71	33.21	---	45.58	46.35	---	41.29
10	48.54	46.62	37.19	42.79	44.57	35.09	33.81	---	45.64	46.46	48.95	42.42
11	48.65	46.74	37.47	43.07	44.67	35.55	34.59	---	45.63	46.57	48.52	43.10
12	48.68	46.31	37.89	43.43	44.69	36.08	35.19	---	45.67	---	48.80	43.21
13	48.81	46.11	38.47	43.78	44.79	36.79	35.84	---	45.85	46.67	48.90	40.89
14	48.83	46.04	38.73	43.95	44.85	37.42	36.58	---	45.94	46.65	48.93	30.41
15	48.44	46.13	39.12	43.99	44.85	38.19	37.25	---	45.98	45.57	48.99	29.61
16	48.47	46.25	39.48	43.34	44.77	38.83	37.77	---	45.99	45.55	49.10	30.35
17	48.59	46.35	39.79	43.09	44.77	39.46	38.20	---	46.18	47.14	49.28	30.35
18	48.74	46.46	39.85	43.36	44.89	40.05	38.65	---	46.30	47.27	49.32	32.51
19	48.76	46.42	38.23	43.38	44.90	40.55	39.04	---	46.38	47.49	49.32	32.93
20	48.86	45.69	38.38	43.63	44.89	41.03	39.44	---	46.44	47.74	49.35	33.55
21	48.94	49.00	38.57	43.62	44.96	41.45	39.86	---	46.47	47.81	49.44	34.51
22	48.96	44.43	38.87	43.60	44.99	41.98	40.23	---	46.47	47.92	49.51	35.12
23	49.11	41.24	38.89	43.49	44.94	42.30	40.75	---	44.89	48.00	49.58	35.84
24	49.18	41.31	38.95	43.55	44.79	42.72	40.88	---	45.30	48.01	49.58	36.37
25	49.25	41.32	38.69	43.58	44.85	42.97	40.72	---	45.55	48.17	49.67	36.37
26	49.26	41.28	35.83	43.59	44.84	43.26	41.04	---	45.71	48.22	49.71	36.37
27	49.13	40.10	36.36	43.68	44.81	43.45	41.26	---	45.86	48.21	49.70	36.37
28	49.07	39.46	36.47	43.78	44.96	43.67	41.63	---	45.98	48.15	49.18	39.05
29	49.08	39.13	36.56	43.96	---	43.78	41.69	---	46.04	48.28	48.34	39.65
30	49.24	39.10	36.70	44.03	---	44.00	41.75	---	46.13	48.40	48.72	40.02
31	49.29	---	37.16	44.21	---	44.00	---	---	---	48.46	48.96	---
MEAN	48.76	45.08	37.74	42.44	44.64	39.71	38.07	---	45.63	46.99	49.96	39.10
MAX	49.43	49.61	39.85	44.21	44.99	44.96	41.75	---	46.47	48.46	49.71	49.52
MIN	47.73	39.02	35.77	37.16	44.21	34.64	32.81	---	44.42	45.20	48.14	28.99

WTR YR 1987 MEAN 43.38 HIGH 28.99 SEPT 15 LOW 49.71 AUG 26

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Glacial Outwash of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in, depth 52 ft, cased to 52 ft, open end.
INSTRUMENTATION.--Digital recorder and data collection platform.
DATUM.--Altitude of land-surface datum is 1,350 ft. Measuring point: Top of plywood shelf, 2.63 ft above land-surface datum. Prior to Apr. 30, 1980, top of plywood cover, 2.57 ft above land-surface datum.
REMARKS.--Missing record due to instrument conversion.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.88 ft below land-surface datum, Nov. 17, 1972; lowest, 32.77 ft below land-surface datum, Oct. 24, 25, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.47	30.84	27.71	27.39	28.54	29.08	26.00	26.19	28.41	30.13	30.12	30.36
2	31.46	30.78	27.67	27.33	28.64	28.88	25.85	26.32	28.47	30.14	30.12	30.29
3	31.39	30.77	27.35	27.56	28.74	28.85	25.90	26.44	28.53	30.09	30.08	30.26
4	31.26	30.76	27.34	27.62	28.74	28.69	25.77	26.46	28.59	30.15	30.08	30.23
5	31.17	30.75	27.43	27.71	28.75	28.52	25.13	---	28.65	30.19	30.11	30.21
6	31.13	30.69	27.42	27.74	28.69	28.39	24.90	---	28.73	30.23	30.15	30.20
7	31.13	30.65	27.35	27.79	28.61	28.20	24.73	---	28.76	30.23	30.15	30.16
8	31.12	30.57	27.43	27.86	28.58	28.02	24.89	---	28.80	30.22	30.20	30.10
9	31.11	30.32	27.42	27.96	28.66	27.79	24.99	---	28.86	30.19	30.15	29.65
10	31.13	30.23	27.43	27.95	28.69	27.79	25.07	---	28.94	30.23	30.18	29.51
11	31.14	29.91	27.43	27.93	28.69	27.59	25.23	---	28.98	30.26	30.20	29.25
12	31.14	29.72	27.29	27.98	28.67	27.37	25.27	---	29.04	30.29	30.26	29.06
13	31.14	29.61	27.49	28.05	28.72	27.27	25.27	---	29.09	30.31	30.29	28.84
14	31.14	29.59	27.47	28.04	28.75	27.23	25.13	---	29.12	30.33	30.33	28.22
15	31.08	29.36	27.51	28.09	28.81	27.26	24.74	---	29.20	30.21	30.44	27.86
16	31.06	29.29	27.57	28.13	28.81	27.26	24.69	---	29.28	30.13	30.41	27.71
17	31.06	29.29	27.63	28.09	28.80	27.27	24.81	---	29.34	30.11	30.44	27.59
18	31.07	29.22	27.61	28.01	28.85	27.29	24.98	---	29.38	30.11	30.46	27.50
19	31.07	29.14	27.73	27.93	28.89	27.28	25.10	---	29.44	30.15	30.50	27.22
20	31.06	29.04	27.80	27.97	28.92	27.26	25.21	---	29.52	30.17	30.54	26.66
21	31.05	28.43	27.88	27.97	28.92	27.25	25.26	---	29.58	30.17	30.57	26.43
22	31.05	28.44	27.91	27.95	28.92	27.28	25.47	---	29.62	30.17	30.59	26.37
23	31.05	28.33	27.93	27.94	28.96	27.26	25.54	---	29.68	30.21	30.63	26.34
24	31.04	28.03	27.94	28.04	29.02	27.08	25.73	---	29.72	30.26	30.66	26.46
25	31.04	28.04	27.84	28.09	29.07	26.80	25.85	---	29.78	30.32	30.70	26.62
26	31.03	27.92	27.82	28.14	29.11	26.40	25.92	---	29.82	30.25	30.72	26.79
27	30.95	27.59	27.59	28.16	29.13	26.23	25.94	---	29.88	30.14	30.72	26.93
28	30.91	27.51	27.40	28.22	29.13	26.07	25.96	---	29.94	30.10	30.67	27.05
29	30.89	27.42	27.34	28.25	---	26.11	25.96	---	30.00	30.11	30.55	27.10
30	30.88	27.67	27.28	28.25	---	26.00	26.13	---	30.08	-30.11	30.49	27.18
31	30.87	---	27.39	28.49	---	26.00	---	---	---	30.09	30.46	---
MEAN	31.09	29.25	27.50	27.90	28.79	27.34	25.30	---	29.21	30.17	30.37	28.19
MAX	31.47	30.84	27.94	28.49	29.13	29.08	26.13	---	30.08	30.33	30.72	30.36
MIN	30.83	27.29	27.17	27.18	28.50	25.69	24.63	---	28.37	30.08	30.08	26.27

WTR YR 1987 MEAN 28.65 HIGH 24.63 APR 7 LOW 31.47 OCT 1

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CALENDAR FOR WATER YEAR 1987

1986

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
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NOVEMBER

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30						

DECEMBER

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28	29	30	31			

1987

JANUARY

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FEBRUARY

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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
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MAY

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JUNE

S	M	T	W	T	F	S
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JULY

S	M	T	W	T	F	S
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AUGUST

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SEPTEMBER

S	M	T	W	T	F	S
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