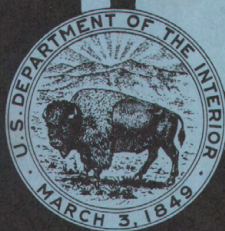
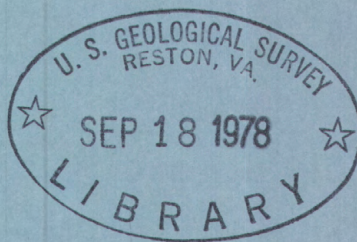


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Water Resources Data for Pennsylvania Water Year 1977

Volume 2. Susquehanna and Potomac River Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-77-2

Prepared in cooperation with the Pennsylvania Department
of Environmental Resources and with other State,
municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1977

1976

OCTOBER

S	M	T	W	T	F	S
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Water Resources Data for Pennsylvania Water Year 1977

Volume 2. Susquehanna and Potomac River Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-77-2

**Prepared in cooperation with the Pennsylvania Department
of Environmental Resources and with other State,
municipal, and Federal agencies**

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. W. Menard, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108

1978

PREFACE

This report was prepared by personnel of the Pennsylvania district of the Water Resources Division of the U.S. Geological Survey under the supervision of N. H. Beamer, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the State of Pennsylvania and with other agencies.

This report is one of a series issued State by State. General direction for the series is by J. S. Gragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Pennsylvania are in three volumes as follows:

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

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7. Author(s)			6.
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16. Abstracts Water resources data for the 1977 water year for Pennsylvania consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 96 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 36 gaging stations, 8 partial-record stations and water levels for 32 observation wells. Also included are 24 crest-stage partial-record stations and 48 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Pennsylvania.			
17. Key Words and Document Analysis. 17a. Descriptors *Pennsylvania, *Hydrologic Data, *Surface Water, *Ground Water, *Water Quality, Flow Rate, Gaging stations, Lakes, Reservoirs, Chemical Analyses, Sediments, Water Temperatures, Sampling Sites, Water Levels, Water Analyses.			
17b. Identifiers/Open-Ended Terms			
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WATER RESOURCES DATA FOR PENNSYLVANIA, 1977

INTRODUCTION

Water resources data for the 1977 water year for Pennsylvania consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 96 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 36 gaging stations, 8 partial-record stations, and water levels for 32 observation wells. Also included are 24 crest-stage partial-record stations and 48 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Pennsylvania.

Since 1962, the Pennsylvania Department of Environmental Resources (DER) has collected and analyzed water-quality samples throughout the state as part of the Pennsylvania Water-Quality Network^{1/}. Since the 1976 water year, these water-quality data were included in the "Water Resources Data for Pennsylvania" to provide users with a more comprehensive collection of water-resources data for the state.

This report contains records of DER samples for 32 gaging stations, 23 water-quality stations, and 43 partial-record stations. All DER analyses are distinguished from USGS analyses by the value 9813 under the column heading "Code for Agency Collecting Sample".

At this time records of Pennsylvania Water-Quality Network samples collected prior to October 1975 are available only through the DER. Historical data provided by the DER will be published in the future as a separate data report. All requests and questions concerning the data should be directed to the Pennsylvania Department of Environmental Resources, Bureau of Water-Quality Management, 14th Floor, Fulton Building, P.O. Box 2063, Harrisburg, Pennsylvania 17120.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended-sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels of the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry 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 report is identified as "U.S. Geological Survey Water-Data Report PA-77-2." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

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 acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources, M. K. Goddard, secretary, through the following: Office of Resources Management, C. H. McConnell, deputy secretary; State Soil and Water Conservation Commission, W. N. Peechatka, director; Office of Environmental Protection and Regulation, W.B. Middendorf, deputy secretary; Bureau of Topographic and Geologic Survey, A. A. Socolow, director.

State Department of Transportation, J. B. Wilson, secretary, through the Bureau of Materials Testing and Research, L. D. Sandvig, director.

Susquehanna River Basin Commission, R. J. Bielo, executive director.

City of Harrisburg, H. A. Swenson, mayor.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 39 gaging stations. State Department of Environmental Resources, Bureau of Water-Quality Management, in providing records for 98 water quality stations, the National Weather Service, NOAA, U.S. Department of Commerce.

The following organizations aided in collecting records:

Municipality of Lancaster; P.H. Glatfelter Co., Pennsylvania Power and Light Co.; Safe Harbor Water Power Corp.; and York Water Co.

^{1/} Commonwealth of Pennsylvania, Department of Environmental Resources, 1975, Pennsylvania Water-Quality Network - Sampling Station Descriptions: Publication No. 33, 62 p.

HYDROLOGIC CONDITIONS

Runoff for the 1977 water year was above average. At the index station used for the Susquehanna River basin, Susquehanna River at Harrisburg, Pa. (01570500) streamflow was 116 percent of the 1931-70 median. Yearly mean streamflow has been above average since 1970.

Excessive runoff occurred October, March, July, and September with streamflow for March the eighth highest of record, and was 151 percent of the average for the period 1891-1977. This resulted in some lowland flooding, flooded basements, and other property damage at various sites in the Juniata River and Susquehanna River basins. It was otherwise normal in the basin except for some deficiencies during January and February, due to low temperatures, and May and June, when low precipitation occurred.

Figure 1 on page 3, for which records for the Susquehanna River at Harrisburg were used, shows a comparison of the monthly and yearly mean discharge for the 1977 water year with the median discharge for the standard reference period 1931-70.

Ground-water levels of the 1977 water year were generally above their monthly means during the first three months of the year. There followed three two-month cycles - a below mean, an above, and another below. The remaining three months seemed to be a period of recovery with a nearly equal number of wells below mean as above.

Ground-water levels during October of 1976 through February of 1977 were below those of the previous year. Recovery occurred during March and April followed by a decline the rest of the year.

Comparison of 1977 water levels in network observation wells with a) 1976 water levels and b) monthly mean water levels for period of record is shown in figure 2.

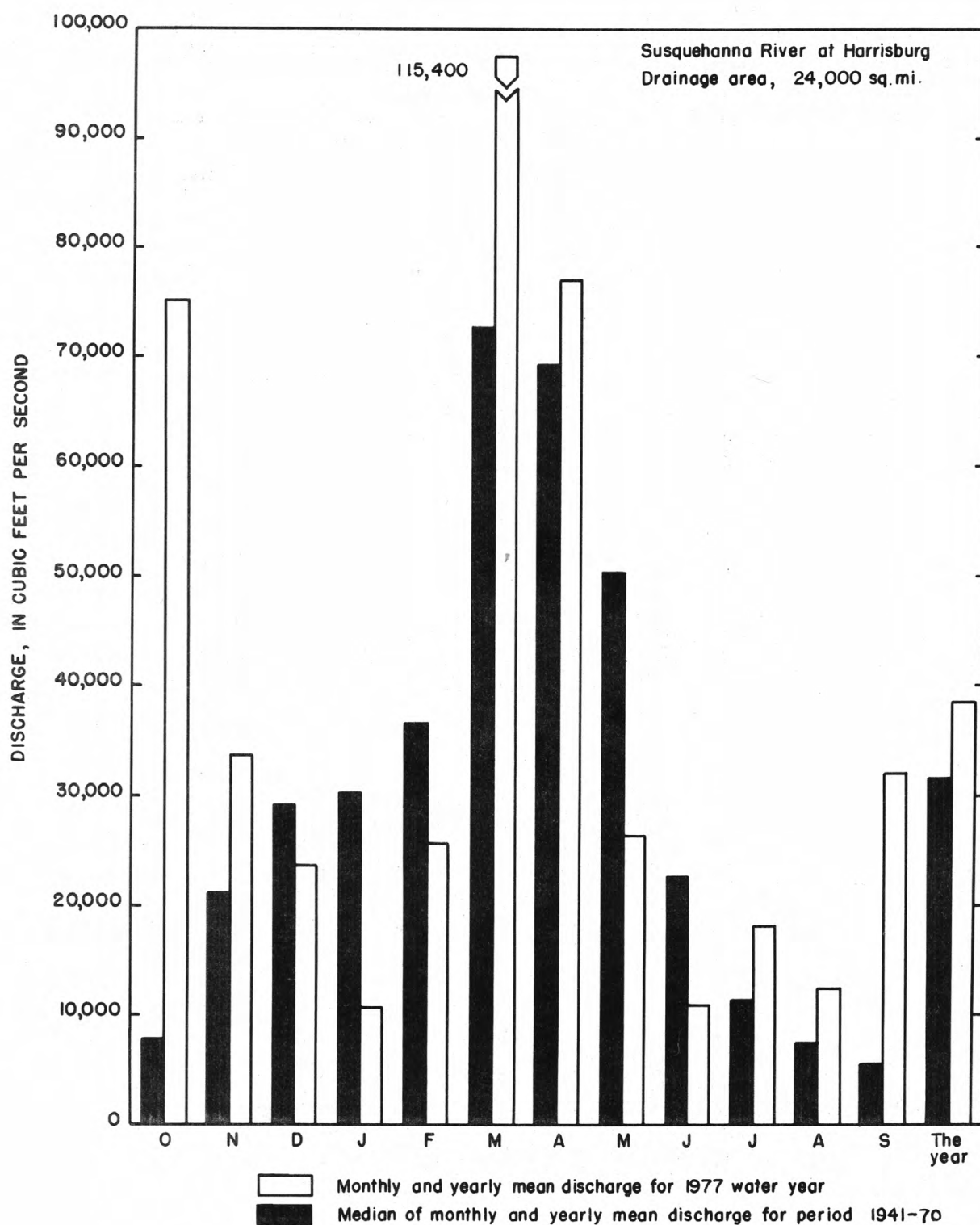


Figure 1.--Comparison of discharge at Susquehanna River at Harrisburg during the 1977 water year with median discharge for period 1941-70.

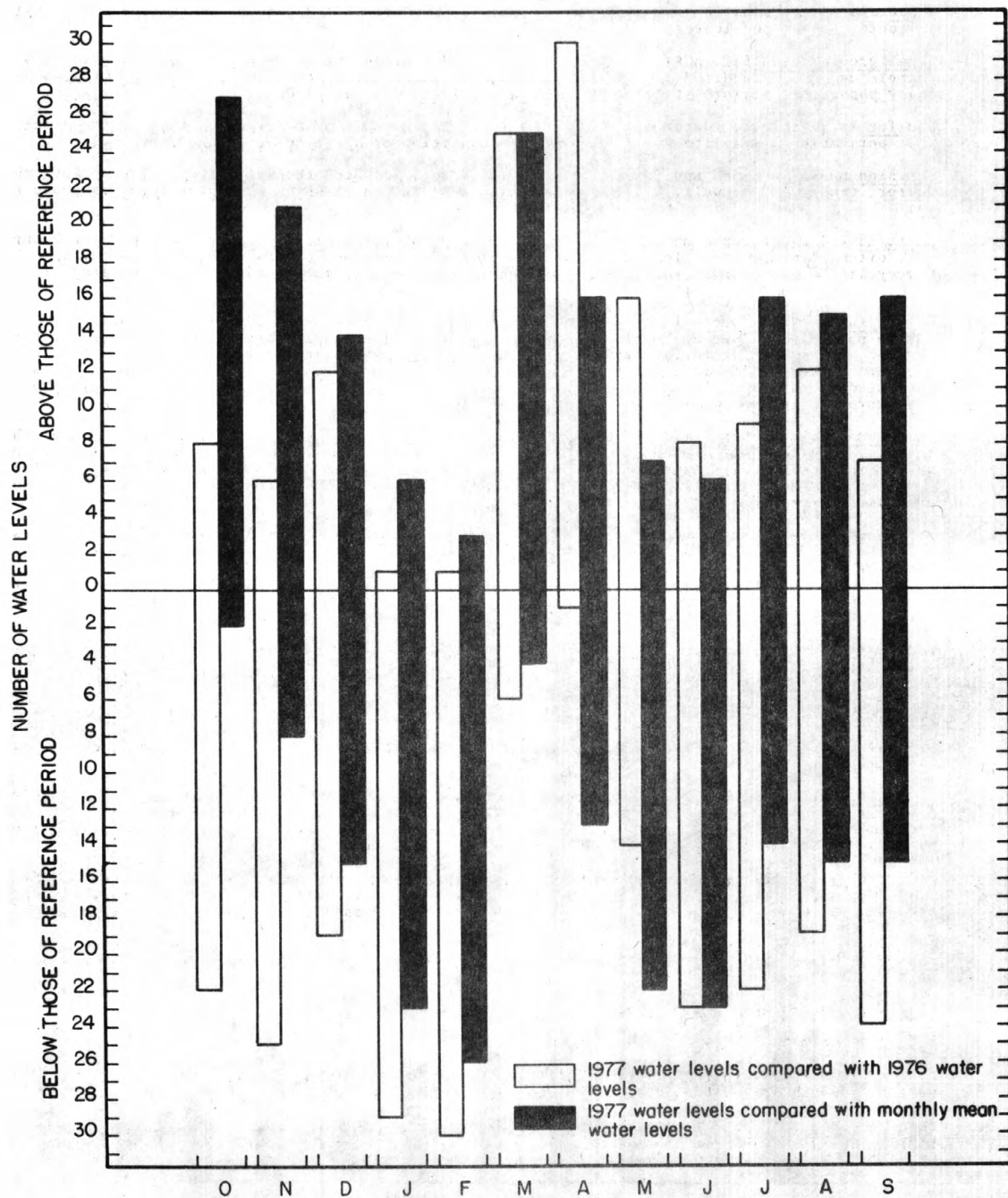


FIGURE 2.--Comparison of 1977 water levels in network observation wells with
a) 1976 water levels and
b) monthly mean water levels for period of record.

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 English units to International System of units (SI) 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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 which produce colonies 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 which 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 M-enterococcus 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 60°C for zooplankton and 105°C for 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 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.

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

Cubic foot per second (FT³/S, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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 the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

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

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

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

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river 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 attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO₃).

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.

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 detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, 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.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. 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.

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

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (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	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 - 64.0	Sieve.

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

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

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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

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

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

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

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of 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/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.

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.

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

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 weight or volume, that passes a section during a given time.

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

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). 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 lived.

Natural substrates refers to any naturally occurring emerged 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 U.S.G.S. 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 the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

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

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

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

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

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

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

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.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

DOWNSTREAM ORDER AND STATION NUMBER

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 indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-tigit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is 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 below.

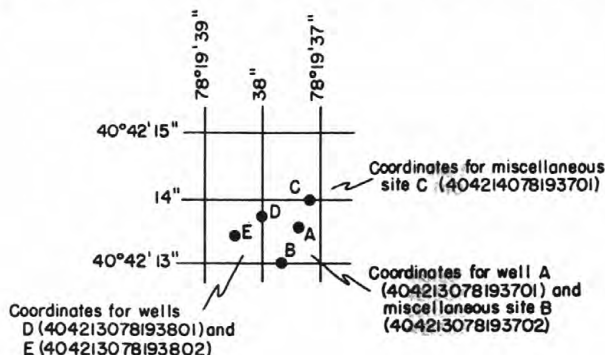


Figure --System for numbering wells and miscellaneous sites (latitude and longitude).

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.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

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. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

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 to tritium in the Nation's surface waters. In addition to the surface-water station 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 STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

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

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.

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

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

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

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD".

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS". For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS".

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES", for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the 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 may be 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 omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE". Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

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 discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage 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. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair", within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

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

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

Other data 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.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

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.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

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

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

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment 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 loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure .

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

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. The altitude of the land-surface datum above mean sea level is given in the well description. Mean sea level is the datum plane on which the national network of precise levels is based. 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 every fifth day and the end of each month (eom).

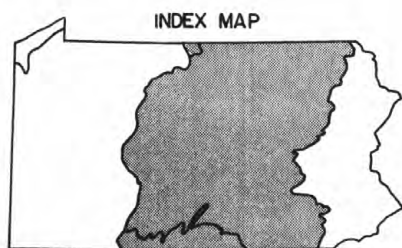
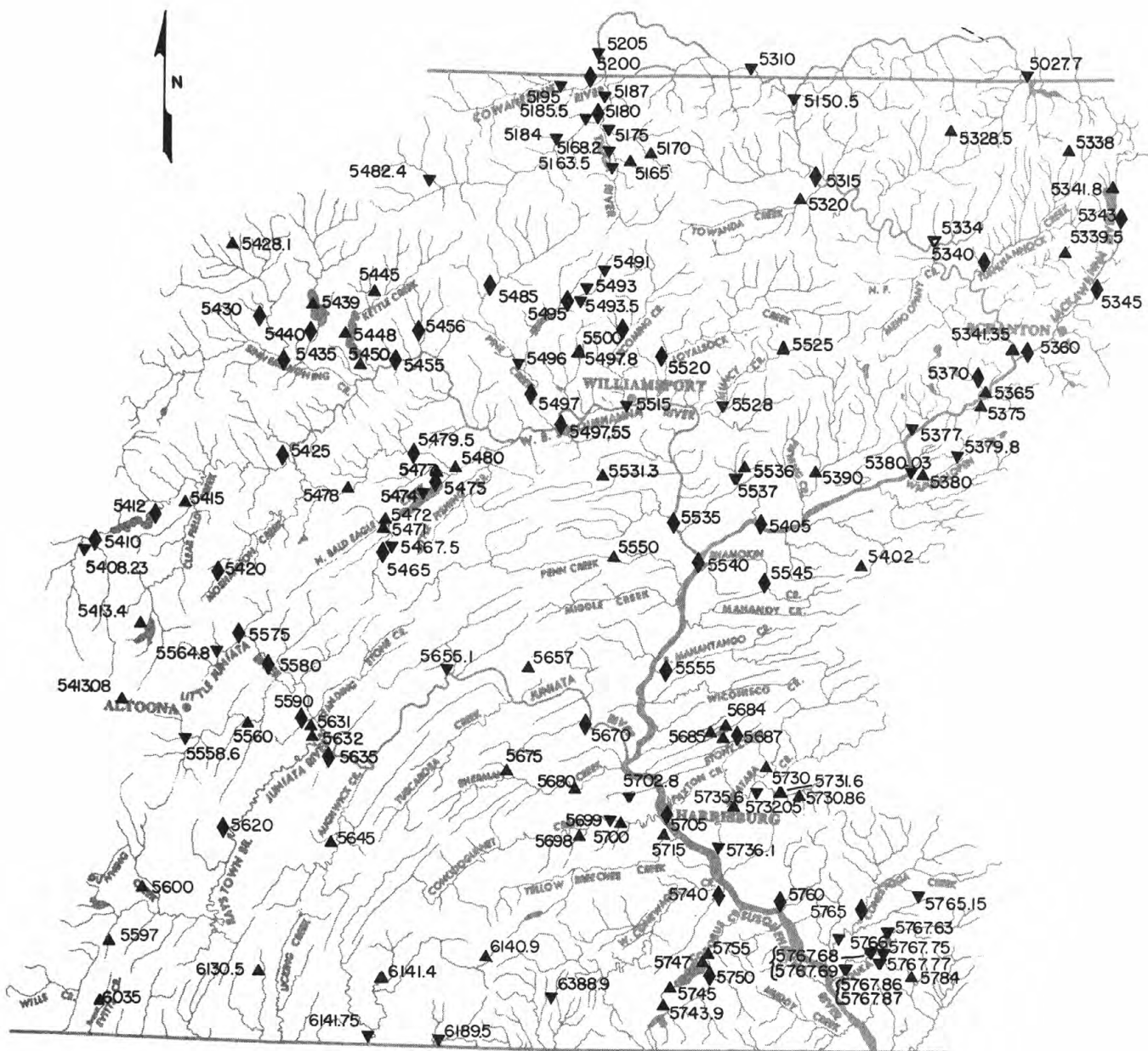
PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing 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) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

- 1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H.H. Stevens Jr., J. F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1, 1976. 65 pages. \$1.60
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. \$0.85.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. \$1.90
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. \$1.75.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. \$1.00.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. \$0.20.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. \$0.40.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. \$0.35.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. \$0.30.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages. \$0.20
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$0.45.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. \$1.25.
- 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. \$0.40.
- 3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. \$0.35. Not currently available.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. \$0.70.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. \$2.50.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. \$0.65.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. \$2.50.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3, 1972, 66 pages. \$1.15.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. \$0.30.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.20.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4. Chapter B1, 1972. 18 pages. \$0.65.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. \$0.75.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. \$0.65.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4. Chapter D1. 1970. 17 pages. \$0.65.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. \$2.40.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. E. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. \$0.80.
- 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. \$0.90.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. \$2.85.
- 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. \$16.00.
- 5-C1. *Laboratory Theory and Methods for Sediment Analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1, 1969. 58 pages. \$0.65.
- 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. \$2.30.
- 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. \$0.70.
- 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. \$0.40.

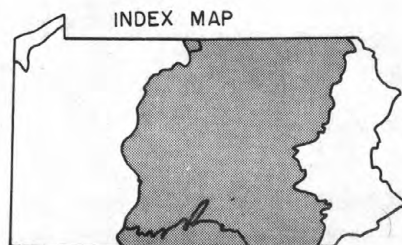
* Looseleaf format. Available only by subscription. Additional supplements will be issued to subscribers at no extra cost.



EXPLANATION

- ▲ Surface water station and number
- ▼ Water quality station and number
- ◆ Surface water and water quality station and number

FIGURE 4- Locations of data collection stations



EXPLANATION

- ▲ Surface water station and number
- ▼ Water quality station and number
- ◆ Surface water and water quality station and number

FIGURE 5—Locations of partial-record data collection stations

01502770 SUSQUEHANNA RIVER NEAR GREAT BEND, PA

LOCATION.--Lat 41°57'48", long 75°44'33", Susquehanna County, Hydrologic Unit 02050101, State Highway 11 bridge north of Hallstead, 0.5 mi (0.8 km) south of Great Bend, and 6.2 mi (10.0 km) upstream from gaging station at Conklin, N.Y.

DRAINAGE AREA.--2,086 mi² (5,400 km²).

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

COOPERATION.--Seven water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM (7UM-MF) (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	
OCT 13...	1145	7580	115	7.2	9.5	11	10.0	<10	1930	1840	
DATE	TIME	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	SUSPENDED SOLIDS (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT 13...	44	0	36	4.4	10	3.4	80	53	.46	.01	
DATE	TIME	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	
OCT 13...		.47	.04	.26	.30	.77	.09	.02	1200	6.1	
DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 28...	1030	9813	130	6.2	4.0	5	--	50	--	0	15
NOV 22...	1515	9813	120	7.1	8.0	2	10.0	40	--	0	7.5
DEC 28...	1045	9813	170	--	--	3	--	68	0	0	26
FEB 24...	1515	9813	160	6.8	--	15	--	35	0	8	7.1
MAR 31...	1100	9813	90	6.8	10.0	50	11.7	25	--	0	8.7
AUG 31...	1125	9813	175	8.2	22.0	4	8.8	58	--	0	19
SEP 21...	1115	9813	80	6.1	15.5	95	9.0	25	--	0	12
DATE	TIME	DISSOLVED MAGNESIUM (MG)	ALKALINITY AS CAC03 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 28...		3.0	34	10	8.0	--	.52	<.00	.03	.04	360
NOV 22...		2.5	26	18	11	--	.36	.02	.99	2.0	90
DEC 28...		.5	66	14	7.0	94	1.2	.04	.09	.02	250
FEB 24...		4.5	18	26	15	--	.68	.04	.77	.11	1140
MAR 31...		.8	34	5.0	6.0	68	.93	.03	.09	.12	3900
AUG 31...		2.5	62	8.0	8.0	124	.76	.02	.07	.05	300
SEP 21...		--	28	10	5.0	66	.88	.02	.09	.24	8100
DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	
AUG 31...	1125	9813	180	<10	30	10	<50	60	<10	20	

LOCATION.--Lat 41°58'52", long 76°30'26", Bedford County, Hydrologic Unit 02050103, at bridge on East Lockhart Street in Sayre, 0.4 mi (2.0 km) downstream from gaging station.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM (7UM-MF) (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	BICARBONATE (HC03) (MG/L)
OCT 13...	1545	20800	145	7.2	10.5	18	10.6	15	3000	1940	51
NOV 17...	1530	5600	220	7.7	7.5	2	13.0	12	140	120	83
MAR 15...	1300	67600	110	6.5	5.0	88	--	36	670	21000	22
APR 26...	1315	31800	110	7.2	10.5	30	10.2	<10	420	82400	38
MAY 18...	1145	5840	180	7.7	19.0	2	10.4	9	813	0	65
JUN 14...	1245	2120	250	8.3	18.5	--	9.2	--	826	1600	--
JUL 27...	1545	1280	280	8.9	24.0	2	8.8	25	21	380	96
AUG 24...	1015	2390	195	7.9	21.0	8	8.0	15	48	1600	60
SEP 22...	0745	43800	105	7.0	16.5	--	8.8	--	4000	9100	--

[illegible][illegible]

CHEMUNG RIVER BASIN

21

01516350 TIOGA RIVER NEAR MANSFIELD, PA.

LOCATION.--Lat 41°47'34", long 77°04'44", Tioga County, Hydrologic Unit 02050104, 0.6 mi (0.9 km) downstream from Slate Creek and 1.0 mi (1.6 km) south of Mansfield.

DRAINAGE AREA.--153 mi² (396 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to present.

GAGE.--Water-stage recorder. Datum of gage is 1,121.28 ft (341.766 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,840 ft³/s (165.4 m³/s) Feb. 24, 1977, gage height 14.90 ft (4.542 m), from rating curve extension above 2,300 ft³/s (65.1 m³/s) on basis of discharge measurement at gage height 12.29 ft (3.746 m); minimum, 14 ft³/s (0.396 m³/s) Sept. 12, 13, 1977.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood in September 1975 reached an approximate stage of 20.13 ft (6.14 m) present datum, from floodmarks, approximate discharge 18,000 ft³/s (510 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (84.96 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1215	3,190 90.34	13.12 3.999	Mar. 4	2115	3,450 97.70	13.31 4.057
Feb. 24	2030	*5,840 165.4	*14.90 4.542				

Minimum discharge, 14 ft³/s (0.396 m³/s) Sept. 12, 13, gage height, 7.75 ft (2.362 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										160	298	42
2										140	168	42
3										120	127	41
4										100	100	39
5										90	84	37
6										84	78	35
7										92	363	33
8										140	750	32
9										119	382	31
10										89	275	44
11										90	220	47
12										101	150	39
13										90	130	34
14										102	140	31
15										83	150	30
16										76	280	40
17										77	180	56
18										65	120	83
19										58	100	58
20										53	86	46
21										69	74	42
22										81	66	37
23										63	60	34
24										65	56	37
25										53	60	31
26										47	57	33
27										44	57	71
28										43	53	59
29										125	51	47
30										293	47	41
31										169	44	---
TOTAL										2981	4806	1272
MEAN										96.2	155	42.4
MAX										293	750	83
MIN										43	44	30
CFSM										.63	1.01	.28
IN.										.72	1.17	.31

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	349	67	64	32	371	560	199	55	87	32	18
2	37	268	62	62	32	284	752	183	54	69	35	17
3	36	243	59	60	31	256	983	171	49	59	29	16
4	34	243	58	59	31	1090	587	158	45	54	26	15
5	32	237	56	57	31	1350	560	216	41	52	26	15
6	32	203	56	56	30	695	483	200	46	64	31	26
7	33	180	230	54	30	482	390	196	61	118	37	23
8	86	164	180	53	30	380	350	158	50	261	37	19
9	1400	147	140	52	30	358	296	178	50	133	32	17
10	670	142	130	50	29	401	269	217	121	93	29	15
11	325	140	160	49	29	414	246	271	80	76	27	15
12	231	122	135	48	60	411	221	223	58	73	32	14
13	190	116	120	47	220	1600	199	191	48	67	27	15
14	203	108	105	46	150	941	182	168	43	57	26	43
15	164	100	98	45	100	606	165	152	42	50	25	34
16	138	93	94	44	74	485	152	139	38	54	23	35
17	122	89	92	43	64	380	140	127	70	75	30	113
18	110	89	89	42	60	349	129	123	101	64	32	60
19	100	87	88	41	58	321	123	137	126	49	25	94
20	223	86	98	40	55	284	114	113	72	52	22	417
21	1440	82	112	39	52	282	104	98	60	43	21	247
22	526	78	105	38	52	513	99	85	51	39	23	139
23	366	73	98	37	130	483	143	76	44	35	25	100
24	332	69	92	36	782	348	666	107	39	32	21	112
25	387	66	86	36	826	280	582	129	55	40	21	618
26	427	66	82	35	430	274	390	86	179	44	19	421
27	303	72	78	34	539	343	356	72	86	34	19	309
28	252	75	74	34	611	584	298	64	86	30	18	217
29	229	82	72	33	---	1220	255	58	199	28	17	169
30	203	75	70	33	---	1100	225	59	126	33	19	137
31	482	---	68	32	---	824	---	56	---	30	18	---
TOTAL	9151	3944	3054	1399	4598	17709	10019	4410	2175	1995	804	3490
MEAN	295	131	98.5	45.1	164	571	334	142	72.5	64.4	25.9	116
MAX	1440	349	230	64	826	1600	983	271	199	261	37	618
MIN	32	66	56	32	29	256	99	56	38	28	17	14
CFSM	1.93	.86	.64	.30	1.07	3.73	2.18	.93	.47	.42	.17	.76
IN.	2.22	.96	.74	.34	1.12	4.31	2.44	1.07	.53	.49	.20	.85
WTR YR 1977	TOTAL	62748	MEAN	172	MAX	1600	MIN	14	CFSM	1.12	IN	15.26

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1975, October 1976 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

pH: October 1976 to current year.

WATER TEMPERATURES: October 1976 to current year.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	515	478	497	---	---	---	---	---	---	386	348	369
2	533	502	518	---	---	---	---	---	---	388	342	385
3	549	519	534	220	197	208	---	---	---	399	376	385
4	571	541	552	223	200	213	---	---	---	398	386	391
5	586	559	570	221	197	207	---	---	---	390	380	384
6	598	570	584	235	210	223	---	---	---	404	386	394
7	606	548	594	249	228	237	---	---	---	398	387	392
8	543	296	374	254	238	247	---	---	---	407	393	397
9	309	82	176	269	252	261	---	---	---	421	406	414
10	150	91	118	273	255	265	208	197	202	420	410	413
11	226	150	191	---	---	---	198	179	184	415	396	403
12	280	220	250	---	---	---	196	176	190	421	404	409
13	291	275	284	---	---	---	222	176	198	435	420	424
14	309	240	262	---	---	---	269	223	247	445	433	438
15	279	241	264	---	---	---	253	235	240	441	420	430
16	295	270	284	---	---	---	250	232	241	421	414	417
17	303	282	297	---	---	---	246	240	244	427	406	413
18	310	291	302	---	---	---	254	245	249	453	428	446
19	319	300	310	---	---	---	299	256	272	459	451	455
20	324	162	296	---	---	---	265	183	233	459	444	450
21	154	83	107	---	---	---	210	185	193	461	436	444
22	160	115	138	---	---	---	266	212	241	460	443	450
23	206	155	181	---	---	---	260	243	250	464	449	454
24	222	188	209	---	---	---	279	256	265	465	460	463
25	195	174	185	---	---	---	317	281	292	464	445	453
26	185	162	176	---	---	---	316	289	295	445	433	438
27	---	---	---	---	---	---	310	274	286	---	---	---
28	---	---	---	---	---	---	320	309	313	461	427	442
29	---	---	---	---	---	---	324	313	318	464	455	459
30	---	---	---	---	---	---	345	318	325	476	464	472
31	---	---	---	---	---	---	366	347	357	482	470	476
MONTH	606	82	317	273	197	233	366	176	256	482	358	425

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	488	480	484	---	---	---	176	139	157	---	---	---
2	487	477	482	---	---	---	184	119	162	---	---	---
3	483	466	473	---	---	---	132	107	118	---	---	---
4	476	460	468	---	---	---	151	132	142	---	---	---
5	463	450	455	103	79	92	155	147	152	---	---	---
6	475	436	448	143	102	123	171	149	161	---	---	---
7	482	459	470	231	143	177	188	171	181	---	---	---
8	495	463	479	232	191	213	---	---	---	---	---	---
9	499	472	487	198	170	189	---	---	---	---	---	---
10	499	466	472	169	144	159	---	---	---	---	---	---
11	482	298	390	152	140	146	---	---	---	---	---	---
12	371	290	330	144	137	141	---	---	---	---	---	---
13	293	213	241	145	94	119	---	---	---	---	---	---
14	249	222	235	105	93	100	---	---	---	---	---	---
15	335	248	291	123	104	114	---	---	---	---	---	---
16	465	334	399	187	121	139	---	---	---	---	---	---
17	468	376	405	186	167	178	---	---	---	---	---	---
18	454	393	426	181	168	174	---	---	---	---	---	---
19	478	423	447	183	175	179	---	---	---	---	---	---
20	431	415	422	199	178	189	---	---	---	---	---	---
21	447	422	429	198	173	187	---	---	---	---	---	---
22	454	401	426	180	151	167	---	---	---	---	---	---
23	482	229	382	162	147	155	---	---	---	---	---	---
24	245	140	190	168	159	164	---	---	---	---	---	---
25	139	109	124	196	159	177	---	---	---	---	---	---
26	---	---	---	198	160	180	---	---	---	---	---	---
27	---	---	---	186	152	172	---	---	---	---	---	---
28	---	---	---	155	121	142	---	---	---	395	367	377
29	---	---	---	119	70	93	---	---	---	416	344	404
30	---	---	---	101	63	85	---	---	---	417	411	410
31	---	---	---	139	102	118	---	---	---	428	407	414
MONTH	499	109	394	232	63	151	188	107	153	428	367	401

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	436	421	427	339	275	307	562	541	554	693	640	688
2	438	420	427	395	340	367	560	499	512	701	649	694
3	461	433	441	444	395	422	548	509	524	713	645	707
4	475	454	462	462	444	452	576	546	559	720	715	712
5	497	476	482	468	461	463	588	563	577	730	646	722
6	504	443	483	---	---	---	536	464	525	724	485	597
7	444	487	403	---	---	---	469	433	455	623	548	604
8	442	397	411	---	---	---	462	426	446	645	544	623
9	455	407	443	---	---	---	485	451	463	674	545	659
10	407	232	290	---	---	---	516	483	495	703	675	690
11	320	253	284	---	---	---	527	503	513	722	713	714
12	374	321	344	360	342	350	537	417	477	739	723	733
13	420	376	394	387	347	366	546	467	506	758	702	735
14	438	411	415	425	387	402	564	542	551	708	453	544
15	459	427	439	457	425	439	---	---	---	478	437	451
16	477	449	460	497	457	465	---	---	---	512	415	481
17	482	278	437	457	329	358	593	536	563	418	251	298
18	282	218	254	399	308	379	546	483	503	322	241	294
19	273	213	229	450	400	419	565	518	539	323	242	280
20	314	246	281	452	409	431	608	566	584	260	139	189
21	359	314	331	479	433	449	633	608	616	201	140	169
22	394	359	370	500	446	479	637	607	623	303	202	254
23	432	398	410	528	493	508	655	466	557	360	302	334
24	461	432	441	551	526	537	625	588	609	366	295	347
25	462	329	421	558	516	543	639	617	625	292	137	169
26	331	166	207	518	431	460	658	641	648	167	150	159
27	292	221	255	534	481	502	671	657	663	199	155	177
28	329	293	307	564	535	545	678	662	668	247	200	223
29	322	188	204	584	562	570	649	676	682	292	251	273
30	275	203	237	588	529	556	698	665	685	323	294	311
31	---	---	---	561	534	543	691	673	682	---	---	---
MONTH	504	166	366	588	275	452	698	417	566	758	137	461

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	4.0	3.9	4.0	---	---	---	---	---	---	4.3	4.1	4.2
2	4.0	3.9	3.9	---	---	---	---	---	---	4.1	4.1	4.1
3	3.9	3.8	3.9	4.9	4.7	4.8	---	---	---	4.2	4.1	4.2
4	3.8	3.7	3.8	5.3	4.6	4.9	---	---	---	4.2	4.1	4.2
5	3.8	3.7	3.8	5.2	4.8	5.0	---	---	---	4.3	4.1	4.2
6	3.8	3.7	3.8	4.8	4.6	4.7	---	---	---	4.2	4.1	4.1
7	3.7	3.7	3.7	4.7	4.5	4.6	---	---	---	4.2	4.1	4.2
8	5.9	3.7	4.9	4.6	4.4	4.5	---	---	---	4.2	4.1	4.1
9	6.8	5.1	6.0	4.5	4.2	4.3	---	---	---	4.1	4.0	4.1
10	6.5	5.3	6.0	4.5	4.2	4.3	5.4	5.3	5.3	4.1	4.0	4.0
11	5.3	4.7	5.0	4.5	4.4	4.4	6.0	5.4	5.8	4.1	4.0	4.1
12	4.8	4.5	4.7	4.8	4.1	4.3	6.0	5.5	5.6	4.2	4.0	4.1
13	4.7	4.5	4.6	4.5	4.1	4.2	6.1	5.5	5.7	4.1	4.0	4.1
14	5.0	4.4	4.7	4.7	3.9	4.2	5.5	5.0	5.3	4.1	4.0	4.0
15	4.5	4.3	4.4	4.8	3.8	4.1	5.3	4.9	5.1	4.0	4.0	4.0
16	4.4	4.2	4.3	---	---	---	5.1	4.7	4.8	4.0	4.0	4.0
17	4.2	4.1	4.1	---	---	---	4.9	4.7	4.7	4.2	4.0	4.1
18	4.1	4.0	4.1	---	---	---	4.7	4.6	4.6	4.0	4.0	4.0
19	4.0	3.9	4.0	---	---	---	4.7	4.2	4.5	4.0	3.9	4.0
20	6.5	3.9	4.3	---	---	---	6.2	4.4	5.0	4.0	3.9	4.0
21	6.5	5.3	5.8	---	---	---	6.2	5.2	5.4	4.0	3.9	4.0
22	5.3	4.9	5.2	---	---	---	5.3	4.9	5.1	4.0	3.1	4.0
23	5.0	4.5	4.8	---	---	---	5.1	4.9	5.0	4.0	3.9	3.9
24	4.8	4.3	4.5	---	---	---	5.0	4.7	4.9	4.0	3.9	3.9
25	5.3	4.7	4.8	---	---	---	4.9	4.3	4.7	4.0	1.2	4.0
26	5.7	4.9	5.2	---	---	---	4.5	4.4	4.5	4.0	4.0	4.0
27	---	---	---	---	---	---	4.7	4.5	4.6	---	---	---
28	---	---	---	---	---	---	4.6	4.4	4.5	4.2	4.0	4.2
29	---	---	---	---	---	---	4.5	4.4	4.4	4.2	4.0	4.1
30	---	---	---	---	---	---	4.6	4.3	4.5	4.0	4.0	4.0
31	---	---	---	---	---	---	4.3	4.2	4.3	4.1	4.0	4.0
MONTH	6.8	3.7	4.6	5.3	3.8	4.5	6.2	4.2	4.9	4.3	1.2	4.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	4.1	4.0	4.1	---	---	---	5.1	4.7	5.0	---	---	---
2	4.0	4.0	4.0	---	---	---	6.5	4.6	5.2	---	---	---
3	4.1	3.9	4.0	---	---	---	6.4	5.5	5.8	---	---	---
4	4.0	3.6	3.6	---	---	---	5.4	5.2	5.3	---	---	---
5	3.7	3.6	3.6	5.5	5.2	5.4	5.3	5.1	5.2	---	---	---
6	---	---	---	5.2	4.6	5.0	5.1	4.9	5.0	---	---	---
7	---	---	---	4.8	3.8	4.3	4.9	4.6	4.8	---	---	---
8	---	---	---	4.5	3.8	4.1	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	3.6	3.5	3.6	---	---	---	---	---	---	---	---	---
11	4.9	3.6	3.8	---	---	---	---	---	---	---	---	---
12	5.8	4.9	5.4	---	---	---	---	---	---	---	---	---
13	6.3	5.8	6.1	---	---	---	---	---	---	---	---	---
14	6.0	5.2	5.6	---	---	---	---	---	---	---	---	---
15	5.2	4.8	5.1	---	---	---	---	---	---	---	---	---
16	4.9	4.3	4.7	---	---	---	---	---	---	---	---	---
17	4.5	4.0	4.4	---	---	---	---	---	---	---	---	---
18	4.4	3.9	4.1	---	---	---	---	---	---	---	---	---
19	3.9	3.8	3.8	5.3	4.6	4.9	---	---	---	---	---	---
20	3.9	3.8	3.9	5.4	4.6	5.0	---	---	---	---	---	---
21	4.0	3.7	3.9	5.8	4.5	5.1	---	---	---	---	---	---
22	4.3	3.7	4.0	6.5	5.4	5.9	---	---	---	---	---	---
23	6.3	3.7	4.5	6.3	5.9	6.1	---	---	---	---	---	---
24	6.4	5.4	5.8	---	---	---	---	---	---	---	---	---
25	5.9	5.1	5.5	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	3.8	3.6	3.7
29	---	---	---	---	---	---	---	---	---	3.7	3.6	3.7
30	---	---	---	---	---	---	---	---	---	3.7	3.6	3.7
31	---	---	---	5.6	5.1	5.4	---	---	---	3.7	3.6	3.7
MONTH	6.4	3.5	4.5	6.5	3.8	5.1	6.5	4.6	5.2	3.8	3.6	3.7

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE				JULY				AUGUST		
											SEPTEMBER	
1	3.6	3.5	3.6	4.3	4.0	4.2	3.6	3.5	3.5	3.4	3.4	3.4
2	3.6	3.5	3.6	4.1	3.9	4.0	3.7	3.5	3.6	3.4	3.4	3.4
3	3.6	3.5	3.6	4.0	3.7	3.9	3.6	3.5	3.6	3.4	3.4	3.4
4	3.6	3.4	3.5	3.8	3.7	3.8	3.6	3.5	3.6	3.4	3.4	3.4
5	3.5	3.4	3.5	3.8	3.6	3.7	3.6	3.5	3.5	3.4	3.4	3.4
6	3.8	3.4	3.5	---	---	---	3.9	3.5	3.7	3.9	3.4	3.6
7	3.9	3.8	3.8	---	---	---	4.1	3.8	3.9	3.6	3.5	3.5
8	3.8	3.6	3.7	---	---	---	3.9	3.7	3.8	3.5	3.5	3.5
9	3.8	3.6	3.6	---	---	---	3.8	3.7	3.7	3.5	3.4	3.5
10	4.5	3.8	4.3	---	---	---	3.8	3.7	3.7	3.5	3.4	3.4
11	4.4	3.9	4.2	---	---	---	3.7	3.6	3.7	3.4	3.4	3.4
12	3.9	3.7	3.8	3.9	3.7	3.9	4.1	3.6	3.8	3.4	3.4	3.4
13	3.7	3.6	3.7	3.9	3.7	3.8	4.0	3.7	3.9	3.4	3.4	3.4
14	3.7	3.6	3.6	3.8	3.6	3.7	3.7	3.7	3.7	4.5	3.4	4.0
15	3.8	3.6	3.7	3.7	3.5	3.6	---	---	---	4.5	3.8	4.0
16	3.7	3.6	3.6	3.6	3.5	3.6	---	---	---	4.5	3.8	3.9
17	4.6	3.5	3.8	3.9	3.5	3.9	3.7	3.6	3.6	5.3	4.6	4.8
18	4.8	4.3	4.6	4.3	3.7	4.0	3.9	3.7	3.8	4.7	4.4	4.6
19	4.7	4.2	4.5	3.8	3.7	3.7	3.7	3.6	3.7	4.9	4.5	4.7
20	4.5	4.1	4.3	3.7	3.6	3.7	3.7	3.6	3.6	6.8	5.3	5.7
21	4.3	4.0	4.1	3.7	3.5	3.6	3.6	3.6	3.6	5.4	5.0	5.2
22	4.0	3.8	3.9	3.7	3.6	3.6	3.6	3.5	3.6	5.0	4.7	4.9
23	3.8	3.7	3.8	3.8	3.5	3.6	3.9	3.5	3.7	4.7	4.4	4.5
24	3.8	3.7	3.7	3.6	3.5	3.5	3.6	3.5	3.6	4.8	4.3	4.5
25	4.3	3.7	3.8	3.6	3.5	3.5	3.6	3.5	3.6	6.8	4.5	5.7
26	4.8	4.4	4.6	3.8	3.6	3.7	3.5	3.5	3.5	6.2	5.1	5.5
27	4.5	4.1	4.4	3.8	3.6	3.7	3.5	3.4	3.5	5.3	4.8	5.0
28	4.2	4.0	4.1	3.7	3.5	3.6	3.5	3.4	3.4	4.7	4.5	4.7
29	4.7	4.0	4.5	3.6	3.5	3.6	3.4	3.4	3.4	4.5	4.3	4.4
30	4.7	4.3	4.5	3.7	3.5	3.6	3.5	3.4	3.4	4.3	4.2	4.2
31	---	---	---	3.6	3.5	3.6	3.4	3.4	3.4	---	---	---
MONTH	4.8	3.4	3.9	4.3	3.5	3.7	4.1	3.4	3.6	6.8	3.4	4.2

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER				NOVEMBER				DECEMBER		
											JANUARY	
1	16.5	11.5	13.5	---	---	---	---	---	---	0.5	0.0	0.5
2	17.0	13.0	15.0	---	---	---	---	---	---	0.5	0.5	0.5
3	20.5	13.5	16.5	7.5	5.0	6.0	---	---	---	0.5	0.5	0.5
4	19.5	13.0	16.0	8.0	5.0	6.0	---	---	---	0.5	0.0	0.0
5	20.0	12.5	16.0	7.0	4.5	5.5	---	---	---	1.0	0.0	0.0
6	17.0	13.5	15.0	6.5	4.0	5.0	---	---	---	1.0	0.5	0.5
7	16.5	14.0	15.0	6.5	3.5	5.0	---	---	---	1.0	0.0	0.0
8	13.5	12.5	12.5	4.5	1.5	3.0	---	---	---	0.5	0.0	0.0
9	12.0	10.5	11.0	2.0	0.5	1.5	---	---	---	0.5	0.0	0.0
10	12.5	10.0	11.5	4.0	1.0	2.5	0.5	0.5	0.5	0.5	0.0	0.0
11	15.0	10.0	12.5	4.5	2.5	3.5	0.5	0.5	0.5	0.0	0.0	0.0
12	12.5	6.5	11.0	5.0	0.5	2.0	0.5	0.5	0.5	0.0	0.0	0.0
13	14.0	8.0	10.5	4.0	1.0	2.0	2.5	0.5	0.5	0.0	0.0	0.0
14	12.0	9.0	10.5	4.0	0.5	2.5	1.0	0.5	0.5	0.0	0.0	0.0
15	14.5	8.0	11.0	4.5	0.5	1.5	1.0	0.0	0.5	0.5	0.0	0.0
16	12.5	8.5	9.5	---	---	---	1.0	0.5	0.5	0.5	0.0	0.0
17	10.0	8.0	---	---	---	---	1.0	1.0	1.0	0.0	0.0	0.0
18	8.0	5.0	---	---	---	---	1.0	1.0	1.0	0.0	0.0	0.0
19	7.5	3.5	---	---	---	---	1.0	1.0	1.0	0.0	0.0	0.0
20	8.5	5.0	---	---	---	---	1.0	1.0	1.0	0.0	0.0	0.0
21	8.5	6.5	---	---	---	---	1.5	1.0	1.5	0.0	0.0	0.0
22	7.5	5.5	---	---	---	---	1.5	1.5	1.5	0.0	0.0	0.0
23	9.0	5.0	---	---	---	---	2.0	1.5	1.5	0.0	0.0	0.0
24	7.5	6.0	---	---	---	---	1.5	1.5	1.5	0.0	0.0	0.0
25	9.0	7.5	8.0	---	---	---	1.5	1.0	1.0	0.5	0.0	0.0
26	7.5	4.5	6.0	---	---	---	1.5	1.0	1.0	0.5	0.0	0.0
27	---	---	---	---	---	---	1.0	0.5	0.5	---	---	---
28	---	---	---	---	---	---	1.0	0.5	0.5	0.0	0.0	0.0
29	---	---	---	---	---	---	1.0	0.5	0.5	0.0	0.0	0.0
30	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
31	---	---	---	---	---	---	0.5	0.5	0.5	0.0	0.0	0.0
MONTH	20.5	3.5	12.5	8.0	0.5	3.5	2.5	0.0	1.0	1.0	0.0	0.0

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	---	---	---	11.0	4.5	7.5	---	---	---
2	0.0	0.0	0.0	---	---	---	7.0	5.0	6.0	---	---	---
3	0.0	0.0	0.0	---	---	---	11.5	7.0	8.5	---	---	---
4	0.0	0.0	0.0	---	---	---	7.0	5.0	5.5	---	---	---
5	0.0	0.0	0.0	5.5	1.5	3.0	9.0	5.5	6.5	---	---	---
6	0.0	0.0	0.0	3.5	1.5	2.5	6.0	3.0	5.0	---	---	---
7	0.0	0.0	0.0	4.0	1.0	2.0	7.0	2.0	4.5	---	---	---
8	0.0	0.0	0.0	7.0	1.0	3.5	---	---	---	---	---	---
9	0.0	0.0	0.0	9.5	2.5	6.0	---	---	---	---	---	---
10	0.0	0.0	0.0	10.0	3.5	6.5	---	---	---	---	---	---
11	0.0	0.0	0.0	10.0	3.0	6.0	---	---	---	---	---	---
12	0.0	0.0	0.0	9.0	3.5	6.5	---	---	---	---	---	---
13	0.0	0.0	0.0	8.0	6.0	7.0	---	---	---	---	---	---
14	0.0	0.0	0.0	6.5	5.0	5.5	---	---	---	---	---	---
15	0.0	0.0	0.0	11.0	5.0	7.0	---	---	---	---	---	---
16	0.0	0.0	0.0	10.0	5.5	7.0	---	---	---	---	---	---
17	0.0	0.0	0.0	8.5	3.5	5.5	---	---	---	---	---	---
18	0.0	0.0	0.0	4.0	1.0	2.0	---	---	---	---	---	---
19	0.0	0.0	0.0	8.0	0.5	3.5	---	---	---	---	---	---
20	0.0	0.0	0.0	3.5	0.5	2.0	---	---	---	---	---	---
21	0.0	0.0	0.0	8.0	0.5	3.5	---	---	---	---	---	---
22	0.0	0.0	0.0	3.5	1.0	2.0	---	---	---	---	---	---
23	0.0	0.0	0.0	6.0	0.0	2.5	---	---	---	---	---	---
24	0.0	0.0	0.0	6.0	0.5	2.0	---	---	---	---	---	---
25	0.0	0.0	0.0	6.0	0.0	2.5	---	---	---	---	---	---
26	---	---	---	8.0	0.5	3.5	---	---	---	---	---	---
27	---	---	---	9.5	0.5	4.5	---	---	---	---	---	---
28	---	---	---	5.5	3.5	4.5	---	---	---	27.5	16.5	21.5
29	---	---	---	17.0	3.5	7.0	---	---	---	24.0	16.0	19.5
30	---	---	---	17.0	4.5	9.5	---	---	---	23.0	16.5	19.0
31	---	---	---	10.5	6.5	8.5	---	---	---	20.0	14.5	18.0
MONTH	0.0	0.0	0.0	17.0	0.0	4.5	11.5	2.0	6.0	27.5	14.5	19.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	24.5	16.5	20.0	27.5	19.0	22.5	27.5	21.0	24.5	30.5	22.0	25.5
2	21.0	16.0	18.5	24.5	17.0	21.0	29.0	18.5	23.5	29.5	22.0	25.0
3	22.5	13.5	18.0	25.0	13.5	19.5	27.5	19.0	23.0	26.5	21.5	24.0
4	25.5	12.5	19.0	24.0	17.0	20.5	29.5	20.0	24.5	27.0	18.0	22.0
5	26.0	17.5	21.5	25.5	18.5	21.5	27.5	21.5	24.5	26.5	19.5	22.5
6	20.5	14.0	16.0	---	---	---	25.0	22.5	23.5	24.5	21.0	22.5
7	16.0	12.5	14.5	---	---	---	25.5	22.0	23.5	21.5	17.5	19.5
8	20.0	11.0	15.5	---	---	---	29.5	21.5	25.0	25.0	16.5	20.0
9	16.5	13.0	14.0	---	---	---	29.0	21.5	25.0	24.5	17.0	20.5
10	15.0	12.0	13.5	---	---	---	27.5	21.0	24.0	25.0	19.0	21.0
11	21.0	11.0	16.5	---	---	---	31.0	22.0	26.0	20.0	16.0	18.0
12	20.5	14.0	17.5	26.0	19.5	22.5	27.5	22.0	24.5	21.5	12.0	16.5
13	25.5	15.0	20.5	30.0	21.0	25.0	27.0	19.5	23.5	18.0	16.5	17.0
14	22.0	17.5	19.5	29.5	19.5	24.5	25.0	21.5	23.0	21.0	16.5	18.5
15	26.5	17.0	21.5	31.0	20.0	25.5	---	---	---	18.0	13.0	15.5
16	29.0	16.5	22.5	29.0	22.5	26.0	---	---	---	16.0	15.0	15.5
17	23.5	20.0	22.0	25.0	21.0	23.0	24.5	20.5	23.0	19.5	15.5	17.5
18	24.0	18.5	21.5	31.0	21.0	25.5	25.5	17.5	20.5	20.5	16.0	18.5
19	26.0	18.5	22.0	28.0	22.0	25.0	23.5	14.5	19.0	21.5	17.5	19.5
20	26.0	17.0	21.5	31.5	22.0	26.5	23.0	16.0	19.5	19.5	17.0	18.5
21	23.0	17.0	20.0	32.0	23.5	27.0	21.0	15.0	18.0	18.0	16.0	17.0
22	24.0	15.0	20.0	27.0	21.0	23.5	25.0	17.5	20.0	17.5	15.0	16.0
23	28.0	16.0	21.5	27.5	17.0	22.0	25.0	16.0	20.5	15.5	13.5	14.5
24	27.0	18.5	22.5	28.0	18.5	23.0	21.0	16.0	19.0	16.0	14.5	15.5
25	23.5	20.0	21.5	25.5	21.5	23.0	24.0	13.5	17.5	15.5	13.5	14.0
26	22.0	16.0	19.0	22.5	16.5	20.0	23.0	15.0	18.5	15.0	13.5	14.0
27	28.0	16.5	22.0	26.0	15.0	20.0	25.0	17.0	20.5	17.5	12.0	14.5
28	24.0	19.5	22.0	25.0	15.5	20.5	29.5	19.5	24.0	16.0	12.5	14.5
29	24.5	18.0	20.5	24.0	17.5	20.5	30.0	22.0	25.5	16.0	11.0	13.5
30	25.5	15.0	20.5	26.5	19.5	22.5	28.5	22.5	25.0	14.5	11.0	13.0
31	---	---	---	28.5	19.5	24.0	28.0	20.0	23.5	---	---	---
MONTH	29.0	11.0	19.5	32.0	13.5	23.0	31.0	13.5	22.5	30.5	11.0	18.0

CHEMUNG RIVER BASIN

01516500 COREY CREEK NEAR MAINESBURG, PA

LOCATION.--Lat 41°47'27", long 77°00'54", Tioga County, Hydrologic Unit 02050104, on right bank 30 ft (9 m) upstream from township bridge, 500 ft (152 m) upstream from small tributary, 1.1 mi (1.8 km) west of Mainesburg, 3.5 mi (5.6 km) east of Mansfield, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,337.50 ft (407.670 m) above mean sea level. Prior to June 28, 1954, nonrecording gage at site 30 ft (9 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--23 years, 12.1 ft³/s (0.343 m³/s), 13.44 in/yr (341 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft³/s (158 m³/s) June 23, 1972, gage height, 10.44 ft (3.182 m), from floodmark, from rating curve extended above 490 ft³/s (13.9 m³/s) on basis of slope-area measurements at gage height, 7.88 ft (2.402 m) and at peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1315	332 9.40	4.37 1.332	Feb. 24	2030	*565 16.0	*5.20 1.585

Minimum discharge, 0.19 ft³/s (0.005 m³/s) Sept. 4, 11, gage height, 1.13 ft (0.344 m).

DISCHARGE, IN CUBIC FEET PFR SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	15	2.6	2.3	.91	21	33	9.3	1.6	1.5	.67	.37
2	1.6	11	2.3	2.2	.90	20	48	8.5	1.4	1.1	.60	.31
3	1.6	10	2.1	2.0	.89	17	56	7.6	1.3	.96	.46	.31
4	1.5	11	2.0	1.9	.88	79	34	7.8	1.2	.97	.41	.25
5	1.5	10	1.9	1.9	.87	64	35	12	1.1	1.0	.40	.25
6	1.5	8.6	1.8	1.8	.86	34	28	8.6	1.8	1.8	1.6	1.0
7	1.5	7.5	20	1.7	.85	23	24	7.1	2.1	3.5	1.5	.58
8	3.5	7.0	16	1.6	.85	18	20	6.0	1.5	5.9	.95	.49
9	11	6.1	13	1.6	.84	17	15	8.9	2.1	2.4	.74	.40
10	35	6.3	10	1.5	.84	20	14	15	4.6	1.9	.64	.32
11	15	6.3	13	1.5	2.0	20	12	12	2.4	1.6	.59	.24
12	10	5.8	11	1.4	8.0	21	10	8.8	1.9	1.7	2.7	.24
13	8.0	5.1	8.9	1.4	20	99	8.9	7.9	1.6	2.2	1.2	.36
14	8.9	4.9	6.8	1.3	12	59	7.9	6.8	1.6	1.3	.90	2.6
15	6.6	5.1	6.8	1.3	7.2	39	7.0	6.0	1.5	1.5	.78	1.0
16	5.4	5.3	6.3	1.3	4.8	31	6.4	5.4	1.2	1.3	.62	2.7
17	4.9	4.9	6.1	1.2	3.9	22	5.7	4.8	3.3	1.3	1.3	4.7
18	4.6	4.2	5.4	1.2	3.4	21	5.3	4.5	2.9	1.1	.83	1.9
19	4.1	4.2	5.1	1.2	3.1	21	5.1	4.4	2.5	.95	.61	2.7
20	15	4.1	13	1.1	2.9	19	4.6	3.7	1.8	1.1	.53	36
21	91	3.9	8.0	1.1	2.8	21	4.2	3.2	1.8	.83	.46	9.0
22	26	3.8	6.8	1.1	2.7	67	4.0	2.8	1.4	.67	.63	5.0
23	17	3.3	6.0	1.1	10	53	9.8	2.5	1.2	.57	.53	3.4
24	17	3.4	5.2	1.0	140	33	48	3.0	1.0	.55	.52	4.2
25	20	3.1	4.5	1.0	68	30	35	2.9	2.2	.72	.54	33
26	24	3.4	4.1	.98	28	27	25	2.2	2.3	.73	.40	17
27	13	3.6	3.6	.97	42	36	22	1.9	1.6	.53	.37	11
28	11	3.6	3.3	.96	32	63	17	1.8	2.7	.46	.34	7.2
29	10	4.4	3.0	.94	---	73	13	1.6	3.8	.40	.31	5.4
30	9.2	3.6	2.7	.93	---	57	11	1.8	2.1	.77	.40	4.5
31	32	---	2.5	.92	---	52	---	1.7	---	.63	.40	---
TOTAL	513.0	178.5	203.8	42.40	401.49	1177	568.9	180.5	59.5	41.94	22.92	156.42
MEAN	16.5	5.95	6.57	1.37	14.3	38.0	19.0	5.82	1.98	1.35	.74	5.21
MAX	111	15	20	2.3	140	99	56	15	4.6	5.9	2.7	36
MIN	1.5	3.1	1.8	.92	.84	17	4.0	1.6	1.0	.40	.31	.24
CFSM	1.35	.49	.54	.11	1.17	3.12	1.56	.48	.16	.11	.06	.43
IN.	1.56	.54	.62	.13	1.22	3.59	1.73	.55	.18	.13	.07	.48

CAL YR 1976	TOTAL	4517.92	MEAN	12.3	MAX	158	MIN	.90	CFSM	1.01	IN	13.77
WTR YR 1977	TOTAL	3546.37	MEAN	9.72	MAX	140	MIN	.24	CFSM	.80	IN	10.81

CHEMUNG RIVER BASIN

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01516820 TIOGA RIVER AT LAMBS CREEK, PA

LOCATION.--Lat 41°50'29", long 77°06'13", Tioga County, Hydrologic Unit 02050104, at bridge on Legislative Route 58044, 500 ft (152 m) upstream from Lambs Creek, and 2.7 mi (4.3 km) northwest of Mansfield.

DRAINAGE AREA.--186 mi² (482 km²).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)
OCT 06...	1600	35	488	4.4	16.0	9.8	98	1.0	49
NOV 09...	1345	165	243	5.0	1.5	13.2	94	.5	25
DEC 14...	1000	E118	233	6.0	.0	13.6	93	.3	16
JAN 12...	1100	E54	338	4.6	.0	12.6	86	1.6	78
FEB 08...	1045	E34	414	4.6	.0	13.2	90	1.1	57
MAR 07...	0900	521	159	4.7	.5	13.5	94	.3	16
APR 13...	0930	225	235	4.6	10.0	10.8	96	.8	42
MAY 02...	0945	205	214	3.8	11.5	10.3	94	.9	47
JUN 09...	1020	51	397	4.3	13.0	10.4	98	.9	47
JUL 06...	0930	65	428	4.0	22.5	8.4	96	1.1	56
AUG 08...	0920	43	385	4.5	22.5	8.6	100	1.2	58
SEP 15...	1000	40	430	4.8	14.0	10.0	96	1.0	41

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 06...	0	0	0	.0	210	11	E0	--
NOV 09...	2	0	2	32	86	4.6	11	4.9
DEC 14...	6	0	5	9.6	86	9.2	12	--
JAN 12...	1	0	1	40	150	8.6	1	--
FEB 08...	1	0	1	40	190	9.8	E0	--
MAR 07...	1	0	1	32	53	5.1	23	32
APR 13...	1	0	1	40	87	8.8	5	3.0
MAY 02...	0	0	0	.0	83	5.1	9	5.0
JUN 09...	0	0	0	.0	170	9.6	14	1.9
JUL 06...	0	0	0	.0	180	7.6	5	.88
AUG 08...	0	0	0	.0	180	9.8	29	3.4
SEP 15...	2	0	2	51	180	13	23	2.5

CHEMUNG RIVER BASIN

01516820 TIOGA RIVER AT LAMBS CREEK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 14...	1000	.66	--	.01	--	.67	--	.14	--
MAR 07...	0900	.76	--	.01	--	.77	--	.06	--
JUN 09...	1020	.34	--	.00	--	.34	--	.00	--
SEP 15...	1000	--	.34	--	.00	--	.34	--	.10

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
DEC 14...	.14	--	.28	--	.95	.03	--	.01	--
MAR 07...	.25	--	.31	--	1.1	.06	--	.01	--
JUN 09...	.09	--	.09	--	.43	.01	--	.00	--
SEP 15...	--	.03	--	.13	--	--	.00	--	.00

CHEMUNG RIVER BASIN

31

01517000 ELK RUN NEAR MAINESBURG, PA

LOCATION.--Lat 41°48'54", long 76°57'55", Tioga County, Hydrologic Unit 02050104, on left bank 250 ft (76 m) downstream from highway bridge, 0.5 mi (0.8 km) upstream from small tributary, 2.8 mi (4.5 km) northeast of Mainesburg, 5.5 mi (8.8 km) upstream from mouth, and 5.8 mi (9.3 km) east of Mansfield.

DRAINAGE AREA.--10.2 mi² (26.4 km²).

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

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,385.05 ft (422.163 m) above mean sea level. Prior to Aug. 29, 1956, nonrecording gage and crest-stage gage at bridge 250 ft (76 m) upstream at same datum.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--23 years, 10.6 ft³/s (0.300 m³/s), 14.12 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,940 ft³/s (112 m³/s) June 22, 1972, gage height, 6.00 ft (1.829 m) in gage well, 6.75 ft (2.057 m) outside from floodmarks, from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of contracted-opening measurement of peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft³/s (6.51 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1300	478 13.5	2.45 0.747	Feb. 24	2030	*595	16.9 *2.69 0.820
Dec. 7	1100	ice jam	2.33 0.710				

No flow, Sept. 10, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	11	2.0	1.4	.70	12	33	8.2	1.3	.98	.31	.17
2	.92	10	2.1	1.5	.65	10	48	7.2	1.3	.70	.24	.13
3	.99	9.2	1.5	1.6	.70	9.0	44	6.6	1.2	.57	.19	.05
4	.80	10	1.6	1.4	.70	64	30	6.8	1.0	.53	.17	.02
5	.80	9.2	1.5	1.5	.70	47	29	10	.98	.53	.19	.00
6	.70	7.4	1.8	1.3	.80	26	26	7.0	.86	.89	.86	.00
7	.75	6.6	17	1.3	.70	16	21	5.6	.92	1.7	.92	.00
8	3.0	6.0	13	1.3	.65	12	16	4.8	1.0	2.9	.65	.01
9	126	5.4	11	1.1	.61	12	12	7.0	1.4	1.3	.49	.00
10	32	5.6	8.5	1.1	.65	16	12	13	4.2	1.0	.40	.00
11	15	5.4	11	1.1	2.0	16	10	10	2.0	.80	.34	.00
12	9.2	5.1	9.0	1.1	6.5	17	8.7	7.8	1.3	.80	1.4	.00
13	7.4	4.8	7.4	.98	17	92	7.4	7.0	1.1	.75	.80	.00
14	8.7	4.2	5.6	.98	9.0	48	6.6	6.6	.98	.49	.61	.83
15	5.6	4.0	5.4	1.0	3.8	34	5.6	5.6	1.0	.43	.49	.37
16	4.4	3.9	4.8	1.1	3.0	27	5.1	5.4	.80	.40	.40	1.1
17	4.4	3.7	4.3	1.1	2.5	18	4.8	4.8	1.2	.46	.84	2.7
18	4.0	3.6	3.9	.98	2.2	17	4.2	4.8	2.1	.46	.57	1.2
19	3.5	3.6	3.8	.92	2.1	16	4.2	5.6	1.7	.40	.40	1.4
20	18	3.6	11	.92	1.7	13	4.0	4.2	1.1	.37	.34	21
21	81	3.6	7.0	.92	1.7	16	3.8	3.4	1.1	.28	.28	5.6
22	24	3.3	5.8	.86	1.6	44	3.6	3.0	.86	.25	.37	3.4
23	20	3.0	4.8	.86	8.4	37	10	2.7	.70	.28	.31	2.4
24	16	2.7	4.0	.86	120	22	41	2.4	.61	.23	.31	2.8
25	21	2.8	3.2	.80	43	18	34	2.6	1.4	.37	.28	17
26	22	3.2	3.3	.86	16	20	24	2.0	1.8	.34	.25	8.2
27	11	3.4	2.7	.86	29	34	19	1.8	1.1	.25	.23	6.0
28	9.7	3.4	2.6	.80	20	70	14	1.6	1.6	.21	.21	4.4
29	8.7	3.6	2.2	.80	---	81	11	1.4	3.8	.19	.17	3.4
30	7.4	2.6	1.5	.75	---	60	9.4	1.4	1.3	.31	.21	3.0
31	26	---	1.5	.70	---	53	---	1.3	---	.25	.19	---
TOTAL	494.34	153.9	164.8	32.75	296.36	977.0	501.4	161.6	41.71	19.42	13.46	85.18
MEAN	15.9	5.13	5.32	1.06	10.6	31.5	16.7	5.21	1.39	.63	.43	2.84
MAX	126	11	17	1.6	120	92	48	13	4.2	2.9	1.4	21
MIN	.70	2.6	1.5	.70	.61	9.0	3.6	1.3	.61	.19	.17	.00
CFSM	1.56	.50	.52	.10	1.04	3.09	1.64	.51	.14	.06	.04	.28
IN.	1.40	.56	.60	.12	1.08	3.56	1.83	.59	.15	.07	.05	.31
CAL YR 1976	TOTAL	3711.56	MEAN	10.1	MAX	136	MIN	.43	CFSM	.99	IN	13.53
WTR YR 1977	TOTAL	2941.92	MEAN	8.06	MAX	126	MIN	.00	CFSM	.79	IN	10.73

CHEMUNG RIVER BASIN

01517500 MILL CREEK NEAR TIOGA, PA

LOCATION.--Lat 41°52'50", long 77°07'05", Tioga County, Hydrologic Unit 02050104, 2.5 mi (4.0 km) south of Tioga and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--76.8 mi² (199 km²).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO ₃ (MG/L)
OCT 06...	1650	7.6	206	8.9	16.0	10.2	102	.0	.0
NOV 09...	1420	51	143	7.0	1.5	14.0	99	.1	3.0
DEC 14...	1100	--	148	7.4	.0	14.8	101	.1	4.0
JAN 12...	1150	--	167	6.8	.0	14.0	96	1.6	5.0
FEB 08...	1145	--	202	6.9	.0	14.8	101	.1	4.0
MAR 07...	0950	113	109	6.6	.5	13.8	96	.1	3.0
APR 13...	1030	59	135	9.0	13.5	12.5	119	.0	.0
MAY 02...	1030	55	135	8.0	12.5	11.2	105	.0	2.0
JUN 09...	1135	12	185	7.8	14.5	10.0	97	.1	3.0
JUL 06...	1025	7.5	210	8.3	23.5	9.8	114	.0	.0
AUG 08...	1030	12	155	8.1	23.5	9.4	109	.0	2.0
SEP 15...	1045	11	220	8.2	15.5	10.5	104	.0	.0

DATE	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	ALKALINITY AS CaCO ₃ (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 06...	84	4	76	.2	17	9.3	E0	--
NOV 09...	52	0	43	8.3	25	5.0	E0	--
DEC 14...	46	0	38	2.9	18	6.8	E0	--
JAN 12...	67	0	55	17	16	7.0	E0	--
FEB 08...	74	0	61	15	18	8.3	E0	--
MAR 07...	28	0	23	11	15	5.5	8	2.4
APR 13...	35	4	35	.1	17	5.4	E0	--
MAY 02...	46	0	38	.7	15	4.7	3	.45
JUN 09...	76	0	62	1.7	28	--	E0	--
JUL 06...	85	0	70	.7	15	7.5	2	.04
AUG 08...	94	0	77	1.2	14	7.6	E0	--
SEP 15...	94	0	77	.9	16	8.1	21	.62

CHEMUNG RIVER BASIN

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01517500 MILL CREEK NEAR TIOGA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 14...	1100	.49	--	.01	--	.50	--	.00	--
MAR 07...	0950	.64	--	.02	--	.66	--	.04	--
JUN 09...	1135	.31	--	.01	--	.32	--	.04	--
SEP 15...	1045	--	.05	--	.00	--	.05	--	.01

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)
DEC 14...	.13	--	.13	--	.63	.02	--	.01	--
MAR 07...	.26	--	.30	--	.96	.04	--	.01	--
JUN 09...	.14	--	.18	--	.50	.02	--	.00	--
SEP 15...	--	.13	--	.14	--	--	.01	--	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA

LOCATION.--Lat 41°54'30", long 77°07'47", Tioga County, Hydrologic Unit 02050104, on left bank 130 ft (40 m) upstream from highway bridge at Tioga, 0.8 mi (1.3 km) upstream from Crooked Creek.

DRAINAGE AREA.--282 mi² (730 km²).

WATER-DISCHARGE RECORDS

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

REVISIONS.--WSP 871: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,021.0 ft (311.20 m) above mean sea level. Prior to Sept. 9, 1953, at site 20 ft (6 m) upstream at datum 2.11 ft (0.643 m) higher. Sept. 9, 1953 to Aug. 10, 1954, at site 130 ft (40 m) downstream at present datum.

REMARKS.--Records good except those for winter periods and those for Sept. 2-30, which are adjusted for inflow diverted from Crooked Creek during dam construction, which are fair.

AVERAGE DISCHARGE.--39 years, 331 ft³/s (9.374 m³/s), 15.89 in/yr (404 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,000 ft³/s (1,670 m³/s) June 22, 1972, gage height, 19.70 ft (6.005 m), from floodmark, from rating curve extended above 8,000 ft³/s (227 m³/s) on basis of slope-area measurement and contracted-opening measurement at gage height, 15.47 ft (4.715 m) and slope-area measurement of peak flow; minimum, 4.5 ft³/s (0.13 m³/s) Aug. 10, 11, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,960 ft³/s (140 m³/s) Oct. 9, gage height, 6.23 ft (1.899 m), no peak above base of 6,500 ft³/s (184 m³/s); minimum daily discharge, 22 ft³/s (0.62 m³/s) Sept. 9, 10, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	504	110	103	52	550	783	281	86	125	47	35
2	59	374	105	100	52	406	854	259	86	102	53	32
3	57	348	96	98	51	363	1320	247	81	86	46	29
4	52	334	94	96	50	876	772	229	71	79	43	26
5	48	345	92	92	50	1690	745	348	68	77	41	24
6	45	294	90	90	50	906	670	300	71	84	59	29
7	45	265	400	88	49	640	558	290	96	157	77	24
8	153	247	300	86	49	514	509	238	84	284	71	24
9	2100	221	230	84	48	464	419	262	79	179	59	22
10	1330	215	200	81	48	527	382	363	152	132	50	22
11	491	215	260	78	47	550	352	432	130	110	48	22
12	341	193	230	76	100	558	314	341	98	104	56	22
13	278	182	190	74	400	2000	284	294	81	98	48	23
14	281	172	170	73	260	1350	262	259	71	83	43	96
15	244	160	160	72	180	860	238	232	68	71	43	73
16	206	150	150	70	125	695	221	212	61	67	42	56
17	182	146	145	68	110	554	206	195	63	103	55	164
18	167	143	140	66	100	500	193	182	145	92	59	102
19	150	141	140	65	94	468	182	201	157	71	43	115
20	203	141	160	64	88	419	172	174	112	95	40	377
21	2100	136	200	62	84	398	159	155	96	62	37	303
22	724	127	170	60	82	723	152	139	81	53	36	168
23	504	119	160	60	200	789	185	125	68	48	41	126
24	440	112	145	58	1560	581	1100	121	59	45	36	122
25	540	108	135	58	1780	446	873	185	71	55	36	931
26	677	106	130	56	670	432	590	132	198	68	36	648
27	437	116	125	56	787	554	513	112	130	51	35	459
28	366	123	120	55	913	1010	432	102	104	46	35	296
29	331	139	115	54	---	1660	366	92	229	44	35	225
30	300	125	110	53	---	1440	317	90	179	48	35	181
31	668	---	105	53	---	1130	---	88	---	48	35	---
TOTAL	13582	6001	4977	2249	8079	24053	14123	6680	3075	2767	1420	4776
MEAN	438	200	161	72.5	289	776	471	215	103	89.3	45.8	159
MAX	2100	504	400	103	1780	2000	1320	432	229	284	77	931
MIN	45	106	90	53	47	363	152	88	59	44	35	22
CFSM	1.55	.71	.57	.26	1.03	2.75	1.67	.76	.37	.32	.16	.56
IN.	1.79	.79	.66	.30	1.07	3.17	1.86	.88	.41	.37	.19	.63
CAL YR 1976	TOTAL	124018	MEAN 339	MAX 3860	MIN 41	CFSM 1.20	IN 16.36					
WTR YR 1977	TOTAL	91782	MEAN 251	MAX 2100	MIN 22	CFSM .89	IN 12.11					

CHEMUNG RIVER BASIN

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01518000 TIOGA RIVER AT TIOGA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971, October 1971 to September 1972, September 1973 to current year.

REMARKS.--Instantaneous discharge for September 15 does not include flow diverted through weir above 01518000, Tioga River at Tioga.

COOPERATION.--Two water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)
OCT									
07...	0925	43	391	5.4	14.0	9.8	94	.2	11
NOV									
10...	0825	209	209	6.0	.5	13.2	92	.2	9.0
DEC									
14...	1330	E170	199	6.5	.0	13.8	95	.1	5.0
JAN									
12...	1420	E76	286	5.4	.0	12.8	88	.5	26
FEB									
08...	1350	E49	339	5.2	.0	13.0	89	.7	33
MAR									
07...	1225	605	139	5.4	1.0	13.6	96	.2	6.0
APR									
13...	1345	281	190	5.8	14.5	10.3	100	.2	8.0
MAY									
02...	1305	259	183	6.0	13.5	10.0	95	.2	8.0
JUN									
09...	1730	84	304	5.2	13.0	10.2	96	.3	14
JUL									
06...	1405	79	350	4.8	26.0	7.8	95	.6	30
AUG									
08...	1535	68	270	7.2	28.5	9.1	116	.0	2.0
SEP									
15...	1445	90	320	7.3	18.5	9.2	97	.1	4.0

DATE	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT								
07...	3	0	2	19	150	9.6	14	1.6
NOV								
10...	5	0	4	8.0	70	5.4	15	8.5
DEC								
14...	17	0	14	8.6	64	8.3	14	--
JAN								
12...	6	0	5	38	120	9.2	6	--
FEB								
08...	5	0	4	50	130	11	--	--
MAR								
07...	2	0	2	13	45	4.8	22	36
APR								
13...	4	0	3	10	66	5.9	13	9.9
MAY								
02...	5	0	4	8.0	65	5.2	12	8.4
JUN								
09...	2	0	2	20	120	8.6	45	10
JUL								
06...	1	0	1	25	140	7.7	9	1.9
AUG								
08...	7	0	6	.7	130	11	17	3.1
SEP								
15...	44	0	36	3.5	91	11	81	20

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

		TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DATE	TIME								
DEC 14...	1330	.60	--	.01	--	.61	--	.07	--
MAR 07...	1225	.71	--	.01	--	.72	--	.06	--
JUN 09...	1730	.32	--	.01	--	.33	--	.00	--
SEP 15...	1445	--	.30	--	.00	--	.30	--	.08

		TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL. NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
DATE	TIME									
DEC 14...		.16	--	.23	--	.84	.03	--	.01	--
MAR 07...		.13	--	.19	--	.91	.03	--	.01	--
JUN 09...		.10	--	.10	--	.43	.01	--	.00	--
SEP 15...		--	.39	--	.47	--	--	.01	--	.00

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 18...	1515	9813	143	90	6.8	8.0	3	11.0	20	0	6.3
AUG 25...	1200	9813	36	420	6.0	17.5	10	--	180	30	34

DATE	TIME	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITAS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 18...	1.0	22	20	4.0	--	.02	.03	.04	.05		600
AUG 25...	23	10	162	13	358	.82	.03	.05	.05		180

CHEMUNG RIVER BASIN

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01518400 CROOKED CREEK AT MIDDLEBURY CENTER, PA

LOCATION.--Lat 41°51'13", long 77°15'24", Tioga County, Hydrologic Unit 02050104, at bridge on Route 287, 0.9 mi (1.4 km) east of Middlebury Center, 8.2 mi (13.2 km) southwest of Tioga, and 11.4 mi (18.3 km) upstream from mouth.

DRAINAGE AREA.--71.5 mi² (185 km²).

PERIOD OF RECORD.--September 1973 to August 1974, April 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H ⁺ (MG/L)	TOTAL ACIDITY AS CaCO ₃ (MG/L)
OCT									
07...	0820	4.7	255	7.4	14.0	7.6	73	.1	5.0
NOV									
09...	1520	32	177	6.8	1.0	13.2	93	.1	3.0
DEC									
14...	1200	--	179	7.2	.0	13.6	93	.1	6.0
JAN									
12...	1240	--	153	7.1	.0	13.0	89	.1	5.0
FEB									
08...	1230	--	220	7.0	.0	13.2	90	.1	5.0
MAR									
07...	1040	142	110	6.5	1.0	13.4	94	.1	3.0
APR									
13...	1130	60	141	8.2	11.5	12.6	115	.0	1.0
MAY									
02...	1140	49	139	7.4	12.0	11.4	106	.1	4.0
JUN									
09...	1410	13	213	7.6	13.0	8.6	81	.1	4.0
JUL									
06...	1225	8.4	234	7.8	25.5	7.8	94	.1	4.0
AUG									
08...	1330	36	244	8.3	23.5	9.2	107	.0	.0
SEP									
15...	1305	18	240	8.0	14.5	10.4	101	.0	2.0

DATE	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	ALKALINITY AS CaCO ₃ (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
07...	97	0	80	6.2	19	13	114	1.4
NOV								
09...	66	0	54	17	25	7.2	23	2.0
DEC								
14...	60	0	49	6.1	23	9.3	22	--
JAN								
12...	79	0	65	10	18	9.7	E0	--
FEB								
08...	84	0	69	13	19	10	4	--
MAR								
07...	28	0	23	14	15	5.0	23	8.8
APR								
13...	43	0	35	.4	18	5.7	1	.16
MAY								
02...	48	0	39	3.1	15	4.7	E0	--
JUN								
09...	89	0	73	3.6	17	7.8	37	1.3
JUL								
06...	93	0	76	2.4	16	9.4	10	.23
AUG								
08...	99	0	81	.8	18	9.9	23	2.2
SEP								
15...	96	0	79	1.5	19	11	18	.87

CHEMUNG RIVER BASIN

01518400 CROOKED CREEK AT MIDDLEBURY CENTER, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 14...	1200	.76	--	.01	--	.77	--	.01	--
MAR 07...	1040	.58	--	.01	--	.59	--	.04	--
JUN 09...	1410	.40	--	.01	--	.41	--	.16	--
SEP 15...	1305	--	.21	--	.00	--	.21	--	.03

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
DEC 14...	.27	--	.28	--	1.1	.03	--	.02	--
MAR 07...	.21	--	.25	--	.84	.04	--	.01	--
JUN 09...	.42	--	.58	--	.99	.05	--	.02	--
SEP 15...	--	.35	--	.38	--	--	.02	--	.01

CHEMUNG RIVER BASIN

39

01518550 CROOKED CREEK AT TIOGA, PA

LOCATION.--Lat 41°54'55", long 77°08'42", Tioga County, Hydrologic Unit 02050104, at bridge on secondary road 500 ft (152 m) north of State Highway 287 and 1.3 mi (2.1 km) upstream from mouth.

DRAINAGE AREA.--131 mi² (339 km²).

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)
OCT									
07...	1000	10	259	8.1	15.0	9.9	97	.0	1.0
NOV									
10...	0845	52	172	7.3	1.0	13.1	92	.1	3.0
DEC									
14...	1245	--	173	7.0	.0	14.3	98	.1	7.0
JAN									
12...	1330	--	188	7.2	.0	13.6	93	.1	4.0
FEB									
08...	1315	--	211	6.8	.0	13.2	90	.1	6.0
MAR									
07...	1140	226	113	6.6	.5	13.4	93	.1	4.0
APR									
13...	1240	106	144	8.0	15.0	10.9	107	.0	1.0
MAY									
02...	1245	88	138	8.3	14.0	11.0	106	.0	.0
JUN									
09...	1635	18	202	7.9	13.5	10.1	96	.0	2.0
JUL									
06...	1325	11	240	8.3	27.0	8.0	99	.0	.0
AUG									
08...	1500	66	226	7.9	25.0	8.1	96	.1	3.0
SEP									
15...	1355	3.8	240	8.2	19.0	10.6	113	.0	1.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
07...	112	0	92	1.4	18	8.8	10	.27
NOV								
10...	67	0	55	5.4	21	6.5	42	5.9
DEC								
14...	55	0	45	8.8	81	8.8	18	--
JAN								
12...	79	0	65	8.0	17	8.0	1	--
FEB								
08...	85	0	70	22	18	8.2	6	--
MAR								
07...	29	0	24	12	15	5.0	35	21
APR								
13...	47	0	39	.7	18	5.1	8	2.3
MAY								
02...	49	0	40	.4	15	4.6	8	1.9
JUN								
09...	88	0	72	1.8	17	6.8	23	1.1
JUL								
06...	101	0	83	.8	20	8.4	11	.33
AUG								
08...	88	0	72	1.8	17	9.3	301	54
SEP								
15...	92	0	75	.9	22	10	80	.82

CHEMUNG RIVER BASIN

01518550 CROOKED CREEK AT TIOGA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 14...	1245	.60	--	.01	--	.61	--	.00	--
MAR 07...	1140	.51	--	.01	--	.52	--	.05	--
JUN 09...	1635	.14	--	.01	--	.15	--	.02	--
SEP 15...	1355	--	.55	--	.00	--	.55	--	.03

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
DEC 14...	.35	--	.35	--	.96	.05	--	.01	--
MAR 07...	.31	--	.36	--	.88	.05	--	.01	--
JUN 09...	.27	--	.29	--	.44	.03	--	.01	--
SEP 15...	--	.42	--	.45	--	--	.07	--	.01

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA

LOCATION.--Lat 41°57'27", long 77°06'58", Tioga County, Hydrologic Unit 02050104, on left bank, 3.3 mi (5.3 km) downstream from Crooked Creek.

DRAINAGE AREA.--446 mi² (1,160 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 990.43 ft (301.883 m) above mean sea level, unadjusted.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s (507 m³/s) Feb. 25, 1977, gage height, 16.70 ft (5.090 m), from rating curve extended above 4,000 ft³/s (113 m³/s).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 1975 reached an approximate stage of 22.12 ft (6.742 m) present datum, from floodmarks, approximate discharge 48,000 ft³/s (1,360 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,000 ft³/s (255 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1630	9,400 266	14.08 4.292	Feb. 25	0130	*17,900 507	*16.70 5.090

Minimum discharge, 26 ft³/s (0.74 m³/s) Sept. 12, 13, gage height, 6.36 ft (1.939 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										350	476	74
2										270	284	76
3										220	200	73
4										200	162	71
5										190	137	72
6										170	126	68
7										200	480	63
8										300	1790	58
9										270	804	56
10										185	519	71
11										170	364	89
12										188	276	75
13										170	242	65
14										186	242	59
15										163	274	58
16										145	505	68
17										153	303	91
18										130	228	157
19										111	185	131
20										100	159	94
21										106	139	85
22										147	126	77
23										119	116	69
24										120	106	67
25										105	99	64
26										90	113	65
27										83	110	120
28										81	99	117
29										139	100	94
30										500	93	82
31										236	79	---
TOTAL										5597	8936	2409
MEAN										181	288	80.3
MAX										500	1790	157
MIN										81	79	56
CFSM										.41	.65	.18
IN.										.47	.75	.20

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	866	135	135	71	907	1520	437	106	200	71	33
2	72	604	130	130	70	652	1550	387	107	150	74	41
3	70	539	125	130	70	578	2500	359	102	120	65	37
4	64	524	120	125	69	2060	1430	324	94	115	56	33
5	61	554	120	120	68	3280	1380	636	89	110	53	32
6	59	451	119	120	68	1620	1200	528	95	120	81	38
7	61	392	640	115	66	1100	997	468	160	240	165	40
8	170	354	480	115	66	870	889	365	120	460	150	37
9	4130	311	330	110	65	794	706	417	110	300	106	32
10	1830	299	290	110	65	919	634	614	250	190	85	30
11	767	311	410	105	64	981	574	665	210	150	75	28
12	500	266	350	105	160	1000	499	508	140	125	81	28
13	382	256	300	100	640	4040	437	429	110	113	77	28
14	376	235	270	98	400	2620	393	367	94	106	67	142
15	322	215	240	96	220	1660	348	320	90	92	65	124
16	262	208	220	94	180	1300	316	283	82	88	59	98
17	227	202	210	92	150	992	288	255	84	136	67	265
18	202	202	200	90	140	879	262	236	240	126	83	167
19	182	192	195	88	130	820	246	262	250	101	67	171
20	252	188	210	86	115	725	231	221	180	92	58	637
21	3800	185	270	84	115	670	206	193	140	85	51	575
22	1250	173	230	82	110	1220	197	170	120	75	58	270
23	818	165	200	82	435	1520	249	152	100	69	68	193
24	676	153	190	80	2940	1100	2060	148	84	63	56	174
25	854	148	180	78	6040	808	1640	230	110	79	51	1840
26	1110	145	170	76	1160	773	1100	160	320	103	47	1240
27	704	156	165	76	1420	1000	908	137	190	77	44	875
28	564	168	160	74	1610	2340	734	125	150	63	43	506
29	504	195	150	74	---	3490	603	115	370	58	41	354
30	442	144	145	72	---	2790	504	113	290	71	38	272
31	1090	---	140	72	---	2320	---	110	---	90	35	---
TOTAL	21877	8801	7094	3014	16707	45828	24601	9734	4587	3967	2137	8340
MEAN	706	293	229	97.2	597	1478	820	314	153	128	68.9	278
MAX	4130	866	640	135	6040	4040	2500	665	370	460	165	1840
MIN	59	144	119	72	64	578	197	110	82	58	35	28
CFSM	1.58	.66	.51	.22	1.34	3.31	1.84	.70	.34	.29	.15	.62
IN.	1.82	.73	.59	.25	1.39	3.82	2.05	.81	.38	.33	.18	.70
WTR YR 1977	TOTAL	156687	MEAN	429	MAX	6040	MIN	28	CFSM	.96	IN	13.07

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to September 1972, September 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

pH: October 1976 to current year.

WATER TEMPERATURES: October 1976 to current year.

DISSOLVED OXYGEN: October 1976 to current year.

REMARKS.--Records of discharge are computed from 01518000 Tioga River at Tioga and 01518500 Crooked Creek at Tioga.

COOPERATION.--Seven water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 459 micromhos Sept. 8, 1977; minimum, 102 micromhos Oct. 9, 1976.

pH: Maximum, 7.9 Aug. 14, 1977; minimum, 5.1 Sept. 8, 1977.

WATER TEMPERATURES: Maximum, 29.0°C Jul. 18, 20, 21, 1977; minimum, freezing point on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 459 micromhos Sept. 8; minimum, 102 micromhos Oct 9.

pH: Maximum, 7.9 Aug. 14; minimum, 5.1 Sept. 8.

WATER TEMPERATURES: Maximum, 29.0°C Jul. 18, 20, 21; minimum, freezing point on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)
OCT 07...	1050	58	352	6.9	15.0	9.5	93	.0	2.0
NOV 10...	0950	281	196	6.6	1.0	13.2	93	.2	8.0
DEC 14...	1545	1160	183	6.7	.0	13.6	93	.1	5.0
JAN 12...	1535	E105	255	6.4	.0	12.4	85	.3	17
FEB 08...	1445	E66	291	6.1	.0	12.6	86	.4	20
MAR 07...	1325	1010	130	6.3	1.5	13.4	103	.1	6.0
APR 13...	1510	424	179	6.7	15.5	10.0	99	.1	4.0
MAY 02...	1440	379	172	6.8	14.0	10.1	97	.1	5.0
JUN 09...	1830	99	265	6.9	13.5	9.9	94	.1	6.0
JUL 06...	1515	90	314	6.5	25.5	8.1	98	.1	6.0
AUG 08...	1645	134	206	7.7	26.0	8.6	105	.1	3.0
SEP 15...	1600	103	305	7.4	17.0	9.6	99	.1	4.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 07...	20	0	16	4.0	120	9.8	E0	--
NOV 10...	23	0	19	9.2	59	6.3	14	11
DEC 14...	33	0	27	11	48	8.8	12	38
JAN 12...	23	0	19	15	82	8.1	7	--
FEB 08...	24	0	20	31	96	10	10	--
MAR 07...	10	0	8	8.0	35	4.7	35	95
APR 13...	16	0	13	5.1	53	5.3	44	50
MAY 02...	18	0	15	4.6	51	5.1	10	10
JUN 09...	18	0	15	3.6	91	8.3	9	2.4
JUL 06...	8	0	7	4.0	120	8.3	2	.49
AUG 08...	56	0	46	1.8	65	9.9	105	38
SEP 15...	44	0	36	2.8	85	10	40	11

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 14...	1545	.63	--	.01	--	.64	--	.04	--
MAR 07...	1325	.67	--	.01	--	.68	--	.05	--
JUN 09...	1830	.32	--	.00	--	.32	--	.01	--
SEP 15...	1600	--	.31	--	.00	--	.31	--	.07

DATE	TIME	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO PHOS- PHORUS (P) (MG/L)
DEC 14...		.16	--	.20	--	.84	.03	--	.01	--
MAR 07...		.20	--	.25	--	.93	.03	--	.01	--
JUN 09...		.07	--	.08	--	.40	.00	--	.00	--
SEP 15...		--	.25	--	.32	--	--	.06	--	.00

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA.MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 13...	1515	9813	300	6.7	10.0	15	11.0	--	--	0	--	--
NOV 18...	1515	9813	120	6.8	8.0	0	11.0	30	--	0	--	13
FEB 16...	1415	9813	250	6.5	1.0	5	--	93	0	0	--	24
MAR 21...	1515	9813	90	6.7	5.0	1	11.0	15	--	0	--	2.3
APR 07...	1515	9813	90	6.8	1.0	1	11.0	15	--	--	--	6.3
AUG 25...	1100	9813	335	8.1	16.5	2	--	134	--	0	--	32
SEP 29...	0750	9813	210	7.1	11.5	--	8.3	76	--	--	20	--

DATE	TIME	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	--	--	--	66	--	--	--	--	1.7	.02	.02	.15	2170
NOV 18...	--	--	.0	26	24	8.0	--	--	1.1	.02	<.02	.05	50
FEB 16...	--	--	8.0	28	56	18	180	--	1.7	.03	.28	.10	910
MAR 21...	--	--	2.2	12	10	14	94	--	.87	.02	.04	.08	160
APR 07...	--	--	<.5	8	10	14	76	--	.88	.02	.11	.05	150
AUG 25...	--	--	13	30	98	12	266	--	.56	.02	.07	.13	110
SEP 29...	6.5	--	--	46	55	8.0	136	34	1.0	.05	.09	.07	>1514

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 °C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MTN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	304	288	295	154	178	146	246	235	240	246	233	240
2	314	301	307	164	153	158	264	242	255	248	241	244
3	317	310	313	170	162	166	267	260	265	253	248	251
4	320	312	317	172	167	169	269	257	261	256	248	251
5	326	318	322	172	165	168	277	259	269	261	252	257
6	333	321	328	179	170	174	266	254	261	261	254	257
7	339	327	334	184	178	180	276	259	218	262	253	257
8	330	272	306	189	182	185	166	151	156	265	257	261
9	282	102	188	195	189	192	184	165	176	266	258	262
10	139	104	121	200	195	197	188	176	184	265	259	262
11	179	137	156	202	192	197	179	166	174	265	260	262
12	200	175	187	205	195	198	169	164	167	263	258	261
13	210	198	204	212	198	204	175	162	167	271	260	264
14	212	201	208	212	203	207	187	171	180	274	265	268
15	206	196	200	215	206	211	198	184	192	273	267	270
16	214	203	210	223	209	216	191	179	185	274	268	271
17	219	211	216	229	211	219	195	178	182	272	265	269
18	225	217	222	226	212	219	184	180	182	276	266	270
19	232	222	227	222	216	220	189	183	186	286	273	278
20	236	157	225	225	218	221	195	171	185	290	279	284
21	191	103	122	223	217	220	177	159	165	289	284	286
22	137	114	126	225	218	222	179	168	173	286	279	283
23	156	136	146	231	223	227	196	178	190	287	283	285
24	166	156	162	237	229	232	199	194	196	289	283	285
25	165	152	157	241	231	236	205	198	202	289	284	287
26	161	147	152	241	233	237	215	203	209	292	285	288
27	164	150	156	242	233	237	216	205	210	293	284	287
28	170	162	165	235	222	231	216	206	210	289	282	285
29	176	169	172	224	214	219	220	213	216	290	279	284
30	183	175	178	249	220	237	227	219	224	295	285	290
31	182	138	165	---	---	---	233	222	227	299	291	294
MONTH	339	102	212	249	138	205	277	151	203	299	233	271

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	301	292	297	---	---	---	---	---	---	164	157	160
2	299	293	297	---	---	---	---	---	---	170	163	166
3	301	293	297	162	147	154	---	---	---	174	169	171
4	300	290	294	---	---	---	---	---	---	190	173	177
5	295	290	293	---	---	---	---	---	---	174	153	160
6	302	291	295	---	---	---	---	---	---	157	152	154
7	302	288	293	137	119	127	---	---	---	170	151	158
8	304	291	296	153	136	150	---	---	---	167	157	162
9	310	294	302	---	---	---	153	146	149	172	163	167
10	302	294	298	---	---	---	157	153	154	171	152	161
11	305	294	299	---	---	---	---	---	---	153	135	144
12	357	275	301	---	---	---	---	---	---	146	137	141
13	---	---	---	---	---	---	---	---	---	157	146	151
14	---	---	---	---	---	---	---	---	---	164	156	160
15	---	---	---	---	---	---	183	177	180	172	164	167
16	---	---	---	---	---	---	186	182	184	180	172	175
17	---	---	---	---	---	---	189	186	187	189	180	184
18	299	275	288	---	---	---	---	---	---	195	189	193
19	292	280	285	158	142	148	---	---	---	202	191	197
20	---	---	---	160	154	157	---	---	---	197	191	194
21	---	---	---	162	153	157	---	---	---	209	197	204
22	---	---	---	164	142	155	213	209	210	217	207	212
23	---	---	---	150	140	145	212	205	209	225	215	221
24	---	---	---	152	147	150	205	119	149	233	225	229
25	---	---	---	160	151	155	120	115	117	253	197	222
26	---	---	---	161	149	154	126	119	123	220	201	211
27	---	---	---	---	---	---	130	126	128	237	219	228
28	---	---	---	---	---	---	141	128	134	247	236	241
29	---	---	---	---	---	---	151	141	145	254	247	251
30	---	---	---	---	---	---	158	151	154	263	253	258
31	---	---	---	---	---	---	---	---	---	266	262	263
MONTH	357	275	295	164	119	150	213	115	159	266	135	190

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	270	263	265	230	207	218	319	308	312	422	395	406
2	274	269	272	256	230	242	325	310	315	419	395	405
3	273	265	268	272	255	264	335	323	328	395	385	389
4	278	269	272	290	271	282	326	320	323	398	386	392
5	285	276	282	306	289	296	336	323	330	402	393	399
6	285	280	282	309	295	303	343	310	329	404	399	402
7	289	279	283	295	244	270	310	238	269	457	399	423
8	289	268	277	246	187	223	268	243	255	459	398	430
9	270	265	267	204	180	190	279	268	271	404	397	400
10	271	251	267	227	204	217	293	280	286	406	397	400
11	250	208	219	247	227	238	309	294	298	414	405	409
12	235	215	227	258	246	252	309	301	306	---	---	---
13	250	235	242	266	258	262	312	303	307	---	---	---
14	267	250	261	276	244	269	310	298	302	---	---	---
15	277	266	273	292	273	280	323	310	317	---	---	---
16	286	276	283	297	287	292	340	324	334	---	---	---
17	290	285	288	297	281	292	347	333	339	---	---	---
18	310	223	280	284	253	264	350	321	335	---	---	---
19	241	221	231	271	259	264	341	330	335	---	---	---
20	223	211	216	300	269	282	331	326	328	---	---	---
21	248	220	234	310	292	303	334	329	332	191	171	179
22	263	248	255	305	292	299	331	325	328	227	190	207
23	273	263	270	321	306	315	343	325	332	265	227	249
24	286	273	281	333	320	326	357	339	346	280	265	275
25	292	285	288	335	305	328	358	328	340	277	145	179
26	298	194	252	321	297	306	356	338	349	173	150	164
27	218	195	205	327	301	314	363	356	360	182	162	170
28	235	217	229	319	300	310	382	362	368	202	141	191
29	259	195	229	330	317	323	385	370	375	217	199	206
30	207	193	199	330	320	326	401	369	379	229	215	221
31	---	---	---	327	291	302	404	393	399	---	---	---
MONTH	310	193	257	335	180	279	404	238	327	459	145	309

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	7.2	7.0	7.1	7.2	7.2	7.2	6.9	6.7	6.8
2	---	---	---	7.1	7.0	7.0	7.2	6.9	7.0	6.8	6.7	6.7
3	---	---	---	7.1	7.0	7.0	7.0	6.8	6.9	6.7	6.5	6.6
4	---	---	---	7.0	6.9	7.0	7.0	6.9	7.0	6.6	6.6	6.6
5	---	---	---	7.1	7.0	7.0	6.9	6.6	6.7	6.6	6.5	6.5
6	---	---	---	7.0	6.9	7.0	6.9	6.7	6.8	6.6	6.6	6.6
7	---	---	---	7.0	6.9	6.9	7.3	6.6	7.0	6.6	6.5	6.6
8	---	---	---	7.0	6.9	7.0	7.3	6.3	7.3	6.6	6.5	6.6
9	---	---	---	7.0	6.9	7.0	7.2	7.1	7.2	6.6	6.6	6.6
10	---	---	---	7.0	6.9	6.9	7.1	7.0	7.1	6.6	6.5	6.5
11	---	---	---	7.1	7.0	7.0	7.3	7.1	7.2	6.5	6.4	6.5
12	---	---	---	7.1	6.8	7.0	7.4	7.3	7.3	6.5	6.5	6.5
13	6.9	6.8	6.9	7.0	6.8	6.9	7.5	7.4	7.4	6.5	6.4	6.5
14	6.9	6.8	6.9	7.0	6.8	6.9	7.5	7.3	7.4	6.6	6.4	6.4
15	7.0	6.9	7.0	7.0	6.9	6.9	7.4	7.2	7.3	6.4	6.4	6.4
16	7.0	6.9	6.9	7.1	6.8	6.9	7.2	7.1	7.1	6.4	6.4	6.4
17	7.0	6.9	6.9	7.1	6.8	7.0	7.2	7.2	7.2	6.4	6.4	6.4
18	7.0	6.9	6.9	7.1	6.9	7.0	7.3	7.2	7.2	6.5	6.4	6.4
19	7.0	6.9	6.9	7.1	6.9	7.0	7.3	7.2	7.2	6.4	6.3	6.3
20	7.2	6.9	6.9	7.1	7.0	7.0	7.3	7.1	7.2	6.4	6.3	6.3
21	7.1	6.9	7.0	7.1	7.0	7.0	7.5	7.3	7.4	6.4	6.3	6.3
22	7.1	7.1	7.1	7.1	7.0	7.0	7.3	7.3	7.3	6.4	6.4	6.4
23	7.1	7.0	7.0	7.1	6.9	7.0	7.3	7.2	7.2	6.4	6.3	6.4
24	7.0	6.9	6.9	7.1	6.8	7.0	7.2	7.1	7.1	6.4	6.4	6.4
25	7.0	6.9	7.0	7.1	6.8	7.0	7.1	7.1	7.1	6.4	6.4	6.4
26	7.3	7.0	7.1	7.1	6.9	7.0	7.1	6.9	7.0	6.4	6.4	6.4
27	7.1	6.9	7.0	7.2	6.9	7.0	7.0	6.9	6.9	6.5	6.4	6.4
28	7.0	6.9	6.9	7.2	7.1	7.1	7.0	6.9	7.0	6.5	6.4	6.5
29	7.0	6.9	6.9	7.2	7.1	7.2	6.9	6.9	6.9	6.5	6.4	6.5
30	6.9	6.8	6.9	7.2	7.1	7.2	6.9	6.8	6.8	6.4	6.4	6.4
31	7.2	6.9	7.0	---	---	---	6.9	6.9	6.9	6.4	6.3	6.3
MONTH	7.3	6.8	7.0	7.2	6.8	7.0	7.5	6.6	7.1	6.9	6.3	6.5

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	6.4	6.3	6.3	---	---	---	---	---	---	7.2	7.1	7.1
2	6.4	6.3	6.4	---	---	---	---	---	---	7.1	7.0	7.1
3	6.4	6.4	6.4	7.1	6.6	6.9	---	---	---	7.2	7.1	7.1
4	6.5	6.4	6.4	---	---	---	---	---	---	7.2	7.1	7.1
5	6.5	6.4	6.4	---	---	---	---	---	---	7.5	7.1	7.3
6	6.5	6.4	6.4	---	---	---	---	---	---	7.5	7.3	7.3
7	6.6	6.5	6.5	6.9	6.7	6.8	---	---	---	7.5	7.2	7.3
8	6.6	6.4	6.5	6.8	6.2	6.4	---	---	---	7.4	7.2	7.3
9	6.5	6.4	6.4	---	---	---	7.1	6.9	7.0	7.4	7.3	7.3
10	6.5	6.4	6.5	---	---	---	7.1	6.9	7.0	7.5	7.3	7.4
11	6.5	6.4	6.5	---	---	---	---	---	---	7.5	7.3	7.4
12	7.1	6.5	6.7	---	---	---	---	---	---	7.5	7.2	7.3
13	---	---	---	---	---	---	---	---	---	7.5	7.2	7.3
14	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
15	---	---	---	---	---	---	7.1	7.0	7.1	7.3	7.1	7.2
16	---	---	---	---	---	---	7.2	7.1	7.1	7.2	7.1	7.1
17	---	---	---	---	---	---	7.2	7.1	7.1	7.1	7.0	7.1
18	6.9	6.8	6.8	---	---	---	---	---	---	7.1	7.0	7.1
19	7.0	6.8	6.9	7.1	6.9	7.0	---	---	---	7.2	6.9	7.0
20	---	---	---	7.2	7.0	7.1	---	---	---	7.2	7.1	7.1
21	---	---	---	7.3	7.0	7.2	---	---	---	7.1	7.0	7.0
22	---	---	---	7.4	7.2	7.3	7.1	6.9	7.0	7.2	7.1	7.1
23	---	---	---	7.4	7.3	7.3	7.1	6.9	7.0	7.2	7.1	7.1
24	---	---	---	7.4	7.2	7.3	7.4	7.2	7.3	7.1	7.0	7.0
25	---	---	---	7.5	7.2	7.3	7.3	7.3	7.3	7.3	6.3	6.9
26	---	---	---	7.4	7.2	7.3	7.3	7.3	7.3	7.3	7.3	7.3
27	---	---	---	---	---	---	7.3	7.2	7.3	7.3	7.2	7.2
28	---	---	---	---	---	---	7.3	7.2	7.3	7.2	7.1	7.1
29	---	---	---	---	---	---	7.2	7.1	7.2	7.2	7.1	7.1
30	---	---	---	---	---	---	7.2	7.1	7.1	7.1	6.9	7.0
31	---	---	---	---	---	---	---	---	---	7.0	6.9	6.9
MONTH	7.1	6.3	6.5	7.5	6.2	7.1	7.4	6.9	7.2	7.5	6.3	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.0	6.9	7.0	7.3	7.1	7.2	7.2	7.1	7.2	6.8	6.6	6.7
2	7.0	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.1	6.9	6.2	6.6
3	7.1	7.0	7.0	7.0	6.6	6.8	7.0	6.8	6.9	7.2	6.9	7.1
4	7.1	7.0	7.0	6.7	6.3	6.5	7.1	6.9	6.9	7.3	7.0	7.1
5	7.0	7.0	7.0	6.5	6.3	6.4	7.0	7.0	7.0	7.3	7.0	7.1
6	7.2	7.0	7.1	6.5	6.1	6.3	7.1	6.9	7.0	7.2	7.0	7.1
7	7.1	7.0	7.1	7.3	6.5	6.9	7.5	7.0	7.3	7.0	5.2	6.5
8	7.1	7.0	7.1	7.3	6.8	7.2	7.6	7.5	7.5	6.5	5.1	5.7
9	7.2	7.1	7.2	7.4	7.3	7.4	7.7	7.4	7.5	6.9	6.5	6.8
10	7.2	7.1	7.1	7.4	7.3	7.4	7.6	7.4	7.5	7.0	6.8	6.9
11	7.4	7.2	7.3	7.4	7.2	7.3	7.7	7.4	7.5	7.3	6.9	7.1
12	7.4	7.3	7.3	7.2	7.0	7.1	7.6	7.3	7.5	---	---	---
13	7.4	7.3	7.3	7.1	7.0	7.0	7.8	7.3	7.5	---	---	---
14	7.3	7.2	7.2	7.0	7.0	7.0	7.9	7.5	7.6	---	---	---
15	7.2	7.1	7.2	7.0	6.9	6.9	7.8	7.5	7.6	---	---	---
16	7.2	7.2	7.2	6.9	6.8	6.8	7.7	7.4	7.6	---	---	---
17	7.1	7.1	7.1	7.0	6.6	6.8	7.8	7.4	7.6	---	---	---
18	7.3	6.5	6.9	7.0	6.7	6.9	7.8	7.2	7.5	---	---	---
19	7.3	6.9	7.1	7.2	6.9	7.1	7.7	7.4	7.6	---	---	---
20	7.2	7.1	7.2	7.1	6.8	7.0	7.6	7.4	7.5	---	---	---
21	7.4	7.2	7.3	6.9	6.7	6.8	7.7	7.4	7.5	7.4	7.0	7.3
22	7.4	7.3	7.4	7.1	6.8	7.0	7.6	7.4	7.5	7.5	7.4	7.4
23	7.3	7.1	7.2	7.0	6.8	6.9	7.6	7.3	7.5	7.4	7.2	7.3
24	7.1	7.0	7.1	6.9	6.7	6.8	7.4	7.2	7.3	7.3	7.1	7.1
25	7.1	6.9	7.0	7.1	6.6	6.8	7.5	7.2	7.4	7.3	7.0	7.2
26	7.3	6.7	7.0	7.2	7.0	7.1	7.5	7.3	7.4	7.4	7.3	7.3
27	7.3	7.2	7.3	7.1	6.7	6.9	7.5	7.3	7.4	7.3	7.3	7.3
28	7.2	7.1	7.2	7.1	7.0	7.0	7.4	7.2	7.3	7.3	7.2	7.2
29	7.2	6.2	6.8	7.0	6.9	7.0	7.4	7.1	7.3	7.3	7.2	7.2
30	7.4	7.1	7.3	6.9	6.8	6.8	7.3	6.9	7.2	7.2	7.0	7.1
31	---	---	---	7.3	6.8	7.2	6.9	6.6	6.7	---	---	---
MONTH	7.4	6.2	7.1	7.4	6.1	6.9	7.9	6.6	7.4	7.5	5.1	7.0

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	---	---	---	---	---	---	16.5	11.0	13.5
2	0.0	0.0	0.0	---	---	---	---	---	---	15.0	13.5	14.0
3	0.0	0.0	0.0	3.5	0.0	1.5	---	---	---	16.5	11.0	13.5
4	0.0	0.0	0.0	---	---	---	---	---	---	14.5	12.0	12.5
5	0.0	0.0	0.0	---	---	---	---	---	---	16.0	11.0	13.0
6	0.0	0.0	0.0	---	---	---	---	---	---	19.0	14.5	16.5
7	0.0	0.0	0.0	2.5	0.5	1.5	---	---	---	18.5	15.0	16.5
8	0.0	0.0	0.0	5.0	1.0	3.0	---	---	---	16.0	12.5	14.5
9	0.0	0.0	0.0	---	---	---	7.0	3.0	5.0	13.5	7.0	9.0
10	0.0	0.0	0.0	---	---	---	9.5	4.5	7.0	10.5	7.0	9.0
11	0.5	0.0	0.0	---	---	---	---	---	---	14.5	9.0	11.5
12	0.5	0.0	0.0	---	---	---	---	---	---	15.5	10.5	13.5
13	---	---	---	---	---	---	---	---	---	17.5	12.5	15.0
14	---	---	---	---	---	---	---	---	---	17.5	12.0	14.5
15	---	---	---	---	---	---	14.0	10.0	12.0	17.5	11.5	14.5
16	---	---	---	---	---	---	14.0	10.0	12.0	19.0	13.0	15.5
17	---	---	---	---	---	---	15.0	10.5	13.0	20.5	15.0	17.5
18	0.0	0.0	0.0	---	---	---	---	---	---	20.5	17.0	19.0
19	0.0	0.0	0.0	5.5	1.0	3.0	---	---	---	22.5	18.0	20.0
20	---	---	---	4.5	1.5	2.5	---	---	---	22.5	18.0	20.0
21	---	---	---	5.5	1.0	3.5	---	---	---	24.5	19.0	21.5
22	---	---	---	5.0	2.0	3.5	18.0	16.0	17.0	24.0	20.0	22.0
23	---	---	---	4.5	1.0	2.5	17.5	14.0	15.5	24.5	19.5	22.0
24	---	---	---	4.5	2.0	3.0	14.0	11.0	12.0	24.0	21.5	22.5
25	---	---	---	4.5	1.0	2.5	11.0	9.5	10.0	24.0	20.0	22.0
26	---	---	---	6.0	1.0	3.5	11.0	9.0	10.0	23.0	19.0	21.0
27	---	---	---	---	---	---	13.5	9.0	11.0	23.0	18.0	20.5
28	---	---	---	---	---	---	12.5	9.5	11.0	23.5	19.0	21.5
29	---	---	---	---	---	---	12.5	7.0	9.5	22.5	18.0	20.0
30	---	---	---	---	---	---	14.5	9.0	11.5	21.5	18.0	20.0
31	---	---	---	---	---	---	---	---	---	21.0	18.0	19.5
MONTH	0.5	0.0	0.0	6.0	0.0	2.5	18.0	3.0	11.0	24.5	7.0	17.0

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	14.1	13.4	13.7	12.9	12.7	12.8
2	---	---	---	12.3	11.1	11.8	13.7	13.2	13.4	12.9	12.7	12.8
3	---	---	---	11.6	10.8	11.2	13.5	13.1	13.3	12.8	12.6	12.7
4	---	---	---	11.4	10.9	11.1	13.4	13.3	13.4	12.7	12.4	12.6
5	---	---	---	11.8	11.3	11.5	13.4	13.2	13.3	12.8	12.5	12.6
6	---	---	---	12.0	11.2	11.6	13.4	13.2	13.3	12.8	12.6	12.7
7	---	---	---	11.8	11.3	11.5	13.4	12.7	13.1	12.7	12.5	12.6
8	---	---	---	---	---	---	13.5	13.1	13.4	12.7	12.6	12.6
9	---	---	---	---	---	---	13.8	13.5	13.7	12.7	12.6	12.6
10	---	---	---	---	---	---	13.7	13.6	13.7	12.7	12.4	12.5
11	---	---	---	---	---	---	13.7	13.4	13.6	12.5	12.3	12.4
12	---	---	---	---	---	---	13.5	13.4	13.4	12.8	12.5	12.6
13	10.5	9.6	10.1	---	---	---	13.6	13.3	13.5	12.8	12.6	12.7
14	10.4	9.7	10.1	---	---	---	13.6	13.4	13.5	12.7	12.4	12.6
15	10.5	9.5	10.3	---	---	---	13.3	13.2	13.2	12.5	12.3	12.4
16	10.6	9.7	10.2	---	---	---	13.3	13.1	13.2	12.6	12.3	12.4
17	10.9	10.5	10.7	13.4	12.7	13.0	13.1	13.0	13.1	12.6	12.4	12.5
18	---	---	---	13.0	12.3	12.7	13.2	13.0	13.1	12.6	12.4	12.5
19	---	---	---	12.8	12.0	12.5	13.2	13.0	13.1	12.5	12.3	12.4
20	---	---	---	12.9	12.1	12.4	13.1	12.8	12.9	12.5	12.3	12.4
21	---	---	---	13.0	12.3	12.6	13.0	12.6	12.8	12.5	12.3	12.4
22	---	---	---	13.3	12.4	12.9	13.2	12.9	13.0	12.5	12.3	12.4
23	---	---	---	13.4	12.8	13.1	13.2	12.8	13.0	12.5	12.3	12.4
24	---	---	---	13.7	12.9	13.3	13.1	12.9	13.0	12.5	12.2	12.3
25	---	---	---	13.8	13.4	13.6	13.3	12.8	13.1	12.3	12.0	12.1
26	---	---	---	13.8	12.8	13.4	13.0	12.8	12.9	12.1	11.9	12.0
27	---	---	---	12.8	11.7	12.3	13.1	12.8	12.9	12.0	11.9	12.0
28	---	---	---	12.5	11.6	12.1	12.9	12.7	12.8	12.0	11.9	12.0
29	---	---	---	13.8	12.2	13.1	12.8	12.6	12.7	12.0	11.9	12.0
30	---	---	---	14.1	13.4	13.7	12.9	12.7	12.8	12.0	11.9	12.0
31	---	---	---	---	---	---	12.9	12.7	12.8	12.0	11.8	11.9
MONTH	10.9	9.5	10.3	14.1	10.8	12.5	14.1	12.6	13.2	12.9	11.8	12.4

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.9	11.8	11.9	---	---	---	---	---	---	11.0	10.0	10.5
2	11.9	11.8	11.9	---	---	---	---	---	---	10.4	9.9	10.1
3	11.9	11.7	11.9	13.2	12.8	13.0	---	---	---	10.7	9.9	10.4
4	11.9	11.7	11.8	---	---	---	---	---	---	10.5	9.9	10.2
5	11.9	11.8	11.9	---	---	---	---	---	---	10.6	9.9	10.5
6	12.0	11.9	11.9	---	---	---	---	---	---	10.2	9.6	9.9
7	12.1	12.0	12.0	13.3	13.1	13.2	---	---	---	10.1	9.6	9.9
8	12.2	12.0	12.1	13.1	12.3	12.8	---	---	---	10.4	9.8	10.1
9	12.1	12.0	12.0	---	---	---	12.8	11.9	12.4	11.1	10.0	10.7
10	12.1	11.9	12.0	---	---	---	12.9	12.0	12.4	10.9	10.4	10.7
11	12.1	11.9	12.0	---	---	---	---	---	---	10.7	9.9	10.4
12	12.4	12.0	12.2	---	---	---	---	---	---	10.3	9.8	10.0
13	---	---	---	---	---	---	---	---	---	10.2	9.7	9.9
14	---	---	---	---	---	---	---	---	---	10.3	9.7	10.0
15	---	---	---	---	---	---	10.5	10.0	10.2	10.2	9.5	9.9
16	---	---	---	---	---	---	11.0	10.4	10.7	10.0	9.1	9.6
17	---	---	---	---	---	---	10.9	10.2	10.6	9.5	8.9	9.3
18	12.4	12.2	12.3	---	---	---	---	---	---	---	---	---
19	12.2	12.1	12.2	13.2	12.7	13.0	---	---	---	---	---	---
20	---	---	---	13.1	12.7	13.0	---	---	---	---	---	---
21	---	---	---	13.3	12.5	13.0	---	---	---	---	---	---
22	---	---	---	13.0	12.5	12.8	9.6	9.3	9.5	---	---	---
23	---	---	---	13.1	12.7	13.0	10.0	9.5	9.8	---	---	---
24	---	---	---	13.0	12.7	12.9	10.6	10.1	10.4	---	---	---
25	---	---	---	13.1	12.8	13.0	11.1	10.7	10.9	---	---	---
26	---	---	---	13.1	12.7	12.9	11.1	10.7	10.9	---	---	---
27	---	---	---	---	---	---	11.1	10.4	10.8	---	---	---
28	---	---	---	---	---	---	11.0	10.4	10.7	9.1	8.6	8.9
29	---	---	---	---	---	---	11.5	10.8	11.2	9.2	8.6	8.9
30	---	---	---	---	---	---	11.3	10.5	10.9	9.2	8.7	9.0
31	---	---	---	---	---	---	---	---	---	9.2	8.8	9.0
MONTH	12.4	11.7	12.0	13.3	12.3	13.0	12.9	9.3	10.8	11.1	8.6	9.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.2	8.7	8.9	8.6	7.9	8.3	---	---	---	---	---	---
2	9.2	8.7	9.0	8.8	7.8	8.3	---	---	---	---	---	---
3	9.3	8.9	9.1	8.3	8.2	8.8	---	---	---	8.9	8.5	8.6
4	9.3	8.4	8.9	8.9	8.1	8.5	---	---	---	9.2	8.1	8.6
5	9.1	8.3	8.7	8.6	7.6	8.0	---	---	---	8.9	7.9	8.4
6	9.4	8.1	8.8	8.2	7.6	7.9	---	---	---	9.1	7.7	8.4
7	10.0	9.1	9.5	8.6	8.2	8.4	---	---	---	9.2	8.1	8.7
8	10.3	9.2	9.9	8.5	8.0	8.3	---	---	---	9.2	8.3	8.8
9	10.0	9.1	9.6	9.0	8.2	8.6	---	---	---	8.8	8.1	8.5
10	10.4	9.4	10.1	9.2	8.1	8.7	---	---	---	8.6	7.9	8.2
11	10.6	9.0	9.9	---	---	---	---	---	---	9.3	8.0	8.7
12	10.0	9.2	9.6	---	---	---	---	---	---	---	---	---
13	9.9	8.9	9.6	---	---	---	9.9	8.2	9.1	---	---	---
14	9.5	8.6	8.9	---	---	---	9.9	8.0	8.9	---	---	---
15	9.4	8.4	8.9	---	---	---	10.1	8.6	9.3	---	---	---
16	9.6	8.2	8.9	---	---	---	10.2	8.2	9.1	---	---	---
17	9.2	8.0	8.6	---	---	---	---	---	---	---	---	---
18	9.0	8.2	8.6	---	---	---	---	---	---	---	---	---
19	8.9	8.0	8.5	---	---	---	---	---	---	---	---	---
20	9.1	8.1	8.6	---	---	---	---	---	---	---	---	---
21	9.2	8.4	8.8	---	---	---	---	---	---	9.0	8.2	8.7
22	9.9	8.8	9.4	---	---	---	---	---	---	9.4	8.9	9.2
23	9.8	8.6	9.2	---	---	---	---	---	---	9.7	9.1	9.4
24	9.2	8.4	8.8	---	---	---	---	---	---	9.6	9.3	9.4
25	9.2	8.3	8.8	---	---	---	---	---	---	10.2	9.2	9.9
26	---	---	---	---	---	---	---	---	---	10.3	9.5	10.1
27	---	---	---	---	---	---	---	---	---	10.2	9.3	9.8
28	---	---	---	---	---	---	---	---	---	9.8	9.2	9.5
29	---	---	---	---	---	---	---	---	---	9.9	9.2	9.5
30	9.0	8.0	8.5	---	---	---	---	---	---	9.8	9.1	9.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	10.6	8.0	9.1	9.2	7.6	8.4	10.2	8.0	9.1	10.3	7.7	9.0

CHEMUNG RIVER BASIN

51

01519500 COWANESQUE RIVER AT NELSON, PA

LOCATION.--Lat 41°58'41", long 77°14'15", Tioga County, Hydrologic Unit 02050104, at Legislative Route 58050 bridge, 6.8 mi (10.9 km) southwest of Lawrenceville, and 8.3 mi (13.4 km) upstream from mouth.

DRAINAGE AREA.--266 mi² (689 km²).

PERIOD OF RECORD.--September 1973 to August 1974, April 1976 to September 1977 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO ₃ (MG/L)
OCT 07...	1120	18	345	8.4	15.0	11.4	118	.0	.0
NOV 10...	1045	115	220	8.0	1.0	13.9	98	.0	2.0
DEC 15...	0815	--	200	6.8	.0	13.6	93	.1	6.0
JAN 13...	1015	--	270	6.8	.0	12.6	86	.2	8.0
FEB 08...	1555	--	339	6.8	.0	12.7	87	.2	8.0
MAR 07...	1410	490	136	7.1	1.5	13.6	97	.0	2.0
APR 13...	1600	210	184	8.7	16.0	10.8	108	.0	.0
MAY 03...	0845	133	198	7.2	10.5	11.1	99	.1	4.0
JUN 10...	0905	193	294	7.7	12.0	10.2	94	.1	3.0
JUL 07...	0830	1200	135	7.4	19.5	8.2	88	.1	5.0
AUG 09...	0830	204	154	8.0	21.5	8.6	97	.0	2.0
SEP 16...	0835	190	225	7.8	15.0	9.7	95	.1	3.0

DATE	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	ALKALINITY AS CaCO ₃ (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 07...	117	1	98	.8	43	49	E0	--
NOV 10...	73	0	60	1.2	29	14	7	2.2
DEC 15...	65	0	53	16	25	12	3	--
JAN 17...	85	0	70	22	31	21	E0	--
FEB 08...	90	0	74	23	37	33	1	--
MAR 07...	37	0	30	4.7	18	7.0	20	26
APR 17...	50	4	48	.2	23	11	4	2.3
MAY 03...	63	0	52	6.4	22	11	4	1.4
JUN 10...	88	0	72	2.8	27	26	130	68
JUL 07...	41	0	34	2.6	13	5.3	612	--
AUG 09...	73	0	60	1.2	17	11	28	15
SEP 16...	74	0	61	1.9	20	15	57	29

CHEMUNG RIVER BASIN

01519500 COWANESQUE RIVER AT NELSON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC 15...	0815	.75	--	.01	--	.76	--	.00	--
MAR 07...	1410	.76	--	.04	--	.80	--	.06	--
JUN 10...	0905	.63	--	.04	--	.67	--	.09	--
SEP 16...	0835	--	.62	--	.01	--	.63	--	.03

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)
DEC 15...	.20	--	.20	--	.96	.02	--	.01	--
MAR 07...	.35	--	.41	--	1.2	.04	--	.01	--
JUN 10...	.67	--	.76	--	1.4	.16	--	.01	--
SEP 16...	--	.41	--	.44	--	--	.13	--	.01

CHEMUNG RIVER BASIN

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01520000 COWANESQUE RIVER NEAR LAWRENCEVILLE, PA

LOCATION.--Lat 41°59'48", long 77°08'25", Tioga County, Hydrologic Unit 02050104, on left bank 1.4 mi (2.3 km) upstream from mouth, and 0.8 mi (1.3 km) upstream from steel-truss highway bridge on U.S. Route 15 in Lawrenceville, Pa.

DRAINAGE AREA.--298 mi² (777 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1951 to current year. Prior to July 1976 at site 1.1 mi (1.8 km) upstream, datum 998.03 ft (304.200 m) above mean sea level.

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

GAGE.--Water-stage recorder. Datum of gage is 983.96 (299.911 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--26 years, 286 ft³/s (8.10 m³/s), 13.04 in/yr (331 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,700 ft³/s (1,240 m³/s) Sept. 26, 1975, gage height, 18.13 ft (5.526 m) site and datum then in use, from floodmark, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope area measurement of peak flow; minimum, 0.8 ft³/s (0.023 m³/s) Aug. 31, Sept. 1, 27, 1964; minimum gage height, 1.77 ft (0.539 m) Sept. 13, 1957, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,300 ft³/s (178 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 21	0700	6,420 182	11.94 3.639	Sept. 25	0915	*12,300 348	13.75 4.191
Feb. 25	--	ice jam	*16.99 5.179				

Minimum discharge, 17.2 ft³/s (0.487 m³/s) Sept. 12, 13, gage height, 6.79 ft (2.070 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	435	78	82	42	600	1180	164	47	170	76	49
2	31	265	72	80	41	520	1110	151	41	128	74	46
3	28	231	68	77	41	461	1590	151	41	103	57	49
4	25	228	66	74	40	710	963	137	39	85	46	43
5	24	225	64	73	40	1510	917	380	33	76	43	36
6	23	189	62	71	40	823	749	535	36	72	80	29
7	22	167	200	69	39	548	608	391	64	1210	561	30
8	62	156	420	67	39	449	529	281	59	1520	370	28
9	1040	134	220	64	39	473	417	285	49	636	208	27
10	1120	131	180	63	38	710	365	396	142	406	145	25
11	412	154	240	62	40	773	326	290	100	285	126	23
12	263	125	250	60	70	781	277	227	66	294	128	21
13	194	129	220	59	330	2420	239	197	50	223	142	20
14	194	117	180	57	370	1520	212	170	44	164	131	1170
15	268	106	150	56	300	1050	190	151	118	131	220	350
16	169	94	135	54	250	806	170	131	89	118	110	277
17	135	95	130	53	190	601	157	120	64	167	123	814
18	112	104	120	52	178	503	142	110	82	151	140	375
19	102	100	120	51	171	461	134	115	93	103	89	741
20	99	101	125	50	167	406	128	105	76	113	72	733
21	1670	97	180	49	164	375	120	87	63	82	63	485
22	561	93	150	48	163	461	113	78	59	63	183	336
23	397	87	135	48	200	588	120	70	47	52	164	259
24	311	81	120	47	2000	503	555	103	40	46	93	259
25	463	76	110	46	4300	370	455	176	43	44	80	4480
26	393	74	105	45	800	365	331	108	891	105	66	2150
27	283	98	100	44	960	497	290	85	299	61	57	1590
28	223	114	96	44	1020	1820	243	70	194	46	50	864
29	198	116	92	43	---	2400	212	59	422	39	44	580
30	176	94	88	43	---	1470	183	54	281	96	50	455
31	374	---	86	42	---	2000	---	50	---	131	78	---
TOTAL	9406	4216	4362	1773	12072	26974	13025	5427	3672	6920	3869	16344
MEAN	303	141	141	57.2	431	870	434	175	122	223	125	545
MAX	1670	435	420	82	4300	2420	1590	535	891	1520	561	4480
MIN	22	74	62	42	38	365	113	50	33	39	43	20
CFSM	1.02	.47	.47	.19	1.45	2.92	1.46	.59	.41	.75	.42	1.83
IN.	1.17	.53	.54	.22	1.51	3.37	1.63	.68	.46	.86	.48	2.04

CAL YR 1976	TOTAL	130895	MEAN	358	MAX	9110	MIN	16	CFSM	1.20	IN	16.34
WTR YR 1977	TOTAL	108060	MEAN	296	MAX	4480	MIN	20	CFSM	.99	IN	13.49

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER AT LAWRENCEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1968 to current year.

COOPERATION.--Seven water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)
OCT 07...	1215	21	316	8.6	15.5	10.1	100	.0	.0
NOV 10...	1150	130	228	7.6	2.0	14.0	101	.0	2.0
DEC 15...	0925	150	204	6.6	.0	13.6	93	.1	7.0
MAR 08...	0930	433	145	7.0	2.0	13.6	99	.0	2.0
APR 14...	0920	255	184	8.2	13.0	11.8	111	.0	1.0
MAY 03...	1005	154	192	7.5	12.5	12.4	116	.2	8.0
JUN 10...	1110	201	318	8.0	12.5	10.1	94	.0	2.0
JUL 07...	1000	1020	131	7.5	19.5	7.9	85	.0	2.0
AUG 09...	1030	212	201	8.3	22.5	9.2	105	.0	.0
SEP 16...	0930	208	220	7.9	15.0	9.4	92	.0	2.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 07...	113	1	94	.5	39	44	12	.68
NOV 10...	73	0	60	2.9	28	15	7	2.5
DEC 15...	62	0	51	25	26	12	16	--
MAR 08...	37	0	30	5.9	18	9.1	33	39
APR 14...	54	0	44	.5	23	10	4	2.8
MAY 03...	56	0	46	2.8	21	10	6	2.5
JUN 10...	98	0	80	1.6	26	27	75	41
JUL 07...	39	0	32	2.0	14	5.1	996	2740
AUG 09...	74	0	61	.6	16	9.0	25	14
SEP 16...	73	0	60	1.5	21	14	67	38

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA (N) (MG/L)	DISSOLVED AMMONIA (N) (MG/L)
DEC 15...	0925	.70	--	.01	--	.71	--	.00	--
MAR 08...	0930	.75	--	.02	--	.77	--	.05	--
JUN 10...	1110	.61	--	.04	--	.65	--	.11	--
SEP 16...	0930	--	.58	--	.01	--	.59	--	.03

DATE	TIME	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL ORTHOPHOSPHORUS (P) (MG/L)	DISSOLVED ORTHOPHOSPHORUS (P) (MG/L)
DEC 15...		.18	--	.18	--	.89	.03	--	.01	--
MAR 08...		.46	--	.51	--	1.3	.06	--	.02	--
JUN 10...		.65	--	.76	--	1.4	.08	--	.00	--
SEP 16...		--	.51	--	.54	--	--	.02	--	.01

CHEMUNG RIVER BASIN

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01520000 COWANESQUE RIVER AT LAWRENCEVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT 13...	1515	9813	190	320	6.7	10.0	7	11.0
NOV 18...	1515	9813	100	90	7.1	8.0	3	11.0
JAN 26...	1115	9813	370	190	8.6	--	6	11.1
MAR 21...	1515	9813	331	90	6.8	5.0	3	12.0
APR 07...	1515	9813	580	90	7.1	1.0	1	12.0
AUG 25...	1045	9813	80	340	9.2	18.5	15	--
SEP 29...	0730	9813	608	180	7.3	11.0	--	10.1

DATE	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT 13...	100	--	0	--	31	--	5.5	68	52
NOV 18...	30	--	0	--	8.0	--	2.5	24	14
JAN 26...	--	--	0	--	--	--	--	60	--
MAR 21...	15	--	0	--	2.3	--	2.2	14	15
APR 07...	20	0	0	--	7.1	--	.5	10	10
AUG 25...	72	--	0	--	26	--	1.5	78	8.0
SEP 29...	50	--	--	21	--	1.0	--	66	18

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	16	--	--	1.6	.02	.02	.11	1400
NOV 18...	10	--	--	.56	.02	.02	.06	730
JAN 26...	--	130	--	--	--	--	.08	200
MAR 21...	14	82	--	.91	.02	.07	.08	580
APR 07...	13	84	--	.87	.03	.16	--	300
AUG 25...	16	146	--	.42	.02	.08	.11	590
SEP 29...	8.0	108	42	1.2	.06	.04	.12	>1949

CHEMUNG RIVER BASIN

01520500 TIOGA RIVER AT LINDLEY, NY

LOCATION.--Lat 42°01'50", long 77°08'00", Steuben County, 800 ft (244 m) downstream from gaging station located on left bank just downstream from bridge on County Highway 120 at Lindley, and 6 mi (10 km) upstream from Canisteo River. Sediment samples are collected from the bridge.

DRAINAGE AREA.--771 mi² (2,000 km²).

PERIOD OF RECORD.--July 1964 to October 1965, September 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1974 to September 1977 (discontinued).

WATER TEMPERATURES: August 1974 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: August 1974 to September 1977 (discontinued).

REMARKS.--Records affected by upstream construction. Mean daily concentrations during low flow periods determined from once daily samples.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 405 micromhos Aug. 29, 1974; minimum daily, 84 micromhos Feb. 25, 1975, each year.

WATER TEMPERATURES: Maximum daily, 29.0°C Aug. 2, 3, 1975; minimum daily, freezing point on several days

SEDIMENT CONCENTRATIONS: Maximum daily, 3,100 mg/L Mar. 13, 1977; minimum daily, 1 mg/L June 30, July 1, 2, 1975.

SEDIMENT LOADS: Maximum daily, 194,000 tons (175,997 tonnes) Sept. 26, 1975; minimum daily, 0.46 ton

(0.42 tonne) July 2, 1975.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 3,100 mg/L Mar 13; minimum daily, 4 mg/L June 4.

SEDIMENT LOADS: Maximum daily, 69,000 tons (62,600 tonnes) Mar. 13; minimum daily, 1.5 tons (1.4 tonnes) June 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)
OCT									
07...	1235	83	359	8.4	15.5	9.4	93	.0	.0
NOV									
10...	1215	446	209	7.1	1.5	13.0	93	.1	4.0
DEC									
15...	1010	E450	191	6.5	.0	13.6	93	.1	7.0
JAN									
13...	1145	E130	272	6.9	.0	12.6	86	.3	13
FEB									
09...	0930	E92	307	6.6	--	12.3	84	.3	14
MAR									
08...	0945	1370	155	6.8	1.0	13.4	94	.1	5.0
APR									
14...	1000	702	184	7.0	13.0	10.0	94	.1	4.0
MAY									
03...	1030	562	183	6.5	11.5	10.5	96	.2	8.0
JUN									
10...	1130	E709	280	7.7	12.5	9.8	92	.1	4.0
JUL									
07...	1015	1400	168	7.4	20.5	7.6	84	.1	4.0
AUG									
09...	1100	308	137	7.9	23.5	8.0	93	.0	2.0
SEP									
16...	1010	268	240	7.7	15.5	9.1	90	.0	2.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT								
07...	62	1	53	.4	93	19	17	3.8
NOV								
10...	41	0	34	5.2	50	8.2	22	26
DEC								
15...	43	0	35	22	40	9.9	6	--
JAN								
13...	47	0	39	9.5	67	14	E0	--
FEB								
09...	50	0	41	20	74	19	2	--
MAR								
08...	17	0	14	4.3	38	7.2	37	137
APR								
14...	30	0	25	4.3	42	7.7	12	23
MAY								
03...	28	0	23	14	21	11	11	17
JUN								
10...	51	0	42	1.6	63	14	21	--
JUL								
07...	37	0	30	2.4	28	5.5	1230	4650
AUG								
09...	67	0	55	1.3	35	9.4	39	32
SEP								
16...	66	0	54	2.1	41	13	85	62

CHEMUNG RIVER BASIN

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01520500 TIOGA RIVER AT LINDLEY, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)
DEC									
15...	1010	.66	--	.01	--	.67	--	.02	--
MAR									
08...	0945	.73	--	.05	--	.78	--	.06	--
JUN									
10...	1130	.38	--	.01	--	.39	--	.02	--
SEP									
16...	1010	--	.51	--	.01	--	.52	--	.08

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
DEC									
15...	.16	--	.18	--	.85	.03	--	.01	--
MAR									
08...	.34	--	.40	--	1.2	.04	--	.01	--
JUN									
10...	.21	--	.23	--	.62	.01	--	.00	--
SEP									
16...	--	.64	--	.72	--	--	.02	--	.01

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	160			---	116	124	166	263	184		
2	327	169			---	139	133	172	262	206		
3	328	176			---	148	115	177	265	222		
4	304	181			---	151	126	180	267	236		
5	337	182			---	104	131	177	274	249		
6	296	187			---	109	134	160	278	259		
7	337	193			---	123	148	155	277	158		
8	311	197			---	143	156	166	290	141		
9	155	198			---	139	158	167	270	162		
10	142	204			---	128	166	164	259	176		
11	173	205			---	121	167	155	240	188		
12	198	203			---	124	169	153	232	210		
13	202	213			---	137	181	160	245	214		
14	215	217			---	107	185	171	252	228		
15	201	219			---	118	190	178	267	242		
16	216	221			---	130	202	183	253	250		
17	222	226			---	142	205	190	268	264		
18	230	231			---	144	199	195	283	260		
19	231	239			---	147	191	200	262	277		
20	238	241			---	158	202	204	237	270		
21	123	237			---	153	204	209	225	271		
22	141	232			---	155	213	218	243	293		
23	161	235			---	148	208	229	257	301		
24	169	240			---	153	141	236	280	328		
25	161	247			115	163	126	219	278	333		
26	160	255			132	156	133	196	152	---		
27	167	256			135	155	137	219	171	---		
28	174	237			132	135	143	233	185	---		
29	183	228			---	126	152	236	191	---		
30	188	233			---	99	160	248	169	---		
31	174	---			---	109	---	261	---	---		
MEAN	218	215			129	135	163	193	247	237		

CHEMUNG RIVER BASIN

01520500 TIOGA RIVER AT LINDLEY, NY--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	6.0			---	2.5	8.0	16.0	23.0	24.5	26.0	27.0
2	15.5	5.0			---	1.5	7.0	15.0	23.0	24.0	25.5	25.5
3	17.0	7.0			---	3.0	8.5	15.0	19.0	23.0	26.0	25.5
4	17.0	7.0			---	3.5	7.0	13.0	21.0	24.0	26.0	25.0
5	18.0	7.0			---	4.0	7.0	15.5	21.0	26.0	25.0	25.0
6	16.0	7.0			---	2.5	5.5	16.5	19.0	27.0	25.0	25.0
7	15.0	5.0			---	4.0	5.0	17.0	17.0	23.0	24.0	21.5
8	14.5	4.5			---	3.0	4.5	17.0	18.0	23.0	25.0	24.0
9	10.5	2.5			---	7.0	5.5	7.5	16.0	22.5	25.0	23.0
10	9.5	3.0			---	7.0	7.0	11.0	16.0	22.5	24.0	24.0
11	10.0	3.0			---	8.0	11.5	16.0	17.0	22.5	26.0	20.5
12	11.0	4.0			---	8.5	17.0	16.5	19.0	24.0	25.5	19.0
13	13.5	4.5			---	10.0	17.0	17.5	24.0	28.0	25.0	18.5
14	11.5	4.5			---	7.0	15.5	15.0	23.0	27.0	24.0	17.0
15	13.0	4.0			---	10.5	14.5	17.0	23.0	27.0	24.0	16.5
16	12.0	4.0			---	9.0	14.5	17.0	23.0	28.0	24.0	16.5
17	9.5	4.0			---	6.5	13.0	20.0	24.0	26.5	24.0	18.0
18	7.0	5.0			---	4.0	14.5	21.0	24.0	29.0	22.0	19.0
19	7.5	5.0			---	4.5	14.0	23.0	24.0	30.0	20.5	20.5
20	5.5	4.0			---	3.0	15.0	23.0	23.5	27.0	19.5	21.0
21	9.0	4.0			---	4.0	18.0	23.0	23.5	28.5	19.5	18.0
22	6.0	3.5			---	4.0	18.0	23.0	23.0	25.0	22.0	17.0
23	7.0	2.5			---	3.5	16.0	23.0	24.0	25.0	22.0	16.5
24	7.5	3.5			---	3.5	12.0	25.0	24.0	25.0	20.0	17.0
25	6.0	4.5			1.0	4.0	10.0	23.0	23.5	25.5	20.0	15.0
26	8.0	4.5			3.0	4.5	10.5	22.0	19.5	---	22.0	15.0
27	6.0	6.0			3.0	7.5	10.5	24.0	25.0	22.0	24.0	17.0
28	5.5	7.0			5.0	6.0	11.0	24.0	23.0	22.5	27.0	17.0
29	7.0	3.5			---	5.5	8.5	21.0	23.5	23.0	28.5	15.0
30	6.5	1.0			---	11.0	13.0	22.0	24.0	24.0	27.0	14.0
31	6.5	---			---	9.5	---	23.0	---	26.0	26.0	---
MEAN	10.5	4.5			3.0	5.5	11.5	19.0	21.5	25.0	24.0	20.0

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	116	8	2.5	1260	80	272	220	15	8.9
2	110	9	2.7	848	33	76	280	18	14
3	102	10	2.8	761	20	41	220	14	8.3
4	95	8	2.1	728	32	63	230	20	12
5	88	7	1.7	767	42	87	290	17	13
6	83	10	2.2	646	14	24	270	15	11
7	83	12	2.7	574	11	17	400	30	32
8	197	30	16	528	15	21	1000	45	121
9	4050	889	20200	472	17	22	640	30	52
10	3700	465	7630	451	14	17	540	20	29
11	1190	61	196	483	28	37	490	17	22
12	781	40	84	420	15	17	620	25	42
13	610	31	51	407	11	12	410	16	18
14	580	34	53	379	13	13	390	12	13
15	622	52	87	349	8	7.5	450	15	18
16	467	22	28	322	9	7.8	400	13	14
17	399	15	16	318	14	12	370	11	11
18	354	25	24	332	17	15	330	9	8.0
19	317	25	21	317	27	23	300	8	6.5
20	326	20	18	315	23	20	350	10	9.5
21	4960	750	10000	307	13	11	370	12	12
22	1770	130	621	291	65	51	350	12	11
23	1160	53	166	280	100	76	320	13	11
24	933	35	88	260	47	33	300	15	12
25	1210	60	196	240	30	19	270	11	8.0
26	1390	95	357	250	19	13	250	10	6.8
27	961	43	112	200	35	19	230	10	6.2
28	767	26	54	390	45	47	220	10	5.9
29	696	27	51	340	36	33	210	9	5.1
30	622	26	44	250	17	11	200	9	4.9
31	1290	95	417	---	---	---	190	9	4.6
TOTAL	30029	---	40546.7	13485	---	1117.3	11110	---	550.7

01520500 TIOGA RIVER AT LINDLEY, NY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	180	8	3.9	90	8	1.9	1630	95	418
2	170	8	3.7	90	9	2.2	1170	85	269
3	160	8	3.5	90	9	2.2	1080	95	277
4	160	9	3.9	90	10	2.4	2150	250	1450
5	150	9	3.6	88	10	2.4	4940	600	8000
6	150	8	3.2	86	12	2.8	2640	190	1350
7	150	9	3.6	86	11	2.6	1750	78	369
8	140	9	3.4	86	10	2.3	1390	65	244
9	140	8	3.0	92	9	2.2	1320	60	214
10	130	9	3.2	100	8	2.2	1670	220	992
11	130	8	2.8	120	8	2.6	1830	130	642
12	130	9	3.2	140	12	4.5	1850	120	599
13	130	9	3.2	170	25	11	5960	3100	69000
14	120	9	2.9	190	20	10	4380	490	5790
15	120	8	2.6	170	18	8.3	2820	250	1900
16	120	10	3.2	160	17	7.3	2200	110	653
17	120	10	3.2	140	15	5.7	1670	70	316
18	120	9	2.9	130	12	4.2	1440	47	183
19	120	10	3.2	120	11	3.6	1340	29	105
20	120	8	2.6	110	10	3.0	1190	24	77
21	110	9	2.7	110	8	2.4	1110	33	99
22	110	9	2.7	140	8	3.0	1650	48	214
23	110	10	3.0	160	12	5.2	2280	76	468
24	100	10	2.7	1100	55	163	1720	45	209
25	100	10	2.7	6000	800	13000	1250	40	135
26	98	9	2.4	2190	182	1080	1210	47	154
27	94	8	2.0	2470	235	1570	1510	75	306
28	92	8	2.0	3160	315	2690	3900	1100	16600
29	90	8	1.9	---	---	---	5920	1430	22900
30	90	9	2.2	---	---	---	4470	850	10300
31	90	8	1.9	---	---	---	4380	825	9760
TOTAL	3844	---	91.0	17678	---	18597.0	73820	---	153993

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2860	123	950	646	10	17	200	5	2.7
2	2580	90	627	580	13	20	178	8	3.8
3	4240	220	2520	551	12	18	171	6	2.8
4	2510	43	291	494	10	13	141	4	1.5
5	2390	40	258	1020	55	151	113	7	2.1
6	2060	33	184	1130	85	259	119	9	2.9
7	1690	31	141	954	70	180	259	8	5.6
8	1490	32	129	735	17	34	251	6	4.1
9	1190	25	80	754	12	24	175	7	3.3
10	1070	14	40	1040	17	48	735	15	30
11	979	15	40	1040	18	51	665	9	16
12	865	20	47	814	12	26	350	7	6.6
13	764	23	47	703	12	23	223	6	3.6
14	697	22	41	610	13	21	150	5	2.0
15	627	14	24	539	16	23	317	6	5.1
16	572	20	31	478	16	21	251	16	11
17	524	15	21	534	19	27	157	10	4.2
18	483	20	26	741	60	120	489	11	15
19	453	50	61	1100	20	59	586	30	47
20	428	12	14	991	14	37	414	18	20
21	392	13	14	848	11	25	268	12	8.7
22	364	10	9.8	748	11	22	208	15	8.4
23	405	12	13	598	10	16	125	13	4.4
24	2330	500	3150	671	50	91	90	14	3.4
25	2310	125	780	1190	80	257	97	14	3.7
26	1520	40	164	628	8	14	1350	725	2640
27	1260	21	71	430	5	5.8	534	75	108
28	1050	18	51	335	8	7.2	359	48	47
29	876	17	40	259	6	4.2	653	240	423
30	741	10	20	227	40	25	568	155	238
31	---	---	---	215	10	5.8	---	---	---
TOTAL	39720	---	9884.8	21603	---	1645.0	10196	---	3673.9

CHEMUNG RIVER BASIN

01520500 TIOGA RIVER AT LINDLEY, NY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	354	43	41	147	32	13	79	29	6.2
2	281	23	17	144	23	8.9	81	40	8.7
3	243	15	9.8	119	21	6.7	81	30	6.6
4	219	15	8.9	97	19	5.0	72	33	6.4
5	204	12	6.6	90	23	5.6	63	30	5.1
6	255	15	10	137	37	14	59	28	4.5
7	1550	1450	6070	653	264	752	66	37	6.6
8	2050	925	5120	517	50	70	63	37	6.3
9	911	110	271	312	17	14	57	53	8.2
10	574	65	101	243	20	13	54	35	5.1
11	414	35	39	215	20	12	51	40	5.5
12	399	29	31	204	20	11	47	28	3.6
13	340	25	23	231	18	11	47	38	4.8
14	272	20	15	178	22	11	1190	850	2730
15	231	15	9.4	290	260	204	483	203	265
16	215	12	7.0	175	41	19	331	265	237
17	285	25	19	178	42	20	1040	250	702
18	281	22	17	231	75	47	534	95	137
19	215	27	16	157	50	21	835	130	293
20	212	20	11	125	39	13	1270	250	857
21	171	25	12	107	29	8.4	1130	145	442
22	134	24	8.7	227	115	70	604	57	93
23	113	18	5.5	243	90	59	451	48	58
24	100	26	7.0	150	45	18	414	30	34
25	110	25	7.4	128	48	17	5790	1820	48200
26	208	50	28	110	36	11	3400	322	3740
27	137	23	8.5	97	27	7.1	2670	158	1140
28	105	32	9.1	88	25	5.9	1360	65	239
29	90	30	7.3	81	23	5.0	969	50	131
30	147	53	21	79	28	6.0	748	48	97
31	235	56	36	113	43	13	---	---	---
TOTAL	11055	---	11993.2	5866	---	1491.6	24039	---	59472.6

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
MAR												
13...	1340	10800	10.0	7590	221000	30	42	59	76	93	97	100
JUL												
08...	0935	3320	22.0	1900	17000	54	73	89	90	99	100	--
SEP												
14...	1255	3820	17.0	2720	28100	50	68	80	91	98	99	100
25...	1130	12100	15.0	2630	85900	57	72	83	90	96	99	100

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LOCATION.--Lat 42°00'08", long 76°38'06", Chemung County, at bridge on State Highway 427, 0.7 mi (1.1 km) southwest of Chemung, and 10 mi (16 km) upstream from mouth.

PERIOD OF RECORD.--March 1962 to March 1964, February 1966 to May 1967, August 1974 to current year.

PERIOD OF DAILY RECORD. --

SPECIFIC CONDUCTANCE: August 1974 to September 1977 (discontinued).

WATER TEMPERATURES: March 1962 to March 1964, August 1974 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: March 1962 to March 1964, August 1974 to September 1977 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 480 micromhos Aug. 30, 1974; minimum daily, 103 micromhos Feb. 25, 1975.

WATER TEMPERATURES: Maximum daily, 27.5°C Aug 4, 1975; minimum daily, 0.5°C on several days during December 1974 and January 1975.

SEDIMENTATION CONCENTRATIONS: Maximum daily, 3,050 mg/L June 20, 1976; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 402,000 tons (364,694 tonnes) Sept. 26, 1975; minimum daily, 0.85 ton (0.77 tonne) Sept. 20, 1974, Oct. 13, 1975.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 26.0°C July 19; minimum daily, 0.5°C Mar. 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 800 mg/L Feb. 25; minimum daily, 1 mg/L on many days during Nov., Jan., and Feb.

SEDIMENT LOADS: Maximum daily, 26,600 tons (42,300 tonnes) Mar. 14; minimum daily, 1.1 tons (1.0 tonne) on several days during Jan. and Feb.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM (7UM-MF (COL./ 100 ML)	FECAL STREPTOCOCCI (COL. PER 100 ML)	BICARBONATE (HCO3) (MG/L)
OCT 13...	1800	2390	260	6.9	11.5	12	10.4	<10	52	--	81
NOV 18...	0700	1010	330	7.5	3.0	2	12.0	<10	2	60	102
DEC 14...	1315	1460	255	7.7	.5	9	13.4	<10	40	82	79
MAR 15...	1530	9800	180	6.8	7.5	35	11.0	21	200	460	39
APR 26...	1550	4790	175	7.3	11.0	15	10.6	<10	380	110	52
MAY 18...	1415	1410	280	8.6	19.5	4	10.6	9	220	82	85
JUN 14...	1530	730	380	8.1	19.0	3	8.6	4	54	100	120
JUL 27...	1245	640	320	8.4	22.0	1	9.2	15	510	340	130
AUG 24...	0730	862	350	7.8	20.0	11	7.2	15	490	1820	120
SEP 22...	0930	6280	255	7.4	17.0	--	10.0	--	1700	1840	--

[illegible]

CHEMUNG RIVER BASIN

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT 13...	.07	.23	.30	1.2	.10	.02	1100	4.3	--	--
NOV 18...	.15	.18	.33	1.2	.07	.04	290	5.8	.613	.000
DEC 14...	.10	.23	.33	1.0	.08	.03	740	5.6	.000	.000
MAR 15...	.05	.56	.61	1.3	.11	.02	4300	6.0	--	--
APR 26...	.05	.45	.50	.95	.06	.02	850	3.7	--	--
MAY 18...	.04	.28	.32	.58	.04	.01	320	7.9	3.53	.000
JUN 14...	.13	.53	.66	1.4	.13	.07	410	3.2	8.69	.702
JUL 27...	.04	.43	.47	.76	.13	.06	410	4.1	5.06	.684
AUG 24...	.11	.46	.57	1.1	.11	.07	700	4.3	6.30	.873
SEP 22...	--	--	--	--	--	--	--	--	.004	.000

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	193	321	---	---	164	146	268	403	338		
2	397	184	322	---	---	183	161	291	475	318		
3	419	194	336	324	---	174	165	256	413	324		
4	420	208	344	317	---	190	159	264	397	342		
5	408	216	354	337	---	158	168	250	422	351		
6	410	223	353	345	---	145	172	199	464	361		
7	412	232	343	345	---	166	190	182	421	374		
8	400	241	270	347	---	195	187	197	391	343		
9	361	247	256	350	---	168	196	215	444	197		
10	178	257	256	---	---	174	200	210	414	216		
11	160	262	247	---	---	158	219	187	364	252		
12	209	265	240	---	---	144	226	183	396	283		
13	225	270	---	---	---	178	224	199	390	292		
14	242	275	237	---	---	136	241	205	399	315		
15	258	277	252	376	302	144	252	219	399	320		
16	265	285	263	---	---	177	256	224	406	336		
17	281	287	265	---	---	202	264	238	402	352		
18	273	299	273	---	---	185	272	251	406	353		
19	244	310	273	---	---	205	280	270	416	359		
20	298	312	276	---	---	207	277	279	415	348		
21	183	313	---	---	---	214	288	298	396	358		
22	151	311	249	---	---	214	325	317	406	345		
23	170	314	244	---	---	197	330	312	400	374		
24	191	318	253	---	---	208	283	309	404	386		
25	192	326	264	---	200	218	187	322	417	398		
26	192	323	259	---	151	222	193	343	416	399		
27	182	325	---	---	187	224	208	351	388	415		
28	198	316	279	---	177	198	235	372	311	---		
29	212	312	288	---	---	157	246	380	317	---		
30	222	323	302	---	---	126	259	393	331	---		
31	226	---	---	---	---	137	---	401	---	---		
MEAN	271	274	282	340	203	180	227	270	401	335		

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	5.5	2.5	---	---	1.0	8.0	11.0	20.0	23.5	24.0	24.0
2	14.0	4.0	2.5	1.5	---	0.5	7.5	15.0	19.5	22.5	22.5	24.5
3	14.5	5.0	1.5	2.0	---	1.0	8.0	13.0	18.0	20.0	23.0	24.0
4	15.5	6.0	2.0	2.5	---	2.5	7.5	12.5	17.5	21.5	23.5	22.0
5	15.0	5.5	3.0	1.5	---	2.0	7.5	13.5	19.5	22.5	24.0	22.5
6	16.0	5.5	2.5	1.0	---	3.0	6.0	14.0	19.0	23.0	24.0	23.0
7	16.5	6.0	2.5	---	---	1.5	5.0	14.5	16.5	23.0	23.5	21.0
8	15.5	4.5	1.5	1.5	---	2.0	5.0	13.5	15.0	23.5	23.0	20.0
9	14.0	5.5	1.5	1.5	---	3.0	4.0	9.5	15.5	21.5	23.5	20.5
10	10.0	5.0	2.5	1.0	---	4.0	5.0	4.5	15.0	22.0	23.0	21.5
11	8.5	5.0	3.0	---	---	5.5	7.0	9.5	14.0	22.5	24.0	19.5
12	8.0	4.0	3.0	---	---	5.5	11.5	10.5	17.5	22.0	24.5	17.5
13	9.5	4.5	---	---	---	8.0	13.0	13.5	17.5	23.0	23.5	18.0
14	10.0	4.0	0.5	---	---	7.0	14.0	12.5	18.5	22.5	24.0	19.0
15	9.5	4.0	2.0	1.5	2.0	6.0	12.0	12.0	19.0	23.5	22.0	16.0
16	10.5	4.0	3.0	---	---	7.0	11.0	13.0	18.5	25.0	22.0	17.0
17	10.0	4.5	2.5	---	---	6.0	10.5	15.0	21.0	25.5	23.5	17.0
18	8.5	5.5	3.0	---	---	4.5	11.0	18.0	21.5	25.0	21.5	17.0
19	8.0	6.0	3.0	---	---	4.5	12.0	19.0	22.0	26.0	19.5	18.0
20	7.0	5.5	4.0	---	---	4.0	14.0	19.0	21.5	25.5	19.0	18.0
21	8.5	6.0	2.5	---	---	5.0	14.5	19.5	21.0	25.5	18.5	18.0
22	7.0	5.5	2.5	---	---	4.0	16.0	21.0	19.0	25.0	20.0	17.0
23	6.5	4.5	3.0	---	---	3.5	16.5	21.0	18.5	22.5	19.5	---
24	7.0	4.5	1.5	---	---	3.5	14.5	23.0	20.0	23.0	20.0	---
25	7.0	4.0	2.0	---	3.0	4.0	12.0	22.5	22.0	25.0	17.5	---
26	7.0	5.0	2.0	---	1.0	5.5	10.0	22.0	22.0	22.0	17.5	---
27	6.0	6.0	---	---	2.0	6.5	10.0	20.0	21.5	20.0	19.0	---
28	5.0	7.0	2.0	---	2.0	5.0	12.0	20.5	22.5	20.0	21.0	---
29	4.0	5.0	1.5	---	---	6.0	9.5	19.5	23.0	21.0	23.0	---
30	5.0	4.0	1.0	---	---	8.0	9.0	19.5	21.5	22.0	24.0	---
31	6.5	---	---	---	---	11.0	---	19.0	---	23.0	23.5	---
MEAN	10.0	5.0	2.5	1.5	2.0	4.5	10.0	16.0	19.5	23.0	22.0	20.0

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	472	2	2.5	6490	76	1360	916	5	12
2	472	2	2.5	4380	38	449	813	4	8.8
3	443	2	2.4	3500	15	142	1060	5	14
4	433	3	3.5	3190	13	112	1010	5	14
5	417	4	4.5	3010	14	114	1010	7	19
6	409	3	3.3	2700	11	80	1120	7	21
7	402	4	4.3	2400	9	58	1480	12	48
8	394	3	3.2	2220	8	48	2390	30	194
9	5470	526	15200	2010	6	33	2150	26	151
10	19000	711	40100	1860	6	30	1900	15	77
11	6810	165	3030	1840	6	30	1800	14	68
12	3660	58	573	1780	5	24	2100	13	74
13	2700	39	284	1590	4	17	1800	15	73
14	2300	26	161	1530	5	21	1600	17	73
15	2310	21	131	1450	4	16	1700	13	60
16	2120	20	114	1370	4	15	1600	7	30
17	1700	12	55	1270	5	17	1400	5	19
18	1470	8	32	1260	3	10	1300	4	14
19	1330	6	22	1250	1	3.4	1200	5	16
20	1260	6	20	1230	1	3.3	1200	5	16
21	13200	539	22600	1210	1	3.3	1600	30	130
22	10500	270	7650	1180	1	3.2	1500	45	182
23	5470	74	1090	1120	1	3.0	1300	35	123
24	4190	34	385	1110	1	3.0	1200	17	55
25	5820	43	676	1090	1	2.9	1100	8	24
26	6370	51	877	1090	4	12	1000	9	24
27	4660	30	377	1080	8	23	960	6	16
28	3560	16	154	1150	7	22	980	4	11
29	3070	12	99	1400	6	23	940	3	7.6
30	2760	10	75	1290	6	21	880	5	12
31	3990	47	598	---	---	---	800	4	8.6
TOTAL	117162	---	94329.2	58050	---	2699.1	41809	---	1595.0

01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY				FEBRUARY			MARCH		
1	800	4	8.6	400	2	2.2	7550	185	3770
2	800	3	6.5	390	2	2.1	4610	58	722
3	760	3	6.2	410	1	1.1	3860	34	354
4	760	2	4.1	400	1	1.1	4540	70	858
5	740	1	2.0	400	1	1.1	14600	737	30300
6	740	1	2.0	420	2	2.3	9980	180	4850
7	700	2	3.8	420	2	2.3	6090	72	1180
8	660	1	1.8	420	1	1.1	4640	28	351
9	640	2	3.5	440	2	2.4	4220	25	285
10	560	1	1.5	520	2	2.8	5870	65	1030
11	560	1	1.5	620	2	3.3	7480	120	2420
12	560	1	1.5	780	2	4.2	7030	89	1690
13	540	1	1.5	860	2	4.6	15700	713	44900
14	540	1	1.5	1100	10	30	21400	688	46600
15	540	1	1.5	1300	18	63	11300	140	4270
16	540	2	2.9	920	9	22	7780	89	1870
17	540	2	2.9	780	7	15	5950	62	996
18	540	1	1.5	680	5	9.2	4930	36	479
19	540	1	1.5	640	4	6.9	4540	22	270
20	540	1	1.5	600	3	4.9	4150	18	202
21	520	2	2.8	560	3	4.5	3750	17	172
22	490	2	2.6	700	2	3.8	4520	25	305
23	470	2	2.5	1000	2	5.4	6400	44	760
24	440	2	2.4	3000	25	202	5470	37	546
25	430	2	2.3	16000	800	44200	4190	30	339
26	420	2	2.3	9690	235	6150	3840	20	207
27	410	1	1.1	8280	140	3130	4080	20	220
28	400	1	1.1	12700	400	13900	7420	95	2180
29	410	1	1.1	---	---	---	17800	458	22500
30	410	1	1.1	---	---	---	14300	175	6760
31	410	1	1.1	---	---	---	11800	133	4240
TOTAL	17410	---	78.2	64430	---	67777.3	239790	---	185626

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY			JUNE		
1	9760	110	2900	2150	9	52	714	7	13
2	6940	49	918	1950	8	42	690	8	15
3	11000	117	3470	1810	7	34	656	8	14
4	8800	137	3260	1790	8	39	622	6	10
5	6910	43	802	4430	69	1010	578	5	7.8
6	6290	30	509	6180	68	1130	566	6	9.2
7	5000	23	310	4310	35	407	600	8	13
8	4310	18	209	3210	15	130	644	9	16
9	3730	15	151	2940	9	71	656	10	18
10	3230	16	140	4220	23	262	690	12	22
11	2990	20	161	5440	34	499	916	13	32
12	2740	21	155	4010	20	217	852	12	28
13	2440	20	132	3250	16	140	679	12	22
14	2190	16	95	2760	12	89	600	11	18
15	2000	13	70	2390	9	58	545	9	13
16	1830	13	64	2140	7	40	556	8	12
17	1680	11	50	1930	8	42	589	7	11
18	1590	9	39	1740	9	42	534	6	8.7
19	1510	8	33	1650	8	36	633	6	10
20	1440	7	27	1730	8	37	763	7	14
21	1410	6	23	1560	7	29	714	8	15
22	1300	7	25	1430	5	19	600	8	13
23	1330	10	36	1340	5	18	523	11	16
24	5360	76	1700	1260	6	20	462	9	11
25	8110	122	2940	1220	7	23	453	9	11
26	5150	34	473	1500	11	45	775	40	84
27	4010	17	184	1230	10	33	1530	70	289
28	3330	15	135	1050	8	23	1020	120	330
29	2820	11	84	916	7	17	826	55	123
30	2440	9	59	826	5	11	1260	35	119
31	---	---	---	763	5	10	---	---	---
TOTAL	121640	---	19154	73125	---	4625	21246	---	1317.7

CHEMUNG RIVER BASIN

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01531000 CHEMUNG RIVER AT CHEMUNG, NY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY				AUGUST			SEPTEMBER		
1	1110	33	99	639	13	22	675	5	9.1
2	800	27	58	488	14	18	572	5	7.7
3	633	18	31	608	17	28	594	5	8.0
4	545	15	22	488	16	21	659	7	12
5	513	11	15	431	15	17	557	6	9.0
6	513	10	14	610	20	33	485	6	7.9
7	1090	65	191	2110	94	662	432	9	10
8	4880	363	6110	2810	183	1360	411	9	10
9	4080	708	8300	1840	155	770	393	9	9.5
10	2190	180	1060	1200	95	308	369	10	10
11	1570	85	360	936	55	139	343	10	9.3
12	1250	55	186	830	40	90	324	10	8.7
13	1170	43	136	755	32	65	323	8	7.0
14	1010	29	79	835	32	72	1340	140	507
15	839	20	45	1060	55	157	6070	622	10000
16	738	18	36	1310	72	255	2760	170	1270
17	788	16	34	906	26	64	5600	185	2860
18	865	15	35	1140	30	92	4140	130	1450
19	877	14	33	1080	33	96	6810	180	3310
20	738	14	28	811	25	55	8790	380	9020
21	644	12	21	682	22	41	11000	345	10200
22	499	11	15	675	19	35	6170	130	2170
23	466	11	14	860	24	56	4080	60	661
24	414	10	11	1050	14	40	3200	30	259
25	412	11	12	985	13	35	20900	750	42300
26	518	15	21	1090	16	47	20400	525	28900
27	788	16	34	825	11	25	15000	275	11100
28	573	15	23	677	5	9.1	7940	95	2040
29	443	14	17	588	4	6.4	5410	55	803
30	411	16	18	551	4	6.0	3990	30	323
31	454	15	18	525	4	5.7	---	---	---
TOTAL	31821	---	17076	29395	---	4630.2	139737	---	127291.2

SUSQUEHANNA RIVER BASIN

01531500 SUSQUEHANNA RIVER AT TOWANDA, PA

LOCATION.--Lat 41°45'55", long 76°26'28", Bradford County, Hydrologic Unit 02050106, on right bank under Bridge Street Bridge at Towanda, 1.8 mi (2.9 km) upstream from Towanda Creek.

DRAINAGE AREA.--7,797 mi² (20,194 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since October 1892 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1922, 1929.

GAGE.--Water-stage recorder. Datum of gage is 694.38 ft (211.647 m) above mean sea level. Prior to Oct. 18, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--64 years, 10,580 ft³/s (299.6 m³/s), 18.47 in/yr 469 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 320,000 ft³/s (9,060 m³/s) June 24, 1972, gage height, 35.42 ft (10.189 m) from floodmarks, from rating curve extended above 180,000 ft³/s (5,100 m³/s); minimum, 334 ft³/s (9.46 m³/s) Sept. 23, 24, 1964; minimum gage height, -0.56 ft (-0.171 m) Aug. 17, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 68,000 ft³/s (1,930 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	1430	92,300 2,610	15.69 4.782	Sept. 26	0800	*98,900 2,800	*16.42 5.005
Mar. 14	0900	95,500 2,700	16.04 4.889				

Minimum discharge, 1,280 ft³/s (36.2 m³/s) Sept. 13, gage height, 0.39 ft (0.119 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5050	28800	5820	3430	1580	38300	61600	12100	3150	2920	1690	2090
2	4400	24800	5420	3230	1560	27600	53800	10500	3010	2450	1570	2230
3	3910	19600	4820	3100	1540	21700	49600	9630	2890	2120	1470	2250
4	3620	16400	4740	3000	1530	20700	41000	8930	2890	1920	1450	2230
5	3440	15800	4600	2900	1520	48900	34800	14200	2970	1820	1340	2190
6	3070	14700	4590	2800	1510	51700	32600	22500	2870	1910	1550	2130
7	2830	13500	5810	2700	1510	41500	28500	16900	2840	2320	2820	2020
8	2820	12500	13600	2600	1500	30800	24500	13000	2710	4550	4970	1830
9	19100	11300	13500	2500	1500	25900	20900	10800	2770	6790	3760	1670
10	82500	10300	12100	2410	1500	28600	17200	12200	2930	4080	2780	1560
11	57000	9780	11400	2350	1490	38300	14800	15800	3290	3140	2360	1430
12	37500	9310	11000	2280	1490	43300	13800	15500	3470	2580	2200	1340
13	26600	8490	10600	2210	2000	55100	12700	15000	3270	2320	3670	1300
14	21700	7910	7020	2150	4500	91400	11300	13300	3070	2180	3860	1590
15	19900	7480	6630	2100	6000	83400	9810	11000	2750	1990	3510	8840
16	19200	7090	6490	2050	4800	74600	8770	9300	2510	1980	3680	7600
17	16900	6740	7000	2000	4000	61600	7990	8120	2440	2010	2870	21900
18	14400	6390	7080	1960	3500	44600	7300	7320	2330	1930	2870	26200
19	11600	6170	6450	1920	3700	34600	6800	6860	2360	2010	5330	25900
20	9800	6080	5990	1890	3100	29500	6390	6670	2820	1900	4810	42500
21	31300	5990	7000	1860	3300	26100	5930	6700	3440	1800	3500	57600
22	56600	5850	6950	1830	3500	27000	5550	6190	3120	1660	2920	52900
23	44000	5600	6380	1800	4000	34700	5410	5400	2820	1530	2730	45000
24	33300	5310	6130	1770	5000	30700	12900	4870	2470	1400	3330	32800
25	31300	5070	5700	1740	30300	24800	39300	5080	2270	1340	3060	53700
26	32600	4840	5780	1710	32300	21200	40200	5390	2250	1460	3150	85200
27	28400	4750	5200	1680	30300	19700	31300	5900	2950	1910	2850	71200
28	22300	4950	4980	1660	41300	24400	23300	4840	2930	2220	2470	54800
29	19300	5690	4890	1640	---	49600	18700	4130	2890	1960	2180	42000
30	16000	6160	3840	1620	---	60900	14500	3780	2940	1820	1970	32000
31	18100	---	3600	1600	---	61300	---	3480	---	1670	1900	---
TOTAL	697540	297350	215110	68490	199330	1272500	660750	295390	85420	71690	88620	696000
MEAN	22500	9912	6939	2209	7119	41050	22030	9529	2847	2313	2859	23200
MAX	82500	28800	13600	3430	41300	91400	61600	22500	3470	6790	5330	85200
MIN	2820	4750	3600	1600	1490	19700	5410	3480	2250	1340	1340	1300
CFSM	2.89	1.27	.89	.28	.91	5.27	2.83	1.22	.37	.30	.37	2.98
IN.	3.33	1.42	1.03	.33	.95	6.07	3.15	1.41	.41	.34	.42	3.32

CAL YR 1976 TOTAL 5302600 MEAN 14490 MAX 95200 MIN 2650 CFSM 1.86 IN 25.30
WTR YR 1977 TOTAL 4648190 MEAN 12730 MAX 91400 MIN 1300 CFSM 1.63 IN 22.18

SUSQUEHANNA RIVER BASIN

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01531500 SUSQUEHANNA RIVER AT TOWANDA, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT 13...	1515	9813	25600	600	7.1	12.0	50	10.0
NOV 16...	1515	9813	7040	240	7.2	9.0	2	11.0
FEB 16...	1130	9813	E4800	330	7.0	.5	3	--
MAR 21...	1515	9813	25600	90	6.7	5.0	1	11.0
APR 07...	1515	9813	28000	90	6.5	1.0	1	--
AUG 17...	1445	9813	2760	240	8.1	23.0	3	9.8
SEP 29...	1030	9813	42900	160	7.3	12.5	--	8.5

DATE	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT 13...	222	--	0	--	60	--	18	32	200
NOV 16...	108	0	0	--	29	--	8.5	84	24
FEB 16...	104	0	0	--	32	--	6.5	70	28
MAR 21...	15	--	0	--	3.1	--	1.7	10	10
APR 07...	25	0	0	--	7.1	--	1.5	10	15
AUG 17...	--	--	0	--	52	--	--	100	20
SEP 29...	54	--	--	19	--	1.6	--	72	15

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	19	--	--	1.4	.01	.30	.10	19800
NOV 16...	15	--	--	1.4	.03	.87	.07	230
FEB 16...	41	220	--	1.7	.04	.84	.10	310
MAR 21...	14	84	--	.89	.03	.05	.07	200
APR 07...	13	82	--	.84	.03	.14	.05	240
AUG 17...	18	--	--	1.0	.04	.08	.11	860
SEP 29...	8.0	96	54	1.0	.07	.42	.14	2344

TOWANDA CREEK BASIN

01532000 TOWANDA CREEK NEAR MONROETON, PA

LOCATION.--Lat 41°42'29", long 76°29'12", Bradford County, Hydrologic Unit 02050106, 1.0 mi (1.6 km) upstream from South Branch Towanda Creek, and 0.75 mi (1.21 km) southwest of Monroeton.

DRAINAGE AREA.--214 mi² (554 km²).

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1943-44(M). WSP 1302: 1922(M), 1924, 1925-26(M), 1928, 1929(M), 1930-31. WSP 1432: 1921(M), 1932(M), 1933, 1934-35(M), 1936, 1938(M), 1940.

GAGE.--Non-recording gage. Datum of gage is 765.525 ft (233.332 m) above mean sea level. Prior to Aug. 26, 1976, nonrecording gage at bridge 0.6 mi (1.0 km) downstream at datum 11.82 ft (3.603 m) lower. Water-stage recorder June 16, 1941 to Sept. 25, 1975, 0.6 mi (1.0 km) downstream at datum 11.82 ft (3.603 m) lower. Prior to Oct. 1, 1942 nonrecording gage, at same site, at datum 8.62 ft (2.627 m) higher.

REMARKS.--Records good except for winter periods and those above 600 ft³/s (17.0 m³/s), which are fair.

AVERAGE DISCHARGE.--63 years, 286 ft³/s (8.10 m³/s), 18.06 in/yr (459 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50,000 ft³/s (1,420 m³/s) Sept. 26, 1975, gage height, about 15.7 ft (4.79 m); minimum observed, 0.7 ft³/s (0.020 m³/s) Sept. 15, 17, 21, 22, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft³/s (122 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2000	*8,750 248	*13.5 4.115	Mar. 13	2100	4,940 140	12.0 3.658

Minimum discharge, 21 ft³/s (0.595 m³/s) Sept. 12, gage height, 6.68 ft (2.036 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	674	98	75	24	574	772	364	48	60	38	27
2	39	520	93	71	24	396	1000	315	48	48	80	25
3	39	466	90	67	24	323	1550	287	42	38	39	24
4	37	433	88	63	24	1370	863	252	40	38	35	24
5	34	416	85	60	24	2440	779	364	37	34	32	23
6	30	374	83	57	24	1110	646	410	37	86	34	24
7	28	335	848	54	24	730	530	351	67	108	45	25
8	79	305	598	51	24	550	470	266	53	80	42	24
9	2770	269	320	49	24	480	373	273	60	94	37	24
10	2190	262	350	46	24	520	331	373	338	55	36	23
11	850	262	350	44	24	530	304	373	196	45	33	22
12	560	233	320	42	24	510	270	287	121	47	36	21
13	433	214	269	41	29	2460	238	259	91	38	38	22
14	433	205	183	39	135	1820	217	224	76	32	35	31
15	358	197	262	38	200	972	192	196	78	30	34	34
16	287	183	230	36	130	751	175	175	60	32	32	30
17	249	183	220	34	99	574	161	161	55	36	48	55
18	223	178	191	33	86	510	144	137	69	108	73	55
19	200	173	194	32	86	490	134	150	134	60	42	71
20	288	175	183	30	80	440	121	124	83	102	34	238
21	1870	167	262	30	73	386	108	100	62	67	30	256
22	828	157	173	28	68	1190	102	88	55	55	30	175
23	610	152	162	28	68	1100	134	76	45	45	37	121
24	520	140	139	27	250	772	2100	67	40	38	32	121
25	641	135	125	27	2320	562	1880	71	38	42	30	735
26	818	133	114	26	786	490	1040	60	50	67	28	941
27	580	138	108	26	742	586	1090	52	45	45	26	694
28	480	147	98	25	988	1120	730	48	38	38	25	405
29	424	170	93	25	---	1940	540	40	147	36	24	294
30	378	103	87	25	---	1520	435	45	134	34	36	224
31	819	---	81	24	---	1180	---	47	---	34	31	---
TOTAL	17135	7499	6497	1253	6428	28396	17429	6035	2387	1672	1152	4788
MEAN	553	250	210	40.4	230	916	581	195	79.6	53.9	37.2	160
MAX	2770	674	848	75	2320	2460	2100	410	338	108	80	941
MIN	28	103	81	24	24	323	102	40	37	30	24	21
CFSM	2.57	1.16	.98	.19	1.07	4.26	2.70	.91	.37	.25	.17	.74
IN.	2.96	1.30	1.12	.22	1.11	4.91	3.02	1.04	.41	.29	.20	.83

CAL YR 1976	TOTAL	129226	MEAN	353	MAX	11800	MIN	21	CFSM	1.64	IN	22.36
WTR YR 1977	TOTAL	100671	MEAN	276	MAX	2770	MIN	21	CFSM	1.28	IN	17.42

WYALUSING CREEK BASIN

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01532850 MIDDLE BRANCH WYALUSING CREEK TRIBUTARY NEAR BIRCHARDVILLE, PA

LOCATION.--Lat 41°51'45", long 76°00'26", Susquehanna County, Hydrologic Unit 02050106, on left bank 60 ft (18 m) upstream from bridge on State Highway 267, 1,000 ft (305 m) upstream from mouth, and 1.2 mi (1.9 km) north of Birchardville.

DRAINAGE AREA.--5.67 mi² (14.69 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-65. August 1965 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,077.51 ft (328.425 m) above mean sea level. Oct. 7, 1959 to Aug. 12, 1965, crest-stage gage at same site and datum.

REMARKS.--Records good except those for no gage-height record and winter periods, which are fair.

AVERAGE DISCHARGE.--12 years, 8.76 ft³/s (0.248 m³/s), 20.97 in/yr (533 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) June 22, 1972, gage height, 6.85 ft (2.088 m), from rating curve extended above 30 ft³/s (0.85 m³/s); minimum daily, 0.1 ft³/s (0.003 m³/s) on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1145	*656 18.6	*6.27 1.911	Sept. 25	0515	313 8.86	5.62 1.713
Feb. 25	0145	266 7.53	5.49 1.673				

Minimum discharge, 0.11 ft³/s (0.003 m³/s) July 24, 25, gage height, 3.55 ft (1.082 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	15	2.0	.96	.73	15	26	7.8	1.2	.37	.14	1.0
2	4.9	13	1.9	.95	.72	15	31	7.4	1.2	.20	1.0	1.2
3	4.3	11	1.7	.94	.71	12	40	7.0	1.0	.18	2.0	1.2
4	4.0	14	1.6	.94	.70	60	26	6.3	.85	.16	.37	1.2
5	3.7	12	1.5	.93	.70	35	24	33	.75	.75	.33	.65
6	3.5	11	1.4	.92	.69	23	20	20	.95	4.9	.60	.60
7	3.5	11	1.4	.97	.68	17	16	16	2.0	12	.75	.50
8	12	9.5	1.3	.90	.68	13	14	11	1.2	6.0	.60	.41
9	184	8.2	1.3	.89	.68	11	12	12	2.0	2.6	.41	.33
10	43	8.2	1.3	.88	.68	11	10	17	4.3	1.7	.41	.27
11	20	7.8	1.2	.87	.78	11	9.5	14	2.0	1.2	.45	.20
12	15	6.3	1.2	.86	1.0	11	7.8	12	1.2	1.0	.95	.14
13	12	5.9	1.2	.85	.85	60	7.0	9.5	.95	.85	.60	.22
14	12	5.2	1.2	.84	.76	69	6.7	7.9	1.0	.65	2.8	1.7
15	9.5	4.9	1.2	.83	.72	40	6.3	6.3	1.2	.55	2.2	.75
16	7.8	4.6	1.2	.82	.70	25	6.3	5.6	.85	.50	1.2	4.9
17	7.0	4.0	1.2	.81	.70	17	4.9	4.6	1.6	.50	2.2	14
18	5.9	4.0	1.1	.81	.70	15	4.6	4.3	1.8	.45	1.2	8.7
19	5.2	4.0	1.1	.80	.70	13	4.6	4.3	1.2	.41	.85	7.9
20	17	3.7	1.1	.80	.70	12	3.7	3.5	.95	.55	.75	18
21	54	3.3	1.1	.79	.70	10	3.3	2.8	.85	.37	.75	10
22	23	3.1	1.1	.78	.70	38	3.1	2.6	.75	.20	2.4	7.1
23	15	2.8	1.0	.78	.70	25	4.0	2.2	.50	.14	1.4	6.3
24	22	2.7	1.0	.78	3.7	21	44	2.0	.45	.12	1.0	15
25	20	2.2	1.0	.78	60	20	47	2.2	.41	.41	1.0	114
26	20	2.2	1.0	.77	18	17	29	1.6	.65	.60	.65	141
27	14	2.8	1.0	.76	22	20	21	1.4	.50	.30	.60	47
28	12	2.8	1.0	.76	25	36	15	1.2	.37	.20	.50	23
29	11	2.4	.98	.75	---	61	12	1.2	.65	.14	.41	14
30	9.5	2.2	.98	.74	---	48	9.5	1.2	.60	.16	3.0	11
31	27	---	.97	.74	---	38	---	1.2	---	.14	1.4	---
TOTAL	606.7	189.8	38.23	26.00	145.38	819	468.3	229.1	33.93	38.30	32.92	452.27
MEAN	19.6	6.33	1.23	.84	5.19	26.4	15.6	7.39	1.13	1.24	1.06	15.1
MAX	184	15	2.0	.97	.60	69	47	33	4.3	12	3.0	141
MIN	3.5	2.2	.97	.74	.68	10	3.1	1.2	.37	.12	.14	.14
CFSM	3.46	1.12	.22	.15	.92	4.66	2.75	1.30	.20	.22	.19	2.66
IN.	3.98	1.25	.25	.17	.95	5.37	3.07	1.50	.22	.25	.22	2.97

CAL YR 1976 TOTAL 3719.67 MEAN 10.2 MAX 186 MIN .41 CFSM 1.80 IN 24.40
WTR YR 1977 TOTAL 3079.93 MEAN 8.44 MAX 184 MIN .12 CFSM 1.49 IN 20.20

SUSQUEHANNA RIVER BASIN

01533400 SUSQUEHANNA RIVER AT MESHOPPEN, PA.

LOCATION.--Lat 41°36'26", long 76°03'02", Wyoming County, Hydrologic Unit 02050106, on right bank 2.3 mi (3.7 km), upstream from bridge on Route 87, 0.7 mi (1.1 km) downstream from Meshoppen Creek, 2.4 mi (3.9 km) upstream from Mehoopany Creek, and 0.7 mi (1.1 km) south of Meshoppen.

DRAINAGE AREA.--8,720 mi² (22,580 km²).

PERIOD OF RECORD.--October 1976 to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (195 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 43.51 ft (13.262 m), from floodmark information by local resident, discharge about 331,000 ft³/s (9,370 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70,000 ft³/s (1,980 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	Unknown	Unknown	Unknown	Apr. 1	0700	71,600	21.85
Mar. 14	1700	108,000 3,060	25.79 7.861	Sept. 26	1400	*115,000	*26.47 8.068

Minimum discharge, 1,620 ft³/s (45.9 m³/s) Sept. 13, gage height, 7.57 ft (2.307 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7000	30100	6220	3200	2800	46400	69700	14900	3460	3170	1920	2300
2	6000	29300	5730	3100	2800	33900	62200	12800	3260	2900	2100	2200
3	5500	23500	5540	3000	2800	25900	60900	11500	3130	2470	1910	2300
4	4500	19300	5230	3000	2800	23700	50400	10600	3040	2230	1810	2400
5	4300	17800	5210	3000	2700	52600	41200	12100	3080	2140	1720	2300
6	4100	16900	5180	3000	2500	60700	38200	24700	3100	2340	1700	2200
7	4000	15600	6760	3000	2500	50400	33900	21600	3080	2710	2020	2100
8	4000	14500	14000	3000	2500	37300	29200	16200	3040	3430	4180	2000
9	25000	13100	16100	3000	2600	30000	25100	13400	3010	6920	4540	1920
10	90000	11900	15200	3000	2700	29600	20500	13600	3480	5320	3440	1880
11	65000	11100	13500	3000	2900	38500	17400	16800	3680	3770	2760	1780
12	45000	10600	12400	3100	3000	46100	15700	17400	3700	3150	2470	1680
13	33000	9720	12300	3100	3300	54700	14700	16800	3580	2700	2550	1640
14	24600	8840	10400	3100	3700	98900	13300	15400	3430	2450	4200	1700
15	22300	8340	7740	3200	4000	96700	11700	13000	3240	2300	3770	4670
16	20600	7790	7380	3200	4200	85000	10200	11100	2990	2140	3770	8720
17	19200	7400	7520	3300	4400	73000	9230	9410	2730	2230	3910	13500
18	16200	7050	7820	3300	4700	53600	8390	8340	2710	2230	3280	28700
19	13700	6680	7300	3400	4000	40800	7740	7650	2660	2220	3970	24700
20	11600	6500	6810	3400	3900	33800	7240	7270	2710	2230	5630	38100
21	27100	6420	6200	3500	3800	29600	6710	7130	3200	2220	4180	57900
22	61900	6270	5600	3600	3800	30400	6220	6870	3370	2100	3350	57500
23	51200	6050	5200	3600	4400	40800	6020	6000	3130	1880	3010	50000
24	39400	5730	5000	3600	6000	37900	13100	5350	2870	1780	3080	38600
25	35100	5390	4700	3700	34900	30300	44200	5090	2550	1700	3330	55600
26	36800	5120	4400	3600	38600	25500	49300	5160	2470	1700	3150	106000
27	33600	4960	4200	3600	35400	22800	40500	6200	2470	1810	3170	83600
28	26700	4960	3900	3500	46500	27600	30300	5510	3170	2190	2820	65100
29	21500	5580	3700	3300	---	47900	22900	4520	3080	2330	2470	48800
30	18300	6250	3500	3100	---	66900	18100	3990	3080	2070	2630	37000
31	18600	---	3400	2900	---	69100	---	3710	---	1980	2500	---
TOTAL	795800	332750	228140	100400	237700	1440400	784250	334100	92500	80810	95340	746890
MEAN	25670	11090	7359	3239	8489	46460	26140	10780	3083	2607	3075	24900
MAX	90000	30100	16100	3700	46500	98900	69700	24700	3700	6920	5630	106000
MIN	4000	4960	3400	2900	2500	22800	6020	3710	2470	1700	1700	1640
CFSM	2.94	1.27	.84	.37	.97	5.33	3.00	1.24	.35	.30	.35	2.86
IN.	3.39	1.42	.97	.43	1.01	6.14	3.35	1.43	.39	.34	.41	3.19

WTR YR 1977 TOTAL 5269080 MEAN 14440 MAX 106000 MIN 1640 CFSM 1.66 IN 22.48

TUNKHANNOCK CREEK BASIN

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01533800 BUTLER CREEK AT GIBSON, PA

LOCATION.--Lat 41°48'10", long 75°38'45", Susquehanna County, Hydrologic Unit 02050106, on right bank 35 ft (11 m) upstream from bridge on State Highway 547 at Gibson, and 6.0 mi (9.7 km) upstream from Leslie Creek.

DRAINAGE AREA.--7.38 mi² (19.11 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1963-73. October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1196.29 ft (364.629 m) above mean sea level. Sept. 11, 1962 to Mar. 12, 1973, crest-stage gage at site 300 ft (91 m) downstream at datum 7.0 ft (2.13 m) lower. Mar. 13 to Sept. 30, 1973, crest-stage gage at present site and datum.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft³/s (69.7 m³/s) Aug. 27, 1967, gage height, 12.66 ft (3.859 m), at present site and datum, from highwater mark from contracted-opening measurement of peak flow; minimum, 0.01 ft³/s (0.000 m³/s) Aug. 6, 1976, gage height, 1.73 ft (0.527 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1300	*961 27.2	*6.24 1.902	Sept. 25	0445	281 7.96	4.32 1.317
Oct. 21	0130	275 7.79	4.30 1.311				

Minimum discharge, 0.31 ft³/s (0.009 m³/s) July 2, 3, 4, 5, gage height, 2.07 ft (0.631 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	37	13	2.5	1.1	38	40	11	.75	.39	1.8	.68
2	2.9	27	6.2	2.3	1.1	23	41	10	.83	.37	1.6	.75
3	2.5	23	6.0	2.2	1.1	33	52	9.5	.68	.34	.75	.68
4	2.3	22	5.6	2.1	1.1	93	32	8.7	.61	.34	.68	.55
5	2.0	19	5.2	2.0	1.1	60	31	31	.55	.44	.83	.55
6	2.0	18	6.4	1.9	1.0	47	27	22	.68	2.5	1.0	.55
7	2.2	17	52	1.8	1.0	42	23	17	1.0	1.6	1.4	.55
8	6.8	15	40	1.7	1.0	39	22	13	1.2	2.5	1.2	.55
9	193	14	56	1.6	1.0	38	18	17	2.1	1.3	.91	.55
10	73	15	31	1.6	1.0	36	16	18	4.0	.83	.68	.49
11	38	16	12	1.5	1.2	34	15	12	2.0	.61	.61	.44
12	29	12	8.2	1.5	1.6	31	13	10	1.4	.61	.91	.44
13	24	9.5	7.3	1.4	1.3	73	11	8.3	1.1	.55	.91	.83
14	24	9.1	6.6	1.4	1.1	93	10	6.8	1.1	.41	4.0	3.1
15	22	8.3	5.8	1.3	1.1	64	10	5.1	1.0	.39	4.0	1.3
16	20	7.6	5.2	1.3	1.1	47	9.1	4.5	.83	2.9	1.7	3.3
17	14	7.2	4.7	1.3	1.1	33	8.7	3.8	1.0	1.4	8.3	6.8
18	12	6.4	4.4	1.2	1.1	32	7.9	3.1	1.0	.68	4.0	5.8
19	11	5.8	19	1.2	1.1	31	5.1	3.1	.83	.55	2.3	5.8
20	45	5.8	7.2	1.2	1.1	21	4.8	2.7	.61	.49	1.6	58
21	116	5.4	5.2	1.2	1.1	19	4.5	2.5	.55	.49	1.2	29
22	47	4.8	4.9	1.2	1.1	49	4.3	2.0	.44	.41	1.2	16
23	32	3.5	4.4	1.2	1.1	60	15	1.8	.41	.39	1.1	11
24	35	4.3	4.0	1.1	6.3	42	89	1.4	.39	.39	1.0	18
25	36	4.3	3.8	1.1	90	37	69	1.3	.61	.61	.83	125
26	46	4.0	3.6	1.1	32	31	46	1.3	.61	.61	.75	134
27	31	4.5	3.4	1.1	42	33	35	1.2	.49	.41	.68	66
28	24	4.3	3.1	1.1	52	54	26	1.0	.41	.39	.61	45
29	20	5.4	3.0	1.1	---	89	19	.91	.55	.37	.61	35
30	18	16	2.8	1.1	---	76	15	.83	.44	.39	.83	26
31	51	---	2.6	1.1	---	63	---	.75	---	.39	.75	---
TOTAL	984.8	351.2	342.6	45.4	247.9	1461	719.4	231.59	28.17	24.05	48.74	596.71
MEAN	31.8	11.7	11.1	1.46	8.85	47.1	24.0	7.47	.94	.78	1.57	19.9
MAX	193	37	56	2.5	90	93	89	31	4.0	2.9	8.3	134
MIN	2.0	3.5	2.6	1.1	1.0	19	4.3	.75	.39	.34	.61	.44
CFSM	4.31	1.59	1.50	.20	1.20	6.38	3.25	1.01	.13	.11	.21	2.70
IN.	4.96	1.77	1.73	.23	1.25	7.36	3.63	1.17	.14	.12	.25	3.01

CAL YR 1976 TOTAL 4782.69 MEAN 13.1 MAX 193 MIN .20 CFSM 1.78 IN 24.10
WTR YR 1977 TOTAL 5081.56 MEAN 13.9 MAX 193 MIN .34 CFSM 1.88 IN 25.61

TUNKHANNOCK CREEK BASIN

01533950 SOUTH BRANCH TUNKHANNOCK CREEK NEAR MONTDALE, PA

LOCATION.--Lat 41°34'29", long 75°38'32", Lackawanna County, Hydrologic Unit 02050106, on right bank 70 ft (21 m) upstream from highway bridge, 0.6 mi (1.0 km) downstream from Scott, 1.0 mi (1.6 km) upstream from East Benton, 3.5 mi (5.6 km) northwest of Montdale, 7.5 mi (12.1 km) west of Carbondale, and 16 mi (26 km) upstream from mouth.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

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

REVISED RECORDS.--WDR PA-72: 1961(P), 1962(M), 1964(P), 1965-66(M), 1969-70(P).

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,090 ft or 332 m (from topographic map).

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--17 years, 16.8 ft³/s (0.48 m³/s), 18.14 in/yr (461 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) Oct. 9, 1976, gage height, 6.40 ft (1.951 m), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurement at gage height, 5.43 ft (1.655 m); minimum, 0.08 ft³/s (0.002 m³/s) July 23, 1968; minimum gage height, 0.75 ft (0.229 m) Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)				
Oct. 9	1330	*2,050	58.1	*6.40	1.951	Mar. 14	0030	770	21.8	4.80	1.463
Oct. 21	0130	1,210	34.3	5.48	1.670	Mar. 29	1515	489	13.8	4.17	1.271
Dec. 7	1115	504	14.3	4.21	1.283	Apr. 2	2330	567	16.1	4.38	1.335
Feb. 24	---	880	24.9	ice jam		Apr. 23	2345	302	8.55	3.53	1.076
Mar. 4	1915	755	21.4	4.77	1.454	Sept. 26	0915	511	14.5	4.23	1.289

Minimum discharge, 1.1 ft³/s (0.031 m³/s) Sept. 11, 12, gage height, 0.75 ft (0.229 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	28	5.7	5.2	2.4	40	64	13	2.3	1.5	2.0	1.4
2	3.9	23	5.7	5.0	2.4	41	108	12	2.4	1.4	2.2	2.6
3	4.6	22	5.3	4.8	2.3	31	174	11	2.2	1.3	1.8	2.3
4	4.2	21	5.5	4.7	2.3	274	73	9.2	2.0	1.3	1.7	1.7
5	3.9	19	5.5	4.5	2.3	180	65	33	2.0	1.3	1.5	1.5
6	3.8	20	5.3	4.4	2.3	76	60	21	2.1	1.6	1.9	1.6
7	3.8	20	144	4.3	2.3	45	43	20	3.2	2.4	2.5	1.4
8	5.9	17	114	4.2	2.3	32	38	14	2.6	2.9	1.9	1.4
9	652	13	70	4.1	2.2	27	28	16	2.6	2.1	1.5	1.2
10	159	13	25	3.9	2.2	28	24	22	6.2	1.7	1.5	1.2
11	58	13	20	3.8	2.4	28	20	15	3.8	1.5	1.5	1.1
12	36	11	17	3.7	3.5	26	17	12	2.9	1.6	1.5	1.1
13	27	10	21	3.6	3.0	244	14	10	2.6	1.5	1.5	1.3
14	45	9.2	17	3.5	2.6	311	13	8.5	2.6	1.4	1.5	1.5
15	24	8.8	12	3.4	2.4	103	11	7.6	2.7	1.2	2.1	1.4
16	18	8.2	11	3.3	2.3	74	9.6	6.5	2.2	1.4	1.6	2.0
17	14	7.9	10	3.2	2.2	46	8.5	5.7	2.0	1.9	5.9	3.4
18	11	7.9	10	3.1	2.1	36	7.9	5.3	2.2	1.8	3.6	2.4
19	10	7.9	11	3.1	2.1	32	7.4	5.1	2.3	1.7	2.3	3.8
20	132	7.9	11	3.0	2.0	28	6.8	4.8	1.9	2.2	1.9	13
21	437	7.6	10	2.9	2.0	24	5.9	4.2	2.0	1.7	1.7	8.5
22	100	7.4	8.9	2.8	2.2	54	5.7	3.8	1.8	2.2	2.0	5.9
23	58	6.8	8.2	2.7	10	54	27	3.5	1.7	1.5	1.7	4.2
24	51	6.5	7.4	2.7	25	36	111	3.3	1.5	1.4	1.7	6.8
25	61	6.2	6.8	2.6	253	43	72	3.3	1.8	1.7	1.7	65
26	96	6.2	6.8	2.6	71	27	44	3.0	2.2	2.1	1.5	153
27	47	6.5	6.4	2.5	88	28	39	2.8	1.7	1.5	1.5	40
28	36	6.5	6.0	2.5	102	68	30	2.6	1.7	1.4	1.4	19
29	32	7.6	5.8	2.5	---	285	22	2.6	1.7	1.3	1.3	13
30	28	6.2	5.6	2.5	---	156	17	2.6	1.6	1.2	1.4	10
31	51	---	5.4	2.4	---	100	---	2.5	---	1.2	1.4	---
TOTAL	2217.3	355.3	603.3	107.5	600.8	2577	1165.8	285.9	70.5	50.9	59.2	372.7
MEAN	71.5	11.8	19.5	3.47	21.5	83.1	38.9	9.22	2.35	1.64	1.91	12.4
MAX	652	28	144	5.2	253	311	174	33	6.2	2.9	5.9	153
MIN	3.8	6.2	5.3	2.4	2.0	24	5.7	2.5	1.5	1.2	1.3	1.1
CFSM	5.68	.94	1.55	.28	1.71	6.60	3.09	.73	.19	.13	.15	.98
IN.	6.55	1.05	1.78	.32	1.77	7.61	3.44	.84	.21	.15	.17	1.10

CAL YR 1976	TOTAL	9010.7	MEAN 24.6	MAX 652	MIN 1.7	CFSM 1.95	IN 26.60
WTR YR 1977	TOTAL	8466.2	MEAN 23.2	MAX 652	MIN 1.1	CFSM 1.84	IN 24.99

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA

LOCATION.--Lat 41°33'29", long 75°53'42", Wyoming County, Hydrologic Unit 02050106, on left bank 300 ft (91 m) upstream from bridge on U.S. Highway 6 at Dixon, 3 mi (4.8 km) northeast of Tunkhannock, and 4 mi (6.4 km) upstream from mouth. Water-quality sampling site at bridge 300 ft (91 m) downstream.

DRAINAGE AREA.--383 mi² (992 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1965, published as "at Dixon".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1051: 1921(M), 1932, 1934-35(M), 1936, 1938(M), 1939-40, 1942-44, 1945(M), WSP 1302: 1922, 1923(M), 1924-25, 1927-28. WSP 1432: 1919(M), 1920, 1933, 1934(P).

GAGE.--Water-stage recorder. Datum of gage is 610.50 ft (186.080 m) above mean sea level (Pennsylvania Department of Transportation benchmark). Prior to Aug. 10, 1938, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--63 years, 542 ft³/s (15.3 m³/s), 19.22 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft³/s (952 m³/s) Mar. 10, 1964, gage height, 14.26 ft (4.346 m), from rating curve extended above 4,700 ft³/s (133 m³/s) on basis of contracted-opening measurement at gage height, 13.96 ft (4.255 m); minimum, 6.2 ft³/s (0.18 m³/s) Sept. 24, 1964; minimum gage height, 0.73 ft (0.223 m) Aug. 12, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,700 ft³/s (161 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2215	*25,600 725	*13.45 4.100	Mar. 29	2145	6,100 173	7.43 2.265
Oct. 21	0900	14,800 419	11.16 3.402	Apr. 3	0345	5,920 168	7.32 2.231
Feb. 25	0245	6,140 174	7.49 2.283	Apr. 25	0045	6,060 172	7.41 2.259
Mar. 5	0100	6,000 170	7.39 2.252	Sept. 26	1630	9,480 268	9.21 2.807
Mar. 14	0615	6,990 198	7.96 2.426				

Minimum discharge, 36 ft³/s (1.02 m³/s) Sept. 2, gage height 1.05 ft (0.320 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	206	1270	202	170	105	2090	1950	774	132	90	56	63
2	195	924	190	170	100	1390	1980	708	137	68	278	59
3	151	823	180	160	98	1120	4200	669	124	63	154	62
4	140	816	170	150	98	2340	2170	582	106	60	104	59
5	129	747	170	150	98	4400	1870	1230	96	61	84	52
6	112	727	160	160	96	2700	1560	1190	94	79	82	72
7	115	747	2280	150	96	1700	1320	1130	132	156	175	69
8	137	662	1740	140	94	1280	1190	893	137	185	124	59
9	7500	570	908	130	92	1150	996	893	134	185	92	53
10	6570	558	781	130	92	1280	900	972	431	134	77	48
11	2090	558	721	120	90	1330	823	837	243	106	74	42
12	1330	506	618	120	90	1270	760	721	172	98	69	38
13	1010	462	547	120	130	3100	688	630	134	90	74	39
14	1170	431	405	120	250	5500	630	564	170	85	74	60
15	908	410	473	115	371	2940	558	501	159	80	134	106
16	727	376	410	115	258	2110	501	452	132	72	124	82
17	630	348	376	115	200	1620	457	415	108	106	376	278
18	564	348	357	115	180	1380	421	376	112	104	464	247
19	495	339	312	115	180	1280	395	405	140	87	247	299
20	1230	330	339	115	170	1110	367	367	115	87	172	1710
21	8620	316	457	115	160	1030	339	325	98	84	129	1330
22	3040	304	280	110	150	2160	325	283	85	84	124	727
23	1710	283	270	110	150	3260	400	254	76	60	117	529
24	1360	266	250	110	380	2010	3250	239	69	52	94	495
25	1780	258	230	110	4570	1510	4120	321	69	56	84	5060
26	2090	247	240	110	2560	1350	2060	258	88	85	72	6050
27	1350	262	230	110	2500	1360	1600	217	87	70	64	3430
28	1060	270	220	110	3990	1900	1280	192	76	58	60	1590
29	916	325	200	110	---	4050	1050	162	80	51	55	1080
30	802	278	190	110	---	4100	886	151	100	49	70	789
31	1480	---	180	105	---	2810	---	137	---	47	77	---
TOTAL	49617	14761	14086	3890	17348	66630	39046	16848	3786	2682	3984	24576
MEAN	1601	492	454	125	620	2149	1302	543	126	86.5	129	819
MAX	8620	1270	2280	170	4570	5500	4200	1230	431	185	464	6050
MIN	112	247	160	105	90	1030	325	137	69	47	55	38
CFSM	4.18	1.29	1.19	.33	1.62	5.61	3.40	1.42	.33	.23	.34	2.14
IN.	4.82	1.43	1.37	.38	1.68	6.47	3.79	1.64	.37	.26	.39	2.39
CAL YR 1976	TOTAL	247022	MEAN	675	MAX	9590	MIN	68	CFSM	1.76	IN	23.99
WTR YR 1977	TOTAL	257259	MEAN	705	MAX	8620	MIN	38	CFSM	1.84	IN	24.99

TUNKHANNOCK CREEK BASIN

01534000 TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 16...	1515	9813	462	140	7.1	--	1	12.0	54	0	0
MAR 01...	1515	9813	1890	140	7.1	2.0	1	12.0	30	0	0
21...	1515	9813	972	90	7.7	5.0	4	12.0	25	--	0
APR 07...	1515	9813	1257	90	7.0	1.0	1	12.0	15	0	0
AUG 17...	1140	9813	224	140	7.0	20.0	1	10.0	40	--	0
SEP 20...	1120	9813	2564	120	7.5	18.0	85	8.6	40	--	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 16...	16	3.0	36	18	13	--	1.0	.02	.07	.06	90
MAR 01...	6.3	3.5	12	5.0	34	110	.63	.01	.11	.05	90
21...	2.3	4.7	14	5.0	15	86	.95	.03	.06	.10	1610
APR 07...	6.3	<.5	10	--	13	76	.89	.03	.07	.05	90
AUG 17...	20	.0	36	10	13	--	.74	.02	.03	.08	270
SEP 20...	12	2.0	38	10	8.0	40	.96	.03	.07	.52	10300

SUSQUEHANNA RIVER BASIN

75

01534135 SUSQUEHANNA RIVER AT PITTSTON, PA

LOCATION.--Lat 41°21'00", long 75°48'05", Luzerne County, Hydrologic Unit 02050107, at railroad bridge 0.5 mi (0.8 km) upstream from Lackawanna River, 1.0 mi (1.6 km) upstream from Pittston and 4.0 mi (6.4 km) downstream from Lewis Creek.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 13...	1515	9813	50	7.0	12.0	55	10.0	222	--	0	52
NOV 04...	1515	9813	190	7.1	15.0	8	10.0	75	--	0	20
16...	1515	9813	360	6.7	9.0	8	11.0	140	0	0	36
DEC 08...	1515	9813	70	6.8	7.0	4	10.0	10	--	0	6.3
FEB 24...	1515	9813	70	6.7	--	2	--	48	0	0	7.1
MAR 21...	1515	9813	90	7.0	5.0	2	11.0	25	--	0	3.1
APR 07...	1515	9813	--	6.7	1.0	1	--	15	0	0	6.3
SEP 20...	1025	9813	160	7.3	18.0	35	9.0	59	--	0	16

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	23	10	160	19	--	1.4	.02	.24	.11	15600
NOV 04...	5.7	42	22	9.0	--	.99	.03	.10	.07	1060
16...	12	70	25	56	--	2.1	.03	.18	.13	1280
DEC 08...	.0	82	15	13	56	3.6	.05	.23	.05	410
FEB 24...	6.5	10	5.0	10	--	.56	.01	.07	.04	230
MAR 21...	4.2	10	20	14	78	.93	.03	.05	.07	200
APR 07...	<.5	10	15	13	78	.81	.02	.08	.05	70
SEP 20...	4.7	58	14	9.0	62	1.0	.04	.08	.17	3200

LACKAWANNA RIVER BASIN

RESERVOIR IN LACKAWANNA RIVER BASIN

01534180 STILLWATER RESERVOIR.--Lat 41°41'46", long 75°29'10", Susquehanna County, Hydrologic Unit 02050107, at Stillwater Dam on Lackawanna River, 0.3 mi (0.5 km) downstream from confluence of East and West Branches, 1.4 mi (2.3 km) south of Uniondale and 3.5 mi (5.6 km) north of Forest City. DRAINAGE AREA, 37.1 mi² (96.1 km²). PERIOD OF RECORD, December 1959 to current year. GAGE water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir formed by an earthfill dam, rock faced, with ungated concrete spillway at elevation 1,621.00 ft (494.081 m). Storage began in December 1959. Capacity at elevation 1,621.00 ft (494.081 m) is 12,000 acre-ft (14.8 hm³). Reservoir is used for flood control and municipal water supply. Figures given herein represent total contents. Flood storage is regulated by power-operated slide gate; water supply storage is regulated by a weir formed by stop logs. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 5,860 acre-ft (7.23 hm³) Apr. 5, 1960 (elevation, 1,603.2 ft or 488.66 m); minimum, 242 acre-ft (0.298 hm³) Sept. 10, 1960 (elevation, 1,568.85 ft or 478.185 m). EXTREMES FOR CURRENT YEAR: Maximum contents, 4,340 acre-ft (5.35 hm³) Oct. 10 (elevation 1,597.51 ft or 486.921 m); minimum, 400 acre-ft (0.493 hm³) Nov. 23 (elevation, 1,572.60 ft or 479.328 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01534180 Stillwater Reservoir			
Sept. 30	1,573.93	593	--
Oct. 31	1,576.14	914	+ 5.2
Nov. 30	1,573.66	566	- 5.8
Dec. 31	1,573.49	549	- 0.3
CAL YR 1976	--	--	- 0.1
Jan. 31	1,573.40	540	- 0.1
Feb. 28	1,578.90	1,110	+10.3
Mar. 31	1,595.55	3,910	+45.5
Apr. 30	1,574.40	640	-55.0
May 31	1,573.35	535	- 1.7
June 30	1,573.30	530	- 0.1
July 31	1,573.10	510	- 0.3
Aug. 31	1,573.36	536	+ 0.4
Sept. 30	1,577.61	961	+ 7.1
WTR YEAR 1977	--	--	+ 0.5

LACKAWANNA RIVER BASIN

77

01534300 LACKAWANNA RIVER NEAR FOREST CITY, PA

LOCATION.--Lat 41°40'47", long 75°28'20", Susquehanna County, Hydrologic Unit 02050107, on left bank 400 ft (122 m) downstream from bridge on State Highway 171, 1.3 mi (2.1 km) downstream from new Stillwater Dam, 1.7 mi (2.7 km) below confluence of East and West Branches, and 2.2 mi (3.5 km) north of Forest City. Water-quality sampling site 900 ft (274 m) upstream.

DRAINAGE AREA.--38.8 mi² (100 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,551.28 ft (472.830 m) above mean sea level. Prior to Dec. 11, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since December 1959 by Stillwater Lake 1.3 mi (2.1 km) upstream (see p. 76).

AVERAGE DISCHARGE.--19 years, 72.7 ft³/s (2.059 m³/s), 25.45 in/yr (646 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft³/s (39.4 m³/s) Jan. 22, 1959, gage height, 6.41 ft (1.954 m), from rating curve extended above 600 ft³/s (17.0 m³/s); minimum, 0.8 ft³/s (0.023 m³/s) Dec. 18, 1975, gage height, 1.32 ft (0.402 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 2,530 ft³/s (71.6 m³/s) May 22, 1942, from computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 845 ft³/s (23.9 m³/s) Sept. 27, gage height, 4.77 ft (1.454 m); minimum, 1.2 ft³/s (0.034 m³/s) July 31, Aug. 1, gage height, 1.35 ft (0.411 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	43	165	28	25	12	227	682	63	11	7.4	2.4	20		
2	37	150	28	22	12	212	630	60	10	6.2	42	21		
3	34	121	26	22	12	178	188	58	8.2	5.8	61	23		
4	30	113	25	22	11	146	516	51	7.4	6.2	40	22		
5	26	108	25	22	11	110	578	82	7.8	7.0	27	28		
6	24	97	24	21	11	275	498	123	7.4	8.2	23	40		
7	23	90	57	20	11	270	324	108	8.7	11	23	50		
8	26	85	163	19	10	240	200	83	10	15	21	60		
9	106	72	144	19	10	207	132	74	17	17	18	69		
10	366	66	101	19	11	205	101	82	33	15	14	87		
11	786	61	80	19	11	232	83	88	35	11	12	95		
12	698	56	64	18	12	257	75	78	26	8.7	12	97		
13	516	51	56	18	15	207	67	64	20	7.8	11	123		
14	321	49	40	18	17	232	60	53	17	7.0	11	169		
15	178	45	38	17	18	602	51	45	16	5.8	17	198		
16	115	42	39	17	16	754	46	43	14	5.4	18	215		
17	82	39	38	17	15	654	42	39	13	5.4	28	260		
18	67	39	36	16	14	484	38	35	11	4.8	57	263		
19	57	38	32	16	13	300	36	37	12	4.5	46	270		
20	67	37	34	16	15	181	33	35	9.7	5.1	31	309		
21	183	36	44	15	15	123	31	31	8.7	5.1	21	404		
22	658	35	38	15	14	113	29	26	7.0	4.5	19	348		
23	530	32	36	15	15	95	33	23	5.8	2.8	17	265		
24	357	30	33	15	19	99	106	21	5.1	2.0	15	217		
25	265	29	29	15	80	92	210	21	5.1	2.2	12	250		
26	242	28	29	15	152	85	225	19	6.6	3.3	10	250		
27	207	29	28	14	169	82	195	17	6.6	3.3	11	498		
28	158	32	27	13	207	88	148	15	5.8	2.8	10	802		
29	121	36	29	13	---	124	102	13	7.0	2.2	14	686		
30	101	38	28	12	---	108	77	12	7.8	2.0	20	502		
31	121	---	26	12	---	193	---	12	---	1.6	20	---		
TOTAL	6545	1849	1425	537	928	7175	5536	1511	359.7	196.1	683.4	6641		
MEAN	211	61.6	46.0	17.3	33.1	231	185	48.7	12.0	6.33	22.0	221		
MAX	786	165	163	25	207	754	682	123	35	17	61	802		
MIN	23	28	24	12	10	82	29	12	5.1	1.6	2.4	20		
MEAN#	216	55.8	45.7	17.2	43.4	277	130	47.0	11.9	6.00	22.5	228		
CFSM#	5.58	1.44	1.18	.44	1.12	7.14	3.34	1.21	.31	.15	.58	5.89		
IN.#	6.43	1.61	1.36	.51	1.17	8.23	3.73	1.40	.35	.17	.67	6.57		
CAL YR 1976	TOTAL	29939.0	MEAN	81.8	MAX	786	MIN	12	MEAN#	81.7	CFSM#	2.11	IN.#	28.66
WTR YR 1977	TOTAL	33386.2	MEAN	91.5	MAX	802	MIN	1.6	MEAN#	92.0	CFSM#	2.37	IN.#	32.19

Adjusted for change in contents in Stillwater Lake.

LACKAWANNA RIVER BASIN

01534300 LACKAWANNA RIVER NEAR FOREST CITY, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO MARCH 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA-MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 15...	1515	9813	45	90	7.0	9.0	3	11.0	30	--	0
MAR 01...	1515	9813	230	140	6.0	2.0	1	11.0	20	0	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON IRON (FE) (UG/L)
NOV 15...	8.0	2.5	16	15	12	--	.50	.02	.36	.65	210
MAR 01...	6.3	1.0	12	15	34	104	.54	.01	.06	.04	50

LACKAWANNA RIVER BASIN

79

01534500 LACKAWANNA RIVER AT ARCHBALD, PA

LOCATION.--Lat 41°30'16", long 75°32'33", Lackawanna County, Hydrologic Unit 02050107, on right bank in Archbald, 0.5 mi (0.8 km) upstream from White Oak Run and Gilmartin Street Bridge.

DRAINAGE AREA.--108 mi² (280 km²).

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 889.33 ft (271.068 m) above mean sea level.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Regulation at low flow by mine pumps above station. Flow regulated since December 1959 by Stillwater Lake about 17 mi (27 km) upstream (see p.76).

AVERAGE DISCHARGE.--38 years, 204 ft³/s (5.78 m³/s), 25.60 in/yr (650 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,510 ft³/s (269 m³/s) May 22, 1942, gage height, 10.58 ft (3.225 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.0 ft³/s (0.085 m³/s) Oct. 9, 11, 1943; minimum daily, 13 ft³/s (0.368 m³/s) Nov. , 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,590 ft³/s (130 m³/s) Oct. 9, gage height, 7.25 ft (2.210 m); minimum, 32 ft³/s (0.91 m³/s) July 31, Aug. 1; minimum gage height, 1.66 ft (0.506 m) July 31, Aug. 1, Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	460	81	52	37	585	1270	228	64	45	41	40
2	76	390	87	50	36	500	1440	212	62	42	50	46
3	74	340	76	49	36	426	1240	196	58	40	90	45
4	67	290	72	48	35	699	1160	184	55	40	75	39
5	62	264	81	48	35	958	1190	344	55	41	59	36
6	59	242	76	47	34	880	1050	384	58	52	56	69
7	58	228	249	46	33	705	790	352	62	55	59	44
8	67	215	290	46	33	570	617	290	58	66	52	40
9	1370	190	249	45	33	535	440	298	78	58	48	39
10	932	178	196	44	34	570	383	298	115	54	45	37
11	1200	169	167	44	36	628	335	275	96	49	42	36
12	1000	156	148	43	40	650	294	246	83	46	41	35
13	760	148	131	42	48	1280	264	218	72	45	40	36
14	617	140	102	41	50	1470	235	190	69	46	42	44
15	411	133	102	40	61	1270	212	172	69	41	50	42
16	294	126	100	39	44	1340	190	158	61	39	49	53
17	222	119	98	39	42	1130	175	148	59	41	92	98
18	200	117	94	38	41	919	164	138	61	46	98	94
19	190	115	89	39	45	644	156	145	59	44	90	123
20	450	113	90	39	44	455	145	131	58	48	74	239
21	1400	108	104	40	44	365	138	121	55	42	59	374
22	1000	104	85	40	40	540	128	108	50	40	62	352
23	760	100	83	41	52	595	205	102	48	36	58	253
24	560	94	78	41	98	480	689	96	46	35	55	253
25	520	90	71	42	490	421	644	90	48	44	52	1090
26	680	89	74	41	445	374	555	87	49	42	45	1360
27	620	90	64	40	495	327	520	81	46	39	42	964
28	520	94	60	39	749	383	416	76	45	36	41	1220
29	450	104	58	38	---	938	323	71	48	35	40	1020
30	390	90	56	38	---	1240	264	69	46	34	41	749
31	500	---	53	37	---	1050	---	67	---	33	41	---
TOTAL	15608	5096	3364	1316	3210	22967	15632	5575	1833	1354	1729	8870
MEAN	503	170	109	42.5	115	741	521	180	61.1	43.7	55.8	296
MAX	1400	460	290	52	749	1470	1440	384	115	66	98	1360
MIN	58	89	53	37	33	327	128	67	45	33	40	35
MEAN [#]	509	164	108	42.3	125	786	466	178	61.0	43.4	56.2	303
CFSM [#]	4.71	1.52	1.00	.39	1.16	7.28	4.32	1.65	.56	.40	.52	2.80
IN. [#]	5.43	1.70	1.15	.45	1.21	8.39	4.82	1.90	.62	.46	.60	3.12
CAL YR 1976	TOTAL	81504	MEAN 223	MAX 1400	MIN 40	MEAN [#] 223	CFSM [#] 2.06	IN. [#] 28.06				
WTR YR 1977	TOTAL	86554	MEAN 237	MAX 1470	MIN 33	MEAN [#] 238	CFSM [#] 2.20	IN. [#] 29.88				

[#] Adjusted for change in contents in Stillwater Lake.

LACKAWANNA RIVER BASIN

01536000 LACKAWANNA RIVER AT OLD FORGE, PA

LOCATION.--Lat 41°21'33", long 75°44'41", Lackawanna County, Hydrologic Unit 02050107, on right bank 150 ft (46 m) upstream from Delaware, Lackawanna and Western Railroad Bridge in Old Forge, and 0.5 mi (0.8 km) upstream from St. Johns Creek. Water-quality sampling site 200 ft (61 m) upstream.

DRAINAGE AREA.--332 mi² (860 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1432: 1939(M), 1940, 1945.

GAGE.--Water-stage recorder. Datum of gage is 595.26 ft (181.435 m) above mean sea level. Prior to Oct 1, 1974, water-stage recorder at same site and datum and Oct 1, 1974 to Aug. 17, 1975, nonrecording gage at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records good. Flow regulated since December 1959 by Stillwater Lake about 33 mi (53 km) upstream (see p. 76).

AVERAGE DISCHARGE.--39 years, 504 ft³/s (14.3 m³/s), 20.60 in/yr (523 mm/yr), adjusted for storage since December 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft³/s (878 m³/s) Aug. 19, 1955, gage height, 20.05 ft (6.111 m), from floodmark, from rating curve extended above 5,000 ft³/s (142 m³/s) on basis of slope-area measurement at gage height 15.30 ft (4.663 m) and of peak flow; minimum, 20 ft³/s (0.57 m³/s) Sept. 21, 1964, gage height, 1.28 ft (0.390 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,560 ft³/s (186 m³/s) Oct. 9, gage height, 8.23 ft (2.509 m); minimum, 62 ft³/s (1.76 m³/s) Feb. 6, gage height, 2.14 ft (0.652 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	951	151	130	75	1730	2210	688	128	86	72	72
2	139	785	167	125	73	1390	2440	710	123	84	96	86
3	172	695	137	125	72	1130	3500	550	113	78	163	120
4	145	659	142	120	72	976	2390	514	105	76	123	78
5	121	637	157	115	71	2630	2360	476	100	80	103	70
6	110	588	145	115	72	2760	2070	816	113	98	137	88
7	108	554	879	115	74	2030	1660	785	134	126	137	76
8	172	521	993	110	76	1580	1420	855	118	142	88	68
9	3340	457	710	110	80	1270	1130	666	196	105	78	66
10	2580	432	595	110	80	1140	960	695	360	92	82	64
11	2100	407	514	105	88	1120	855	800	243	94	76	59
12	1670	372	457	105	115	1130	754	695	174	96	70	59
13	1340	304	413	105	154	2220	630	724	142	103	68	59
14	1240	277	293	100	196	3630	568	630	128	84	72	76
15	911	267	299	98	163	2510	476	548	128	82	86	66
16	688	247	283	95	131	2240	432	413	115	78	74	88
17	554	234	272	93	115	1860	395	343	108	88	315	128
18	476	238	262	91	115	1630	354	315	115	90	217	113
19	407	229	229	90	123	1350	320	326	140	88	142	243
20	717	221	243	88	123	1030	293	293	131	105	120	337
21	3680	208	288	86	123	903	267	267	128	92	100	413
22	2340	201	213	85	115	1860	252	234	103	100	98	495
23	1790	192	221	85	131	2110	262	213	94	76	94	366
24	1400	174	196	84	217	1510	1070	189	90	72	84	401
25	1340	167	167	83	1180	1240	1750	185	118	118	88	1090
26	1630	163	160	82	1360	1080	1240	174	108	110	76	2280
27	1260	163	150	80	1210	1020	1250	160	94	84	72	1850
28	1040	163	145	79	1610	1280	1200	145	92	76	68	1740
29	895	217	140	78	---	2500	984	131	96	74	68	1500
30	754	174	135	77	---	3310	935	140	94	72	76	1200
31	984	---	130	76	---	2610	---	134	---	70	80	---
TOTAL	34242	10897	9286	3040	8014	54779	34427	13814	3931	2819	3223	13351
MEAN	1105	363	300	98.1	286	1767	1148	446	131	90.9	104	445
MAX	3680	951	993	130	1610	3630	3500	855	360	142	315	2280
MIN	108	163	130	76	71	903	252	131	90	70	68	59
MEAN#	1110	357	299	97.9	296	1813	1093	444	131	90.6	104	452
CFSM#	3.34	1.08	.90	.29	.89	5.46	3.29	1.34	.39	.27	.31	1.36
IN.#	3.85	1.20	1.04	.33	.93	6.30	3.67	1.54	.44	.31	.36	1.52
CAL YR 1976 TOTAL	182813		MEAN 499	MAX 6100	MIN 73							
WTR YR 1977 TOTAL	191823		MEAN 526	MAX 3680	MIN 59							
						MEAN# 499	CFSM# 1.50	IN.# 20.48				
						MEAN# 526	CFSM# 1.58	IN.# 21.51				

Adjusted for change in contents in Stillwater Lake.

LACKAWANNA RIVER BASIN

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01536000 LACKAWANNA RIVER AT OLD FORGE, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY C02 AS CAC03 (MG/L)
NOV											
04...	1515	9813	658	20	7.0	15.0	3	10.0	75	--	0
09...	1515	9813	444	80	7.2	9.0	--	10.0	20	--	0
MAR											
01...	1515	9813	1710	140	6.8	2.0	1	11.0	25	0	0
APR											
07...	1515	9813	2000	100	5.7	1.0	1	10.0	25	0	0
AUG											
16...	1330	9813	111	325	5.5	22.0	1	10.2	88	--	0
SEP											
20...	0935	9813	488	180	6.0	19.0	45	7.8	60	--	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV											
04...	11	11	12	44	13	--	1.0	.03	--	.26	330
09...	7.1	.5	22	8.0	9.0	--	.55	.03	.06	.03	640
MAR											
01...	7.1	1.5	12	10	34	106	.53	.02	.05	.04	50
APR											
07...	7.1	1.5	10	10	13	72	.87	.03	.10	.05	70
AUG											
16...	29	3.5	40	65	26	--	3.9	.09	.30	1.5	590
SEP											
20...	12	7.5	24	36	13	70	1.8	.08	.25	.97	4900

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG										
16...	1330	9813	210	<5	<10	30	<50	120	40	40

SUSQUEHANNA RIVER BASIN

01536500 SUSQUEHANNA RIVER AT WILKES-BARRE, PA

LOCATION.--Lat 41°15'03", long 75°52'52", Luzerne County, Hydrologic Unit 02050107, on left bank at foot of West Union Street, 800 ft (244 m) downstream from North Street Bridge, and 1.6 mi (2.6 km) upstream from Toby Creek.

DRAINAGE AREA.--9,960 mi² (25,800 km²), approximately.

PERIOD OF RECORD.--April 1899 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage-height records collected at same site since November 1890 contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 109: 1900-1905. WSP 351: Drainage area. WSP 781: 1902(M). WSP 1302: 1916. WSP 1432: 1901-5, 1907, 1909, 1913, 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 512.07 ft (156.079 m) above mean sea level. See WSP 1722 for history of changes prior to Mar. 23, 1949.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--78 years, 13,310 ft³/s (377 m³/s), 18.15 in/yr (461 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 345,000 ft³/s (9,770 m³/s) June 24, 1972, gage height, 40.91 ft (12.469 m), from floodmark, from rating curve extended above 200,000 ft³/s (5,664 m³/s) on basis of slope-area measurement of peak flow; minimum, 528 ft³/s (15.0 m³/s) Sept. 27, 1964, gage height, -1.78 ft (-0.543 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1899, 33.1 ft (10.1 m) Mar. 18, 1865, from floodmarks, discharge, about 232,000 ft³/s (6,570 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 82,000 ft³/s (2,320 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 11	0400	103,000 2,920	19.45 5.928	Sept. 26	2300	121,000 3,430	21.62 6.590
Mar. 14	2400	113,000 3,200	20.66 6.297				

Minimum discharge, 1,880 ft³/s (53.2 m³/s) Sept. 14, gage height, 0.09 ft (0.027 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7140	29200	7220	5700	3200	53700	73600	18800	4440	3520	2500	3000
2	6150	33300	7140	5600	3200	42200	68700	16400	4160	3610	2600	2930
3	5530	27800	6370	5600	3300	31200	73800	14700	3860	3210	2900	3140
4	4930	22900	5760	5500	3400	28200	61000	13400	3670	2860	2600	3140
5	4520	20500	5480	5400	3100	55500	49900	13800	3540	2670	2360	3120
6	4280	19700	5260	5200	2900	68300	43900	22000	3520	2710	2300	3100
7	4000	18600	9370	5100	2900	59100	38900	26400	3670	3280	2390	2710
8	4000	17300	17400	5000	3000	44600	33900	20500	3630	4120	2710	2570
9	21900	16000	19000	4900	3100	34600	29100	17300	3670	5460	5670	2420
10	89400	14600	18000	4800	3200	31400	24600	16400	4570	7770	5210	2260
11	90700	13400	16800	4700	3300	36600	20900	18200	5420	5420	4240	2100
12	56400	12700	15300	4600	3500	46000	18600	19900	4860	4400	3610	1970
13	38200	11900	14400	4500	3700	53700	17400	19100	4590	4120	3330	1880
14	30000	10900	12700	4400	4000	96900	16100	18100	4280	3560	3800	1850
15	25500	10100	9960	4300	4300	106000	14400	16300	4100	3240	5100	1860
16	22800	9510	8940	4200	4600	92200	12600	14100	3800	3030	4760	6620
17	21600	8940	9240	4100	5000	80600	11300	12200	3440	2880	5300	8400
18	18900	8550	9440	4100	5100	62700	10300	10800	3390	2880	5790	23100
19	16500	8170	8730	4100	4600	47100	9440	9820	3430	2880	4570	24600
20	15000	7860	8520	4200	4700	37600	8760	9680	3240	2940	5930	29800
21	37800	7690	8100	4200	4860	32600	8230	9110	3280	2940	6220	49600
22	62900	7600	8000	4200	4760	33000	7660	8820	3760	2900	4990	57900
23	60400	7380	7600	4300	4280	46700	7330	8170	3760	2800	4280	51100
24	46600	7030	7300	4300	4610	45100	12000	7240	3460	2600	3900	42300
25	39200	6670	7100	4400	26300	36400	41900	6640	3230	2450	4080	43300
26	40800	6370	6800	4400	46800	30200	53400	6440	3050	2400	4180	99700
27	38900	6150	6600	4400	39900	26400	46700	6440	2890	2260	4060	99500
28	32100	6080	6300	4200	47700	28600	36200	7330	3000	2260	3960	75900
29	25800	6420	6100	4000	---	44200	27700	6200	3630	2650	3610	55800
30	21800	7140	5900	3700	---	72400	22300	5280	3540	2790	3330	42400
31	21200	---	5800	3400	---	76000	---	4760	---	2620	3430	---
TOTAL	914950	390460	290630	141500	253310	1579800	900620	404330	112880	103230	123710	748070
MEAN	29510	13020	9375	4565	9047	50960	30020	13040	3763	3330	3991	24940
MAX	90700	33300	19000	5700	47700	106000	73800	26400	5420	7770	6220	99700
MIN	4000	6080	5260	3400	2900	26400	7330	4760	2890	2260	2300	1850
CFSM	2.96	1.31	.94	.46	.91	5.12	3.01	1.31	.38	.33	.40	2.50
IN.	3.42	1.46	1.09	.53	.95	5.90	3.36	1.51	.42	.39	.46	2.79

CAL YR 1976 TOTAL 6530630 MEAN 17840 MAX 115000 MIN 3600 CFSM 1.79 IN 24.39
WTR YR 1977 TOTAL 5963490 MEAN 16340 MAX 106000 MIN 1850 CFSM 1.64 IN 22.27

01537000 TOBY CREEK AT LUZERNE, PA

LOCATION.--Lat 41°16'57", long 75°53'46", Luzerne County, Hydrologic Unit 02050107, on right bank at Luzerne, 150 ft (46 m) upstream from bridge on U.S. Highway 309, 0.5 mi (0.8 km) upstream from inlet works of flood basin, and 2.5 mi (4.0 km) upstream from mouth. Water-quality sampling site 150 ft (46 m) downstream.

DRAINAGE AREA.--32.4 mi² (83.9 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 574.60 ft (175.138 m) above mean sea level.

REMARKS.--Records good, except those for winter periods, which are fair. Some regulation by Huntsville Reservoir 5.9 mi (9.5 km) upstream (usable capacity, 256,900,000 ft³ (7.28 hm³)). Diversion from reservoir for municipal supply.

AVERAGE DISCHARGE.--36 years, 45.2 ft³/s (1.280 m³/s), 18.93 in/yr (481 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft³/s (96.0 m³/s) June 22, 1972, gage height, 6.07 ft (1.850 m) in gage well, 7.59 ft (2.313 m) outside, from floodmarks, from rating curve extended above. 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft³/s (0.003 m³/s) Sept. 12, 1944; minimum daily, 0.5 ft³/s (0.014 m³/s) Sept. 20, Oct. 8, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 630 ft³/s (17.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1245	*2,180 61.7	*4.37 1.332	Apr. 2	2200	848 24.0	2.77 0.844
Oct. 21	0100	855 24.2	2.78 0.847	July 12	2245	802 22.7	2.71 0.826

Minimum discharge, 6.2 ft³/s (0.18 m³/s) July 2, 3, gage height, 0.33 ft (0.101 m); minimum daily, 9.8 ft³/s (0.28 m³/s) June 30, July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	133	28	20	14	64	76	29	15	10	16	15
2	18	102	24	20	14	50	216	26	13	9.8	16	15
3	17	87	22	20	14	42	437	25	12	10	19	14
4	14	83	21	19	14	306	209	26	11	10	17	14
5	12	76	23	19	14	293	213	45	11	26	15	14
6	12	72	26	19	13	136	152	39	14	27	22	14
7	12	69	122	19	13	93	116	37	14	42	25	13
8	24	61	69	19	13	69	116	28	11	70	18	13
9	719	51	50	19	13	59	89	37	29	23	15	13
10	263	48	40	19	13	55	74	35	46	18	15	13
11	123	47	40	19	15	51	66	28	18	16	17	13
12	93	41	39	18	19	50	58	25	14	70	16	13
13	76	37	35	18	33	234	48	25	12	155	17	13
14	78	34	32	17	27	319	45	21	12	45	19	14
15	58	32	30	17	23	186	37	20	12	29	17	13
16	50	29	29	16	20	139	33	19	10	26	17	14
17	43	28	30	16	18	102	31	19	12	25	32	16
18	39	29	28	15	16	98	29	23	39	22	20	14
19	33	28	26	15	19	95	28	23	37	34	16	28
20	168	27	28	15	19	81	26	20	20	43	16	42
21	521	27	33	15	18	78	24	18	18	27	16	20
22	242	24	39	15	23	276	23	18	14	28	16	19
23	158	22	23	15	25	328	39	16	11	22	15	17
24	133	22	22	16	104	199	70	15	11	20	15	27
25	152	22	23	16	173	144	61	15	16	33	15	91
26	199	22	22	16	89	118	47	13	16	29	14	161
27	139	22	21	15	93	118	45	13	12	21	14	66
28	106	22	20	15	106	136	40	13	13	19	14	37
29	89	29	20	15	---	139	33	14	13	18	14	31
30	76	24	20	15	---	121	29	15	9.8	18	19	24
31	170	---	20	15	---	100	---	14	---	17	16	---
TOTAL	3850	1350	1005	527	975	4279	2510	714	495.8	962.8	533	811
MEAN	124	45.0	32.4	17.0	34.8	138	83.7	23.0	16.5	31.1	17.2	27.0
MAX	719	133	122	20	173	328	437	45	46	155	32	161
MIN	12	22	20	15	13	42	23	13	9.8	9.8	14	13
(f)	4.71	4.91	5.15	3.92	3.96	3.68	3.60	3.77	3.95	3.97	4.12	4.22
MEAN#	129	49.9	37.6	20.9	38.8	142	87.3	26.8	20.5	35.0	21.3	31.3
CFSM#	3.98	1.54	1.16	.65	1.20	4.37	2.69	.83	.63	1.08	.66	.96
IN.#	4.59	1.72	1.34	.75	1.25	5.04	3.00	.96	.70	1.24	.76	1.07

CAL YR 1976 TOTAL 19594.8 MEAN 53.5 MAX 719 MIN 7.4 MEAN# 57.8 CFSM# 1.78 IN.# 24.27
WTR YR 1977 TOTAL 18012.6 MEAN 49.3 MAX 719 MIN 9.8 MEAN# 53.5 CFSM# 1.65 IN.# 22.43

/ Diversion, equivalent in cubic feet per second, for municipal supply; furnished by Pennsylvania Gas and Water Company.

Adjusted for diversion.

SUSQUEHANNA RIVER BASIN

01537000 TOBY CREEK AT LUZERNE, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)
NOV 08...	1515	9813	58	60	7.1	8.0	1	11.0	20	--	0
DEC 08...	1515	9813	66	150	5.8	2.0	5	9.0	30	--	0
FEB 24...	1515	9813	31	70	6.8	--	<1	--	25	0	0
APR 07...	1515	9813	113	90	6.7	1.0	<1	11.0	15	0	0
SEP 20...	1345	9813	42	190	7.9	20.0	30	9.3	40	--	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 08...	8.0	.0	18	4.0	12	--	.60	.02	.05	.03	110
DEC 08...	12	.0	12	24	6.0	114	.67	.03	.06	.22	280
FEB 24...	6.3	2.0	10	5.0	9.0	--	.57	.01	.05	.03	230
APR 07...	6.3	<.5	12	15	14	74	.96	.04	.13	.06	90
SEP 20...	12	2.0	38	10	19	100	1.3	.17	.68	.93	2420

SOLOMON CREEK BASIN

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01537500 SOLOMON CREEK AT WILKES-BARRE, PA

LOCATION.--Lat 41°13'39", long 75°54'17", Luzerne County, Hydrologic Unit 02050107, on right bank at southwest city limits of Wilkes-Barre, 20 ft (6 m) downstream from bridge on Central Railroad of Pennsylvania, 0.4 mi (0.6 km) downstream from Spring Run and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--15.7 mi² (40.7 km²).

PERIOD OF RECORD.--March 1940 to current year. Monthly discharge only for March 1940, published in WSP 1302.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1382: 1940, 1942, 1944(P), 1945-47, 1949(M), 1951-52, 1954-54(M).

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is 545 ft (166 m), from topographic map.

REMARKS.--Records fair. Regulation by mine pumps above station.

AVERAGE DISCHARGE.--37 years, 19.9 ft³/s (0.564 m³/s), 17.19 in/yr (437 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,450 ft³/s (69.4 m³/s) Aug. 18, 1955, gage height, 9.83 ft (2.996 m), from rating curve extended above 380 ft³/s (10.8 m³/s) on basis of computation of peak flow through culvert; minimum, 0.13 ft³/s (0.004 m³/s) Sept. 16, Oct. 20, 1969; minimum daily, 0.30 ft³/s (0.008 m³/s) Sept. 10, 1975; minimum gage height, 0.14 ft (0.043 m) Aug. 16, 25, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 11.4 ft (3.47 m) Sept. 16, 1933, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 320 ft³/s (9.06 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 9	1245	*907	25.7	Sept. 26	0815	395	11.2

Minimum discharge, 0.16 ft³/s (0.005 m³/s) June 5, 6, gage height, 0.73 ft (0.223 m); minimum daily, 0.33 ft³/s (0.009 m³/s) June 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	4.0	2.5	.66	55	23	12	1.1	2.0	12	3.2
2	24	19	3.5	2.5	.64	39	43	12	.88	1.5	19	3.0
3	33	24	3.1	2.4	.60	31	62	10	.58	1.3	10	2.9
4	25	21	3.1	2.4	.58	76	48	11	.52	1.2	5.2	2.2
5	21	21	3.0	2.3	.56	106	55	12	.33	6.9	4.3	2.6
6	18	18	2.9	2.3	.55	67	41	8.2	.70	6.7	5.0	7.4
7	15	17	43	2.3	.54	49	36	7.2	4.0	14	5.8	3.0
8	31	15	35	2.3	.52	36	35	6.5	.94	30	3.8	2.7
9	252	14	33	2.2	.52	29	28	8.2	8.2	11	3.0	2.4
10	126	12	26	2.2	.70	26	23	7.4	14	8.5	7.4	2.3
11	66	11	21	2.2	2.0	21	19	6.7	3.0	7.4	4.3	2.2
12	45	9.4	19	2.2	4.0	14	17	6.0	2.4	29	3.0	2.2
13	32	8.8	16	2.2	6.0	38	14	6.0	2.1	31	2.8	2.1
14	27	8.2	13	2.2	7.0	63	12	5.6	2.0	13	3.6	2.1
15	16	7.4	11	2.2	3.6	46	11	5.4	2.4	10	3.2	1.9
16	11	6.9	9.6	2.2	2.4	36	9.4	5.0	2.2	8.8	2.5	4.0
17	8.0	6.5	8.6	2.2	2.2	28	8.5	4.7	2.1	14	24	4.0
18	5.8	6.5	7.8	2.2	1.8	30	7.4	5.5	8.5	9.4	9.7	5.1
19	4.3	6.3	6.8	2.2	2.2	26	6.9	4.9	21	7.7	8.5	14
20	40	5.8	6.3	2.2	1.8	21	6.0	3.8	5.0	10	8.0	6.5
21	108	5.6	5.8	2.0	1.6	19	5.6	3.2	4.9	22	6.9	5.2
22	58	5.2	5.1	1.9	2.3	73	5.0	2.7	3.3	32	6.7	14
23	42	4.7	4.6	1.7	14	86	12	2.4	2.8	18	5.6	9.1
24	37	4.3	4.2	1.5	48	59	29	2.2	2.5	14	5.2	21
25	37	4.1	3.9	1.3	75	45	19	2.1	3.5	15	4.9	58
26	50	4.0	3.6	1.2	49	37	19	1.9	5.2	11	4.0	175
27	34	4.0	3.3	1.1	57	33	20	1.4	3.3	8.5	3.3	89
28	28	4.0	3.0	.90	82	33	18	1.2	2.9	6.9	3.0	59
29	22	7.2	2.8	.80	---	34	16	.94	3.0	6.0	2.4	42
30	16	5.6	2.6	.75	---	31	14	1.1	2.3	5.2	9.4	29
31	30	---	2.5	.70	---	29	---	.88	---	4.3	9.1	---
TOTAL	1283.1	302.5	317.1	59.25	367.77	1316	662.8	168.12	115.65	366.3	206.1	577.1
MEAN	41.4	10.1	10.2	1.91	13.1	42.5	22.1	5.42	3.86	11.8	6.65	19.2
MAX	252	24	43	2.5	82	106	62	12	21	32	24	175
MIN	4.3	4.0	2.5	.70	.52	14	5.0	.88	.33	1.2	2.5	1.9
CFSM	2.64	.64	.65	.12	.83	2.71	1.41	.35	.25	.75	.42	1.22
IN.	3.04	.72	.75	.14	.87	3.12	1.57	.40	.27	.87	.44	1.37

CAL YR 1976	TOTAL	6365.40	MEAN 17.4	MAX 252	MIN .52	CFSM 1.11	IN 15.08
WTR YR 1977	TOTAL	5741.79	MEAN 15.7	MAX 252	MIN .33	CFSM 1.00	IN 13.60

SUSQUEHANNA RIVER BASIN

01537700 SUSQUEHANNA RIVER NEAR HUNLOCK CREEK, PA

LOCATION.--Lat 41°11'19", long 76°05'13", Luzerne County, Hydrologic Unit 02050107, at bridge to State Hospital Retreat, 1.6 mi (2.6 km) southwest of Hunlock Creek.

DRAINAGE AREA.--10,140 mi² (26,300 km²).

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

REMARKS.--Composite samples taken as part of the USGS-EPA surveillance network. Records of discharge are given for 01536500 Susquehanna River at Wilkes-Barre.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL./100 ML)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT											
13...	1130	38400	155	7.0	11.0	22	9.8	42	2.0	85600	92
27...	1245	40000	160	6.6	7.0	17	13.4	<10	2.0	370	91
NOV											
09...	1000	16300	240	6.9	4.0	4	11.8	24	.8	--	135
23...	1000	7510	300	7.2	3.0	8	12.1	11	1.7	240	164
DEC											
22...	0930	8440	280	6.8	1.0	12	12.8	<10	1.4	4800	158
MAR											
01...	1500	53500	145	6.7	1.5	21	12.3	34	3.6	800	90
15...	1100	108000	90	7.2	7.5	160	11.8	70	2.6	580	76
29...	1330	45400	180	6.8	10.0	9	11.8	10	1.1	E140	99
APR											
12...	1400	18800	260	6.8	14.0	6	10.4	14	1.5	200	135
27...	1045	48100	140	7.2	12.0	30	10.6	13	1.9	320	84
MAY											
10...	1120	16400	210	7.1	12.0	3	10.0	11	3.4	260	109
24...	0945	7100	300	7.9	24.0	8	8.4	15	4.1	8105	160
JUN											
07...	1150	3740	380	7.5	18.5	5	9.6	16	4.4	2500	248
21...	1200	3340	380	7.3	23.5	3	7.8	20	4.6	2400	223
JUL											
06...	1130	2670	400	7.3	25.0	7	13.4	25	--	89600	268
20...	0945	3000	395	6.7	27.5	4	6.1	120	2.4	8180	256
AUG											
02...	1345	2340	440	7.5	25.0	2	7.8	15	4.4	86000	303
17...	1245	5380	300	7.8	24.0	2	7.2	30	3.2	5600	229
30...	1530	3320	380	7.3	25.0	10	7.6	35	6.0	3800	203
SEP											
13...	1100	2240	450	7.5	20.0	15	8.8	25	3.9	5200	258
29...	1145	56900	160	7.0	14.5	45	9.2	20	1.2	1000	86

DATE	SUSPENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
OCT											
13...	108	.50	.09	.51	.60	1.1	.13	1800	23	0	<10
27...	29	.51	.09	.29	.38	.89	.08	400	1	1	<10
NOV											
09...	7	.70	.11	.22	.33	1.0	.06	140	0	1	<10
23...	5	.93	.25	.18	.43	1.4	.07	90	0	1	<10
DEC											
22...	10	.90	.25	.20	.45	1.4	.07	70	1	0	<10
MAR											
01...	232	.90	.23	.97	1.2	2.1	.21	3500	5	1	10
15...	526	.67	.07	1.4	1.5	2.2	.35	2600	10	1	20
29...	42	1.0	.11	.29	.40	1.4	.05	690	0	2	<10
APR											
12...	22	.81	.14	.26	.40	1.2	.04	330	1	0	<10
27...	99	.53	.09	.71	.80	1.3	.09	1100	2	0	<10
MAY											
10...	22	.47	.08	.41	.49	.96	.04	340	1	0	10
24...	20	.31	.09	.50	.59	.90	.07	450	1	0	20
JUN											
07...	23	.50	.11	.99	1.1	1.6	.11	180	1	0	10
21...	16	.42	.18	.69	.87	1.3	.11	30	3	0	<10
JUL											
06...	17	.45	.19	.75	.94	1.4	.13	210	2	0	20
20...	21	.13	.23	.71	.94	1.1	.12	170	2	0	10
AUG											
02...	21	.10	.15	.85	1.0	1.1	.11	330	2	0	<10
17...	28	.18	.15	1.1	1.2	1.4	.15	460	0	0	20
30...	14	.42	.09	.80	.89	1.3	.43	260	0	0	<10
SEP											
13...	19	.27	.20	.76	.96	1.2	.13	90	0	0	<10
29...	77	.46	.07	.53	.60	1.1	.11	860	1	2	10

SUSQUEHANNA RIVER BASIN

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01537700 SUSQUEHANNA RIVER AT HUNLOCK CREEK, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT										
13...	10	4900	20	280	0	30	6.4	0	55.3	48.4
27...	10	1800	4	180	0	10	4.9	0	--	--
NOV										
09...	0	1900	6	280	0	20	4.6	0	2.43	1.31
23...	0	2500	9	400	0	10	6.4	1	.000	.000
DEC										
22...	10	2000	9	350	1	20	3.6	0	.000	.000
MAR										
01...	10	8400	7	330	1	40	8.3	0	--	--
15...	20	18000	34	560	2	90	12	0	--	--
29...	10	2200	17	150	0	20	8.3	0	.814	.805
APR										
12...	10	2200	3	280	0	30	3.2	0	1.04	.718
27...	0	3100	10	180	0	20	5.8	1	--	--
MAY										
10...	4	1900	7	220	0	20	6.8	0	1.36	.000
24...	22	2300	10	340	0	20	6.2	5	21.2	5.29
JUN										
07...	13	3700	4	640	0	40	6.1	0	--	--
21...	10	3400	11	630	0	20	6.1	1	--	--
JUL										
06...	11	3300	25	680	0	50	4.8	0	18.0	4.07
20...	17	3000	8	650	0	20	5.9	3	26.5	2.97
AUG										
02...	11	3300	7	750	0	20	6.2	0	26.3	4.72
17...	10	2900	9	410	0	20	7.2	3	81.8	12.6
30...	10	2200	12	550	4	20	8.2	7	14.7	1.91
SEP										
13...	10	2700	3	750	0	10	7.5	0	43.2	2.36
29...	13	3400	10	200	1	60	10	1	--	--

WAPWALLOPEN CREEK BASIN

01537980 WAPWALLOPEN CREEK AT DORRANCE, PA

LOCATION.--Lat 41°04'19", Long 76°08'07", Luzerne County, Hydrologic Unit 02050107, at bridge on Legislative Route 40022, 0.8 mi (1.3 km) southeast of Dorrance and 5.1 mi (8.2 km) upstream from Balliet Run.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 08...	1515	9813	180	7.2	8.0	<1	11.0	20	--	0	8.0
DEC 08...	1515	9813	70	7.7	2.0	3	12.5	10	--	0	6.3
FEB 24...	1515	9813	70	7.1	--	1	--	25	0	0	6.3
MAR 21...	1515	9813	90	7.7	5.0	3	12.0	15	--	0	2.3
APR 07...	1515	9813	90	7.2	1.0	1	12.0	15	0	0	6.3
AUG 18...	1050	9813	120	8.2	12.0	6	11.1	25	--	0	10
SEP 21...	1300	9813	130	7.0	16.0	6	9.7	25	--	0	8.7

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 08...	.0	22	6.0	12	--	--	.62	.02	.09	.03	160
DEC 08...	.0	14	15	6.0	58	--	.58	.02	.01	.05	370
FEB 24...	2.0	10	10	9.0	--	--	.52	.02	.05	.03	230
MAR 21...	2.2	14	--	14	84	--	.85	.03	.04	.08	620
APR 07...	<.5	10	15	13	76	--	.85	.03	.12	.06	80
AUG 18...	.0	106	18	14	106	--	1.4	.03	.06	.18	660
SEP 21...	.0	20	14	15	--	96	1.5	.04	.05	.14	360

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 18...	1050	9813	410	<10	<10	<10	<50	100	<10	20

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LOCATION.--Lat 41°03'33", long 76°05'38", Luzerne County, Hydrologic Unit 02050107, on left bank 100 ft (30 m) upstream from Harts Bridge, 2.2 mi (3.5 km) southeast of Wapwallopen and 3.7 mi (6.0 km) upstream from mouth.

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 752.41 ft (229.33 m) above mean sea level (Penn Central Railroad benchmark). Prior to Mar. 15, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--58 years, 63.8 ft³/s (1.81 m³/s), 19.78 in/yr (502 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft³/s (153 m³/s) June 22, 1972, gage height, 11.04 ft (3.365 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) Aug. 4, 1955, gage height, 0.44 ft (0.314 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Aug. 31, 1953, Aug. 5, 1955.

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 9	1430	*1,800	51.0	*7.13	2.173	Mar. 5	0100	700	19.8	4.53	1.381
Oct. 21	0500	848	24.0	4.86	1.481	Mar. 22	1930	896	25.4	5.09	1.551
Dec. 7	1430	1,240	35.1	5.96	1.817	Sept. 26	1130	1,130	32.0	5.68	1.731
Feb. 25	0300	1,280	36.2	6.06	1.847						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	116	38	33	17	187	95	57	19	10	10	27
2	87	97	64	32	17	141	142	55	20	9.0	15	28
3	94	91	65	31	16	118	281	54	17	8.6	14	15
4	87	94	86	30	16	268	157	51	16	9.0	15	12
5	66	87	74	30	16	456	224	73	15	9.6	12	10
6	59	86	61	29	16	241	171	64	16	20	11	33
7	56	86	321	28	16	183	140	51	25	65	13	19
8	100	76	145	28	16	147	148	45	20	111	14	14
9	979	71	105	28	16	126	124	56	27	38	12	12
10	542	70	103	27	16	112	109	66	66	23	15	11
11	268	68	79	27	17	100	99	57	30	18	20	14
12	179	62	74	26	20	90	91	48	20	19	14	8.2
13	139	59	70	25	24	166	83	45	18	121	13	9.0
14	130	55	73	24	30	337	77	40	17	36	12	11
15	102	53	86	24	25	189	71	37	17	23	13	13
16	84	50	90	23	22	158	65	35	15	19	11	12
17	75	48	59	22	20	132	60	34	15	18	29	33
18	66	48	49	22	18	138	56	35	20	18	26	18
19	60	47	50	21	20	166	54	47	17	15	15	49
20	162	45	46	21	22	140	50	36	15	23	12	34
21	536	42	44	21	20	127	47	32	15	17	11	28
22	222	40	43	20	19	405	45	28	13	39	13	30
23	160	38	40	20	18	426	52	27	12	20	13	32
24	150	36	39	19	130	259	115	26	12	16	11	58
25	168	36	38	19	784	195	130	26	12	18	11	186
26	245	35	37	19	422	162	90	23	16	21	10	598
27	154	36	36	18	324	145	87	21	13	15	9.0	258
28	130	35	36	18	337	140	77	20	13	12	9.0	144
29	118	50	35	18	---	129	69	18	15	11	8.3	105
30	105	40	34	17	---	115	62	18	12	11	9.0	81
31	150	---	33	17	---	110	---	18	---	11	29	---
TOTAL	5544	1797	2153	737	2434	5808	3071	1243	558	804.2	429.3	1902.2
MEAN	179	59.9	69.5	23.8	86.9	187	102	40.1	18.6	25.9	13.8	63.4
MAX	979	116	321	33	784	456	281	73	66	121	29	598
MIN	56	35	33	17	16	90	45	18	12	8.6	8.3	8.2
CFSM	4.09	1.37	1.59	.54	1.98	4.27	2.33	.92	.43	.59	.32	1.45
IN.	4.71	1.53	1.83	.63	2.07	4.93	2.61	1.06	.47	.68	.36	1.62
CAL YR 1976	TOTAL	30402.0	MEAN 83.1	MAX 1230	MIN 13	CFSM 1.90	IN 25.82					
WTR YR 1977	TOTAL	26480.7	MEAN 72.5	MAX 979	MIN 8.2	CFSM 1.66	IN 22.49					

WAPWALLOPEN CREEK BASIN

01538003 WAPWALLOPEN CREEK AT WAPWALLOPEN, PA

LOCATION.--Lat 41°04'17", long 76°08'02", Luzerne County, Hydrologic Unit 02050107, 150 ft (46 m) downstream from bridge on State Route 239 at Wapwallopen and 300 ft (91 m) upstream from mouth.

DRAINAGE AREA.--53.2 mi² (138 km²) approximately.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 08...	1515	9813	70	7.7	8.0	1	11.0	20	--	0	9.5
DEC 08...	1515	9813	75	7.5	2.0	3	12.0	10	--	0	6.3
FEB 24...	1515	9813	70	7.5	--	<1	--	35	0	0	6.3
MAR 21...	1515	9813	90	7.2	5.0	8	12.0	25	--	0	3.1
APR 07...	1515	9813	--	7.7	1.0	1	12.0	15	0	0	6.3
AUG 18...	1135	9813	100	7.7	13.0	7	11.1	25	--	0	8.0
SEP 21...	1340	9813	120	7.0	17.0	4	10.0	25	--	0	8.7

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 08...	.0	20	6.0	12	--	.65	.02	.07	.03	130
DEC 08...	.0	4	18	6.0	34	.60	.02	.05	.05	360
FEB 24...	4.5	10	10	9.0	--	.54	.02	.05	.02	270
MAR 21...	4.2	14	15	14	78	.89	.02	.07	.12	2640
APR 07...	<.5	10	15	14	80	.94	.02	.10	--	110
AUG 18...	1.2	26	14	12	92	1.6	.03	.05	.14	580
SEP 21...	.0	18	14	13	84	1.2	.02	.04	.16	220

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 18...	1135	9813	340	<10	<10	10	<50	50	<10	20

FISHING CREEK BASIN

91

01539000 FISHING CREEK NEAR BLOOMSBURG, PA

LOCATION.--Lat 41°04'41", long 76°25'53", Columbia County, Hydrologic Unit 02050107, on left bank 25 ft (8 m) downstream from highway bridge, 0.8 mi (1.3 km) downstream from Green Creek, 0.9 mi (1.4 km) west of Orangeville, and 5.5 mi (8.8 km) north of Bloomsburg.

DRAINAGE AREA.--274 mi² (710 km²).

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

REVISED RECORDS.--WSP 1202: 1939-42, 1948(P), 1950.

GAGE.--Water-stage recorder. Datum of gage is 543.84 ft (165.762 m) above mean sea level (revised).

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mill above stations.

AVERAGE DISCHARGE.--39 years, 477 ft³/s (13.5 m³/s), 23.64 in/yr (600 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s (875 m³/s) June 22, 1972, gage height, 15.18 ft (4.627 m), from floodmark in gage shelter, from rating curve extended above 9,500 ft³/s (269 m³/s) on basis of contracted-opening measurement at gage height, 12.08 ft (3.682 m); minimum, 7.6 ft³/s (0.22 m³/s) July 19, 1939; minimum gage height, 1.54 ft (0.469 m) Aug. 11, 1966; minimum daily discharge, 8.4 ft³/s (0.24 m³/s) Sept. 12, 13, 18, 19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1830	*19,700 558	*12.55 3.825	Mar. 13	2030	4,160 118	6.56 1.999
Oct. 21	1100	4,710 133	6.94 2.115	Mar. 22	2300	5,470 155	7.41 2.259
Mar. 5	0400	8,060 228	8.77 2.673	Apr. 3	0830	4,600 130	6.87 2.094

Minimum daily discharge, 26 ft³/s (0.736 m³/s) Sept. 15, 16, gage height, 1.66 ft (0.506 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	1560	137	135	61	1210	995	473	72	118	72	55
2	362	1250	168	130	60	946	1360	421	76	97	74	53
3	321	1070	137	125	59	784	4000	383	68	80	90	60
4	277	952	131	120	58	2160	2300	341	62	70	87	50
5	250	837	140	120	57	5900	1890	514	57	68	72	43
6	224	755	125	116	56	2710	1410	438	57	157	76	53
7	215	663	944	119	55	1720	1100	367	70	320	121	60
8	485	582	1190	113	54	1250	1020	325	64	689	116	53
9	9920	503	763	110	54	987	845	330	94	432	92	50
10	7160	479	656	113	54	899	725	361	346	291	102	42
11	2690	450	589	116	58	868	647	356	231	231	118	36
12	1710	405	515	105	74	830	576	320	157	214	87	30
13	1290	373	450	98	240	2580	514	296	127	341	74	29
14	1090	346	311	94	320	3490	467	267	104	258	74	30
15	852	326	352	86	263	2180	415	249	99	202	104	29
16	691	306	336	82	190	1600	377	231	87	175	90	32
17	582	286	316	82	160	1220	346	210	80	168	168	57
18	503	277	296	80	100	1050	315	206	190	146	202	64
19	433	263	259	80	105	979	296	206	267	134	146	171
20	872	254	268	77	110	876	272	186	223	210	116	427
21	4100	241	291	76	105	791	253	164	231	179	97	473
22	2430	228	207	74	98	2370	240	150	175	179	94	315
23	1580	211	211	72	115	3790	249	137	143	146	85	253
24	1320	195	199	70	634	2110	675	124	121	118	78	393
25	1540	187	172	70	2110	1470	1390	118	116	124	74	1580
26	1810	179	183	68	1420	1150	979	110	202	186	66	2530
27	1490	179	165	67	1300	995	938	94	160	143	60	2190
28	1230	183	160	66	1580	1020	762	90	134	113	55	1250
29	1030	228	150	65	---	1170	634	82	160	94	50	876
30	867	195	145	64	---	1610	538	74	150	85	57	647
31	1590	---	140	62	---	1350	---	72	---	80	66	---
TOTAL	49250	13963	10106	2855	9550	52065	26528	7695	4123	5848	2863	11931
MEAN	1589	465	326	92.1	341	1680	884	248	137	189	92.4	398
MAX	9920	1560	1190	135	2110	5900	4000	514	346	689	202	2530
MIN	215	179	125	62	54	784	240	72	57	68	50	29
CFSM	5.80	1.70	1.19	.34	1.25	6.13	3.23	.91	.50	.69	.34	1.45
IN.	6.69	1.90	1.37	.39	1.30	7.07	3.60	1.04	.56	.79	.39	1.62
CAL YR 1976	TOTAL	192961	MEAN 527	MAX 9920	MIN 48	CFSM 1.92	IN 26.20					
WTR YR 1977	TOTAL	196777	MEAN 539	MAX 9920	MIN 29	CFSM 1.97	IN 26.72					

CATAWISSA CREEK BASIN

01540200 TREXLER RUN NEAR RINGTOWN, PA

LOCATION.--Lat 40°51'10", long 76°16'48", Schuylkill County, Hydrologic Unit 02050107, at bridge on Legislative Route 53064, 1.9 mi (3.1 km) upstream from mouth and 2.5 mi (4.0 km) west of Ringtown.

DRAINAGE AREA.--1.77 mi² (4.58 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1959-63. August 1963 to current year.

GAGE.--Water-stage recorder and masonry control. Altitude of gage is 1,110 ft (338 m) from topographic map.

REMARKS.--Records fair except those periods of no gage height, July 24 to Sept. 30, and winter periods, which are poor.

AVERAGE DISCHARGE.--14 years, 2.14 ft³/s (0.061 m³/s), 16.45 in/yr (418 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 487 ft³/s (13.8 m³/s) June 22, 1972, gage height, 5.15 ft (1.570 m), from rating curve extended above 40 ft³/s (1.13 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.71 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	Unk.	42 1.19	2.51 0.765	Mar. 4	2200	*44 1.25	*2.54 0.774
Dec. 7	0915	32 0.91	2.34 0.713	Mar. 13	1215	26 0.74	2.23 0.680
Feb. 24	1825	39 1.10	2.47 0.753	Mar. 22	1545	41 1.16	2.50 0.762

Minimum daily discharge, 0.26 ft³/s (0.007 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	6.6	1.4	1.1	.60	6.9	3.0	2.6	.75	.40	.38	.62
2	3.3	5.5	1.4	1.1	.60	5.7	6.9	2.6	.75	.42	.47	.50
3	3.8	4.6	1.3	1.0	.60	4.7	6.6	2.4	.66	.38	.45	.44
4	3.4	4.2	1.3	1.0	.60	22	5.7	2.4	.66	.44	.40	.37
5	2.8	3.8	1.3	1.0	.60	19	8.4	3.0	.62	.42	.38	.33
6	2.4	3.6	1.2	.97	.60	13	6.2	2.8	.84	1.1	.43	1.1
7	2.2	3.4	9.6	.92	.60	9.3	5.7	2.1	.74	3.2	.47	.66
8	4.0	3.0	4.5	.89	.60	7.4	5.3	2.0	.62	1.8	.41	.52
9	35	2.9	3.9	.86	.60	6.0	4.9	2.1	2.2	1.1	.52	.42
10	14	2.8	3.4	.84	.60	4.9	4.3	2.0	1.4	.64	.66	.37
11	11	2.6	3.1	.81	.76	4.2	4.0	2.0	.79	.63	.52	.45
12	10	2.4	2.8	.78	1.0	3.7	3.7	1.9	.70	3.4	.43	.26
13	8.9	2.2	2.5	.76	.93	13	3.2	1.7	.62	1.7	.46	.30
14	8.2	2.2	2.5	.73	.88	16	2.9	1.7	.62	1.1	.43	.35
15	6.4	2.1	3.4	.72	.85	11	2.8	1.5	.58	.90	.36	.41
16	4.9	2.0	2.8	.71	.83	8.2	2.5	1.4	.55	.78	1.0	.47
17	4.0	2.0	2.2	.70	.78	6.6	2.4	1.4	.55	.64	.90	.38
18	3.5	1.9	2.0	.68	.75	6.4	2.2	1.4	.55	.58	.58	1.1
19	3.2	1.8	1.9	.67	.74	6.6	2.1	1.4	.49	.52	.43	1.5
20	7.0	1.8	2.3	.66	.80	5.1	2.0	1.2	.52	.68	.36	1.1
21	20	1.8	2.1	.65	.70	4.9	1.9	1.1	.56	.47	.38	.94
22	12	1.7	2.0	.64	.68	20	1.8	.95	.55	.36	.41	.97
23	10	1.6	1.6	.63	.68	15	1.9	.95	.52	.27	.37	1.0
24	9.0	1.6	1.4	.63	11	11	3.4	.90	.49	.40	.35	2.3
25	9.5	1.5	1.4	.62	8.2	8.2	2.9	.85	.67	1.2	.33	5.0
26	10	1.5	1.3	.62	5.7	6.6	2.8	.85	.53	.88	.31	10
27	7.2	1.5	1.3	.62	7.6	5.7	3.0	.80	.44	.66	.29	5.0
28	5.8	1.4	1.2	.61	8.2	5.1	2.8	.80	.45	.54	.27	3.3
29	4.7	1.9	1.2	.61	---	4.5	2.8	.75	.46	.46	.35	2.5
30	3.6	1.5	1.2	.61	---	4.0	2.8	.75	.47	.41	1.0	2.0
31	8.2	---	1.1	.60	---	3.7	---	.75	---	.38	.76	---
TOTAL	240.8	77.4	70.6	23.74	57.08	268.4	110.9	49.05	20.35	26.86	14.86	44.65
MEAN	7.77	2.58	2.28	.77	2.04	8.66	3.70	1.58	.68	.87	.48	1.49
MAX	35	6.6	9.6	1.1	11	22	8.4	3.0	2.2	3.4	1.0	10
MIN	2.2	1.4	1.1	.60	.60	3.7	1.8	.75	.44	.27	.27	.26
CFSM	4.39	1.46	1.29	.44	1.15	4.89	2.09	.89	.38	.49	.27	.84
IN.	5.06	1.63	1.48	.50	1.20	5.64	2.33	1.03	.43	.56	.31	.94

CAL YR 1976 TOTAL 1014.37 MEAN 2.77 MAX 35 MIN .42 CFSM 1.57 IN 21.31
WTR YR 1977 TOTAL 1004.70 MEAN 2.75 MAX 35 MIN .26 CFSM 1.55 IN 21.10

SUSQUEHANNA RIVER BASIN

93

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA

LOCATION.--Lat 40°57'29", long 76°37'10", Montour County, Hydrologic Unit 02050107, on right bank, 200 ft (61 m) upstream from Mill Street Bridge at Danville and 0.8 mi (1.3 km) upstream from Mahoning Creek.

DRAINAGE AREA.--11,220 mi² (29,060 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1904, 1914-17, 1923. WSP 1432: 1900-03, 1905-06, 1908-10, 1912-13, 1933.

GAGE.--Water-stage recorder. Datum of gage is 431.29 ft (131.457 m) above mean sea level. Prior to June 29, 1939, nonrecording gage at or near Mill Street Bridge at same datum. Since Oct. 1, 1971, water-stage recorder at gaging-station site on Susquehanna River at Sunbury used as an auxiliary gage for this station.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--78 years, 15,290 ft³/s (433 m³/s), 18.51 in/yr (470 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363,000 ft³/s (10,300 m³/s) June 25, 1972, from rating curve extended above 230,000 ft³/s (6,500 m³/s); maximum gage height, 32.32 ft (9.851 m) June 24, 1972, backwater from West Branch Susquehanna River; minimum discharge, 508 ft³/s (14.4 m³/s) Sept. 27, 1964, gage height, 1.51 ft (0.460 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1899, 28 ft (8.5 m) Mar. 18, 1865.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 122,000 ft³/s (3,460 m³/s) Sept. 27, gage height, 18.04 ft (5.499 m); minimum, 2,150 ft³/s (60.9 m³/s) Sept. 15, 16, gage height, 2.46 ft (0.750 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9380	29100	8260	5800	4300	58000	77800	22400	5240	3980	2920	3570
2	8770	36900	8410	5500	3900	51300	75700	18800	5000	3930	2900	3200
3	7730	34100	8380	5400	4000	38600	84400	16500	4660	3940	3030	3110
4	7460	28500	6960	5300	4000	34700	76700	14900	4320	3530	3430	3210
5	6490	24500	6770	5200	3900	64000	62900	14500	4130	3200	2980	3180
6	5890	22800	6740	5200	3800	77500	53100	16600	4060	3390	2710	3200
7	5540	21500	8190	5200	3700	71900	46700	27700	4210	3750	2980	3220
8	5550	20000	18600	5300	3600	57600	41000	24400	4210	5550	2980	3150
9	29200	18400	20600	5400	3500	43700	35400	19700	4250	5830	3140	2980
10	93600	17000	20500	5400	3700	36600	30400	17200	5160	7570	5860	2810
11	106000	15800	19700	5600	4000	36900	25700	17200	5940	7860	5410	2630
12	76200	14800	17900	5600	4600	45300	22400	19700	6000	5920	4310	2440
13	50900	14100	16700	5500	5400	55400	20200	20000	5410	5660	3720	2290
14	37500	13200	15600	5400	6000	89800	18800	19100	5120	4910	3430	2220
15	30900	12200	13800	5100	6800	116000	17100	17600	4810	4070	4020	2160
16	26900	11500	11400	5000	7700	104000	15500	15500	4610	3740	5130	2230
17	24500	10900	10400	4900	8200	91200	13800	13600	4300	3580	5680	8080
18	22600	10400	10700	4900	7200	75900	12700	12200	4090	3380	6110	12700
19	19200	10000	10500	4900	7700	58500	11800	11500	4290	3520	6070	27100
20	17900	9610	10100	5000	8400	46100	10900	10400	4220	3920	4800	25300
21	38200	9280	10100	5100	7700	38900	10300	9780	3950	3630	6320	41600
22	61300	9080	9640	5200	7300	40100	9720	9340	3900	3600	6270	57700
23	72100	8880	10300	5300	6700	62100	9250	9050	4310	3540	5110	54200
24	57000	8560	9380	5200	11000	58000	10000	8300	4210	3170	4420	47500
25	46900	8170	8670	5100	25000	47900	24500	7490	3970	2980	4020	43100
26	46900	7780	8520	5100	56500	38300	51200	7030	4020	3030	4120	86100
27	46900	7470	8790	5100	47400	32700	52600	6960	3680	2870	4190	114000
28	40200	7290	8330	5000	49000	30600	44800	7110	3470	2660	4070	86600
29	32700	7510	7820	4900	---	37900	34800	7520	3620	2630	3980	64600
30	27200	7910	6100	4700	---	66400	27400	6400	4120	3030	3710	49200
31	25900	---	6000	4500	---	80400	---	5670	---	3170	3530	---
TOTAL	1087510	457240	343860	160800	315000	1786300	1027570	434150	133280	125540	131350	763380
MEAN	35080	15240	11090	5187	11250	57620	34250	14000	4443	4050	4237	25450
MAX	106000	36900	20600	5800	56500	116000	84400	27700	6000	7860	6320	114000
MIN	5540	7290	6000	4500	3500	30600	9250	5670	3470	2630	2710	2160
CFSM	3.13	1.36	.99	.46	1.00	5.14	3.05	1.25	.40	.36	.38	2.27
IN ₉₀	3.61	1.52	1.14	.53	1.04	5.92	3.41	1.44	.44	.42	.44	2.53

CAL YR 1976 TOTAL 7314150 MEAN 19980 MAX 117000 MIN 4100 CFSM 1.78 IN 24.25
WTR YR 1977 TOTAL 6765980 MEAN 18540 MAX 116000 MIN 2160 CFSM 1.65 IN 22.43

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to June 1953, October 1956 to current year.

REMARKS.--Operated as part of the USGS-EPA surveillance network.

COOPERATION.--Seven water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (7UM-MF (COL./ 100 ML)	FECAL STREP- TOCOCCI KF AGAR (COL. PER 100 ML)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	SUS- PENDE D SOLIDS (MG/L)
OCT												
12...	1730	66000	155	7.0	11.5	62	10.0	48	580	560	87	237
27...	1030	47400	145	6.8	7.0	16	10.6	14	580	--	84	31
NOV												
09...	1245	18400	220	7.2	4.0	4	11.6	<10	--	130	125	9
23...	1330	8880	210	7.2	3.0	13	10.0	<10	880	--	154	9
DEC												
21...	1500	10100	260	7.2	.5	9	12.6	<10	830	480	144	9
FEB												
01...	1150	7870	360	7.0	.5	3	12.6	<10	8105	82000	228	4
MAR												
01...	1300	59300	150	6.8	1.5	18	12.4	40	520	--	98	243
15...	1715	116000	105	6.9	9.0	170	10.6	86	900	8160	74	597
29...	1110	37530	215	6.9	9.0	5	12.0	<10	210	--	104	28
APR												
12...	1645	21700	240	7.6	15.0	4	10.8	14	8160	40	115	29
27...	1330	52000	140	7.3	12.5	35	10.2	19	1200	--	91	126
MAY												
10...	1415	17000	200	7.1	12.5	6	10.4	10	200	50	144	2
24...	1300	8240	270	8.3	24.5	6	10.2	25	400	--	155	16
JUN												
07...	1500	4270	340	8.2	17.5	4	9.6	13	70	--	238	21
21...	1430	3960	340	8.6	23.0	2	11.2	18	70	75	224	24
JUL												
06...	1500	3390	400	8.6	25.0	3	11.2	25	813	--	275	12
20...	1215	3960	335	8.2	27.5	2	9.0	85	90	300	247	20
AUG												
02...	1130	2840	380	8.6	26.0	3	10.4	20	30	--	279	12
17...	1030	5790	290	7.6	24.5	3	7.6	20	220	85500	221	41
30...	1230	3660	310	7.8	26.0	4	9.6	20	850	--	187	10
SEP												
14...	0845	2230	410	8.0	20.0	3	9.8	--	1230	82700	236	8
29...	1445	63200	120	7.0	15.5	45	9.2	15	1500	--	81	88

SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT												
12...	.49	.05	.83	.88	1.4	.21	3400	8	0	<10	20	8700
27...	.57	.07	.31	.38	.95	.08	460	1	1	<10	10	1500
NOV												
09...	.72	.11	.19	.30	1.0	.07	250	0	1	10	10	1600
23...	.93	.23	.15	.38	1.3	.05	270	0	1	<10	0	1900
DEC												
21...	.93	--	--	.35	1.3	.07	320	1	1	<10	0	1600
FEB												
01...	1.4	.55	.55	1.1	2.5	5.4	80	0	2	10	30	1400
MAR												
01...	.97	.26	1.1	1.4	2.4	.22	3200	5	2	10	10	7800
15...	.70	--	--	1.6	2.3	.46	2400	11	0	30	20	23000
29...	.84	.12	.38	.50	1.3	.05	420	1	4	<10	10	1700
APR												
12...	.79	.11	.19	.30	1.1	.08	440	1	1	10	10	1800
27...	.58	.09	1.0	1.1	1.7	.11	1500	3	1	10	10	3700
MAY												
10...	.52	.07	.26	.33	.85	.05	500	1	0	<10	6	1900
24...	.20	.09	.55	.64	.84	.04	310	1	0	20	12	1300
JUN												
07...	.35	.05	.77	.82	1.2	.06	250	0	0	30	9	1100
21...	.33	--	--	1.0	1.3	.07	40	3	0	<10	10	1200
JUL												
06...	.11	.03	.76	.79	.90	.06	380	2	0	10	9	1000
20...	.19	.06	.80	.86	1.1	.05	270	1	2	20	20	600
AUG												
02...	.00	.01	.71	.72	.72	.07	380	0	0	<10	8	800
17...	.47	.06	1.0	1.1	1.6	.10	790	0	0	20	11	3100
30...	.27	.03	.96	.99	1.3	.08	290	0	2	10	10	2200
SEP												
14...	--	--	--	--	--	--	90	0	0	<10	6	290
29...	.46	.07	.62	.69	1.2	.11	850	1	3	10	34	3600

DATE	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)	SUS- PENDE- SEDIMENT (MG/L)	SUS- PENDE- SEDIMENT CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT											
12...	17	390	0	50	8.4	0	35.5	34.8	237	42200	99
27...	6	170	0	20	7.1	1	--	--	--	--	--
NOV											
09...	10	280	0	30	6.7	0	9.17	4.09	9	447	99
23...	6	400	0	30	4.6	1	.000	.000	--	--	--
DEC											
21...	5	350	1	30	4.9	0	.000	.000	9	245	100
FEB											
01...	6	480	0	60	4.9	0	.600	.000	4	85	100
MAR											
01...	10	410	1	60	9.3	0	--	--	--	--	--
15...	23	730	2	100	12	2	--	--	597	187000	90
29...	30	200	0	20	2.5	0	--	--	--	--	--
APR											
12...	8	260	0	30	2.7	0	.233	.000	29	1700	82
27...	16	210	0	40	5.0	1	--	--	--	--	--
MAY											
10...	7	190	0	20	7.1	0	2.00	.403	3	138	100
24...	9	240	0	20	6.5	5	38.2	6.15	--	--	--
JUN											
07...	3	420	0	30	4.5	1	32.9	1.97	--	--	--
21...	9	350	0	20	6.5	0	12.8	.000	24	257	100
JUL											
06...	25	280	0	40	5.8	0	14.4	1.30	--	--	--
20...	6	220	0	30	4.3	0	41.3	6.31	20	214	93
AUG											
02...	19	320	0	30	4.6	0	19.0	3.69	--	--	--
17...	10	540	0	30	7.4	2	5.34	.332	41	641	89
30...	20	550	3	20	5.7	8	7.34	.957	10	99	67
SEP											
14...	4	140	0	10	--	--	--	--	8	48	100
29...	8	200	0	40	17	0	1.02	.000	--	--	--

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
NOV 18...	1030	9813	10400	290	6.6	3.5	6	11.5	--
DEC 08...	1030	9813	19300	300	7.1	.5	35	12.0	--
MAR 23...	1045	9813	63050	150	6.8	4.0	30	12.0	--
APR 13...	1300	9813	20100	210	7.0	14.0	9	11.0	--
JUN 16...	1400	9813	4600	340	7.3	23.0	5	11.0	--
AUG 04...	1230	9813	3430	395	7.1	25.0	5	10.0	28
08...	1130	9813	2980	380	8.3	26.0	4	9.2	--

DATE	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
NOV 18...	122	0	0	28	13	56	65	13	126
DEC 08...	114	0	0	28	10	58	64	17	174
MAR 23...	50	0	0	14	3.5	34	18	12	62
APR 13...	82	--	0	19	8.5	32	44	12	128
JUN 16...	115	--	0	33	7.7	384	75	21	208
AUG 04...	148	--	0	18	25	60	84	23	280
08...	124	--	0	19	19	50	78	21	248

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	CYANIDE (CN) (MG/L)
NOV 18...	12	138	1.3	.05	.21	.10	1610	--
DEC 08...	62	--	1.5	.04	.28	.22	4980	--
MAR 23...	88	150	1.3	.03	.11	.36	3700	.01
APR 13...	24	152	1.5	.03	.10	.07	1600	.01
JUN 16...	32	--	.81	.03	.09	.12	1400	.02
AUG 04...	30	--	.50	.04	.07	.08	1080	.01
08...	14	--	.78	.02	.09	.08	260	--

SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
DEC 21...	1500	96	50	26	7.5	8.0	1.4	56	0	46	5.7
MAR 15...	1715	38	21	11	2.6	4.1	1.4	21	0	17	4.2
JUN 21...	1430	130	81	33	11	13	2.3	57	0	47	.2
SEP 14...	0845	160	100	41	14	16	2.3	71	0	58	1.1

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED ALUM- INIUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
DEC 21...	51	12	.1	4.4	139	30	0	1	<10	5	4
MAR 15...	13	7.2	.1	3.6	54	40	0	1	<10	15	0
JUN 21...	75	16	.1	2.0	181	40	3	0	0	3	0
SEP 14...	92	19	.1	1.3	221	60	0	0	0	0	0

DATE	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC 21...	0	290	5	340	<.5	<.5	0	0	1	30
MAR 15...	0	60	6	40	<.5	<.5	1	0	0	10
JUN 21...	6	10	11	70	.0	.0	0	0	0	0
SEP 14...	6	20	4	30	.5	.5	0	0	0	10

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 08...	1130	9813	300	<3	<10	10	<50	180	<10	10

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 12,76 1730	NOV 9,76 1245	DEC 21,76 1500	FEB 1,77 1150	MAY 10,77 1415					
TOTAL CELLS/ML	3700	370	620	210	8400					
DIVERSITY: DIVISION	0.8	0.9	1.3	0.1	0.8					
..CLASS	0.8	0.9	1.3	0.1	0.8					
...ORDER	0.8	1.1	1.5	0.1	1.6					
...FAMILY	1.2	1.4	2.7	0.1	2.2					
....GENUS	1.2	1.7	2.8	0.1	2.2					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	*	0
....OOCYSTACEAE										
....ANKISTRODESMUS	--	-	6	1	3	1	--	-	180	2
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	350	4
....SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	25	4	--	-	*	0
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	88	1
...ZYGNEMATALES										
...DESMIDIACEAE										
....SPONDYLIOSIUM	--	-	--	-	--	-	--	-	44	1
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	17	4	19	3	--	-	5200#	62
....MELOSIRA	--	-	6	1	6	1	--	-	*	0
....STEPHANODISCUS	--	-	11	3	--	-	--	-	*	0
...PENNALES										
....ACHNANTHACEAE										
....ACHNANTHES	--	-	6	1	--	-	--	-	--	-
....COCCONEIS	49	1	11	3	3	1	--	-	--	-
....RHOICOSPHENIA	--	-	6	1	3	1	--	-	44	1
....CYMBELLACEAE										
....CYMBELLA	49	1	*	0	25	4	--	-	88	1
....DIATOMACEAE										
....DIATOMA	97	3	*	0	9	2	--	-	44	1
....EUNOTIACEAE										
....EUNOTIA	--	-	--	-	*	0	--	-	--	-
....FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	6	1	--	-	--	-
....FRAGILARIA	--	-	11	3	13	2	--	-	--	-
....SYNEDRA	49	1	--	-	41	7	--	-	220	3
....GOMPHONEMACEAE										
....GOMPHONEMA	49	1	6	1	35	6	--	-	130	2
....MERIDIONACEAE										
....MERIDION	--	-	6	1	9	2	--	-	88	1
....NAVICULACEAE										
....GYROSIGMA	49	1	--	-	--	-	--	-	--	-
....NAVICULA	390	11	11	3	57	9	--	-	270	3
....NITZSCHIA										
....NITZSCHIA	--	-	--	-	41	7	3	1	930	11
....SURIARELLACEAE										
....SURIARELLA	--	-	--	-	13	2	--	-	88	1
....TABELLARIACEAE										
....TETRA-YCLUS	--	-	--	-	3	1	--	-	--	-
..CHRYSOPHYCEAE										
...CHRYSONOMADALES										
...MALLONADACEAE										
....MALLOMONAS	--	-	--	-	--	-	--	-	*	0
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	--	-	--	-	88	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	*	0	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	2900#	79	280#	75	300#	49	210#	99	490	6
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	49	1	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	3	1	--	-	44	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM; MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	JUN 21,77 1430	JUL 20,77 1215	AUG 17,77 1030	SEP 14,77 0845
TOTAL CELLS/ML	170000	72000	37000	87000
DIVERSITY: DIVISION	1.3	1.2	0.7	0.6
..CLASS	1.3	1.2	0.7	0.6
...ORDER	1.7	1.9	1.3	0.6
...FAMILY	2.7	2.7	2.4	2.1
...GENUS	3.3	3.1	3.2	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...COELASTRACEAE								
...COELASTRUM	--	-	--	-	4300	11	31000#	38
...HYDRODICTYACEAE								
...PEDIASTRUM	--	-	2600	4	470	1	2000	2
...SORASTRUM	--	-	--	-	350	1	--	-
...MICRACTINIACEAE								
...GOLENKINIA	6600	4	430	1	--	-	--	-
...MICRACTINIUM	25000	15	650	1	--	-	--	-
...OOCYSTACEAE								
...ANKISTRODESMUS	3700	2	860	1	230	1	750	1
...CHODATELLA	7400	4	1300	2	*	0	--	-
...CLOSTERIOPSIS	*	0	--	-	--	-	--	-
...DICTYOSPHAERIUM	15000	9	6900	10	6100#	17	19000#	23
...FRANCEIA	*	0	--	-	--	-	--	-
...KIRCHNERIELLA	*	0	650	1	530	1	560	1
...OOCYSTIS	5900	3	860	1	1100	3	--	-
...QUADRIGULA	--	-	--	-	--	-	470	1
...TETRAEDRON	2200	1	650	1	*	0	*	0
...TREUBARIA	--	-	--	-	--	-	*	0
...SCENEDESMACEAE								
...ACTINASTRUM	*	0	2600	4	410	1	--	-
...CRUCIGENIA	--	-	--	-	2300	6	12000	14
...SCENEDESMUS	38000#	22	13000#	18	9200#	25	5700	7
...TETRASTRUM	--	-	--	-	470	1	--	-
...TETRASPORALES								
...PALMELLACEAE								
...SPHAEROCYSTIS	--	-	--	-	5300	14	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	1500	1	11000	15	--	-	--	-
...VOLVOCAEAE								
...GONIUM	11000	6	--	-	--	-	--	-
...PANDORINA	--	-	5200	7	--	-	--	-
...CHLOROCOCCALES								
...OOCYSTACEAE								
...GLOEOACTINIUM	--	-	--	-	--	-	2200	3
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	14000	8	21000#	29	--	-	1500	2
...STEPHANODISCUS	--	-	--	-	*	0	--	-
...PENNALES								
...ACHNANTHACEAE								
...COCCONEIS	*	0	--	-	--	-	*	0
...CYMBELLACEAE								
...AMPHORA	--	-	--	-	--	-	*	0
...FRAGILARIACEAE								
...SYNEDRA	*	0	*	0	--	-	--	-
...NITZSCHIAEAE								
...NITZSCHIA	*	0	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROCOCCOCCALES								
...CHROCOCCOCCAEAE								
...AGMENELLUM	--	-	--	-	3500	9	--	-
...ANACYSTIS	35000#	21	1700	2	2400	6	6800	8
...HORMOGONALES								
...RIVULARIACEAE								
...RAPHIDIOPSIS	*	0	2800	4	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..CRYPTOPHYCEAE								
...CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
...CHROOMONAS	*	0	--	-	--	-	--	-
..EUGLENACEAE								
...EUGLENALES								
...EUGLENACEAE								
...TRACHELOMONAS	3700	2	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM; MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WEST BRANCH SUSQUEHANNA RIVER BASIN

01540823 CHEST CREEK AT MAHAFFEY, PA

LOCATION.--Lat 40°52'06", long 78°43'14", Clearfield County, Hydrologic Unit 02050201, at bridge on Township Route 324 at Mahaffey, 0.7 mi (1.1 km) downstream from Snyder Run and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 13...	1200	9813	160	6.0	12.0	5	9.0	104	--	26	9.1
NOV 16...	1300	9813	380	6.0	1.0	2	11.0	156	--	40	13
DEC 16...	1010	9813	240	7.5	.5	3	13.0	96	--	24	8.2
MAR 08...	1210	9813	210	7.5	5.0	8	9.1	88	--	20	9.2
APR 06...	1320	9813	220	6.5	6.0	8	1.0	90	2	22	8.2
MAY 18...	1415	9813	390	7.5	22.2	1	9.5	168	--	42	15
JUN 16...	1315	9813	480	7.5	24.0	3	7.0	206	--	52	18
JUL 13...	0930	9813	220	6.5	18.1	30	8.0	86	--	20	8.2

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	16	67	6.0	140	14	--	1.4	.01	.23	.31	710
NOV 16...	28	120	10	240	8	248	.85	.03	.27	.04	420
DEC 16...	27	64	7.0	162	2	164	1.3	.01	.15	.04	260
MAR 08...	12	8.0	--	136	16	152	1.3	.02	.23	.03	910
APR 06...	--	72	16	162	18	180	1.3	.02	.60	.03	1330
MAY 18...	28	135	8.0	358	2	360	.40	<.01	.02	.03	240
JUN 16...	39	168	11	392	4	396	.90	<.01	.04	.04	330
JUL 13...	12	64	65	190	50	240	.55	.01	.04	.05	3200

01541000 WEST BRANCH SUSQUEHANNA RIVER AT BOWER, PA

LOCATION.--Lat 40°53'49", long 78°40'38", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge at Bower, 4.6 mi (7.4 km) downstream from Chest Creek and Mahaffey.

DRAINAGE AREA.--315 mi² (816 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area: WSP 1302: 1914-17, 1918(M), 1922-23, 1924(M), 1925-29, 1930-31(M), 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 1,207.14 ft (367.936 m) above mean sea level. Prior to Oct. 17, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--64 years, 553 ft³/s (15.7 m³/s), 23.82 in/yr (605 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft³/s (892 m³/s) Mar. 18, 1936, gage height, 19.74 ft (6.017 m), from floodmark in gage shelter, from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Aug. 29, 1939; minimum daily, 16 ft³/s (0.45 m³/s) Sept. 29, Oct. 1, 6, 13, 1930, Aug. 29, Aug. 31 to Sept. 2, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1913, about 18.5 ft (5.64 m) May 13, 1889, discharge, about 27,000 ft³/s (760 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft³/s (125 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2400	5,400 153	10.54 3.213	July 25	2230	4,740 134	10.10 3.078
Feb. 24	1900	16,700 473	15.42 4.700	Aug. 7	2300	4,480 127	9.92 3.024
Apr. 3	0630	8,700 246	12.34 3.761	Aug. 11	0630	4,590 130	10.00 3.048
July 20	0200	*19,200 544	*16.23 4.947				

Minimum discharge, 79 ft³/s (2.237 m³/s) June 6, gage height, 4.31 ft (1.314 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359	894	155	240	120	1670	851	237	93	148	519	165
2	1320	689	177	230	120	1160	3190	240	88	125	420	148
3	773	612	131	220	120	925	7450	349	87	102	349	170
4	528	546	182	210	110	2060	3420	342	85	93	298	158
5	404	474	188	200	110	3140	2670	501	80	112	257	139
6	324	428	191	190	110	2120	1900	695	222	100	298	133
7	278	381	925	180	110	1470	1480	1030	288	654	2000	125
8	660	354	1120	170	110	1110	1330	701	139	1730	2050	120
9	2880	321	690	165	110	945	1050	574	146	618	1020	118
10	3780	346	608	160	110	932	900	483	240	396	826	107
11	1820	381	722	155	110	869	797	412	160	309	3070	100
12	1100	317	701	150	110	797	685	353	123	2220	1440	97
13	808	282	750	145	110	2420	594	313	116	1140	1020	98
14	668	257	505	140	120	1950	532	288	109	644	767	135
15	532	238	608	140	120	1360	479	253	105	441	623	153
16	466	222	537	140	110	1100	428	222	97	338	492	146
17	396	207	466	130	110	900	388	199	103	288	964	244
18	343	219	408	130	110	1390	361	182	139	281	845	180
19	299	216	349	130	110	3000	342	182	400	689	555	209
20	291	207	453	130	110	2030	327	162	237	15200	449	501
21	930	193	685	130	110	1900	298	155	144	7220	376	407
22	627	188	400	130	120	2480	281	144	114	3090	331	252
23	487	175	475	130	120	2480	288	131	100	1490	288	202
24	497	160	384	130	500	1750	408	127	93	964	263	178
25	1230	165	346	130	6400	1280	392	191	213	2050	250	799
26	1370	165	408	125	4010	1020	327	139	384	2440	210	719
27	1010	193	349	125	2910	845	291	120	160	1160	216	845
28	802	210	320	125	2520	1260	274	112	142	808	210	531
29	642	219	310	125	---	1480	306	107	361	613	175	404
30	560	142	280	125	---	1100	277	102	225	977	222	328
31	950	---	260	125	---	1040	---	95	---	733	185	---
TOTAL	27134	9401	14083	4755	18940	47983	32316	9141	4993	47173	20988	7911
MEAN	875	313	454	153	676	1548	1077	295	166	1522	677	264
MAX	3780	894	1120	240	6400	3140	7450	1030	400	15200	3070	845
MIN	278	142	131	125	110	797	274	95	80	93	175	97
CFSM	2.78	.99	1.44	.49	2.15	4.91	3.42	.94	.53	4.83	2.15	.84
IN.	3.20	1.11	1.66	.56	2.24	5.67	3.82	1.08	.59	5.57	2.48	.93
CAL YR 1976	TOTAL	186702	MEAN 510	MAX 8320	MIN 62	CFSM 1.62	IN 22.05					
WTR YR 1977	TOTAL	244818	MEAN 671	MAX 15200	MIN 80	CFSM 2.13	IN 28.91					

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541000 WEST BRANCH SUSQUEHANNA RIVER AT BOWER, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT								
13...	1300	9813	808	160	6.6	11.0	10	10.0
NOV								
16...	1400	9813	222	380	6.0	2.0	10	11.0
DEC								
16...	0930	9813	523	250	6.8	.5	7	13.0
JAN								
25...	1345	9813	343	360	7.5	1.0	2	7.1
FEB								
15...	1330	9813	1360	230	6.7	2.0	20	8.0
MAR								
08...	1145	9813	1100	230	7.5	4.0	15	8.8
APR								
06...	1230	9813	1860	240	5.6	5.0	5	11.0
MAY								
04...	1200	9813	321	360	6.5	14.0	3	8.5
JUN								
16...	1245	9813	93	580	8.0	24.0	2	7.5
JUL								
13...	0900	9813	1258	180	6.2	18.1	50	8.1

DATE	HARD- NESS (CA+MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT									
13...	92	--	23	8.2	10	72	7.0	150	18
NOV									
16...	158	--	37	15	21	136	13	266	6
DEC									
16...	90	--	24	7.2	13	72	9.0	182	14
JAN									
25...	172	--	42	16	29	142	10	142	10
FEB									
15...	76	--	20	6.2	32	54	16	184	76
MAR									
08...	96	14	20	10	5	59	10	146	26
APR									
06...	74	--	20	5.8	10	76	10	124	16
MAY									
04...	142	--	36	12	13	126	13	332	8
JUN									
16...	224	--	56	20	43	210	12	392	4
JUL									
13...	70	1	16	6.7	10	46	12	--	92

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL BETA (PC/L)
OCT								
13...	--	1.0	.01	.21	.09	1480	--	--
NOV								
16...	272	.70	.02	.21	.13	1960	--	--
DEC								
16...	196	1.0	.01	.14	.05	1570	--	--
JAN								
25...	152	.70	.02	.75	.07	370	.1	.1
FEB								
15...	260	1.2	.01	.46	.12	2600	--	--
MAR								
08...	172	.84	.02	.19	.04	1940	--	--
APR								
06...	140	1.0	.02	.49	.03	2111	--	--
MAY								
04...	340	.62	.01	.06	.02	590	--	--
JUN								
16...	396	.73	<.01	.04	.04	180	--	--
JUL								
13...	256	.61	.01	.02	.08	5100	--	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

103

01541200 WEST BRANCH SUSQUEHANNA RIVER AT CURWENSVILLE, PA

LOCATION.--Lat 40°57'41", long 78°31'10", Clearfield County, Hydrologic Unit 02050201, on left bank 30 ft (9 m) downstream from bridge on State Highway 453, 0.85 mi (1.37 km) downstream from Curwensville Lake, 1.1 mi (1.8 km) south of Curwensville and 1.8 mi (2.9 km) upstream from Anderson Creek. Water-quality sampling site at bridge 30 ft (9 m) upstream.

DRAINAGE AREA.--367 mi² (951 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,124.52 ft (342.754 m) above mean sea level. Prior to Aug. 24, 1956, nonrecording gage and crest-stage gage 30 ft (9 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Curwensville Lake 0.85 mi (1.36 km) upstream (see p. 200).

AVERAGE DISCHARGE.--22 years, 640 ft³/s (18.1 m³/s), 23.69 in/yr (602 mm/yr), adjusted for storage since November 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Mar. 10, 1964, gage height, 14.19 ft (4.325 m); no flow at times; minimum daily, 19 ft³/s (0.54 m³/s) Aug. 16, 17, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,660 ft³/s (160 m³/s) July 23, gage height, 8.47 ft (2.582 m); minimum daily, 60 ft³/s (1.70 m³/s) July 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	411	1020	146	291	150	3900	1190	94	100	203	897	203
2	1000	789	120	294	150	3660	1230	95	100	154	518	203
3	1210	574	126	323	150	3250	1060	101	91	116	465	203
4	564	574	129	360	150	2810	2510	177	88	128	382	203
5	436	512	135	354	150	3020	3900	394	89	82	291	203
6	346	416	183	307	150	3040	4140	616	131	60	289	153
7	447	423	369	218	150	2730	4030	1040	367	349	934	137
8	590	427	818	205	150	2080	3680	879	246	1490	2150	137
9	1570	409	1150	197	150	1360	3300	616	161	1120	2520	137
10	3460	369	1080	195	150	1170	2810	485	163	485	1240	136
11	3600	416	907	191	150	1160	1660	376	169	388	2110	136
12	2060	409	897	191	150	1130	7820	379	173	680	2390	130
13	771	372	944	190	250	1340	610	379	173	1760	727	79
14	658	376	713	190	721	2070	554	379	166	2720	590	103
15	547	746	616	190	924	2320	554	379	143	1220	590	139
16	423	1020	626	190	666	2130	549	261	104	455	590	199
17	420	808	626	190	469	1840	539	191	65	415	1120	197
18	402	427	616	180	354	1340	418	193	72	318	1420	294
19	292	274	595	180	320	1690	358	244	89	318	686	313
20	247	250	429	180	391	2130	358	256	418	493	394	555
21	780	252	595	180	408	2500	358	246	315	2940	281	642
22	845	235	621	180	326	2820	312	251	138	5450	349	354
23	522	195	459	180	318	3000	289	199	68	5450	373	274
24	522	181	455	170	854	2890	289	131	70	5290	373	276
25	1100	160	451	170	1770	2670	310	115	154	4890	372	763
26	1830	191	455	170	2890	1630	241	121	478	4630	346	762
27	1210	240	462	160	3620	1190	195	125	234	4170	331	942
28	906	243	459	160	3860	1110	203	125	121	2630	324	555
29	725	245	459	160	---	1680	136	125	201	897	249	485
30	604	231	297	160	---	1860	90	125	401	654	203	432
31	720	---	289	160	---	1470	---	111	---	1190	203	---
TOTAL	29302	12784	16227	6466	19941	66990	36655	9208	5288	51145	23719	9345
MEAN	945	426	523	209	712	2161	1222	297	176	1650	765	312
MAX	3600	1020	1150	360	3860	3900	4140	1040	478	5450	2520	942
MIN	287	160	120	160	150	1110	90	94	65	60	203	79
MEAN#	947	344	524	197	1013	1900	1267	328	176	1651	765	311
CFSM#	2.58	.94	1.43	.54	2.76	5.18	3.45	.89	.48	4.50	2.08	.85
IN.#	2.97	1.05	1.65	.62	2.87	5.97	3.85	1.03	.54	5.19	2.40	.95

CAL YR 1976 TOTAL 217444 MEAN 594 MAX 4520 MIN 61 MEAN# 593 CFSM# 1.61 IN.# 21.99
WTR YR 1977 TOTAL 287070 MEAN 786 MAX 5450 MIN 60 MEAN# 786 CFSM# 2.14 IN.# 29.09

Adjusted for change in contents in Curwensville Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541200 WEST BRANCH SUSQUEHANNA RIVER AT CURWENSVILLE, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY 'COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT								
13...	1400	9813	660	130	6.8	13.0	10	10.0
NOV								
15...	1400	9813	1192	260	7.0	--	2	12.0
DEC								
16...	0840	9813	624	220	6.5	.5	5	13.7
FEB								
15...	1145	9813	924	420	7.3	1.5	4	7.0
MAR								
08...	1100	9813	2134	180	7.2	4.0	7	9.0
APR								
06...	1130	9813	4304	160	--	7.3	30	10.0
MAY								
04...	1100	9813	214	360	6.2	14.0	1	4.1
JUN								
16...	1200	9813	119	440	7.3	20.0	3	6.5
JUL								
13...	0815	9813	1070	300	6.5	22.0	50	8.8

DATE	HARD- NESS (CA, MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT									
13...	74	--	18	6.7	9	52	4.0	110	10
NOV									
15...	110	--	25	11	15	80	6.0	184	12
DEC									
16...	80	--	21	6.2	11	62	8.0	166	2
FEB									
15...	166	--	42	14	32	146	17	342	18
MAR									
08...	66	--	16	6.2	7	48	7.0	152	8
APR									
06...	48	4	12	4.3	3	--	9.0	86	38
MAY									
04...	60	--	14	5.8	2	35	27	290	10
JUN									
16...	170	--	43	15	28	158	12	392	4
JUL									
13...	110	--	28	9.7	16	90	9.0	250	42

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ALPHA	TOTAL BETA
OCT								
13...	--	.91	.01	.27	.04	980	--	--
NOV								
15...	196	.68	.01	.68	.04	--	--	--
DEC								
16...	168	.94	.01	.18	.03	360	.1	.2
FEB								
15...	360	.80	.02	.50	.01	380	<1.0	<3.0
MAR								
08...	160	.86	.02	.16	.02	640	1.0	3.0
APR								
06...	124	.95	.02	.79	.08	3030	2.0	5.0
MAY								
04...	300	.73	.01	.10	.01	260	3.0	4.0
JUN								
16...	332	.41	.01	.04	.03	390	<1.0	<4.0
JUL								
13...	292	.65	.01	.01	.06	3130	<1.0	6.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

105

01541308 BRADLEY RUN NEAR ASHVILLE, PA

LOCATION.--Lat 40°30'33", long 78°35'02", Cambria County, Hydrologic Unit 02050201, on right bank 200 ft (60 m) downstream from bridge on State Highway 53 at Syberton, 0.2 mi (0.3 km) upstream from mouth, and 4.5 mi (7.2 km) southwest of Ashville.

DRAINAGE AREA.--6.77 mi² (17.53 km²).

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

REVISED RECORDS.--WDR PA-72: 1968(P), 1969(M), 1970-71(P).

GAGE.--Water-stage recorder. Datum of gage is 1,770 ft (539 m) above mean sea level, from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--10 years, 12.8 ft³/s (0.362 m³/s), 25.62 in/yr (651 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 728 ft³/s (20.6 m³/s) Aug. 7, 1977, gage height, 3.93 ft (1.198 m), from rating curve extended above 70 ft³/s (1.98 m³/s) on basis of slope-area measurement at gage height 3.82 ft (1.164 m); minimum, 1.2 ft³/s (0.034 m³/s) on many days in 1970, 1972, 1977; minimum gage height, 1.40 ft (0.427 m) Sept. 11, 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 110 ft³/s (3.12 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	Unk.	190 5.38	2.62 0.799	July 20	Unk.	602 17.0	3.65 1.113
Feb. 24	1805	200 5.66	2.65 0.808	Aug. 7	Unk.	*728 20.6	*3.93 1.198

Minimum discharge, 1.2 ft³/s (0.034 m³/s) Sept. 11, 12, gage height, 1.40 ft (0.427 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	15	4.6	4.6	2.6	25	19	8.2	3.9	2.3	4.0	1.5
2	25	11	5.5	4.5	2.6	20	34	8.8	3.9	2.2	3.8	1.6
3	15	9.4	4.9	4.4	2.6	16	90	9.8	3.7	2.1	3.6	1.7
4	11	9.3	8.2	4.3	2.8	29	55	8.9	3.6	2.1	3.5	1.6
5	9.0	9.4	7.5	4.2	2.7	34	48	14	3.6	2.2	3.5	1.6
6	8.5	6.8	7.2	4.1	2.7	33	40	16	7.5	2.2	8.0	1.7
7	22	5.2	36	4.0	2.6	28	32	12	6.0	5.0	150	1.5
8	70	4.7	14	3.9	2.6	22	30	10	4.5	6.0	20	1.5
9	160	4.3	15	3.8	2.6	19	25	11	5.0	4.0	6.0	1.4
10	90	4.2	11	3.7	2.6	18	22	9.5	4.5	3.3	5.0	1.4
11	48	3.9	12	3.6	3.4	16	20	8.9	3.8	3.1	6.0	1.4
12	37	3.7	12	3.6	4.3	17	17	7.7	3.5	3.5	4.7	1.4
13	15	3.5	13	3.5	5.4	74	15	7.2	3.4	3.1	4.2	1.9
14	8.5	3.5	19	3.4	5.1	43	14	8.0	3.2	3.0	3.7	2.0
15	7.0	3.5	11	3.3	4.7	36	12	6.7	3.4	2.8	3.6	2.3
16	5.8	5.0	10	3.3	4.5	28	11	5.8	3.2	2.6	3.2	4.7
17	4.7	5.2	11	3.2	4.2	25	10	5.3	3.0	2.4	6.0	2.9
18	3.9	5.4	9.5	3.1	4.1	68	9.3	4.9	4.0	3.0	3.0	1.9
19	3.4	5.4	9.5	3.1	3.9	45	8.9	4.9	3.5	3.5	2.3	7.6
20	26	5.0	10	3.0	3.8	38	7.7	4.2	3.0	250	2.3	6.4
21	20	5.0	16	3.0	3.7	31	7.2	3.9	2.8	60	2.2	3.0
22	12	4.8	11	3.0	5.0	53	7.0	3.9	2.4	8.9	2.1	2.5
23	9.3	4.7	8.0	2.9	12	30	8.3	4.6	2.2	6.9	1.9	2.3
24	12	4.7	5.2	2.9	66	25	14	4.2	2.1	5.7	2.1	2.2
25	17	5.2	5.2	2.8	63	21	11	3.6	2.3	10	1.9	3.2
26	17	5.4	6.2	2.8	48	18	9.5	4.2	3.0	8.0	1.8	41
27	16	5.2	5.8	2.8	42	16	8.9	3.8	2.5	7.0	1.7	14
28	14	5.2	5.5	2.7	33	30	10	3.6	2.3	5.4	1.7	11
29	12	4.9	5.3	2.7	---	31	10	4.2	2.7	3.9	1.7	6.0
30	9.2	5.0	5.0	2.7	---	25	8.7	4.0	2.4	4.6	1.6	4.7
31	21	---	4.7	2.6	---	22	---	3.9	---	4.3	1.6	---
TOTAL	761.3	173.5	308.8	105.5	342.5	936	614.5	215.7	104.9	433.1	266.7	137.9
MEAN	24.6	5.78	9.96	3.40	12.2	30.2	20.5	6.96	3.50	14.0	8.60	4.60
MAX	160	15	36	4.6	66	74	90	16	7.5	250	150	41
MIN	3.4	3.5	4.6	2.6	2.6	16	7.0	3.6	2.1	2.1	1.6	1.4
CFSM	3.63	.85	1.47	.50	1.80	4.46	3.03	1.03	.52	2.07	1.27	.68
IN.	4.18	.95	1.70	.58	1.88	5.14	3.38	1.19	.58	2.38	1.47	.76

CAL YR 1976	TOTAL	4097.1	MEAN 11.2	MAX 160	MIN 2.1	CFSM 1.65	IN 22.51
WTR YR 1977	TOTAL	4400.4	MEAN 12.1	MAX 250	MIN 1.4	CFSM 1.79	IN 24.18

WEST BRANCH SUSQUEHANNA RIVER BASIN

01541500 CLEARFIELD CREEK AT DIMELING, PA

LOCATION.--Lat 40°58'18", long 78°24'22", Clearfield County, Hydrologic Unit 02050201, on right bank at downstream side of highway bridge at Dimeling, 600 ft (180 m) downstream from Little Clearfield Creek, and 4 mi (6 km) southeast of Clearfield.

DRAINAGE AREA.--371 mi² (961 km²).

PERIOD OF RECORD.--October 1913 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 891: 1936-39. WSP 1302: 1915-17, 1918-19(M). WSP 1502: 1939.

GAGE.--Water-stage recorder. Datum of gage is 1,146.08 ft (349.325 m) above mean sea level. Prior to Oct. 17, 1928, nonrecording gage and Oct. 17, 1928 to Oct. 25, 1967, water-stage recorder at site 200 ft (61 m) upstream, all at the same datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Glendale Lake about 25 mi (40 km) upstream (see p. 200).

AVERAGE DISCHARGE.--64 years, 574 ft³/s (16.3 m³/s), 20.99 in/yr (533 mm/yr), adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s (867 m³/s) Mar. 18, 1936, gage height, 18.49 ft (5.636 m), from floodmark in gage shelter, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum, 6.0 ft³/s (0.17 m³/s) Oct. 1, 9, 1925; minimum daily, 7.1 ft³/s (0.20 m³/s) Oct. 1, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,210 ft³/s (261 m³/s) July 20, gage height, 11.27 ft (3.435 m); maximum gage height, 11.41 ft (3.478 m) Feb. 24; minimum, 104 ft³/s (2.95 m³/s) June 5, 6, gage height, 3.04 ft (0.927 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	923	200	250	115	1720	1020	372	124	169	480	189
2	1210	719	190	240	115	1280	2510	349	118	143	410	179
3	846	637	180	230	115	1030	6440	377	116	121	354	179
4	588	570	170	220	110	1710	3890	405	110	182	318	179
5	465	514	170	200	110	3520	3270	486	105	149	289	165
6	391	465	160	190	110	2250	2590	624	192	127	306	162
7	349	425	680	180	110	1680	2110	846	323	224	916	159
8	637	400	570	170	110	1330	1880	624	199	1180	1980	155
9	2690	410	530	160	110	1110	1550	536	179	565	1020	152
10	3970	450	700	150	120	1000	1370	475	273	358	818	152
11	2140	486	530	150	130	895	1270	425	227	332	1900	146
12	1480	435	390	140	150	818	1120	381	175	1480	1310	143
13	1130	396	490	135	180	1880	973	345	155	1020	980	118
14	930	377	580	130	250	1960	923	327	143	637	798	139
15	745	363	640	130	220	1420	853	297	165	445	699	152
16	618	455	470	125	210	1190	751	269	175	349	542	149
17	525	440	400	125	200	1030	668	254	149	297	674	199
18	440	440	390	120	190	1160	576	239	182	265	902	217
19	386	435	460	120	190	2770	519	246	165	349	576	189
20	420	455	550	120	180	2120	519	213	315	7030	470	336
21	1250	508	490	120	180	2120	391	196	199	5360	405	400
22	930	497	450	120	170	2490	354	185	165	3120	358	239
23	687	480	420	120	350	2980	358	172	143	1890	327	192
24	630	470	390	120	1000	2210	450	169	133	1450	297	175
25	1140	415	370	120	5520	1750	624	192	217	1770	285	655
26	1610	310	350	120	4090	1450	486	182	310	2990	261	1400
27	1280	318	330	115	2800	1240	425	155	224	1600	235	830
28	1000	332	310	115	2390	1480	405	143	172	1210	228	700
29	853	318	290	115	---	2050	420	136	242	784	210	590
30	731	217	280	115	---	1530	420	130	221	612	217	490
31	881	---	260	115	---	1190	---	127	---	637	213	---
TOTAL	31262	13660	12390	4580	19525	52363	39135	9877	5616	36845	18778	9130
MEAN	1008	455	400	148	697	1689	1305	319	187	1189	606	304
MAX	3970	923	700	250	5520	3520	6440	846	323	7030	1980	1400
MIN	310	217	160	115	110	818	354	127	105	121	210	118
MEAN [#]	1006	339	334	150	806	1761	1306	308	199	1201	595	308
CFSM [#]	2.71	.91	.90	.40	2.17	4.75	3.52	.83	.54	3.24	1.60	.83
IN. [#]	3.12	1.02	1.04	.46	2.26	5.48	3.93	.96	.60	3.74	1.84	.93
CAL YR 1976 TOTAL	206804		MEAN 565	MAX 6700	MIN 63	MEAN [#] 551	CFSM [#] 694	IN. [#] 1.49			20.22	
WTR YR 1977 TOTAL	253161		MEAN 694	MAX 7030	MIN 105	MEAN [#] 694	CFSM [#] 1.87	IN. [#] 25.39				

[#] Adjusted for change in contents in Glendale Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

107

01542000 MOSHANNON CREEK AT OSCEOLA MILLS, PA

LOCATION.--Lat 40°50'58", long 78°16'05", Clearfield County, Hydrologic Unit 02050201, on left bank 10 ft (3.0 m) upstream from Penn Central Railroad bridge at Osceola Mills, and 0.1 mi (0.2 km) downstream from Trout Run.

DRAINAGE AREA.--68.8 mi² (178.2 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1232: 1941-46, 1948, 1950-51, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,446.98 ft (441.040 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--37 years, 110 ft³/s (3.115 m³/s), 21.69 in/yr (551 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,120 m³/s (145 m³/s) June 23, 1972, gage height 14.25 ft (4.343 m), from rating curve extended above 1,800 ft³/s (51 m³/s) on basis of contracted-opening measurements at gage heights 7.58 ft (2.310 m), 9.00 ft (2.743 m), and at peak flow; minimum, 6.9 ft³/s (0.20 m³/s) Dec. 5, 1957; minimum daily, 7.8 ft³/s (0.22 m³/s) Sept. 21, 1955; minimum gage height, 0.14 ft (0.043 m) Oct. 25, 26, 27, 28, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1545	971 27.5	3.96 1.207	Mar. 22	1645	652 18.5	3.02 0.920
Feb. 25	0045	1,110 31.4	4.36 1.329	Apr. 2	2245	*1,300 36.8	*4.91 1.497
Mar. 4	2100	646 18.3	3.00 0.914				

Minimum discharge, 13 ft³/s (0.37 m³/s) July 3, 4, gage height, 0.23 ft (0.070 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	143	35	54	36	313	237	98	35	18	65	35
2	140	125	34	52	36	249	644	103	33	16	57	32
3	86	119	33	50	36	210	1020	99	30	14	52	33
4	74	114	32	48	36	394	697	96	28	37	47	29
5	69	106	32	47	36	484	622	114	27	24	43	28
6	65	99	31	45	36	400	474	134	86	17	53	27
7	68	96	132	44	36	330	379	143	55	47	121	27
8	109	91	123	43	35	271	333	119	35	266	81	26
9	550	84	96	42	35	229	264	117	42	73	57	26
10	362	94	71	41	35	203	232	114	48	49	63	24
11	246	87	91	41	38	185	206	108	32	63	123	23
12	199	77	91	40	43	179	183	101	29	125	82	23
13	168	71	98	40	50	463	166	93	28	87	79	24
14	151	66	94	40	41	388	153	94	27	55	87	32
15	132	63	79	39	37	325	139	84	27	44	79	23
16	119	59	77	39	35	277	132	79	23	37	68	42
17	94	56	77	38	34	229	123	74	25	35	106	38
18	70	57	71	38	33	319	114	73	26	33	77	26
19	52	56	68	38	33	406	114	73	22	41	63	37
20	200	53	96	38	32	339	114	66	20	197	60	65
21	150	51	101	37	31	322	99	63	18	84	56	32
22	120	48	101	37	70	499	94	55	17	87	56	26
23	100	45	96	37	250	429	106	51	15	60	51	21
24	84	43	91	37	400	339	141	52	15	53	52	21
25	280	42	106	37	795	271	121	71	59	222	49	70
26	220	43	79	37	534	237	112	49	48	176	43	180
27	180	45	73	37	456	210	110	45	22	115	41	84
28	162	42	74	37	388	277	115	41	19	103	37	69
29	155	49	66	37	---	292	112	36	30	87	36	63
30	145	42	60	36	---	297	103	37	21	84	44	59
31	168	---	57	36	---	282	---	36	---	73	37	---
TOTAL	4795	2166	2365	1262	3657	9648	7459	2518	942	2422	1965	1245
MEAN	155	72.2	76.3	40.7	131	311	249	81.2	31.4	78.1	63.4	41.5
MAX	550	143	132	54	795	499	1020	143	86	266	123	180
MIN	52	42	31	36	31	179	94	36	15	14	36	21
CFSM	2.25	1.05	1.11	.59	1.90	4.52	3.62	1.18	.46	1.14	.92	.60
IN.	2.59	1.17	1.28	.68	1.98	5.22	4.03	1.36	.51	1.31	1.06	.67
CAL YR 1976	TOTAL	36323	MEAN	99.2	MAX	1100	MIN	17	CFSM	1.44	IN	19.64
WTR YR 1977	TOTAL	40444	MEAN	111	MAX	1020	MIN	14	CFSM	1.61	IN	21.87

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542000 MOSHANNON CREEK AT OSCEOLA MILLS, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO MAY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG. C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA.MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
NOV 04...	1400	9813	103	450	4.7	8.0	25	10.0	172	46	32	22
FEB 16...	1000	9813	62	550	3.8	.9	85	6.7	188	53	39	22
MAY 05...	0830	9813	114	520	7.5	12.0	9	8.1	166	2	35	19

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 04...	10	201	7.0	322	6	328	.18	.02	.34	.04	7950
FEB 16...	17	240	15	430	38	468	.40	.02	.66	.03	22900
MAY 05...	20	140	21	406	18	424	.18	.01	.06	.02	6300

WEST BRANCH SUSQUEHANNA RIVER BASIN

109

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA

LOCATION.--Lat 41°07'03", long 78°06'33", Clearfield County, Hydrologic Unit 02050201, on left bank 900 ft (270 m) upstream from bridge on State Highway 879 at Karthaus, 1,000 ft (300 m) upstream from Mosquito Creek, and 3.3 mi (5.3 km) downstream from Moshannon Creek. Records include flow of Mosquito Creek. Water-quality sampling site at bridge 900 ft (270 m) downstream.

DRAINAGE AREA.--1,462 mi² (3,787 km²), includes that of Mosquito Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1940 to current year. October 1918 to September 1920 (gage heights only) in reports of Water Supply Commission of Pennsylvania.

GAGE.--Water-stage recorder. Datum of gage is 830.59 ft (253.164 m) above mean sea level. Prior to Sept. 30, 1920, nonrecording gage at site 900 ft (270 m) downstream at datum 20.88 ft (6.364 m) lower. Feb. 21 to Sept. 30, 1940, nonrecording gage at site 900 ft (270 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Curwensville Lake about 50 mi (80 km) upstream and by Glendale Lake (see p. 200).

AVERAGE DISCHARGE.--37 years, 2,471 ft³/s (70.0 m³/s), 22.95 in/yr (583 mm/yr), adjusted for storage since December 1960.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,300 ft³/s (2,390 m³/s) June 23, 1972, gage height, 18.57 ft (5.660 m), from rating curve extended above 50,000 ft³/s (1,400 m³/s); minimum, 100 ft³/s (2.83 m³/s) Sept. 26, 27, 1964, gage height, 0.43 ft (0.131 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 24.5 ft (7.47 m) Mar. 18, 1936, from floodmarks at highway bridge, discharge, about 135,000 ft³/s (3,820 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,400 ft³/s (634 m³/s) Apr. 3, gage height, 9.60 ft (2.926 m); minimum, 433 ft³/s (12.3 m³/s) June 25, gage height, 1.33 ft (0.405 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	3890	719	950	600	9780	5460	1290	649	1090	2580	850
2	1320	3560	774	920	580	8440	7830	1240	604	778	1970	800
3	2940	2940	669	890	580	7300	20900	1200	579	643	1490	821
4	2070	2710	591	880	570	7790	14700	1220	548	585	1410	800
5	1430	2500	711	870	560	12700	13600	1490	518	771	1250	764
6	1170	2260	778	850	560	10900	11800	2250	591	716	1190	730
7	1030	2010	1070	840	560	8980	10300	3000	986	585	1750	696
8	1350	1910	2150	820	560	7220	9120	2600	1170	2300	4530	617
9	4600	1800	2760	800	560	5920	8030	2300	940	3930	4930	591
10	11100	1790	2710	780	550	4760	6970	2100	850	2110	3350	573
11	8840	1790	2700	770	550	4570	5970	1760	895	1470	3460	554
12	6970	1770	2740	760	550	4340	4110	1530	793	8440	5430	530
13	4340	1630	2800	750	540	7650	3380	1450	709	7180	3990	524
14	3260	1490	2400	740	620	9600	2960	1390	669	5840	2890	518
15	2980	1440	2240	740	800	8330	2680	1320	643	4900	2290	530
16	2410	2010	2210	730	720	7110	2400	1250	617	2470	1950	585
17	2050	2230	2230	720	700	6050	2220	1100	617	2080	2520	850
18	1800	1940	2160	720	700	5420	2070	971	560	1860	3750	895
19	1600	1460	1940	720	670	7060	1820	1030	591	1680	3080	1070
20	1490	1280	2000	700	660	7620	1760	1020	513	7070	2240	2610
21	2910	1270	2180	690	650	7620	1680	962	986	10800	1950	2360
22	4010	1280	2110	680	640	8420	1530	888	850	10200	1550	1930
23	2940	1240	1910	680	660	9980	1490	851	610	8930	1320	1270
24	2600	1160	1780	670	1500	8700	1900	843	478	8160	1270	1050
25	3420	1130	1420	660	12700	8170	2070	1040	591	8300	1250	1640
26	5700	1060	1300	650	12900	6100	1980	940	1660	10500	1190	3340
27	5700	999	1200	640	11400	5120	1700	828	1510	8130	1120	3330
28	4110	1060	1150	640	11000	5030	1570	764	1020	6710	1060	3020
29	3790	1110	1100	640	---	7160	1540	716	917	4320	1010	2070
30	1550	977	1000	630	---	7530	1350	682	948	2610	963	1800
31	3350	---	970	620	---	6760	---	662	---	2730	880	---
TOTAL	103910	53696	52472	23150	63640	232130	154890	40687	23612	137888	69613	37718
MEAN	3352	1790	1693	747	2273	7488	5163	1312	787	4448	2246	1257
MAX	11100	3890	2800	950	12900	12700	20900	3000	1660	10800	5430	3340
MIN	1030	977	591	620	540	4340	1350	662	478	585	880	518
MEAN#	3351	1592	1628	737	2682	7300	5210	1333	799	4462	2234	1260
CFSM#	2.29	1.09	1.11	.50	1.83	4.99	3.56	.91	.55	3.05	1.53	.86
IN.#	2.64	1.22	1.28	.58	1.91	5.75	3.97	1.05	.61	3.52	1.76	.96
CAL YR 1976 TOTAL	848914			2319	19500	320	MEAN#	2304	CFSM#	1.58	IN.#	21.46
WTR YR 1977 TOTAL	993406			2722	20900	478	MEAN#	2721	CFSM#	1.86	IN.#	25.28

Adjusted for change in contents in Curwensville and Glendale Reservoirs.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542500 WEST BRANCH SUSQUEHANNA RIVER AT KARTHAUS, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO MAY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA.MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
NOV 15...	1100	9813	1414	340	4.8	10.0	4	11.0	130	10	28	14
FEB 24...	1205	9813	2290	350	--	--	5	--	134	--	29	14
MAY 05...	1000	9813	1490	470	3.8	17.0	1	7.7	168	33	36	18

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15....	1	131	7.0	228	8	236	.50	.01	--	.03	--
FEB 24....	13	128	13	210	2	212	4.5	.03	.52	.03	960
MAY 05....	10	172	13	380	4	384	.47	.01	.02	.01	700

WEST BRANCH SUSQUEHANNA RIVER BASIN

01542810 WALDY RUN NEAR EMPORIUM, PA

LOCATION.--Lat 41°34'44", long 78°17'34", Cameron County, Hydrologic Unit 02050202, on left bank 15 ft (4.6 m) downstream from highway bridge at North Creek Chapel, 0.1 mi (0.2 km) upstream from mouth, and 5.5 mi (8.8 km) northwest of Emporium.

DRAINAGE AREA.--5.24 mi² (13.57 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum water years 1963-64. August 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,263.62 ft (385.151 m) above mean sea level. July 25, 1963 to Aug. 27, 1964, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--13 years (1964-77), 8.71 ft³/s (0.247 m³/s), 22.54 in/yr (572 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 828 ft³/s (23.4 m³/s) Sept. 28, 1967, gage height, 6.32 ft (1.926 m), from rating curve extended above 80 ft³/s (2.3 m³/s) on basis of slope-area measurements at gage heights, 5.09 ft (1.551 m), 5.86 ft (1.786 m), and at peak flow; no flow Sept. 14-19, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 25	0345	102 2.89	4.41 1.344	Apr. 3	0245	132 3.74	4.55 1.387
Mar. 13	1200	*134 3.79	*4.56 1.390	Sept. 26	1830	121 3.43	4.50 1.372
Mar. 29	1830	119 3.37	4.49 1.369				

Minimum discharge, 0.20 ft³/s (0.006 m³/s) Oct. 6, gage height, 3.26 ft (0.994 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	11	1.4	2.4	1.0	26	34	5.3	1.0	1.8	2.1	1.4
2	.43	10	1.3	2.2	1.0	16	49	4.9	1.0	1.2	1.8	1.7
3	.38	8.8	1.3	2.0	.91	11	98	4.2	.91	1.0	1.6	1.3
4	.30	7.3	1.4	1.9	1.0	23	44	4.9	.83	1.1	1.5	1.2
5	.26	5.7	1.4	1.8	.91	66	32	7.8	.75	1.0	1.3	1.1
6	.23	4.9	2.0	1.8	.91	34	28	9.8	1.5	1.1	1.9	1.1
7	.48	4.2	15	1.9	.91	20	20	9.3	1.2	2.9	3.6	1.0
8	4.8	3.6	22	1.6	.91	14	15	8.3	.91	3.9	4.5	.96
9	18	3.0	7.3	1.5	.91	13	12	7.3	1.6	2.5	6.5	.88
10	19	3.0	5.7	1.5	.91	28	11	6.1	1.8	1.9	5.7	.81
11	8.8	2.7	5.7	1.5	1.0	42	10	5.3	1.0	2.9	4.5	.73
12	5.3	2.3	5.3	1.3	1.4	40	8.8	4.2	.91	8.8	7.3	.68
13	3.9	2.1	4.5	1.2	3.9	110	8.3	3.9	.75	9.3	6.9	1.6
14	3.3	2.1	4.5	1.2	4.1	60	7.3	3.3	1.2	5.7	10	9.7
15	2.5	1.9	4.5	1.3	3.6	28	6.5	3.0	1.3	3.6	17	5.0
16	2.1	1.9	3.9	1.2	2.7	17	5.7	2.5	.91	2.5	12	6.0
17	1.8	1.8	3.9	1.2	2.5	12	4.9	2.3	1.1	9.3	8.3	9.8
18	1.6	1.9	3.3	1.2	2.4	12	4.5	2.5	1.6	9.8	5.7	9.9
19	1.5	1.9	2.7	1.1	2.3	11	4.2	2.3	1.9	7.8	3.9	16
20	2.7	1.8	4.2	1.1	2.1	9.8	3.9	1.9	1.2	5.3	3.0	50
21	7.8	1.8	6.9	1.1	1.9	9.3	3.3	1.8	1.0	3.9	2.7	28
22	7.8	1.8	7.8	1.1	2.7	13	3.0	1.6	.75	2.7	7.8	13
23	6.1	1.6	7.3	1.0	2.5	13	4.5	1.5	.68	2.1	5.7	8.7
24	6.5	1.5	6.1	1.0	23	12	7.3	1.5	.61	1.9	4.5	10
25	10	1.5	5.7	1.1	72	10	9.8	1.5	2.8	3.3	3.5	71
26	13	1.6	4.9	1.1	34	10	9.8	1.3	1.6	2.1	2.8	84
27	9.3	2.1	4.2	1.1	29	13	8.8	1.2	1.2	1.8	2.4	69
28	7.8	2.1	3.9	1.0	42	46	8.3	1.1	1.6	1.5	2.0	27
29	6.1	2.1	3.0	1.0	---	102	6.9	1.1	3.0	1.5	1.9	14
30	4.9	1.5	2.8	1.0	---	76	5.7	1.0	1.9	3.0	1.9	9.3
31	8.8	---	2.6	1.0	---	49	---	1.0	---	1.9	1.5	---
TOTAL	165.96	99.5	156.5	42.4	242.47	946.1	474.5	113.7	38.51	109.1	145.8	454.86
MEAN	5.35	3.32	5.05	1.37	8.66	30.5	15.8	3.67	1.28	3.52	4.70	15.2
MAX	19	11	22	2.4	72	110	98	9.8	3.0	9.8	17	84
MIN	.23	1.5	1.3	1.0	.91	9.3	3.0	1.0	.61	1.0	1.3	.68
CFSM	1.02	.63	.96	.26	1.65	5.82	3.02	.70	.24	.67	.90	2.90
IN.	1.18	.71	1.11	.30	1.72	6.72	3.37	.81	.27	.77	1.03	3.23
CAL YR 1976	TOTAL	2568.26	MEAN	7.02	MAX	182	MIN	.14	CFSM	1.34	IN	18.23
WTR YR 1977	TOTAL	2989.40	MEAN	8.19	MAX	110	MIN	.23	CFSM	1.56	IN	21.22

WEST BRANCH SUSQUEHANNA RIVER BASIN

01543000 DRIFTWOOD BRANCH SINNEMAHOING CREEK AT STERLING-RUN, PA

LOCATION.--Lat 41°24'48", long 78°11'50", Cameron County, Hydrologic Unit 02050202, on downstream side of second pier from left bank of highway bridge at village of Sterling Run and 300 ft (90 m) upstream from Sterling Run.

DRAINAGE AREA.--272 mi² (704 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1272: Drainage area. WSP 1502: 1933(M), 1934-38, 1939(M).

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 894.84 ft (272.747 m) above mean sea level. Oct. 1, 1913 to Sept. 30, 1931, nonrecording gage and Oct. 1, 1931 to Sept. 30, 1932, water-stage recorder at present site and datum. Oct. 1, 1932 to Sept. 30, 1942, nonrecording gage at site 800 ft (240 m) upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--64 years, 448 ft³/s (12.69 m³/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,800 ft³/s (1,350 m³/s) July 18, 1942, gage height, 14.70 ft (4.481 m), from floodmarks at highway bridge, from rating curve extended above 11,000 ft³/s (310 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 0.4 ft³/s (0.011 m³/s) Sept. 7, 12-14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,700 ft³/s (133 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	1130	6,110 173	4.96 1.512	Apr. 3	0300	*7,940 225	*5.73 1.747

Minimum daily discharge, 3' ft³/s (1.05 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	555	53	220	59	1370	1520	283	51	237	207	104
2	65	522	70	210	58	952	2410	267	50	189	194	92
3	60	499	62	210	56	726	5790	258	50	154	170	82
4	56	444	67	197	54	1130	2730	238	44	134	152	76
5	51	383	80	197	58	2550	2010	398	40	125	136	70
6	49	335	77	195	58	1770	1480	393	41	115	129	68
7	48	298	200	190	54	1230	1100	378	80	116	217	60
8	240	269	600	170	50	894	930	350	60	268	247	58
9	1170	234	520	153	48	789	762	339	51	183	435	51
10	1580	227	450	142	48	1010	631	306	127	167	344	48
11	820	221	445	145	60	1360	554	273	78	243	316	40
12	541	193	405	145	70	1490	476	237	55	910	347	37
13	413	177	330	145	130	4380	420	217	46	692	308	41
14	380	167	260	130	200	3150	382	203	42	441	326	420
15	309	161	380	124	198	1750	337	180	91	305	446	230
16	255	154	340	120	170	1170	300	163	50	229	343	262
17	219	147	315	103	150	840	272	154	51	386	461	584
18	197	143	285	100	140	768	248	146	140	410	411	426
19	180	144	240	100	138	767	242	153	263	340	324	622
20	174	112	270	102	134	698	244	143	175	613	263	1710
21	544	110	430	97	125	645	218	127	140	405	205	1260
22	491	107	415	92	120	916	207	107	70	354	406	805
23	430	97	450	86	200	990	258	88	53	241	318	594
24	433	85	370	81	1260	851	461	82	44	205	254	638
25	614	81	290	80	3500	708	479	82	134	251	213	2790
26	606	81	380	83	1770	639	488	78	365	251	186	3050
27	550	97	320	84	1500	671	440	68	183	189	167	2880
28	469	104	260	74	1760	1450	403	62	149	167	157	1690
29	407	83	260	68	---	3190	359	58	575	151	142	975
30	355	61	210	66	---	3090	315	55	356	242	137	705
31	505	---	220	64	---	2170	---	51	---	196	123	---
TOTAL	12283	6291	9054	3973	12168	44114	26466	5937	3654	8909	8084	20468
MEAN	396	210	292	128	435	1423	882	192	122	287	261	682
MAX	1580	555	600	220	3500	4380	5790	398	575	910	461	3050
MIN	48	61	53	64	48	639	207	51	40	115	123	37
CFSM	1.46	.77	1.07	.47	1.60	5.23	3.24	.71	.45	1.06	.96	2.51
IN.	1.68	.86	1.24	.54	1.66	6.03	3.62	.81	.50	1.22	1.11	2.80

CAL YR 1976 TOTAL 145338 MEAN 397 MAX 7690 MIN 31 CFSM 1.46 IN 19.88
WTR YR 1977 TOTAL 161401 MEAN 442 MAX 5790 MIN 37 CFSM 1.63 IN 22.07

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01543000 DRIFTWOOD BRANCH SINNEMAHOING CREEK AT STERLING RUN, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO MAY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
NOV 18...	0930	9813	144	70	7.1	1.0	1	12.0	40	5.5	6.2
MAY 12...	1400	9813	236	70	7.3	10.0	1	9.2	22	6.3	1.5

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 18...	11	8.0	4.0	30	2	32	.35	.02	.27	.04	120
MAY 12...	9	8.0	4.0	26	6	32	.13	.01	.02	.01	200

WEST BRANCH SUSQUEHANNA RIVER BASIN

01543500 SINNEMAHONING CREEK AT SINNEMAHONING, PA

LOCATION.--Lat 41°19'02", long 78°06'12", Cameron County, Hydrologic Unit 02050202, on left bank 0.2 mi (0.3 km) upstream from Grove Run and 0.7 mi (1.1 km) upstream from Penn Central Railroad bridge at Sinnemahoning. Water-quality sampling site 0.97 mi (1.56 km) downstream.

DRAINAGE AREA.--685 mi² (1,774 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 769.36 ft (234.501 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--39 years, 1,120 ft³/s (31.72 m³/s), 22.27 in/yr (566 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,800 ft³/s (1,720 m³/s) June 23, 1972, gage height, 21.78 ft (6.639 m), from rating curve extended above 31,000 ft³/s (878 m³/s) on basis of slope-area measurement at gage height, 21.58 ft (6.578 m); minimum 1.2 ft³/s (0.034 m³/s) Sept. 4, 1939, gage height, 1.18 ft (0.360 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Sept. 3, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 21.94 ft (6.687 m) Mar. 18, 1936, from floodmark, discharge, 61,200 ft³/s (1,730 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,400 ft³/s (238 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 8	0600	ice jam	7.60 2.316	Mar. 13	1330	11,300 320	8.16 2.487
Feb. 25	0600	ice jam	*18.57 5.660	Apr. 3	0430	*18,300 518	10.48 3.194

Minimum discharge, 111 ft³/s (3.14 m³/s) Sept. 12, 13, gage height, 1.92 ft (0.585 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	1520	199	570	145	3790	3610	662	184	671	479	234
2	178	1300	240	580	145	2740	5470	635	180	486	472	217
3	166	1240	210	530	140	2080	14900	627	177	358	383	225
4	152	1140	230	520	135	2590	7460	586	162	303	332	223
5	136	1000	280	460	145	6140	5530	986	145	303	297	188
6	126	868	255	420	148	4670	4130	964	159	274	307	181
7	121	780	460	430	135	3430	3210	900	279	279	571	172
8	523	710	1000	400	128	2550	2690	830	228	553	682	158
9	2690	625	1100	385	120	2130	2210	801	192	459	1100	147
10	4200	607	1050	370	120	2370	1820	744	320	352	833	139
11	2380	607	1150	355	150	2840	1560	680	264	472	761	125
12	1600	532	1130	340	170	2990	1340	602	192	2840	725	114
13	1220	475	920	310	300	7770	1150	561	162	2080	662	116
14	1110	438	680	305	420	6940	1040	523	145	1220	680	564
15	902	412	900	315	500	4310	920	472	196	828	953	454
16	750	399	860	310	440	3050	830	432	162	626	716	346
17	616	379	830	255	380	2220	754	394	145	842	810	1110
18	548	399	770	255	355	2050	689	382	288	930	860	772
19	484	366	640	260	350	2470	662	419	452	696	635	1220
20	470	352	720	255	340	2250	653	364	325	1800	531	2990
21	1500	337	1050	245	315	2080	586	325	237	1140	445	2590
22	1400	325	1010	235	300	2860	546	298	192	1190	671	1700
23	1170	311	1060	220	330	3250	594	274	155	790	644	1200
24	1100	295	1000	200	3500	2710	1050	264	132	622	486	1160
25	1700	288	790	200	6000	2160	1050	260	216	782	427	4450
26	1680	277	940	210	4940	1840	1020	250	997	1030	368	4740
27	1500	301	800	210	4310	1740	942	230	466	635	335	4660
28	1300	333	760	185	4760	3370	880	217	325	499	312	3060
29	1150	334	700	170	---	6700	830	198	1220	434	279	2040
30	1010	253	550	165	---	6490	725	191	1070	578	283	1450
31	1330	---	550	160	---	4920	---	187	---	516	268	---
TOTAL	33406	17203	22834	9825	29221	107500	68851	15258	9367	24588	17307	36745
MEAN	1078	573	737	317	1044	3468	2295	492	312	793	558	1225
MAX	4200	1520	1150	580	6000	7770	14900	986	1220	2840	1100	4740
MIN	121	253	199	160	120	1740	546	187	132	274	268	114
CFSM	1.57	.84	1.08	.46	1.52	5.06	3.35	.72	.46	1.16	.82	1.79
IN.	1.81	.93	1.24	.53	1.59	5.84	3.74	.83	.51	1.34	.94	2.00

CAL YR 1976 TOTAL 389676 MEAN 1065 MAX 18400 MIN 94 CFSM 1.56 IN 21.16
WTR YR 1977 TOTAL 392105 MEAN 1074 MAX 14900 MIN 114 CFSM 1.57 IN 21.29

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01543500 SINNEMAHOING CREEK AT SINNEMAHOING, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO MAY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
NOV 18...	1130	9813	398	110	6.5	1.0	5	1.7	38	7.1	4.8
MAY 12...	0945	9813	602	80	--	13.0	2	9.0	32	8.3	2.6

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 18...	5	26	4.0	58	2	60	.24	<.01	.18	.02	370
MAY 12...	6	14	8.0	38	10	48	.13	<.01	.06	.02	290

WEST BRANCH SUSQUEHANNA RIVER BASIN

01544000 FIRST FORK SINNEMAHONING CREEK NEAR SINNEMAHONING, PA

LOCATION.--Lat 41°24'06", long 78°01'28", Cameron County, Hydrologic Unit 02050202, on right bank 350 ft (107 m) downstream from Woodrock Run, 1500 ft (460 m) upstream from Roaring Run, 0.75 mi (1.21 km) downstream from George B. Stevenson Dam, and 7.5 mi (12.1 km) northeast of Sinnemahoning.

DRAINAGE AREA.--245 mi² (635 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 878.71 ft (267.831 m) above mean sea level. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except those for no gage-height record, and winter periods, which are fair. Flow regulated by First Fork Sinnemahoning Creek Reservoir 0.75 mi (1.21 km) upstream since Jan. 31, 1956 (see p. 200).

AVERAGE DISCHARGE.--24 years, 381 ft³/s (10.8 m³/s), 21.18 in/yr (538 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Mar. 1, 1956, gage height, 6.60 ft (2.012 m); minimum daily, 0.1 ft³/s (0.003 m³/s) Aug. 8, 1975, from rating curve extended below 70 ft³/s (1.98 m³/s).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known 80,000 ft³/s (2,270 m³/s) July 18, 1942, by slope-area measurement.

EXTREME FOR CURRENT YEAR.--Maximum discharge, 4,420 ft³/s (125 m³/s) Apr. 4, gage height, 3.57 ft (1.088 m); minimum, 9.5 ft³/s (0.27 m³/s) Feb. 25, gage height, -0.43 ft (-0.131 m).

DISCHARGE* IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	523	75	149	57	1550	1590	306	75	245	193	91
2	56	575	81	142	56	1130	1860	294	67	197	197	82
3	47	607	85	138	52	805	708	267	63	172	163	89
4	44	486	86	128	47	906	3460	231	54	151	144	89
5	41	408	99	133	42	2200	3610	319	52	141	148	107
6	36	357	91	121	50	2510	1930	350	61	133	163	214
7	38	303	129	107	42	1730	1000	376	84	202	267	97
8	74	265	201	111	44	969	785	376	63	644	319	57
9	521	232	202	109	41	775	689	369	63	626	454	61
10	1610	258	196	106	34	835	608	331	89	477	375	58
11	824	227	224	104	35	1250	590	283	77	396	320	47
12	594	205	213	100	39	1620	417	240	60	653	350	48
13	445	171	219	92	64	2050	319	216	52	756	305	59
14	369	150	167	81	109	2990	343	207	52	608	325	298
15	294	155	193	86	102	3090	343	184	58	446	425	138
16	235	155	207	86	131	1900	294	163	65	369	350	199
17	214	159	189	84	139	938	267	147	61	746	430	368
18	200	167	186	83	68	855	250	138	141	885	460	363
19	179	151	172	76	67	699	231	145	383	737	350	673
20	170	135	169	81	67	582	216	138	261	644	295	1470
21	510	127	250	79	68	507	226	123	211	454	260	1620
22	706	121	354	78	64	608	207	110	163	469	305	1060
23	632	119	407	71	73	825	202	98	130	337	370	743
24	599	109	377	66	211	708	532	90	107	267	220	770
25	551	100	254	64	425	524	795	87	250	240	192	2630
26	609	103	288	63	2380	507	775	81	635	356	168	3750
27	567	108	274	66	2620	548	617	76	532	278	153	3240
28	517	109	230	59	2170	1130	499	71	410	189	136	1850
29	452	113	217	63	---	2740	410	68	383	176	124	1050
30	383	96	192	60	---	3460	350	66	331	278	119	679
31	490	---	146	59	---	2380	---	65	---	193	111	---
TOTAL	12083	6794	6174	2845	9297	43321	24123	6015	5033	12465	8191	22000
MEAN	390	226	199	91.8	332	1397	804	194	168	402	264	733
MAX	1610	607	407	149	2620	3460	3610	376	635	885	460	3750
MIN	36	96	75	59	34	507	202	65	52	133	111	47
MEAN#	391	225	200	91.5	339	1392	802	194	168	402	265	725
CFSM#	1.60	.92	.82	.37	1.38	5.68	3.27	.79	.69	1.64	1.08	2.96
IN.#	1.84	1.03	.95	.43	1.44	6.55	3.65	.91	.77	1.89	1.24	3.30

CAL YR 1976 TOTAL 133472 MEAN 365 MAX 5060 MIN 36 MEAN# 365 CFSM# 1.49 IN.# 20.23
WTR YR 1977 TOTAL 158341 MEAN 434 MAX 3750 MIN 34 MEAN# 433 CFSM# 1.77 IN.# 24.04

* Adjusted for change in contents in First Fork Sinnemahoning Creek Reservoir.

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01544500 KETTLE CREEK AT CROSS FORK, PA.

LOCATION.--Lat 41°28'33", long 77°49'34", Potter County, Hydrologic Unit 02050203, on right bank just upstream from abutment of former highway bridge, 0.2 mi (0.3 km) downstream from Potter-Clinton County Line, and 0.7 mi (1.1 km) southwest of Cross Fork.

DRAINAGE AREA.--136 mi² (352 km²).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for October, November 1940, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 1,027.12 ft (313.066 m) above mean sea level, adjustment of 1912.

REMARKS.--Records good.

AVERAGE DISCHARGE.--37 years, 224 ft³/s (6.344 m³/s), 22.41 in/yr (569 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s (405 m³/s) June 23, 1972, gage height, 11.76 ft (3.584 m), from floodmark in gage well, from rating curve extended above 9,200 ft³/s (261 m³/s) on basis of slope-area measurement at gage height, 10.38 ft (3.164 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Sept. 2-4, 1971; minimum gage height -0.32 ft (-0.098 m) Aug. 23, 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 14.0 ft (4.27 m) Mar. 18, 1936, from information by local residents, discharge about 20,000 ft³/s (570 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 3	0400	2,490 70.5	4.98 1.518
Sept. 25	0830	*2,700 76.5	*5.21 1.588

Minimum discharge, 30 ft³/s (0.85 m³/s) Sept. 12, 13, gage height, -0.13 ft (-0.040 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	328	60	117	37	704	871	204	57	133	98	50
2	52	342	58	110	36	545	1100	187	55	116	85	48
3	44	338	57	102	35	434	2200	169	53	104	75	46
4	37	317	56	97	34	669	1350	159	49	92	73	42
5	31	280	56	93	33	1540	959	193	45	88	70	41
6	31	246	106	89	32	1160	695	190	51	89	95	40
7	30	220	185	84	31	828	530	180	63	292	110	37
8	46	197	267	80	31	622	441	176	50	345	104	36
9	385	177	247	77	31	510	369	176	51	370	115	35
10	619	169	237	74	34	538	327	162	73	304	106	34
11	453	155	247	71	38	734	298	148	52	259	98	32
12	338	136	236	68	44	892	270	134	47	370	95	30
13	274	126	230	66	60	1700	247	127	43	340	83	40
14	238	118	197	64	80	1670	229	118	42	315	106	131
15	192	111	262	62	72	1060	207	107	47	259	118	75
16	164	105	228	60	60	758	189	98	36	208	103	95
17	140	100	210	58	56	565	173	91	45	249	153	194
18	128	98	191	56	53	493	160	88	105	324	141	161
19	113	95	170	54	51	404	154	88	181	301	126	273
20	142	90	183	52	50	343	147	77	156	283	111	627
21	567	87	208	50	50	306	131	73	137	237	96	726
22	557	83	223	49	50	333	124	67	113	207	122	557
23	455	78	265	47	100	332	146	63	92	164	94	420
24	408	75	248	46	350	312	245	69	82	141	82	505
25	398	72	229	45	1010	290	317	77	179	185	76	2260
26	388	71	200	43	724	277	361	64	202	154	70	1700
27	369	70	175	42	656	296	347	61	162	125	73	1100
28	339	71	155	41	799	495	314	59	151	109	63	805
29	307	68	143	40	---	1110	271	57	180	97	58	581
30	274	64	133	39	---	1740	233	55	149	134	58	432
31	333	---	125	38	---	1260	---	55	---	100	55	---
TOTAL	7914	4487	5587	2014	4637	22920	13405	3572	2748	6494	2912	11153
MEAN	255	150	180	65.0	166	739	447	115	91.6	209	93.9	372
MAX	619	342	267	117	1010	1740	2200	204	202	370	153	2260
MIN	30	64	56	38	31	277	124	55	36	88	55	30
CFSM	1.88	1.10	1.32	.48	1.22	5.43	3.29	.85	.67	1.54	.69	2.74
IN.	2.16	1.23	1.53	.55	1.27	6.27	3.67	.98	.75	1.78	.80	3.05

CAL YR 1976	TOTAL	92846	MEAN 254	MAX 3570	MIN 25	CFSM 1.87	IN 25.40
WTR YR 1977	TOTAL	87843	MEAN 241	MAX 2260	MIN 30	CFSM 1.77	IN 24.03

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545000 KETTLE CREEK NEAR WESTPORT, PA

LOCATION.--Lat 41°19'12", long 77°52'27", Clinton County, Hydrologic Unit 02050203, on left bank 0.4 mi (0.6 km) upstream from Short Bend 3.5 mi (5.6 km) upstream from mouth and Westport, and 5 mi (8 km) downstream from Kettle Creek Lake.

DRAINAGE AREA.--233 mi² (603 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 728.24 ft (221.968 m) above mean sea level, unadjusted. Prior to Oct. 14, 1956, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Regulation from Kettle Creek Lake 5 mi (8 km) upstream since February 1962 (see p.200).

AVERAGE DISCHARGE.--23 years, 365 ft³/s (10.34 m³/s), 21.32 in/yr (542 mm/yr), adjusted for storage since October 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,970 ft³/s (226 m³/s) Mar. 8, 1956; maximum gage height, 13.31 ft (4.057 m) Jan. 22, 1959 (ice jam); minimum discharge, 3.0 ft³/s (0.085 m³/s) Dec. 6, 1964, gage height, 1.12 ft (0.341 m); minimum daily, 4.4 ft³/s (0.12 m³/s) Nov. 3, 6, 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,020 ft³/s (114 m³/s) Apr. 4, gage height, 7.25 ft (2.210 m); minimum discharge, 47 ft³/s (1.33 m³/s) June 14, gage height, 1.71 ft (0.521 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	537	99	187	63	1640	1460	314	76	203	154	85
2	60	532	94	175	62	1110	1540	298	77	166	132	74
3	62	547	92	167	60	734	2610	265	76	128	109	58
4	58	532	91	160	58	881	3630	231	74	117	108	65
5	54	447	90	151	57	2740	3050	286	70	120	100	66
6	51	385	100	144	56	2030	1380	280	70	108	103	66
7	50	327	124	138	55	1440	854	282	76	180	177	64
8	55	304	189	133	54	1090	765	273	78	334	199	62
9	416	262	180	129	53	824	634	270	76	451	245	59
10	1230	258	180	124	52	799	555	264	78	404	259	57
11	818	241	192	119	55	1090	492	235	83	303	228	54
12	537	192	214	115	61	1410	434	213	77	513	190	50
13	434	183	227	110	80	2490	392	201	71	588	157	49
14	377	178	231	106	120	3320	373	197	70	505	146	107
15	327	169	292	102	140	1750	314	171	57	365	206	161
16	255	146	217	99	130	1330	295	153	62	297	224	99
17	217	140	202	96	110	897	277	145	65	322	250	328
18	195	143	195	94	99	832	239	141	101	449	328	234
19	166	143	175	91	93	695	232	145	170	438	285	383
20	202	138	156	87	90	583	226	131	220	441	219	733
21	878	133	198	84	87	531	209	116	185	380	183	1170
22	1010	124	241	82	86	563	189	111	147	352	178	907
23	758	115	315	80	84	647	192	98	129	295	188	627
24	645	107	319	78	421	609	317	95	102	234	143	643
25	662	105	364	76	1100	540	436	106	101	228	127	1770
26	656	105	288	74	1110	502	548	106	304	262	119	3140
27	640	103	258	72	1540	497	528	97	302	204	106	3090
28	562	105	224	70	1880	788	480	91	200	176	106	1680
29	489	109	211	68	---	1820	401	79	315	145	96	883
30	429	104	202	66	---	3180	333	69	248	160	93	721
31	503	---	198	64	---	2600	---	74	---	175	91	---
TOTAL	12847	6914	6158	3341	7856	39962	23385	5537	3760	9043	5249	17485
MEAN	414	230	199	108	281	1289	780	179	125	292	169	583
MAX	1230	547	364	187	1880	3320	3630	314	315	588	328	3140
MIN	50	103	90	64	52	497	189	69	57	108	91	49
MEAN#	415	228	198	108	301	1273	780	179	124	292	169	583
CFSM#	1.78	.98	.85	.46	1.29	5.46	3.35	.77	.53	1.25	.73	2.50
IN.#	2.05	1.09	.98	.53	1.34	6.29	3.74	.89	.59	1.44	.84	2.79
CAL YR 1976 TOTAL	149864			MEAN 409	MAX 5330	MIN 42	MEAN# 409	CFSM# 388	1.76	IN.# 23.90		
WTR YR 1977 TOTAL	141537			MEAN 388	MAX 3630	MIN 49	MEAN# 388	CFSM# 388	1.67	IN.# 22.68		

Adjusted for change in contents of Kettle Creek Lake.

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOV, PA

LOCATION.--Lat 41°19'28", long 77°45'03", Clinton County, Hydrologic Unit 02050203, on left bank at foot of Eighth Street at Renovo, 1 mi (1.6 km) upstream from Paddy Run. Water-quality sampling site 0.2 mi (0.3 km) downstream.

DRAINAGE AREA.--2,975 mi² (7,705 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1302. Gage height records collected July 1895 to December 1903 and October 1905 to September 1974 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1908-10, 1912-13, 1914-15(M). WDR PA-69: 1968.

GAGE.--Water-stage recorder. Datum of gage is 634.19 ft (193.301 m) above mean sea level. Prior to Mar. 17, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Curwensville, Glendale, and Kettle Creek Lakes and First Fork Sinnemahoning Creek Reservoir about 15 mi (24 km) upstream (see p. 200).

AVERAGE DISCHARGE.--70 years, 4,940 ft³/s (139.9 m³/s), 22.54 in/yr (573 mm/yr), adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 236,000 ft³/s (6,680 m³/s) Mar. 18, 1936, gage height, 29.39 ft (8.958 m), from floodmark in gage shelter, from rating curve extended above 87,000 ft³/s (2,460 m³/s) on basis of slope-area measurement of peak flow; minimum, 80 ft³/s (2.27 m³/s) Dec. 6, 1908, gage height, -1.10 ft (-0.335 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1895, 27.3 ft (8.32 m), June 1, 1889, from floodmark, discharge, about 211,000 ft³/s (5,980 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,800 ft³/s (1,330 m³/s) Apr. 3, gage height, 12.61 ft (3.844 m); minimum, 649 ft³/s (18.4 m³/s) Sept. 12, 13, gage height, 0.31 ft (0.094 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	7310	1380	2500	980	19000	14200	3380	1060	2690	3740	1290
2	1670	6910	1340	2400	960	15300	14300	3170	1050	2150	3310	1170
3	2660	6420	2120	2300	950	12300	42000	3070	986	1630	2470	1140
4	3170	5870	2310	2200	940	12200	32900	2880	917	1370	2240	1140
5	2120	5360	2440	2100	940	25100	27900	3370	846	1250	2040	1090
6	1840	4870	2630	2000	910	23500	21500	4080	853	1520	1900	1090
7	1460	4230	3230	1900	850	18200	17000	4330	1140	1370	2380	1100
8	1600	3980	4440	1900	820	14100	14500	4920	1680	1950	4690	905
9	5460	3650	5990	1800	800	11100	12600	4550	1650	5930	6810	795
10	19100	3530	5610	1800	830	9940	10700	4030	1370	4360	5880	758
11	15200	3490	4920	1700	870	10400	9500	3630	1500	3020	4640	717
12	11200	3320	4670	1700	980	11200	8800	3180	1320	9260	6210	668
13	8140	3090	4670	1600	1200	18900	7820	2940	1120	12800	5980	659
14	6370	2820	4120	1600	1800	25600	6300	2800	997	8970	4330	767
15	5530	2700	3900	1500	2500	20000	5710	2650	947	7430	4240	1790
16	4700	2720	4190	1500	2800	15800	5230	2420	969	5080	3580	1140
17	3930	3250	3890	1500	2400	11800	4730	2270	940	4820	3500	2240
18	3490	3150	3890	1500	2000	10300	4340	1980	1050	5310	5250	2580
19	3110	2830	3580	1500	1800	11300	3900	2060	1450	4350	5040	3020
20	2960	2410	3360	1500	1700	12200	3420	1980	1820	6970	3650	6230
21	5790	2270	4020	1400	1700	11600	3290	1840	1340	14400	3090	8300
22	8080	2270	4230	1400	1600	12800	3080	1660	1720	12200	2740	6410
23	7060	2190	4310	1300	1600	15800	3040	1520	1240	11200	2870	4500
24	6040	2070	4200	1300	3000	14400	4500	1450	978	9680	2270	3830
25	6750	1980	3590	1200	10000	12400	5640	1710	943	9250	2180	9150
26	8770	1940	3390	1200	24100	10500	5590	1780	3270	12100	2000	15200
27	9390	1820	3770	1100	21700	9030	5130	1510	3590	10200	1850	15400
28	7850	1900	3250	1100	21900	10200	4550	1340	2630	8160	1720	11500
29	6890	2020	3080	1000	---	19100	4150	1230	2860	6340	1590	7490
30	6180	1810	2880	1000	---	23300	3710	1140	3220	4160	1520	5670
31	6200	---	2600	1000	---	19500	---	1090	---	3780	1420	---
TOTAL	184340	102180	112000	49500	112630	466870	310030	79960	45456	193700	105130	117739
MEAN	5946	3406	3613	1597	4023	15060	10330	2579	1515	6248	3391	3925
MAX	19100	7310	5990	2500	24100	25600	42000	4920	3590	14400	6810	15400
MIN	1460	1810	1340	1000	800	9030	3040	1090	846	1250	1420	659
CAL YR 1976 TOTAL	1785143			MEAN 4877	MAX 39900	MIN 602						
WTR YR 1977 TOTAL	1879535			MEAN 5149	MAX 42000	MIN 659						

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to current year.

pH: October 1968 to current year.

WATER TEMPERATURES: October 1968 to current year.

DISSOLVED OXYGEN: February 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 973 micromhos Oct. 3, 1968; minimum, 87 micromhos Feb. 25, 1975.

pH: Maximum, 6.4 Sept. 30, 1971, Dec. 9, 1974; minimum, 2.2 Sept. 23, 24, 1969.

WATER TEMPERATURES: Maximum, 31.0°C June 27-30 and July 16, 1969; minimum, freezing point on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 14.0 mg/L Feb. 14, 1975; minimum, 6.5 mg/L Aug. 3, 1975.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)
DEC 16...	1400	1000	220	5.0	1.0	.4	20	77	.48	.00
MAR 16...	1710	16200	145	4.9	9.0	--	--	--	.56	.00
JUL 19...	1315	4430	190	5.2	24.5	.0	.0	66	.38	.00
SEP 21...	1415	8220	195	5.4	17.5	.0	.0	63	.38	.00

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITROGEN (N) (MG/L)	DIS-SOLVED ORGANIC NITROGEN (N) (MG/L)	DIS-SOLVED KJEL. NITROGEN (N) (MG/L)	DIS-SOLVED PHOSPHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)
DEC 16...	.48	.05	.08	.13	.04	.01	600	0	1	<10
MAR 16...	.56	.05	.13	.18	.01	.01	430	0	1	<10
JUL 19...	.38	.02	.15	.17	.00	.00	370	0	0	1
SEP 21...	.38	.03	.12	.15	.10	.00	220	0	0	0

DATE	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 16...	15	10	280	2	990	<.5	0	0	60
MAR 16...	8	50	190	4	490	<.5	1	0	40
JUL 19...	15	10	60	19	1000	.0	0	0	70
SEP 21...	15	4	30	0	920	.0	0	0	40

WEST BRANCH SUSQUEHANNA RIVER BASIN

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SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	394	364	374	219	207	212	371	338	356	282	260	273
2	392	367	383	221	201	211	357	307	330	287	266	275
3	443	379	405	205	200	202	374	291	347	295	280	287
4	428	330	369	224	204	211	387	365	374	292	275	283
5	330	319	323	232	213	221	369	338	352	290	280	284
6	334	325	331	236	232	234	385	357	376	287	280	284
7	332	313	327	240	233	236	390	348	369	290	285	287
8	341	314	331	254	238	248	350	308	338	295	280	287
9	---	---	---	261	251	257	347	322	341	295	285	291
10	---	---	---	261	254	257	328	293	302	293	288	291
11	---	---	---	269	258	264	296	282	288	295	287	292
12	---	---	---	286	270	280	284	264	274	286	282	284
13	---	---	---	246	276	281	265	247	256	287	276	283
14	---	---	---	282	273	278	252	246	250	285	277	280
15	---	---	---	290	282	285	248	236	240	313	287	302
16	---	---	---	303	289	292	245	234	241	321	314	317
17	---	---	---	322	284	303	247	242	244	321	314	318
18	---	---	---	287	281	285	250	243	246	317	307	312
19	---	---	---	286	281	278	246	240	244	312	302	306
20	---	---	---	297	280	287	246	239	243	345	310	325
21	---	---	---	307	299	303	241	235	238	371	340	359
22	280	250	266	321	309	317	253	235	246	371	355	364
23	247	208	221	327	315	322	250	223	233	357	351	355
24	212	204	209	328	315	322	232	215	221	357	352	355
25	224	209	215	324	314	319	234	222	229	364	356	362
26	236	220	228	328	321	325	229	214	223	367	362	366
27	219	201	208	328	321	324	240	222	235	371	360	365
28	199	190	194	341	323	332	240	225	238	363	354	359
29	193	191	195	343	335	338	248	229	239	357	351	355
30	200	196	198	369	341	353	278	246	269	357	350	354
31	207	196	200	---	---	---	284	259	275	367	349	356
MONTH	443	190	277	369	200	279	390	214	279	371	280	316

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	393	367	381	236	204	218						
2	408	393	402	205	184	197						
3	409	403	406	190	177	183						
4	407	394	403	185	170	180						
5	396	388	390	204	171	182						
6	391	380	386	208	198	204						
7	382	373	378	---	---	---						
8	381	374	378	---	---	---						
9	397	380	389	---	---	---						
10	407	395	401	---	---	---						
11	417	407	412	---	---	---						
12	414	390	403	---	---	---						
13	393	366	375	---	---	---						
14	396	371	378	---	---	---						
15	434	397	412	---	---	---						
16	434	357	397	---	---	---						
17	357	338	348	---	---	---						
18	338	303	322	---	---	---						
19	303	286	297	---	---	---						
20	286	273	279	---	---	---						
21	276	269	273	---	---	---						
22	277	270	273	---	---	---						
23	279	252	266	---	---	---						
24	252	215	238	---	---	---						
25	274	199	233	---	---	---						
26	295	249	264	---	---	---						
27	248	226	235	---	---	---						
28	241	220	232	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	434	199	341	236	170	194						

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	386	292	334	288	271	280	399	372	385
2	---	---	---	391	346	372	282	272	278	415	346	405
3	---	---	---	355	338	346	289	274	281	433	414	425
4	---	---	---	362	320	353	324	289	308	446	422	432
5	---	---	---	374	120	365	340	324	331	449	428	441
6	---	---	---	440	371	414	---	---	---	453	440	446
7	---	---	---	439	394	418	---	---	---	440	405	420
8	535	459	497	398	340	365	---	---	---	449	414	429
9	542	447	502	408	320	360	---	---	---	462	442	451
10	449	393	418	327	301	315	258	237	249	470	452	462
11	414	390	403	321	292	310	270	233	250	479	461	469
12	454	414	438	292	230	263	269	232	256	499	449	483
13	453	441	446	238	203	217	236	228	233	507	444	500
14	454	445	449	216	201	206	239	220	229	509	442	493
15	458	443	450	223	216	220	242	237	239	505	314	364
16	453	420	441	219	205	210	256	238	246	407	340	372
17	447	423	439	221	160	206	269	256	260	436	341	393
18	450	425	443	223	207	213	310	269	289	402	350	384
19	414	387	401	231	220	227	243	266	272	396	317	373
20	398	339	355	278	223	239	270	258	264	353	242	314
21	395	345	370	267	192	221	282	268	277	281	251	258
22	502	402	474	211	192	201	293	281	285	291	249	272
23	466	411	439	213	196	206	293	265	276	295	291	292
24	415	399	406	208	190	204	312	282	298	296	276	286
25	412	345	395	214	196	205	325	312	318	274	220	242
26	378	269	322	229	213	222	346	326	335	253	207	229
27	433	380	403	229	212	217	353	339	348	254	223	234
28	395	294	351	226	211	219	367	346	355	248	247	242
29	298	269	288	225	211	220	379	363	371	247	240	244
30	296	266	283	238	215	227	382	371	377	252	244	241
31	---	---	---	271	238	251	384	373	381	---	---	---
MONTH	542	266	409	440	120	269	344	220	292	509	247	365

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.4	4.2	4.3	4.4	4.4	4.4	4.2	4.1	4.1	4.6	4.4	4.5
2	4.4	4.3	4.4	4.6	4.4	4.5	4.4	4.0	4.2	4.5	4.4	4.4
3	4.4	4.1	4.2	4.6	4.6	4.6	4.3	4.2	4.3	4.4	4.3	4.4
4	4.7	4.2	4.4	4.6	4.5	4.5	4.2	4.1	4.1	4.4	4.3	4.3
5	5.0	4.7	4.9	4.5	4.4	4.4	4.3	4.1	4.2	4.3	4.3	4.3
6	4.9	4.7	4.8	4.4	4.4	4.4	4.3	4.1	4.2	4.3	4.3	4.2
7	4.7	4.6	4.6	4.4	4.3	4.4	4.2	4.1	4.2	4.3	4.3	4.3
8	4.7	4.4	4.5	4.3	4.3	4.3	4.3	4.2	4.3	4.3	4.3	4.3
9	---	---	---	4.3	4.2	4.2	4.6	4.2	4.3	4.3	4.3	4.3
10	---	---	---	4.3	4.2	4.2	5.2	4.6	5.0	4.3	4.3	4.3
11	---	---	---	4.2	4.2	4.2	5.5	5.2	5.4	4.3	4.3	4.3
12	---	---	---	4.2	4.2	4.2	5.4	5.2	5.3	4.3	4.3	4.3
13	---	---	---	4.2	4.2	4.2	5.2	5.0	5.1	4.3	4.3	4.3
14	---	---	---	4.2	4.2	4.2	5.0	5.0	5.0	4.4	4.3	4.4
15	---	---	---	4.2	4.2	4.2	5.1	5.0	5.0	4.4	4.3	4.3
16	---	---	---	4.2	4.2	4.2	5.0	4.7	4.9	4.3	4.3	4.3
17	---	---	---	4.5	4.1	4.3	4.8	4.7	4.8	4.3	4.2	4.3
18	---	---	---	4.8	4.5	4.7	4.8	4.7	4.7	4.3	4.2	4.3
19	---	---	---	4.9	4.8	4.8	4.8	4.7	4.7	4.3	4.3	4.3
20	---	---	---	4.9	4.7	4.7	4.9	4.8	4.8	4.3	4.3	4.3
21	---	---	---	4.7	4.4	4.5	4.8	4.7	4.8	4.3	4.2	4.3
22	4.5	4.2	4.3	4.4	4.3	4.3	4.7	4.6	4.7	4.2	4.2	4.2
23	4.9	4.5	4.8	4.3	4.3	4.3	5.0	4.7	4.9	4.2	4.2	4.2
24	4.9	4.7	4.8	4.3	4.3	4.3	5.1	4.9	5.0	4.3	4.2	4.2
25	4.7	4.5	4.6	4.3	4.2	4.3	4.9	4.8	4.8	4.3	4.2	4.2
26	5.2	4.4	4.6	4.3	4.2	4.3	4.8	4.6	4.8	4.2	4.2	4.2
27	5.4	5.1	5.3	4.2	4.2	4.2	4.6	4.5	4.5	4.2	4.2	4.2
28	5.1	4.8	5.0	4.2	4.1	4.1	4.6	4.5	4.5	4.3	4.2	4.2
29	4.8	4.6	4.7	4.1	4.1	4.1	4.6	4.5	4.5	4.3	4.2	4.2
30	4.6	4.5	4.6	4.2	4.1	4.1	4.5	4.3	4.3	4.3	4.2	4.3
31	4.5	4.4	4.5	---	---	---	4.5	4.3	4.3	4.3	4.2	4.3
MONTH	5.4	4.1	4.6	4.9	4.1	4.3	5.5	4.0	4.6	4.6	4.2	4.3

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.2	4.2	4.2	6.6	6.4	6.5				---	---	---
2	4.2	4.1	4.2	6.3	6.1	6.2				---	---	---
3	4.2	4.2	4.2	6.1	5.7	5.9				---	---	---
4	4.2	4.2	4.2	6.3	5.4	6.0				---	---	---
5	4.2	4.2	4.2	6.3	6.0	6.2				---	---	---
6	4.2	4.1	4.1	6.4	6.2	6.3				---	---	---
7	4.2	4.1	4.2	---	---	---				---	---	---
8	4.2	4.2	4.2	---	---	---				---	---	---
9	4.2	4.2	4.2	---	---	---				---	---	---
10	4.2	4.2	4.2	---	---	---				---	---	---
11	4.2	4.2	4.2	---	---	---				---	---	---
12	4.3	4.2	4.3	---	---	---				---	---	---
13	4.4	4.3	4.4	---	---	---				4.4	4.2	4.3
14	4.4	4.3	4.3	---	---	---				4.2	4.1	4.1
15	4.4	4.2	4.3	---	---	---				4.1	4.0	4.1
16	4.8	4.4	4.5	---	---	---				4.1	4.0	4.0
17	5.3	4.8	5.0	---	---	---				4.0	4.0	4.0
18	5.5	5.3	5.4	---	---	---				4.1	4.0	4.0
19	5.5	5.4	5.4	---	---	---				4.0	3.9	4.0
20	5.4	5.3	5.3	---	---	---				3.9	3.8	3.9
21	5.3	5.2	5.3	---	---	---				3.8	3.8	3.8
22	5.2	5.2	5.2	---	---	---				3.8	3.8	3.8
23	5.3	5.2	5.2	6.4	5.7	5.8				3.8	3.8	3.8
24	5.7	5.2	5.4	6.4	6.2	6.3				3.9	3.8	3.8
25	6.5	5.1	5.9	6.3	6.1	6.2				3.8	3.7	3.8
26	6.8	6.4	6.6	6.9	5.5	5.9				3.8	3.7	3.8
27	6.6	6.5	6.6	---	---	---				3.8	3.7	3.7
28	6.7	6.5	6.6	---	---	---				3.8	3.7	3.7
29	---	---	---	---	---	---				3.8	3.7	3.7
30	---	---	---	---	---	---				3.8	3.7	3.8
31	---	---	---	---	---	---				3.8	3.7	3.8
MONTH	6.8	4.1	4.9	6.9	5.4	6.1				4.4	3.7	3.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	3.4	3.7	3.7	4.2	3.9	4.0	4.5	4.3	4.4	4.0	3.9	4.0
2	3.8	3.7	3.7	4.0	3.9	4.0	4.5	4.4	4.4	4.0	3.9	3.9
3	3.8	3.7	3.7	4.1	4.0	4.1	4.4	4.3	4.4	3.9	3.9	3.9
4	3.7	3.7	3.7	4.2	4.1	4.1	4.3	4.1	4.2	3.9	3.9	3.9
5	3.6	3.6	3.6	4.1	4.0	4.1	4.2	4.0	4.1	3.9	3.8	3.9
6	3.7	3.6	3.6	4.0	3.8	3.9	---	---	---	3.9	3.8	3.8
7	3.8	3.7	3.7	3.9	3.8	3.9	---	---	---	4.0	3.8	3.9
8	3.7	3.6	3.6	4.0	3.9	3.9	---	---	---	4.0	3.9	3.9
9	3.8	3.6	3.7	4.9	3.9	4.4	---	---	---	3.9	3.9	3.9
10	3.9	3.8	3.8	4.8	4.4	4.6	6.0	5.2	5.8	3.9	3.8	3.9
11	3.9	3.8	3.8	5.0	4.8	4.9	5.2	4.7	4.9	3.9	3.8	3.9
12	3.8	3.7	3.7	6.1	4.5	5.0	5.9	4.6	5.4	4.0	3.9	3.9
13	3.8	3.7	3.7	6.3	5.9	6.1	6.1	5.4	5.9	3.9	3.8	3.8
14	3.8	3.7	3.7	5.9	5.9	5.9	5.4	5.0	5.2	3.9	3.8	3.8
15	3.7	3.7	3.7	5.9	5.8	5.9	5.0	4.9	4.9	4.6	3.8	4.3
16	3.7	3.7	3.7	5.9	4.7	5.2	4.9	4.7	4.8	4.6	4.1	4.4
17	3.8	3.7	3.7	5.7	4.5	4.9	4.7	4.6	4.7	4.3	4.0	4.1
18	3.7	3.7	3.7	5.3	4.6	5.1	4.7	4.4	4.5	4.3	4.0	4.1
19	3.8	3.7	3.8	4.6	4.4	4.4	4.8	4.5	4.7	4.2	4.0	4.0
20	4.1	3.8	3.9	5.4	3.9	4.7	4.8	4.7	4.8	6.0	4.1	4.8
21	4.0	3.9	4.0	6.2	4.7	6.0	4.8	4.6	4.7	6.0	5.9	5.9
22	3.4	3.7	3.8	6.2	6.0	6.1	4.6	4.5	4.6	5.9	5.2	5.7
23	3.9	3.8	3.9	6.2	6.1	6.2	4.7	4.5	4.6	5.2	4.8	4.9
24	4.1	3.9	3.9	6.2	6.1	6.2	4.6	4.4	4.5	4.9	4.8	4.9
25	4.3	3.9	4.0	6.4	6.1	6.2	4.4	4.2	4.3	6.5	4.9	6.1
26	4.5	4.0	4.2	6.2	6.0	6.1	4.3	4.1	4.2	6.4	6.0	6.2
27	4.0	3.7	3.8	6.1	6.0	6.1	4.2	4.1	4.1	6.3	6.1	6.2
28	4.2	3.8	4.0	6.1	6.1	6.1	4.1	4.0	4.1	6.2	6.0	6.1
29	4.3	4.2	4.3	6.1	5.0	5.9	4.1	4.0	4.0	6.1	6.0	6.1
30	4.5	4.2	4.3	5.0	4.7	4.8	4.0	4.0	4.0	6.1	5.2	5.8
31	---	---	---	4.7	4.4	4.6	4.0	4.0	4.0	---	---	---
MONTH	4.5	3.6	3.8	6.4	3.8	5.1	6.1	4.0	4.6	6.5	3.8	4.6

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MTN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	14.5	15.0	7.5	7.0	7.0	0.5	0.0	0.5	1.0	0.0	0.5
2	16.5	14.5	15.5	7.0	6.0	6.5	0.5	0.5	0.5	0.5	0.0	0.0
3	18.0	16.0	17.0	7.5	6.5	7.0	0.5	0.5	0.5	0.5	0.0	0.0
4	18.0	16.0	17.0	8.5	7.0	7.5	0.5	0.0	0.5	0.5	0.0	0.0
5	18.5	16.0	17.0	8.0	7.0	7.5	0.5	0.0	0.5	0.5	0.0	0.0
6	17.0	16.0	16.5	7.0	6.0	6.5	0.5	0.0	0.0	0.0	0.0	0.0
7	16.5	16.0	16.5	6.5	6.0	6.0	0.5	0.0	0.5	0.0	0.0	0.0
8	16.0	15.0	15.5	6.0	4.5	5.5	0.5	0.0	0.0	0.0	0.0	0.0
9	---	---	---	4.5	4.0	4.0	0.5	0.0	0.5	0.0	0.0	0.0
10	---	---	---	5.0	3.5	4.0	0.5	0.0	0.5	0.0	0.0	0.0
11	---	---	---	5.5	4.5	5.0	1.5	0.5	1.0	0.0	0.0	0.0
12	---	---	---	5.0	4.0	4.5	2.0	1.5	1.5	0.0	0.0	0.0
13	---	---	---	4.5	4.0	4.0	2.0	0.5	1.0	0.0	0.0	0.0
14	---	---	---	4.5	3.0	4.0	0.5	0.0	0.0	0.5	0.0	0.0
15	---	---	---	4.0	3.0	3.5	0.5	0.0	0.5	0.5	0.0	0.0
16	---	---	---	3.5	2.0	3.0	1.5	0.5	1.0	0.5	0.0	0.0
17	---	---	---	4.0	2.5	3.5	2.0	1.5	1.5	0.0	0.0	0.0
18	---	---	---	4.0	3.0	3.5	2.5	1.5	2.0	0.0	0.0	0.0
19	---	---	---	4.5	3.0	3.5	2.0	1.0	1.5	0.0	0.0	0.0
20	---	---	---	4.0	3.5	4.0	2.5	2.0	2.0	0.0	0.0	0.0
21	---	---	---	4.0	3.0	3.5	2.0	0.0	1.0	0.0	0.0	0.0
22	8.5	8.0	8.0	4.0	2.5	3.0	0.5	0.0	0.0	0.0	0.0	0.0
23	8.0	7.0	7.5	2.5	0.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0
24	8.5	7.5	8.0	2.5	1.5	2.0	0.5	0.0	0.0	0.0	0.0	0.0
25	9.5	8.5	9.0	2.5	1.5	2.0	0.5	0.0	0.0	0.0	0.0	0.0
26	9.5	9.0	9.5	3.5	2.0	3.0	0.5	0.0	0.5	0.5	0.0	0.0
27	9.0	7.5	8.0	5.5	3.5	4.5	0.5	0.0	0.5	0.5	0.0	0.0
28	7.5	6.0	6.5	6.0	5.5	6.0	0.5	0.0	0.5	0.0	0.0	0.0
29	7.0	5.5	6.0	5.5	2.5	4.5	0.5	0.0	0.5	0.0	0.0	0.0
30	7.0	6.0	6.5	2.5	0.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
31	7.5	7.0	7.5	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
MONTH	18.5	5.5	11.5	8.5	0.0	4.5	2.5	0.0	0.5	1.0	0.0	0.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.0	0.0	0.0	5.5	5.0	5.0	---	---	---	---	---	---
2	0.0	0.0	0.0	5.0	4.5	5.0	---	---	---	---	---	---
3	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
4	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
5	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
6	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
7	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
8	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
9	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
10	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
11	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
12	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
13	0.5	0.5	0.5	---	---	---	---	---	---	17.5	14.5	16.0
14	0.5	0.5	0.5	---	---	---	---	---	---	19.0	15.0	17.0
15	0.5	0.0	0.5	---	---	---	---	---	---	19.5	15.5	17.5
16	0.5	0.0	0.5	---	---	---	---	---	---	20.0	16.0	18.0
17	0.5	0.0	0.5	---	---	---	---	---	---	20.5	17.0	19.0
18	0.5	0.5	0.5	---	---	---	---	---	---	21.5	19.0	20.5
19	0.5	0.0	0.5	---	---	---	---	---	---	23.5	20.0	21.5
20	0.5	0.5	0.5	---	---	---	---	---	---	25.0	21.0	22.5
21	0.5	0.5	0.5	---	---	---	---	---	---	26.0	22.5	24.0
22	0.5	0.5	0.5	---	---	---	---	---	---	25.5	22.5	24.0
23	0.5	0.0	0.5	8.5	6.0	6.5	---	---	---	25.0	22.0	23.5
24	0.5	0.0	0.5	8.5	7.5	7.5	---	---	---	24.5	23.0	23.5
25	4.0	0.0	2.0	7.5	7.0	7.5	---	---	---	25.0	22.0	23.5
26	5.0	3.5	4.5	14.0	7.0	8.0	---	---	---	25.0	21.5	23.0
27	5.5	5.0	5.0	---	---	---	---	---	---	24.5	21.0	23.0
28	5.5	5.0	5.0	---	---	---	---	---	---	25.5	21.5	23.5
29	---	---	---	---	---	---	---	---	---	25.0	21.5	23.0
30	---	---	---	---	---	---	---	---	---	23.0	21.0	22.0
31	---	---	---	---	---	---	---	---	---	21.5	19.5	20.0
MONTH	5.5	0.0	1.0	14.0	4.5	6.5	---	---	---	26.0	14.5	21.5

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.5	8.9	9.2	---	---	---	14.2	13.7	13.9	13.8	13.3	13.6
2	9.5	8.9	9.2	---	---	---	14.0	13.4	13.6	13.7	13.5	13.6
3	9.2	8.6	8.9	---	---	---	14.6	13.5	14.1	13.8	13.6	13.7
4	9.2	8.5	8.9	---	---	---	14.0	13.8	13.9	13.8	13.6	13.7
5	9.3	8.7	8.9	---	---	---	13.9	13.7	13.8	14.3	13.7	14.1
6	9.6	9.0	9.0	---	---	---	14.0	13.6	13.8	14.3	14.2	14.2
7	9.2	8.6	8.9	---	---	---	13.7	13.4	13.5	14.3	14.2	14.2
8	9.3	8.7	8.9	---	---	---	13.7	13.4	13.5	14.2	14.1	14.1
9	---	---	---	---	---	---	13.7	13.5	13.6	14.2	14.1	14.2
10	---	---	---	---	---	---	13.7	13.0	13.4	14.1	14.0	14.0
11	---	---	---	---	---	---	13.2	12.8	13.0	14.1	14.0	14.0
12	---	---	---	---	---	---	13.1	12.7	13.0	14.1	14.0	14.0
13	---	---	---	12.0	11.8	11.9	13.6	13.0	13.4	14.2	14.0	14.1
14	---	---	---	12.1	11.8	11.9	14.0	13.6	13.8	14.2	14.0	14.1
15	---	---	---	12.3	12.0	12.1	13.7	9.6	13.4	14.1	13.9	14.0
16	---	---	---	12.7	12.2	12.4	13.5	11.1	12.8	13.9	13.8	13.8
17	---	---	---	12.5	12.2	12.4	13.3	12.8	13.0	13.8	13.8	13.8
18	---	---	---	12.5	12.2	12.3	13.5	13.2	13.3	13.8	13.7	13.8
19	---	---	---	12.4	11.7	12.0	13.5	13.3	13.4	13.8	13.7	13.8
20	---	---	---	12.1	11.8	11.9	13.3	12.9	13.1	13.8	13.3	13.5
21	---	---	---	12.1	11.9	12.0	13.5	12.9	13.2	13.3	13.2	13.2
22	---	---	---	12.6	12.1	12.4	13.8	13.5	13.7	13.2	13.1	13.2
23	---	---	---	12.9	12.6	12.8	13.7	13.5	13.6	13.1	13.1	13.1
24	---	---	---	13.1	12.8	13.0	13.8	13.6	13.7	13.1	13.0	13.1
25	---	---	---	13.2	12.9	13.1	13.8	13.4	13.7	13.1	13.0	13.0
26	---	---	---	13.4	12.5	12.9	13.4	13.1	13.3	13.0	12.8	12.9
27	---	---	---	12.5	12.1	12.4	13.4	13.1	13.3	12.8	12.5	12.6
28	---	---	---	11.9	11.7	11.8	13.4	12.9	13.2	12.5	12.4	12.4
29	---	---	---	13.2	11.6	12.4	13.3	13.0	13.1	12.5	12.4	12.5
30	---	---	---	14.3	13.1	13.9	13.6	13.2	13.5	12.8	12.5	12.6
31	---	---	---	---	---	---	13.7	13.3	13.5	12.8	12.7	12.8
MONTH	9.6	8.5	9.0	14.3	11.6	12.4	14.6	9.6	13.5	14.3	12.4	13.5

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.9	12.8	12.8							---	---	---
2	12.8	12.7	12.8							---	---	---
3	---	---	---							---	---	---
4	---	---	---							---	---	---
5	---	---	---							---	---	---
6	---	---	---							---	---	---
7	---	---	---							---	---	---
8	---	---	---							---	---	---
9	---	---	---							---	---	---
10	---	---	---							---	---	---
11	13.0	13.0	13.0							---	---	---
12	13.1	12.9	13.0							---	---	---
13	13.0	12.7	12.9							9.4	8.8	9.1
14	12.8	12.7	12.8							9.3	8.6	8.9
15	12.8	12.4	12.5							9.3	8.5	8.9
16	13.2	12.3	12.7							9.2	8.4	8.8
17	13.3	13.1	13.2							9.0	8.1	8.6
18	13.3	13.1	13.2							8.6	9.0	8.2
19	13.3	13.0	13.2							8.3	7.7	8.0
20	13.1	12.8	13.0							8.3	7.4	7.9
21	13.0	12.9	12.9							8.0	7.3	7.6
22	13.2	12.8	13.0							8.0	7.3	7.6
23	13.2	12.7	13.0							8.0	7.4	7.7
24	13.2	13.0	12.8							8.2	7.4	7.9
25	---	---	---							8.4	7.7	8.0
26	---	---	---							8.4	7.7	8.0
27	---	---	---							8.5	7.7	8.1
28	---	---	---							8.3	7.6	7.9
29	---	---	---							8.4	7.6	8.0
30	---	---	---							8.6	7.8	8.2
31	---	---	---							8.9	8.1	8.6
MONTH	13.3	12.3	12.9							9.4	7.3	8.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.7	7.9	8.3	7.7	7.3	7.5	7.9	7.6	7.7	7.9	7.3	7.6
2	8.6	8.0	8.4	7.8	7.3	7.5	8.2	7.6	7.9	7.7	7.1	7.4
3	9.1	8.3	8.6	8.0	7.4	7.7	8.0	7.2	7.6	7.8	7.4	7.5
4	9.0	8.1	8.6	7.9	7.4	7.6	7.5	7.1	7.2	8.1	7.6	7.8
5	8.5	8.0	8.2	7.9	7.1	7.5	7.4	6.9	7.1	8.0	7.5	7.7
6	9.1	8.1	8.6	7.4	7.1	7.2	---	---	---	8.0	7.5	7.7
7	9.6	9.0	9.3	7.6	7.1	7.3	---	---	---	8.2	7.7	7.9
8	9.7	8.9	9.3	7.7	7.1	7.4	---	---	---	8.3	7.8	8.0
9	9.5	8.9	9.2	7.5	6.9	7.3	---	---	---	8.4	7.9	8.2
10	9.7	9.2	9.4	7.8	7.4	7.7	---	---	---	8.2	7.9	8.0
11	9.5	8.4	9.1	8.1	7.7	7.9	---	---	---	8.6	8.0	8.3
12	8.9	8.3	8.6	8.3	7.6	8.0	---	---	---	9.0	8.4	8.7
13	8.7	8.0	8.4	---	---	---	---	---	---	8.8	8.4	8.6
14	8.5	8.0	8.2	---	---	---	---	---	---	8.8	8.4	8.5
15	8.4	7.6	8.0	---	---	---	---	---	---	9.3	8.5	8.8
16	8.2	7.4	7.8	---	---	---	---	---	---	---	---	---
17	7.9	7.4	7.7	---	---	---	---	---	---	---	---	---
18	8.1	7.5	7.7	---	---	---	---	---	---	---	---	---
19	7.9	7.4	7.6	---	---	---	---	---	---	---	---	---
20	8.1	7.5	7.8	---	---	---	8.7	8.3	8.5	---	---	---
21	8.3	7.7	8.0	---	---	---	8.8	8.3	8.5	---	---	---
22	8.5	7.8	8.1	---	---	---	8.5	8.0	8.3	---	---	---
23	8.4	7.7	8.0	---	---	---	8.5	8.0	8.3	---	---	---
24	8.1	7.6	7.8	---	---	---	8.3	8.0	8.2	---	---	---
25	8.2	7.6	7.9	---	---	---	8.8	8.2	8.5	---	---	---
26	8.4	7.8	8.1	---	---	---	8.7	8.2	8.5	---	---	---
27	8.0	7.2	7.7	---	---	---	8.6	7.9	8.3	---	---	---
28	7.9	7.2	7.6	---	---	---	8.1	7.4	7.8	---	---	---
29	7.9	7.5	7.7	6.5	5.3	5.9	7.8	7.2	7.5	---	---	---
30	8.0	7.5	7.8	7.6	6.7	7.3	7.8	7.2	7.5	---	---	---
31	---	---	---	8.1	7.5	7.8	8.0	7.5	7.8	---	---	---
MONTH	9.7	7.2	8.3	8.3	5.3	7.4	8.8	6.9	8.0	9.3	7.1	8.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA
(Hydrologic bench-mark station)

LOCATION.--Lat 41°23'22", long 77°41'28", Clinton County, Hydrologic Unit 02050203, on left bank, 0.3 mi (0.5 km) downstream from Laureilly Fork, 1.5 mi (2.4 km) upstream from Left Branch Young Womans Creek, 3.7 mi (6.0 km) upstream from mouth, and 5 mi (8 km) northeast of Renovo.

DRAINAGE AREA.--46.2 mi² (119.7 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 780 ft (238 m).

REMARKS.--Records good.

AVERAGE DISCHARGE.--12 years (1965-77), 75.7 ft³/s (2.144 m³/s), 22.27 in/yr (566 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,370 ft³/s (152 m³/s) June 23, 1972, gage height, 7.98 ft (2.432 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) Sept. 6, 7, 1971; minimum gage height, 1.45 ft (0.442 m) Aug. 30, 31, Sept. 1, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 460 ft³/s (13.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 13	1430	508 14.4	3.22 0.981	Apr. 3	0415	*866 24.5	*3.76 1.146
Mar. 30	0600	479 13.6	3.17 0.966				

Minimum discharge, 9.1 ft³/s (0.26 m³/s) Sept. 12, 13, gage height, 1.71 ft (0.521 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	122	19	34	13	186	287	76	19	23	27	17
2	16	119	22	32	12	156	403	72	18	20	23	16
3	15	115	20	31	12	134	780	65	17	18	21	16
4	14	113	20	29	12	206	493	62	15	18	19	14
5	13	100	20	28	12	394	345	75	14	17	19	13
6	13	89	41	27	11	333	248	65	19	32	35	14
7	13	81	76	26	11	262	188	60	21	70	46	12
8	27	75	63	25	11	208	153	58	16	85	40	12
9	158	69	59	24	11	180	130	59	18	63	49	12
10	146	71	55	23	12	182	114	55	22	54	44	11
11	154	66	51	22	20	215	102	51	16	50	40	9.7
12	128	59	48	22	23	243	92	48	15	69	40	9.5
13	108	54	44	21	30	435	83	47	13	56	36	12
14	99	50	38	20	27	441	77	45	12	47	41	32
15	81	48	55	19	21	317	71	42	14	43	48	16
16	70	45	51	19	17	246	66	39	12	39	41	24
17	61	43	42	18	16	194	61	37	13	45	66	48
18	55	43	38	18	15	174	56	38	16	39	61	30
19	48	43	35	17	15	147	54	38	34	39	55	55
20	63	41	40	17	14	133	51	32	16	55	49	80
21	173	38	45	16	14	117	46	30	14	39	44	89
22	159	37	54	16	14	127	44	27	12	34	46	80
23	140	35	54	15	20	128	54	25	11	30	38	70
24	136	32	50	15	63	118	111	32	10	27	34	96
25	135	32	48	15	241	104	128	26	22	50	31	256
26	138	31	46	14	172	99	132	24	46	41	24	270
27	134	31	43	14	164	103	121	22	22	32	22	225
28	126	31	41	14	194	155	109	21	24	29	21	179
29	116	32	39	13	---	305	97	20	50	26	20	141
30	104	21	37	13	---	462	85	19	29	32	20	116
31	132	---	36	13	---	397	---	19	---	26	18	---
TOTAL	2842	1766	1330	630	1197	6901	4781	1329	580	1248	1118	1975.2
MEAN	91.7	58.9	42.9	20.3	42.8	223	159	42.9	19.3	40.3	36.1	65.8
MAX	196	122	76	34	241	462	780	76	50	85	66	270
MIN	13	21	19	13	11	99	44	19	10	17	18	9.5
CFSM	1.99	1.28	.93	.44	.93	4.83	3.44	.93	.42	.87	.78	1.42
IN.	2.29	1.42	1.07	.51	.96	5.56	3.85	1.07	.47	1.00	.90	1.59

CAL YR 1976 TOTAL 29687.0 MEAN 81.1 MAX 632 MIN 9.5 CFSM 1.76 IN 23.90
WTR YR 1977 TOTAL 25697.2 MEAN 70.4 MAX 780 MIN 9.5 CFSM 1.52 IN 20.69

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	IMME- DIATE COLI- FORM (COL. PER 100 ML)	FECAL COLI- FORM (COL./ 100 ML)	HARD- NESS (CA,MG) (MG/L)
OCT 14...	1215	104	38	6.5	9.0	10.8	25	7	15
NOV 18...	1400	41	40	6.5	4.0	12.8	1	1	18
DEC 16...	1115	59	40	7.1	.5	13.2	--	83	23
JAN 19...	1130	21	42	7.2	.0	14.0	--	81	13
FEB 10...	1110	13	42	6.4	.0	13.6	--	1	16
MAR 16...	1400	280	36	6.6	8.0	11.2	--	4	15
APR 18...	1130	56	39	6.8	10.0	11.2	--	3	12
MAY 26...	1050	24	39	7.8	15.5	9.8	--	89	17
JUN 15...	1030	14	38	7.2	15.5	10.0	--	14	16
JUL 19...	1130	27	48	6.6	18.0	9.4	--	--	16
AUG 23...	1130	38	37	6.5	14.5	10.2	--	12	15
SEP 21...	1230	92	38	6.6	14.5	10.0	--	42	16

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT 14...	1	4.2	1.0	.6	.8	17	0	14	8.6
NOV 18...	6	5.5	1.1	.9	.7	15	0	12	7.6
DEC 16...	9	6.8	1.4	.7	.7	17	0	14	2.2
JAN 19...	0	3.1	1.2	.8	.7	16	0	13	1.6
FEB 10...	3	4.8	1.0	.9	.6	16	0	13	10
MAR 16...	3	4.2	1.2	.6	.7	15	0	12	6.0
APR 18...	0	3.6	.8	.5	.6	17	0	14	4.3
MAY 26...	8	4.3	1.5	.9	1.2	11	0	9	.3
JUN 15...	6	4.2	1.4	1.1	.9	13	0	11	1.3
JUL 19...	6	4.6	1.2	1.2	1.0	13	0	11	5.2
AUG 23...	4	4.5	1.0	.9	.9	14	0	11	7.1
SEP 21...	9	4.5	1.1	1.0	1.1	8	0	7	3.2

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 14...	6.8	1.2	.0	4.7	28	28	.28	.03
NOV 18...	8.0	1.6	.1	3.9	26	29	.31	.02
DEC 16...	5.1	2.6	.1	4.4	29	30	.44	.03
JAN 19...	6.0	1.0	.1	4.2	30	25	.39	.01
FEB 10...	5.4	1.0	.5	7.5	25	30	.39	.01
MAR 16...	5.7	1.0	.0	3.6	26	24	.45	.01
APR 18...	9.8	1.4	.1	3.6	35	29	.28	.03
MAY 26...	8.0	1.6	.1	3.7	30	27	.31	.00
JUN 15...	6.2	1.4	.0	4.0	28	26	.31	.07
JUL 19...	7.4	1.2	.0	4.7	29	28	.32	.01
AUG 23...	6.8	1.0	.0	4.4	26	26	.26	.01
SEP 21...	8.8	1.0	.0	4.6	34	26	.30	.12

DATE	TIME	CYANIDE (CN) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)
OCT 14...	1215	.00	.0	100	0	<10	0
MAY 26...	1050	.00	1	0	0	10	0

DATE	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 14...	70	2	10	<.5	0	0	20
MAY 26...	70	5	50	.0	0	0	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)
OCT 14...	1215	.00	.0	0	.00	.0	.0	0	.00	.0	.00

DATE	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
OCT 14...	.0	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)
OCT 14...	.00	.0	0	0	.00	0	.00	0	.00	0

DATE	TIME	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)
OCT 14...	1215	24	<1	<.4	<.4	1.0	<.4	.8	<.4	.05	.03

01546500 SPRING CREEK NEAR AXEMANN, PA

LOCATION.--Lat 40°53'23", long 77°47'40", Centre County, Hydrologic Unit 02050204, on right bank at upstream side of highway bridge, 1.6 mi (2.6 km) west of Axemann, 1.8 mi (2.9 km) southwest of Bellefonte, and 2.5 mi (4.0 km) upstream from Logan Branch.

DRAINAGE AREA.--87.2 mi² (225.8 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 788.81 ft (240.429 m) above mean sea level. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary above station.

AVERAGE DISCHARGE.--37 years, 86.8 ft³/s (2.46 m³/s), 13.58 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,410 ft³/s (153 m³/s) June 23, 1972, gage height, 7.47 ft (2.277 m) in gage well, 8.75 ft (2.667 m) outside from floodmarks, from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 9.6 ft³/s (0.27 m³/s) Nov. 24, 1941, gage height, 1.69 ft (0.515 m); minimum daily, 20 ft³/s (0.57 m³/s) Dec. 20, 30, 1963, Jan. 28, 29, 31, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 8.6 ft (2.62 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 9	1930	*892	25.3	Mar. 22	2000	378	10.7
Mar. 5	0030	462	13.1	Apr. 3	0300	535	15.2

Minimum discharge, 46 ft³/s (1.303 m³/s) Feb. 6, gage height, 2.06 ft (0.628 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	172	81	67	58	110	160	112	69	71	72	58
2	86	159	80	70	58	106	263	113	66	68	71	57
3	73	156	78	71	57	94	450	110	65	66	69	57
4	71	154	77	71	58	210	356	105	63	68	67	57
5	71	146	77	71	57	357	363	108	63	68	67	57
6	71	138	76	70	55	248	297	102	82	67	68	58
7	72	134	157	71	56	200	261	104	73	75	86	57
8	114	128	117	69	56	165	243	92	67	118	72	57
9	526	122	100	68	56	141	221	90	71	77	68	56
10	516	120	97	70	57	112	209	87	74	73	71	56
11	317	113	96	66	62	100	199	85	67	73	68	55
12	245	115	95	67	75	106	187	83	65	79	65	55
13	209	112	92	66	88	241	178	81	66	80	64	57
14	193	110	88	68	83	218	170	79	65	72	67	61
15	169	109	89	66	80	177	162	77	64	69	64	57
16	156	106	88	65	75	146	155	75	64	69	62	66
17	144	103	87	65	72	119	151	73	67	71	78	69
18	134	101	85	64	72	189	146	74	67	75	65	59
19	127	99	83	64	71	228	142	72	63	71	63	62
20	146	95	85	64	71	190	139	73	62	92	61	71
21	226	93	84	62	69	185	137	71	63	73	59	59
22	168	90	80	61	68	268	130	72	61	73	60	57
23	153	88	77	61	76	303	130	72	61	67	59	57
24	151	86	74	61	108	258	165	70	61	66	58	56
25	165	85	73	61	166	216	143	69	142	123	58	90
26	230	85	74	61	131	186	134	69	99	102	58	141
27	191	85	74	61	120	165	127	69	75	83	59	94
28	179	83	75	61	110	182	122	69	74	78	58	80
29	169	89	73	62	---	159	123	68	90	76	58	74
30	159	82	71	60	---	153	117	67	74	75	57	70
31	203	---	71	58	---	160	---	67	---	73	58	---
TOTAL	5505	3358	2654	2022	2165	5692	5780	2558	2143	2391	2010	1960
MEAN	178	112	85.6	65.2	77.3	184	193	82.5	71.4	77.1	64.8	65.3
MAX	526	172	157	71	166	357	450	113	142	123	86	141
MIN	71	82	71	58	55	94	117	67	61	66	57	55
CFSM	2.04	1.28	.98	.75	.89	2.11	2.21	.95	.82	.88	.74	.75
IN.	2.35	1.43	1.13	.86	.92	2.43	2.47	1.09	.91	1.02	.86	.84

CAL YR 1976 TOTAL 42301 MEAN 116 MAX 651 MIN 65 CFSM 1.33 IN 18.05
WTR YR 1977 TOTAL 38238 MEAN 105 MAX 526 MIN 55 CFSM 1.20 IN 16.31

WEST BRANCH SUSQUEHANNA RIVER BASIN
01546500 SPRING CREEK NEAR AXEMANN, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality samples were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 26...	1145	9813	225	340	7.3	7.2	20	13.0	170	--	0	40
NOV 16...	1515	9813	108	420	8.6	7.0	1	--	220	0	0	52
DEC 20...	1300	9813	79	450	7.5	6.0	3	12.5	206	0	0	52
FEB 23...	0915	9813	70	490	8.2	7.0	1	--	196	0	0	52
MAR 10...	0850	9813	114	410	7.5	8.0	6	11.0	176	0	0	48
APR 18...	1140	9813	140	430	8.8	14.0	2	13.7	192	--	0	53
JUN 20...	1425	9813	62	460	8.5	20.0	2	10.5	197	--	0	48
JUL 18...	1430	9813	68	450	8.5	31.0	--	10.5	184	--	0	49
AUG 24...	0900	9813	58	450	7.7	16.0	5	9.0	216	--	0	50
SEP 22...	1335	9813	54	400	8.5	17.0	5	10.5	208	--	0	62

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	17	138	10	12	--	--	--	2.4	.05	.09	.32	1340
NOV 16...	22	192	20	17	276	0	276	4.7	.06	.12	.51	110
DEC 20...	19	178	20	19	270	2	272	5.8	.08	.17	.61	80
FEB 23...	16	186	26	30	342	6	348	4.7	.09	.11	.67	120
MAR 10...	13	166	24	16	276	2	278	3.2	.06	.15	.40	430
APR 18...	14	182	20	17	514	0	514	3.2	.04	.07	.27	100
JUN 20...	19	174	18	23	292	<5	--	4.3	.04	.12	.24	90
JUL 18...	15	164	26	20	266	20	286	3.6	.08	.08	.30	70
AUG 24...	22	188	18	24	296	24	--	3.9	.04	.10	.21	290
SEP 22...	21	172	26	24	448	6	454	3.0	.08	.11	.41	170

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 24...	0900	9813	300	<3	<10	<10	<50	20	20	20
SEP 22...	1:35	9813	160	<3	<10	<10	<50	20	<10	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01546750 LOGAN BRANCH AT BELLEFONTE, PA

LOCATION.--Lat 40°54'27", long 77°46'57", Centre County, Hydrologic Unit 02050204, at bridge on State Route 26 at Bellefonte, and 0.2 mi (0.3 km) upstream from mouth.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY C02 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 26...	1115	9813	360	7.3	8.1	10	11.0	180	--	0	35	23
NOV 22...	1155	9813	410	7.0	8.0	1	9.0	200	--	0	52	17
DEC 20...	1230	9813	400	7.3	8.0	3	11.6	188	0	0	48	16
MAR 10...	1400	9813	350	7.6	--	5	10.5	155	0	0	45	10
APR 18...	1115	9813	390	8.3	14.1	4	10.8	175	--	0	46	14
JUN 20...	1345	9813	400	8.5	15.0	2	10.6	176	--	0	44	16
JUL 18...	1330	9813	430	8.5	28.0	6	9.7	184	--	0	52	13
AUG 24...	1030	9813	400	7.7	11.5	2	10.6	200	--	0	46	21
SEP 22...	1110	9813	440	8.0	12.0	2	10.7	190	--	0	52	15

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	146	18	11	--	--	--	2.8	.05	.07	.08	560
NOV 22...	168	30	12	--	--	--	3.9	.05	.03	.07	100
DEC 20...	155	32	11	236	4	240	4.1	.05	.08	.11	140
MAR 10...	138	26	11	236	18	254	2.5	.04	.11	.11	330
APR 18...	152	24	13	476	0	476	3.2	.05	.07	.27	250
JUN 20...	150	20	15	254	<5	--	3.2	.04	.25	.06	70
JUL 18...	154	32	14	264	16	280	3.4	.06	.11	.11	280
AUG 24...	162	32	13	262	<10	--	2.3	.09	.06	.11	120
SEP 22...	156	36	13	372	0	372	3.2	.05	.03	.08	80

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 24...	1030	9813	100	<3	10	10	<50	<10	60	20
SEP 22...	1110	9813	30	<3	<10	<10	<50	10	40	40

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547100 SPRING CREEK AT MILESBERG, PA

LOCATION.--Lat 40°55'54", long 77°47'13", Centre County, Hydrologic Unit 02050204, on left bank 60 ft (18 m) downstream from privately-owned bridge, 400 ft (122 m) west of State Route 144, 0.8 mi (1.3 km) upstream from mouth and Milesburg.

DRAINAGE AREA.--142 mi² (368 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 696.42 ft (212.269 m) above mean sea level.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and by Rockview Penitentiary above station.

AVERAGE DISCHARGE.--10 years, 218 ft³/s (6.174 m³/s), 20.85 in/yr (530 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft³/s (231 m³/s) June 23, 1972, gage height, 13.20 ft (4.023 m), from peak-stage indicator, from rating curve extended above 900 ft³/s (25.5 m³/s) on basis of computation of peak flow over dam; minimum, 60 ft³/s (1.70 m³/s) Sept. 30, 1969, gage height, 2.22 ft (0.677 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 570 ft³/s (16.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2030	*1,440 40.8	*6.37 1.942	Apr. 3	Unknown	974 27.6	5.41 1.649
Feb. 25	Unknown	782 22.1	4.93 1.503	July 19	2115	658 18.6	4.61 1.405
Mar. 3	2200	627 17.8	4.52 1.378				

Minimum discharge, 119 ft³/s (3.37 m³/s) Aug. 29, gage height, 2.54 ft (0.774 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	358	191	166	146	281	340	253	180	180	186	146
2	182	340	191	170	144	262	550	253	174	173	182	145
3	163	333	185	170	144	281	810	248	172	170	178	145
4	158	334	183	170	144	553	700	246	170	172	175	144
5	154	315	181	168	146	464	665	240	168	167	174	145
6	154	300	181	166	137	405	600	230	200	165	175	146
7	158	293	313	170	143	360	535	240	182	185	215	146
8	219	286	257	164	143	315	490	210	170	260	184	145
9	874	274	226	164	146	277	445	206	181	198	175	144
10	902	274	224	170	139	250	410	202	188	188	182	141
11	596	264	224	159	151	230	390	198	172	189	176	139
12	473	255	222	159	189	295	375	196	161	234	172	139
13	411	246	220	157	210	460	363	194	170	223	167	143
14	370	242	211	162	198	425	347	192	167	195	178	150
15	340	239	211	157	188	355	332	191	165	188	169	141
16	322	235	209	155	181	283	318	190	170	184	165	163
17	300	231	207	146	180	260	305	189	180	190	193	167
18	287	228	203	153	174	380	295	193	178	193	171	150
19	280	224	199	157	171	410	288	186	171	218	164	159
20	325	218	203	155	170	366	283	190	167	256	160	177
21	450	213	201	153	166	368	279	181	170	205	158	152
22	355	209	191	150	162	485	269	185	163	200	158	146
23	310	203	189	146	183	550	269	182	162	186	154	144
24	300	203	183	150	245	555	355	179	168	184	154	144
25	320	199	181	150	328	473	308	175	298	275	151	218
26	450	199	181	150	323	400	295	173	225	253	150	287
27	355	199	181	148	315	340	283	172	190	213	151	220
28	330	195	183	150	300	370	279	171	187	204	147	195
29	316	205	179	137	---	340	271	170	210	199	146	183
30	312	193	173	146	---	320	260	168	190	195	147	176
31	400	---	172	144	---	330	---	170	---	189	147	---
TOTAL	10724	7507	6255	4862	5266	11443	11709	6173	5449	6231	5206	4840
MEAN	346	250	202	157	188	369	390	199	182	201	164	161
MAX	902	358	313	170	328	555	810	253	298	275	215	287
MIN	154	193	172	137	137	230	260	168	161	165	146	139
CFSM	2.44	1.76	1.42	1.11	1.32	2.60	2.75	1.40	1.28	1.42	1.14	1.13
IN.	2.81	1.97	1.64	1.27	1.38	3.00	3.07	1.62	1.43	1.63	1.34	1.27

CAL YR 1976	TOTAL	93113	MEAN 254	MAX 946	MIN 144	CFSM 1.79	IN 24.39
WTR YR 1977	TOTAL	85665	MEAN 235	MAX 902	MIN 137	CFSM 1.66	IN 22.44

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547200 BALD EAGLE CREEK BELOW SPRING CREEK AT MILESBERG, PA

LOCATION.--Lat 40°56'35", long 77°47'12", Centre County, Hydrologic Unit 02050204, on right bank 130 ft (40 m) downstream from bridge on State Highway 144 at Milesburg, 250 ft (76 m) downstream from Spring Creek.

DRAINAGE AREA.--265 mi² (686 km²).

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October, November 1955 published in WSP 1722. Prior to October 1967, published as North Bald Eagle Creek below Spring Creek at Milesburg.

GAGE.--Water-stage recorder. Datum of gage is 682.49 ft (208.023 m) above mean sea level. Prior to Aug. 31, 1956, nonrecording gage at site 130 ft (40 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--22 years, 383 ft³/s (10.8 m³/s), 19.69 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft³/s (603 m³/s) June 23, 1972, gage height, 11.67 ft (3.557 m), from floodmark in gage well, from rating curve extended above 9,000 ft³/s (255 m³/s); minimum, 50 ft³/s (1.42 m³/s) Aug. 3, 1966, gage height, -0.80 ft (-0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft³/s (76.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	Unknown	*6,920 196	*5.81 1.771	Mar. 4	2100	4,260 121	4.30 1.311
Feb. 25	0230	3,570 101	3.86 1.177	Apr. 4	Unknown	6,090 172	5.37 1.637

Minimum discharge, 125 ft³/s (3.54 m³/s) Sept. 8, 12, gage height, -0.42 ft (-0.128 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	714	226	212	164	720	470	343	197	205	206	143
2	436	618	232	215	164	575	950	339	190	190	199	142
3	300	580	212	209	162	494	4600	335	184	181	191	141
4	253	580	215	212	164	3200	2970	323	178	184	186	140
5	232	521	215	209	164	2200	2000	353	176	185	185	140
6	221	467	212	201	157	1500	1500	341	231	183	186	141
7	225	440	640	204	159	980	1270	374	239	196	302	140
8	300	415	580	201	159	780	990	329	196	365	264	140
9	4500	390	423	198	159	570	830	321	206	237	203	138
10	4500	394	398	201	159	500	730	311	216	208	201	135
11	2400	382	440	193	173	430	650	300	191	202	200	133
12	1600	355	411	190	266	800	587	285	183	263	190	133
13	1050	337	390	186	624	1840	535	278	182	273	178	136
14	830	322	305	190	635	1400	498	268	178	219	187	143
15	690	319	355	188	485	1050	460	258	176	201	182	138
16	580	308	340	186	359	800	431	252	172	192	172	159
17	520	298	337	173	308	660	410	244	175	201	202	179
18	480	295	312	178	291	957	390	244	184	235	190	156
19	450	288	282	180	291	1540	380	243	171	317	172	167
20	700	278	302	180	272	1280	380	234	167	484	164	234
21	1200	272	295	178	247	1150	361	224	166	278	160	175
22	900	266	247	171	235	1520	343	218	163	246	161	155
23	680	256	253	168	312	2400	358	215	160	216	158	147
24	490	247	247	171	1070	1950	757	213	158	206	156	146
25	640	247	238	173	2730	1500	557	209	457	403	153	411
26	1200	244	256	173	1520	1050	482	203	423	431	150	726
27	920	247	250	171	1100	730	443	198	248	280	150	418
28	780	241	244	171	917	890	416	195	221	248	146	288
29	657	262	241	157	---	670	397	193	246	233	144	240
30	570	226	220	166	---	520	363	190	217	224	144	214
31	896	---	220	164	---	455	---	193	---	215	144	---
TOTAL	29443	10809	9538	5769	13446	35111	25508	8226	6251	7701	5626	5898
MEAN	950	360	308	186	480	1133	850	265	208	248	181	197
MAX	4500	714	640	215	2730	3200	4600	374	457	484	302	726
MIN	221	226	212	157	157	430	343	190	158	181	144	133
CFSM	3.59	1.36	1.16	.70	1.81	4.28	3.21	1.00	.79	.94	.68	.74
IN.	4.13	1.52	1.34	.81	1.89	4.93	3.58	1.15	.88	1.08	.79	.83

CAL YR 1976 TOTAL 174235 MEAN 476 MAX 4760 MIN 160 CFSM 1.80 IN 24.46
WTR YR 1977 TOTAL 163326 MEAN 447 MAX 4600 MIN 133 CFSM 1.69 IN 22.93

01547400 BALD EAGLE CREEK NEAR MILESBERG, PA

LOCATION.--Lat 40°58'31", long 75°44'35", Centre County, Hydrologic Unit 02050204, at highway bridge at Curtin, 500 ft (152 m) downstream from Antis Run, 250 ft (76 m) downstream from Nittany Creek, and 3.5 mi (5.6 km) downstream from Milesburg.

DRAINAGE AREA.--296 mi² (767 km²).

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1967 to current year.

REMARKS.--The thermograph at this site records continuous water temperature of the inflow to Foster Joseph Sayers Reservoir.

COOPERATION.--Water-quality data for the 1977 water year were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.0°C July 17, 18, Aug. 9, 23, 1968, June 27, 30, July 16, 1969; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C July 18; minimum, freezing point on many days during Dec. through Jan.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT 26...	1045	9813	210	7.1	7.2	15	10.0	102	--	0	23	11
NOV 16...	1415	9813	340	8.7	6.1	2	--	170	0	0	32	22
DEC 20...	1055	9813	340	7.6	5.0	3	12.8	142	0	0	36	12
FEB 22...	1515	9813	350	8.5	5.0	2	--	146	0	0	42	10
MAR 10...	1310	9813	270	7.7	10.0	4	12.6	105	0	0	32	6.2
APR 14...	1130	9813	320	8.5	16.5	3	13.1	128	--	0	39	7.5
JUN 20...	1155	9813	400	8.5	18.0	4	11.5	172	--	0	45	14
JUL 18...	1240	9813	390	8.5	25.0	7	11.0	154	--	0	41	12
AUG 24...	1030	9813	395	7.8	15.0	4	9.8	195	--	0	42	22
SEP 21...	1425	9813	390	8.5	16.0	10	10.8	165	--	0	43	14

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	68	12	8.0	--	--	--	1.2	.04	.05	.13	790
NOV 16...	178	26	14	218	2	220	3.9	.04	.07	.23	110
DEC 20...	130	24	14	174	8	182	4.1	.03	.13	.18	170
FEB 22...	132	26	19	226	4	230	2.8	.04	.08	.21	140
MAR 10...	96	20	12	196	6	202	1.8	.04	.08	.14	170
APR 14...	124	20	14	196	8	204	2.1	.06	.09	.08	100
JUN 20...	156	20	18	156	6	--	2.8	.05	.14	.13	270
JUL 18...	144	26	18	262	14	276	2.8	.04	.04	.16	290
AUG 24...	164	20	17	272	16	--	2.1	.04	.06	.15	340
SEP 21...	138	20	18	272	4	276	2.4	.02	.05	.17	180

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547400 BALD EAGLE CREEK NEAR MILESBERG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.0	11.0	8.0	6.0	---	---	---	---	3.5	0.5	4.5	3.0
2	14.0	11.0	7.0	4.5	---	---	---	---	4.5	1.5	5.0	1.5
3	15.5	12.0	8.5	7.0	---	---	---	---	4.0	1.5	5.5	1.5
4	15.0	12.0	8.5	7.0	3.0	1.5	---	---	4.5	3.5	4.5	3.5
5	15.0	12.0	8.0	6.5	4.0	1.5	3.0	0.5	4.5	3.5	6.0	3.0
6	13.5	12.0	7.0	5.5	4.0	1.0	2.0	0.0	1.0	0.0	5.5	4.0
7	13.5	13.0	7.0	5.5	4.0	0.0	3.0	1.0	3.0	0.0	5.0	3.0
8	13.5	13.0	6.5	5.0	0.5	0.0	2.0	0.0	3.5	0.0	7.0	3.5
9	13.5	12.0	4.5	3.5	1.5	0.0	3.0	1.0	6.0	0.0	9.5	4.0
10	11.5	10.0	6.0	4.5	---	---	2.0	1.0	6.5	3.5	9.5	5.5
11	11.0	9.0	---	---	1.0	0.0	1.0	0.0	7.0	4.0	9.0	5.0
12	11.0	9.0	5.5	4.5	1.0	0.0	1.0	0.0	5.5	2.0	8.0	5.0
13	11.5	9.5	5.0	4.0	1.0	0.0	2.0	0.0	2.0	1.0	8.0	6.0
14	12.0	5.0	5.5	3.5	0.0	0.0	3.0	1.0	2.0	1.0	8.0	5.5
15	14.0	10.0	5.5	3.5	0.5	0.0	3.5	2.0	3.0	1.0	9.0	5.0
16	13.0	10.5	5.5	3.0	0.5	0.0	3.0	1.5	2.0	1.0	9.0	6.0
17	10.0	8.5	5.5	3.0	---	---	0.0	0.0	1.5	0.0	7.0	4.0
18	10.0	8.0	6.0	4.5	4.0	2.0	1.0	0.0	3.0	0.0	5.5	3.0
19	9.0	6.5	8.0	5.0	4.0	1.5	2.0	0.0	3.5	2.0	6.5	3.5
20	8.5	8.0	6.5	5.0	4.5	3.5	3.5	1.5	3.0	2.0	4.5	3.5
21	9.0	8.0	6.0	4.5	3.5	1.0	3.5	3.0	3.5	1.0	8.0	3.5
22	8.0	6.5	5.0	4.5	2.0	0.5	3.0	1.0	4.5	1.0	5.5	4.5
23	8.5	6.5	4.5	4.0	3.0	1.0	3.0	0.0	5.5	3.5	7.0	3.5
24	8.5	8.0	4.5	3.5	2.0	0.5	3.5	1.0	3.5	1.0	6.5	4.0
25	10.0	8.5	5.5	4.0	2.0	0.0	4.5	3.5	4.0	1.0	6.5	3.0
26	9.0	8.0	6.5	4.0	3.5	2.0	4.5	3.5	6.0	3.0	8.5	3.5
27	7.0	6.0	8.5	6.5	3.0	1.0	3.5	1.5	5.5	3.5	10.0	4.5
28	6.5	4.5	8.0	7.0	2.0	1.0	3.5	0.5	5.0	3.5	8.0	7.0
29	8.0	5.0	7.0	2.0	---	---	0.5	0.0	---	---	12.0	5.5
30	7.0	6.0	---	---	---	---	1.0	0.0	---	---	14.5	9.0
31	8.0	7.0	---	---	---	---	1.5	0.0	---	---	12.0	9.5
MONTH	15.5	4.5	8.5	2.0	4.5	0.0	4.5	0.0	7.0	0.0	14.5	1.5
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	8.0	16.5	9.5	20.0	14.5	25.0	17.0	20.0	16.0	23.5	17.0
2	9.0	7.0	14.5	13.0	18.0	14.5	21.0	16.5	20.5	15.0	23.5	18.0
3	11.0	7.0	18.0	11.5	18.5	13.5	21.0	15.0	20.0	15.0	21.5	17.0
4	8.5	7.0	14.5	12.0	19.0	12.0	19.0	16.0	20.5	15.0	20.0	15.0
5	10.0	7.0	15.5	11.5	16.5	14.5	24.5	16.0	22.0	17.0	20.0	15.5
6	8.5	5.5	17.0	13.5	15.5	11.5	24.5	18.5	20.5	16.5	19.0	16.5
7	8.0	4.5	19.0	14.5	14.5	12.0	24.0	18.5	19.5	16.0	20.5	15.0
8	9.0	5.5	16.5	11.5	17.0	10.5	24.5	18.0	22.0	17.0	19.0	15.5
9	9.0	4.0	14.5	9.5	15.5	13.0	20.5	17.0	23.5	17.0	19.5	14.5
10	11.0	5.0	13.5	9.5	15.5	13.0	21.0	16.0	21.5	16.5	19.5	15.5
11	14.5	7.0	18.0	10.0	19.0	11.5	19.0	16.5	21.0	16.5	17.0	14.0
12	17.0	11.0	18.5	11.0	18.5	13.5	22.0	16.0	20.0	17.0	18.0	11.0
13	17.0	11.5	19.5	13.5	20.0	14.5	24.0	17.0	19.0	15.5	16.0	14.0
14	16.5	13.0	18.5	13.5	18.0	15.5	24.5	16.5	19.0	15.5	18.0	14.5
15	15.5	10.5	18.5	11.5	21.0	15.5	24.5	18.0	20.0	15.0	14.5	12.0
16	15.5	9.5	18.5	12.0	21.0	15.5	22.0	17.0	19.5	15.5	14.0	13.0
17	16.0	9.5	21.0	13.5	20.5	16.5	21.0	17.0	19.0	17.0	16.5	13.5
18	14.5	10.0	20.5	15.5	21.0	16.5	26.0	17.0	19.5	15.0	18.0	14.5
19	16.0	11.5	21.0	15.5	21.0	17.0	23.5	18.5	18.0	14.5	18.5	15.5
20	14.5	12.0	21.0	15.5	20.5	16.0	24.0	18.5	18.0	13.5	18.5	16.5
21	18.0	11.0	21.5	15.5	19.5	15.0	24.5	18.5	16.5	13.0	16.5	15.0
22	16.5	14.5	21.0	15.5	20.0	14.5	23.5	18.0	19.0	14.5	16.5	14.0
23	16.5	14.5	20.5	15.0	21.0	14.5	20.0	15.0	18.5	14.0	15.0	13.5
24	14.5	11.5	20.0	16.0	19.5	15.5	19.0	14.5	16.5	14.5	14.0	13.5
25	14.0	10.5	21.0	16.0	19.5	16.5	19.5	16.5	18.0	11.5	15.0	13.5
26	13.0	9.5	20.5	14.5	20.5	16.0	19.5	15.5	17.0	13.0	15.5	13.5
27	14.5	9.0	19.5	14.0	23.5	16.0	19.0	14.5	20.0	14.5	16.0	13.0
28	11.5	7.0	21.0	14.5	21.0	18.0	19.5	14.0	21.5	16.0	15.0	12.0
29	14.0	7.0	20.0	14.5	23.5	17.0	18.5	15.5	24.5	16.5	14.5	11.0
30	15.5	8.5	16.5	15.5	24.0	16.5	19.0	15.0	23.0	18.0	15.5	13.5
31	---	---	15.5	13.5	---	---	20.5	15.0	22.0	16.5	---	---
MONTH	18.0	4.0	21.5	9.5	24.0	10.5	26.0	14.0	24.5	11.5	23.5	11.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547500 BALD EAGLE CREEK AT BLANCHARD, PA

LOCATION.--Lat 41°03'06", long 77°36'17", Centre County, Hydrologic Unit 02050204, on left bank, 0.4 mi (0.6 km) downstream from Foster Joseph Sayers Lake, 0.7 mi (1.1 km) upstream from Marsh Creek, and 0.9 mi (1.4 km) south of Blanchard.

DRAINAGE AREA.--339 mi² (878 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1954 to current year. Prior to October 1967, published as North Bald Eagle Creek at Blanchard.

REVISED RECORDS.--WSP 1903: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 579.79 ft (176.720 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Foster Joseph Sayers Lake 0.4 mi (0.6 km) upstream (see p. 200).

AVERAGE DISCHARGE.--23 years, 433 ft³/s (12.26 m³/s), 17.38 in/yr (441 mm/yr), adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) Mar. 10, 1964, gage height, 11.59 ft (3.533 m), from rating curve extended above 4,100 ft³/s (116 m³/s); no flow parts of June 16, Nov. 10, 1970, May 12, 18, 19, 1976, result of shutoff at lake.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,840 ft³/s (80.4 m³/s) Apr. 6, gage height, 6.58 ft (2.006 m); minimum, 158 ft³/s (4.47 m³/s) Sept. 5, 10, gage height, 3.32 ft (1.012 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	806	582	280	175	934	662	356	185	225	229	161
2	361	599	568	255	175	730	814	361	188	206	204	161
3	657	681	344	244	175	576	556	363	190	184	180	161
4	652	770	221	244	175	825	1740	343	191	175	179	161
5	411	582	258	232	175	1210	2230	333	191	175	185	161
6	272	514	284	211	175	1510	2630	344	212	175	198	161
7	272	597	548	211	175	1470	2760	356	274	176	339	161
8	415	541	859	211	175	1010	2200	355	255	290	429	161
9	1330	451	597	211	175	888	969	347	240	313	370	161
10	2150	400	445	229	175	651	660	337	240	266	237	161
11	2080	411	507	236	172	552	633	317	218	255	215	161
12	1290	411	507	236	338	554	663	306	201	489	206	161
13	733	411	507	225	403	872	602	306	178	779	190	161
14	674	411	353	211	536	1420	532	281	172	332	175	161
15	674	784	358	211	590	1620	506	258	172	244	175	161
16	674	1160	417	211	586	1350	507	240	172	214	175	180
17	480	1210	411	207	574	806	487	237	172	214	245	365
18	369	1190	369	191	388	756	434	236	207	229	173	324
19	389	1180	306	181	292	821	412	238	228	221	173	267
20	784	1160	329	181	294	1040	375	233	202	350	173	406
21	1040	1140	348	197	292	1110	353	225	178	333	174	299
22	777	988	301	207	292	1210	355	234	168	225	174	240
23	666	898	259	207	299	1580	358	251	166	201	174	211
24	666	882	247	207	491	1460	630	250	166	201	174	178
25	766	858	247	207	683	1070	779	285	380	366	175	537
26	1180	714	247	194	733	938	503	262	565	320	174	635
27	1280	627	263	181	873	937	366	219	243	273	175	575
28	974	620	280	175	955	813	370	198	225	243	167	399
29	722	605	284	175	---	732	374	185	225	229	161	257
30	674	597	284	175	---	869	369	184	225	229	161	201
31	884	---	284	175	---	827	---	181	---	229	161	---
TOTAL	24572	22198	11814	6518	10541	31141	24829	8621	6629	8361	6320	7489
MEAN	793	740	381	210	376	1005	828	278	221	270	204	250
MAX	2150	1210	859	280	955	1620	2760	363	565	779	429	635
MIN	272	400	221	175	172	552	353	181	166	175	161	161
MEAN#	786	421	356	209	502	1152	904	312	219	265	184	230
CFSM#	2.31	1.24	1.05	.62	1.48	3.40	2.67	.92	.65	.78	.54	.68
IN.#	2.66	1.38	1.21	.71	1.54	3.92	2.98	1.06	.73	.90	.62	.76
CAL YR 1976	TOTAL	175881	MEAN 481	MAX 2150	MIN 58	MEAN# 480	CFSM# 1.42	IN.# 19.28				
WTR YR 1977	TOTAL	169033	MEAN 463	MAX 2760	MIN 161	MEAN# 461	CFSM# 1.36	IN.# 18.47				

Adjusted for change in contents in Foster Joseph Sayers Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1956 to September 1957, August 1967 to current year.

REMARKS.--The thermograph at this site records continuous water temperature of the outflow from Foster Joseph Sayers Reservoir.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 33.0°C June 20, 1957; minimum, freezing point Jan. 13, 14, 1957, Jan. 26, Feb. 18, 23, 1968, Jan. 28-31, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C July 14; minimum, freezing point Jan. 28-31.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	7.0	13.0	10.5	18.5	15.5	21.5	19.5	22.0	20.5	21.5	20.5
2	8.0	7.0	13.0	11.0	18.0	16.0	21.5	20.0	23.0	21.0	21.5	20.5
3	9.0	7.0	13.0	11.0	18.0	16.0	21.0	19.5	23.0	21.0	21.5	20.5
4	8.5	8.0	11.5	10.5	18.0	16.0	20.5	19.5	22.0	21.0	21.5	20.0
5	8.5	8.0	12.0	10.5	17.0	16.0	21.0	20.0	23.0	21.5	21.5	20.5
6	8.0	7.0	13.5	11.5	16.5	16.0	21.0	19.5	22.0	21.0	21.5	20.5
7	8.0	7.0	13.0	11.5	16.5	16.0	20.5	19.5	23.0	21.0	21.5	20.0
8	8.0	7.0	14.5	11.0	17.0	16.5	21.5	20.0	23.0	21.5	21.0	20.0
9	8.5	7.0	13.5	12.0	16.5	15.5	21.5	20.5	23.0	21.5	21.5	20.5
10	9.0	7.0	13.0	12.0	16.0	15.5	21.0	20.5	23.0	21.5	22.0	20.5
11	9.0	7.0	13.5	12.0	17.0	16.0	21.0	20.5	23.5	22.0	21.5	20.0
12	10.0	8.5	14.0	11.5	17.0	16.0	23.0	21.0	22.0	21.5	21.5	20.0
13	10.5	9.0	14.5	13.0	18.5	16.5	23.0	22.0	23.0	21.0	21.0	20.5
14	10.0	9.0	13.5	12.0	17.0	16.5	24.0	22.0	22.0	21.0	21.0	20.0
15	10.5	9.5	14.5	12.0	19.0	17.0	22.0	21.5	22.0	21.0	20.5	19.5
16	10.5	9.5	14.5	13.0	19.0	17.0	22.0	21.0	22.0	21.0	20.0	19.5
17	10.5	9.5	15.5	14.0	19.0	18.0	22.0	20.5	22.0	21.0	20.5	19.5
18	11.0	9.5	15.5	14.0	21.0	18.0	22.0	20.5	22.0	21.0	20.5	19.5
19	10.5	9.5	16.0	15.0	20.0	18.5	22.0	21.0	22.0	21.0	20.5	19.5
20	11.5	10.5	16.5	15.0	19.5	18.0	23.0	21.0	21.5	20.5	20.5	20.0
21	11.5	10.0	16.5	15.0	19.0	18.0	23.5	21.5	21.0	20.0	20.0	19.5
22	12.0	10.5	16.5	15.0	18.5	17.0	22.0	21.0	22.0	20.5	19.5	18.5
23	11.0	10.5	16.5	15.5	19.0	16.5	22.0	21.0	21.5	20.5	19.0	18.0
24	13.0	10.5	17.0	16.0	18.5	16.5	22.0	21.0	21.0	20.0	18.5	18.5
25	11.5	11.0	17.0	16.0	19.0	17.0	22.0	21.0	21.5	20.0	18.5	18.0
26	12.0	11.0	18.0	16.5	19.5	18.5	23.0	21.0	21.5	20.0	19.0	18.0
27	13.0	11.0	18.0	16.0	20.0	18.0	23.0	21.5	21.5	20.5	19.0	18.5
28	12.0	11.0	16.0	14.5	20.0	18.5	23.0	21.0	21.5	20.0	19.0	18.0
29	12.0	10.5	16.5	14.0	21.5	19.0	22.0	21.0	21.5	20.5	19.0	18.0
30	12.0	11.0	15.5	15.0	21.0	19.5	22.0	20.5	21.5	20.5	19.0	18.0
31	---	---	15.5	13.5	---	---	22.0	20.5	21.5	20.5	---	---
MONTH	13.0	7.0	18.0	10.5	21.5	15.5	24.0	19.5	23.5	20.0	22.0	18.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547700 MARSH CREEK AT BLANCHARD, PA.

LOCATION.--Lat 41°03'34", long 77°36'22", Centre County, Hydrologic Unit 02050204, on right bank 20 ft (6 m) downstream from highway bridge, 0.5 mi (0.8 km) southwest of Blanchard, 0.6 mi (1.0 km) downstream from bridge on U.S. Highway 222, and 0.6 mi (1.0 km) upstream from mouth.

DRAINAGE AREA.--44.1 mi² (114.2 km²).

PERIOD OF RECORD.--October 1955 to current year. Monthly discharge only for October 1955, published in WSP 1722.

REVISED RECORDS.--WDR PA-72: 1971 (runoff in cubic feet per second per square mile and in inches).

GAGE.--Water-stage recorder. Datum of gage is 586.16 ft (178.662 m) above mean sea level. Prior to Aug. 31, 1956, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--22 years, 56.0 ft³/s (1.586 m³/s), 17.25 in/yr (438 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,870 ft³/s (140 m³/s) June 23, 1972, gage height, 6.98 ft (2.128 m), from floodmark in gage well, 7.96 ft (2.426 m) outside, from floodmarks, from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 30, 31, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 6	2330	716 20.3	3.79 1.155	Mar. 4	2200	510	14.4 3.40 1.036
Dec. 7	1430	ice jam	3.43 1.045	Mar. 13	1000	510	14.4 3.40 1.036
Feb. 24	2200	709 20.1	3.77 1.149	Apr. 2	2130	*1,210	34.3 *4.28 1.305

Minimum discharge, 1.3 ft³/s (0.037 m³/s) Sept. 12, 13, gage height, 1.89 ft (0.576 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	103	12	17	11	171	144	42	12	6.1	6.2	2.4
2	8.5	86	16	17	10	129	452	40	9.5	5.0	5.1	2.8
3	8.0	81	11	15	9.6	102	732	37	8.2	4.2	4.4	3.3
4	8.0	78	13	15	9.6	258	376	34	7.2	4.2	4.0	3.0
5	12	65	13	15	9.7	381	293	40	6.7	4.4	4.1	2.5
6	137	56	12	13	9.9	278	208	34	12	4.6	6.9	2.5
7	356	50	101	14	9.5	196	163	30	12	7.9	10	2.6
8	106	45	103	14	9.0	146	136	26	8.4	18	8.2	2.3
9	72	40	86	13	9.0	116	109	25	9.5	7.6	5.9	2.0
10	52	40	74	13	8.0	98	92	24	13	6.9	5.2	2.1
11	38	36	56	14	7.1	86	79	23	8.5	5.9	5.3	1.7
12	31	32	46	13	14	79	68	20	6.9	10	4.4	1.3
13	27	29	41	12	61	343	60	20	6.6	9.8	4.1	1.6
14	24	27	41	12	63	305	54	19	6.1	6.2	3.9	2.2
15	22	26	40	12	47	216	47	18	6.1	5.1	3.6	2.4
16	20	24	36	12	32	163	42	16	5.6	4.6	3.2	3.3
17	19	23	36	13	24	123	38	15	5.7	7.8	15	8.6
18	18	23	32	14	24	137	35	15	6.8	11	7.9	4.9
19	17	22	28	13	28	186	34	15	5.7	8.5	4.4	5.1
20	19	21	29	12	23	190	31	14	4.9	29	3.6	40
21	130	21	29	12	20	182	28	13	4.9	12	2.9	16
22	86	20	21	11	18	252	27	11	4.3	11	4.2	10
23	68	18	23	11	28	265	34	11	3.8	8.0	3.5	8.1
24	70	17	20	10	125	218	80	14	3.8	6.9	3.1	9.5
25	94	17	18	11	364	173	82	12	22	17	3.1	134
26	150	17	25	11	295	139	78	10	28	16	2.3	148
27	135	17	22	11	245	121	71	9.7	9.4	9.9	1.9	86
28	110	16	21	11	215	186	64	9.3	8.0	8.1	1.9	53
29	82	20	21	13	---	281	55	8.9	11	6.9	2.1	35
30	72	12	15	12	---	265	48	8.3	7.8	6.7	2.7	25
31	123	---	18	12	---	200	---	8.3	---	6.2	2.4	---
TOTAL	2124.1	1082	1059	398	1728.4	5985	3760	622.5	264.4	275.5	145.5	621.2
MEAN	68.5	36.1	34.2	12.8	61.7	193	125	20.1	8.81	8.89	4.69	20.7
MAX	356	103	103	17	364	381	732	42	28	29	15	148
MIN	8.0	12	11	10	7.1	79	27	8.3	3.8	4.2	1.9	1.3
CFSM	1.55	.82	.78	.29	1.40	4.38	2.83	.46	.20	.20	.11	.47
IN.	1.79	.91	.89	.34	1.46	5.05	3.17	.53	.22	.23	.12	.52

CAL YR 1976 TOTAL 19749.7 MEAN 54.0 MAX 555 MIN 4.6 CFSM 1.22 IN 16.66
WTR YR 1977 TOTAL 18065.6 MEAN 49.5 MAX 732 MIN 1.3 CFSM 1.12 IN 15.24

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547800 SOUTH FORK BEECH CREEK NEAR SNOW SHOE, PA

LOCATION.--Lat 41°01'30", long 77°54'15", Centre County, Hydrologic Unit 02050204, on right bank at downstream side of bridge on State Highway 144, 0.6 mi (1.0 km) downstream from Horsehead Run, 2.5 mi (4.0 km) east of Snow Shoe, and 4.2 mi (6.8 km) upstream from confluence with North Fork Beech Creek.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1959-69. May 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,560 ft (475 m) from topographic map. October 1958 to May 1970, crest-stage gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--8 years, 22.6 ft³/s (0.64 m³/s), 25.12 in/yr (638 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) June 23, 1972, gage height, 5.36 ft (1.634 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of contracted-opening measurement at gage height, 4.94 ft (1.506 m); minimum, 1.7 ft³/s (0.048 m³/s) Oct. 9, 10, 1970; minimum gage height, 0.83 ft (0.253 m) Oct. 9, 10, 1970, Sept. 4, 5, 1971, Sept. 8, 9, 10, 13, 14, 15, 25, 26, 1976, Sept. 11, 12, 13, 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s (3.40 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1545	172 4.87	2.52 0.768	Mar. 13	1330	170 4.81	2.51 0.765
Mar. 5	0200	193 5.47	2.63 0.802	Apr. 3	0015	*217 6.15	*2.74 0.835

Minimum discharge, 2.4 ft³/s (0.068 m³/s) Sept. 11, 12, 13, 15, 16, gage height, 0.83 ft (0.253 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	31	7.5	8.3	6.0	72	60	12	6.4	4.1	9.2	3.3
2	5.6	26	7.2	8.5	5.7	55	108	12	6.1	3.6	8.2	3.1
3	4.5	25	6.9	8.6	5.5	44	175	12	5.8	3.3	7.6	3.1
4	3.8	24	6.2	8.1	5.3	73	127	12	5.6	3.4	7.0	3.0
5	3.4	22	6.8	7.8	5.1	136	107	14	5.3	3.6	8.6	2.9
6	3.3	20	6.6	8.1	4.9	102	79	13	8.9	3.3	8.6	2.9
7	3.4	18	31	7.8	5.0	79	61	12	7.9	3.9	13	2.7
8	10	17	31	7.4	5.0	61	51	11	6.1	12	9.6	2.7
9	91	16	26	7.1	5.2	49	43	11	7.0	5.8	7.6	2.7
10	56	16	20	7.4	5.0	43	37	11	7.3	4.9	7.3	2.6
11	35	15	16	7.5	5.0	38	33	10	5.8	4.9	7.0	2.4
12	27	14	15	7.0	6.7	34	30	9.9	5.3	8.2	6.1	2.4
13	22	13	13	7.3	13	92	27	9.7	5.1	6.1	5.8	2.4
14	20	12	12	7.6	11	86	25	9.4	4.9	4.9	5.6	2.7
15	18	12	11	6.9	8.6	72	23	8.7	4.9	4.3	5.3	2.4
16	16	11	11	6.4	9.9	59	21	8.2	4.5	3.9	4.9	3.1
17	14	11	10	6.4	10	48	19	7.9	4.5	4.1	10	3.8
18	12	11	10	6.5	11	45	18	8.2	4.9	4.1	7.0	2.9
19	11	10	9.6	6.7	11	52	17	8.2	4.1	15	5.3	6.7
20	15	10	9.9	6.4	11	45	16	7.6	3.9	42	4.0	22
21	36	9.6	11	6.1	9.6	41	15	7.2	4.1	19	4.5	8.6
22	25	9.2	10	5.8	11	48	14	6.7	3.8	15	4.7	6.1
23	22	8.9	10	5.7	11	45	16	6.4	3.6	12	4.3	5.3
24	23	8.2	10	5.5	35	40	19	9.2	3.4	10	4.5	5.3
25	38	7.9	11	5.3	105	36	18	11	10	23	4.1	13
26	48	8.2	9.9	5.2	92	35	16	8.6	8.6	22	3.8	21
27	41	8.2	9.4	5.3	90	36	15	7.6	5.1	16	3.6	17
28	37	7.9	10	5.4	88	76	14	7.3	4.5	14	3.6	14
29	33	8.6	9.2	5.7	---	109	14	7.0	5.8	13	3.3	12
30	28	8.2	8.5	6.1	---	99	13	6.7	4.7	12	3.4	10
31	38	---	8.2	6.1	---	81	---	6.4	---	11	3.4	---
TOTAL	744.5	418.9	373.9	210.0	591.5	1931	1231	291.9	167.9	312.4	191.8	192.1
MEAN	24.0	14.0	12.1	6.77	21.1	62.3	41.0	9.42	5.60	10.1	6.19	6.40
MAX	91	31	31	8.6	105	136	175	14	10	42	13	22
MIN	3.3	7.9	6.2	5.2	4.9	34	13	6.4	3.4	3.3	3.3	2.4
CFSM	1.97	1.15	.99	.56	1.73	5.11	3.36	.77	.46	.83	.51	.53
IN.	2.27	1.28	1.14	.64	1.80	5.89	3.75	.89	.51	.95	.58	.59

CAL YR 1976 TOTAL 6716.3 MEAN 18.4 MAX 179 MIN 2.3 CFSM 1.51 IN 20.48
WTR YR 1977 TOTAL 6656.9 MEAN 18.2 MAX 175 MIN 2.4 CFSM 1.49 IN 20.30

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547950 BEECH CREEK AT MONUMENT, PA

LOCATION.--Lat 41°06'42", long 77°42'09", Centre County, Hydrologic Unit 02050204, on right bank 800 ft (244 m) downstream from bridge at Monument, 850 ft (259 m) downstream from Monument Run, 0.6 mi (1.0 km) upstream from Twin Run, and 8.7 mi (14.0 km) upstream from mouth.

DRAINAGE AREA.--152 mi² (394 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (229 m) from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--9 years, 282 ft³/s (7.99 m³/s), 25.26 in/yr (642 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft³/s (276 m³/s) June 23, 1972, gage height, 15.22 ft (4.639 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 17 ft³/s (0.48 m³/s) Sept. 4, 5, 1971; minimum gage height, 5.11 ft (1.558 m) Sept. 23, 24, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 25	0045	1,520 43.0	8.35 2.545	Apr. 3	0315	*3,000 85.0	*9.86 3.005

Minimum discharge, 21 ft³/s (0.595 m³/s) Sept. 12, gage height, 5.43 ft (1.655 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	446	72	104	77	811	788	161	84	67	109	37
2	55	408	97	109	79	651	1260	158	78	62	102	36
3	55	395	56	93	70	540	2680	156	74	56	94	41
4	52	386	72	108	72	761	1830	151	69	54	88	34
5	48	351	72	87	66	1340	1410	177	66	54	83	31
6	45	319	60	99	56	1150	1030	168	85	56	92	30
7	42	292	140	110	57	911	800	158	98	61	125	29
8	63	270	150	93	51	724	669	148	76	97	118	26
9	592	245	140	84	50	604	563	143	78	81	95	26
10	738	235	136	80	61	534	486	141	93	77	93	25
11	513	219	150	86	89	486	431	139	74	63	89	22
12	413	197	153	85	127	446	381	132	66	58	83	21
13	351	180	150	82	178	835	343	127	58	140	75	23
14	315	166	120	93	160	889	315	123	53	136	73	30
15	274	156	155	83	115	783	285	117	53	123	69	27
16	235	146	147	76	100	682	260	113	49	112	63	35
17	194	140	150	70	98	569	242	109	63	111	158	58
18	171	132	130	84	100	563	222	107	68	108	102	41
19	153	129	116	76	119	598	219	117	54	100	73	54
20	158	123	122	72	108	569	206	105	48	210	67	135
21	377	117	141	67	98	534	188	98	54	207	62	97
22	327	112	120	63	90	635	180	93	45	202	62	73
23	311	103	130	63	120	634	186	91	40	167	57	67
24	319	97	124	67	200	610	222	88	37	149	55	79
25	390	95	127	76	1110	552	216	102	79	173	52	193
26	491	92	140	75	985	508	194	93	141	201	47	237
27	481	94	123	68	973	502	188	88	82	152	45	237
28	461	92	121	65	948	755	186	86	70	138	43	209
29	427	100	119	70	---	1180	180	85	81	127	40	183
30	386	70	100	74	---	1240	169	84	76	121	38	163
31	471	---	112	75	---	1020	---	82	---	114	37	---
TOTAL	8960	5907	3745	2537	6357	22616	16329	3740	2092	3577	2389	2299
MEAN	289	197	121	81.8	227	730	544	121	69.7	115	77.1	76.6
MAX	738	446	155	110	1110	1340	2680	177	141	210	158	237
MIN	42	70	56	63	50	446	169	82	37	54	37	21
CFSM	1.90	1.30	.80	.54	1.49	4.80	3.58	.80	.46	.76	.51	.50
IN.	2.19	1.45	.92	.62	1.56	5.53	4.00	.92	.51	.88	.58	.56

CAL YR 1976	TOTAL	88096	MEAN 241	MAX 2040	MIN 34	CFSM 1.59	IN 21.56
WTR YR 1977	TOTAL	80548	MEAN 221	MAX 2680	MIN 21	CFSM 1.45	IN 19.71

01547950 BEECH CREEK AT MONUMENT, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1968 to current year.

pH: December 1968 to current year.

WATER TEMPERATURES: December 1968 to current year.

DISSOLVED OXYGEN: October 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, .519 micromhos Sept. 14, 1972; minimum, 75 micromhos May 14, 1975.

pH: Maximum, 7.3 Dec. 17, 1969; minimum, 2.9 June 29, 30, 1969.

WATER TEMPERATURES: Maximum, 28.5°C June 20, 1971; minimum, freezing point on many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
DEC 16...	1600	186	200	4.1	.5	.4	20	69	1700	0	1
MAR 16...	1545	650	125	4.1	9.0	--	--	--	1100	1	1
JUL 19...	1545	150	220	3.9	24.0	.3	15	73	1200	0	0
SEP 21...	1030	203	320	3.7	17.0	.6	30	110	--	--	--

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WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547950 BEECH CREEK AT MONUMENT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	304	299	302	147	136	139	285	234	254	195	190	192
2	334	300	316	138	134	135	273	250	263	206	193	199
3	341	326	332	137	135	136	264	224	248	201	191	195
4	326	321	323	143	134	138	289	229	266	213	201	208
5	326	321	323	143	138	141	279	258	263	209	195	201
6	330	325	328	147	141	144	263	256	259	217	201	210
7	332	316	329	153	146	148	262	222	241	225	214	219
8	---	---	---	158	144	155	262	235	249	216	212	214
9	---	---	---	164	158	161	239	217	227	225	216	221
10	---	---	---	172	162	167	229	213	220	222	217	219
11	---	---	---	176	172	174	229	211	217	225	219	222
12	---	---	---	---	---	---	227	205	213	233	222	229
13	---	---	---	---	---	---	216	204	211	238	228	233
14	---	---	---	---	---	---	218	183	205	243	229	236
15	---	---	---	---	---	---	221	185	199	234	231	232
16	---	---	---	202	195	199	190	181	184	236	232	233
17	---	---	---	204	197	201	183	177	180	240	234	237
18	---	---	---	209	202	206	183	178	180	252	238	246
19	---	---	---	222	208	215	187	183	185	247	244	245
20	---	---	---	230	215	222	190	186	187	246	239	242
21	---	---	---	216	213	215	204	191	199	240	238	239
22	---	---	---	230	216	221	202	183	194	247	240	242
23	---	---	---	230	223	225	204	177	190	249	244	247
24	---	---	---	232	224	226	190	181	185	251	248	250
25	---	---	---	256	233	241	197	169	186	251	248	250
26	---	---	---	242	235	238	194	170	178	251	246	248
27	---	---	---	252	241	245	181	172	176	249	245	247
28	---	---	---	251	244	247	182	175	179	256	241	250
29	---	---	---	255	235	242	184	177	180	---	---	---
30	135	130	132	271	232	254	195	168	182	---	---	---
31	164	131	143	---	---	---	208	186	197	---	---	---
MONTH	341	130	281	271	134	194	289	168	210	256	190	229

DAY	MAX	MIN	MEAN	MAX	MTN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY				MARCH			APRIL			MAY	
1	---	---	---	---	---	---						
2	---	---	---	---	---	---						
3	---	---	---	---	---	---						
4	273	269	271	---	---	---						
5	272	268	269	---	---	---						
6	280	260	272	---	---	---						
7	291	271	281	---	---	---						
8	286	280	283	---	---	---						
9	292	283	289	---	---	---						
10	290	287	289	---	---	---						
11	288	267	277	119	114	116						
12	289	261	275	123	118	120						
13	317	286	301	146	109	128						
14	322	279	300	110	103	105						
15	277	260	268	---	---	---						
16	275	230	252	---	---	---						
17	310	224	267	---	---	---						
18	299	222	259	---	---	---						
19	264	220	242	---	---	---						
20	232	224	228	---	---	---						
21	230	223	226	---	---	---						
22	251	185	218	140	124	131						
23	269	212	238	---	---	---						
24	---	---	---	---	---	---						
25	---	---	---	---	---	---						
26	---	---	---	---	---	---						
27	---	---	---	---	---	---						
28	---	---	---	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	322	185	265	146	103	120						

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1				---	---	---	238	230	234	377	366	371
2				---	---	---	247	237	240	378	370	375
3				---	---	---	250	242	246	383	363	374
4				---	---	---	258	248	252	396	380	386
5				---	---	---	264	256	259	396	383	389
6				---	---	---	282	263	272	399	389	393
7				---	---	---	275	240	253	405	388	399
8				---	---	---	301	276	292	406	400	403
9				---	---	---	284	278	280	407	401	404
10				---	---	---	245	263	277	---	---	---
11				---	---	---	299	278	284	---	---	---
12				---	---	---	300	277	292	---	---	---
13				---	---	---	299	289	292	---	---	---
14				---	---	---	302	294	299	---	---	---
15				---	---	---	310	300	303	---	---	---
16				---	---	---	313	291	309	424	366	395
17				---	---	---	403	209	299	416	388	386
18				---	---	---	300	280	286	424	387	409
19				---	---	---	307	295	302	389	311	343
20				---	---	---	307	297	304	399	284	334
21				---	---	---	308	304	306	295	282	290
22				---	---	---	313	299	304	308	292	302
23				---	---	---	318	312	315	318	318	313
24				---	---	---	322	314	317	312	287	294
25				---	---	---	336	321	327	---	---	---
26				---	---	---	338	333	335	---	---	---
27				---	---	---	345	338	340	---	---	---
28				215	208	212	355	344	348	---	---	---
29				218	213	216	362	353	357	---	---	---
30				226	216	222	365	354	361	---	---	---
31				233	226	229	371	363	366	---	---	---
MONTH				233	208	220	403	209	298	424	287	364

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	3.8	3.8	3.8	4.4	4.4	4.4	4.2	4.0	4.1	4.3	4.3	4.3
2	3.8	3.7	3.8	4.5	4.4	4.4	4.0	4.0	4.0	4.3	4.2	4.3
3	3.7	3.7	3.7	4.4	4.4	4.4	4.0	4.0	4.0	4.3	4.2	4.3
4	3.8	3.7	3.7	4.4	4.3	4.4	4.0	3.9	4.0	4.2	4.2	4.2
5	3.8	3.7	3.8	4.4	4.3	4.4	3.9	3.9	3.9	4.2	4.2	4.2
6	3.8	3.8	3.8	4.4	4.3	4.4	3.9	3.9	3.9	4.2	4.2	4.2
7	3.8	3.7	3.8	4.4	4.3	4.4	4.0	3.9	4.0	4.2	4.1	4.2
8	---	---	---	4.3	4.3	4.3	4.1	3.9	4.0	4.2	4.1	4.1
9	---	---	---	4.3	4.3	4.3	4.1	4.1	4.1	4.1	4.1	4.1
10	---	---	---	4.3	4.2	4.3	4.3	4.1	4.2	4.1	4.1	4.1
11	---	---	---	4.4	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1
12	---	---	---	---	---	---	4.3	4.2	4.3	4.1	4.1	4.1
13	---	---	---	---	---	---	4.3	4.3	4.3	4.1	4.0	4.1
14	---	---	---	---	---	---	4.4	4.3	4.3	4.1	4.0	4.1
15	---	---	---	---	---	---	4.3	4.3	4.3	4.1	4.0	4.0
16	---	---	---	4.2	4.1	4.1	4.3	4.3	4.3	4.0	4.0	4.0
17	---	---	---	4.1	4.1	4.1	4.4	4.3	4.3	4.0	4.0	4.0
18	---	---	---	4.1	4.0	4.0	4.3	4.3	4.3	4.0	4.0	4.0
19	---	---	---	4.0	4.0	4.0	4.3	4.3	4.3	4.0	4.0	4.0
20	---	---	---	4.1	4.0	4.0	4.3	4.2	4.2	4.1	4.0	4.0
21	---	---	---	4.1	4.0	4.1	4.3	4.2	4.2	4.1	4.0	4.1
22	---	---	---	4.1	4.0	4.0	4.3	4.3	4.3	4.1	4.0	4.1
23	---	---	---	4.0	4.0	4.0	4.3	4.3	4.3	4.1	4.0	4.0
24	---	---	---	4.0	4.0	4.0	4.3	4.3	4.3	4.0	4.0	4.0
25	---	---	---	4.0	4.0	4.0	4.3	4.2	4.3	4.0	4.0	4.0
26	---	---	---	4.1	4.0	4.1	4.3	4.2	4.3	4.1	4.0	4.0
27	---	---	---	4.1	4.0	4.1	4.3	4.3	4.3	4.1	4.0	4.0
28	---	---	---	4.1	4.0	4.0	4.3	4.2	4.3	4.1	4.1	4.1
29	---	---	---	4.1	4.0	4.0	4.3	4.3	4.3	4.1	4.0	4.1
30	4.5	4.4	4.5	4.1	4.0	4.0	4.4	4.3	4.3	4.1	4.0	4.0
31	4.4	4.3	4.4	---	---	---	4.3	4.3	4.3	4.0	4.0	4.0
MONTH	4.5	3.7	3.9	4.5	4.0	4.2	4.4	3.9	4.2	4.3	4.0	4.1

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547950 BEECH CREEK AT MONUMENT, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.0	4.0	4.0	---	---	---	---	---	---	4.2	4.1	4.1
2	4.1	4.0	4.0	---	---	---	---	---	---	4.1	4.1	4.1
3	4.0	4.0	4.0	---	---	---	---	---	---	4.1	4.1	4.1
4	4.3	4.0	4.0	---	---	---	---	---	---	4.1	4.1	4.1
5	4.1	4.0	4.1	---	---	---	---	---	---	4.1	4.1	4.1
6	4.1	4.0	4.0	---	---	---	---	---	---	4.1	4.0	4.0
7	4.1	4.0	4.0	---	---	---	---	---	---	4.1	4.0	4.0
8	4.0	4.0	4.0	---	---	---	---	---	---	4.1	4.0	4.1
9	4.0	4.0	4.0	---	---	---	---	---	---	4.2	4.1	4.1
10	4.0	4.0	4.0	---	---	---	---	---	---	4.1	4.1	4.1
11	4.1	4.0	4.0	4.6	4.5	4.5	---	---	---	4.1	4.1	4.1
12	4.1	4.0	4.0	4.5	4.5	4.5	4.3	4.2	4.3	4.1	4.1	4.1
13	4.1	4.0	4.0	4.4	4.3	4.4	4.3	4.2	4.2	4.1	4.0	4.0
14	4.2	4.1	4.1	4.5	4.4	4.5	4.2	4.2	4.2	4.0	4.0	4.0
15	4.2	4.2	4.2	4.6	4.5	4.5	4.2	4.2	4.2	4.1	4.0	4.0
16	4.2	4.1	4.2	---	---	---	4.2	4.1	4.2	4.1	4.0	4.0
17	4.2	4.1	4.2	---	---	---	4.2	4.1	4.2	4.0	4.0	4.0
18	4.2	4.1	4.1	---	---	---	4.2	4.1	4.1	4.0	4.0	4.0
19	4.2	4.1	4.2	---	---	---	4.1	4.1	4.1	4.0	3.9	4.0
20	4.2	4.2	4.2	---	---	---	4.1	4.1	4.1	4.0	3.9	4.0
21	4.2	4.2	4.2	---	---	---	4.1	4.0	4.0	4.0	3.9	4.0
22	4.3	4.1	4.2	4.6	4.4	4.5	4.1	4.1	4.1	4.0	3.9	3.9
23	4.2	4.1	4.2	---	---	---	4.1	4.1	4.1	4.0	3.9	3.9
24	---	---	---	---	---	---	4.1	4.1	4.1	4.0	3.9	3.9
25	---	---	---	---	---	---	4.1	4.1	4.1	4.0	3.8	3.9
26	---	---	---	---	---	---	4.2	4.1	4.1	3.9	3.9	3.9
27	---	---	---	---	---	---	4.2	4.1	4.1	4.0	3.9	3.9
28	---	---	---	---	---	---	4.2	4.1	4.1	4.0	3.9	3.9
29	---	---	---	---	---	---	4.2	4.1	4.2	4.0	3.9	3.9
30	---	---	---	---	---	---	4.2	4.1	4.2	4.0	3.9	3.9
31	---	---	---	---	---	---	---	---	---	4.0	3.9	4.0
MONTH	4.3	4.0	4.1	4.6	4.3	4.5	4.3	4.0	4.1	4.2	3.8	4.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	4.0	3.9	3.9	3.9	3.8	3.8	4.0	3.9	4.0	3.8	3.7	3.7
2	4.0	3.0	3.9	3.9	3.8	3.8	4.0	3.9	4.0	3.7	3.7	3.7
3	4.0	3.9	3.9	3.9	3.8	3.8	4.0	3.9	3.9	3.7	3.7	3.7
4	4.0	3.9	3.9	3.9	3.8	3.8	4.0	3.9	3.9	3.8	3.7	3.7
5	4.0	4.0	4.0	---	---	---	3.9	3.9	3.9	3.8	3.7	3.7
6	4.0	4.0	4.0	---	---	---	3.9	3.8	3.9	3.7	3.7	3.7
7	3.9	3.9	3.9	---	---	---	4.0	3.9	3.9	3.8	3.7	3.7
8	4.0	3.9	3.9	---	---	---	3.9	3.8	3.9	3.8	3.7	3.7
9	4.0	3.9	4.0	---	---	---	4.0	3.9	3.9	3.8	3.7	3.7
10	4.0	3.9	4.0	---	---	---	4.0	3.9	4.0	---	---	---
11	4.0	3.9	4.0	---	---	---	4.0	3.8	3.9	---	---	---
12	4.0	3.9	4.0	---	---	---	3.9	3.9	3.9	---	---	---
13	---	---	---	---	---	---	4.0	3.9	3.9	---	---	---
14	---	---	---	---	---	---	3.9	3.9	3.9	---	---	---
15	---	---	---	---	---	---	3.9	3.8	3.9	---	---	---
16	---	---	---	---	---	---	3.9	3.8	3.8	3.7	3.6	3.6
17	4.2	3.9	3.9	---	---	---	4.1	3.6	3.8	3.7	3.6	3.6
18	4.0	3.8	3.9	---	---	---	4.0	3.9	4.0	3.6	3.6	3.6
19	3.9	3.8	3.9	---	---	---	3.9	3.8	3.8	3.7	3.6	3.7
20	3.9	3.8	3.8	---	---	---	3.8	3.8	3.8	3.8	3.6	3.7
21	3.8	3.8	3.8	---	---	---	3.8	3.8	3.8	3.8	3.8	3.8
22	3.8	3.7	3.8	4.1	4.0	4.1	3.8	3.7	3.8	3.8	3.8	3.8
23	3.8	3.7	3.8	4.1	4.0	4.1	3.8	3.7	3.8	3.8	3.8	3.8
24	3.8	3.7	3.8	4.1	4.0	4.0	3.8	3.7	3.7	3.8	3.8	3.8
25	4.1	3.7	3.8	4.0	3.9	4.0	3.8	3.7	3.8	---	---	---
26	4.0	3.8	3.9	3.9	3.8	3.9	3.8	3.7	3.7	---	---	---
27	3.9	3.8	3.9	4.1	4.0	4.0	3.8	3.7	3.7	---	---	---
28	3.9	3.8	3.9	4.1	4.0	4.1	3.7	3.6	3.7	---	---	---
29	3.9	3.8	3.9	4.1	4.0	4.0	3.7	3.6	3.7	---	---	---
30	3.9	3.8	3.8	4.0	4.0	4.0	3.7	3.6	3.7	---	---	---
31	---	---	---	4.0	4.0	4.0	3.8	3.7	3.8	---	---	---
MONTH	4.2	3.0	3.9	4.1	3.8	4.0	4.1	3.6	3.8	3.8	3.6	3.7

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

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

01547950 BEECH CREEK AT MONUMENT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	15.5	18.0	25.5	19.5	22.0	23.0	19.0	21.0	26.0	20.5	23.0
2	19.0	15.0	17.5	24.5	17.5	21.0	24.0	17.0	20.5	26.5	21.5	23.5
3	21.0	14.0	17.5	24.0	16.0	20.0	23.5	17.5	20.0	24.5	21.0	22.5
4	21.5	12.5	17.0	21.5	18.0	20.0	24.0	18.0	21.0	24.0	18.5	21.0
5	19.0	15.5	17.5	---	---	---	24.5	19.5	21.5	24.0	19.0	21.5
6	16.5	12.5	14.0	---	---	---	22.5	20.5	21.5	23.5	20.5	21.5
7	14.5	11.5	13.0	---	---	---	22.0	19.5	20.5	24.0	18.5	21.0
8	17.0	10.0	13.5	---	---	---	24.5	20.0	22.0	21.0	18.5	20.0
9	14.0	12.0	13.0	---	---	---	25.0	20.0	22.5	22.0	17.5	19.5
10	14.5	11.5	13.0	---	---	---	23.0	20.5	21.5	---	---	---
11	20.5	11.0	16.0	---	---	---	26.0	20.5	23.0	---	---	---
12	20.5	13.5	17.0	---	---	---	23.5	21.5	22.5	---	---	---
13	---	---	---	---	---	---	24.0	19.5	21.5	---	---	---
14	---	---	---	---	---	---	23.0	20.5	21.5	---	---	---
15	---	---	---	---	---	---	25.0	19.0	21.5	---	---	---
16	---	---	---	---	---	---	24.0	19.5	21.5	15.5	15.0	15.0
17	23.0	18.5	20.5	---	---	---	22.0	19.5	21.0	19.0	15.0	17.0
18	23.5	18.0	20.5	---	---	---	21.5	17.0	19.0	20.5	16.5	18.5
19	25.0	19.0	22.0	---	---	---	20.0	14.5	17.5	20.5	17.5	19.0
20	24.0	17.5	20.5	---	---	---	21.0	15.0	18.0	20.0	18.0	19.0
21	22.5	16.5	19.5	---	---	---	19.5	14.5	17.0	18.5	16.5	17.5
22	22.0	15.0	18.5	23.5	18.5	21.0	23.0	17.0	19.5	19.0	15.5	17.0
23	23.5	14.5	19.0	20.5	15.5	18.5	21.5	16.5	19.0	16.5	15.0	16.0
24	23.0	16.0	19.5	20.5	16.0	18.5	20.0	17.5	18.5	16.0	15.5	16.0
25	20.5	18.0	19.0	20.0	18.0	19.0	21.0	14.5	17.5	---	---	---
26	22.0	16.5	18.5	20.0	15.5	18.0	19.5	15.0	17.0	---	---	---
27	24.5	17.0	20.5	19.0	14.0	17.0	22.5	16.5	19.5	---	---	---
28	21.5	18.5	20.0	21.5	14.5	17.5	26.0	19.5	22.5	---	---	---
29	24.0	19.0	21.0	20.0	16.5	18.5	26.5	21.0	23.5	---	---	---
30	23.5	17.0	20.5	22.5	17.5	19.5	23.5	21.0	23.0	---	---	---
31	---	---	---	23.0	18.0	20.5	24.5	20.0	22.0	---	---	---
MONTH	25.0	10.0	18.0	25.5	14.0	19.5	26.5	14.5	20.5	26.5	15.0	19.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.5	9.7	10.1	---	---	---	14.5	13.5	14.0	---	---	---
2	10.2	9.0	9.7	---	---	---	14.2	13.5	13.9	---	---	---
3	10.1	8.5	9.3	---	---	---	14.5	13.2	13.8	---	---	---
4	10.5	8.8	9.5	---	---	---	13.7	13.1	13.4	---	---	---
5	10.6	9.0	9.7	---	---	---	13.9	13.1	13.5	---	---	---
6	10.7	9.3	10.0	---	---	---	14.1	13.2	13.7	---	---	---
7	10.2	9.1	9.6	---	---	---	13.8	13.1	13.5	---	---	---
8	---	---	---	---	---	---	13.9	13.4	13.6	---	---	---
9	---	---	---	---	---	---	14.1	13.4	13.7	---	---	---
10	---	---	---	---	---	---	14.0	13.4	13.7	---	---	---
11	---	---	---	---	---	---	13.9	13.2	13.6	---	---	---
12	---	---	---	---	---	---	13.8	12.8	13.3	---	---	---
13	---	---	---	---	---	---	13.9	13.0	13.5	---	---	---
14	---	---	---	---	---	---	14.0	12.9	13.5	---	---	---
15	---	---	---	---	---	---	13.4	12.7	13.1	---	---	---
16	---	---	---	---	---	---	13.1	12.5	12.8	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	13.2	12.3	12.7	---	---	---	---	---	---
21	---	---	---	13.2	12.3	12.7	---	---	---	---	---	---
22	---	---	---	13.4	11.9	13.0	---	---	---	---	---	---
23	---	---	---	13.7	13.1	13.4	---	---	---	---	---	---
24	---	---	---	14.1	12.8	13.6	---	---	---	---	---	---
25	---	---	---	14.0	13.0	13.5	---	---	---	---	---	---
26	---	---	---	13.6	11.8	12.7	---	---	---	---	---	---
27	---	---	---	12.7	11.4	12.1	---	---	---	---	---	---
28	---	---	---	12.3	11.7	12.1	---	---	---	13.3	13.0	13.1
29	---	---	---	14.4	12.0	13.2	---	---	---	13.2	12.7	13.1
30	---	---	---	14.6	13.8	14.2	---	---	---	13.0	12.8	12.9
31	---	---	---	---	---	---	---	---	---	13.1	12.6	13.0
MONTH	10.7	8.5	9.7	14.6	11.4	13.0	14.5	12.5	13.5	13.3	12.6	13.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.1	12.9	13.0	---	---	---	---	---	---	10.5	8.6	9.4
2	13.3	13.0	13.1	---	---	---	---	---	---	9.4	8.9	9.1
3	---	---	---	---	---	---	---	---	---	9.9	8.4	9.1
4	---	---	---	---	---	---	---	---	---	9.8	8.9	9.5
5	13.6	12.9	13.2	---	---	---	---	---	---	9.7	8.5	9.1
6	13.8	13.4	13.6	---	---	---	---	---	---	9.2	8.5	8.8
7	14.1	13.8	13.9	---	---	---	---	---	---	9.5	8.3	8.9
8	14.2	14.1	14.1	---	---	---	---	---	---	10.4	8.8	9.4
9	14.1	14.0	14.1	---	---	---	---	---	---	10.9	9.4	10.2
10	14.3	14.0	14.1	---	---	---	---	---	---	11.1	10.2	10.6
11	14.2	13.9	14.1	12.4	10.4	11.5	---	---	---	11.0	9.0	10.0
12	14.1	13.7	13.9	12.1	10.8	11.4	10.3	8.8	9.5	10.5	8.9	9.6
13	13.9	13.6	13.7	11.3	10.3	10.8	10.3	8.8	9.4	9.9	8.7	9.2
14	14.0	13.8	13.9	12.2	10.9	11.6	9.8	8.8	9.3	9.9	8.3	9.0
15	14.2	13.9	14.1	11.7	10.5	11.2	10.8	9.2	9.9	10.5	8.5	9.3
16	14.2	13.7	13.9	---	---	---	10.7	9.0	9.9	10.4	8.6	9.3
17	14.0	13.8	13.9	---	---	---	10.8	8.9	9.8	9.9	8.3	9.0
18	13.8	13.6	13.7	---	---	---	10.5	9.3	9.8	9.2	8.0	8.5
19	13.7	13.5	13.6	---	---	---	9.9	8.7	9.3	9.0	7.7	8.3
20	13.5	13.4	13.5	---	---	---	9.8	8.9	9.3	9.2	7.6	8.3
21	13.6	13.4	13.5	---	---	---	10.1	8.6	9.2	9.2	7.4	8.2
22	13.6	13.3	13.5	12.3	11.4	11.8	9.2	8.4	8.7	9.1	7.7	8.3
23	13.6	13.3	13.5	---	---	---	9.0	8.6	8.8	9.2	7.9	8.4
24	---	---	---	---	---	---	9.4	8.7	9.1	9.1	8.1	8.5
25	---	---	---	---	---	---	9.8	9.0	9.4	9.0	7.5	8.4
26	---	---	---	---	---	---	10.2	9.4	9.7	8.9	7.3	8.0
27	---	---	---	---	---	---	10.4	9.0	9.6	9.1	7.3	8.0
28	---	---	---	---	---	---	10.3	9.4	9.9	8.9	7.1	7.9
29	---	---	---	---	---	---	11.3	9.3	10.3	8.6	7.4	7.9
30	---	---	---	---	---	---	11.0	9.0	9.9	8.8	7.7	8.4
31	---	---	---	---	---	---	---	---	---	9.3	8.1	8.8
MONTH	14.3	12.9	13.7	12.4	10.3	11.4	11.3	8.4	9.5	11.1	7.1	8.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.6	6.9	7.9	8.3	7.1	7.7	9.0	7.4	8.2	8.1	6.6	7.3
2	8.6	7.3	7.9	8.7	7.3	7.9	9.4	7.5	8.3	7.9	6.6	7.2
3	8.4	6.9	7.7	9.1	7.5	8.2	9.8	7.6	8.7	8.1	6.9	7.4
4	9.0	7.0	7.9	8.7	7.7	8.1	9.3	7.3	8.2	8.7	7.1	7.7
5	8.4	6.9	7.6	---	---	---	8.8	7.5	8.1	8.5	6.9	7.6
6	9.6	7.2	8.9	---	---	---	9.0	7.7	8.3	8.1	7.0	7.5
7	10.2	8.2	9.3	---	---	---	9.1	7.9	8.4	8.7	7.1	7.7
8	9.7	8.4	8.9	---	---	---	8.9	7.6	8.2	8.7	7.4	7.9
9	9.8	8.8	9.3	---	---	---	9.0	7.4	8.1	---	---	---
10	9.6	8.4	9.1	---	---	---	9.0	7.7	8.3	---	---	---
11	9.5	7.2	8.5	---	---	---	9.1	7.1	7.8	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	9.8	8.9	9.3
17	8.6	7.5	8.0	---	---	---	---	---	---	9.5	8.0	8.8
18	8.5	7.2	7.9	---	---	---	---	---	---	9.2	8.0	8.6
19	8.2	7.1	7.6	---	---	---	---	---	---	9.1	8.0	8.5
20	8.6	7.3	7.8	---	---	---	9.4	7.6	9.5	8.9	8.3	8.6
21	8.7	7.5	8.1	---	---	---	9.6	7.9	8.7	9.4	8.6	9.0
22	9.3	7.8	8.4	8.8	7.7	8.2	8.7	7.3	8.0	9.5	8.3	8.9
23	9.4	7.5	8.4	9.6	8.4	8.9	9.1	7.5	8.2	9.6	8.8	9.1
24	9.1	7.7	8.2	9.6	8.3	8.9	8.7	7.7	8.2	9.4	8.8	9.1
25	8.7	7.9	8.3	9.0	8.4	8.7	9.6	7.8	8.5	---	---	---
26	8.9	7.8	8.3	9.7	8.6	9.0	9.6	7.9	8.7	---	---	---
27	8.8	7.4	8.0	10.2	8.6	9.3	9.1	7.4	8.2	---	---	---
28	8.6	7.7	8.0	10.4	8.2	9.3	8.6	6.7	7.6	---	---	---
29	8.3	7.4	7.8	9.9	8.2	9.0	8.2	6.6	7.3	---	---	---
30	8.7	7.5	8.0	9.5	7.8	8.6	8.1	6.8	7.7	---	---	---
31	---	---	---	9.4	7.5	8.4	8.3	6.9	7.5	---	---	---
MONTH	10.2	6.9	8.2	10.4	7.1	8.6	9.8	6.6	8.2	9.8	6.6	8.2

WEST BRANCH SUSQUEHANNA RIVER BASIN

151

01548000 BALD EAGLE CREEK AT BEECH CREEK STATION, PA

LOCATION.--Lat 41°03'55", long 77°34'03", Clinton County, Hydrologic Unit 02050204, at downstream end of center pier of highway bridge just downstream from Beech Creek, at Beech Creek Station, and 3 mi (4.8 km) downstream from Foster Joseph Sayers Lake.

DRAINAGE AREA.--559 mi² (1,448 km²).

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1967, published as North Bald Eagle Creek at Beech Creek Station.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1111: 1936(M). WSP 1302: 1911(M), 1912-15, 1918, 1922, 1923-25(M), 1931. WSP 1502: 1919, 1920(M).

GAGE.--Water-stage recorder. Datum of gage is 571.74 ft (174.266 m) above mean sea level (Pennsylvania Department of Transportation bench mark). Prior to Jan. 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow regulated by Foster Joseph Sayers Lake 3 mi (4.8 km) upstream (see p.200).

AVERAGE DISCHARGE.--67 years, 795 ft³/s (22.51 m³/s), 19.28 in/yr (490 mm/yr), adjusted for storage since March 1971.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s (725 m³/s) Mar. 18, 1936, gage height, 14.42 ft (4.395 m), from rating curve extended above 12,000 ft³/s (340 m³/s); minimum, 29 ft³/s (0.82 m³/s) Aug. 22, 1930, gage height, 1.21 ft (0.369 m); minimum daily, 80 ft³/s (2.27 m³/s) Jan. 16, 24, 25, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,180 ft³/s (175 m³/s) Apr. 6, gage height, 6.52 ft (1.987 m); minimum, 189 ft³/s (5.35 m³/s) Sept. 12, 13, gage height, 1.72 ft (0.524 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	1540	658	370	275	2010	1670	587	288	306	330	212
2	470	1220	700	365	275	2220	2650	587	281	279	298	210
3	794	1250	415	360	273	1280	4170	581	279	249	264	214
4	786	1350	313	355	270	1940	4140	554	276	240	260	206
5	542	1080	360	320	268	3080	4130	578	270	236	263	203
6	360	948	380	305	267	3080	4060	573	312	244	280	202
7	365	993	826	300	265	2710	3910	571	388	257	553	202
8	581	898	1200	305	265	1970	3160	555	344	389	791	200
9	3010	794	850	320	265	1690	1720	541	334	414	802	196
10	3960	707	693	335	266	1350	1300	468	354	349	321	195
11	3400	693	778	340	275	1180	1200	448	306	330	300	192
12	2230	665	770	330	465	1130	1170	426	278	755	280	189
13	1310	637	749	312	654	2150	1060	424	249	937	262	191
14	1140	623	536	297	810	2740	946	401	244	463	241	192
15	1070	957	616	297	910	2750	880	374	244	359	241	193
16	1020	1280	665	297	960	2300	849	344	240	315	237	211
17	786	1540	665	295	810	1570	805	342	257	330	448	411
18	609	1510	609	290	600	1530	726	339	297	339	321	391
19	609	1490	512	282	460	1690	698	352	301	330	270	308
20	1050	1440	536	288	450	1890	643	336	270	670	259	566
21	1870	1410	574	303	455	1920	597	322	244	549	251	436
22	1390	1210	470	326	455	2200	590	324	228	409	255	309
23	1160	1070	410	322	470	2600	607	339	224	349	250	276
24	1170	1050	400	317	760	2400	979	358	220	335	248	244
25	1430	1030	400	317	2260	1880	1130	393	555	519	246	873
26	2240	874	405	304	2110	1660	814	363	760	525	235	1120
27	2280	770	435	278	2200	1640	656	313	344	430	233	991
28	1820	756	435	275	2220	1840	651	292	315	372	224	698
29	1390	756	420	275	---	2300	639	279	324	345	216	483
30	1250	693	385	275	---	2490	605	275	315	340	212	376
31	1670	---	375	275	---	2150	---	274	---	332	212	---
TOTAL	42142	31234	17540	9630	20013	63340	47155	12913	9341	12296	9603	10690
MEAN	1359	1041	566	311	715	2043	1572	417	311	397	310	356
MAX	3960	1540	1200	370	2260	3080	4170	587	760	937	802	1120
MIN	360	623	313	275	265	1130	590	274	220	236	212	189
MEAN#	1352	722	541	310	841	2190	1648	450	309	392	290	336
CFSM#	2.42	1.29	.97	.55	1.50	3.92	2.95	.81	.55	.70	.52	.60
IN.#	2.79	1.44	1.12	.63	1.56	4.52	3.29	.93	.61	.81	.60	.67

CAL YR 1976 TOTAL 325652 MEAN 890 MAX 4570 MIN 250 MEAN# 889 CFSM# 1.59 IN.# 21.59
WTR YR 1977 TOTAL 285897 MEAN 783 MAX 4170 MIN 189 MEAN# 781 CFSM# 1.40 IN.# 19.01

Adjusted for change in contents in Foster Joseph Sayers Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548240 PINE CREEK AT GALETON, PA

LOCATION.--Lat 41°44'19", long 77°37'34", Potter County, Hydrologic Unit 02050205, 0.3 mi (0.5 km) east of Galeton, 0.5 mi (0.8 km) downstream from bridge on Legislative Route 52061, and 0.9 mi (1.5 km) downstream from South Branch.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA+MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT 05...	0700	9813	100	6.8	18.0	3	8.0	--	38	--	8.0	4.3
NOV 22...	1230	9813	70	7.0	1.0	1	12.0	--	38	--	7.1	4.8
DEC 15...	1230	9813	55	7.6	.8	2	13.6	--	38	--	7.1	4.8
FEB 23...	0930	9813	120	6.7	3.0	2	10.0	--	42	2	13	2.0
MAR 08...	0945	9813	70	7.0	3.0	3	10.1	--	24	--	5.5	2.3
APR 20...	0830	9813	60	7.3	11.5	2	11.1	1.0	22	--	6.3	1.5
MAY 19...	1300	9813	70	8.2	19.0	1	10.3	--	26	--	7.1	2.0
JUN 07...	1200	9813	80	7.5	13.0	1	9.5	<1.0	31	--	8.7	2.1
JUL 21...	1245	9813	70	7.1	25.0	5	5.6	--	24	--	6.3	2.0

DATE	ALKALINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT 05...	25	10	7.0	76	4	80	.34	.00	<.10	.09	420	--
NOV 22...	17	6.0	4.0	66	2	68	.64	.02	.18	.03	130	--
DEC 15...	14	7.0	3.0	--	2	40	.76	.00	.18	.08	130	20
FEB 23...	1	5.0	67	78	2	80	.83	.02	.20	.25	250	--
MAR 08...	13	10	4.0	20	8	28	.85	.02	.85	.03	310	--
APR 20...	--	5.0	4.0	38	2	40	.88	.01	.03	.01	--	--
MAY 19...	14	6.0	4.0	38	6	44	.54	<.01	.02	.05	210	--
JUN 07...	18	5.0	12	--	4	48	.76	<.01	.08	.05	130	--
JUL 21...	14	3.0	6.0	12	16	28	.37	.01	.01	.01	46	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548310 MARSH CREEK AT ANSONIA, PA

LOCATION.--Lat 41°44'47", long 77°25'38", Tioga County, Hydrologic Unit 02050205, at bridge on U.S. Route 6 at Ansonia, and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--81.8 mi² (212 km²) approximately.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA.MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 13...	1515	9813	90	7.0	10.0	2	11.0	12	--	0	3	5.5
NOV 18...	1515	9813	120	7.0	8.0	0	11.0	38	--	0	--	12
MAR 21...	1515	9813	90	7.5	5.0	6	12.0	25	--	0	--	3.1
APR 07...	1515	9813	--	7.5	1.0	1	12.0	20	0	0	--	6.3
MAY 04...	0905	9813	110	7.5	15.5	3	12.5	35	--	0	--	13
JUN 29...	1150	9813	164	6.5	19.0	--	6.5	58	--	0	--	20
JUL 07...	1515	9813	170	--	--	15	--	64	--	0	--	16
AUG 25...	1230	9813	190	7.2	14.5	10	--	58	--	0	--	20
SEP 29...	0845	9813	120	6.7	12.0	--	5.5	25	--	--	15	--

DATE	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	--	.0	10	10	11	--	--	.42	.02	.03	.05	220
NOV 18...	--	2.0	26	28	9.0	--	--	1.1	.02	.02	.06	40
MAR 21...	--	4.2	14	5.0	14	90	--	.91	.02	.08	.14	2220
APR 07...	--	1.0	10	10	14	86	--	.88	.02	.19	.04	270
MAY 04...	--	.3	70	18	10	86	--	.58	.04	.10	.14	550
JUN 29...	--	2.0	54	14	14	--	--	.61	.03	.09	.27	2330
JUL 07...	--	6.0	46	18	18	--	--	.96	.11	.19	.31	1090
AUG 25...	--	2.0	54	10	18	120	--	1.1	.04	.09	.18	920
SEP 29...	3.5	--	56	15	8.0	70	26	.76	.06	.17	.19	908

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548352 PINE CREEK AT ANSONIA, PA

LOCATION.--Lat 41°43'58", long 77°25'45", Tioga County, Hydrologic Unit 02050205, 0.1 mi (.2 km) upstream from Darling Run, 0.7 mi (1.1 km) downstream from Marsh Creek and 1.0 mi (1.6 km) south of Ansonia.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 18...	1515	9813	110	7.7	8.0	1	11.0	45	--	0	--	12
MAR 21...	1515	9813	90	7.7	5.0	1	12.0	15	--	0	--	2.3
APR 07...	1515	9813	90	7.5	1.0	2	12.0	20	0	0	--	7.1
MAY 04...	0915	9813	80	7.6	10.0	1	12.1	35	--	0	--	11
JUN 29...	1205	9813	112	6.5	19.0	--	8.0	35	--	0	--	12
JUL 07...	1515	9813	120	--	--	15	--	45	--	0	--	12
AUG 25...	1300	9813	100	8.4	14.5	3	--	35	--	0	--	11
SEP 29...	0915	9813	80	6.2	11.0	--	7.0	25	--	--	8.7	--

DATE	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 18...	--	3.7	28	30	8.0	--	--	1.0	.02	.04	.06	300
MAR 21...	--	2.2	12	10	14	92	--	.93	.03	.04	.08	100
APR 07...	--	.5	10	15	14	82	--	.92	.03	.10	.05	420
MAY 04...	--	1.7	24	15	7.0	74	--	.62	.02	.12	.09	270
JUN 29...	--	.5	314	14	9.0	--	--	.68	.01	.11	.14	500
JUL 07...	--	3.7	32	18	12	--	--	--	.06	.10	.15	1260
AUG 25...	--	1.7	32	8.0	12	76	--	1.0	.03	.05	.14	260
SEP 29...	.8	--	44	8.0	5.0	42	20	.94	.05	.08	.09	645

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548500 PINE CREEK AT CEDAR RUN, PA

LOCATION.--Lat 41°31'18", long 77°26'52", Lycoming County, Hydrologic Unit 02050205, on left bank at upstream side of highway bridge at village of Cedar Run, 2,000 ft (610 m) downstream from Cedar Run and 1.2 mi (1.9 km) upstream from Gamble Run.

DRAINAGE AREA.--604 mi² (1,564 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1918 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 780.36 ft (237.854 m) above mean sea level. Prior to Feb. 13, 1930, nonrecording gage at same site and datum.

REMARKS.--Records fair except those during new bridge construction, Apr. 1-Sept. 30, which are poor.

AVERAGE DISCHARGE.--59 years, 825 ft³/s (23.36 m³/s), 18.60 in/yr (472 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,000 ft³/s (1,870 m³/s) June 23, 1972, gage height, 16.0 ft (4.88 m), from floodmark, from rating curve extended above 16,000 ft³/s (450 m³/s) on basis of slope-area measurement at gage height, 14.39 ft (4.386 m); minimum, 8.0 ft³/s (0.23 m³/s) Sept. 1, 2, 3, 1939: minimum gage height, 0.80 ft (0.244 m) Nov. 28, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,900 ft³/s (167 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 25	0830	ice jam	*9.01 2.746	Mar. 30	0130	6,410 182	6.01 1.832
Mar. 5	0130	6,380 181	6.00 1.829	Apr. 2	2400	6,000 170	5.84 1.780
Mar. 13	1630	*8,090 229	6.63 2.021	Sept. 25	1030	6,850 194	6.40 1.951

Minimum discharge, 74 ft³/s (2.10 m³/s) Sept. 12, 13, minimum gage height, 1.94 ft (0.591 m) Oct. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	1220	210	290	119	2070	3780	807	190	418	316	146
2	105	1060	250	275	117	1630	3560	688	196	323	323	136
3	101	1020	230	260	116	1350	5290	616	184	242	249	136
4	96	1010	220	250	115	2540	3980	616	167	198	211	125
5	92	950	230	240	114	5310	3270	797	151	180	198	110
6	87	828	220	230	113	3880	2520	754	163	211	236	110
7	87	744	450	220	112	2790	1940	671	233	610	395	105
8	181	680	809	210	111	2130	1620	621	212	2000	432	105
9	1480	614	722	200	110	1790	1280	636	219	1640	351	92
10	2150	580	747	195	108	1880	1110	651	480	1270	316	87
11	1190	550	804	188	125	2250	1010	597	358	953	309	87
12	890	497	852	181	300	2660	920	528	223	964	295	78
13	721	460	779	175	430	5900	820	495	146	780	316	87
14	666	434	598	170	500	6370	749	465	163	592	269	512
15	600	410	620	165	430	4190	659	429	152	480	269	488
16	499	384	620	161	350	3000	622	396	141	402	223	365
17	436	385	580	157	250	2230	573	371	119	565	275	854
18	397	362	520	152	218	1900	531	358	740	920	351	620
19	360	355	490	149	203	1590	502	384	953	592	249	1390
20	378	345	490	146	198	1340	486	333	520	565	217	2420
21	2390	332	640	143	194	1150	449	304	425	456	186	1940
22	1660	318	500	140	191	1240	430	277	323	432	192	1410
23	1340	301	490	137	190	1370	481	252	236	410	323	1050
24	1180	280	490	135	800	1200	1330	289	186	351	288	1170
25	1260	268	470	132	3620	1020	1390	400	236	351	255	4930
26	1290	261	430	130	2130	962	1240	310	1320	448	229	4650
27	1120	274	400	128	2120	1020	1160	265	640	410	205	3840
28	1000	297	380	126	2750	1990	1020	239	520	358	192	2770
29	917	321	350	124	---	4760	939	214	780	275	174	1940
30	827	269	330	122	---	6100	900	201	650	425	163	1400
31	1220	---	310	120	---	5290	---	192	---	456	157	---
TOTAL	24834	15809	15231	5451	16134	82902	44561	14156	11026	18277	8164	33153
MEAN	801	527	491	176	576	2674	1485	457	368	590	263	1105
MAX	2390	1220	852	290	3620	6370	5290	807	1320	2000	432	4930
MIN	87	261	210	120	108	962	430	192	119	180	157	78
CFSM	1.33	.87	.81	.29	.95	4.43	2.46	.76	.61	.98	.44	1.83
IN.	1.53	.97	.94	.34	.99	5.11	2.74	.87	.68	1.13	.50	2.04
CAL YR 1976	TOTAL	358891	MEAN 981	MAX 9990	MIN 83	CFSM 1.62	IN 22.10					
WTR YR 1977	TOTAL	289698	MEAN 794	MAX 6370	MIN 78	CFSM 1.32	IN 17.84					

WEST BRANCH SUSQUEHANNA RIVER BASIN
01548500 PINE CREEK AT CEDAR RUN, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 04...	1230	9813	997	90	7.3	6.0	1	--	30	--	0	8.7
FEB 28...	1000	9813	2720	70	6.5	--	60	--	25	0	0	8.0
JUL 28...	1110	9813	330	95	--	--	2	8.6	35	--	0	11
AUG 22...	1155	9813	180	90	8.2	21.5	2	11.0	35	--	0	12

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CA+O3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 04...	2.0	14	10	6.0	--	--	--	.87	.02	.04	.03	160
FEB 28...	1.0	14	10	6.0	40	116	156	.87	.03	.09	.16	5360
JUL 28...	1.7	32	8.0	6.0	60	<10	--	.42	.02	.06	.08	110
AUG 22...	1.2	40	10	7.0	66	4	70	.56	.02	.06	.05	40

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 04...	1230	9813	180	3	<10	10	<50	70	40	<10
AUG 22...	1155	9813	140	<3	<10	30	<50	30	20	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549100 BLOCKHOUSE CREEK TRIBUTARY AT LIBERTY, PA

LOCATION.--Lat 41°34'04", long 77°06'06", Tioga County, Hydrologic Unit 02050205, on left bank at downstream side of bridge on gravel road between U.S. Route 15 and State Highway 414, 0.7 mi (1.1 km) north of Liberty, and 100 ft (305 m) upstream from confluence with Blockhouse Creek.

DRAINAGE AREA.--1.08 mi² (2.80 km²).

PERIOD OF RECORD.--October 1972 to September 1977 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1973 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1972 to September 1977 (discontinued).

REMARKS.--Unpublished records of pH and specific conductance on instantaneous sediment samples available at the district office in Harrisburg. Mean concentrations of suspended sediment are water-weighted means.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.0°C July 8, 1973, July 8, 1974; minimum, freezing point on many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum, 3,710 mg/L Feb. 2, 1973; minimum, 1 mg/L on many days each year.

SEDIMENT LOADS: Maximum, 351 tons (318 tonnes) Feb. 2, 1973; minimum, 0 ton (0 tonne) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum, 1,000 mg/L Sept. 5; minimum, 1 mg/L on many days.

SEDIMENT LOADS: Maximum, 40 tons (36 tonnes) Mar. 29; minimum, 0 ton (0 tonne) on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS CaCO ₃ (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)
OCT 20...	1015	110	6.7	5.0	46	25	10	15	2.1	4.8	2.0

DATE	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	ALKALINITY AS CaCO ₃ (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 20...	26	0	21	8.3	18	7.7	.1	7.3	91	1.5

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KjELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHOPHOSPHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT 20...	.01	1.5	.41	.69	1.1	2.6	.30	.13	130	90

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549100 BLOCKHOUSE CREEK TRIBUTARY AT LIBERTY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.0	0.0	---	---	---	10.0	4.0	6.5	---	---	---
2	2.0	0.0	0.5	---	---	---	6.0	4.5	5.0	---	---	---
3	1.0	0.0	0.5	---	---	---	10.0	5.5	7.5	---	---	---
4	1.5	0.0	0.5	---	---	---	5.5	5.0	5.0	---	---	---
5	1.0	0.0	0.5	---	---	---	7.5	3.5	5.5	---	---	---
6	0.5	0.0	0.0	---	---	---	6.0	2.5	4.0	---	---	---
7	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
8	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
9	1.0	0.0	0.0	---	---	---	---	---	---	---	---	---
10	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
11	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
12	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	24.5	13.0	18.0
22	---	---	---	---	---	---	---	---	---	23.5	13.0	17.5
23	---	---	---	6.0	0.5	2.5	---	---	---	24.0	12.5	18.0
24	---	---	---	5.0	0.0	2.0	---	---	---	21.5	15.0	17.0
25	---	---	---	6.0	0.0	2.0	---	---	---	22.0	14.5	17.5
26	---	---	---	7.5	0.0	2.5	---	---	---	22.0	13.0	17.0
27	---	---	---	8.0	0.5	3.5	---	---	---	22.0	10.5	16.0
28	---	---	---	4.0	3.0	3.5	---	---	---	22.5	12.5	17.5
29	---	---	---	6.5	2.5	4.0	---	---	---	20.0	13.0	16.0
30	---	---	---	11.5	4.5	7.5	---	---	---	17.0	13.0	15.0
31	---	---	---	8.0	5.5	7.0	---	---	---	14.5	11.5	13.0
MONTH	2.0	0.0	0.0	11.5	0.0	4.0	10.0	2.5	5.5	24.5	10.5	16.5

01549100 BLOCKHOUSE CREEK TRIBUTARY AT LIBERTY, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	0.25	2	.00	1.9	1	0.01	0.42	1	.00
2	0.25	2	.00	1.6	1	.00	0.39	1	.00
3	0.21	2	.00	1.5	1	.00	0.38	1	.00
4	0.21	2	.00	1.6	1	.00	0.38	1	.00
5	0.20	2	.00	1.5	1	.00	0.37	1	.00
6	0.18	2	.00	1.3	1	.00	0.33	1	.00
7	0.21	3	.00	1.2	1	.00	2.3	10	0.06
8	0.87	51	0.12	1.0	1	.00	2.0	7	0.04
9	9.7	180	4.7	0.93	1	.00	0.91	5	0.01
10	4.4	5	0.06	0.96	1	.00	0.67	4	0.01
11	2.4	3	0.02	0.95	1	.00	0.86	5	0.01
12	1.6	1	.00	0.83	1	.00	0.75	4	0.01
13	1.3	2	0.01	0.77	1	.00	0.73	4	0.01
14	1.4	3	0.01	0.73	1	.00	0.67	6	0.01
15	1.1	3	0.01	0.70	1	.00	0.60	4	0.01
16	0.90	2	.00	0.67	2	.00	0.60	4	0.01
17	0.79	2	.00	0.58	1	.00	0.61	4	0.01
18	0.72	2	.00	0.59	1	.00	0.58	4	0.01
19	0.61	2	.00	0.60	1	.00	0.54	4	0.01
20	3.3	162	1.4	0.58	1	.00	1.1	311	0.92
21	8.2	15	0.33	0.56	1	.00	0.80	6	0.01
22	3.9	6	0.06	0.52	1	.00	0.61	6	0.01
23	2.4	3	0.02	0.45	1	.00	0.51	5	0.01
24	2.2	4	0.02	0.44	1	.00	0.47	5	0.01
25	2.4	7	0.05	0.42	1	.00	0.46	5	0.01
26	2.4	3	0.02	0.45	1	.00	0.47	5	0.01
27	1.9	1	0.01	0.50	1	.00	0.39	5	0.01
28	1.6	1	.00	0.53	1	.00	0.36	5	.00
29	1.5	1	.00	0.65	1	.00	0.35	5	.00
30	1.4	1	.00	0.52	2	.00	0.34	5	.00
31	2.9	20	0.16	---	---	---	0.34	5	.00
TOTAL	61.40	---	7.00	25.53	---	0.01	20.29	---	1.20

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549100 BLOCKHOUSE CREEK TRIBUTARY AT LIBERTY, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY				FEBRUARY			MARCH		
1	0.33	4	.00	0.19	4	.00	1.7	4	0.02
2	0.32	5	.00	0.19	4	.00	1.3	3	0.01
3	0.32	4	.00	0.19	4	.00	1.1	3	0.01
4	0.31	3	.00	0.20	4	.00	14	352	13
5	0.31	4	.00	0.20	4	.00	7.5	17	0.34
6	0.30	4	.00	0.20	4	.00	3.4	13	0.12
7	0.29	3	.00	0.19	4	.00	2.0	11	0.06
8	0.29	3	.00	0.19	3	.00	1.6	9	0.04
9	0.28	3	.00	0.19	3	.00	1.6	9	0.04
10	0.27	4	.00	0.19	3	.00	1.7	9	0.04
11	0.27	8	0.01	0.63	130	0.22	1.7	9	0.04
12	0.26	4	.00	0.96	99	0.26	1.7	9	0.04
13	0.26	4	.00	2.0	138	0.75	8.7	122	2.9
14	0.25	4	.00	0.67	6	0.01	5.7	13	0.20
15	0.25	4	.00	0.49	3	.00	3.8	11	0.11
16	0.24	4	.00	0.42	3	.00	3.0	11	0.09
17	0.24	4	.00	0.36	3	.00	2.2	10	0.06
18	0.23	4	.00	0.34	3	.00	1.9	10	0.05
19	0.23	4	.00	0.30	2	.00	1.7	10	0.05
20	0.22	4	.00	0.30	2	.00	1.5	10	0.04
21	0.22	4	.00	0.31	2	.00	1.4	10	0.04
22	0.22	4	.00	0.30	2	.00	1.8	10	0.05
23	0.21	4	.00	0.76	142	0.29	1.7	10	0.05
24	0.21	4	.00	11	740	22	1.4	10	0.04
25	0.21	4	.00	7.7	33	0.69	1.3	8	0.03
26	0.21	4	.00	3.0	7	0.06	1.2	8	0.03
27	0.20	4	.00	2.7	6	0.04	1.4	10	0.04
28	0.20	4	.00	2.7	5	0.04	2.6	15	0.11
29	0.20	4	.00	---	---	---	16	934	40
30	0.20	4	.00	---	---	---	10	20	0.54
31	0.20	4	.00	---	---	---	8.1	20	0.44
TOTAL	7.75	---	0.01	36.87	---	24.36	114.7	---	58.63

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY			JUNE		
1	4.8	13	0.17	1.3	5	0.02	0.38	10	0.01
2	7.6	100	2.1	1.2	6	0.02	0.35	10	0.01
3	8.4	15	0.34	1.1	8	0.02	0.32	10	0.01
4	5.8	11	0.17	1.1	8	0.02	0.29	10	0.01
5	5.5	12	0.18	1.8	6	0.03	0.28	10	0.01
6	4.5	8	0.10	1.4	5	0.02	0.39	15	0.02
7	3.8	8	0.08	1.0	5	0.01	0.42	9	0.01
8	3.4	8	0.07	0.85	5	0.01	0.34	9	0.01
9	2.6	8	0.06	1.1	5	0.01	0.48	20	0.03
10	2.0	8	0.04	1.2	15	0.05	0.68	9	0.02
11	1.7	9	0.04	1.0	12	0.03	0.45	7	0.01
12	1.5	9	0.04	0.82	20	0.04	0.35	6	0.01
13	1.3	11	0.04	0.75	11	0.02	0.30	6	.00
14	1.2	8	0.03	0.67	11	0.02	0.28	6	.00
15	1.1	8	0.02	0.62	11	0.02	0.26	6	.00
16	0.97	7	0.02	0.59	9	0.01	0.23	6	.00
17	0.88	7	0.02	0.56	9	0.01	0.29	62	0.05
18	0.81	7	0.02	0.57	9	0.01	0.35	44	0.04
19	0.79	6	0.01	0.56	9	0.01	0.35	15	0.01
20	0.71	6	0.01	0.50	9	0.01	0.27	11	0.01
21	0.65	6	0.01	0.47	9	0.01	0.23	9	0.01
22	0.60	6	0.01	0.44	9	0.01	0.19	8	.00
23	1.3	21	0.07	0.41	9	0.01	0.17	8	.00
24	6.3	44	0.75	1.1	230	0.68	0.16	8	.00
25	4.5	8	0.10	0.50	15	0.02	0.87	313	0.74
26	3.1	5	0.04	0.42	10	0.01	0.79	30	0.06
27	2.9	5	0.04	0.42	10	0.01	0.44	15	0.02
28	2.2	5	0.03	0.40	10	0.01	0.90	300	0.73
29	1.8	5	0.02	0.39	10	0.01	1.3	78	0.27
30	1.5	5	0.02	0.38	10	0.01	0.67	17	0.03
31	---	---	---	0.35	10	0.01	---	---	---
TOTAL	84.21	---	4.65	23.97	---	1.18	12.78	---	2.13

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549100 BLOCKHOUSE CREEK TRIBUTARY AT LIBERTY, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY				AUGUST			SEPTEMBER		
1	0.48	18	0.02	0.14	11	.00	0.13	10	.00
2	0.37	15	0.01	0.12	9	.00	0.12	9	.00
3	0.32	12	0.01	0.12	9	.00	0.10	9	.00
4	0.31	12	0.01	0.08	9	.00	0.08	9	.00
5	0.29	13	0.01	0.13	9	.00	0.26	1000	0.70
6	0.36	18	0.02	0.22	25	0.01	0.28	15	0.01
7	0.52	13	0.02	0.24	16	0.01	0.18	8	.00
8	0.71	28	0.05	0.22	10	0.01	0.17	8	.00
9	0.41	13	0.01	0.22	10	0.01	0.13	8	.00
10	0.30	13	0.01	0.24	14	0.01	0.10	8	.00
11	0.25	11	0.01	0.20	12	0.01	0.07	8	.00
12	0.26	11	0.01	0.17	12	0.01	0.07	8	.00
13	0.24	11	0.01	0.12	12	.00	0.20	40	0.02
14	0.20	11	0.01	0.17	14	0.01	0.34	25	0.02
15	0.17	11	0.01	0.15	12	.00	0.16	10	.00
16	0.23	30	0.02	0.15	16	0.01	0.34	22	0.02
17	0.38	38	0.04	0.58	25	0.04	0.59	15	0.02
18	0.31	15	0.01	0.38	18	0.02	1.2	54	0.17
19	0.23	12	0.01	0.26	14	0.01	1.5	15	0.06
20	0.22	10	0.01	0.20	12	0.01	3.0	170	1.4
21	0.22	30	0.02	0.17	12	0.01	1.7	12	0.06
22	0.24	13	0.01	0.22	14	0.01	1.1	10	0.03
23	0.17	9	.00	0.18	12	0.01	0.91	10	0.02
24	0.15	9	.00	0.22	16	0.01	1.2	18	0.06
25	0.24	22	0.01	0.20	12	0.01	4.1	140	1.5
26	0.17	9	.00	0.17	10	.00	3.9	18	0.19
27	0.13	9	.00	0.15	10	.00	2.8	8	0.06
28	0.12	9	.00	0.13	10	.00	2.0	8	0.04
29	0.08	9	.00	0.13	10	.00	1.5	7	0.03
30	0.12	9	.00	0.15	12	.00	1.2	7	0.02
31	0.08	9	.00	0.15	10	.00	---	---	---
TOTAL	8.28	---	0.35	5.98	---	0.22	29.43	---	4.43

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549300 BLOCKHOUSE CREEK AT BUTTONWOOD, PA

LOCATION.--Lat 41°29'43", long 77°09'02", Lycoming County, Hydrologic Unit 02050205, on left bank 100 ft (31 m) upstream from confluence with Steam Valley Run, near intersection of U.S. Route 15 and State Highway 284.

DRAINAGE AREA.--22.3 mi² (57.8 km²).

PERIOD OF RECORD.--October 1972 to September 1977 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1973 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1972 to September 1977 (discontinued).

REMARKS.--Unpublished records of pH and specific conductance of instantaneous sediment samples available at the district office in Harrisburg. Mean concentrations of suspended sediment are water-weighted means.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.0°C Aug. 1, 2, 1975; minimum, freezing point on several days during December 1973, January to March 1974.

SEDIMENT CONCENTRATIONS: Maximum, 3,200 mg/L Feb. 2, 1973; minimum, 1 mg/L on many days each year.

SEDIMENT LOADS: Maximum, 6,300 tons (5,700 tonnes) Feb. 2, 1973; minimum, 0 ton (0 tonne) on several days during October 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.0°C Jul. 21; minimum, freezing point on many days during December through March.

SEDIMENT CONCENTRATIONS: Maximum, 715 mg/L Jun. 28; minimum, 1 mg/L on many days.

SEDIMENT LOADS: Maximum, 194 tons (176 tonnes) Mar. 4; minimum, 0.02 ton (0.02 tonne) on many days during October, January and February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS CAC03 (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)
OCT 20...	1115	105	6.9	7.0	46	23	7.0	15	2.0	4.1	1.3

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 20...	28	0	23	5.6	14	7.8	.1	5.1	74	1.3

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT 20...	.01	1.3	.29	.00	.08	1.4	.04	.19	20	100

01549300 BLOCKHOUSE CREEK AT BUTTONWOOD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	0.5	0.5	0.5	3.0	0.0	1.0	8.5	3.5	6.0	15.5	6.5	10.5
2	0.5	0.5	0.5	2.5	0.0	1.0	6.0	4.0	5.0	12.5	10.0	11.0
3	0.5	0.5	0.5	3.5	0.5	1.5	9.5	5.5	7.0	15.0	7.5	11.0
4	0.5	0.5	0.5	1.5	1.0	1.5	5.0	4.5	5.0	10.0	8.0	9.0
5	0.5	0.0	0.5	4.5	1.0	2.5	7.0	4.0	5.5	13.5	8.5	11.0
6	0.5	0.0	0.5	4.0	1.0	2.0	5.5	2.5	4.0	17.5	10.0	13.5
7	0.5	0.0	0.5	3.5	1.5	2.0	6.0	1.5	3.5	16.5	10.5	13.0
8	0.5	0.0	0.5	6.0	1.0	3.0	7.5	2.0	4.5	14.5	8.0	10.5
9	0.5	0.0	0.5	8.0	1.5	4.5	8.0	1.0	4.0	8.5	5.5	7.0
10	0.5	0.5	0.5	8.5	2.5	5.0	10.0	1.5	5.0	10.0	6.0	8.0
11	0.5	0.0	0.5	8.5	2.5	5.0	13.5	4.0	8.5	14.5	6.5	10.0
12	0.5	0.5	0.5	7.5	3.0	6.0	15.5	7.5	11.0	15.0	7.0	11.0
13	1.0	0.5	0.5	6.5	4.5	5.5	15.0	7.5	11.0	17.0	9.0	12.5
14	1.5	0.0	1.0	4.5	4.5	4.5	14.5	8.5	11.0	16.0	8.5	12.0
15	1.5	0.0	0.5	8.5	4.5	6.5	13.5	5.5	9.5	16.5	7.5	12.0
16	1.0	0.0	0.5	8.5	4.0	7.5	13.5	5.5	9.5	17.5	8.5	12.5
17	0.5	0.0	0.0	7.0	2.5	4.5	14.5	5.5	9.5	17.0	10.0	14.0
18	0.5	0.0	0.5	3.0	0.0	1.5	12.0	6.0	9.0	18.5	12.0	15.0
19	1.0	0.0	0.5	6.5	1.0	3.0	13.5	8.0	10.5	20.5	13.5	16.5
20	0.5	0.0	0.5	1.5	0.5	1.0	14.0	9.0	11.5	20.0	12.5	16.5
21	1.5	0.0	0.5	6.5	1.0	3.0	17.0	9.0	13.0	22.5	13.5	17.5
22	1.5	0.0	1.0	2.0	1.0	1.5	16.5	12.0	14.0	22.5	14.0	17.5
23	4.5	0.5	1.5	6.0	1.0	2.5	15.0	12.5	13.0	22.0	13.5	17.5
24	1.5	0.5	1.0	5.5	0.5	2.5	12.0	9.0	11.0	20.5	15.0	17.5
25	1.0	0.5	1.0	5.0	0.0	2.0	10.0	8.5	9.0	23.0	15.5	18.5
26	3.5	0.5	1.5	6.5	0.5	2.5	9.5	7.5	8.5	21.5	13.5	17.5
27	3.0	1.0	2.0	8.0	0.5	3.5	12.0	7.0	9.0	21.0	12.0	16.5
28	2.5	0.5	1.0	4.0	2.5	3.0	10.0	6.5	8.5	23.0	13.5	18.0
29	---	---	---	8.0	2.5	5.0	12.0	5.0	8.0	20.5	13.0	16.5
30	---	---	---	11.0	4.0	7.5	13.5	5.0	9.0	16.5	13.5	15.0
31	---	---	---	8.0	5.0	6.5	---	---	---	15.5	12.5	14.0
MONTH	4.5	0.0	0.5	11.0	0.0	3.5	17.0	1.0	8.5	23.0	5.5	13.5

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549300 BLOCKHOUSE CREEK AT BUTTONWOOD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	13.5	15.5	23.0	16.5	19.0	23.5	18.5	20.5	25.5	19.5	22.0
2	17.0	12.5	15.0	21.5	14.5	17.5	26.0	16.5	20.5	26.0	19.5	22.0
3	20.0	12.0	15.5	21.0	12.5	17.0	24.0	16.5	20.0	24.0	19.0	21.0
4	21.0	11.0	16.0	19.5	15.0	17.0	24.5	18.0	21.0	24.0	15.5	19.5
5	21.5	14.0	17.0	22.5	16.0	19.0	24.0	18.5	21.0	23.5	16.5	20.0
6	15.5	12.0	13.5	---	---	---	22.0	19.5	20.5	22.5	18.5	20.0
7	13.5	11.0	12.0	---	---	---	22.5	19.0	20.5	20.5	15.5	18.0
8	17.0	9.5	13.0	---	---	---	25.0	19.0	21.5	20.0	15.0	17.0
9	13.0	11.5	12.0	---	---	---	24.5	18.5	21.5	21.5	15.5	17.5
10	13.0	11.0	12.0	---	---	---	23.0	19.0	21.0	23.5	16.5	19.0
11	18.5	10.0	14.0	---	---	---	26.0	19.5	22.0	20.0	14.0	17.0
12	18.0	12.0	14.5	---	---	---	23.5	20.0	21.5	20.0	11.0	15.0
13	20.5	13.0	16.5	---	---	---	23.0	18.0	20.5	16.5	14.0	15.5
14	16.5	14.5	15.5	---	---	---	21.5	19.0	20.0	20.0	15.0	17.0
15	22.0	14.0	17.5	---	---	---	25.0	17.0	20.5	16.5	12.0	14.5
16	23.5	13.5	18.5	---	---	---	22.5	16.5	20.0	15.0	13.5	14.5
17	20.0	16.5	17.5	---	---	---	21.5	18.5	20.0	18.0	14.0	16.0
18	20.5	15.5	17.5	---	---	---	22.0	15.5	18.0	18.0	15.5	16.5
19	21.0	15.5	18.0	---	---	---	20.5	14.0	17.0	19.5	15.5	17.0
20	21.5	13.5	17.0	---	---	---	22.5	14.5	17.5	17.5	15.5	16.5
21	19.0	14.5	16.5	27.0	20.5	23.5	20.0	13.5	16.5	16.5	14.5	15.5
22	20.0	12.5	16.0	25.0	18.5	21.5	22.0	16.5	18.5	17.0	14.0	15.0
23	22.0	12.5	17.0	24.5	15.5	20.0	22.5	15.0	18.0	14.5	12.5	13.5
24	22.0	14.0	18.0	24.0	16.5	20.0	19.5	15.0	17.5	15.0	13.5	14.0
25	18.0	15.0	17.0	22.0	19.0	20.0	21.5	12.5	16.5	14.0	12.5	13.0
26	19.0	14.0	16.0	21.0	15.5	18.0	20.5	13.0	16.5	15.0	12.5	13.0
27	23.0	14.0	18.5	22.5	14.0	17.5	22.5	15.0	18.0	15.5	11.5	13.5
28	20.0	15.5	18.0	22.5	14.0	18.0	26.0	17.0	21.0	15.0	11.5	13.0
29	21.0	16.5	18.5	21.0	15.5	18.0	25.5	18.0	21.5	15.0	10.5	12.5
30	22.0	14.0	17.5	23.0	17.5	19.5	24.5	19.0	21.5	14.0	11.0	12.5
31	---	---	---	25.0	17.0	20.5	23.5	18.0	20.0	---	---	---
MONTH	23.5	9.5	16.0	27.0	12.5	19.0	26.0	12.5	19.5	26.0	10.5	16.5

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	5.4	2	0.03	46	2	0.25	7.3	2	0.04
2	5.1	2	0.03	39	2	0.21	7.0	2	0.04
3	4.8	2	0.03	37	2	0.20	6.8	2	0.04
4	4.3	2	0.02	38	3	0.31	6.7	2	0.04
5	4.1	2	0.02	34	2	0.18	6.6	2	0.04
6	4.1	2	0.02	29	2	0.16	6.4	2	0.03
7	4.3	2	0.02	27	2	0.15	50	14	1.9
8	19	7	0.36	24	2	0.13	30	3	0.24
9	237	253	162	22	2	0.12	24	2	0.13
10	74	7	1.4	21	3	0.17	21	2	0.11
11	44	2	0.24	21	3	0.17	27	1	0.07
12	34	1	0.09	17	3	0.14	25	1	0.07
13	29	1	0.08	16	3	0.13	24	1	0.06
14	32	2	0.17	15	3	0.12	20	1	0.05
15	24	1	0.06	14	3	0.11	17	1	0.05
16	20	1	0.05	13	3	0.11	16	1	0.04
17	18	1	0.05	12	3	0.10	16	1	0.04
18	16	1	0.04	12	3	0.10	15	1	0.04
19	14	1	0.04	12	3	0.10	14	1	0.04
20	84	83	19	12	2	0.06	25	15	1.0
21	205	45	25	11	2	0.06	26	6	0.42
22	78	2	0.42	10	2	0.05	19	3	0.15
23	55	2	0.30	9.7	2	0.05	15	2	0.08
24	58	5	0.78	9.1	2	0.05	12	2	0.05
25	60	5	0.81	9.0	2	0.05	12	2	0.06
26	66	5	0.89	9.2	2	0.05	12	2	0.06
27	46	3	0.37	10	2	0.05	11	3	0.09
28	40	2	0.22	10	2	0.05	10	2	0.05
29	37	2	0.20	9.0	2	0.05	9.6	2	0.05
30	33	2	0.18	8.2	3	0.07	9.0	2	0.05
31	83	26	5.8	---	---	---	8.5	2	0.05
TOTAL	1438.1	--	218.72	556.2	---	3.55	508.9	---	5.19

01549300 BLOCKHOUSE CREEK AT BUTTONWOOD, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	8.0	2	0.04	4.0	2	0.02	37	8	0.80
2	7.5	2	0.04	4.0	2	0.02	30	8	0.65
3	7.3	2	0.04	4.0	2	0.02	28	8	0.60
4	7.1	2	0.04	4.2	2	0.02	250	287	194
5	6.8	2	0.04	4.2	2	0.02	140	86	33
6	6.5	2	0.04	4.2	2	0.02	72	13	2.5
7	6.3	2	0.03	4.1	2	0.02	52	10	1.4
8	6.1	2	0.03	4.1	2	0.02	41	8	0.89
9	6.0	2	0.03	4.0	2	0.02	39	8	0.84
10	5.8	2	0.03	4.0	2	0.02	41	8	0.89
11	5.6	2	0.03	5.0	2	0.03	42	8	0.91
12	5.5	2	0.03	16	12	0.52	43	8	0.93
13	5.4	2	0.03	53	15	2.1	235	85	54
14	5.3	2	0.03	24	10	0.65	132	15	5.3
15	5.1	2	0.03	14	8	0.30	81	9	2.0
16	5.0	2	0.03	10	9	0.24	63	8	1.4
17	4.9	3	0.04	9.0	9	0.22	48	5	0.65
18	4.8	3	0.04	7.9	8	0.17	45	5	0.61
19	4.7	3	0.04	7.2	6	0.12	40	5	0.54
20	4.6	3	0.04	7.2	6	0.12	35	5	0.47
21	4.5	3	0.04	7.2	7	0.14	34	5	0.46
22	4.4	3	0.04	7.2	8	0.16	48	5	0.65
23	4.4	3	0.04	20	20	1.1	48	5	0.65
24	4.3	3	0.03	203	180	99	39	5	0.53
25	4.3	3	0.03	101	17	4.6	33	7	0.62
26	4.2	4	0.05	55	11	1.6	33	7	0.62
27	4.2	3	0.03	64	11	1.9	43	9	1.0
28	4.2	2	0.02	52	8	1.1	86	12	2.8
29	4.1	2	0.02	---	---	---	262	134	95
30	4.1	2	0.02	---	---	---	185	12	6.0
31	4.1	2	0.02	---	---	---	142	9	3.5
TOTAL	165.1	---	1.04	703.5	---	114.27	2447	---	414.21

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	87	7	1.6	34	6	0.55	8.4	6	0.14
2	169	70	32	31	6	0.50	7.7	6	0.12
3	164	15	6.6	28	6	0.45	6.3	5	0.09
4	100	7	1.9	27	6	0.44	5.6	5	0.08
5	103	8	2.2	40	8	0.86	5.0	4	0.05
6	75	7	1.4	33	6	0.53	8.8	6	0.14
7	61	6	0.99	27	3	0.22	11	5	0.15
8	53	6	0.86	25	3	0.20	6.8	4	0.07
9	42	6	0.68	29	4	0.31	8.4	6	0.14
10	37	6	0.60	31	4	0.33	16	7	0.30
11	34	6	0.55	27	3	0.22	9.2	6	0.15
12	30	6	0.49	23	3	0.19	6.6	6	0.11
13	27	6	0.44	22	3	0.18	5.7	6	0.09
14	25	6	0.41	20	3	0.16	5.1	6	0.08
15	23	5	0.31	18	3	0.15	5.2	6	0.08
16	21	5	0.28	17	3	0.14	4.4	6	0.07
17	19	4	0.21	16	3	0.13	16	161	7.0
18	18	4	0.19	17	5	0.23	20	25	1.4
19	17	4	0.18	16	4	0.17	18	15	0.73
20	16	4	0.17	14	4	0.15	11	6	0.18
21	15	4	0.16	12	4	0.13	8.9	6	0.14
22	15	6	0.24	11	4	0.12	6.9	6	0.11
23	32	14	1.2	9.9	4	0.11	5.8	6	0.09
24	224	125	76	17	127	5.8	5.3	6	0.09
25	138	9	3.4	22	15	0.89	18	70	3.4
26	86	6	1.4	12	9	0.29	26	60	4.2
27	82	8	1.8	9.8	8	0.21	12	8	0.26
28	57	6	0.92	8.5	8	0.18	36	715	69
29	46	6	0.75	7.4	8	0.16	36	500	49
30	39	6	0.63	7.0	7	0.13	22	8	0.48
31	---	---	---	6.7	7	0.13	---	---	---
TOTAL	1855	---	138.56	618.3	---	14.26	362.1	---	137.94

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549300 BLOCKHOUSE CREEK AT BUTTONWOOD, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	17	8	0.37	5.1	7	0.10	2.3	6	0.04
2	14	7	0.26	4.4	4	0.05	2.2	6	0.04
3	12	6	0.19	3.4	4	0.04	2.0	6	0.03
4	11	6	0.18	3.1	4	0.03	1.9	6	0.03
5	10	6	0.16	3.2	4	0.03	1.9	6	0.03
6	11	8	0.24	8.0	25	0.54	5.3	12	0.17
7	16	8	0.35	9.6	12	0.31	2.8	8	0.06
8	23	30	1.9	6.0	8	0.13	2.4	8	0.05
9	13	8	0.28	5.1	8	0.11	2.2	8	0.05
10	10	8	0.22	4.5	8	0.10	2.0	8	0.04
11	9.1	7	0.17	4.3	8	0.09	1.7	8	0.04
12	10	8	0.22	3.7	10	0.10	1.6	8	0.03
13	9.4	7	0.18	3.4	10	0.09	1.8	10	0.05
14	7.1	6	0.12	3.7	10	0.10	9.1	12	0.29
15	6.1	6	0.10	4.1	10	0.11	4.0	8	0.09
16	5.9	6	0.10	3.2	10	0.09	5.2	12	0.17
17	9.9	8	0.21	16	50	2.2	15	12	0.49
18	9.4	7	0.18	7.7	20	0.42	8.7	116	2.7
19	7.7	12	0.25	4.7	15	0.19	30	40	3.2
20	8.9	6	0.14	3.8	8	0.08	60	77	12
21	6.0	6	0.10	3.3	8	0.07	27	12	0.87
22	6.2	6	0.10	4.4	10	0.12	17	6	0.28
23	4.7	5	0.06	3.9	8	0.08	14	6	0.23
24	4.2	5	0.06	4.0	8	0.09	24	8	0.52
25	9.7	22	0.58	3.7	8	0.08	76	77	16
26	7.5	4	0.08	3.1	8	0.07	64	12	2.1
27	4.9	4	0.05	2.8	6	0.05	41	7	0.77
28	4.1	4	0.04	2.6	6	0.04	31	6	0.50
29	3.8	4	0.04	2.5	6	0.04	25	6	0.41
30	3.8	4	0.04	2.5	6	0.04	22	6	0.36
31	3.7	4	0.04	2.3	6	0.04	---	---	---
TOTAL	279.1	---	7.01	142.1	---	5.63	503.1	---	41.64

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549350 STEAM VALLEY RUN AT BUTTONWOOD, PA

LOCATION.--Lat 41°29'39", long 77°09'03", Lycoming County, Hydrologic Unit 02050205, on right bank at upstream end of bridge on State Highway 284, 500 ft (152 m) upstream from confluence with Blockhouse Creek.

DRAINAGE AREA.--5.34 mi² (13.8 km²).

PERIOD OF RECORD.--October 1972 to September 1977 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1973 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1972 to September 1977 (discontinued).

REMARKS.--Unpublished records of pH and specific conductance of instantaneous sediment samples available at the district office in Harrisburg. Mean concentrations of suspended sediment are water-weighted means.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 2, 1975; minimum, freezing point on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum, 5,670 mg/L Jun. 20, 1974; minimum, 1 mg/L on many days.

SEDIMENT LOADS: Maximum, 601 tons (545 tonnes) Sept. 26, 1975; minimum, 0 ton (0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.0°C Jun. 27, Jul. 5; minimum, freezing point on many days during December through March.

SEDIMENT CONCENTRATIONS: Maximum, 415 mg/L Jun. 28; minimum, 1 mg/L on many days.

SEDIMENT LOADS: Maximum, 28 tons (25 tonnes) Mar. 4; minimum, 0.01 ton (0.01 tonne) on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA, MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS CAC03 (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)
OCT 20...	1050	40	6.6	7.0	22	11	5.0	6.8	1.1	2.5	.7

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 20...	13	0	11	5.2	5.7	5.9	.1	4.6	41	.36

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT 20...	.01	.37	.04	.00	.00	.37	.04	.03	30	80

WEST BRANCH SUSQUEHANNA RIVER BASIN
01549350 STEAM VALLEY RUN AT BUTTONWOOD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.5	0.5	0.5	4.0	1.5	2.5	8.0	5.0	6.0	13.0	7.0	10.0
2	0.5	0.5	0.5	4.0	1.0	2.0	7.0	5.0	6.0	11.0	9.0	10.0
3	0.5	0.5	0.5	5.0	1.5	3.0	9.0	6.0	7.5	13.0	7.5	10.0
4	1.0	0.5	0.5	3.5	2.5	3.0	6.5	5.5	6.0	9.5	7.5	8.5
5	1.0	0.5	0.5	5.5	3.0	4.5	7.5	5.0	6.5	12.5	9.0	10.0
6	0.5	0.5	0.5	5.5	3.5	4.5	6.5	4.0	5.0	14.5	9.5	11.5
7	0.5	0.5	0.5	5.0	3.5	4.0	6.5	3.5	5.0	13.5	9.0	11.0
8	0.5	0.0	0.5	6.0	3.0	4.0	7.0	2.5	4.5	12.5	7.0	9.5
9	0.5	0.5	0.5	7.0	3.5	5.5	7.0	2.0	4.0	7.5	5.5	6.5
10	1.5	0.5	0.5	8.0	4.5	6.0	9.0	2.5	5.5	9.0	6.5	7.5
11	1.0	0.5	0.5	8.5	4.0	6.0	12.0	5.0	8.5	12.0	7.0	9.0
12	0.5	0.5	0.5	8.0	5.0	6.5	14.0	8.0	10.5	12.5	7.0	9.5
13	1.0	0.5	0.5	7.5	6.5	7.0	13.0	7.5	10.5	14.5	9.0	11.0
14	2.0	0.5	1.0	7.0	6.5	6.5	12.5	7.5	10.0	13.0	7.5	10.0
15	2.0	0.5	1.0	8.5	6.0	7.0	12.5	5.5	8.5	13.0	7.0	10.0
16	0.5	0.5	0.5	8.0	5.5	6.5	12.5	6.0	8.5	14.5	7.5	11.0
17	0.5	0.0	0.5	7.0	4.0	5.0	13.0	5.5	9.0	15.0	9.0	11.5
18	0.5	0.0	0.5	4.5	1.0	3.0	12.0	6.0	9.0	16.0	11.0	12.5
19	0.5	0.5	0.5	6.0	2.5	4.0	13.0	8.0	10.0	17.0	12.0	14.0
20	0.5	0.5	0.5	3.0	2.0	2.5	14.0	9.0	11.0	17.0	11.5	13.5
21	0.5	0.5	0.5	6.5	2.0	4.0	16.0	9.0	12.0	19.0	12.0	14.5
22	1.0	0.5	0.5	3.5	2.0	3.0	16.5	11.0	13.0	19.5	12.5	15.0
23	1.5	0.5	0.5	5.5	2.0	3.5	13.0	11.5	12.5	18.5	12.0	15.0
24	1.5	0.5	0.5	5.0	1.0	2.5	11.5	9.0	10.0	18.0	13.0	14.5
25	2.0	0.5	2.0	5.0	0.0	2.5	9.0	8.0	8.5	20.0	12.5	15.0
26	4.5	2.0	3.0	6.0	0.5	3.0	9.0	7.5	8.0	19.0	11.0	14.0
27	4.5	2.5	3.5	7.0	2.0	4.5	11.0	7.0	8.5	18.5	10.5	14.0
28	3.5	2.0	2.5	5.0	4.0	4.5	9.5	6.5	8.0	20.0	11.5	14.5
29	---	---	---	8.0	4.5	6.0	10.5	5.5	7.5	18.5	12.0	14.5
30	---	---	---	10.0	5.5	7.5	12.0	5.5	8.5	15.5	11.0	13.0
31	---	---	---	7.5	6.0	6.5	---	---	---	14.5	11.5	13.0
MONTH	4.5	0.0	1.0	10.0	0.0	4.5	16.5	2.0	8.5	20.0	5.5	11.5

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549350 STEAM VALLEY RUN AT BUTTONWOOD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.0	12.0	14.0	22.0	15.5	18.0	17.5	17.5	17.5	22.0	20.0	20.5
2	15.5	11.5	13.5	21.0	14.0	17.0	17.5	17.0	17.5	20.0	16.5	18.5
3	17.5	9.5	13.0	21.5	12.5	16.0	17.5	17.0	17.0	19.5	17.5	18.5
4	19.0	9.5	14.0	18.5	14.0	16.5	17.0	17.0	17.0	---	---	---
5	19.5	12.0	15.0	23.0	15.5	18.0	17.0	17.0	17.0	---	---	---
6	12.5	10.5	11.5	22.0	16.5	19.5	17.0	16.5	17.0	---	---	---
7	12.5	9.0	11.0	22.0	16.0	20.0	16.5	16.5	16.5	18.0	16.0	17.0
8	16.0	9.0	12.0	20.5	20.0	20.0	20.5	16.0	18.5	16.0	14.0	14.5
9	11.5	10.5	11.0	20.0	19.0	19.5	20.0	19.0	19.5	16.5	13.0	15.0
10	12.5	10.5	11.5	19.0	18.5	18.5	19.0	17.5	18.0	19.5	15.0	17.0
11	18.0	9.5	13.0	18.5	18.0	18.5	21.5	17.5	20.0	18.0	14.0	16.0
12	17.0	10.5	13.0	18.0	18.0	18.0	20.5	19.0	20.0	14.0	9.5	12.5
13	18.5	12.0	16.0	18.0	18.0	18.0	19.0	18.0	18.5	13.5	11.0	12.5
14	15.5	12.5	14.0	18.0	18.0	18.0	18.5	17.5	18.0	16.0	10.5	13.0
15	20.5	13.0	16.0	19.5	17.5	18.5	20.0	18.0	19.0	14.5	10.0	11.5
16	21.5	12.0	16.0	20.0	18.5	19.5	18.0	17.5	18.0	11.0	9.0	9.5
17	19.0	14.5	16.0	19.5	19.0	19.0	17.5	17.0	17.0	13.5	8.5	11.0
18	19.5	14.0	16.5	21.5	19.0	20.0	17.0	15.5	16.5	14.0	12.5	13.5
19	20.5	14.5	16.5	20.0	19.0	19.5	15.5	15.0	15.5	15.0	13.0	14.0
20	21.0	12.5	16.0	20.0	19.0	19.5	15.0	14.0	14.5	14.5	14.0	14.0
21	18.5	13.5	15.5	20.0	19.5	20.0	14.0	13.0	13.5	14.0	12.5	13.0
22	19.0	11.5	15.0	20.0	17.5	18.5	16.0	13.0	15.0	13.5	11.5	12.5
23	21.0	11.5	15.5	17.0	16.5	16.5	16.5	15.0	16.0	13.0	10.5	12.0
24	20.5	12.5	16.0	16.5	16.5	16.5	16.0	14.5	15.5	10.0	9.0	9.0
25	17.0	15.0	15.5	16.5	16.0	16.0	15.5	14.0	15.0	9.0	7.0	8.0
26	19.0	13.5	16.0	16.0	16.0	16.0	14.5	14.0	14.0	9.0	6.5	7.5
27	23.0	13.5	17.0	16.0	15.5	15.5	17.5	13.5	16.5	10.0	9.0	9.5
28	21.5	14.5	16.5	15.5	15.5	15.5	21.0	18.5	20.0	10.0	9.5	9.5
29	19.5	15.5	17.0	15.5	15.0	15.0	21.0	20.0	20.5	9.5	9.0	9.0
30	21.0	13.5	16.5	16.0	14.5	15.5	20.0	18.5	19.0	9.0	9.0	9.0
31	---	---	---	17.5	16.0	17.0	21.0	18.0	20.0	---	---	---
MONTH	23.0	9.0	14.5	23.0	12.5	18.0	21.5	13.0	17.5	22.0	6.5	13.0

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	1.3	2	0.01	14	4	0.15	2.9	2	0.02
2	1.2	2	0.01	13	3	0.11	2.8	1	0.01
3	0.99	2	0.01	13	2	0.07	2.7	2	0.01
4	0.84	2	0.00	13	2	0.07	2.6	1	0.01
5	0.75	2	0.00	11	2	0.06	2.4	1	0.01
6	0.75	2	0.00	9.8	2	0.05	2.3	1	0.01
7	1.1	3	0.01	8.7	2	0.05	11	13	0.39
8	5.2	5	0.07	8.0	2	0.04	8.7	3	0.07
9	42	210	24	7.4	2	0.04	6.5	2	0.04
10	29	7	0.55	7.1	2	0.04	6.2	2	0.03
11	22	2	0.12	6.5	2	0.04	6.5	2	0.04
12	16	1	0.04	5.9	2	0.03	6.2	2	0.03
13	13	1	0.04	5.3	2	0.03	5.8	2	0.03
14	11	1	0.03	5.0	2	0.03	5.4	4	0.06
15	8.7	1	0.02	4.8	2	0.03	5.0	4	0.05
16	7.4	1	0.02	4.5	2	0.02	4.8	2	0.03
17	6.5	1	0.02	4.1	2	0.02	4.5	2	0.02
18	5.6	1	0.02	4.1	2	0.02	4.1	2	0.02
19	5.0	1	0.01	3.9	2	0.02	3.9	2	0.02
20	20	39	2.1	3.6	2	0.02	5.3	8	0.11
21	44	16	1.9	3.6	1	0.01	5.3	2	0.03
22	33	7	0.62	3.4	1	0.01	4.8	2	0.03
23	24	6	0.39	3.3	1	0.01	4.4	2	0.02
24	21	6	0.34	3.1	1	0.01	4.1	2	0.02
25	19	5	0.26	2.9	1	0.01	3.8	2	0.02
26	18	5	0.24	2.9	1	0.01	3.6	2	0.02
27	15	5	0.20	2.9	1	0.01	3.5	2	0.02
28	14	5	0.19	2.9	1	0.01	3.4	2	0.02
29	13	5	0.18	3.3	1	0.01	3.3	2	0.02
30	12	4	0.13	3.1	2	0.02	3.2	2	0.02
31	18	9	0.44	---	---	---	3.0	2	0.02
TOTAL	429.33	---	31.97	184.1	---	1.05	142.0	---	1.25

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	2.9	2	0.02	1.6	2	0.01	20	25	1.4
2	2.8	2	0.02	1.6	2	0.01	17	12	0.55
3	2.7	2	0.01	1.6	2	0.01	15	9	0.36
4	2.6	2	0.01	1.6	2	0.01	51	201	28
5	2.5	2	0.01	1.6	2	0.01	74	48	9.6
6	2.4	2	0.01	1.5	2	0.01	48	16	2.1
7	2.3	2	0.01	1.5	2	0.01	33	9	0.80
8	2.2	2	0.01	1.4	2	0.01	25	9	0.61
9	2.1	2	0.01	1.5	2	0.01	20	9	0.49
10	2.1	2	0.01	1.5	2	0.01	20	11	0.59
11	2.1	2	0.01	2.0	13	0.07	22	11	0.65
12	2.0	2	0.01	2.9	14	0.11	26	12	0.84
13	2.0	2	0.01	4.5	19	0.23	87	78	18
14	2.0	2	0.01	2.6	5	0.04	74	25	5.0
15	2.0	2	0.01	2.2	4	0.02	44	8	0.95
16	1.9	2	0.01	2.1	5	0.03	32	7	0.60
17	1.9	2	0.01	2.0	5	0.03	24	6	0.39
18	1.9	2	0.01	1.9	5	0.03	22	5	0.30
19	1.9	2	0.01	1.8	3	0.01	20	4	0.22
20	1.9	2	0.01	1.7	3	0.01	18	3	0.15
21	1.8	2	0.01	1.7	3	0.01	16	3	0.13
22	1.8	2	0.01	1.7	3	0.01	20	6	0.32
23	1.8	2	0.01	2.8	37	0.28	18	4	0.19
24	1.7	2	0.01	25	193	13	16	4	0.17
25	1.7	2	0.01	26	50	3.5	14	4	0.15
26	1.7	2	0.01	20	35	1.9	14	4	0.15
27	1.7	2	0.01	22	35	2.1	16	7	0.30
28	1.7	2	0.01	22	25	1.5	24	9	0.58
29	1.7	2	0.01	---	---	---	61	41	6.8
30	1.7	2	0.01	---	---	---	78	11	2.3
31	1.6	2	0.01	---	---	---	57	9	1.4
TOTAL	63.1	---	0.33	160.3	---	22.98	1026	---	84.09

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	36	6	0.58	14	5	0.19	2.8	2	0.02
2	46	105	13	13	5	0.18	2.5	2	0.01
3	65	8	1.4	11	5	0.15	2.4	2	0.01
4	48	5	0.65	10	5	0.14	2.2	2	0.01
5	38	5	0.51	16	13	0.56	2.1	2	0.01
6	29	5	0.39	15	5	0.20	2.9	8	0.06
7	23	4	0.25	14	4	0.15	2.5	5	0.03
8	19	4	0.21	14	3	0.11	2.2	3	0.02
9	16	4	0.17	15	3	0.12	2.9	5	0.04
10	15	4	0.16	14	2	0.08	3.1	4	0.03
11	13	3	0.11	12	2	0.06	2.4	3	0.02
12	11	3	0.09	11	2	0.06	2.1	3	0.02
13	10	3	0.08	10	2	0.05	2.0	3	0.02
14	9.4	3	0.08	9.8	2	0.05	2.0	3	0.02
15	8.7	3	0.07	9.0	2	0.05	1.9	3	0.02
16	8.0	3	0.06	8.4	2	0.05	1.8	3	0.01
17	7.4	3	0.06	7.4	2	0.04	3.3	70	0.62
18	7.1	3	0.06	7.4	2	0.04	3.3	22	0.20
19	6.8	3	0.06	6.8	2	0.04	2.8	6	0.05
20	6.2	3	0.05	5.9	2	0.03	2.2	5	0.03
21	5.9	3	0.05	5.3	2	0.03	2.0	3	0.02
22	5.6	3	0.05	4.8	2	0.03	1.9	3	0.02
23	8.7	30	0.70	4.5	2	0.02	1.7	3	0.01
24	36	20	1.9	4.3	2	0.02	1.7	3	0.01
25	42	6	0.68	4.3	2	0.02	3.3	50	0.45
26	35	5	0.47	3.9	2	0.02	3.3	9	0.08
27	29	6	0.47	3.6	2	0.02	2.1	6	0.03
28	22	5	0.30	3.4	2	0.02	4.3	415	4.8
29	18	5	0.24	3.3	2	0.02	5.6	13	0.20
30	16	5	0.22	3.3	2	0.02	3.3	5	0.04
31	---	---	---	2.9	2	0.02	---	---	---
TOTAL	640.8	---	23.12	267.3	---	2.59	78.6	---	6.91

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549350 STEAM VALLEY RUN AT BUTTONWOOD, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY				AUGUST				SEPTEMBER	
1	2.6	4	0.03	3.6	8	0.08	1.0	3	0.01
2	2.4	3	0.02	2.5	4	0.03	1.0	3	0.01
3	2.1	3	0.02	2.1	3	0.02	1.2	4	0.01
4	2.1	3	0.02	2.0	3	0.02	0.94	3	0.01
5	2.1	3	0.02	2.0	3	0.02	0.94	3	0.01
6	2.3	5	0.03	2.5	4	0.03	1.2	5	0.02
7	3.4	6	0.06	3.1	6	0.05	0.94	3	0.01
8	7.4	54	1.1	2.4	4	0.03	0.94	3	0.01
9	3.6	3	0.03	2.0	4	0.02	0.84	3	0.01
10	3.3	3	0.03	1.8	4	0.02	0.84	3	0.01
11	3.1	3	0.03	1.8	3	0.01	0.74	3	0.01
12	4.8	46	0.60	1.6	3	0.01	0.74	3	0.01
13	5.0	5	0.07	1.6	3	0.01	0.84	3	0.01
14	3.6	3	0.03	1.6	3	0.01	1.3	4	0.01
15	3.3	3	0.03	1.6	2	0.01	0.84	3	0.01
16	3.3	3	0.03	1.4	2	0.01	1.6	6	0.03
17	3.6	5	0.05	3.3	17	0.15	1.8	4	0.02
18	3.3	5	0.04	1.8	3	0.01	2.9	103	0.81
19	6.5	100	1.8	1.6	3	0.01	4.1	7	0.08
20	6.5	8	0.14	1.4	3	0.01	6.8	15	0.28
21	4.5	6	0.07	1.3	3	0.01	3.1	6	0.05
22	3.9	4	0.04	3.1	6	0.05	2.4	5	0.03
23	3.4	3	0.03	1.6	3	0.01	2.4	4	0.03
24	3.1	3	0.03	1.6	3	0.01	12	45	1.5
25	5.6	15	0.23	1.4	3	0.01	16	13	0.56
26	3.9	5	0.05	1.3	3	0.01	20	11	0.59
27	3.1	3	0.03	1.3	3	0.01	18	6	0.29
28	2.6	3	0.02	1.2	3	0.01	15	5	0.20
29	2.6	3	0.02	1.2	3	0.01	11	4	0.12
30	2.5	3	0.02	1.2	3	0.01	9.0	4	0.10
31	2.4	3	0.02	1.0	3	0.01	---	---	---
TOTAL	111.9	---	4.74	57.9	---	0.71	140.40	---	4.85

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA

LOCATION.--Lat 41°28'25", long 77°13'52", Lycoming County, Hydrologic Unit 02050205, on right bank just downstream from bridge on State Highway 284, 0.7 mi (1.1 km) upstream from Blacks Creek, 1.7 mi (2.7 km) upstream from confluence with Texas Creek, and 5 mi (8 km) northeast of English Center.

DRAINAGE AREA.--37.7 mi² (97.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 951: 1941. WSP 1031: 1942-44(M). WSP 1502: 1942. WDR PA-75: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 1,041.85 ft (317.556 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--37 years, 57.0 ft³/s (1.614 m³/s), 20.51 in/yr (521 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft³/s (177 m³/s) June 23, 1972, gage height, 9.34 ft (2.847 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of contracted-opening measurement at gage height, 8.81 ft (2.685 m); no flow Aug. 6, 7, 31, Sept. 2, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936 reached a stage of 9.0 ft (2.74 m), from floodmark, discharge, 5,780 ft³/s (164 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft³/s (34.3 m³/s) Feb. 24, gage height, 4.55 ft (1.387 m), minimum, 2.1 ft³/s (.059 m³/s) Sept. 11, 12, 13, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	93	14	14	6.8	102	202	73	14	26	12	4.2
2	8.5	82	13	13	6.8	88	288	66	13	20	10	3.9
3	8.2	79	13	13	6.8	72	384	57	11	16	8.3	3.9
4	7.4	77	12	12	7.2	373	255	52	10	15	7.5	3.2
5	7.2	69	12	12	7.2	408	223	83	9.2	14	7.1	3.2
6	6.7	60	12	11	7.0	236	163	77	13	15	11	6.3
7	7.2	54	90	11	7.0	156	126	69	17	24	17	4.8
8	27	49	52	11	7.0	115	108	64	12	41	12	3.9
9	348	44	42	10	6.9	98	88	68	13	20	10	3.2
10	166	42	36	10	6.8	97	78	69	24	16	9.2	2.9
11	98	41	45	9.7	8.2	103	69	60	14	14	8.8	2.3
12	69	35	42	9.4	27	109	59	51	11	16	7.5	2.1
13	57	32	40	9.2	90	468	52	47	9.7	18	7.1	2.3
14	58	30	34	8.8	42	380	47	42	8.8	13	7.1	9.7
15	43	28	29	8.6	24	245	41	38	8.8	12	7.9	7.1
16	36	26	27	8.4	17	175	37	34	7.9	11	6.3	7.1
17	31	25	27	8.3	15	128	34	31	20	15	22	20
18	27	25	26	8.2	13	113	31	30	25	14	14	12
19	24	24	25	8.0	12	97	29	29	31	17	8.8	49
20	103	24	35	7.9	12	85	26	25	15	25	7.5	84
21	401	22	44	7.8	12	77	24	22	13	16	6.3	44
22	195	21	34	7.7	12	108	22	20	11	15	10	25
23	131	19	26	7.5	34	110	45	18	9.2	12	7.9	19
24	118	18	21	7.4	385	92	364	21	8.3	11	7.9	66
25	114	17	20	7.3	269	80	370	35	17	20	7.1	151
26	129	17	20	7.2	131	74	212	19	49	17	5.9	147
27	95	19	19	7.2	138	87	176	16	18	12	5.6	108
28	86	19	17	7.1	136	164	126	14	43	10	5.2	80
29	78	17	16	7.0	---	435	101	13	64	9.2	4.8	60
30	69	15	15	7.0	---	423	85	12	36	9.2	4.5	47
31	137	---	15	6.9	---	321	---	12	---	8.8	4.2	---
TOTAL	2694.1	1123	873	283.6	1446.7	5619	3815	1267	555.9	502.2	270.5	982.1
MEAN	86.9	37.4	28.2	9.15	51.7	181	127	40.9	18.5	16.2	8.73	32.7
MAX	401	93	90	14	385	468	384	83	64	41	22	151
MIN	6.7	15	12	6.9	6.8	72	22	12	7.9	8.8	4.2	2.1
CFSM	2.31	.99	.75	.24	1.37	4.80	3.37	1.09	.49	.43	.23	.87
IN.	2.66	1.11	.86	.28	1.43	5.54	3.76	1.25	.55	.50	.27	.97
CAL YR 1976	TOTAL	22627.0	MEAN	61.8	MAX	586	MIN	6.0	CFSM	1.64	IN	22.33
WTR YR 1977	TOTAL	19432.1	MEAN	53.2	MAX	468	MIN	2.1	CFSM	1.41	IN	19.17

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1972 to September 1977 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1973 to September 1977 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1972 to September 1977 (discontinued).

REMARKS.--Unpublished records of pH and specific conductance of instantaneous sediment samples available at the district office in Harrisburg. Mean concentrations of suspended sediment are water-weighted means.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C Jul. 18, 1977; minimum, freezing point on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum 2,980 mg/L Feb. 24, 1975; minimum, 1 mg/L on many days each year.

SEDIMENT DISCHARGES: Maximum, 10,200 tons (9,253 tonnes) Feb. 24, 1975; minimum, 0.01 ton (0.01 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.0°C Jul. 18; minimum, freezing point on many days during November through March.

SEDIMENT CONCENTRATIONS: Maximum, 541 mg/L Mar. 4; minimum, 2 mg/L on many days.

SEDIMENT DISCHARGES: Maximum, 545 ton (494 tonnes) Mar. 4; minimum, 0.04 ton (0.04 tonne) on many days during January and February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS CAC03 (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)
OCT 20...	1130	70	6.9	6.5	34	14	5.0	11	1.5	3.2	1.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 20...	24	0	20	4.4	11	6.6	.1	4.7	58	.70

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)
OCT 20...	.00	.70	.02	.01	.03	.73	.04	.02	20	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MTN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	9.0	12.5	6.0	4.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
2	18.5	12.0	14.0	5.5	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
3	23.5	9.5	14.5	7.0	5.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
4	24.0	8.5	13.5	7.0	5.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0
5	24.0	7.5	12.5	6.0	4.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
6	16.0	8.0	13.0	5.5	4.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
7	16.5	11.5	13.5	5.5	3.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
8	13.0	12.0	12.5	4.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
9	12.0	9.5	10.5	2.5	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
10	10.0	9.0	9.5	4.0	1.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
11	10.5	7.5	9.0	4.5	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
12	10.5	7.0	8.5	2.5	0.5	1.5	1.0	0.0	0.5	0.0	0.0	0.0
13	11.5	7.5	9.5	3.0	1.0	2.0	0.5	0.0	0.0	0.0	0.0	0.0
14	10.5	8.5	9.0	3.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
15	12.0	7.5	9.5	2.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
16	10.5	8.0	9.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
17	8.5	7.5	8.0	2.0	0.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0
18	8.0	5.5	6.5	2.5	0.5	1.5	1.5	0.0	0.5	0.0	0.0	0.0
19	7.5	4.0	6.0	3.5	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
20	8.0	5.0	6.5	3.5	2.5	2.5	2.0	0.0	1.5	0.0	0.0	0.0
21	8.0	6.5	7.5	3.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
22	7.0	6.0	6.5	2.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
23	8.0	5.5	6.5	2.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
24	7.5	6.5	7.0	1.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
25	9.0	7.5	8.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
26	7.5	5.0	6.5	3.5	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
27	5.5	4.0	4.5	5.5	3.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
28	5.5	2.0	4.0	5.0	3.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
29	7.0	3.0	5.0	3.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
30	6.5	3.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	7.0	6.0	6.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	24.0	2.0	9.0	7.0	0.0	2.5	2.0	0.0	0.0	0.0	0.0	0.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	0.0	0.0	0.0	3.5	0.0	1.5	9.0	1.0	4.0	15.0	7.0	11.0
2	0.0	0.0	0.0	3.5	0.0	1.0	6.0	4.5	5.5	12.0	9.5	11.0
3	0.0	0.0	0.0	4.5	0.0	2.0	9.5	6.0	7.5	15.0	8.0	11.5
4	0.0	0.0	0.0	2.0	2.0	2.0	5.5	5.0	5.0	10.5	8.5	9.5
5	0.0	0.0	0.0	5.0	2.0	3.0	7.0	5.0	6.0	13.0	9.0	10.5
6	0.0	0.0	0.0	4.5	2.0	3.0	6.0	3.0	4.5	16.5	10.5	13.0
7	0.0	0.0	0.0	3.5	2.0	2.5	6.0	2.0	4.0	16.0	10.5	13.0
8	0.0	0.0	0.0	6.0	1.5	3.5	7.5	2.5	5.0	14.5	8.0	10.5
9	0.0	0.0	0.0	7.5	2.0	4.5	7.5	1.0	4.0	9.0	6.5	7.5
10	0.0	0.0	0.0	8.0	3.0	5.5	9.5	2.0	5.5	9.5	6.0	8.0
11	0.0	0.0	0.0	8.5	3.0	5.5	13.0	4.0	8.5	14.5	7.0	10.5
12	0.0	0.0	0.0	7.0	3.5	5.5	15.5	7.5	11.5	14.5	7.5	11.0
13	0.0	0.0	0.0	7.0	5.5	6.5	14.5	8.0	11.5	17.0	9.5	12.5
14	0.0	0.0	0.0	6.5	5.0	5.5	14.5	9.0	11.5	16.0	9.0	12.0
15	0.0	0.0	0.0	9.0	5.0	6.5	13.5	6.5	9.5	16.5	8.0	12.0
16	0.0	0.0	0.0	8.5	5.0	6.0	14.0	6.5	10.0	17.5	9.0	13.0
17	0.0	0.0	0.0	7.0	3.0	5.0	14.5	6.5	10.0	17.5	10.5	14.0
18	0.0	0.0	0.0	4.0	0.0	1.5	12.0	7.0	10.0	17.5	12.5	15.0
19	0.0	0.0	0.0	6.5	1.5	3.5	13.5	8.5	10.5	20.5	13.5	16.5
20	0.0	0.0	0.0	2.0	0.5	1.5	14.5	9.5	12.0	20.5	13.0	17.0
21	0.0	0.0	0.0	7.0	0.5	3.5	17.5	9.5	13.0	22.5	14.0	18.0
22	0.0	0.0	0.0	2.5	1.5	2.0	17.0	12.0	14.5	23.0	14.5	18.5
23	0.0	0.0	0.0	6.5	1.5	3.5	14.0	12.5	13.5	21.5	14.0	18.0
24	0.0	0.0	0.0	5.5	1.0	3.0	12.5	9.5	11.0	20.5	16.0	18.0
25	0.5	0.0	0.5	6.0	0.0	2.5	9.5	8.5	9.0	22.5	16.0	19.0
26	4.0	0.5	1.5	7.0	0.0	3.0	9.0	7.5	8.5	23.0	14.5	18.0
27	3.5	1.5	2.5	7.5	1.5	4.0	12.0	7.0	9.5	22.5	12.5	17.0
28	2.5	1.0	2.0	4.5	3.5	4.0	10.0	7.0	8.5	24.0	14.0	18.5
29	---	---	---	9.0	3.5	5.5	12.0	5.0	8.5	22.0	14.0	17.5
30	---	---	---	11.0	4.5	7.5	13.5	5.5	9.5	17.5	14.5	16.0
31	---	---	---	7.5	5.5	7.0	---	---	---	16.0	13.0	14.5
MONTH	4.0	0.0	0.0	11.0	0.0	4.0	17.5	1.0	8.5	24.0	6.0	14.0

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	8.9	3	0.07	93	7	1.8	14	3	0.11
2	8.5	3	0.07	82	3	0.66	13	2	0.07
3	8.2	3	0.07	79	3	0.64	13	3	0.11
4	7.4	3	0.06	77	3	0.62	12	2	0.06
5	7.2	3	0.06	69	4	0.75	12	2	0.06
6	6.7	3	0.05	60	3	0.49	12	2	0.06
7	7.2	3	0.06	54	4	0.58	90	15	3.6
8	27	6	0.44	49	3	0.40	52	4	0.56
9	348	280	263	44	3	0.36	42	3	0.34
10	166	7	3.1	42	4	0.45	36	3	0.29
11	98	3	0.79	41	3	0.33	45	2	0.24
12	69	3	0.56	35	2	0.19	42	2	0.23
13	57	3	0.46	32	2	0.17	40	2	0.22
14	58	3	0.47	30	2	0.16	34	3	0.28
15	43	2	0.23	28	2	0.15	29	2	0.16
16	36	2	0.19	26	2	0.14	27	2	0.15
17	31	2	0.17	25	2	0.14	27	2	0.15
18	27	2	0.15	25	2	0.14	26	2	0.14
19	24	2	0.13	24	2	0.13	25	2	0.14
20	103	131	36	24	2	0.13	35	8	0.76
21	401	111	120	22	2	0.12	44	8	0.95
22	195	4	2.1	21	2	0.11	34	3	0.28
23	131	2	0.71	19	2	0.10	26	2	0.14
24	118	3	0.96	18	2	0.10	21	2	0.11
25	114	3	0.92	17	2	0.09	20	2	0.11
26	129	5	1.7	17	2	0.09	20	2	0.11
27	95	2	0.51	19	2	0.10	19	2	0.10
28	86	2	0.46	19	2	0.10	17	2	0.09
29	78	2	0.42	17	2	0.09	16	2	0.09
30	69	2	0.37	15	3	0.12	15	2	0.08
31	137	12	4.4	---	---	---	15	2	0.08
TOTAL	2694.1	---	438.68	1123	---	9.45	873	---	9.87

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	14	2	0.08	6.8	2	0.04	102	6	1.7
2	13	2	0.07	6.8	2	0.04	88	4	0.98
3	13	2	0.07	6.8	2	0.04	72	4	0.78
4	12	2	0.06	7.2	2	0.04	373	541	545
5	12	2	0.06	7.2	2	0.04	408	27	30
6	11	2	0.06	7.0	2	0.04	236	12	7.6
7	11	2	0.06	7.0	2	0.04	156	7	2.9
8	11	2	0.06	7.0	2	0.04	115	5	1.6
9	10	2	0.05	6.9	2	0.04	98	4	1.1
10	10	2	0.05	6.8	2	0.04	97	4	1.0
11	9.7	2	0.05	8.2	2	0.04	103	4	1.1
12	9.4	2	0.05	27	8	0.58	109	4	1.2
13	9.2	2	0.05	90	20	4.9	468	72	91
14	8.8	2	0.05	42	4	0.45	380	11	11
15	8.6	2	0.05	24	2	0.13	245	4	2.6
16	8.4	2	0.05	17	2	0.09	175	3	1.4
17	8.3	2	0.04	15	2	0.08	128	2	0.69
18	8.2	2	0.04	13	2	0.07	113	2	0.61
19	8.0	2	0.04	12	2	0.06	97	2	0.52
20	7.9	2	0.04	12	2	0.06	85	2	0.46
21	7.8	2	0.04	12	6	0.19	77	2	0.42
22	7.7	2	0.04	12	2	0.06	108	2	0.58
23	7.5	2	0.04	34	5	0.46	110	2	0.59
24	7.4	2	0.04	385	64	67	92	2	0.50
25	7.3	2	0.04	269	60	44	80	2	0.43
26	7.2	2	0.04	131	20	7.1	74	2	0.40
27	7.2	2	0.04	138	20	7.5	87	4	0.94
28	7.1	2	0.04	136	7	2.6	164	7	3.1
29	7.0	2	0.04	---	---	---	435	133	156
30	7.0	2	0.04	---	---	---	423	10	11
31	6.9	2	0.04	---	---	---	321	5	4.3
TOTAL	283.6	---	1.52	1446.7	---	135.77	5619	---	881.47
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	202	3	1.6	73	5	0.99	14	2	0.08
2	288	80	62	66	5	0.89	13	2	0.07
3	384	10	10	57	5	0.77	11	2	0.06
4	255	8	5.5	52	5	0.70	10	2	0.05
5	223	7	4.2	83	6	1.3	9.2	2	0.05
6	163	5	2.2	77	4	0.83	13	3	0.11
7	126	4	1.4	69	3	0.56	17	3	0.14
8	108	4	1.2	64	2	0.35	12	2	0.06
9	88	4	0.95	68	2	0.37	13	3	0.11
10	78	4	0.84	69	2	0.37	24	4	0.26
11	69	4	0.75	60	2	0.32	14	5	0.19
12	59	4	0.64	51	2	0.28	11	5	0.15
13	52	4	0.56	47	2	0.25	9.7	5	0.13
14	47	4	0.51	42	2	0.23	8.8	5	0.12
15	41	3	0.33	38	2	0.21	8.8	5	0.12
16	37	3	0.30	34	2	0.18	7.9	5	0.11
17	34	2	0.18	31	2	0.17	20	183	9.9
18	31	2	0.17	30	5	0.41	25	10	0.68
19	29	2	0.16	29	4	0.31	31	15	1.3
20	26	2	0.14	25	4	0.27	15	4	0.16
21	24	2	0.13	22	3	0.18	13	3	0.11
22	22	2	0.12	20	2	0.11	11	3	0.09
23	45	10	1.2	18	2	0.10	9.2	3	0.07
24	364	90	88	21	32	1.8	8.3	3	0.07
25	320	15	13	35	15	1.4	17	6	0.28
26	212	12	6.9	19	3	0.15	49	131	17
27	176	10	4.8	16	2	0.09	18	4	0.19
28	126	7	2.4	14	2	0.08	43	442	51
29	101	5	1.4	13	2	0.07	64	66	11
30	85	5	1.1	12	2	0.06	36	7	0.68
31	---	---	---	12	2	0.06	---	---	---
TOTAL	3815	---	212.68	1267	---	13.86	555.9	---	94.34

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549500 BLOCKHOUSE CREEK NEAR ENGLISH CENTER, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	26	6	0.42	12	12	0.39	4.2	11	0.12
2	20	6	0.32	10	11	0.30	3.9	11	0.12
3	16	6	0.26	8.3	11	0.25	3.9	11	0.12
4	15	6	0.24	7.5	11	0.22	3.2	11	0.10
5	14	6	0.23	7.1	11	0.21	3.2	11	0.10
6	15	11	0.45	11	12	0.36	6.3	12	0.20
7	24	11	0.71	17	12	0.55	4.8	10	0.13
8	41	25	2.8	12	12	0.39	3.9	8	0.08
9	20	11	0.59	10	12	0.32	3.2	8	0.07
10	16	11	0.48	9.2	12	0.30	2.9	8	0.06
11	14	11	0.42	8.8	12	0.29	2.3	8	0.05
12	16	11	0.48	7.5	11	0.22	2.1	8	0.05
13	18	12	0.58	7.1	10	0.19	2.3	8	0.05
14	13	11	0.39	7.1	9	0.17	9.7	10	0.26
15	12	10	0.32	7.9	8	0.17	7.1	8	0.15
16	11	10	0.30	6.3	8	0.14	7.1	10	0.19
17	15	10	0.41	22	18	1.1	20	12	0.65
18	14	10	0.38	14	10	0.38	12	15	0.49
19	17	8	0.37	8.8	9	0.21	49	70	9.3
20	25	28	1.9	7.5	8	0.16	84	50	11
21	16	11	0.48	6.3	8	0.14	44	8	0.95
22	15	8	0.32	10	11	0.30	25	5	0.34
23	12	5	0.16	7.9	10	0.21	19	5	0.26
24	11	5	0.15	7.9	10	0.21	66	30	5.3
25	20	15	0.81	7.1	10	0.19	151	70	29
26	17	6	0.28	5.9	10	0.16	147	20	7.9
27	12	6	0.19	5.6	10	0.15	108	15	4.4
28	10	6	0.16	5.2	11	0.15	80	12	2.6
29	9.2	6	0.15	4.8	11	0.14	60	10	1.6
30	9.2	6	0.15	4.5	11	0.13	47	10	1.3
31	8.8	6	0.14	4.2	11	0.12	---	---	---
TOTAL	502.2	---	15.04	270.5	---	8.22	982.1	---	76.94

01549600 LITTLE PINE CREEK AT WATERVILLE, PA

LOCATION.--Lat 41°18'34", long 77° 21'45", Lycoming County, Hydrologic Unit 02050205, at bridge on State Route 44 at Waterville and 600 ft (183 m) upstream from mouth.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 07...	1400	9813	90	7.3	15.0	<1	10.1	20	--	0	7.1	.5
NOV 04...	1400	9813	70	7.5	8.0	1	12.3	20	--	0	7.1	.5
DEC 14...	0915	9813	170	7.0	--	2	--	15	0	0	8.0	.0
JAN 03...	0930	9813	70	7.5	.5	<1	14.3	22	--	0	--	--
MAR 08...	0930	9813	50	6.7	--	2	--	10	0	2	6.3	.0
APR 06...	1030	9813	50	6.5	--	2	--	15	--	0	7.1	.0
JUL 05...	1000	9813	90	7.5	--	1	--	25	--	0	9.5	.3
28...	1206	9813	85	--	22.0	1	9.8	35	--	0	9.5	2.7
AUG 22...	1100	9813	75	7.5	20.0	1	9.5	35	--	0	8.0	3.7
SEP 19...	0930	9813	120	7.0	--	4	--	40	--	0	12	2.5

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 07...	20	12	8.0	--	--	--	.48	.02	.12	.05	110
NOV 04...	8	8.0	5.0	--	--	--	.89	.02	.03	.03	90
DEC 14...	14	15	7.0	58	<5	--	1.0	.02	.03	.04	10
JAN 03...	20	10	6.0	46	10	56	.92	.02	.15	.03	360
MAR 08...	14	5.0	5.0	4	38	--	1.1	.02	.05	.03	120
APR 06...	12	10	6.0	54	14	--	1.0	.03	.05	.06	60
JUL 05...	20	8.0	10	56	2	58	.78	.03	.04	.03	70
28...	26	8.0	6.0	54	<10	--	.46	.02	.04	.05	200
AUG 22...	42	8.0	6.0	56	0	56	.56	.02	.06	.04	130
SEP 19...	28	10	8.0	72	<10	--	.04	.05	.06	.08	500

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 07...	1400	9813	10	<3	10	30	<50	40	20	40
NOV 04...	1400	9813	60	<3	<10	<10	<50	20	<10	<10
JUL 05...	1000	9813	40	<3	<10	<10	<50	10	30	10
AUG 22...	1100	9813	40	<3	<10	20	<50	40	10	10

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA

LOCATION.--Lat 41°16'25", long 77°19'28", Lycoming County, Hydrologic Unit 02050205, on downstream side of bridge pier, 0.9 mi (1.4 km) downstream from Ramsey Run, 4 mi (6 km) downstream from Little Pine Creek 4 mi (6 km) south of Waterville, and 9.2 mi (14.8 km) upstream from mouth. Water-quality sampling site at railroad bridge 1.0 mi (1.6 km) upstream.

DRAINAGE AREA.--944 mi² (2,445 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-72: 1964(P).

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 570.62 ft (173.925 m) above mean sea level.

REMARKS.--Records poor. Flood flows subject to regulation by Little Pine Creek Reservoir 8.5 mi (13.7 km) upstream, capacity, 24,900 acre-ft (30.7 hm³).

AVERAGE DISCHARGE.--20 years, 1,379 ft³/s (39.1 m³/s), 19.83 in/yr (504 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft³/s (2,950 m³/s) June 23, 1972, gage height, 22.76 ft (6.937 m), from floodmarks, from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 25 ft³/s (0.71 m³/s) Sept. 25, 26, 27, 1964; minimum gage height observed, 0.97 ft (0.296 m) Sept. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,200 ft³/s (261 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 5	1200	12,100 343	7.2 2.195	Apr. 3	0600	10,600 300	6.8 2.073
Mar. 13	2200	*12,900 365	*7.4 2.256	Sept. 25	1700	9,550 270	6.5 1.981
Mar. 30	1900	11,300 320	7.0 2.134				

Minimum discharge, 114 ft³/s (3.23 m³/s) Sept. 12, 13, gage height, 1.73 ft (0.527 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	2360	363	459	183	3700	6900	1400	378	545	458	220
2	200	2100	410	427	181	3000	5630	1260	320	470	415	200
3	190	1920	380	405	178	2600	10200	1180	275	415	340	185
4	183	1820	367	385	176	3050	8460	1050	275	410	300	170
5	170	1730	380	368	174	10200	6480	1320	275	408	270	160
6	151	1500	375	350	172	7980	5000	1420	275	458	432	150
7	151	1400	610	340	170	5450	3710	1300	340	554	527	140
8	275	1210	1290	320	170	4000	3200	1110	308	2040	527	130
9	1840	1080	1110	310	169	3330	2700	1000	308	3150	500	125
10	4580	1000	1180	299	168	3310	2350	1110	341	1430	509	120
11	2090	940	1220	289	200	3550	2080	1050	913	1170	572	117
12	1800	878	1210	277	480	3930	1720	922	340	1060	518	117
13	1400	800	1100	270	640	8460	1520	878	270	955	536	114
14	1220	740	860	263	760	11600	1390	840	264	790	509	754
15	1110	670	960	255	650	8200	1260	770	220	690	466	1020
16	1000	650	960	245	545	5550	1130	650	248	780	458	424
17	840	630	900	238	370	4200	1050	610	275	900	415	1060
18	690	590	810	232	330	3510	944	730	1220	1010	380	750
19	620	590	760	227	310	2700	889	650	1170	1010	350	1250
20	629	570	750	221	300	2020	845	563	640	790	320	2480
21	4470	550	1000	218	297	2160	780	520	500	690	300	2820
22	3600	518	780	213	293	2340	710	492	408	690	310	1850
23	2800	474	760	210	290	2850	770	483	334	690	550	1370
24	2200	458	750	205	1300	2460	2600	500	294	590	460	1420
25	2410	440	720	200	6200	2110	3450	610	248	545	400	6010
26	2480	430	660	198	3500	1850	2990	500	1330	620	360	6520
27	2300	450	630	195	3500	1920	2670	380	900	378	320	5700
28	2060	480	585	191	4600	3110	2290	360	660	340	290	4050
29	1820	500	550	189	---	7470	1940	340	740	340	265	2950
30	1600	449	510	187	---	11000	1650	336	834	415	240	2200
31	2320	---	490	185	---	9460	---	334	---	554	250	---
TOTAL	47410	27927	23430	8371	26306	147070	87308	24668	14903	24887	12547	44576
MEAN	1529	931	756	270	940	4744	2910	796	497	803	405	1486
MAX	4580	2360	1290	459	6200	11600	10200	1420	1330	3150	572	6520
MIN	151	430	363	185	168	1850	710	334	220	340	240	114
CFSM	1.62	.99	.80	.29	1.00	5.03	3.08	.84	.53	.85	.43	1.57
IN.	1.87	1.10	.92	.33	1.04	5.80	3.44	.97	.59	.98	.49	1.76
CAL YR 1976	TOTAL	607127	MEAN	1659	MAX	16000	MIN	151	CFSM	1.76	IN	23.92
WTR YR 1977	TOTAL	489403	MEAN	1341	MAX	11600	MIN	114	CFSM	1.42	IN	19.29

WEST BRANCH SUSQUEHANNA RIVER BASIN

0154970 PINE CREEK BEOW LITTLE PINE CREEK NEAR WATERVILLE, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
OCT 07...	1430	9813	151	100	7.5	17.0	<1	11.0	20	--	0
NOV 03...	1115	9813	1900	70	8.0	6.5	1	--	40	0	0
DEC 14...	1030	9813	1230	90	7.3	--	2	--	24	0	0
JAN 03...	1200	9813	2020	70	7.3	.0	1	14.3	28	--	0
MAR 08...	0950	9813	4120	60	6.5	--	4	--	15	0	2
APR 06...	1100	9813	E5000	60	6.5	--	2	--	12	--	0
JUL 15...	1030	9813	690	100	--	--	1	--	35	--	0
JUL 28...	1315	9813	340	65	--	20.0	2	9.7	15	--	0
AUG 22...	0950	9813	415	80	7.1	20.0	20	8.8	35	--	0
SEP 19...	1015	9813	1250	120	7.0	--	4	--	45	--	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 07...	9.5	.0	28	14	8.0	.36	.01	.06	.04	50
NOV 03...	4.0	6.0	10	10	5.0	.71	.02	.04	.02	80
DEC 14...	8.7	.5	20	15	8.0	.88	.02	.03	.04	90
JAN 03...	7.1	2.0	20	10	5.0	.82	.01	.15	.04	80
MAR 08...	7.1	.0	18	10	4.0	.85	.03	.05	.05	210
APR 06...	3.1	1.0	14	10	6.0	.96	.03	.05	.06	160
JUL 15...	9.5	2.7	24	10	6.0	.58	.01	.08	.04	100
JUL 28...	6.3	.0	20	8.0	4.0	.50	.02	.05	.05	90
AUG 22...	8.0	3.7	36	8.0	6.0	.48	.02	.06	.03	120
SEP 19...	8.0	6.2	32	10	8.0	.10	.03	.07	.09	440

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 07...	1430	9813	<10	<3	10	10	<50	30	<10	10
JUL 05...	1030	9813	130	<3	<10	10	<50	30	<10	10
AUG 22...	0950	9813	260	<3	<10	20	<50	50	10	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549755 ANTES CREEK NEAR JERSEY SHORE, PA

LOCATION.--Lat 41°09'40", long 77°13'03", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft (46 m) upstream from bridge on State Highway 44, 1.4 mi (2.3 km) upstream from Morgan Valley Run, and 3.5 mi (5.6 km) southeast of Jersey Shore.

DRAINAGE AREA.--53.3 mi² (138.0 km²).

PERIOD OF RECORD.--August 1973 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 630 ft (192 m) from topographic map.

REVISED RECORDS.--WDR PA-75: 1974(M).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 678 ft³/s (19.2 m³/s) Feb. 25, 1975, gage height, 5.44 ft (1.658 m), from rating curve extended above 210 ft³/s (5.95 m³/s) on basis of slope-area measurement at gage height, 5.38 ft (1.640 m); minimum, 9.6 ft³/s (0.27 m³/s) Nov. 11, 1974, gage height, 3.30 ft (1.006 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 615 ft³/s (17.4 m³/s) Oct. 9, gage height, 5.30 ft (1.615 m); minimum, 10 ft³/s (0.283 m³/s) Sept. 15, 16, gage height 3.26 ft (0.994 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	121	29	28	14	138	150	114	34	28	22	18
2	32	112	32	28	15	118	179	105	40	27	21	18
3	31	103	28	27	16	99	362	97	47	26	20	22
4	31	97	29	28	15	159	339	88	45	25	20	20
5	29	90	29	27	16	287	294	92	44	25	18	18
6	29	84	28	26	15	249	242	84	41	34	19	18
7	36	78	111	27	14	195	204	76	36	101	25	16
8	122	74	105	26	12	158	180	71	34	94	24	15
9	464	69	88	26	12	130	156	71	43	78	20	15
10	430	65	74	26	12	118	140	65	45	69	22	16
11	314	63	65	25	21	103	126	62	33	58	22	14
12	242	58	58	25	47	97	112	60	29	52	19	12
13	195	55	55	24	69	129	103	58	27	46	19	12
14	153	52	53	24	57	148	94	56	26	41	19	13
15	107	50	55	21	45	143	88	55	25	37	19	11
16	99	48	53	20	34	138	82	53	24	33	17	12
17	88	45	53	17	29	126	76	51	22	32	22	16
18	78	44	52	16	28	121	73	53	26	36	21	14
19	71	42	47	15	29	140	67	62	24	36	17	20
20	102	41	46	15	28	146	65	50	22	92	16	44
21	201	40	48	14	29	140	62	48	24	62	15	32
22	192	38	40	14	28	203	58	45	22	53	15	26
23	158	37	41	14	36	276	62	44	20	47	16	22
24	138	37	38	14	88	252	205	42	20	42	16	26
25	136	36	36	14	236	210	305	44	23	41	15	52
26	140	34	38	14	186	175	276	44	36	41	16	92
27	133	34	37	14	161	150	219	42	27	32	14	105
28	128	34	36	15	153	150	177	42	26	28	15	86
29	126	37	36	14	---	169	148	40	34	27	15	69
30	121	32	29	15	---	177	128	37	29	26	18	53
31	138	---	32	14	---	166	---	36	---	25	17	---
TOTAL	4295	1750	1501	627	1445	5010	4772	1887	928	1394	574	907
MEAN	139	58.3	48.4	20.2	51.6	162	159	60.9	30.9	45.0	18.5	30.2
MAX	464	121	111	28	236	287	362	114	47	101	25	105
MIN	29	32	28	14	12	97	58	36	20	25	14	11
CFSM	2.61	1.09	.91	.38	.97	3.04	2.98	1.14	.58	.84	.35	.57
IN.	3.00	1.22	1.05	.44	1.01	3.50	3.33	1.32	.65	.97	.40	.63
CAL YR 1976	TOTAL	26878	MEAN 73.4	MAX 464	MIN 16	CFSM 1.38	IN 18.76					
WTR YR 1977	TOTAL	25090	MEAN 68.7	MAX 464	MIN 11	CFSM 1.29	IN 17.51					

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549780 LARRYS CREEK AT COGAN HOUSE, PA

LOCATION.--Lat 41°25'04", long 77°09'46", Lycoming County, Hydrologic Unit 02050206, on right bank, attached to upstream wingwall of bridge on State Highway 184 at Cogan House, 0.7 mi (1.1 km) upstream from Wolf Run, 2.3 mi (3.7 km) upstream from Wendell Run, and 15 mi (24 km) northwest of Williamsport.

DRAINAGE AREA.--6.80 mi² (17.61 km²).

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

REVISED RECORDS.--WDR PA-72: 1964(M), 1967(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (418 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow from several ponds.

AVERAGE DISCHARGE.--17 years, 10.4 ft³/s (0.295 m³/s), 20.78 in/yr (528 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s (32.0 m³/s) June 22, 1972, gage height, 5.29 ft (1.612 m), from rating curve extended above 130 ft³/s (3.68 m³/s) on basis of contracted-opening measurement of peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172 ft³/s (4.87 m³/s) Mar. 13, gage height, 2.55 ft (0.777 m); minimum, 1.1 ft³/s (0.031 m³/s) Sept. 11, gage height, 0.97 ft (0.296 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	16	4.0	3.8	2.1	27	44	17	3.1	2.5	16	2.0
2	1.6	16	3.8	3.7	2.0	25	56	15	2.4	2.2	9.6	2.0
3	1.5	15	3.6	3.5	2.0	24	83	13	2.2	2.0	7.6	2.4
4	1.3	14	3.5	3.4	2.0	51	56	13	2.1	1.9	6.2	2.0
5	1.3	12	3.4	3.3	2.0	91	44	16	2.1	2.0	5.3	1.8
6	1.3	11	3.3	3.1	1.9	50	33	13	3.9	2.7	6.6	2.0
7	1.6	9.6	15	3.0	1.9	33	28	12	3.1	6.2	8.1	1.8
8	4.8	8.7	11	2.9	1.9	26	25	12	2.6	24	5.7	1.6
9	54	8.2	9.3	2.8	1.9	19	20	13	3.7	11	5.3	1.5
10	38	8.1	8.7	2.8	1.9	18	18	12	4.2	8.6	4.5	1.4
11	23	7.5	8.9	2.7	2.6	19	17	11	2.7	6.6	3.8	1.2
12	15	6.8	8.6	2.6	3.7	20	15	9.6	2.4	7.1	3.5	1.2
13	12	6.4	8.1	2.6	5.8	108	13	9.6	2.3	5.7	3.2	1.4
14	10	6.3	7.6	2.6	3.3	86	12	9.1	2.3	3.8	4.2	2.0
15	8.2	5.9	7.2	2.5	2.8	55	11	8.1	2.2	2.9	3.2	1.3
16	7.2	5.9	6.8	2.5	2.6	40	10	7.6	2.0	2.6	2.9	1.8
17	6.4	6.2	6.4	2.5	2.5	31	9.6	7.1	2.9	4.9	5.3	2.9
18	6.0	5.6	6.2	2.4	2.4	27	8.6	7.1	2.9	4.5	3.8	2.9
19	5.2	5.4	6.1	2.4	2.3	22	8.6	6.6	4.9	9.6	3.5	5.3
20	20	5.2	6.9	2.4	2.2	19	8.1	5.7	2.1	14	2.6	7.6
21	62	5.1	7.0	2.4	2.1	17	7.1	4.9	1.8	11	2.4	3.5
22	39	4.8	6.6	2.3	2.1	21	7.1	4.5	1.7	9.6	5.3	3.2
23	26	4.5	6.1	2.3	3.6	21	9.6	4.2	1.6	7.6	2.6	2.6
24	22	4.5	5.7	2.2	40	20	31	4.1	1.7	6.2	2.4	23
25	19	4.3	5.4	2.2	39	20	38	4.3	2.9	9.6	2.4	33
26	19	4.3	5.1	2.2	30	18	33	4.1	6.2	7.1	2.0	40
27	17	4.6	4.8	2.2	29	20	31	3.8	2.0	4.9	2.0	34
28	16	4.4	4.6	2.2	30	31	25	3.7	5.3	4.2	1.8	24
29	14	4.5	4.4	2.1	---	76	22	3.6	5.3	3.8	2.0	18
30	12	4.3	4.2	2.1	---	90	19	3.8	2.9	3.5	2.0	13
31	19	---	4.0	2.1	---	56	---	3.3	---	2.9	2.0	---
TOTAL	484.9	225.1	196.3	81.8	225.6	1181	742.7	261.8	87.5	195.2	137.8	240.4
MEAN	15.6	7.50	6.33	2.64	8.06	38.1	24.8	8.45	2.92	6.30	4.45	8.01
MAX	62	16	15	3.8	40	108	83	17	6.2	24	16	40
MIN	1.3	4.3	3.3	2.1	1.9	17	7.1	3.3	1.6	1.9	1.8	1.2
CFSM	2.29	1.10	.93	.39	1.19	5.60	3.65	1.24	.43	.93	.65	1.18
IN.	2.65	1.23	1.07	.45	1.23	6.46	4.06	1.43	.48	1.07	.75	1.31

CAL YR 1976 TOTAL 3947.1 MEAN 10.8 MAX 104 MIN 1.1 CFSM 1.59 IN 21.59
WTR YR 1977 TOTAL 4060.1 MEAN 11.1 MAX 108 MIN 1.2 CFSM 1.63 IN 22.21

WEST BRANCH SUSQUEHANNA RIVER BASIN

183

01550000 LYCOMING CREEK NEAR TROUT RUN, PA

LOCATION.--Lat 41°25'06", long 77°01'59", Lycoming County, Hydrologic Unit 02050206, on right bank 150 ft (46 m) upstream from highway bridge, 300 ft (91 m) upstream from Penn Central Railroad bridge, 0.5 mi (0.8 km) downstream from Grays Run, and 2.6 mi (4.2 km) northeast of village of Trout Run. Water-quality sampling site at bridge 150 ft (46 m) downstream.

DRAINAGE AREA.--173 mi² (448 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 921: 1933, 1934(M), 1935-39. WSP 1302: 1914-16, 1922(M), 1923-25, 1926(M), 1927-28, 1930, 1931(M). WSP 1502: 1920-21(M), 1932(M), 1933.

GAGE.--Water-stage recorder. Datum of gage is 693.95 ft (211.516 m) above mean sea level. Prior to June 1, 1939, nonrecording gage at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--63 years (1914-77), 281 ft³/s (7.958 m³/s), 22.00 in/yr (559 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft³/s (733 m³/s) June 22, 1972, gage height, 20.19 ft (6.154 m), from floodmark in gage shelter, from rating curve extended above 5,300 ft³/s (150 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.2 ft³/s (0.091 m³/s) Sept. 27, 1936; minimum daily, 4.0 ft³/s (0.11 m³/s) Sept. 19-24, 27, 28, 1936, Sept. 1, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft³/s (82.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1530	4,760 135	8.34 2.542	Mar. 4	2245	*6,460 183	*9.36 2.853
Oct. 21	0315	3,440 97.4	7.13 2.173	Mar. 13	1115	5,010 142	8.10 2.469
Feb. 24	2300	5,190 147	8.42 2.566	Apr. 3	0015	3,110 88.1	6.50 1.981

Minimum discharge, 14 ft³/s (0.40 m³/s) Sept. 5, 13, gage height, 2.45 ft (0.747 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	644	72	79	35	572	1000	476	60	158	141	29
2	64	524	76	84	35	440	1230	430	62	121	140	25
3	56	460	72	72	38	380	1960	385	58	98	92	30
4	51	435	64	74	36	2220	1260	351	53	82	71	18
5	47	400	64	66	35	3140	1150	488	49	72	54	15
6	44	346	58	66	35	1560	952	440	53	79	61	108
7	44	308	405	66	35	1040	764	375	76	137	119	66
8	165	275	435	60	35	791	674	332	62	317	97	42
9	1840	244	385	62	35	692	566	346	62	177	68	31
10	1100	230	270	64	34	698	500	390	150	131	54	23
11	566	222	275	60	34	686	450	410	101	106	49	18
12	395	196	257	54	40	674	405	336	74	109	42	15
13	322	177	252	51	149	2820	365	308	58	124	37	14
14	322	165	262	49	150	2040	332	280	53	89	35	38
15	266	154	234	47	109	1310	303	252	51	72	37	60
16	222	140	180	46	72	1010	275	230	45	60	27	44
17	192	134	177	45	72	784	252	209	69	104	107	159
18	173	134	161	43	47	722	230	201	201	184	149	144
19	154	128	144	42	60	644	213	196	192	147	76	456
20	308	124	154	41	44	572	201	169	131	327	52	712
21	2140	118	248	40	42	506	184	147	115	258	38	529
22	952	109	201	39	64	752	173	131	95	247	110	373
23	656	101	154	39	47	903	284	115	82	182	93	302
24	578	92	124	38	494	722	1890	106	64	143	57	348
25	650	89	109	38	1500	602	1830	104	84	184	47	863
26	698	86	115	37	692	542	1160	95	275	220	35	1160
27	536	89	104	37	740	560	1050	82	154	143	27	925
28	460	92	104	39	826	826	805	74	150	108	23	625
29	410	104	90	37	---	1840	662	66	390	87	41	463
30	360	72	118	36	---	1840	560	62	234	81	57	372
31	764	---	79	36	---	1400	---	60	---	70	39	---
TOTAL	14601	6392	5443	1587	5535	33288	21680	7646	3303	4417	2075	8007
MEAN	471	213	176	51.2	198	1074	723	247	110	142	66.9	267
MAX	2140	644	435	84	1500	3140	1960	488	390	327	149	1160
MIN	44	72	58	36	34	380	173	60	45	60	23	14
CFSM	2.72	1.23	1.02	.30	1.15	6.21	4.18	1.43	.64	.82	.39	1.54
IN.	3.14	1.37	1.17	.34	1.19	7.16	4.66	1.64	.71	.95	.45	1.72

CAL YR 1976 TOTAL 116590 MEAN 319 MAX 2860 MIN 25 CFSM 1.84 IN 25.07
WTR YR 1977 TOTAL 113974 MEAN 312 MAX 3140 MIN 14 CFSM 1.80 IN 24.51

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 13...	0930	9813	322	60	6.5	8.0	<1	11.0	20	--	0	7.1
NOV 03...	0915	9813	470	60	7.8	6.5	1	--	40	0	0	5.0
DEC 06...	1000	9813	54	80	6.5	--	1	--	30	0	0	7.1
JAN 04...	0930	9813	74	70	6.5	--	0	--	26	--	0	9.5
MAR 08...	0915	9813	798	60	6.5	--	2	--	10	0	0	4.7
APR 11...	1410	9813	445	60	6.5	11.0	1	11.2	20	0	0	5.5
JUN 16...	1230	9813	45	70	7.5	19.5	<1	9.7	8	--	0	3.1
JUL 21...	1400	9813	252	60	7.5	--	--	--	25	--	0	9.5
AUG 29...	1000	9813	19	80	6.8	19.0	<1	8.0	15	--	0	8.0
SEP 19...	1145	9813	506	80	7.0	--	15	--	35	--	0	12

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	.5	12	10	5.0	--	--	--	1.3	.03	.05	.04	80
NOV 03...	6.5	10	10	4.0	44	<5	--	1.1	.03	.02	.03	50
DEC 06...	3.0	12	15	6.0	38	4	42	1.1	.04	.11	.02	<10
JAN 04...	.5	16	10	5.0	74	0	74	1.0	.01	.16	.09	20
MAR 08...	.0	16	5.0	4.0	48	<5	--	1.4	.02	.06	.03	90
APR 11...	1.5	12	15	5.0	44	4	48	1.3	.01	.14	.03	50
JUN 16...	.0	150	10	7.0	40	<5	--	.98	.02	.06	.05	<10
JUL 21...	.0	106	10	4.0	42	10	--	.74	.02	.05	.05	40
AUG 29...	.0	32	8.0	6.0	44	4	48	1.0	.02	.07	.06	30
SEP 19...	1.2	22	10	6.0	72	24	--	.04	.03	.08	.12	880

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 13...	1:00	9813	40	<3	10	30	<50	40	<10	<10
JUN 15...	1:00	9813	10	<3	<10	10	<50	<10	<10	10
AUG 25...	1400	9813	100	<3	<10	10	<50	10	<10	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

185

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA

LOCATION.--Lat 41°14'17", long 76°59'56", Lycoming County, Hydrologic Unit 02050206, on left bank at upstream edge of Market Street Bridge at Williamsport, 350 ft (110 m) upstream from Hagermans Run.

DRAINAGE AREA.--5,682 mi² (14,716 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1895 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1925-28. WSP 1502: 1895-1904, 1912-13, 1919.

GAGE.--Water-stage recorder. Datum of gage is 494.98 ft (150.870 m) above mean sea level. Mar. 1, 1895 to Sept. 30, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Glendale, Curwensville, Kettle Creek, Foster Joseph Sayers Lake, First Fork Sinnemahoning Creek Reservoir (see p. 200) and by Little Pine Creek Reservoir (capacity, 24,900 acre-ft or 30.7 hm³) about 40 mi (60 km) upstream.

AVERAGE DISCHARGE.--82 years, 8,868 ft³/s (251.1 m³/s), 21.18 in/yr (538 mm/yr), adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 279,000 ft³/s (7,900 m³/s) June 23, 1972, gage height, 34.75 ft (10.592 m) from rating curve extended above 210,000 ft³/s (5,950 m³/s) on basis of slope-area measurement at gage height, 33.57 ft (10.232 m); minimum, 162 ft³/s (4.59 m³/s) Sept. 17, 1943; minimum daily, 251 ft³/s (7.11 m³/s) Sept. 13, 1932; minimum gage height, -0.67 ft (-0.204 m) Sept. 3, 1966.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage known prior to 1895, 32.4 ft (9.88 m) June 1, 1889, discharge, about 252,000 ft³/s (7,140 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 77,400 ft³/s (2,190 m³/s) Apr. 3, gage height, 15.82 ft (4.822 m); minimum, 1,320 ft³/s (37.4 m³/s) Sept. 14, gage height, 0.07 ft (0.021 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3540	14300	3260	4600	1900	31000	32200	8260	2490	5110	5320	2350
2	2780	13400	3100	4450	1900	25700	26200	7590	2440	4250	5200	2220
3	2770	12600	3520	4300	1890	20900	60700	7130	2290	3560	4610	2110
4	3880	11900	2760	4000	1830	20700	65700	6740	2210	3010	3700	1980
5	4220	11100	2730	3800	1840	46100	51200	6920	2120	2680	3340	1950
6	3120	9920	2730	3700	1780	48000	42000	7670	2140	2650	3150	1900
7	2710	9130	4210	3600	1670	36800	32300	7810	2290	3340	3280	1880
8	2810	8370	6970	3500	1660	28100	26800	7760	2410	5080	4240	1970
9	13300	7790	7760	3400	1590	21900	22400	7970	2890	6950	7080	1780
10	32100	7240	8390	3400	1550	18900	18700	7590	3250	8860	8310	1580
11	30400	6990	8470	3400	1620	17800	16500	7220	3060	6850	6760	1440
12	21700	6710	8260	3300	1430	19100	14500	6620	2880	5980	5850	1420
13	16400	6250	8220	3200	2760	28100	11900	5920	2600	15700	7530	1390
14	12300	5850	7320	3100	3770	52400	10400	5540	2340	13300	6670	1380
15	10500	5520	6560	3000	4440	43200	9520	5230	2170	10500	5390	1640
16	9250	5770	6710	3000	5190	32900	8880	4900	2060	8890	5260	2760
17	8010	6030	7220	3000	5560	24800	8220	4540	2110	6830	5240	2520
18	6860	6440	6820	3000	4900	20400	7600	4490	2360	7270	5740	3940
19	6180	6260	6440	3000	3980	19600	7130	4410	2930	7540	6780	4660
20	6180	5790	5890	2900	3560	20200	6810	4040	3240	8230	6030	7530
21	14500	5370	6220	2800	3340	19600	6350	3780	3210	13000	4720	12400
22	17800	5100	6570	2800	3140	20700	6050	3530	2660	15000	4180	11000
23	16000	4730	6240	2650	3120	26400	6290	3300	2770	14000	3860	8690
24	13300	4540	6670	2500	4000	26000	12000	3150	2450	12100	4000	7410
25	13100	4370	5860	2400	14200	22000	18300	3220	2200	11200	3360	11200
26	15200	4260	5680	2300	33700	19400	15100	3420	3400	12300	3170	25100
27	17200	4020	5860	2200	30400	16600	13300	3360	6070	13700	2990	28000
28	16300	3870	5280	2100	34100	17000	11600	2970	5390	10900	2840	23000
29	13500	4110	5240	2000	---	27500	10700	2720	5130	9220	2690	16000
30	12100	3950	5000	2000	---	44300	9170	2600	5370	7230	2550	11500
31	12400	---	4610	2000	---	42200	---	2480	---	5600	2430	---
TOTAL	360410	211680	180570	95400	181220	858300	588020	162880	88930	260830	146270	202700
MEAN	11630	7056	5825	3077	6472	27690	19600	5254	2964	8414	4718	6757
MAX	32100	14300	8470	4600	34100	52400	65700	8260	6070	15700	8310	28000
MIN	2710	3870	2730	2000	1550	16600	6050	2480	2060	2650	2430	1380
CAL YR 1976 TOTAL	3423910			9355		79700		1470				
WTR YR 1977 TOTAL	3337210			9143		65700		1380				

WEST BRANCH SUSQUEHANNA RIVER BASIN

01551500 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 13...	1400	9813	150	6.5	14.5	6	--	50	--	0	16	2.5
NOV 17...	1330	9813	230	7.5	3.0	<1	13.5	100	--	0	19	13
DEC 07...	1500	9813	200	6.5	--	5	--	90	0	0	23	8.0
FEB 28...	1445	9813	110	6.1	--	35	--	40	0	2	10	3.5
MAR 10...	1435	9813	120	--	--	7	--	40	0	0	10	3.5
APR 05...	1245	9813	100	6.5	--	20	--	35	0	0	9.5	2.5
JUL 12...	1300	9813	285	7.1	--	20	--	82	--	0	21	7.0
AUG 11...	1430	9813	235	6.6	--	1	--	94	0	0	20	10
25...	1000	9813	280	7.0	21.0	1	8.7	82	--	0	20	8.0
SEP 14...	0945	9813	340	7.5	--	2	--	124	--	0	31	11

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	14	40	6.0	--	--	--	.86	.02	.05	.04	790
NOV 17...	26	72	8.0	--	--	--	1.0	.03	.12	.04	50
DEC 07...	32	65	11	148	<5	--	1.3	.02	.17	.05	310
FEB 28...	8	30	7.0	68	68	136	1.0	.02	.10	.11	5780
MAR 10...	10	38	5.0	100	14	114	.89	.03	.01	.05	830
APR 05...	10	31	5.0	76	36	102	.78	.02	.09	.08	2520
JUL 12...	32	60	7.0	152	2	154	1.0	.02	.08	.03	120
AUG 11...	16	82	8.0	178	--	--	.94	.03	.05	.09	170
25...	22	70	8.0	172	<10	--	.94	.03	.15	.07	100
SEP 14...	32	124	12	244	<10	--	1.0	.03	.19	.08	180

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 13...	1400	9813	400	<3	10	50	<50	570	30	<10
NOV 17...	1330	9813	120	<3	30	<10	<50	650	<10	20
JUL 12...	1 00	9813	140	<3	<10	10	<50	690	20	20
AUG 11...	1430	9813	110	<3	10	<10	<50	1010	30	50
25...	1000	9813	200	<3	<10	20	<50	810	20	30

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA

LOCATION.--Lat 41°19'26", long 76°54'42", Lycoming County, Hydrologic Unit 02050206, on left bank 500 ft (150 m) downstream from highway bridge at Loyalsockville, 2.5 mi (4.0 km) downstream from Wallis Run and 7.3 mi (11.7 km) upstream from mouth. Water-quality sampling site at bridge 500 ft (150 m) upstream.

DRAINAGE AREA.--443 mi² (1,147 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1925 to September 1974, October 1975 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1969, published as "at Loyalsock".

REVISED RECORDS.--WSP 756: Drainage area. WSP 871: 1938(M). WSP 1051: 1926(M), 1933(M), 1936(M). WSP 1302: 1926-30. WSP 1502: 1932-33, 1935(M), 1937(M).

GAGE.--Water-stage recorder. Datum of gage is 585.63 ft (178.500 m) above mean sea level, Pennsylvania Department of Transportation benchmark. Prior to Sept. 16, 1926 nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--51 years, 749 ft³/s (21.21 m³/s), 22.95 in/yr (583 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,700 ft³/s (2,510 m³/s) June 23, 1972, gage height, 14.74 ft (4.493 m), from floodmark in gage well, from rating curve extended above 16,000 ft³/s (450 m³/s) on basis of slope-area measurement at gage height, 12.20 ft (3.719 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 25, 26, Nov. 24, 1964; minimum gage height, 2.11 ft (0.643 m) Aug. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,400 ft³/s (181 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1915	*32,500 920	*10.90 3.322	Apr. 3	0500	6,780 192	7.17 2.185
Feb. 25	0330	11,500 326	8.20 2.499	Apr. 24	2345	13,000 368	8.45 2.576
Mar. 5	0115	20,000 566	9.50 2.896	Sept. 26	1730	6,940 197	7.21 2.198
Mar. 13	1715	8,950 253	7.69 2.344				

Minimum discharge, 63 ft³/s (1.78 m³/s) Sept. 13, 14, gage height, 3.47 ft (1.058 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	1830	230	255	94	1990	2010	998	158	189	118	129
2	147	1340	240	240	93	1470	2090	857	161	151	230	114
3	134	1130	220	228	92	1160	5260	772	157	127	232	105
4	120	1010	200	216	91	4660	3060	680	143	113	185	92
5	109	912	200	205	90	10700	2550	951	129	99	163	86
6	99	830	190	199	90	4020	2010	958	127	117	141	150
7	91	762	1300	190	89	2430	1560	887	150	280	174	164
8	406	695	2060	180	89	1740	1330	727	193	394	200	130
9	11800	632	1800	175	88	1410	1110	683	180	435	183	102
10	6640	588	1780	170	88	1320	967	786	599	284	160	86
11	2260	563	820	160	88	1290	865	945	608	220	153	73
12	1420	521	677	155	120	1220	762	790	367	196	142	68
13	1050	482	632	150	200	5310	671	681	268	188	129	63
14	967	451	733	143	310	5240	604	596	224	166	137	65
15	890	428	733	138	390	3110	544	533	197	143	167	68
16	714	406	632	134	310	2260	496	479	180	130	191	86
17	614	385	571	130	210	1720	453	440	169	188	490	128
18	546	377	505	126	160	1510	419	413	366	262	1030	171
19	498	363	490	123	135	1370	393	414	335	215	503	292
20	580	356	414	120	125	1180	371	392	305	321	347	923
21	4080	349	498	116	120	1050	346	346	231	296	276	770
22	2270	336	733	113	115	1890	325	304	189	213	238	475
23	1510	295	705	110	112	3520	413	277	165	210	220	378
24	1270	288	597	107	490	2280	5380	255	140	176	203	440
25	1470	276	500	105	6140	1690	7560	243	144	178	183	1560
26	1730	263	440	103	2930	1460	3360	223	291	219	164	3870
27	1420	270	400	101	2270	1370	2630	203	228	202	152	3460
28	1140	288	350	99	3200	1830	1930	188	190	162	132	1760
29	990	322	325	98	---	3270	1480	174	208	144	130	1200
30	870	230	300	96	---	3990	1190	164	223	132	129	892
31	1730	---	275	95	---	2820	---	156	---	115	139	---
TOTAL	47725	16978	19550	4580	18329	80280	52139	16515	7025	6265	7051	17900
MEAN	1540	566	631	148	655	2590	1738	533	234	202	227	597
MAX	11800	1830	2060	255	6140	10700	7560	998	608	435	1030	3870
MIN	91	230	190	95	88	1050	325	156	127	99	118	63
CFSM	3.48	1.28	1.42	.33	1.48	5.85	3.92	1.20	.53	.46	.51	1.35
IN.	4.01	1.43	1.64	.38	1.54	6.74	4.38	1.39	.59	.53	.59	1.50

CAL YR 1976 TOTAL 273420 MEAN 747 MAX 11800 MIN 47 CFSM 1.69 IN 22.96
WTR YR 1977 TOTAL 294337 MEAN 806 MAX 11800 MIN 63 CFSM 1.82 IN 24.72

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552000 LOYALSOCK CREEK AT LOYALSOCKVILLE, PA--Continued

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 13...	1200	9813	1010	60	6.5	11.0	1	11.0	20	--	0	7.1
NOV 04...	0945	9813	1010	60	7.6	6.0	<1	--	20	0	0	6.3
DEC 06...	1100	9813	E190	70	6.5	--	1	--	35	0	2	11
JAN 04...	1030	9813	E216	60	6.5	--	--	--	24	--	0	8.0
MAR 10...	1320	9813	1330	50	6.5	--	1	--	10	0	0	4.0
JUN 15...	1300	9813	198	110	7.3	--	<1	--	15	--	0	7.1
JUL 12...	0930	9813	198	60	7.2	--	1	--	--	--	0	8.0
AUG 25...	1400	9813	184	225	7.1	21.0	<1	10.5	10	--	0	7.1
SEP 15...	1300	9813	68	90	7.5	--	<1	--	15	--	0	8.0

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CA+O3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 13...	.5	10	8.0	4.0	--	--	--	.96	.02	.04	.02	90
NOV 04...	1.0	8	6.0	5.0	26	6	--	.94	.02	.02	.05	60
DEC 06...	1.7	14	15	6.0	24	6	30	.78	.02	.13	.03	20
JAN 04...	1.0	18	18	6.0	78	--	--	.88	.02	.20	.19	<10
MAR 10...	.0	12	15	4.0	62	4	66	1.1	.03	.04	.04	80
JUN 15...	.0	28	10	6.0	40	10	--	.72	.02	.08	.04	30
JUL 12...	--	26	10	4.0	28	0	28	.77	.02	.04	.04	10
AUG 25...	.0	26	14	5.0	42	<10	--	.72	.02	.05	.04	<10
SEP 15...	.0	84	10	5.0	50	<10	--	.66	.03	.04	.12	20

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 13...	0930	9813	20	<3	<10	10	<50	50	<10	90
JUN 16...	1:30	9813	10	<3	<10	<10	<50	30	<10	<10
AUG 29...	1000	9813	40	<3	<10	<10	<50	30	10	30

WEST BRANCH SUSQUEHANNA RIVER BASIN

189

01552500 MUNCY CREEK NEAR SONESTOWN, PA

LOCATION.--Lat 41°21'25", long 76°32'06", Sullivan County, Hydrologic Unit 02050206, on right bank 150 ft (46 m) downstream from Slip Run, 185 ft (56 m) downstream from bridge on Legislative Route 611, and 1.2 mi (1.9 km) east of Sonestown.

DRAINAGE AREA.--23.8 mi² (61.6 km²).

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

REVISED RECORDS.--WSP 1502: 1941-42.

GAGE.--Water-stage recorder. Datum of gage is 1,025.01 ft (312.423 m) above mean sea level. Prior to Mar. 31, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--37 years, 47.5 ft³/s (1.35 m³/s), 27.10 in/yr (688 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,260 ft³/s (234 m³/s) June 22, 1972, gage height, 8.94 ft (2.725 m) from rating curve extended above 3,400 ft³/s (96.3 m³/s); minimum, 0.1 ft³/s (0.003 m³/s) Sept. 11, 12, 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of about 9.3 ft (2.8 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1215	4,060 115	7.33 2.234	Mar. 4	2100	1,440 40.8	5.10 1.554

Minimum discharge, 6.6 ft³/s (0.187 m³/s), Sept. 12, gage height, 1.35 ft (0.411 m), but may have been less during period of ice effect Dec. 21 to Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	121	23	11	4.7	100	121	55	12	9.5	62	8.9
2	15	95	13	10	4.7	74	221	50	11	8.6	22	9.5
3	13	80	17	9.7	4.6	61	285	44	9.2	7.9	17	8.4
4	12	69	18	9.4	4.6	500	171	43	8.1	7.6	14	7.9
5	12	61	11	9.0	4.6	443	153	57	7.4	15	12	23
6	11	53	12	8.6	4.5	208	111	53	8.6	24	21	12
7	18	49	230	8.4	4.5	135	86	50	12	35	22	8.9
8	250	42	135	8.2	4.5	96	78	43	8.4	50	15	8.4
9	1240	36	123	7.8	4.5	83	65	46	32	26	13	7.9
10	295	34	69	7.6	4.4	88	56	52	51	19	13	7.4
11	153	31	53	7.3	4.7	90	49	50	20	15	12	7.0
12	100	24	44	7.0	6.0	90	43	43	13	15	11	6.8
13	75	20	33	6.9	5.6	410	40	40	11	15	14	7.0
14	72	18	30	6.8	5.2	273	36	36	11	12	21	8.4
15	55	16	25	6.6	5.1	167	32	33	10	10	12	7.0
16	45	14	22	6.4	5.0	127	28	29	8.9	9.5	68	12
17	37	12	19	6.2	5.0	96	26	27	17	9.8	57	13
18	49	12	17	6.0	5.0	91	23	25	26	8.9	37	44
19	25	12	22	5.8	4.9	75	22	24	51	40	27	46
20	105	11	24	5.6	4.9	64	20	20	25	32	22	142
21	242	11	21	5.4	4.9	58	18	19	20	17	21	75
22	135	9.8	19	5.3	5.4	263	18	16	15	14	17	47
23	96	9.2	18	5.2	6.3	202	88	15	13	11	16	35
24	107	8.6	17	5.1	40	129	495	14	12	10	14	69
25	121	8.4	16	5.0	219	98	330	13	16	19	12	254
26	144	8.4	15	5.0	123	81	184	12	20	12	12	426
27	102	8.9	14	5.0	153	86	137	11	13	10	11	248
28	83	8.9	13	5.0	167	125	100	11	12	8.9	11	146
29	71	11	12	4.9	---	254	77	9.8	14	8.9	10	102
30	60	13	12	4.8	---	257	64	9.5	11	8.6	9.5	74
31	172	---	11	4.8	---	179	---	9.2	---	8.6	9.2	---
TOTAL	3930	907.2	1108	209.8	815.6	5003	3177	959.5	498.6	497.8	634.7	1871.5
MEAN	127	30.2	35.7	6.77	29.1	161	106	31.0	16.6	16.1	20.5	62.4
MAX	1240	121	230	11	219	500	495	57	51	50	68	426
MIN	11	8.4	11	4.8	4.4	58	18	9.2	7.4	7.6	9.2	6.8
CFSM	5.34	1.27	1.50	.28	1.22	6.77	4.45	1.30	.70	.68	.86	2.62
IN.	6.14	1.42	1.73	.33	1.27	7.82	4.97	1.50	.78	.78	.99	2.93
CAL YR 1976	TOTAL	20413.6	MEAN 55.8	MAX 1240	MIN 3.5	CFSM 2.35	IN 31.91					
WTR YR 1977	TOTAL	19612.7	MEAN 53.7	MAX 1240	MIN 4.4	CFSM 2.26	IN 30.65					

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552800 MUNCY CREEK AT HUGHESVILLE, PA

LOCATION.--Lat 41°14'55", long 76°43'03", Lycoming County, Hydrologic Unit 02050206, at bridge on U.S. Route 220, 0.3 mi (0.5 km) northeast of Hughesville and 4.2 mi (6.8 km) upstream from Little Muncy Creek.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)
OCT								
13...	1300	9813	70	6.5	11.0	1	11.0	28
NOV								
04...	1115	9813	80	7.5	7.0	1	--	30
DEC								
16...	1230	9813	80	6.7	--	1	--	14
JAN								
04...	1130	9813	80	6.5	--	1	--	30
MAR								
10...	1030	9813	70	6.5	--	3	--	10
APR								
13...	1130	9813	75	7.3	15.0	1	10.5	25
JUN								
15...	1030	9813	90	7.2	--	1	--	35
JUL								
13...	1130	9813	90	7.6	--	1	--	--
AUG								
25...	1150	9813	80	7.7	19.5	<1	8.3	25
SEP								
29...	1400	9813	60	7.1	--	--	--	10

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT									
13...	--	0	--	8.7	--	1.5	16	10	5.0
NOV									
04...	--	0	--	8.7	--	2.0	14	6.0	5.0
DEC									
16...	0	0	--	11	--	--	22	14	6.0
JAN									
04...	0	0	--	12	--	.0	24	14	7.0
MAR									
10...	0	0	--	8.0	--	--	18	15	5.0
APR									
13...	--	0	--	8.7	--	.8	100	15	6.0
JUN									
15...	--	0	--	12	--	.8	38	10	8.0
JUL									
12...	--	--	--	11	--	--	12	10	6.0
AUG									
25...	--	0	--	12	--	.0	28	8.0	6.0
SEP									
29...	--	--	8.7	--	3.2	--	34	10	5.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01552800 MUNCY CREEK AT HUGHESVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 1...	--	--	--	1.0	.02	.03	.03	100
NOV 04...	--	--	--	.96	.02	.05	.03	70
DEC 16...	32	2	34	1.0	.01	.05	.02	20
JAN 04...	60	8	68	1.0	.02	.20	.03	20
MAR 10...	70	6	76	1.2	.03	.05	.04	100
AP 1...	32	0	32	1.0	.03	.07	.03	40
JUN 15...	64	8	--	.94	.01	.10	.28	30
JUL 12...	48	0	48	.98	.02	.03	.02	40
AUG 25...	50	<10	--	.82	.02	.06	.05	30
SEP 29...	52	26	78	1.0	.03	.07	.07	605

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 13...	1:00	9813	<20	<3	<10	20	<50	20	10	<10
JUN 15...	1030	9813	10	<10	<10	10	<50	<10	<10	10
AUG 25...	1150	9813	80	<3	<10	10	<50	<10	<10	<10

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA

LOCATION.--Lat 40°58'05", long 76°52'25", Union County, Hydrologic Unit 02050206, at downstream side of left abutment of Market Street bridge at Lewisburg, 0.2 mi (0.3 km) downstream from Buffalo Creek, and 7.4 mi (11.9 km), upstream from mouth.

DRAINAGE AREA.--6,847 mi² (17,734 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302. September 1913 to August 1923 (gage heights only) are contained in reports of Water Supply Commission of Pennsylvania or Pennsylvania Department of Forests and Waters.

GAGE.--Water-stage recorder. Datum of gage is 428.20 ft (130.515 m) above mean sea level. Sept. 21, 1913 to Aug. 31, 1923, Dec. 7, 1939 to July 2, 1940, nonrecording gage at same site and datum. Since Oct. 1, 1942, water-stage recorder for station on Susquehanna River at Sunbury used as an auxiliary gage for this station.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Glendale, Curwensville, Kettle Creek, Foster Joseph Sayers Lakes, First Fork Sinnemahoning Creek Reservoir (see p.200) and Little Pine Creek Reservoir (capacity 24,900 acre-ft or 30.7 hm³) about 75 mi (120 km) upstream.

AVERAGE DISCHARGE.--38 years (1939-77), 10,650 ft³/s (302 m³/s), 21.12 in/yr (536 mm/yr), adjusted for storage 1961-75.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 300,000 ft³/s (8,500 m³/s) June 24, 1972; maximum gage height, 34.23 ft (10.433 m) June 24, 1972, from floodmarks, backwater from Susquehanna River; minimum 390 ft³/s (11.0 m³/s) Nov. 16, 1964; gage height, 0.57 ft (0.174 m).

PERIOD OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1939, 32.1 ft (9.78 m) Mar. 19, 1936, from floodmarks, discharge, 287,000 ft³/s (8,130 m³/s), from slope-area measurement at Watsontown, (backwater from Susquehanna River).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84,700 ft³/s (2,400 m³/s) Apr. 4, gage height, 15.43 ft (4.703 m), (backwater from Susquehanna River); minimum, 2,380 ft³/s (67.4 m³/s) Sept. 14, 15, gage height, 1.67 ft (0.509 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4340	18400	4300	5100	2300	37100	39200	12000	3130	6490	6610	3270
2	3760	18200	3780	4800	2300	32000	31300	11000	3200	5420	6550	3120
3	3110	16600	3370	4600	2300	26500	56900	10300	3010	4720	6260	3090
4	3380	15500	3200	4400	2300	25900	79800	9770	2920	3950	5320	2890
5	4840	14600	3100	4300	2300	58600	63000	9290	2770	3450	4480	2770
6	4170	13400	3330	4100	2300	58800	52600	9840	2870	3290	4220	2750
7	3280	12100	5460	3900	2300	46400	41100	10300	3090	4050	4240	2750
8	4310	11200	10500	3700	2300	36200	34400	10100	3180	5580	4620	2750
9	20700	10500	9890	3600	2400	28800	29300	9930	3440	7600	5880	2750
10	52600	9850	10600	3500	2500	23700	24100	9940	4330	9840	9170	2660
11	37600	9410	10200	3300	2600	21800	21100	9860	4680	9590	9310	2610
12	29100	9090	10300	3200	2700	22100	19100	9320	4240	7570	7520	2540
13	21200	8650	10100	3100	2900	28600	16400	8340	3800	10100	7570	2420
14	16800	8140	10700	3000	3100	56800	13900	7650	3360	17200	8790	2400
15	13900	7670	14700	2900	3200	51900	12600	7120	3040	13700	7440	2400
16	12200	7360	10800	2800	3500	39700	11900	6700	2850	11900	6580	2550
17	10800	7070	11200	2800	3700	33500	11000	6240	2680	9590	6560	3600
18	9550	7580	9310	2700	3900	25900	10200	5980	2920	8210	7160	3980
19	8510	7440	8010	2700	4000	25500	9470	6170	3630	9020	7940	5450
20	8180	6970	7200	2600	4000	25500	8960	5600	4150	9820	8170	8260
21	20500	6390	7000	2600	4100	25000	8480	5210	4360	11600	6790	12500
22	23600	6110	6700	2600	4300	28100	8000	4830	3930	17300	5670	14000
23	20200	5770	6500	2500	4500	37200	7710	4530	3430	15500	5190	11800
24	19300	5410	6400	2500	7000	34100	13100	4320	3490	14500	5060	9850
25	20700	5220	6200	2500	46100	29700	35500	4370	3060	13100	4870	12700
26	19300	4990	5900	2500	38200	25600	25200	4610	3220	13300	4270	26000
27	21600	4860	5800	2500	47500	23000	20900	4660	5370	15200	4120	31000
28	20500	4670	5600	2400	39400	22300	18400	3750	7080	13700	3910	27000
29	18000	4770	5500	2400	---	28600	15500	3450	6590	11500	3760	21800
30	15600	4970	5400	2300	---	45800	13500	3240	6350	9870	3720	16400
31	15700	---	5300	2300	---	48500	---	3140	---	7460	3410	---
TOTAL	487330	272890	226350	98200	248000	1053200	752620	221560	114170	304120	185160	248060
MEAN	15720	9096	7302	3168	8857	33970	25090	7147	3806	9810	5973	8269
MAX	52600	18400	14700	5100	47500	58800	79800	12000	7080	17300	9310	31000
MIN	3110	4670	3100	2300	2300	21800	7710	3140	2680	3290	3410	2400
CAL YR 1976	TOTAL	4038520	MEAN	11030	MAX	84000	MIN	2020				
WTR YR 1977	TOTAL	4211660	MEAN	11540	MAX	79800	MIN	2300				

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to June 1953, February 1956 to September 1958, May 1960 to current year.

REMARKS.--Unpublished miscellaneous samples of sediment data published for water years 1962-63 available at Harrisburg office.

COOPERATION.--Seven water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	FECAL COLIFORM (COL./100 ML)	FECAL STREPTOCOCCI (COL./100 ML)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
OCT 14...	1200	16600	170	6.7	11.5	--	1100	.72
NOV 11...	1000	9400	160	6.8	4.5	200	200	.67
DEC 21...	1245	3800	200	6.6	.5	30	110	.66
FEB 02...	1345	6300	255	6.8	.5	819	--	.87
MAR 15...	1500	55100	95	6.5	9.0	36	760	.63
APR 10...	1115	16100	190	6.6	16.5	ND	810	.64
MAY 11...	1330	9340	190	6.8	16.0	83	3	.42
JUN 22...	0850	3720	260	6.8	21.0	58	260	.75
JUL 20...	1420	9270	175	7.1	28.0	8210	8200	.54
AUG 18...	1145	6560	210	7.4	23.0	100	90	.48
SEP 12...	1430	2240	380	7.9	20.0	450	500	.87

DATE	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 14...	--	--	.20	.92	.07	21	941	93
NOV 11...	--	--	.15	.82	.04	1	25	100
DEC 21...	--	--	.15	.81	.02	7	72	100
FEB 02...	--	--	.85	1.7	5.4	1	17	100
MAR 15...	--	--	.47	1.1	.06	61	9080	76
APR 10...	--	--	.30	.94	.03	19	826	83
MAY 11...	--	--	.16	.58	.00	2	50	100
JUN 22...	--	--	.48	1.2	.05	10	100	100
JUL 20...	--	--	.30	.84	.05	36	901	78
AUG 18...	--	--	.55	1.0	.01	7	124	100
SEP 12...	.06	.36	.42	1.3	.07	30	181	74

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
DEC 21...	1245	65	49	16	6.0	3.9	1.1	19	0
MAR 15...	1500	34	22	8.7	3.0	2.3	1.0	15	0
JUN 22...	0850	110	80	27	9.2	6.5	1.8	31	0
SEP 13...	1430	120	73	31	10	6.8	2.1	56	0

DATE	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
DEC 21...	16	7.6	51	6.9	.1	4.8	102	100	2.1
MAR 15...	12	7.6	22	4.3	.0	4.1	62	53	4.1
JUN 22...	25	7.9	69	9.5	.1	3.2	163	142	5.0
SEP 13...	46	1.1	61	9.0	.1	2.0	160	150	6.7

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE D ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE D CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE D CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
DEC 21...	1245	1	1	0	--	1	0	1	<10	0	10	7
MAR 15...	1500	1	0	1	--	1	0	1	10	0	<10	7
JUN 22...	0850	3	1	2	--	0	0	0	<10	<10	0	0
SEP 13...	1430	0	--	--	0	0	--	--	<10	--	3	--

DATE	SUS- PENDE D COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE D COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE D LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
DEC 21...	0	7	10	0	10	140	0	16	7	9	500
MAR 15...	6	1	0	0	0	2400	30	17	11	6	360
JUN 22...	0	0	9	5	4	250	10	7	0	10	290
SEP 13...	--	--	5	--	--	1000	300	0	--	--	170

DATE	SUS- PENDE D MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE D MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDE D SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDE D ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC 21...	0	520	<.5	.0	<.5	0	0	0	40	10	30
MAR 15...	120	240	<.5	.0	<.5	1	0	1	30	20	10
JUN 22...	60	230	.0	.0	.0	0	0	0	30	30	0
SEP 13...	--	140	.0	--	.5	0	--	0	20	0	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT								
14...	1330	9813	15700	160	7.6	11.0	7	11.0
NOV								
30...	1400	9813	4920	200	6.6	1.0	3	12.0
DEC								
07...	1400	9813	5630	200	6.7	1.0	35	--
MAR								
29...	1400	9813	29000	130	6.9	12.0	6	12.0
JUN								
08...	1345	9813	3210	60	7.0	18.0	--	11.0
AUG								
04...	1430	9813	5190	205	7.1	22.0	1	11.0
08...	1330	9813	4620	230	8.5	26.0	2	--

DATE	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
14...	50	--	0	16	2.5	14	40	6.0	--
NOV									
30...	100	0	0	25	9.0	52	45	13	156
DEC									
07...	90	0	0	23	8.0	50	54	11	160
MAR									
29...	54	0	0	14	4.5	14	40	8.0	86
JUN									
08...	94	--	0	24	8.5	38	70	12	180
AUG									
04...	76	--	0	18	7.5	24	42	8.0	138
08...	62	--	0	22	1.5	26	55	10	158

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	PHENOLS (UG/L)
OCT								
14...	--	--	1.0	.04	.06	.10	720	--
NOV								
30...	18	174	1.3	.03	.11	.11	190	--
DEC								
07...	32	--	1.8	.03	.18	.12	420	--
MAR								
29...	8	94	1.1	.03	.12	.05	690	<10
JUN								
08...	10	190	1.3	.03	.14	.06	210	<10
AUG								
04...	10	--	.82	.03	.05	.07	110	<10
08...	<10	--	1.0	.03	.08	.07	160	--

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG										
08...	1:30	9813	120	<3	10	<10	<50	170	20	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ALDRIN (UG/L)	TOTAL ATRA- ZINE (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
OCT 14...	1200	ND	ND	ND	ND	ND	ND	ND
NOV 09...	1000	ND	ND	ND	ND	ND	ND	ND
FEB 02...	1345	ND	ND	ND	ND	ND	ND	ND
MAY 11...	1330	ND	ND	ND	ND	ND	ND	ND
AUG 18...	1145	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METH- OXY- CHLOR (UG/L)	TOTAL METHYL PARA- THION (UG/L)
OCT 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV 09...	.01	ND	ND	ND	ND	ND	ND	ND	ND
FEB 02...	.05	.01	ND	ND	ND	ND	ND	ND	ND
MAY 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 18...	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
OCT 14...	ND	ND	ND	ND	ND	ND	ND	ND
NOV 09...	ND	ND	ND	ND	ND	ND	ND	ND
FEB 02...	ND	ND	ND	ND	ND	ND	ND	ND
MAY 11...	ND	ND	ND	ND	ND	ND	ND	ND
AUG 18...	ND	ND	ND	ND	ND	ND	ND	ND

ND - Material specifically analyzed for but not detected.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553600 EAST BRANCH CHILLISQUAKE CREEK NEAR WASHINGTONVILLE, PA

LOCATION.--Lat 41°04'57", long 76°39'17", Montour County, Hydrologic Unit 02050206, on right bank 30 ft (9 m) upstream from highway bridge on Legislative Route 47017, 0.2 mi (0.3 km) downstream from White Hall Creek, 0.7 mi (1.1 km) upstream from Middle Branch Chillisquaque Creek, 2.3 mi (3.7 km) upstream from mouth, and 2.5 mi (4.0 km) northeast of Washingtonville.

DRAINAGE AREA.--9.48 mi² (24.55 km²).

PERIOD OF RECORD.--April 1960 to current year. Prior to October 1969, published as White Hall Creek near Washingtonville.

REVISED RECORDS.--WDR PA-75: 1972(P), 1973, 1974(P).

GAGE.--Water-stage recorder. Altitude of gage is 530 ft (160 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--17 years, 11.9 ft³/s (0.34 m³/s), 17.02 in/yr (432 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,390 ft³/s (124 m³/s) June 22, 1972, gage height, 11.11 ft (3.386 m), from floodmark in gage shelter, from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of contracted-opening measurement of peak flow at site 0.7 mi (1.1 km) upstream, adjusted for intervening area; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	Unk.	*2,810 79.6	*10.38 3.164	Mar. 13	0900	318 9.01	5.45 1.661
Dec. 7	1500	366 10.4	5.77 1.759	Mar. 22	1445	560 15.9	6.80 2.073
Feb. 24	1945	771 21.8	7.57 2.307	Sept. 26	0815	330 9.35	5.53 1.686
Mar. 4	1900	518 14.7	6.59 2.009				

No flow Aug. 1, 2, Sept. 12, 13, 14, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	27	1.6	1.1	.56	22	7.6	6.4	.35	.44	.00	.29
2	2.5	20	1.5	1.1	.56	17	80	5.9	.41	.29	.00	.47
3	2.0	16	1.3	1.0	.56	13	88	5.4	.29	.23	.17	3.6
4	1.7	14	1.2	.96	.55	222	34	5.1	.26	.20	.17	.80
5	1.5	12	1.2	.93	.55	135	34	7.0	.23	.20	.17	.55
6	1.4	11	1.2	.88	.55	41	20	5.9	.29	.26	.26	.44
7	1.4	8.7	.48	.83	.55	25	16	4.5	.41	.80	1.4	.32
8	16	7.2	.45	.81	.55	19	18	3.6	.32	6.3	.71	.29
9	260	6.3	.27	.78	.54	16	13	4.0	.47	1.2	.35	.26
10	70	6.3	.18	.75	.60	14	11	3.9	3.0	.71	1.3	.26
11	30	5.7	.13	.74	1.0	13	9.9	3.1	.95	.44	2.1	.20
12	17	4.8	.10	.73	2.5	12	8.9	2.2	.55	.44	.95	.00
13	14	4.3	7.6	.72	28	97	7.8	2.1	.41	.47	.63	.00
14	12	4.0	5.9	.71	27	86	7.0	1.8	.32	.41	.76	.00
15	8.2	3.9	5.9	.70	18	38	6.1	1.6	.32	.29	1.9	.00
16	6.6	3.5	5.2	.70	13	25	5.4	1.4	.29	.26	.76	.00
17	5.2	3.1	5.1	.69	6.4	17	5.1	1.2	.32	.29	5.2	.59
18	4.5	3.1	4.6	.68	5.8	24	4.8	1.9	.90	.29	2.5	.63
19	3.6	3.1	4.0	.67	5.2	54	4.5	2.6	1.1	.41	1.3	6.1
20	58	2.8	4.3	.66	4.8	33	4.2	1.4	.59	2.1	.85	7.4
21	110	2.7	4.2	.65	4.4	34	4.0	1.1	.47	.55	.63	3.5
22	36	2.6	2.9	.64	3.9	227	3.7	.90	.35	.29	.55	2.4
23	20	2.2	2.7	.63	11	99	4.8	.76	.29	.23	.41	1.8
24	21	1.9	2.2	.62	174	35	29	.71	.26	.17	.41	17
25	31	1.8	2.0	.61	150	22	25	.63	.32	.26	.47	58
26	54	1.8	1.9	.60	47	17	16	.55	1.8	.59	.32	122
27	27	1.9	1.7	.60	41	14	15	.44	.71	.29	.29	43
28	19	1.9	1.5	.60	38	14	11	.41	1.1	.23	.29	18
29	15	3.3	1.4	.59	---	13	8.5	.32	1.9	.17	.29	10
30	12	2.5	1.3	.58	---	11	7.2	.32	.80	.17	.29	7.2
31	52	---	1.2	.57	---	9.4	---	.32	---	.10	.29	---
TOTAL	914.4	189.4	234.6	22.83	586.57	1418.4	509.5	77.46	19.78	19.08	25.72	305.10
MEAN	29.5	6.31	7.57	.74	20.9	45.8	17.0	2.50	.66	.62	.83	10.2
MAX	260	27	48	1.1	174	227	88	7.0	3.0	6.3	5.2	122
MIN	1.4	1.8	1.2	.57	.54	9.4	3.7	.32	.23	.10	.00	.00
CFSM	3.11	.67	.80	.08	2.21	4.83	1.79	.26	.07	.07	.09	1.08
IN.	3.59	.74	.92	.09	2.30	5.57	2.00	.30	.08	.07	.10	1.20
CAL YR 1976	TOTAL	3891.27	MEAN	10.6	MAX	397	MIN	.00	CFSM	1.12	IN	15.27
WTR YR 1977	TOTAL	4322.84	MEAN	11.8	MAX	260	MIN	.00	CFSM	1.25	IN	16.96

01553700 CHILLISQUAQUE CREEK NEAR WASHINGTONVILLE, PA

LOCATION.--Lat 41°03'40", long 76°40'50", Montour County, Hydrologic Unit 02050206, at bridge on State Route 54, 0.5 mi (0.5 km) downstream from confluence of East and West Branches, and 1.1 mi (1.8 km) north of Washingtonville.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT 18...	1030	9813	290	6.5	12.0	7	11.0	120
NOV 04...	1305	9813	340	7.5	9.0	3	--	138
JAN 27...	1400	9813	490	7.2	2.5	3	11.0	195
FEB 14...	1110	9813	290	7.4	2.0	5	14.1	108
MAR 02...	1400	9813	280	7.5	5.0	8	11.0	105
APR 14...	1000	9813	370	7.0	14.0	9	12.0	126
JUN 22...	1000	9813	500	7.3	23.0	3	10.0	300
AUG 04...	1100	9813	490	7.5	25.0	4	9.0	220
30...	1200	9813	550	7.0	24.5	3	8.0	204

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT 18...	--	0	37	6.5	30	86	12	--	--
NOV 04...	0	0	43	7.5	54	72	10	236	10
JAN 27...	--	0	60	11	36	164	17	342	16
FEB 14...	0	0	32	7.0	34	72	19	204	16
MAR 02...	--	0	32	6.2	36	84	14	174	22
APR 14...	--	0	48	1.5	46	118	13	246	10
JUN 22...	--	0	77	26	42	275	19	412	14
AUG 04...	--	0	66	13	22	192	18	430	16
30...	--	0	68	8.0	44	195	14	432	10

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 18...	--	1.5	.11	.56	.07	230	--	600
NOV 04...	--	2.1	.03	.41	.05	--	--	230
JAN 27...	358	1.8	.06	.62	.10	--	--	170
FEB 14...	220	2.7	.06	.55	--	10	--	790
MAR 02...	196	1.8	.03	.39	.08	--	--	400
APR 14...	256	2.1	.06	.99	.06	--	37	500
JUN 22...	--	1.5	--	.52	.10	360	163	410
AUG 04...	--	1.1	.05	.29	.11	--	123	430
30...	442	1.2	.03	.07	.10	260	126	240

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 30...	1200	9813	260	126	<3	10	<10	<50	90	<10	30

WEST BRANCH SUSQUEHANNA RIVER BASIN

LAKES AND RESERVOIR IN WEST BRANCH SUSQUEHANNA RIVER BASIN

- 01541180 CURWENSVILLE LAKE.--Lat 40°57'13", long 78°31'40", Clearfield County, Hydrologic Unit 02050201, at Curwensville Dam on West Branch Susquehanna River, 0.7 mi (1.1 km) upstream from State Highway 453, 1.2 mi (1.9 km) south of Curwensville and 2.5 mi (4.0 km) upstream from Anderson Creek. DRAINAGE AREA, 365 mi² (945 km²). PERIOD OF RECORD, November 1965 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).
Reservoir formed by earthfill dam with excavated chute spillway with concrete control sill at elevation 1,228.00 ft (374.294 m); Storage began in November 1965. Capacity at elevation 1,228.00 ft (374.294 m) is 124,200 acre-ft (153 hm³). Conservation pool elevation, 1,155.00 ft or 352.044 m (capacity, 4,870 acre-ft or 6.00 hm³). Reservoir is used for flood control, recreation and study of water quality. Figures given herein represent total contents. Flow regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD: Maximum contents, 87,650 acre-ft (108 hm³) June 25, 1972 (elevation, 1,214.11 ft or 370.061 m); minimum, 252 acre-ft (0.311 hm³) Nov. 6, 1968 (elevation, 1,136.70 ft or 346.466 m).
EXTREMES FOR CURRENT YEAR.--Maximum contents, 46,300 acre-ft (57.1 hm³) July 21 (elevation, 1,192.06 ft or 363.340 m); minimum, 4,250 acre-ft (5.22 hm³) Dec. 20 (elevation, 1,153.82 ft or 351.684 m).
- 01541340 GLENDALE LAKE.--Lat 40°41'50", long 78°32'15", Cambria County, Hydrologic Unit 02050201, at Glendale Dam on Beaverdam Run, 1 mi (1.6 km) upstream from Dutch Run, 1.3 mi (2.1 km) southwest of Flinton, 1.9 mi (3.1 km) above mouth, and 3.4 mi (5.5 km) south of Coalport. DRAINAGE AREA, 41.9 mi² (108.5 km²). PERIOD OF RECORD, January 1963 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level.
Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,435.00 ft (437.540 m). Storage began Dec. 1, 1960. Capacity at elevation, 1,435.50 ft (437.540 m) is 41,200 acre-ft (50.8 hm³) of which 15,900 acre-ft (19.6 hm³) is controlled storage above elevation 1,427.00 ft or 434.950 m (conservation pool). Dead storage is 25,300 acre-ft (31.2 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Outflow is controlled by 72-inch (183 mm) sluice gate and an 8-inch (20 mm) by-pass valve. Records furnished by Pennsylvania Department of Environmental Resources.
EXTREMES FOR PERIOD OF RECORD: Maximum contents, 33,390 acre-ft (41.2 hm³) June 24, 1972 (elevation, 1,431.63 ft or 436.361 m); minimum, 10,640 acre-ft (13.1 hm³) Nov. 16, 1965 (elevation, 1,415.53 ft or 431.454 m).
EXTREMES FOR CURRENT YEAR: Maximum contents, 29,350 acre-ft (36.2 hm³) July 20 (elevation, 1,429.50 ft or 435.712 m); minimum, 14,660 acre-ft (18.1 hm³) Dec. 23 (elevation, 1,418.88 ft or 432.475 m).
- 01543900 FIRST FORK SINNEMAHOING CREEK RESERVOIR.--Lat 41°24'25", long 78°01'10", Cameron County, Hydrologic Unit 02050202, at control tower of George B. Stevenson Dam, on First Fork Sinnemahoning Creek, 8 mi (13 km) northeast of Sinnemahoning, and 8 mi (13 km) upstream from mouth. DRAINAGE AREA, 243 mi² (629 km²). PERIOD OF RECORD, January 1956 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level, datum unknown.
Reservoir is formed by an earthfill dam. Storage began Jan. 31, 1956. Capacity, 75,800 acre-ft (93.5 hm³) between elevations 890.00 ft or 271.272 m (sill of outlet gates) and 1,026.00 ft or 312.725 m (crest of spillway). No dead storage. Ordinary minimum (conservation) pool elevation, 920.00 ft or 280.416 m (capacity, 2,000 acre-ft or 2.47 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Records furnished by Pennsylvania Department of Environmental Resources.
EXTREMES FOR PERIOD OF RECORD: Maximum contents, 62,030 acre-ft (76.5 hm³) June 26, 1972 (elevation, 1,015.87 ft or 309.637 m); minimum, (after first filling), 37 acre-ft (45,600 m³) many days in October 1973 (elevation, 891.84 ft or 271.833 m).
EXTREMES FOR CURRENT YEAR: Maximum contents, 9,620 acre-ft (11.9 hm³) Apr. 4 (elevation, 948.26 ft or 289.030 m); minimum, 1,400 acre-ft (1.73 hm³) Sept. 28 (elevation, 914.42 ft or 278.715 m).
- 01544800 KETTLE CREEK LAKE (formerly published as Alvin R. Bush Reservoir).--Lat 41°21'37", long 77°55'27", Clinton County, Hydrologic Unit 02050203, at control tower of dam on Kettle Creek, 1.1 mi (1.8 km) downstream from Sugar Camp Run and 8.5 mi (13.7 km) upstream from mouth and Westport. DRAINAGE AREA, 226 mi² (585 km²). PERIOD OF RECORD, February 1962 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).
Reservoir formed by an earthfill embankment, rock faced, with ungated concrete spillway at elevation, 937.0 ft (285.60 m). Storage began Feb. 7, 1962; water in reservoir first reached conservation pool elevation in March 1962. Total capacity at elevation, 937.0 ft (285.60 m) is 75,000 acre-ft (92.5 hm³). No dead storage. Ordinary minimum (conservation) pool elevation, 840.0 ft or 256.03 m (capacity, 1,590 acre-ft or 1.96 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Storage is regulated by three gates and low-flow by-pass system. Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD: Maximum contents, 51,660 acre-ft (63.7 hm³) June 25, 1972 (elevation, 919.13 ft or 280.151 m); minimum, no storage June 7, 1962.
EXTREMES FOR CURRENT YEAR: Maximum contents, 6,300 acre-ft (7.77 hm³) Apr. 4 (elevation, 859.10 ft or 261.854 m); minimum, 1,540 acre-ft (1.90 hm³) Sept. 20 (elevation, 839.65 ft or 255.925 m).
- 01547480 FOSTER JOSEPH SAYERS LAKE.--Lat 41°02'53", long 77°36'35", Centre County, Hydrologic Unit 02050204, at Foster Joseph Sayers Dam, on Bald Eagle Creek, 1 mi (1.6 km) upstream from Marsh Creek, and 1.2 mi (1.9 km) south of Blanchard. DRAINAGE AREA, 339 mi² (878 km²). PERIOD OF RECORD, March 1971 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).
Reservoir formed by an earthfill dam with ungated concrete ogee weir at elevation 657.00 ft (200.254 m) with abutting concrete gravity walls and partially paved exit channel. Storage began in March 1971. Capacity at elevation 657.00 ft (200.254 m) is 99,100 acre-ft (122 hm³). Dead storage is 25 acre-ft (30,800 m³). Ordinary minimum (conservation) pool elevation, 610,000 ft or 185.928 m (capacity, 6,300 acre-ft or 7.77 hm³). Reservoir used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by two gates. Records furnished by Corps of Engineers.
EXTREMES FOR PERIOD OF RECORD: Maximum contents, 103,900 acre-ft (128 hm³) June 25, 1972 (elevation, 658.41 ft or 200.683 m); minimum, 4,960 acre-ft (6.12 hm³) Mar. 10, 1971 (elevation, 609.37 ft or 185.736 m).
EXTREMES FOR CURRENT YEAR: Maximum contents, 33,400 acre-ft (41.2 hm³) Apr. 6 (elevation, 632.56 ft or 192.804 m); minimum, 6,190 acre-ft (7.63 hm³) Jan. 5 (elevation 609.82 ft or 185.873 m).

WEST BRANCH SUSQUEHANNA RIVER BASIN

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Lakes and Reservoir in West Branch Susquehanna River basin-Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01541180 Curwensville Lake						
Sept. 30	1,162.17	9,680	--			
Oct. 31	1,162.30	9,790	+ 1.8			
Nov. 30	1,155.10	4,930	- 81.7			
Dec. 31	1,155.19	4,980	+ 0.8			
CAL YR 1976	--	--	- 1.5			
Jan. 31	1,153.94	4,290	- 11.2			
Feb. 28	1,173.70	20,970	+300			
Mar. 31	1,155.15	4,950	-261			
Apr. 30	1,159.44	7,640	+ 45.2			
May 31	1,161.99	9,530	+ 30.7			
June 30	1,161.99	9,530	0			
July 31	1,162.10	9,620	+ 1.5			
Aug. 31	1,162.07	9,600	- 0.3			
Sept. 30	1,162.05	9,580	- 0.3			
WTR YR 1977	--	--	- 0.1			
01541340 Glendale Lake						
Sept. 30	1,427.42	25,970	--	01543900 F F Sinnemahoning Cr Reservoir		
Oct. 31	1,427.33	25,830	- 2.3	920.20	2,020	--
Nov. 30	1,422.38	18,890	-117	920.47	2,060	+ .7
Dec. 31	1,419.06	14,870	- 65.4	920.09	2,010	- .8
				920.75	2,090	+ 1.3
CAL YR 1976	--	--	- 14.0	--	--	+ .04
Jan. 31	1,419.15	14,980	+ 1.8	920.56	2,070	- .3
Feb. 28	1,424.09	21,130	+109	923.51	2,480	+ 7.4
Mar. 31	1,427.16	25,560	+ 72	921.37	2,170	- 5.0
Apr. 30	1,427.21	25,640	+ 1.3	920.64	2,080	- 1.5
May 31	1,426.80	25,000	- 10.4	920.39	2,050	- .5
June 30	1,427.26	25,720	+ 12.1	920.30	2,040	- .2
July 31	1,427.75	26,500	+ 12.7	920.14	2,020	- .3
Aug. 31	1,427.32	25,810	- 11.2	920.53	2,060	+ .7
Sept. 30	1,427.44	26,000	+ 3.2	916.06	1,570	- 8.2
WTR YR 1977	--	--	+ .04	--	--	- .6
01544800 Kettle Creek						
Sept. 30	841.14	1,760	--	01547480 Foster Joseph Sayers Lake		
Oct. 31	841.43	1,810	+ .8	629.11	27,290	--
Nov. 30	840.87	1,720	- 1.5	628.87	26,890	- 6.5
Dec. 31	840.63	1,680	- .7	612.33	7,880	-319
				610.03	6,320	- 25.4
CAL YR 1976	--	--	- .1	--	--	- .7
Jan. 31	840.67	1,690	+ .2	609.97	6,280	- .7
Feb. 28	846.37	2,780	+ 19.6	618.51	13,280	+126
Mar. 31	841.38	1,800	- 15.9	625.87	22,320	+147
Apr. 30	841.27	1,780	- .3	628.83	26,830	+ 75.8
May 31	841.27	1,780	0	630.05	28,890	+ 33.5
June 30	840.99	1,740	- .7	629.99	28,780	- 1.8
July 31	840.93	1,730	- .2	629.80	28,460	- 5.2
Aug. 31	840.94	1,730	0	629.08	27,240	- 19.8
Sept. 30	840.92	1,730	0	628.34	26,040	- 20.2
WTR YR 1977	--	--	- .04	--	--	- 1.7

SUSQUEHANNA RIVER BASIN

01554000 SUSQUEHANNA RIVER AT SUNBURY, PA

LOCATION.--Lat 40°50'04", long 76°49'37", Snyder County, Hydrologic Unit 02050301, on right bank at borough of Shamokin Dam, on grounds of Pennsylvania Power and Light Company generating plant, 1 mi (1.6 km) downstream from Shamokin Creek, and 1.8 mi (2.9 km) south of Sunbury. Water-quality sampling site 1.7 mi (2.7 km) upstream.

DRAINAGE AREA.--18,300 mi² (47,400 km²), approximately (excluding that of Shamokin Creek).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. June 1918 to September 1918 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 891: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 408.61 ft (124.544 m) above mean sea level. See WSP 1903 for history of changes prior to Dec. 13, 1937. Dec. 13, 1937 to Mar. 23, 1967, water-stage recorder at site 1.7 mi (2.7 km) upstream at datum 11.05 ft (3.368 m) higher.

REMARKS.--Records good except those for winter periods which are fair.

AVERAGE DISCHARGE.--40 years, 26,290 ft³/s (745 m³/s), 19.51 in/yr (495 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 620,000 ft³/s (17,600 m³/s) June 24, 1972, gage height, 35.80 ft (10.912 m), from rating curve extended above 290,000 ft³/s (8,200 m³/s) on basis of runoff comparisons with upstream stations; minimum, 964 ft³/s (27.3 m³/s) Oct. 16, 1971, gage height, 4.83 ft (1.472 m), result of shutoff at Sunbury Fabridam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 173,000 ft³/s (4,900 m³/s) Mar. 15, gage height, 19.89 ft (6.062 m); minimum, 3,040 ft³/s (86.1 m³/s) Feb. 14, gage height, 5.73 ft (1.747 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14100	47700	13000	8810	6600	95600	117000	35400	7400	10600	8610	6770
2	13300	54200	12300	8090	6300	86200	107000	30700	7950	9730	8700	6510
3	11600	52900	11100	8860	7000	67900	136000	27600	8230	8180	9230	6030
4	11000	46400	10600	9500	7580	60200	155000	25400	6640	7860	9080	6200
5	11700	41100	10700	9800	8470	117000	125000	24400	6600	7450	8090	6080
6	10700	37500	10300	9950	9200	137000	105000	26100	7310	7080	7400	5500
7	9100	34800	13400	10600	8000	120000	88000	36200	7400	8050	7220	5950
8	9900	32400	29300	10500	10900	95900	75400	36200	6770	11000	7680	5870
9	38900	30100	31400	9950	5790	73600	64900	31000	8560	13900	8800	5830
10	144000	27500	33500	9600	9850	60600	55500	28400	9940	15700	13600	5150
11	145000	26100	31800	9400	7680	58800	47300	27200	11000	19100	15800	5080
12	112000	24500	27400	9300	7540	65800	41900	28900	10800	14100	12600	4680
13	76600	23200	27700	9200	9050	81500	37500	29000	9780	16100	11100	4440
14	56900	22500	23800	9000	10200	139000	33700	27500	8990	24200	12400	4270
15	46900	18900	23100	8500	17200	171000	30800	25900	8370	17200	10900	4540
16	40700	16600	20600	8200	12200	148000	28100	23400	7220	14900	11800	4400
17	36300	18800	20700	8200	17400	125000	25400	20800	7260	12900	12900	9280
18	33100	18700	22300	8100	18100	105000	23400	18800	7590	11000	13300	14500
19	28800	20000	19900	8000	16300	86400	21600	18000	8420	11900	14500	33800
20	26900	18400	18200	7800	14000	73800	20200	16300	7590	14000	13600	33800
21	47400	16800	17200	7600	12800	65400	19100	15100	9890	14200	12200	50100
22	81100	16000	16100	7600	11700	67300	18000	14000	8650	21200	12600	72300
23	93400	15300	17500	7600	11000	102000	17100	13600	7590	18500	10700	69000
24	77900	14600	16800	7400	13400	95200	22600	12800	8000	18200	9780	60700
25	65700	13900	15700	7400	39600	80400	56500	11700	7630	15900	9080	58300
26	65400	13200	15700	7300	86000	66200	78000	11100	7590	15900	7720	101000
27	68600	12700	14500	7200	95400	57200	75100	11100	9080	17700	8050	149000
28	63100	12300	14400	7200	85800	52800	63600	10900	11100	16900	8140	118000
29	53500	12500	13200	7100	---	63500	50900	11100	10300	13800	7820	90200
30	45200	13100	10200	7000	---	108000	41700	10000	10300	12300	7590	67700
31	42900	---	9500	7000	---	129000	---	9050	---	11000	6950	---
TOTAL	1581700	752700	571900	261760	565060	2855300	1781300	667650	253950	430550	317940	1014980
MEAN	51020	25090	18450	8444	20180	92110	59380	21540	8465	13890	10260	33830
MAX	145000	54200	33500	10600	95400	171000	155000	36200	11100	24200	15800	149000
MIN	9100	12300	9500	7000	5790	52800	17100	9050	6600	7080	6950	4270
CFSM	2.79	1.37	1.01	.46	1.10	5.03	3.25	1.18	.46	.76	.56	1.85
IN.	3.22	1.53	1.16	.53	1.15	5.80	3.62	1.36	.52	.88	.65	2.06

CAL YR 1976 TOTAL 11637720 MEAN 31800 MAX 200000 MIN 5780 CFSM 1.74 IN 23.66
WTR YR 1977 TOTAL 11054790 MEAN 30290 MAX 171000 MIN 4270 CFSM 1.66 IN 22.47

SUSQUEHANNA RIVER BASIN

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01554000 SUSQUEHANNA RIVER AT SUNBURY, PA

WATER-QUALITY RECORDS

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

REMARKS.--Operated as part of the USGS-EPA surveillance network.

COOPERATION.--Two water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL./100 ML)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT											
12...	1430	106000	160	7.0	12.0	16	9.8	47	2.5	83500	103
28...	1020	63500	175	6.9	5.5	9	11.4	<10	1.4	390	95
NOV											
09...	1430	29900	200	6.9	4.0	5	12.2	<10	1.0	--	119
24...	0915	14500	240	6.8	3.0	10	10.8	<10	1.0	87	146
DEC											
21...	1000	17300	260	7.2	.5	6	13.0	<10	1.6	300	121
MAR											
01...	1100	94100	140	6.8	3.0	37	12.4	28	1.8	700	89
16...	0900	149000	100	6.8	7.0	93	11.8	43	2.0	220	73
29...	1615	64700	175	6.8	11.0	6	11.8	<10	1.1	155	90
APR											
13...	0900	37500	185	7.1	13.5	5	11.2	<10	1.0	210	116
27...	1515	74000	140	7.2	14.0	25	10.4	13	1.6	410	95
MAY											
11...	1035	27000	210	7.2	13.5	5	10.8	25	1.8	90	126
24...	1515	12600	240	8.7	25.5	4	12.8	20	4.1	8370	158
JUN											
08...	0945	5270	385	8.6	16.5	3	10.2	11	3.6	74	209
22...	1030	7180	300	8.5	22.5	3	9.0	13	4.7	42	179
JUL											
07...	1000	7540	280	7.4	25.5	3	8.0	14	--	5700	192
29...	1520	15500	260	8.2	29.0	7	8.4	15	2.0	1030	167
AUG											
02...	0950	8370	280	8.0	24.5	2	8.8	10	2.6	42	192
18...	1010	11700	270	7.4	23.0	2	6.8	15	2.0	1130	186
30...	1000	7000	230	8.3	25.0	5	8.6	20	6.4	811	152
SEP											
14...	1200	3000	360	8.3	20.5	5	10.0	20	2.9	100	218
30...	1000	67700	170	7.2	15.0	35	9.8	20	1.6	530	76

DATE	SUSPENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
OCT										
12...	282	.50	.05	.73	.78	1.3	.25	4000	7	0
28...	22	.57	.07	.26	.33	.90	.05	500	1	1
NOV										
09...	8	.70	.08	.05	.13	.83	.05	190	0	1
24...	6	.93	.20	.13	.33	1.3	.05	130	0	1
DEC										
21...	13	.82	.21	.14	.35	1.2	.06	300	1	1
MAR										
01...	175	.93	.18	.92	1.1	2.0	.17	2700	3	1
16...	292	.71	.07	1.1	1.2	1.9	.20	2800	5	0
29...	26	.76	.10	.20	.30	1.1	.04	590	1	1
APR										
13...	20	.79	.07	.23	.30	1.1	.04	500	0	0
27...	102	.65	.08	.82	.90	1.6	.10	1200	3	1
MAY										
11...	19	.48	.06	.22	.28	.76	.03	280	1	0
24...	12	.23	.09	.63	.72	.95	.03	260	1	0
JUN										
08...	11	.48	.18	.52	.70	1.2	.05	140	1	0
22...	7	.45	.13	.48	.61	1.1	.05	30	3	0
JUL										
07...	11	.42	.06	.41	.47	.89	.06	430	3	0
20...	15	.34	.05	.54	.59	.93	.05	410	1	0
AUG										
02...	12	.41	.02	.41	.43	.84	.04	310	2	0
18...	20	.54	.04	.93	.97	1.5	.07	400	0	0
30...	11	.23	.02	.49	.51	.74	.09	250	1	0
SEP										
14...	13	.39	.10	.54	.64	1.0	.05	170	0	0
30...	54	.46	.10	.54	.64	1.1	.10	1300	1	5

SUSQUEHANNA RIVER BASIN

01554000 SUSQUEHANNA RIVER AT SUNBURY, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)
OCT 12...	<10	20	11000	15	580	60	12	0	41.9	36.7
28...	<10	10	1200	7	240	20	12	0	.000	.000
NOV 09...	<10	0	1200	7	280	10	4.9	0	2.44	.567
24...	<10	10	1400	4	360	20	4.9	1	.000	.000
DEC 21...	<10	20	930	6	460	40	2.9	0	.000	.000
MAR 01...	<10	10	6500	43	410	50	11	0	--	--
16...	20	10	11000	19	460	50	9.8	0	--	--
29...	10	10	1500	11	270	20	1.6	0	1.43	.960
APR 13...	<10	10	1400	6	370	30	4.1	0	1.31	.220
27...	<10	10	2800	160	240	30	4.1	1	3.11	.896
MAY 11...	10	6	1200	5	290	20	7.2	0	2.01	.056
24...	20	11	780	10	190	0	7.0	6	21.6	.000
JUN 08...	20	10	400	0	210	20	4.8	0	34.7	6.03
22...	10	6	400	4	250	10	6.2	0	--	--
JUL 07...	10	8	1000	20	160	10	7.2	0	7.80	2.30
20...	10	11	900	7	330	20	4.7	2	3.13	.082
AUG 02...	<10	7	480	4	320	20	5.9	0	2.24	.051
18...	<10	5	1100	4	270	20	7.7	3	26.2	5.42
30...	<10	9	510	14	180	10	12	8	8.62	2.86
SEP 14...	<10	5	450	2	250	20	6.9	0	--	--
30...	10	20	2400	10	210	40	9.2	0	.000	.000

DATE	TIME	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
DEC 21...	1000	40	0	33	4.0	54	7.5	12
MAR 16...	0900	19	0	16	4.8	13	6.3	262
JUN 22...	1030	40	0	33	.2	77	13	11
SEP 14...	1200	54	0	44	.4	89	16	6

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARDNESS (CA, MG)	MINERAL ACIDITY (METHYL ORANGE) AS CaCO3 (MG/L)	ACIDITY CO2 AS CaCO3 (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)
NOV 17...	1130	9813	18200	230	6.0	10.0	1	10.0	98	--	0	22
AUG 09...	0930	9813	8510	265	8.5	27.0	4	--	95	0	0	25

DATE	DIS-SOLVED MAGNESIUM (MG)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTERABLE RESIDUE (MG/L)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 17...	10	30	68	8.0	--	--	1.1	.02	.15	.07	180
AUG 09...	7.7	24	58	13	188	<10	.96	.04	.05	.08	260

SHAMOKIN CREEK BASIN

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01554500 SHAMOKIN CREEK NEAR SHAMOKIN, PA

LOCATION.--Lat 40°48'37", long 76°35'04", Northumberland County, Hydrologic Unit 02050301, on right bank at Weigh Scales, 1 mi (1.6 km) downstream from Trout Run, 1.1 mi (1.8 km) upstream from Bennys Run, and 2 mi (3.2 km) northwest of Shamokin.

DRAINAGE AREA.--54.2 mi² (140.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to current year. Published as "at Weigh Scales" 1939-63.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.28 ft (184.794 m) above mean sea level. Nov. 14, 1939 to Jan. 9, 1967, water-stage recorder at site 0.4 mi (0.6 km) upstream at datum 2.00 ft (0.610 m) higher and Jan. 10 to Dec. 10, 1967, nonrecording gage at site 0.4 mi (0.6 km) downstream at datum 11.50 ft (3.505 m) lower.

REMARKS.--Records good. Regulation by mine pumps above station.

AVERAGE DISCHARGE.--37 years 85.4 ft³/s (2.42 m³/s), 21.40 in/yr (543 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,070 ft³/s (115 m³/s) June 22, 1972, gage height, 8.72 ft (2.658 m), from rating curve extended above 320 ft³/s (9.06 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.2 ft³/s (0.091 m³/s) Feb. 15, 1940, gage height, 0.42 ft (0.128 m), at site and datum then in use; minimum daily, 9.8 ft³/s (0.28 m³/s) Jan. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1515	*1,030 29.2	*4.48 1.366	Sept. 26	0400	794 22.5	4.15 1.265
Aug. 5	1445	710 20.1	3.95 1.204				

Minimum discharge, 30 ft³/s (0.850 m³/s) Sept. 7, 9, 22, gage height, 2.20 ft (0.671 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	144	76	69	44	116	150	108	59	47	47	41
2	54	186	76	67	41	108	209	106	57	46	46	62
3	104	183	71	66	41	104	201	108	56	46	47	45
4	52	183	72	66	41	241	179	108	54	45	47	40
5	74	176	71	64	42	299	216	116	54	46	76	40
6	72	166	69	64	40	232	197	113	67	82	92	39
7	72	156	166	64	40	197	190	104	59	64	67	38
8	80	141	108	62	39	172	190	104	54	113	53	39
9	764	129	97	61	40	153	176	106	84	61	50	36
10	471	127	97	62	40	147	169	99	88	56	61	38
11	340	124	97	59	45	141	159	97	61	53	52	37
12	267	119	99	57	47	135	153	92	61	71	47	36
13	224	113	92	56	54	232	147	90	63	80	50	36
14	201	111	92	56	47	220	141	88	54	61	47	41
15	172	106	90	57	45	194	135	86	54	57	45	36
16	173	106	90	56	42	186	129	82	52	56	45	61
17	141	101	90	53	40	176	127	80	57	56	86	50
18	130	101	90	53	40	186	121	84	54	56	50	41
19	124	99	88	52	41	176	119	82	50	59	46	41
20	190	97	88	52	44	162	113	76	49	72	46	41
21	228	94	86	50	40	153	111	74	49	54	46	36
22	169	90	80	52	41	285	108	72	47	52	46	36
23	169	90	80	50	52	285	111	71	47	52	44	36
24	190	86	78	49	113	262	135	71	46	52	44	42
25	194	86	78	50	150	241	124	69	97	53	42	71
26	228	84	78	49	101	220	127	67	61	59	41	169
27	197	84	74	47	108	205	129	64	50	54	42	71
28	205	82	74	46	129	194	116	64	56	52	41	57
29	209	92	72	46	---	179	111	62	52	50	41	52
30	197	78	71	46	---	169	108	61	49	50	41	49
31	237	---	69	45	---	159	---	59	---	50	46	---
TOTAL	6012	3584	2659	1726	1587	5929	4401	2663	1741	1805	1574	1457
MEAN	194	119	85.8	55.7	56.7	191	147	85.9	58.0	58.2	50.8	48.6
MAX	764	194	166	69	150	299	216	116	97	113	92	169
MIN	64	78	69	45	39	104	108	59	46	45	41	36
CFSM	3.58	2.20	1.58	1.03	1.05	3.52	2.71	1.59	1.07	1.07	.94	.90
IN.	4.13	2.46	1.82	1.18	1.09	4.07	3.02	1.83	1.19	1.24	1.08	1.00

CAL YR 1976	TOTAL	36286	MEAN	99.1	MAX	764	MIN	33	CFSM	1.83	IN	24.90
WTR YR 1977	TOTAL	35138	MEAN	96.3	MAX	764	MIN	36	CFSM	1.78	IN	24.12

SHAMOKIN CREEK BASIN

01554500 SHAMOKIN CREEK NEAR SHAMOKIN, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 16...	1300	9813	106	670	3.7	--	55	8.0	610	0	112	60
MAR 02...	1100	9813	106	700	3.7	5.0	--	8.0	400	0	110	21
AUG 15...	1330	9813	43	800	3.6	25.0	40	8.0	470	22	--	64

DATE	TIME	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINITY AS CA+O3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 16...	115		0	650	7.0	--	--	--	.57	.02	.79	.16	30500
MAR 02...	86		6	34	10	604	44	648	.43	.02	.78	.20	29500
AUG 15...	77		0	420	9.0	786	58	844	.52	.02	1.4	.28	17250

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 15...	1330	9813	3420	<3	<10	10	<50	4700	<5.0	190	300

PENNS CREEK BASIN

207

01555000 PENNS CREEK AT PENNS CREEK, PA

LOCATION.--Lat 40°52'00", long 77°02'55", Union County, Hydrologic Unit 02050301, on left bank 200 ft (61 m) downstream from bridge on State Highway 104, 0.8 mi (1.3 km) northeast of Penns Creek, and 2.9 mi (4.7 km) upstream from Sweitzers Run.

DRAINAGE AREA.--301 mi² (780 km²).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1965, published as Penn Creek at Penns Creek.

REVISED RECORDS.--WSP 891: 1934(M). WSP 1502: 1933(M), 1934, 1936(M). WDR PA-72: 1933-34(M), 1936(M), 1940(M), 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 506.72 ft (154.448 m) above mean sea level. Prior to Feb. 1, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--48 years, 422 ft³/s (12.0 m³/s), 19.04 in/yr (484 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft³/s (980 m³/s) June 23, 1972, gage height, 14.85 ft (4.526 m), from floodmark in gage well, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 7.0 ft³/s (0.20 m³/s) Sept. 27, 1932; minimum daily, 21 ft³/s (0.59 m³/s) Aug. 30, Sept. 3, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft³/s (87.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1200	*8,040 228	*9.10 2.774	Mar. 4	1330	4,670 132	6.96 2.121
Feb. 26	---	3,160 89.5	"ice jam"				

Minimum discharge, 90 ft³/s (2.55 m³/s) Sept. 13; minimum gage height, 1.54 ft (0.469 m) June 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	945	234	185	88	735	963	545	169	333	241	118
2	203	806	288	180	88	620	1410	514	163	285	224	113
3	209	760	251	175	88	575	2600	493	150	246	226	108
4	173	744	286	170	88	3470	2030	457	145	223	204	104
5	153	708	247	165	86	2640	2000	470	140	211	193	102
6	144	627	257	160	85	1780	1620	458	160	209	212	101
7	155	576	677	155	84	1390	1370	438	194	263	242	108
8	475	539	702	155	84	1150	1240	398	164	785	265	113
9	5880	503	430	150	83	993	1060	371	162	563	210	111
10	4540	485	413	150	83	881	953	356	188	421	191	111
11	2300	475	399	160	90	784	860	341	176	367	186	104
12	1560	439	380	145	100	745	769	324	148	360	173	95
13	1220	410	361	140	130	2280	691	310	136	580	165	92
14	1010	390	315	135	170	1780	633	298	128	422	163	103
15	829	375	340	130	140	1440	576	284	126	353	207	109
16	705	360	335	125	120	1260	534	272	121	312	186	106
17	603	345	303	120	110	1080	498	259	121	294	193	142
18	536	336	294	120	100	1090	467	251	129	350	280	131
19	480	327	280	115	110	1470	447	250	121	300	215	121
20	914	316	277	110	120	1310	436	237	112	742	190	274
21	1760	306	279	105	110	1210	441	227	107	552	177	223
22	1170	296	230	105	100	1900	404	217	104	447	170	156
23	974	282	262	105	100	2220	395	209	100	371	164	132
24	923	272	236	100	700	1680	1200	201	97	330	154	128
25	1080	266	295	100	2700	1360	1340	197	191	334	150	231
26	1360	260	288	100	2540	1180	989	191	966	512	139	746
27	1110	260	261	96	1100	1050	857	182	423	365	134	702
28	1000	258	210	95	892	1090	753	178	376	316	131	432
29	905	276	200	93	---	1210	675	171	512	289	126	342
30	826	238	195	92	---	1130	598	165	421	275	121	292
31	1230	---	190	90	---	1070	---	167	---	260	120	---
TOTAL	34587	13180	9715	4026	10289	42573	28809	9431	6250	11670	5752	5750
MEAN	1116	439	313	130	367	1373	960	304	208	376	186	192
MAX	5880	945	702	185	2700	3470	2600	545	966	785	280	746
MIN	144	238	190	90	83	575	395	165	97	209	120	92
CFSM	3.71	1.46	1.04	.43	1.22	4.56	3.19	1.01	.69	1.25	.62	.64
IN.	4.27	1.63	1.20	.50	1.27	5.26	3.56	1.17	.77	1.44	.71	.71

CAL YR 1976 TOTAL 168219 MEAN 460 MAX 5880 MIN 90 CFSM 1.53 IN 20.79
WTR YR 1977 TOTAL 182032 MEAN 499 MAX 5880 MIN 83 CFSM 1.66 IN 22.50

EAST MAHANTANGO CREEK BASIN

01555500 EAST MAHANTANGO CREEK NEAR DALMATIA, PA

LOCATION.--Lat 40°36'40", long 76°54'44", Northumberland County, Hydrologic Unit 02050301, on right bank at highway bridge; 2 mi (3.2 km) upstream from mouth, and 3.2 mi (5.1 km) south of Dalmatia.

DRAINAGE AREA.--162 mi² (420 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1945 published as Mahantango Creek East near Dalmatia.

REVISED RECORDS.--WSP 891: 1933(M). WSP 1302: 1930(M), 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 401.22 ft (122.292 m) above mean sea level (revised). Oct. 1, 1929 to Feb. 11, 1930, nonrecording gage, and Feb. 12, 1930 to Nov. 18, 1973, recording gage at present site and datum. Nov. 19, 1973 to June 18, 1974, nonrecording gage at site 2 mi (3.2 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--48 years, 222 ft³/s (6.29 m³/s), 18.57 in/yr (472 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,900 ft³/s (1,980 m³/s) June 22, 1972, gage height, 26.62 ft (8.114 m), from floodmark in gage shelter, from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.3 ft³/s (0.037 m³/s) Oct. 7, 1957, Nov. 3, 1964; minimum gage height, 0.84 ft (0.256 m) Sept. 21, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft³/s (53.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2230	*15,700 445	*13.34 4.066	Mar. 5	0315	5,510 156	8.38 2.554
Feb. 25	0200	5,070 144	8.09 2.466	Mar. 23	0100	3,430 97.1	6.85 2.088

Minimum discharge, 19.1 ft³/s (0.54 m³/s) Sept. 13, 14, gage height, 1.32 ft (0.402 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	523	71	105	73	518	262	216	48	74	40	30
2	213	427	70	105	73	415	356	199	50	63	38	33
3	639	379	68	105	73	349	778	193	46	53	34	71
4	789	356	66	100	72	1510	609	172	40	48	34	42
5	444	309	64	100	72	4090	829	174	39	47	32	34
6	316	281	62	100	72	1420	756	228	48	69	30	30
7	252	249	200	98	71	949	599	185	63	399	48	29
8	298	225	853	96	71	696	528	164	50	474	53	27
9	9080	204	487	94	70	537	423	161	48	292	69	27
10	7920	196	364	92	70	444	367	152	80	185	67	26
11	1580	182	312	91	80	379	327	137	88	135	87	23
12	859	169	275	91	130	337	295	124	61	137	61	21
13	599	154	243	90	190	937	265	115	52	295	56	20
14	470	144	201	90	250	1280	240	109	47	172	58	20
15	371	140	190	87	210	949	219	99	46	124	52	21
16	305	130	180	85	190	723	201	93	45	113	44	28
17	259	124	166	84	170	551	188	88	43	105	51	59
18	225	122	152	83	160	505	149	87	77	87	103	56
19	199	117	135	82	150	537	169	93	57	87	67	36
20	285	113	130	81	160	465	147	85	45	169	53	40
21	1030	107	120	80	140	448	133	75	41	113	47	44
22	739	103	100	80	130	1190	122	71	39	83	45	34
23	518	95	97	79	130	2380	117	67	33	65	58	34
24	431	87	96	78	700	1170	182	65	31	59	46	60
25	457	87	96	77	2210	829	268	64	124	65	42	800
26	756	83	149	76	806	619	237	61	316	74	38	1600
27	680	83	156	76	589	509	288	57	149	56	34	1300
28	523	83	210	76	675	448	288	53	137	48	33	700
29	431	103	110	75	---	403	278	51	140	43	32	500
30	364	103	110	74	---	345	240	48	95	44	30	390
31	551	---	110	74	---	302	---	48	---	43	30	---
TOTAL	31782	5478	5643	2704	7787	26234	9860	3534	2178	3821	1512	6135
MEAN	1025	183	182	87.2	278	846	329	114	72.6	123	48.8	205
MAX	9080	523	853	105	2210	4090	829	228	316	474	103	1600
MIN	199	83	62	74	70	302	117	48	31	43	30	20
CFSM	6.33	1.13	1.12	.54	1.72	5.22	2.03	.70	.45	.76	.30	1.27
IN.	7.30	1.26	1.30	.62	1.79	6.02	2.26	.81	.50	.88	.35	1.41
CAL YR 1976	TOTAL	97350	MEAN 266	MAX 9080	MIN 39	CFSM 1.64	IN 22.35					
WTR YR 1977	TOTAL	106668	MEAN 292	MAX 9080	MIN 20	CFSM 1.80	IN 24.49					

MAHANTANGO CREEK BASIN

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01555500 EAST MAHANTANGO CREEK NEAR DALMATIA, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV 15...	1300	9813	137	165	7.2	2.5	5	13.1
FEB 28...	0935	9813	745	130	6.3	3.5	50	12.5
MAY 19...	0945	9813	91	160	7.5	20.0	<1	10.5
AUG 01...	1315	9813	40	280	8.0	25.0	2	10.1

DATE	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV 15...	75	--	0	14	9.7	--	42	--	8.0
FEB 28...	48	0	0	12	4.0	14	18	--	13
MAY 19...	68	--	0	16	7.0	18	40	--	11
AUG 01...	82	--	0	17	9.5	54	46	.10	9.0

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15...	116	--	--	3.0	.02	.08	.07	1250
FEB 28...	74	96	170	2.3	4.1	.20	.11	3740
MAY 19...	116	4	120	1.8	.04	.12	.03	110
AUG 01...	166	4	170	1.8	.02	.06	.06	240

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 01...	1315	9813	160	<3	<10	<10	<50	30	<10	<10

JUNIATA RIVER BASIN

01555860 BEAVERDAM BRANCH JUNIATA RIVER AT HOLLIDAYSBURG, PA

LOCATION.--Lat 40°25'54", long 78°21'30", Blair County, Hydrologic Unit 02050302, 2000 ft (610 m) upstream from mouth, and 0.8 mi (1.3 km) east of Hollidaysburg.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG)
OCT								
26...	1230	9813	220	6.7	8.5	15	10.1	95
NOV								
29...	1330	9813	380	6.7	3.0	10	13.0	118
DEC								
16...	1230	9813	270	6.7	2.0	100	13.3	92
MAR								
10...	1155	9813	240	6.2	6.0	9	11.7	80
APR								
17...	1150	9813	260	7.0	14.0	6	10.1	94
JUN								
16...	1200	9813	360	7.0	18.0	6	7.6	108
JUL								
17...	1200	9813	335	6.5	23.0	70	8.5	110
AUG								
16...	0905	9813	490	7.0	19.5	4	4.0	154
SEP								
27...	1135	9813	360	7.0	15.0	--	9.5	118

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT									
26...	--	0	--	25	--	7.7	44	34	13
NOV									
29...	--	0	--	33	--	8.5	54	70	43
DEC									
16...	--	0	--	27	--	6.0	46	60	19
MAR									
10...	0	0	--	27	--	6.0	30	54	17
APR									
12...	0	0	--	26	--	7.0	50	56	19
JUN									
16...	--	0	--	30	--	8.0	66	60	30
JUL									
12...	--	0	--	30	--	8.5	62	94	14
AUG									
16...	0	0	--	35	--	16	98	98	42
SEP									
27...	--	--	37	--	6.5	--	112	80	21

JUNIATA RIVER BASIN

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01555860 BEAVERDAM BRANCH JUNIATA RIVER AT HOLLIDAYSBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	--	--	--	1.6	.05	.18	.29	920
NOV 29...	248	--	--	1.9	.08	.72	.46	930
DEC 16...	160	16	176	1.6	.05	.80	.50	1010
MAR 10...	188	10	198	1.7	.04	.42	.20	1070
APR 17...	188	8	196	1.5	.05	.37	.23	760
JUN 16...	224	18	--	1.6	.33	2.0	.90	510
JUL 17...	224	134	358	1.7	.08	.51	.29	6180
AUG 16...	--	--	--	2.8	.70	3.2	2.1	440
SEP 27...	480	18	--	2.1	.09	.22	.30	>1373

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 16...	0905	9813	700	<3	<10	10	<50	470	<10	70

01556000 FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG, PA

LOCATION.--Lat 40°27'47", long 78°12'00", Blair County, Hydrologic Unit 02050302, on left bank 10 ft (3 m) downstream from highway bridge at Williamsburg, 2.5 mi (4.0 km) upstream from Clover Creek.

DRAINAGE AREA.--291 mi² (754 km²).

PERIOD OF RECORD.--October 1916 to current year. Monthly figures only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WDR PA-71: 1954(M), 1960(M), 1961(M).

GAGE.--Water-stage recorder. Datum of gage is 831.78 ft (253.527 m) above mean sea level (Penn Central Railroad bench mark). Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

REMARKS.--Records good. Regulation at low flow by mill above station.

AVERAGE DISCHARGE.--61 years, 391 ft³/s (11.07 m³/s), 18.26 in/yr (464 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s), revised, Mar. 18, 1936, gage height,

18.58 ft (5.663 m), from floodmark in gage shelter, from rating curve extended above 7,300 ft³/s (207 m³/s)

on basis of slope-area measurement of peak flow; minimum, 13 ft³/s (0.37 m³/s) July 24, 1934, gage height,

0.9 ft (0.296 m); minimum daily, 31 ft³/s (0.88 m³/s) Dec. 24, 25, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 19.1 ft (5.82 m) June 1, 1889, from floodmark, discharge, about 35,500 ft³/s (1,010 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,200 ft³/s (119 m³/s) and Maximum (*).

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2300	6,220 176	11.62 3.542	Apr. 3	0530	*6,770 192	*12.11 3.691
Mar. 5	0100	5,770 163	11.21 3.417				

Minimum discharge, 46 ft³/s (1.30 m³/s) July 4, gage height, 2.05 ft (0.625 m).

REVISIONS.--The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in WSP 1302 and reports for 1936-39.

Water Year	Date	Discharge (ft ³ /s) (m ³ /s)	Gage Height (ft) (m)
1936	Mar. 18, 1936	30,000 850	18.58 5.663
1937	Apr. 26, 1937	13,400 379	13.90 4.237
1938	Oct. 28, 1937	5,180 147	9.60 2.926
1939	June 23, 1939	5,980 169	10.20 3.109

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	751	154	152	112	798	770	312	121	75	114	63
2	1500	625	144	185	112	653	2340	305	112	71	106	64
3	839	579	173	175	112	553	5400	348	106	67	99	62
4	583	589	166	182	115	2450	2380	304	102	66	94	60
5	457	521	320	168	119	3970	2650	360	100	69	91	61
6	375	461	550	185	106	1850	1730	391	197	66	106	66
7	344	424	910	166	110	1230	1290	360	198	78	110	67
8	788	400	739	144	106	938	1180	321	129	121	129	67
9	3580	372	479	148	108	758	917	311	177	105	99	64
10	3730	421	427	144	124	662	808	292	291	78	97	60
11	1420	368	458	130	166	627	724	276	147	139	176	60
12	937	326	452	136	472	584	639	256	124	167	115	59
13	732	301	472	130	802	1920	571	242	120	203	101	68
14	658	286	361	142	686	1510	518	236	115	104	95	69
15	538	278	400	146	574	1120	492	218	113	83	92	76
16	488	269	377	140	401	904	442	206	109	80	86	140
17	420	252	361	107	301	728	411	193	104	80	123	94
18	374	252	329	122	282	1240	388	186	126	141	151	71
19	333	247	292	126	325	1890	377	181	114	95	101	168
20	352	231	301	130	282	1380	438	175	109	1630	88	138
21	1420	223	335	124	240	1270	352	162	100	511	81	86
22	815	220	244	120	222	1770	327	152	92	481	79	75
23	656	210	255	114	432	1550	332	148	88	282	78	71
24	605	194	241	119	1170	1180	595	182	85	217	77	76
25	832	197	207	124	3030	921	472	152	87	239	80	147
26	1680	192	280	128	1680	785	407	142	92	264	71	733
27	1100	210	250	122	1230	684	379	130	82	173	69	237
28	856	225	231	117	994	1230	361	124	82	146	68	158
29	716	150	233	96	---	1260	402	120	85	131	66	126
30	613	187	152	114	---	1070	336	116	80	136	66	110
31	938	---	182	110	---	937	---	117	---	131	64	---
TOTAL	30049	9961	10475	4246	14413	38422	28428	7018	3587	6229	2972	3396
MEAN	969	332	338	137	515	1239	948	226	120	201	95.9	113
MAX	3730	751	910	185	3030	3970	5400	391	291	1630	176	733
MIN	333	150	144	96	106	553	327	116	80	66	64	59
CFSM	3.33	1.14	1.16	.47	1.77	4.26	3.26	.78	.41	.69	.33	.39
IN.	3.84	1.27	1.34	.54	1.84	4.91	3.63	.90	.46	.80	.38	.43

CAL YR 1976 TOTAL 154441 MEAN 422 MAX 5670 MIN 77 CFSM 1.45 IN 19.74
WTR YR 1977 TOTAL 159196 MEAN 436 MAX 5400 MIN 59 CFSM 1.50 IN 20.35

JUNIATA RIVER BASIN

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01556010 FRANKSTOWN BRANCH JUNIATA RIVER NEAR WILLIAMSBURG, PA

LOCATION.--Lat 40°28'34", long 78°10'39", Blair County, Hydrologic Unit 02050302, 300 ft (91 m) upstream from Clover Creek and 1.6 mi (2.6 km) northeast of Williamsburg.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
OCT 26...	1140	9813	1710	200	6.7	8.5	45	10.0	75	--	0
NOV 17...	1340	9813	51	400	8.5	6.5	4	--	162	0	0
DEC 16...	1130	9813	364	310	6.8	3.0	6	13.5	104	0	0
FEB 23...	1400	9813	364	400	8.1	7.5	6	--	120	0	0
MAR 10...	1300	9813	650	260	6.8	10.0	6	11.1	90	--	0
APR 12...	1100	9813	2750	270	7.2	14.0	4	10.7	102	0	0
JUN 16...	1100	9813	108	270	7.5	21.0	4	8.7	82	--	0
JUL 12...	1110	9813	126	450	7.5	23.0	--	8.0	140	--	0
AUG 15...	1440	9813	92	495	8.1	23.0	15	9.5	157	--	0
SEP 27...	1500	9813	--	--	7.2	16.0	--	9.5	110	--	--

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	24	3.7	54	18	9.0	1.4	.04	.07	.24	2980
NOV 17...	36	17	106	54	22	2.5	.05	.06	.17	230
DEC 16...	28	8.5	80	44	23	1.9	.04	.36	.17	380
FEB 23...	33	9.0	94	54	48	2.2	.15	1.0	.28	440
MAR 10...	27	5.5	68	35	13	2.7	.04	.17	.12	560
APR 12...	30	6.5	88	30	12	2.3	.04	.14	.11	320
JUN 16...	22	6.5	108	33	27	1.3	.04	.08	.28	280
JUL 12...	36	12	20	50	31	3.8	.11	.17	.38	2400
AUG 15...	44	11	136	58	43	1.7	.03	.07	.31	860
SEP 27...	--	--	62	42	23	1.7	.10	.15	.40	>1959

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 15...	1440	9813	930	<3	<10	10	<50	150	<10	50

JUNIATA RIVER BASIN

01556480 LITTLE JUNIATA RIVER AT TIPTON, PA

LOCATION.--Lat 40°37'39", long 78°17'42", Blair County, Hydrologic Unit 02050302, at bridge on U.S. Route 220, 0.6 mi (1.0 km) southeast of Tipton and 2.1 mi (3.4 km) upstream from Fry Hollow.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT 26...	1345	9813	70	6.6	9.0	4	11.0	12	--	0	6.3	.0
NOV 29...	1130	9813	150	--	1.0	2	14.0	35	--	0	13	.3
DEC 16...	1330	9813	200	6.7	2.0	4	13.5	60	0	0	18	3.5
FEB 24...	0900	9813	180	7.6	2.5	25	--	54	0	0	16	3.5
MAR 10...	1330	9813	150	6.7	9.0	4	11.7	45	0	0	16	1.2
APR 12...	1300	9813	200	7.2	14.5	3	11.0	50	0	0	19	.5
JUN 16...	1300	9813	310	7.5	22.0	4	10.3	90	--	0	26	6.0
JUL 12...	1300	9813	290	7.2	23.0	30	8.1	82	--	0	27	3.5
AUG 15...	1240	9813	190	8.6	21.5	3	10.7	70	--	0	18	6.0
SEP 27...	1230	9813	--	7.0	15.0	--	9.3	74	--	--	--	--

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	16	6.0	4.0	--	--	--	.49	.02	.05	.05	--
NOV 29...	32	20	13	84	--	--	1.1	.05	.32	.32	140
DEC 16...	48	34	16	116	2	118	1.1	.05	.69	.39	200
FEB 24...	36	20	22	88	38	126	1.1	.04	.34	.39	1050
MAR 10...	32	26	13	124	10	134	.98	.04	.21	.20	290
APR 12...	44	20	14	116	6	122	1.4	.05	.30	.23	210
JUN 16...	74	36	27	202	10	--	2.7	.11	.15	.82	330
JUL 12...	18	30	21	182	32	214	2.4	.17	.36	.52	2130
AUG 15...	60	19	15	134	<10	--	1.5	.03	.05	.36	210
SEP 27...	48	26	15	162	22	--	1.6	.10	.15	.34	>1312

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 15...	1240	9813	120	<3	<10	10	<50	40	30	20

01557500 BALD EAGLE CREEK AT TYRONE, PA

LOCATION.--Lat 40°41'01", long 78°14'02", Blair County, Hydrologic Unit 02050302, on left bank, 0.2 mi (0.3 km) upstream from plant of West Virginia Pulp and Paper Co. at Tyrone, 0.2 mi (0.3 km) upstream from Laurel Run, and 1.3 mi (2.1 km) upstream from mouth.
DRAINAGE AREA.--44.1 mi² (114.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year. Prior to October 1967, published as South Bald Eagle Creek at Tyrone.

REVISED RECORDS.--WSP 1903: 1954(M). WDR PA-75-2: 1974.

GAGE.--Water-stage recorder. Datum of gage is 921.80 ft (280.965 m) above mean sea level. Oct. 1, 1944 to Nov. 15, 1950, water-stage recorder, and Nov. 16, 1950 to Nov. 30, 1952, nonrecording gage at site 0.5 mi (0.8 km) downstream at datum 17.99 ft (5.483 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Prior to Oct. 1, 1950, daily discharges were affected by diversion from the basin of a small quantity of water for boiler feed makeup for West Virginia Pulp and Paper Co. From Oct. 1, 1950 to Nov. 30, 1952, in addition to the effects of above diversion, daily discharges were affected by diversion into the basin, by West Virginia Pulp and Paper Co., of water from ground-water sources. Daily discharges subsequent to Nov. 30, 1952 are not affected by diversion.

AVERAGE DISCHARGE.--33 years, 75.1 ft³/s (2.127 m³/s), 23.13 in/yr (587 mm/yr), adjusted for diversion from October 1950 to November 1952.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,140 ft³/s (146 m³/s) Nov. 25, 1950, gage height, 7.5 ft (2.29 m), from floodmarks, at site and datum then in use, from rating curve extended above 2,100 ft³/s (59.5 m³/s), on basis of contracted-opening measurement of peak flow; minimum, 1.4 ft³/s (0.040 m³/s) Sept. 12, 13, 1973; minimum gage height, 0.15 ft (0.046 m) Aug. 31, Sept. 1, 1962, Sept. 11, 1965, Sept. 1, 2, 3, 4, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 15 ft (4.6 m) Mar. 17 or 18, 1936, site and datum in use prior to Dec. 1, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 940 ft³/s (26.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1200	1,120 31.7	3.54 1.079	Apr. 2	2215	*1,330 37.7	*3.79 1.155
Mar. 4	1915	1,090 30.9	3.50 1.067				

Minimum discharge, 9.6 ft³/s (0.27 m³/s) July 3, 4, gage height, 0.37 ft (0.113 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	87	21	31	16	129	121	45	20	12	23	15
2	57	77	24	30	16	99	629	46	19	11	21	15
3	31	72	21	29	16	81	752	43	18	10	20	15
4	24	72	26	27	15	528	380	45	17	14	19	14
5	21	61	26	26	15	589	357	48	16	13	19	13
6	20	55	26	25	15	308	258	48	29	11	20	13
7	21	51	137	25	15	200	194	44	24	16	99	13
8	55	48	95	24	15	139	159	46	19	38	41	13
9	617	44	75	23	16	106	127	46	20	16	31	13
10	258	49	71	22	18	90	108	44	20	14	31	12
11	132	45	81	22	20	81	94	43	17	16	34	11
12	92	40	62	21	22	81	81	40	16	20	28	11
13	74	37	58	20	23	600	74	40	16	19	27	12
14	68	36	54	19	23	366	66	38	16	15	27	14
15	55	35	50	19	23	226	61	35	16	14	26	13
16	50	34	49	18	23	159	57	34	15	13	25	19
17	44	31	45	18	22	116	52	32	14	19	50	21
18	38	32	41	17	22	220	50	32	16	23	31	14
19	35	31	52	17	22	265	52	30	18	17	25	14
20	78	30	40	17	21	207	48	28	14	48	23	28
21	162	28	40	17	21	188	44	26	13	23	21	16
22	90	28	41	17	21	223	43	25	13	22	21	13
23	71	27	44	17	50	197	73	25	12	19	20	13
24	78	26	39	17	353	159	84	24	12	19	20	13
25	116	24	40	17	539	123	70	22	15	62	19	73
26	168	24	46	16	312	101	64	22	23	43	18	262
27	118	25	39	16	220	90	58	22	15	30	18	73
28	94	24	37	16	170	194	58	21	14	28	17	50
29	81	28	35	16	---	216	52	21	16	26	16	40
30	71	23	33	16	---	197	48	20	14	26	16	36
31	129	---	32	16	---	162	---	20	---	24	16	---
TOTAL	2988	1224	1480	631	2064	6440	4314	1055	507	681	822	882
MEAN	96.4	40.8	47.7	20.4	73.7	208	144	34.0	16.9	22.0	26.5	29.4
MAX	617	87	137	31	539	600	752	48	29	62	99	262
MIN	20	23	21	16	15	81	43	20	12	10	16	11
CFSM	2.19	.93	1.08	.46	1.67	4.72	3.27	.77	.38	.50	.60	.67
IN.	2.52	1.03	1.25	.53	1.74	5.43	3.64	.89	.43	.57	.69	.74

CAL YR 1976 TOTAL 26855.1 MEAN 73.4 MAX 1160 MIN 7.0 CFSM 1.66 IN 22.65
WTR YR 1977 TOTAL 23088.0 MEAN 63.3 MAX 752 MIN 10 CFSM 1.44 IN 19.48

JUNIATA RIVER BASIN

01557500 BALD EAGLE CREEK AT TYRONE, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 29...	1100	9813	--	150	6.7	3.5	1	13.0	35	0
AUG 15...	1115	9813	15	75	7.5	18.0	3	9.1	35	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 29...	13	.3	364	24	10	.60	.02	.06	.06	120
AUG 15...	8.7	3.2	44	10	6.0	.56	.02	.06	.03	130

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 15...	1115	9813	80	<3	<10	10	<50	10	10	20

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA

LOCATION.--Lat 40°36'45", long 78°08'27", Huntingdon County, Hydrologic Unit 02050302, on right bank 150 ft (46 m) downstream from Penn Central Railroad bridge, 0.5 mi (0.8 km) northwest of village at Spruce Creek, and 0.5 mi (0.8 km) upstream from Spruce Creek. Water-quality sampling site 0.4 mi (0.6 km) downstream.

DRAINAGE AREA.--220 mi² (570 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 751.15 ft (228.951 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--39 years, 368 ft³/s (10.42 m³/s), 22.72 in/yr (577 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s (810 m³/s) June 23, 1972, gage height, 16.98 ft (5.176 m), from rating curve extended above 5,600 ft³/s (159 m³/s) on basis of slope-area measurement at gage height, 15.77 ft (4.807 m); minimum, 45 ft³/s (1.27 m³/s) Sept. 26, 1943, Oct. 4, 1949; minimum gage height, 1.41 ft (0.430 m) Sept. 26, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 19.1 ft (5.82 m) Mar. 18, 1936, from floodmarks 175 ft (53 m) downstream, discharge, 39,800 ft³/s (1,130 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1400	5,420 153	7.05 2.149	Apr. 3	0100	5,530 157	7.37 2.246
Feb. 25	0100	4,340 123	6.39 1.948	July 20	1000	*5,760 163	*7.52 2.292
Mar. 4	2200	4,520 128	6.68 2.036				

Minimum discharge, 82 ft³/s (2.32 m³/s) July 7, gage height, 1.81 ft (0.552 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	598	155	169	120	839	859	334	127	103	177	116
2	591	519	173	179	120	685	2470	323	120	99	165	113
3	373	492	143	176	120	579	3910	334	116	95	154	113
4	311	492	152	185	122	2260	2160	302	111	97	147	109
5	271	437	160	173	125	2900	2140	351	109	99	147	105
6	247	394	152	160	117	1790	1640	351	186	95	168	111
7	247	363	637	169	117	1320	1340	323	171	107	485	107
8	464	344	492	160	115	1020	1180	298	127	189	345	103
9	3110	320	344	160	115	813	944	307	132	120	230	101
10	1960	320	320	160	120	704	813	288	160	103	214	99
11	1220	320	373	155	160	634	711	278	122	165	278	95
12	892	289	353	146	329	594	601	264	113	152	211	91
13	713	267	368	143	579	2050	548	250	113	127	200	97
14	611	255	289	149	481	1680	504	241	111	105	186	111
15	514	247	320	149	405	1250	460	218	113	99	177	107
16	464	239	306	146	297	1010	419	203	109	99	165	127
17	410	231	297	141	247	806	390	200	107	122	401	177
18	373	227	275	138	235	1180	356	189	113	203	298	113
19	329	220	251	135	247	1570	340	180	269	130	222	109
20	420	217	259	135	231	1300	401	171	149	2280	200	356
21	892	206	293	135	209	1240	334	165	125	662	180	152
22	555	206	235	132	189	1430	302	157	116	607	174	125
23	481	195	235	127	349	1340	318	152	111	340	160	113
24	497	185	224	127	1250	1120	762	152	109	264	154	109
25	643	185	209	132	2760	913	561	147	116	485	152	214
26	940	182	247	132	1590	784	497	139	157	467	137	1250
27	720	189	227	130	1230	690	454	134	120	307	134	516
28	624	182	220	125	1030	1160	425	132	111	259	132	318
29	555	206	220	127	---	1320	425	125	111	230	125	246
30	503	166	169	125	---	1200	367	125	107	218	122	211
31	776	---	195	127	---	1070	---	125	---	196	120	---
TOTAL	21064	8693	8293	4547	13009	37251	26631	6958	3861	8624	6155	5714
MEAN	679	290	268	147	465	1202	888	224	129	278	199	190
MAX	3110	598	637	185	2760	2900	3910	351	269	2280	485	1250
MIN	247	166	143	125	115	579	302	125	107	95	120	91
CFSM	3.09	1.32	1.22	.67	2.11	5.46	4.04	1.02	.59	1.26	.91	.86
IN.	3.56	1.47	1.40	.77	2.20	6.30	4.50	1.18	.65	1.46	1.04	.97
CAL YR 1976	TOTAL	139910	MEAN 382	MAX 5170	MIN 97	CFSM 1.74	IN 23.66					
WTR YR 1977	TOTAL	150800	MEAN 413	MAX 3910	MIN 91	CFSM 1.88	IN 25.50					

JUNIATA RIVER BASIN

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 14...	1115	9813	624	180	7.2	11.0	2	11.0	78	--	0	21
NOV 17...	1435	9813	215	260	9.0	5.0	1	--	110	0	0	24
22...	1255	9813	199	260	8.5	5.0	2	12.5	102	--	0	27
DEC 21...	1330	9813	288	190	7.8	.5	4	11.5	68	0	0	20
FEB 24...	1000	9813	650	180	7.8	4.0	50	--	72	0	0	19
MAR 01...	1250	9813	825	130	7.0	3.0	4	13.0	58	0	0	13
JUN 20...	1050	9813	147	230	6.7	18.1	20	9.1	94	--	0	24
JUL 12...	1100	9813	154	250	7.5	20.0	--	8.7	95	--	0	27
AUG 15...	1340	9813	177	200	8.5	24.0	2	9.1	84	--	0	21
SEP 12...	1115	9813	91	340	7.5	15.5	2	8.7	114	--	0	33

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 14...	6.0	52	16	8.0	--	--	--	1.2	.03	.09	.11	230
NOV 17...	12	80	34	11	142	0	142	1.3	.03	.07	.15	60
22...	8.5	82	30	12	--	--	--	1.8	.04	.03	.18	100
DEC 21...	4.5	62	20	14	114	<5	--	1.3	.04	.08	.20	180
FEB 24...	6.0	55	20	16	90	140	230	1.5	.04	.77	.46	4700
MAR 01...	6.0	34	15	10	96	12	108	.95	.03	.09	.10	250
JUN 20...	--	80	18	11	152	28	180	1.6	.04	.15	.23	1380
JUL 12...	6.7	84	26	10	164	82	246	1.9	.07	.10	.28	3650
AUG 15...	7.5	84	10	9.0	134	<10	--	1.2	.03	.06	.16	100
SEP 12...	7.5	108	34	14	200	<10	--	.70	.02	.13	.24	110

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 15...	1340	9813	20	<3	<10	20	<50	20	<10	20

01559000 JUNIATA RIVER AT HUNTINGDON, PA

LOCATION.--Lat 40°29'05", long 78°01'09", Huntingdon County, Hydrologic Unit 02050302, on right bank 170 ft (52 m) downstream from Smithfield Bridge at Huntingdon, and 0.8 mi (1.3 km) upstream from Standing Stone Creek.

DRAINAGE AREA.--816 m² (2,113 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1941 to current year. Gage-height records collected in this vicinity for the period May 1895 to December 1938 are contained in reports of U.S. Weather Bureau. Prior to October 1950 published as Frankstown Branch Juniata River at Huntingdon.

REVISED RECORDS.--WDR PA-73: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 599.69 ft (182.786 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--36 years, 1,069 ft³/s (30.27 m³/s), 17.79 in/yr (452 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft³/s (1,610 m³/s) June 23, 1972, gage height, 20.03 ft (6.105 m); from rating curve extended above 20,000 ft³/s (566 m³/s); minimum observed, 14 ft³/s (0.40 m³/s) Feb. 8, 1948, Aug. 2, 1954; minimum gage height observed, 0.27 ft (0.082 m) Feb. 8, 1948.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 21.87 ft (6.666 m), from floodmark, discharge, 68,000 ft³/s (1,930 m³/s) by computation of flow over dam and runoff comparison with downstream stations.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft³/s (156 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1945	13,100 371	9.29 2.832	Mar. 19	0430	6,240 177	6.16 1.878
Feb. 25	0700	7,830 222	6.98 2.128	Mar. 22	2330	6,010 170	6.03 1.838
Mar. 5	0215	13,600 385	9.50 2.896	Apr. 3	0600	*16,000 453	*10.38 3.164
Mar. 13	1715	7,040 199	6.58 2.006	Jul. 20	1400	6,960 197	6.54 1.993

Minimum discharge, 244 ft³/s (6.91 m³/s) Sept. 11, 12, 13, gage height, 1.19 ft (0.363 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	2020	480	490	370	2110	2240	997	437	319	455	289
2	2340	1610	524	490	370	1750	4760	955	425	303	425	280
3	1340	1500	512	490	370	1490	13700	981	402	293	402	280
4	996	1480	449	490	360	5110	6870	930	390	293	384	280
5	831	1460	492	480	360	10400	6620	972	379	303	373	271
6	728	1210	480	480	360	5150	4890	1070	467	293	402	275
7	686	1110	1550	470	360	3570	3820	1010	675	314	605	280
8	1220	1040	2030	460	360	2740	3370	906	467	492	726	271
9	7520	981	1160	450	360	2220	2710	873	449	425	505	267
10	8260	981	1020	450	360	1920	2350	842	647	340	455	262
11	3600	981	1040	450	380	1740	2100	810	499	340	584	253
12	2460	881	1050	440	400	1610	1840	772	425	512	518	245
13	1930	818	1070	440	440	4830	1650	741	402	499	449	249
14	1650	787	873	430	480	4610	1520	726	396	390	425	271
15	1400	756	922	430	500	3370	1410	690	384	324	407	284
16	1240	734	898	430	510	2730	1290	654	384	314	384	289
17	1090	712	865	430	520	2200	1200	632	379	346	591	437
18	981	690	818	420	520	2570	1140	605	402	584	682	351
19	898	682	756	420	510	4930	1100	598	690	449	492	298
20	930	654	741	410	500	3540	1250	577	492	3410	437	598
21	2990	632	810	400	490	3600	1080	551	407	1700	402	461
22	1840	618	682	400	480	4140	997	524	373	1310	384	335
23	1490	598	654	400	470	4570	981	512	340	865	368	298
24	1400	577	640	400	1300	3440	1740	524	335	690	356	289
25	1980	564	632	400	6750	2740	1630	524	351	741	351	449
26	3680	557	690	400	4280	2340	1350	486	492	1070	329	2150
27	2550	564	668	400	3160	2030	1240	461	384	704	319	1390
28	2050	571	618	400	2600	2590	1160	443	346	598	314	749
29	1760	605	625	390	---	3550	1190	431	351	544	303	584
30	1550	577	598	390	---	2960	1080	431	340	512	298	505
31	2310	---	505	380	---	2650	---	425	---	505	293	---
TOTAL	64750	26950	24852	13410	27920	103200	78278	21653	12910	19782	13418	13240
MEAN	2089	898	802	433	997	3329	2609	698	430	638	433	441
MAX	8260	2020	2030	490	6750	10400	13700	1070	690	3410	726	2150
MIN	686	557	449	380	360	1490	981	425	335	293	293	245
CFSM	2.56	1.10	.98	.53	1.22	4.08	3.20	.86	.53	.78	.53	.54
IN.	2.95	1.23	1.13	.61	1.27	4.70	3.57	.99	.59	.90	.61	.60

CAL YR 1976 TOTAL 397052 MEAN 1085 MAX 11600 MIN 310 CFSM 1.33 IN 18.10
WTR YR 1977 TOTAL 420363 MEAN 1152 MAX 13700 MIN 245 CFSM 1.41 IN 19.16

JUNIATA RIVER BASIN

01559000 JUNIATA RIVER AT HUNTINGDON, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, DECEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
DEC 07...	1330	9813	1100	400	7.6	3.0	6	10.0	130	0	0	36
MAR 01...	1050	9813	2120	180	7.2	4.0	3	12.0	74	0	0	19
AUG 17...	1140	9813	480	300	7.6	22.0	5	--	115	--	0	41

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CA+O3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
DEC 07...	10	120	52	24	262	<5	--	2.1	.04	.06	.19	210
MAR 01...	6.5	50	18	12	120	8	128	1.6	.04	.06	.07	250
AUG 17...	2.7	114	24	18	190	10	--	1.6	.02	.10	.17	480

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 17...	1140	9813	430	<3	<10	<10	<50	70	60	10

JUNIATA RIVER BASIN

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01559700 BUFFALO RUN TRIBUTARY NEAR MANNS CHOICE, PA

LOCATION.--Lat 39°58'40", long 78°37'08", Bedford County, Hydrologic Unit 02050303, at left downstream end of bridge on State Highway 96, 2,000 ft (610 m) upstream from mouth, 2.3 mi (3.7 km) south of Manns Choice, and 11 mi (18 km) southwest of Bedford.

DRAINAGE AREA.--5.28 mi² (13.68 km²).

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

REVISED RECORDS.--WDR PA-70: 1968-69(P). WDR PA-72: 1970(M).

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,230 ft (375 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--16 years, 5.38 ft³/s (0.152 m³/s), 13.83 in/yr (351 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) July 20, 1977, gage height, 5.12 ft (1.561 m), from peak-stage indicator in well, from rating curve extended above 25 ft³/s (0.71 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 4-11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft³/s (2.12 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 1	1115	444	12.6	3.10	0.945	Mar. 13	0515	135	3.82	2.16	0.658
Oct. 9	0915	189	5.35	2.39	0.728	Mar. 18	1015	125	3.54	2.11	0.643
Dec. 7	0630	87	2.46	1.90	0.579	Mar. 22	1045	81	2.29	1.86	0.567
Feb. 11	1930	119	3.37	2.08	0.634	Mar. 28	0945	112	3.17	2.04	0.622
Feb. 24	1330	104	2.95	1.99	0.607	Apr. 2	1045	176	4.98	2.34	0.713
Mar. 4	1230	107	3.03	2.01	0.613	July 20	0620	*1,120	31.7	*5.12	1.561

Minimum discharge, 0.13 ft³/s (0.004 m³/s) Sept. 16, gage height, 0.26 ft (0.079 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	5.8	2.4	1.7	1.1	13	14	2.7	1.3	.28	1.0	.25
2	63	4.9	2.9	1.7	1.1	11	42	2.7	1.1	.28	.80	.25
3	37	4.7	2.2	1.6	1.1	9.7	31	2.7	1.0	.23	.64	.25
4	19	4.9	2.2	1.6	1.1	47	33	3.4	.94	.23	.64	.25
5	14	3.8	2.4	1.6	1.1	33	37	4.2	.94	.23	.50	.20
6	11	2.9	2.3	1.5	1.1	28	27	11	2.3	.23	.50	.20
7	15	2.4	25	1.5	1.1	21	22	9.7	1.7	.23	.64	.20
8	38	2.3	9.1	1.4	1.1	15	18	8.3	1.2	.61	.64	.20
9	105	2.2	10	1.4	1.1	13	14	8.3	1.4	.94	.64	.20
10	56	2.0	7.0	1.4	1.1	11	12	7.7	1.4	.54	.64	.20
11	28	2.0	7.5	1.4	1.6	9.7	10	7.2	1.0	1.7	.64	.16
12	13	1.9	7.5	1.4	1.6	9.7	8.8	6.0	.85	2.6	.50	.16
13	8.3	1.8	6.6	1.4	12	50	7.7	5.1	.85	3.4	.50	.16
14	5.1	1.8	5.8	1.3	7.7	28	6.7	4.7	.77	1.0	.64	.16
15	3.4	1.8	5.5	1.3	8.3	24	6.3	4.0	.85	.69	.50	.16
16	2.6	2.7	5.1	1.3	18	18	5.3	3.4	.61	.54	.50	.16
17	2.2	2.6	5.6	1.3	7.0	15	4.9	2.9	.61	.54	2.1	.16
18	1.9	2.9	4.9	1.3	4.9	47	4.5	2.9	1.2	.47	.80	.20
19	1.8	3.2	3.6	1.3	4.3	30	4.0	3.8	.69	.34	.50	.20
20	15	3.4	3.0	1.3	5.1	29	4.0	2.6	.54	76	.39	.20
21	8.3	3.4	2.6	1.2	9.4	21	3.4	2.3	.54	14	.39	.20
22	5.6	3.2	2.4	1.2	4.7	37	3.1	2.2	.47	8.6	.64	.20
23	5.1	2.7	2.3	1.2	16	23	3.8	2.2	.40	5.7	.50	.20
24	7.2	2.6	2.2	1.2	38	21	5.1	2.3	.40	4.0	.39	.25
25	10	2.7	2.1	1.2	26	17	4.0	1.9	.40	4.6	.39	.64
26	10	2.7	2.0	1.2	23	15	3.6	1.9	.47	3.1	.30	3.3
27	7.2	3.2	2.0	1.2	20	12	3.1	1.7	.34	2.1	.30	1.4
28	6.7	2.7	1.9	1.1	15	30	4.0	1.6	.34	1.6	.30	1.0
29	5.8	4.7	1.8	1.1	---	19	4.5	1.4	.34	1.4	.30	.50
30	5.1	2.9	1.8	1.1	---	18	3.1	1.4	.34	1.8	.25	.39
31	12	---	1.7	1.1	---	16	---	1.3	---	1.2	.25	---
TOTAL	688.3	90.8	143.4	41.5	262.4	691.1	349.9	123.5	25.29	139.18	17.72	12.00
MEAN	22.2	3.03	4.63	1.34	9.37	22.3	11.7	3.98	.84	4.49	.57	.40
MAX	166	5.8	25	1.7	38	50	42	11	2.3	76	2.1	3.3
MIN	1.8	1.8	1.7	1.1	1.1	9.7	3.1	1.3	.34	.23	.25	.16
CFSM	4.21	.57	.88	.25	1.78	4.22	2.22	.75	.16	.85	.11	.08
IN.	4.85	.64	1.01	.29	1.85	4.87	2.46	.87	.18	.98	.12	.08

CAL YR 1976 TOTAL 2135.91 MEAN 5.84 MAX 166 MIN .32 CFSM 1.11 IN 15.05
WTR YR 1977 TOTAL 2585.09 MEAN 7.08 MAX 166 MIN .16 CFSM 1.34 IN 18.21

JUNIATA RIVER BASIN

01560000 DUNNING CREEK AT BELDEN, PA

LOCATION.--Lat 40°04'18", long 78°29'34", Bedford County, Hydrologic Unit 02050303, on left bank 10 ft (3 m) upstream from highway bridge, 0.8 mi (1.3 km) southeast of Belden, 3.8 mi (6.1 km) north of Bedford, and 4.3 mi (6.9 km) above mouth.

DRAINAGE AREA.--172 mi² (445 km²).

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

REVISED RECORDS.--WSP 971: 1940(M). WSP 1502: 1940-41. WDR PA-72: 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 1,051.16 ft (320.394 m) above mean sea level.

REMARKS.--Records good, except those for winter months, which are fair.

AVERAGE DISCHARGE.--38 years, 224 ft³/s (6.34 m³/s), 17.69 in/yr (449 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s (549 m³/s) July 20, 1977, gage height, 14.15 ft (4.313 m), from rating curve extended above 9,200 ft³/s (261 m³/s); minimum, 2.6 ft³/s (0.074 m³/s) Sept. 6, 1964; minimum gage height, 0.92 ft (0.280 m) Jan. 8, 1954, result of freeze-up.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 17.8 ft (5.43 m) Mar. 18, 1936, from floodmarks (backwater from Raytown Branch Juniata River), discharge, about 16,900 ft³/s (479 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft³/s (65.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 1	1900	3,670 104	9.08 2.768	Mar. 4	2230	3,450 97.7	8.86 2.70
Oct. 9	2130	4,980 141	10.09 3.075	July 20	1130	*19,400 549	*14.15 4.313
Feb. 25	0700	2,500 70.8	7.74 2.359				

Minimum discharge, 14 ft³/s (0.40 m³/s) July 6, gage height, 1.26 ft (0.384 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2410	412	47	91	35	536	480	140	36	18	75	23
2	2380	359	45	87	33	388	440	140	35	16	66	22
3	1050	338	43	86	32	313	496	148	30	16	57	22
4	579	324	42	84	31	1860	1080	132	28	15	51	22
5	376	268	41	80	30	2390	2100	171	29	16	46	22
6	275	228	40	78	29	1140	1700	160	43	15	51	22
7	240	201	355	75	29	776	1500	174	64	17	96	21
8	900	180	324	73	28	576	1300	146	42	28	81	21
9	3450	163	264	71	28	492	1150	137	43	36	57	21
10	2690	160	231	69	28	373	1040	129	51	30	53	21
11	979	145	243	67	89	355	1030	119	42	64	66	19
12	603	129	234	65	324	352	780	105	36	96	54	17
13	436	117	237	63	752	1260	250	96	35	62	50	17
14	345	110	225	61	585	1130	225	92	33	43	46	17
15	271	102	243	59	536	776	198	81	33	30	43	18
16	240	97	204	58	464	580	174	73	32	25	41	23
17	195	89	192	56	350	448	159	68	32	43	45	43
18	163	92	168	55	180	1040	146	64	42	25	50	30
19	141	85	143	54	125	1210	135	66	37	23	59	23
20	362	79	146	53	110	920	127	62	35	8400	48	24
21	908	77	154	52	100	764	114	55	28	1550	39	28
22	553	75	124	52	170	990	107	50	27	702	37	25
23	420	68	146	51	450	923	105	50	25	328	35	23
24	460	60	157	49	804	736	201	53	24	225	33	21
25	598	68	135	48	2040	571	163	48	23	292	35	28
26	1090	64	132	46	1240	480	154	42	25	306	29	137
27	732	69	112	43	934	424	146	42	23	174	28	94
28	512	68	105	41	740	796	137	40	21	132	28	53
29	392	81	100	40	---	832	177	39	21	110	25	40
30	320	50	98	38	---	728	143	36	19	104	23	33
31	661	---	95	36	---	598	---	36	---	89	23	---
TOTAL	24731	4358	4825	1881	10296	24757	15957	2794	994	13030	1470	930
MEAN	798	145	156	60.7	368	799	532	90.1	33.1	420	47.4	31.0
MAX	3450	412	355	91	2040	2390	2100	174	64	8400	96	137
MIN	141	50	40	36	28	313	105	36	19	15	23	17
CFSM	4.64	.94	.91	.35	2.14	4.65	3.09	.52	.19	2.44	.28	.18
IN.	5.35	.84	1.04	.41	2.23	5.35	3.45	.60	.21	2.82	.32	.20
CAL YR 1976	TOTAL	89690	MEAN 245	MAX 3450	MIN 19	CFSM 1.42	IN 19.40					
WTR YR 1977	TOTAL	106023	MEAN 290	MAX 8400	MIN 15	CFSM 1.69	IN 22.93					

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA

LOCATION.--Lat 40°12'57", long 78°15'56", Bedford County, Hydrologic Unit 02050303, on left bank, 500 ft (152 m) downstream from bridge on State Highway 913, 0.5 mi (0.8 km) west of Saxton, and 1.5 mi (2.4 km) upstream from Shoup Run. Pennsylvania Department of Environmental Resources water-quality sampling site at bridge 500 ft (152 m) upstream.

DRAINAGE AREA.--756 mi² (1,958 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1302: 1912-13(M), 1914-15. WSP 1502: 1934, 1936.

GAGE.--Water-stage recorder. Datum of gage is 795.77 ft (242.551 m) above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at site 0.8 mi (1.3 km) downstream at datum 4.82 ft (1.469 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--66 years, 902 ft³/s (25.5 m³/s), 16.20 in/yr (412 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,500 ft³/s (2,280 m³/s) Mar. 18, 1936, gage height, 24.54 ft (7.480 m), from floodmark in gage shelter, from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of slope-area measurement of peak flow; minimum, 39 ft³/s (1.10 m³/s) Sept. 6, 7, 12, 1966, gage height, 0.84 ft (0.256 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1911, 23.0 ft (7.01 m) at present site, June 1, 1889, from floodmarks, discharge about 71,300 ft³/s (2,020 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,700 ft³/s (218 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 2	0015	*22,500 637	*13.84 4.218	Mar. 5	0915	8,400 238	8.25 2.515
Oct. 9	2230	20,000 566	13.23 4.033	July 21	0345	17,700 501	12.54 3.822
Feb. 25	1015	8,050 228	8.04 2.451				

Minimum discharge, 87 ft³/s (2.46 m³/s) Sept. 11, 15, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6260	2440	280	400	290	2010	1900	660	207	116	320	126
2	14500	1730	260	470	290	1560	2340	631	203	108	275	116
3	5690	1680	240	450	290	1370	6720	631	194	105	247	119
4	3310	1460	240	470	300	1930	5250	617	185	105	229	112
5	2080	1350	230	430	300	7590	4880	682	172	102	216	108
6	1410	1230	220	480	270	4860	4450	814	198	99	207	112
7	1140	972	220	420	290	3140	3360	1220	234	102	207	108
8	2660	880	2500	370	280	2320	2830	1370	271	119	216	108
9	12200	798	1600	390	270	1810	2220	1060	256	122	261	116
10	14800	735	1200	370	350	1510	1930	938	247	138	261	105
11	6110	712	1050	340	735	1480	1700	847	247	172	295	96
12	3450	660	930	350	1130	1260	1550	646	229	189	271	96
13	2450	602	860	340	1930	2440	1320	581	194	442	261	96
14	1790	561	780	370	3300	4910	1200	528	181	504	229	96
15	1410	528	720	380	3660	3380	1090	487	177	271	207	93
16	1180	505	650	350	2480	2510	1050	447	177	194	194	99
17	1130	481	610	280	2240	1930	905	409	177	160	198	108
18	839	464	570	310	1630	1950	782	377	216	141	216	105
19	720	459	540	320	863	5050	728	371	247	145	275	123
20	855	442	510	340	600	3630	697	393	211	4020	220	152
21	3310	425	570	320	490	3090	646	366	177	10500	172	126
22	2760	409	450	310	420	2880	588	315	160	2840	168	116
23	2050	398	340	300	530	4440	581	295	149	1400	160	108
24	1640	377	360	310	1570	3310	751	280	141	759	168	108
25	2150	356	370	320	5200	2560	922	280	137	602	160	123
26	3350	361	350	330	4370	2040	774	271	137	880	149	198
27	3240	361	370	320	3060	1670	690	247	130	697	141	274
28	2510	361	400	300	2430	1810	660	234	130	470	134	353
29	1880	387	450	260	---	3710	735	225	130	387	126	258
30	1540	382	400	290	---	2870	806	211	119	356	123	211
31	1980	---	470	290	---	2440	---	207	---	356	126	---
TOTAL	110394	22506	18740	10980	39568	87460	54055	16640	5633	26601	6432	4069
MEAN	3561	750	605	354	1413	2821	1802	537	188	858	207	136
MAX	14800	2440	2500	480	5200	7590	6720	1370	271	10500	320	353
MIN	720	356	220	260	270	1260	581	207	119	99	123	93
CFSM	4.71	.99	.80	.47	1.87	3.73	2.38	.71	.25	1.14	.27	.18
IN.	5.43	1.11	.92	.54	1.95	4.30	2.66	.82	.28	1.31	.32	.20
CAI YR 1976	TOTAL	386143	MEAN	1055	MAX	14800	MIN	126	CFSM	1.40	IN	19.00
WTR YR 1977	TOTAL	403078	MEAN	1104	MAX	14800	MIN	93	CFSM	1.46	IN	19.83

JUNIATA RIVER BASIN

01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT 26...	1045	9813	2860	160	6.7	8.5	25	10.7	55
NOV 17...	1140	9813	480	270	8.3	3.0	2	--	122
DEC 16...	1200	9813	1030	200	6.7	3.0	4	14.3	75
FEB 23...	1245	9813	475	220	8.0	1.0	2	--	90
MAR 17...	1030	9813	2350	140	7.0	8.0	8	11.7	54
APR 12...	1000	9813	1680	170	7.1	13.5	4	10.7	64
JUN 16...	1015	9813	176	330	7.5	21.0	3	8.5	130
JUL 12...	1010	9813	189	330	7.5	25.0	6	8.0	132
AUG 17...	1010	9813	189	290	7.7	26.0	3	7.1	128
SEP 27...	1020	9813	198	340	7.5	16.5	--	9.5	132

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT 26...	--	0	--	16	--	3.7	48	12	8.0
NOV 17...	0	0	--	28	--	12	86	34	9.0
DEC 16...	0	0	--	20	--	5.7	64	28	--
FEB 23...	0	0	--	24	--	7.0	66	28	14
MAR 17...	0	0	--	15	--	4.0	38	20	8.0
APR 12...	0	0	--	21	--	2.5	58	18	8.0
JUN 16...	--	0	--	37	--	9.0	70	37	16
JUL 12...	--	0	--	33	--	12	100	30	9.0
AUG 17...	--	0	--	4.0	--	7.0	118	26	11
SEP 27...	--	--	36	--	11	--	54	27	12

JUNIATA RIVER BASIN

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01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 26...	--	--	--	1.4	.04	.04	.08	990
NOV 17...	136	6	142	1.7	.02	.03	.04	230
DEC 16...	106	6	112	1.7	.02	.06	.03	260
FEB 23...	178	4	182	1.9	.04	.08	.06	250
MAR 17...	72	10	82	1.6	.02	.04	.07	700
APR 12...	118	10	128	1.6	.02	.10	.04	360
JUN 16...	200	20	--	1.6	.03	.12	.07	380
JUL 17...	226	4	230	1.5	.02	.06	.05	410
AUG 17...	208	<10	--	1.5	.02	.07	.06	120
SEP 27...	240	4	--	1.7	.05	.05	.15	584

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL BETA (PC/L)
AUG 17...	1010	9813	270	<3	10	<10	<50	30	50	10	<1.0	<2.0

JUNIATA RIVER BASIN

LAKE IN JUNIATA RIVER BASIN

01563100 RAYSTOWN LAKE.--Lat 40°26'06", long 78°00'25", Huntingdon County, Hydrologic Unit 02050303, at Raystown Dam on Raystown Branch Juniata River, 3.5 mi (5.6 km) south of Huntingdon and 5.7 mi (9.2 km) upstream from mouth. DRAINAGE AREA, 959 mi² (2,484 km²). PERIOD OF RECORD, October 1972 to current year. GAGE, recording. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir is formed by earthfill dam with a gated spillway in right abutment at elevation, 768.6 ft (234.27 m) and an ungated spillway, separate from embankment, at elevation 812.0 ft (247.50 m). Storage began November 1972. Capacity at elevation 768.6 ft (234.27 m) is 383,500 acre-ft (473 hm³). Capacity at elevation 812.0 ft (247.50 m) is 762,000 acre-ft (940 hm³). Conservation pool elevation is 786 ft or 240 m. Capacity at elevation 786 ft (240 m) is 514,000 acre-ft or 634 hm³. Lake is used for flood control, low-flow augmentation, and recreation. Figures given herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 546,300 acre-ft (674 hm³) Oct. 11, 1976 (elevation, 789.80 ft or 240.731 m); minimum (after first filling), 2,240 acre-ft (2.76 hm³) Mar. 2, 1973 (elevation, 628.8 ft or 191.66 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 546,300 acre-ft (674 hm³) Oct. 11 (elevation, 789.80 ft or 240.731 m); minimum, 459,400 acre-ft (566 hm³) Feb. 12 (elevation, 779.37 ft or 237.552 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01563100 Raystown Lake			
Sept. 30	783.92	496,130	--
Oct. 31	781.83	478,820	-282
Nov. 30	780.62	469,100	-163
Dec. 31	781.43	475,580	+105
CAL YR 1976	--	--	+ 46.8
Jan. 31	780.09	464,910	-174
Feb. 28	785.61	510,610	+823
Mar. 31	787.72	528,620	+293
Apr. 30	785.78	512,090	-278
May 31	785.63	510,780	- 21.3
June 30	784.87	504,200	-111
July 31	786.42	517,570	+217
Aug. 31	785.73	511,650	- 96.3
Sept. 30	784.79	503,520	-137
WTR YR 1977	--	--	+ 10.2

01563200 RAYSTOWN BRANCH JUNIATA RIVER BELOW RAYSTOWN DAM NEAR HUNTINGDON, PA

LOCATION.--Lat 40°25'44", long 77°59'29", Huntingdon County, Hydrologic Unit 02050303, on left bank 1 mi (1.6 km) downstream from Raystown Dam, 4 mi (6.4 km) south of Huntingdon, and 4.7 mi (7.6 km) upstream from mouth.

DRAINAGE AREA.--960 mi² (2,490 km²). Area at site used prior to Oct. 1, 1969, 957 mi² (2,480 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1946 to current year. Published as "near Huntingdon" prior to Oct. 1, 1969.

GAGE.--Water-stage recorder. Datum of gage is 597.36 ft (182.075 m) above mean sea level (Corps of Engineers benchmark). Prior to Oct. 1, 1969, water-stage recorder at site 4.3 mi (6.9 km) upstream at datum 22.72 ft (6.925 m) higher.

REMARKS.--Records good. Flow regulated by Raystown Dam 1 mi (1.6 km) upstream (see p. 226).

AVERAGE DISCHARGE.--31 years, 1,118 ft³/s (31.7 m³/s), 15.82 in/yr (402 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s (694 m³/s) Nov. 25, 1950, gage height, 16.74 ft (5.102 m), site and datum then in use, from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of computation of flow over dam at gage height 31.0 ft (9.45 m); minimum, 1.2 ft³/s (0.034 m³/s) June 30, July 20, 1973, gage height, 2.14 ft (0.652 m), result of upstream shutoff; minimum daily, 5.0 ft³/s (0.142 m³/s) October 30, 1957, May 18, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 18, 1936, reached a stage of 31.0 ft (9.45 m), discharge, 87,000 ft³/s (2,460 m³/s), at site and datum then in use, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,600 ft³/s (357 m³/s) Apr. 1, gage height, 13.43 ft (4.093 m); minimum, 174 ft³/s (4.93 m³/s) Mar. 30, gage height, 3.28 ft (1.000 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	725	3270	479	484	479	574	8400	536	434	278	282	286
2	6380	3670	479	484	474	1310	5620	542	439	278	282	286
3	8000	3000	474	484	474	1510	5700	536	406	278	282	286
4	7840	2320	474	484	474	2170	6980	531	328	278	282	286
5	7580	2000	474	484	474	5870	7960	531	337	278	282	286
6	5250	1520	474	484	479	7640	7010	536	337	278	282	286
7	3900	1110	484	484	474	6260	5280	542	333	278	282	282
8	2210	873	899	484	474	4020	3970	542	320	278	282	282
9	3010	873	1290	484	494	2320	2890	1270	320	274	282	282
10	7540	873	1320	484	515	1930	2000	1510	320	274	282	282
11	10600	873	1320	484	515	1660	1800	1500	315	274	282	282
12	10300	873	1320	484	515	1490	1790	854	315	278	282	282
13	9770	873	1320	484	515	2270	1680	933	315	274	282	282
14	5510	873	1310	484	515	6830	1410	1490	298	274	282	282
15	1320	873	1010	484	469	4130	1410	1490	274	274	282	282
16	986	873	828	484	434	2310	1410	791	286	274	282	282
17	986	873	630	484	434	2310	1420	494	286	274	286	282
18	1580	873	479	484	434	3020	1420	494	282	274	282	282
19	2360	873	484	484	434	6000	1420	489	282	274	282	282
20	2600	873	484	484	434	5550	1430	489	282	444	282	282
21	3860	607	484	479	434	3750	980	484	282	5790	282	282
22	4680	464	484	479	434	3980	688	479	282	4360	282	282
23	4620	444	484	479	434	5720	699	464	282	1380	282	282
24	4550	459	484	479	444	3410	1150	449	282	735	282	282
25	4440	474	484	479	449	2940	1460	449	282	286	282	282
26	4480	474	484	479	444	2740	1270	444	278	410	282	286
27	4750	474	484	479	444	2110	953	444	278	641	282	282
28	4840	474	484	479	444	1740	959	444	278	641	282	282
29	3540	474	484	479	---	1810	693	444	278	641	282	282
30	2420	474	484	479	---	2110	531	439	278	282	282	282
31	2420	---	484	479	---	4670	---	439	---	282	282	---
TOTAL	143097	33057	21356	14949	13037	104154	80383	21079	9309	21134	8746	8488
MEAN	4616	1102	689	482	466	3360	2679	680	310	682	282	283
MAX	10600	3670	1320	484	515	7640	8400	1510	439	5790	286	286
MIN	725	444	474	479	434	574	531	439	274	274	282	282
MEAN#	4335	939	794	309	1288	3653	2402	659	200	899	186	146
CFSM#	4.52	.98	.83	.32	1.34	3.80	2.50	.69	.21	.94	.19	.15
IN.#	5.21	1.09	.96	.37	1.40	4.38	2.79	.80	.23	1.08	.22	.17

CAL YR 1976 TOTAL 472934 MEAN 1292 MAX 10600 MIN 424 MEAN# 1339 CFSM# 1.39 IN.# 18.99
WTH YR 1977 TOTAL 478789 MEAN 1312 MAX 10600 MIN 274 MEAN# 1322 CFSM# 1.38 IN.# 18.70

#Adjusted for change in contents in Raystown Lake.

JUNIATA RIVER BASIN

01563500 JUNIATA RIVER AT MAPLETON DEPOT, PA

LOCATION.--Lat 40°23'42", long 77°56'24", Huntingdon County, Hydrologic Unit 02050304, on right bank 0.25 mi (0.40 km) downstream from Scrub Run, and 0.3 mi (0.5 km) downstream from bridge on State Highway 655 at Mapleton Depot.

DRAINAGE AREA.--2,030 m² (5,258 km²).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-73: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 557.31 ft (169.868 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since October 1972 by Raystown Lake 12 mi (19 km) upstream (see p. 226).

AVERAGE DISCHARGE.--40 years, 2,447 ft³/s (69.3 m³/s), 16.37 in/yr (416 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft³/s (3,540 m³/s) June 23, 1972, gage height, 33.07 ft (10.080 m), from rating curve extended above 39,000 ft³/s (1,100 m³/s); minimum, 68 ft³/s (1.93 m³/s) Sept. 13, 1964; minimum daily, 101 ft³/s (2.86 m³/s) Aug. 21, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 38.2 ft (11.64 m) Mar. 18, 1936, from floodmark, discharge, 165,000 ft³/s (4,670 m³/s), from rating curve extended above 39,000 ft³/s (1,100 m³/s) on basis of runoff comparison with upstream and downstream stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,300 ft³/s (716 m³/s) Apr. 3, gage height, 14.77 ft (4.502 m); minimum, 628 ft³/s (17.8 m³/s) Sept. 12, 13, gage height, 2.53 ft (0.771 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	6130	1130	1100	940	3270	10900	1860	1000	744	895	695
2	8320	6090	1190	1100	940	3490	11100	1810	994	719	848	689
3	9560	5160	1130	1100	940	3430	23100	1700	951	695	822	683
4	8920	4430	1100	1100	930	7940	15500	1740	828	695	796	676
5	8460	3890	1150	1100	920	19800	16200	1810	828	713	796	670
6	6560	3290	1130	1050	920	14300	13600	1920	909	701	809	695
7	4940	2700	2640	1050	920	11000	10000	1830	1200	738	909	695
8	4430	2320	4110	1050	920	7730	8500	1700	979	958	1340	670
9	12800	2240	3040	1050	910	5340	6480	2070	958	937	986	664
10	18700	2200	2790	1000	910	4430	5120	2530	1130	789	909	658
11	15300	2220	2770	1000	910	3980	4510	2480	1020	750	1020	646
12	13400	2100	2770	1000	920	3580	4170	2030	895	951	1010	629
13	12300	2010	2730	980	940	7520	3910	1640	875	994	895	634
14	8580	1950	2450	980	1000	12700	3370	2350	848	895	868	658
15	3420	1920	2280	980	1150	8990	3220	2300	809	763	848	676
16	2630	1890	2050	970	1200	5810	3070	1840	796	726	815	695
17	2420	1850	1880	970	1250	5180	2960	1290	802	776	958	842
18	2680	1820	1620	970	1250	6030	2860	1260	848	1140	1330	822
19	3500	1810	1510	970	1250	11800	2800	1250	1140	986	986	719
20	3930	1780	1510	970	1200	10400	2950	1230	1000	3320	882	1050
21	7570	1570	1560	970	1200	8320	2530	1190	835	6910	835	1010
22	7190	1310	1380	960	1150	9150	1990	1150	783	6870	815	776
23	6620	1270	1350	950	1200	12000	1980	1120	757	2440	796	713
24	6420	1240	1380	940	1900	8110	3130	1100	744	1850	776	701
25	6960	1250	1260	940	8680	6470	3830	1130	757	1160	769	1050
26	9800	1240	1380	940	6170	5810	3200	1070	1060	1720	750	3130
27	8240	1250	1390	940	4610	4850	2610	1040	889	1590	732	2660
28	7560	1260	1330	940	3880	4650	2490	1020	783	1420	726	1480
29	6200	1300	1320	940	---	5980	2370	1010	789	1340	719	1170
30	4550	1280	1230	940	---	5830	1980	994	789	1160	707	1040
31	5750	---	1130	940	---	7590	---	986	---	944	701	---
TOTAL	229300	70770	55690	30890	49110	235480	180430	48450	26996	46394	27048	27896
MEAN	7397	2359	1796	996	1754	7596	6014	1563	900	1497	873	930
MAX	18700	6130	4110	1100	8680	19800	23100	2530	1200	6910	1340	3130
MIN	1590	1240	1100	940	910	3270	1980	986	744	695	701	629
MEAN#	7115	2196	1902	823	2577	7889	5737	1542	789	1714	776	793
CFSM#	3.51	1.08	.94	.41	1.27	3.89	2.83	.76	.39	.84	.38	.39
IN.#	4.05	1.20	1.08	.47	1.32	4.48	3.16	.88	.44	.97	.44	.44
CAL YR 1976 TOTAL	1038045			MEAN 2836	MAX 19600	MIN 853	MEAN# 2883	CFSM# 1.42	IN.# 19.34			
WTR YR 1977 TOTAL	1028454			MEAN 2818	MAX 23100	MIN 629	MEAN# 2828	CFSM# 1.39	IN.# 18.91			

Adjusted for change in contents in Raystown Lake.

01563500 JUNIATA RIVER AT MAPLETON DEPOT, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources

WATER QUALITY DATA, DECEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)
DEC 07...	1430	9813	2790	200	7.1	3.0	30	9.0	80
MAR 01...	1025	9813	3230	170	6.7	4.0	4	13.0	72
AUG 17...	1415	9813	1020	250	7.5	24.0	40	--	96

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
DEC 07...	0	0	23	5.5	74	32	15	138	46
MAR 01...	0	0	19	6.0	46	15	9.0	96	10
AUG 17...	--	0	36	1.5	96	26	14	162	62

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ALPHA	TOTAL BETA
DEC 07...	--	1.5	.04	.04	.20	1620	--	--
MAR 01...	106	1.4	.03	.06	.07	240	--	--
AUG 17...	--	1.5	.03	.07	.15	1490	<1.0	2.0

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 17...	1415	9813	1730	<3	<10	<10	<50	60	50	20

JUNIATA RIVER BASIN

01564500 AUGHWICK CREEK NEAR THREE SPRINGS, PA

LOCATION.--Lat 40°12'45", long 77°55'32", Huntingdon County, Hydrologic Unit 02050304, on right bank 10 ft (3 m) downstream from bridge on State Highway 994, 300 ft (91 m) upstream from East Broad Top Railroad Bridge, 350 ft (107 m) upstream from Three Springs Creek, and 3.5 mi (5.1 km) northeast of village of Three Springs. Records include flow of Three Springs Creek.

DRAINAGE AREA.--205 mi² (531 km²), includes that at Three Springs Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 618.65 ft (188.565 m) above mean sea level, unadjusted.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--39 years, 244 ft³/s (6.91 m³/s), 16.16 in/yr (411 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) June 22, 1972, gage height, 19.20 ft (5.852 m), from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of contracted-opening measurement at gage height, 18.04 ft (5.499 m); minimum, 0.8 ft³/s (0.023 m³/s) Sept. 2, 3, 4, 11, 12, 13, 1966, gage height, 1.74 ft (0.530 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 19.3 ft (5.88 m) June 1, 1889, discharge not determined; previously published figure is believed to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,100 ft³/s (59.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1630	*8,770 248	*13.06 3.981	Mar. 13	1730	2,380 67.4	8.16 2.487
Dec. 7	1630	2,150 60.9	7.89 2.405	Mar. 22	2130	3,060 86.7	8.88 2.707
Mar. 4	2200	3,370 95.4	9.19 2.801	Apr. 2	2300	2,730 77.3	8.54 2.603

Minimum discharge, 7.0 ft³/s (0.198 m³/s) Sept. 14, 15, 16, gage height, 2.15 ft (0.655 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	717	658	49	62	37	270	435	146	36	15	19	22
2	780	474	45	59	37	221	1000	139	31	14	16	16
3	381	411	44	57	37	190	1760	142	28	12	15	12
4	257	345	43	55	42	1220	970	133	27	11	14	11
5	181	294	42	54	38	1740	1260	151	25	11	13	9.6
6	135	250	42	53	37	775	980	165	58	10	16	12
7	119	219	870	52	36	516	694	179	59	15	15	13
8	366	201	780	50	36	425	670	163	34	26	14	9.6
9	5640	181	439	49	35	360	498	148	74	24	12	9.0
10	3050	173	333	48	35	310	425	139	120	19	13	8.8
11	830	163	275	47	60	270	375	130	70	25	31	8.4
12	491	150	243	46	224	245	324	119	41	59	38	7.6
13	360	137	224	45	384	1300	283	109	37	74	21	7.4
14	288	127	153	44	378	1260	257	103	34	37	17	7.2
15	236	122	201	43	270	744	231	93	32	25	18	7.0
16	205	115	203	43	192	550	208	83	30	23	18	7.6
17	175	103	169	42	144	421	192	76	28	29	20	9.2
18	157	104	153	42	127	594	177	72	38	18	22	9.2
19	139	100	139	41	119	840	167	72	42	16	27	9.6
20	203	95	139	41	120	638	181	64	32	47	19	47
21	780	90	132	41	120	606	159	57	25	137	14	49
22	453	86	88	40	111	1430	144	54	21	70	13	21
23	322	80	115	40	165	1780	150	52	20	44	14	15
24	288	72	100	39	606	935	219	70	18	27	14	13
25	372	74	79	39	1100	626	226	54	20	23	14	17
26	870	72	100	39	602	488	183	48	20	38	12	84
27	666	74	104	39	446	390	165	42	18	42	11	74
28	474	75	97	39	339	519	157	37	18	24	10	62
29	369	83	94	44	---	658	190	35	19	18	9.4	54
30	308	81	70	39	---	512	167	32	16	18	8.8	33
31	721	---	67	37	---	586	---	33	---	18	9.2	---
TOTAL	20333	5209	5632	1409	5977	21419	12847	2940	1071	969	507.4	565.2
MEAN	656	174	182	45.5	210	691	428	94.8	35.7	31.3	16.4	22.2
MAX	5640	658	870	62	1100	1780	1760	179	120	137	38	84
MIN	119	72	42	37	35	190	144	32	16	10	8.8	7.0
CFSM	3.20	.85	.89	.22	1.02	3.37	2.09	.46	.17	.15	.08	.11
IN.	3.69	.95	1.02	.26	1.07	3.89	2.33	.53	.19	.18	.09	.12
CAL YR 1976	TOTAL	90404.0	MEAN 247	MAX 5640	MIN 10	CFSM 1.21	IN 16.40					
WTR YR 1977	TOTAL	78878.6	MEAN 216	MAX 5640	MIN 7.0	CFSM 1.05	IN 14.31					

JUNIATA RIVER BASIN

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01565510 KISHACOQUILLAS CREEK AT LEWISTOWN, PA

LOCATION.--Lat 40°36'22", long 77°33'55", Mifflin County, Hydrologic Unit 02050304, at bridge on U.S. Route 522 in Lewistown and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
NOV												
17...	0935	9813	340	8.2	5.0	2	--	166	0	0	43	14
30...	1225	9813	300	9.0	2.0	2	14.1	145	--	0	39	11
FEB												
23...	1015	9813	310	8.3	6.0	1	--	138	0	0	42	8.0
MAR												
31...	1300	9813	--	9.0	12.0	6	10.3	94	0	0	29	5.0
JUN												
07...	1200	9813	150	7.3	17.0	3	10.0	140	--	0	44	7.0
JUL												
11...	1205	9813	350	7.3	16.0	--	--	130	--	--	--	--
AUG												
18...	1045	9813	255	7.3	18.0	30	8.7	120	--	0	33	9.0
SEP												
08...	1120	9813	400	7.3	19.0	4	7.5	162	0	0	46	12

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV											
17...	124	28	8.0	186	4	190	3.9	.04	.04	.08	100
30...	122	20	9.0	232	--	--	4.1	.02	.10	.12	130
FEB											
23...	122	24	10	224	6	230	2.8	.04	.12	.14	150
MAR											
31...	90	15	8.0	146	10	156	2.3	.03	.08	.07	370
JUN											
07...	128	14	10	202	8	210	2.5	.06	.19	.26	230
JUL											
11...	234	30	10	--	--	--	2.8	.03	.08	.15	350
AUG											
18...	104	8.0	9.0	224	40	264	2.1	.03	.08	.29	740
SEP											
08...	142	28	9.0	234	20	--	2.6	.02	.05	.20	290

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG										
18...	1045	9813	1200	<10	<10	<10	<50	70	<10	20

JUNIATA RIVER BASIN

01565700 LITTLE LOST CREEK AT OAKLAND MILLS, PA

LOCATION.--Lat 40°36'19", long 77°18'42", Juniata County, Hydrologic Unit 02050304, on right bank at bridge on Legislative Route 34007, 0.8 mi (1.3 km) south of Oakland Mills, and 1 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--6.52 mi² (16.89 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximum, water years 1960-63. August 1963 to current year. Prior to August 1964, published as "near Oakland Mills".

REVISED RECORDS.--WSP 1903: 1960(M). WDR PA-70: 1967-69(P). WDR PA-76-2: 1972(M), 1975(M).

GAGE.--Water-stage recorder. Datum at gage is 551.17 ft (167.997 m) above mean sea level. June 8, 1960 to Aug. 7, 1963, crest-stage gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--14 years, 6.99 ft³/s (0.198 m³/s), 14.55 in/yr (370 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) Oct. 9, 1976, gage height, 8.83 ft (2.691 m), from rating curve extended above 740 ft³/s (21.0 m³/s); minimum, 0.2 ft³/s (0.006 m³/s) Nov. 2, 3, 4, 5, 6, 1963, Oct. 4, 1964, Aug. 24, Sept. 2, 1965; minimum gage height, 4.14 ft (1.262 m) July 5, 6, 7, 9, 10, 11, 12, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1215	*1,700 48.1	*8.83 2.691	Apr. 2	1515	161 4.56	6.44 1.963
Oct. 31	0730	130 3.68	6.19 1.887	Apr. 24	1645	146 4.13	6.32 1.926
Mar. 4	1530	209 5.92	6.80 2.073	June 26	0115	105 2.97	5.97 1.820
Mar. 13	0830	125 3.54	6.15 1.875	July 8	0315	241 6.83	7.02 2.140
Mar. 22	1400	166 4.70	6.48 1.975	July 17	2015	128 3.62	6.17 1.881

Minimum discharge, 0.94 ft³/s (0.027 m³/s) Sept. 11, 12, 13, 14, 15, 16, gage height, 4.33 ft (1.320 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	22	5.2	2.3	1.6	11	12	4.6	1.8	4.5	2.7	1.3
2	12	17	6.4	2.3	1.6	8.9	59	4.3	1.7	3.9	2.5	1.1
3	11	15	5.3	2.2	1.6	8.2	63	4.1	1.7	3.5	2.3	1.0
4	7.8	14	6.5	2.2	1.6	89	58	4.1	1.6	3.3	1.9	1.0
5	6.4	12	5.0	2.1	1.5	45	31	4.1	1.7	3.1	1.9	1.0
6	5.7	11	5.4	2.0	1.5	24	23	4.1	2.6	3.0	1.9	1.0
7	5.7	9.7	7.6	2.0	1.5	19	19	3.6	2.9	61	1.9	1.0
8	38	8.9	13	2.0	1.5	15	15	3.2	2.5	59	1.9	1.0
9	388	8.2	8.8	1.9	1.4	13	13	3.2	3.0	11	1.8	1.0
10	73	8.2	6.4	2.2	1.4	12	11	3.1	4.0	6.0	1.8	1.0
11	38	7.4	6.7	2.2	2.5	11	10	2.9	3.3	5.1	1.9	1.0
12	30	6.7	6.7	1.9	5.6	11	9.0	2.7	3.0	6.4	1.6	1.0
13	23	6.4	5.1	1.8	5.2	49	8.4	2.7	2.7	8.9	1.7	1.0
14	19	6.0	4.3	2.2	5.0	27	7.8	2.6	2.5	3.9	1.7	1.0
15	16	5.7	4.3	2.1	4.8	20	7.4	2.4	2.5	3.4	1.6	.94
16	14	5.4	4.6	2.0	4.5	16	6.7	2.4	2.4	3.6	1.5	1.2
17	12	5.1	4.6	2.0	4.2	14	6.4	2.3	2.9	16	2.2	1.2
18	11	5.1	4.1	1.9	4.0	22	6.0	2.3	2.0	9.7	1.7	1.0
19	10	4.9	3.9	1.9	3.8	26	6.0	2.3	2.0	4.6	1.5	1.2
20	50	4.6	4.1	1.9	4.9	20	5.4	2.3	2.0	7.1	1.4	3.0
21	34	4.3	4.4	1.8	5.3	21	5.4	2.2	2.0	5.8	1.4	2.0
22	18	4.3	3.8	1.8	4.3	65	4.9	1.9	2.0	4.9	1.4	1.4
23	14	3.9	4.3	1.8	5.3	40	4.9	1.7	2.0	4.5	1.4	1.2
24	16	3.9	3.8	1.7	6.4	26	23	1.2	2.0	4.0	1.4	1.1
25	21	3.9	5.0	1.7	52	20	15	1.2	8.5	3.5	1.4	6.4
26	44	3.9	3.9	1.7	23	17	9.3	1.8	14	5.4	1.5	18
27	13	3.9	3.1	1.7	14	16	7.4	1.2	2.7	4.4	1.4	4.6
28	11	3.9	2.7	1.7	14	19	6.7	1.1	20	3.7	1.5	2.7
29	10	4.6	2.6	1.6	---	16	5.7	1.7	8.0	3.2	1.6	2.2
30	9.3	5.4	2.5	1.6	---	15	5.1	1.7	5.7	2.9	1.5	1.9
31	38	---	2.4	1.6	---	14	---	1.7	---	3.2	1.5	---
TOTAL	1008.9	225.3	156.5	59.8	184.0	730.1	464.5	80.7	115.7	272.5	53.4	64.44
MEAN	32.5	7.51	5.05	1.93	6.57	23.6	15.5	2.60	3.86	8.79	1.72	2.15
MAX	388	22	13	2.3	52	89	63	4.6	20	61	2.7	18
MIN	5.7	3.9	2.4	1.6	1.4	8.2	4.9	1.1	1.6	2.9	1.4	.94
CFSM	4.99	1.15	.78	.30	1.01	3.62	2.38	.40	.59	1.35	.26	.33
IN.	5.76	1.29	.89	.34	1.05	4.16	2.65	.46	.66	1.55	.30	.37
CAL YR 1976	TOTAL	3574.80	MEAN 9.77	MAX 388	MIN 1.7	CFSM 1.50	IN 20.39					
WTR YR 1977	TOTAL	3415.84	MEAN 9.36	MAX 388	MIN .94	CFSM 1.44	IN 19.49					

JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA

LOCATION.--Lat 40°28'42", long 77°07'46", Perry County, Hydrologic Unit 02050304, on right bank at downstream side of highway bridge at Newport, 1,000 ft (305 m) upstream from Little Buffalo Creek.

DRAINAGE AREA.--3,354 mi² (8,687 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1899 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1902(M). WSP 1302: 1915-17. WSP 1502: 1899-1908, 1914, 1924, 1936. WSP 1722: 1916.

GAGE.--Water-stage recorder. Datum of gage is 363.93 ft (110.926 m) above mean sea level. Prior to July 16, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Raystown Lake about 75 mi (120 km) upstream since October 1972 (see p. 226).

AVERAGE DISCHARGE.--78 years, 4,268 ft³/s (121 m³/s), 17.28 in/yr (439 mm/yr), adjusted for storage since October 1972.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft³/s (5,380 m³/s) Mar. 19, 1936, gage height, 34.24 ft (10.436 m), from floodmark in gage shelter, from rating curve extended above 100,000 ft³/s (2,830 m³/s); minimum, 195 ft³/s (5.52 m³/s) July 27, 1966, gage height, 2.81 ft (0.856 m); minimum daily, 207 ft³/s (5.86 m³/s) July 27, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 35.9 ft (10.94 m) June 1, 1889, from floodmarks, discharge, 209,000 ft³/s (5,920 m³/s), from rating curve extended above 100,000 ft³/s (2,830 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,400 ft³/s (1,310 m³/s) Oct. 10, gage height, 15.97 ft (4.868 m); minimum, 630 ft³/s (17.8 m³/s) Sept. 13, gage height, 3.41 ft (1.039 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2250	11500	2170	1800	1200	6660	10300	3250	1280	1080	1260	813
2	3350	10500	2080	1800	1200	5560	14000	3030	1290	975	1080	751
3	11200	9590	1950	1700	1200	5360	23800	2890	1260	892	991	720
4	12000	8360	1930	1600	1200	6610	29200	2820	1200	829	958	720
5	10800	7340	2410	1600	1200	21800	24100	2820	1150	845	892	720
6	9990	6420	3420	1500	1200	27000	23500	2890	1090	876	908	720
7	7540	5610	4130	1500	1200	19600	18400	3010	1280	1240	941	720
8	6560	4830	7420	1400	1200	14900	15100	2960	1330	2230	1010	720
9	21700	4230	7160	1400	1200	11000	12400	2770	1450	1720	1240	720
10	42600	4020	5500	1400	1200	8300	9920	2750	1350	1480	1370	720
11	27000	3900	4850	1400	1200	7010	8150	3390	1390	1260	1200	705
12	20200	3820	4580	1400	1200	6310	7330	3320	1480	1200	1110	645
13	17200	3620	4450	1300	1300	7660	6680	3100	1260	1310	1160	645
14	15400	3440	4130	1300	1600	16000	6180	2410	1130	1560	1150	660
15	10200	3350	3820	1300	1900	18900	5500	2890	1060	1410	1030	645
16	5550	3270	3640	1300	2000	12700	5190	3060	1030	1180	975	720
17	4470	3180	3420	1300	2000	9490	4940	2870	1030	1110	1030	812
18	4100	3050	3270	1300	2100	8600	4720	2030	1060	2340	1290	860
19	3920	3030	2840	1300	2000	11300	4530	1970	1080	1800	1470	957
20	4940	2980	2680	1300	2000	16300	4420	1930	1090	2290	1480	1090
21	8450	2890	2630	1300	1900	14300	4420	1910	1410	3420	1160	1220
22	11700	2800	2500	1300	1800	14000	4130	1760	1080	9090	1030	1400
23	10500	2380	2410	1300	1900	20400	3470	1720	975	8240	1040	1220
24	9370	2290	2180	1300	3000	19200	3640	1680	925	3200	876	940
25	9560	2180	2100	1300	18300	13000	5640	1600	925	2680	876	1290
26	13000	2120	2100	1200	15300	10700	5920	1540	1800	1860	845	2570
27	15100	2120	2000	1200	10100	9370	4970	1500	1470	1990	829	4850
28	12400	2120	2000	1200	8060	8130	4150	1430	1430	2010	829	4820
29	11000	2180	1900	1200	---	8420	3920	1370	2120	1780	845	2660
30	8880	2230	1900	1200	---	9170	3770	1310	1350	1680	876	1970
31	9030	---	1800	1200	---	8620	---	1280	---	1540	845	---
TOTAL	359960	129350	99370	42600	89660	376370	282390	73260	37775	65117	32596	38003
MEAN	11610	4312	3205	1374	3202	12140	9413	2363	1259	2101	1051	1267
MAX	42600	11500	7420	1800	18300	27000	29200	3390	2120	9090	1480	4850
MIN	2250	2120	1800	1200	1200	5360	3470	1280	925	829	829	645
MEAN#	11330	4148	3311	1201	4025	12434	9135	2342	1149	2318	955	1130
CFSM#	3.38	1.24	.99	.36	1.20	3.71	2.72	.70	.34	.69	.28	.34
IN.#	3.90	1.38	1.14	.42	1.25	4.28	3.04	.81	.38	.80	.32	.38
CAL YR 1976 TOTAL	1731150			4730	MAX 42600	MIN 1190	MEAN# 4777	CFSM# 1.42	IN.# 19.39			
WTR YR 1977 TOTAL	1626451			4456	MAX 42600	MIN 645	MEAN# 4466	CFSM# 1.33	IN.# 18.08			

Adjusted for change in contents in Raystown Lake.

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to current year.

WATER TEMPERATURES: October 1944 to September 1953, April 1958 to September 1962, October 1964 to current year.

SUSPENDED SEDIMENT DISCHARGE: January 1951 to current year.

REMARKS.--Unpublished records of water temperatures and specific conductance of sediment samples available in the district office at Harrisburg. Some flow regulation at low flow powerplants and mills above station.

COOPERATION.--Nine water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 558 micromhos Oct. 27, 1969; minimum daily, 119 micromhos June 22, 1972.

WATER TEMPERATURES: Maximum daily, 31.5°C Aug. 27, 1951; minimum daily, freezing point on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 1,130 mg/L Mar. 2, 1954; minimum daily 0 mg/L on many days.

SEDIMENT LOADS: Maximum daily, 365,000 tons (331,000 tonnes) June 23, 1972; minimum daily, 0 ton (0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 27.5°C Jul. 21; minimum daily, freezing point on many days during November through February.

SEDIMENT CONCENTRATIONS: Maximum daily, 359 mg/L Mar. 5; minimum daily, 1 mg/L on many days.

SEDIMENT LOADS: Maximum daily, 31,600 tons (28,700 tonnes) Oct. 10; minimum daily, 3.2 tons (2.9 tonnes) Feb. 8-12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT									
18...	1500	4160	230	7.7	11.0	--	--	--	--
NOV									
08...	1330	4860	215	7.8	5.0	75	0	62	1.9
DEC									
09...	1030	6540	160	6.9	5.0	60	0	49	12
MAR									
17...	1000	9640	160	7.7	7.5	44	0	36	1.4
JUN									
03...	0955	1270	244	7.8	21.0	97	0	80	2.5
AUG									
05...	1145	957	260	9.0	27.0	--	--	--	--

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
OCT									
18...	--	--	--	--	1.2	--	.01	--	1.2
NOV									
08...	25	6.4	123	115	--	1.1	--	.01	--
DEC									
09...	20	8.5	45	--	1.1	--	.01	--	1.1
MAR									
17...	16	6.3	93	--	.99	--	.01	--	1.0
JUN									
03...	27	10	146	--	88	--	.02	--	.90
AUG									
05...	--	--	--	--	.05	--	.01	--	.06

JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)
OCT 18...	--	.02	.23	.25	1.5	.05	.02	--
NOV 08...	1.1	--	--	--	--	--	--	.01
DEC 09...	--	.04	.46	.50	1.6	.09	.03	--
MAR 17...	--	.02	.32	.34	1.3	.03	.02	--
JUN 03...	--	.09	.46	.55	1.5	.06	.04	--
AUG 05...	--	.02	.46	.48	.54	.04	.01	--

DATE	TIME	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV 08...	1330	90	28	25	6.6	3.4	1.6	.1

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 08...	5.2	40	10	0	0	<10	0	10	200

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 08...	70	5	10	10	<.5	0	0	20

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT 19...	1530	9813	3950	240	7.7	10.0	3	11.1	--
NOV 12...	1155	9813	3840	240	--	1.0	2	14.6	--
MAR 14...	1400	9813	16200	160	7.3	10.0	30	10.2	--
APR 18...	1200	9813	4720	200	8.7	16.0	2	11.7	--
MAY 19...	0900	9813	1950	200	8.2	2.1	1	10.0	--
JUN 07...	1425	9813	1270	120	6.8	18.0	2	9.1	--
JUL 12...	1345	9813	1200	285	8.1	27.0	25	8.3	--
AUG 02...	0915	9813	1060	330	9.0	24.0	4	9.6	--
SEP 06...	1030	9813	705	325	8.6	25.5	6	8.5	8

DATE	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RTNE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT 19...	80	--	0	29	1.5	78	26	.00	8.0
NOV 12...	108	--	0	18	9.5	86	25	.00	10
MAR 14...	60	0	0	19	3.0	50	15	.00	8.0
APR 18...	76	--	0	23	4.5	66	18	.00	9.0
MAY 19...	82	--	0	28	4.5	78	18	.00	13
JUN 07...	106	--	0	29	8.0	90	20	.00	17
JUL 12...	100	--	0	30	6.0	94	26	.00	15
AUG 02...	88	0	0	25	6.0	76	20	<.10	9.0
SEP 06...	30	--	--	28	7.0	88	30	.00	14

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	PHENOLS (UG/L)
OCT 19...	160	<5	--	1.5	.02	.04	.10	50	--
NOV 12...	144	--	--	1.7	.02	--	.06	110	<10
MAR 14...	120	48	168	5.9	.05	3.2	.13	2090	<10
APR 18...	364	0	364	1.2	.03	.12	.06	110	<10
MAY 19...	140	4	144	1.0	.03	.08	.12	90	--
JUN 07...	174	6	180	1.3	.03	.12	.20	210	<10
JUL 12...	1320	34	166	1.1	.03	.03	.13	1210	--
AUG 02...	164	--	--	.80	--	.04	.08	320	<10
SEP 06...	196	--	--	.82	.02	.09	.14	350	<10

01567000. JUNIATA RIVER AT NEWPORT, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 02...	0915	9813	240	<3	20	10	<50	40	<10	20

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE- SED- MENT (MG/L)	SUS- PENDE- SED- MENT (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
MAR 05...	1350	23500	5.5	330	20900	39	54
APR 03...	2300	32200	9.0	205	17800	46	62

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
MAR 05...	68	79	93	95	98	99	100
APR 03...	76	85	92	93	98	99	100

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	164	---		---	153	177	187			247	277
2	276	168	239		---	157	163	192			235	283
3	202	171	---		---	162	148	196			237	284
4	179	176	---		---	165	137	202			245	287
5	178	176	238		---	143	149	206			250	280
6	181	181	244		---	135	155	211			263	278
7	184	187	238		---	144	156	207			253	276
8	187	187	---		---	149	160	201			258	289
9	189	196	199		---	155	166	208			257	292
10	140	200	194		---	158	168	213			276	295
11	137	203	170		---	162	173	211			275	293
12	167	205	178		---	165	177	195			295	287
13	177	205	---		---	168	182	195			260	306
14	185	214	187		---	144	179	192			254	303
15	188	215	193		---	145	184	197			251	291
16	198	210	196		---	145	187	206			---	292
17	209	209	201		---	151	193	199			---	302
18	218	215	200		---	156	192	199			---	299
19	220	221	202		---	160	199	205			270	283
20	218	216	201		---	157	198	214			257	280
21	199	209	204		---	151	204	230			257	282
22	180	216	---		---	155	201	229			274	281
23	173	224	---		---	145	204	233			261	285
24	169	225	---		---	143	205	235			268	279
25	179	231	---		---	152	207	238			283	290
26	180	233	---		169	162	199	244			282	262
27	172	234	---		137	166	186	241			279	246
28	166	230	---		143	174	181	246			260	251
29	169	228	---		---	182	185	---			261	217
30	171	---	---		---	181	183	---			260	263
31	178	---	---		---	172	---	---			270	---
MEAN	189	205	205		150	157	180	212			262	281

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.0	0.0	0.0	0.0	4.0	11.0	13.0	19.5	25.0	25.0	26.0
2	15.0	6.5	1.0	0.0	0.0	2.0	9.0	15.5	21.0	24.0	23.5	26.0
3	14.5	7.0	0.0	0.0	0.0	2.0	8.0	16.0	20.0	24.0	24.5	26.0
4	14.5	7.0	0.0	0.0	0.0	4.0	9.0	16.0	19.5	25.0	25.5	24.0
5	15.0	6.5	1.5	0.0	0.0	4.0	8.0	15.0	21.0	25.0	26.0	24.5
6	15.0	7.0	1.0	0.0	0.0	4.5	6.5	16.5	20.5	26.5	26.0	25.0
7	15.5	6.0	1.5	0.0	0.0	4.5	5.5	18.0	17.0	26.5	26.0	23.0
8	16.0	5.5	0.0	0.0	0.0	4.0	6.0	16.5	15.0	26.0	25.5	22.5
9	16.0	4.5	0.5	0.0	0.0	4.5	6.0	14.0	16.5	26.0	26.0	22.0
10	13.0	4.0	0.0	0.0	0.0	5.5	6.5	11.5	16.5	25.5	26.0	22.5
11	11.5	4.5	2.0	0.0	0.0	6.5	8.0	13.0	16.0	25.5	26.0	21.0
12	10.5	4.0	2.5	0.0	0.0	9.0	11.5	13.5	18.5	24.0	26.5	18.5
13	11.0	4.0	0.0	0.0	0.0	10.0	13.0	16.0	19.5	26.0	25.0	20.0
14	12.0	4.0	1.0	0.0	0.0	9.5	15.0	16.5	22.0	25.5	25.0	21.0
15	12.0	3.0	2.0	0.0	0.0	8.0	13.0	16.0	20.0	26.0	25.0	18.0
16	12.0	3.0	1.5	0.0	0.0	7.5	13.0	17.5	21.0	26.5	---	19.0
17	11.5	3.0	2.0	0.0	0.0	7.0	13.5	18.0	23.5	27.0	---	19.0
18	10.0	3.0	2.5	0.0	0.0	6.5	13.5	19.5	23.0	27.0	---	20.0
19	9.0	3.0	1.5	0.0	0.0	5.0	14.5	21.0	24.5	26.5	25.0	22.0
20	9.5	4.5	2.0	0.0	0.0	5.0	14.5	21.0	24.0	26.0	21.0	22.5
21	10.0	4.0	5.0	0.0	0.0	4.5	14.5	23.0	23.0	27.5	20.5	20.5
22	8.5	3.5	0.0	0.0	0.0	5.5	16.5	22.5	22.5	26.5	22.0	19.5
23	8.0	2.5	0.0	0.0	0.0	4.5	18.0	22.5	22.0	20.5	21.5	19.5
24	9.0	1.5	0.0	0.0	0.0	4.5	18.5	24.0	22.0	21.5	22.5	19.5
25	9.5	2.0	0.0	0.0	0.0	4.0	15.5	23.5	23.5	24.0	19.5	18.0
26	9.5	2.0	0.0	0.0	3.0	4.5	14.5	22.5	22.0	22.5	20.0	17.0
27	8.0	5.0	0.0	0.0	4.0	6.0	13.0	22.5	22.5	21.0	21.5	16.5
28	7.0	5.5	0.0	0.0	4.0	7.0	13.5	22.0	24.0	21.0	23.5	16.5
29	6.0	4.5	0.0	0.0	---	8.0	11.0	22.5	24.5	22.0	25.0	15.5
30	6.5	0.0	0.0	0.0	---	9.5	12.0	21.0	24.0	22.5	25.5	16.0
31	8.0	---	0.0	0.0	---	12.0	---	20.5	---	23.0	25.5	---
MEAN	11.0	4.5	1.0	0.0	0.5	6.0	11.5	19.5	21.0	24.5	24.0	20.5

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	2250	12	73	11500	28	869	2170	4	23
2	3350	21	190	10500	17	480	2080	4	22
3	11200	142	4310	9590	11	285	1950	3	16
4	12000	60	1940	8360	8	181	1930	3	16
5	10800	34	991	7340	7	139	2410	3	20
6	9990	27	728	6420	6	104	3420	3	28
7	7540	28	570	5610	4	61	4130	10	112
8	6560	28	496	4830	3	39	7420	50	1000
9	21700	220	16800	4230	2	23	7160	42	812
10	42600	272	31600	4020	2	22	5500	21	312
11	27000	94	6850	3900	3	32	4850	12	157
12	20200	33	1800	3820	2	21	4580	7	87
13	17200	24	1110	3620	3	29	4450	5	60
14	15400	23	956	3440	2	19	4130	4	45
15	10200	23	633	3350	4	36	3820	2	21
16	5550	15	225	3270	3	26	3640	2	20
17	4470	10	121	3180	2	17	3420	2	18
18	4100	10	111	3050	2	16	3270	2	18
19	3920	9	95	3030	2	16	2840	1	7.7
20	4940	11	147	2980	4	32	2680	1	7.2
21	8450	34	776	2890	7	55	2630	2	14
22	11700	44	1390	2800	9	68	2500	2	13
23	10500	21	595	2380	4	26	2410	3	20
24	9370	13	329	2290	2	12	2180	2	12
25	9560	10	258	2180	2	12	2100	1	5.7
26	13000	25	877	2120	2	11	2100	1	5.7
27	15100	35	1430	2120	2	11	2000	2	11
28	12400	21	703	2120	3	17	2000	2	11
29	11000	13	386	2180	3	18	1900	5	26
30	8880	10	240	2230	3	18	1900	15	77
31	9030	15	366	---	---	---	1800	10	49
TOTAL	359960	---	77096	129350	---	2695	99370	---	3046.3

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	1800	6	29	1200	3	9.7	6660	26	468
2	1800	4	19	1200	3	9.7	5560	18	270
3	1700	4	18	1200	3	9.7	5360	9	130
4	1600	3	13	1200	2	6.5	6610	38	678
5	1600	3	13	1200	2	6.5	21800	359	21700
6	1500	3	12	1200	2	6.5	27000	184	14000
7	1500	2	8.1	1200	2	6.5	19600	55	2910
8	1400	2	7.6	1200	1	3.2	14900	28	1130
9	1400	2	7.6	1200	1	3.2	11000	22	653
10	1400	2	7.6	1200	1	3.2	8300	18	403
11	1400	3	11	1200	1	3.2	7010	16	303
12	1400	3	11	1200	1	3.2	6310	12	204
13	1300	2	7.0	1300	3	11	7660	34	776
14	1300	1	3.5	1600	5	22	16000	101	4180
15	1300	1	3.5	1900	7	36	18900	76	3960
16	1300	1	3.5	2000	5	27	12700	30	1030
17	1300	2	7.0	2000	4	22	9490	23	589
18	1300	2	7.0	2100	4	23	8600	14	325
19	1300	2	7.0	2000	5	27	11300	24	732
20	1300	1	3.5	2000	5	27	16300	40	1760
21	1300	1	3.5	1900	5	26	14300	17	656
22	1300	1	3.5	1800	4	19	14000	26	983
23	1300	1	3.5	1900	4	21	20400	80	4290
24	1300	2	7.0	3000	4	32	19200	52	2700
25	1300	2	7.0	18300	85	4200	13000	19	667
26	1200	3	9.7	15300	200	8260	10700	11	318
27	1200	3	9.7	10100	110	3000	9370	7	177
28	1200	3	9.7	8060	45	979	8130	12	263
29	1200	2	6.5	---	---	---	8420	8	182
30	1200	2	6.5	---	---	---	9170	14	347
31	1200	3	9.7	---	---	---	8620	8	186
TOTAL	42600	---	275.2	89660	---	16803.1	376370	---	66970

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	10300	15	417	3250	1	8.8	1280	8	28
2	14000	24	907	3030	1	8.2	1290	10	35
3	23800	140	9000	2890	1	7.8	1260	13	44
4	29200	148	11900	2820	1	7.6	1200	14	45
5	24100	38	2470	2820	2	15	1150	15	47
6	23500	23	1460	2890	4	31	1090	18	53
7	18400	7	348	3010	1	8.1	1280	19	66
8	15100	2	82	2960	1	8.0	1330	18	65
9	12400	2	67	2770	2	15	1450	24	94
10	9920	1	27	2750	2	15	1350	18	66
11	8150	1	22	3390	6	55	1390	16	60
12	7330	1	20	3320	14	125	1480	19	76
13	6680	1	18	3100	14	117	1260	17	58
14	6180	1	17	2410	8	52	1130	14	43
15	5500	1	15	2890	8	62	1060	14	40
16	5190	1	14	3060	10	83	1030	14	39
17	4940	1	13	2870	9	70	1030	12	33
18	4720	1	13	2030	8	44	1060	12	34
19	4530	1	12	1970	4	21	1080	10	29
20	4420	1	12	1930	5	26	1090	8	24
21	4420	1	12	1910	5	26	1410	12	46
22	4130	1	11	1760	7	33	1080	9	26
23	3470	1	9.4	1720	7	33	975	13	34
24	3640	3	29	1680	7	32	925	15	37
25	5640	15	228	1600	6	26	925	20	50
26	5920	26	416	1540	8	33	1800	39	190
27	4970	4	54	1500	8	32	1470	29	115
28	4150	1	11	1430	9	35	1430	35	135
29	3920	1	11	1370	8	30	2120	40	229
30	3770	1	10	1310	9	32	1350	70	255
31	---	---	---	1280	8	28	---	---	---
TOTAL	282390	---	27625.4	73260	---	1119.5	37775	---	2096

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	1080	42	122	1260	14	48	813	11	24
2	975	42	111	1080	11	32	751	27	55
3	892	23	55	991	8	21	720	27	52
4	829	20	45	958	9	23	720	16	31
5	845	22	50	892	7	17	720	10	19
6	876	27	64	908	8	20	720	13	25
7	1240	52	174	941	10	25	720	11	21
8	2230	75	452	1010	9	25	720	14	27
9	1720	88	409	1240	11	37	720	14	27
10	1480	46	184	1370	13	48	720	11	21
11	1260	46	156	1200	12	39	705	11	21
12	1200	39	126	1110	11	33	645	12	21
13	1310	30	106	1160	10	31	645	12	21
14	1560	30	126	1150	11	34	660	11	20
15	1410	27	103	1030	13	36	645	12	21
16	1180	36	115	975	15	39	720	10	19
17	1110	40	120	1030	16	44	812	8	18
18	2340	55	347	1290	20	70	860	12	28
19	1800	83	403	1470	18	71	957	18	47
20	2290	110	680	1480	10	40	1090	21	62
21	3420	125	1150	1160	6	19	1220	22	72
22	9090	175	4300	1030	9	25	1400	22	83
23	8240	125	2780	1040	8	22	1220	18	59
24	3200	62	536	876	7	17	940	13	33
25	2680	48	347	876	7	17	1290	25	87
26	1860	44	221	845	8	18	2570	45	312
27	1990	43	231	829	6	13	4850	100	1310
28	2010	36	195	829	6	13	4820	97	1260
29	1780	28	135	845	8	18	2660	55	395
30	1680	22	100	876	10	24	1970	29	154
31	1540	20	83	845	10	23	---	---	---
TOTAL	65117	---	14026	32596	---	942	38003	---	4345

Period	Mean daily concentration, in milligrams per liter, that was equal or exceeded for indicated percentage of time									
1977	1	2	5	10	20	30	40	50	60	70
1952-77	215	160	82	48	27	18	12	8	7	5
	190	148	86	46	26	19	13	10	7	4
	2	1	1	1	1	1	1	1	1	1
	95	90	80	70	60	50	40	30	20	10
	99	95	90	80	70	60	50	40	30	20
	1	2	5	10	20	30	40	50	60	70
	95	90	80	70	60	50	40	30	20	10
	99	95	90	80	70	60	50	40	30	20

Table 1.--Suspended sediment concentration-duration table, Juniata River at Newport

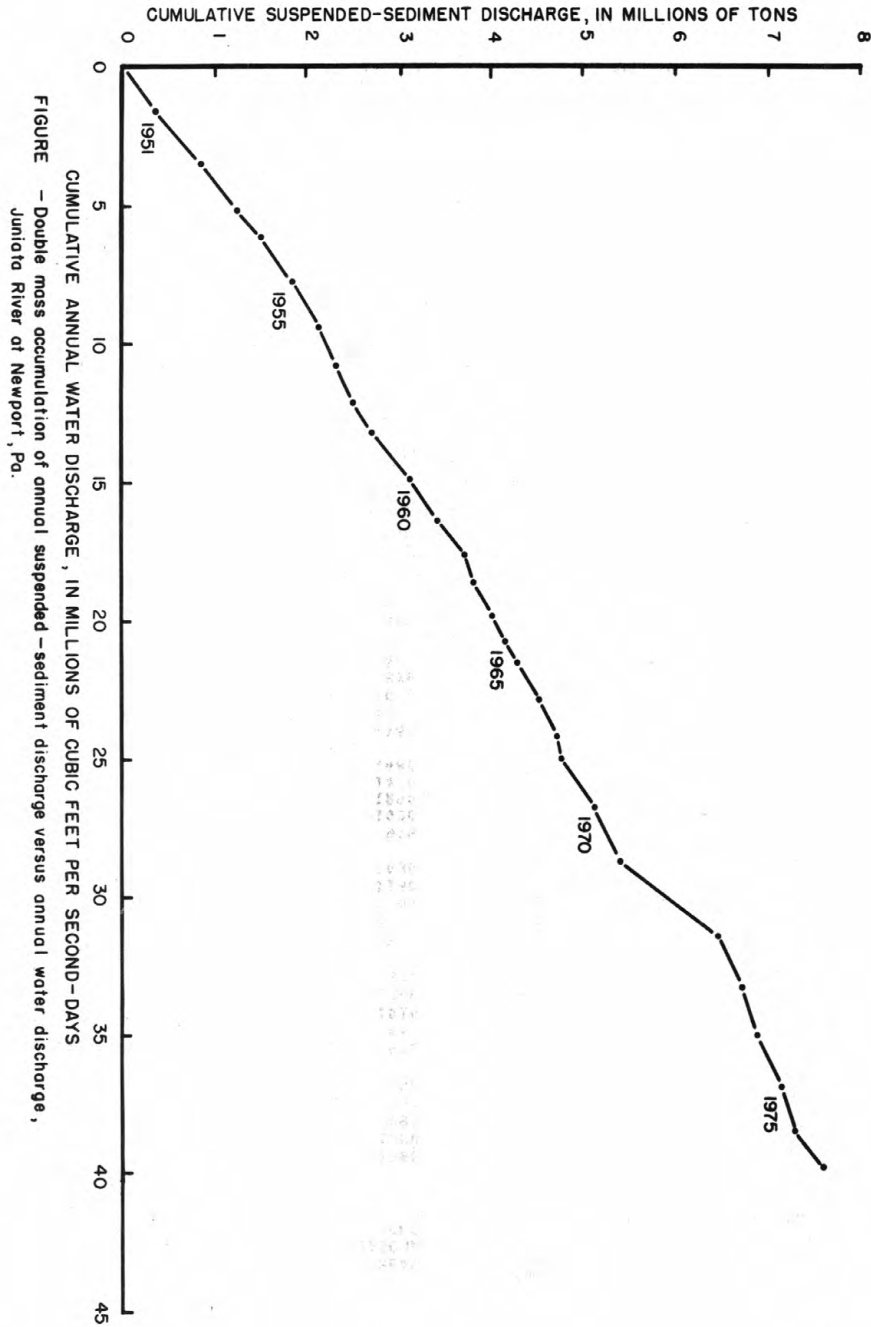


FIGURE 1--Double mass accumulation of annual suspended sediment discharge versus annual water discharge, Juniata River at Newport, Pa.

SHERMAN CREEK BASIN

01567500 BIXLER RUN NEAR LOYSVILLE, PA

LOCATION.--Lat 40°22'15", long 77°24'09", Perry County, Hydrologic Unit 02050305, on right bank 400 ft (122 m) upstream from bridge on State Highway 850 at Bixler, 2.3 mi (3.7 km) upstream from mouth, and 3.6 mi (5.8 km) west of Loysville.

DRAINAGE AREA.--15.0 mi² (38.8 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 601.22 ft (183.252 m) above mean sea level. Prior to May 14, 1954, nonrecording gage and crest-stage gage 400 ft (122 m) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--23 years, 17.6 ft³/s (0.498 m³/s), 15.93 in/yr (405 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,780 ft³/s (249 m³/s) Nov. 1, 1956, gage height, 10.39 ft (3.167 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.5 ft³/s (0.042 m³/s) Feb. 2, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1130	*1,700 48.1	*7.92 2.414	Mar. 13	0815	267 7.56	4.75 1.448
Dec. 7	0915	316 8.95	4.95 1.509	Mar. 22	1315	331 9.37	5.01 1.527
Feb. 24	1930	431 12.2	5.36 1.634	June 28	2345	291 8.24	4.85 1.478
Mar. 4	1630	358 10.1	5.11 1.558	July 17	2000	465 13.2	5.47 1.667

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Jan. 8, gage height, 2.20 ft (0.671 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	35	6.5	6.2	4.7	18	21	11	5.8	5.1	4.7	3.6
2	15	30	6.9	5.8	4.3	15	109	11	5.1	4.5	4.5	3.6
3	30	28	5.8	5.8	4.7	14	102	11	4.7	4.1	4.9	3.4
4	15	27	6.0	6.0	4.9	157	78	11	4.7	4.3	4.3	3.4
5	11	23	6.2	5.8	4.7	118	130	12	4.5	4.3	8.3	3.4
6	9.5	20	6.0	5.3	4.4	58	77	12	6.5	4.1	5.5	3.4
7	8.6	19	104	5.5	4.2	40	57	11	5.8	6.7	5.3	3.4
8	31	17	30	5.8	4.0	30	52	9.8	4.9	8.0	4.5	3.4
9	585	16	20	5.5	3.9	26	39	9.4	6.0	4.9	4.1	3.4
10	126	15	17	6.0	4.9	22	34	9.1	6.7	4.5	4.3	3.4
11	54	14	15	5.3	13	19	30	8.9	5.1	4.7	4.1	3.1
12	36	13	15	4.9	19	19	27	8.3	4.7	5.1	4.1	3.3
13	29	12	12	4.9	21	123	24	8.0	4.7	4.3	4.1	3.3
14	23	12	11	5.1	16	64	22	7.7	4.9	3.8	4.3	3.4
15	19	11	11	5.3	14	43	20	7.5	5.1	3.8	4.0	3.3
16	16	11	10	4.9	10	34	19	7.2	4.7	8.0	3.8	4.9
17	15	10	10	4.8	8.3	27	18	6.9	5.1	58	6.7	4.5
18	13	10	9.4	4.7	7.7	44	16	6.7	5.3	17	4.7	3.8
19	12	9.4	8.9	4.6	8.3	35	16	6.7	4.5	13	4.0	3.8
20	53	8.9	9.4	4.6	8.6	33	15	6.5	4.1	28	3.8	4.9
21	55	8.9	8.6	4.5	7.5	32	14	6.2	3.9	9.8	3.8	3.8
22	28	8.3	7.7	4.5	7.0	147	14	6.0	3.8	7.5	4.0	3.6
23	23	8.0	7.5	4.5	23	109	14	5.8	3.8	6.2	3.8	3.6
24	26	7.7	6.9	4.7	112	64	21	5.8	3.8	5.8	3.8	4.0
25	31	7.7	6.7	4.9	71	46	18	5.8	4.3	7.0	3.6	17
26	53	7.7	7.5	4.9	36	37	14	5.5	5.8	6.5	3.6	18
27	33	8.0	7.2	4.3	28	32	13	5.3	3.9	5.1	3.6	6.7
28	28	7.7	7.2	8.9	23	39	14	5.3	20	4.9	3.6	5.1
29	24	9.4	6.9	7.5	---	32	14	5.1	29	4.9	4.1	4.3
30	22	6.9	6.2	5.5	---	26	12	5.1	6.0	5.1	3.8	4.0
31	64	---	6.0	5.3	---	23	---	5.5	---	4.9	3.6	---
TOTAL	1507.1	421.6	398.5	166.3	478.1	1526	1054	243.1	187.2	263.9	135.3	142.8
MEAN	48.6	14.1	12.9	5.36	17.1	49.2	35.1	7.84	6.24	8.51	4.36	4.76
MAX	585	35	104	8.9	112	157	130	12	29	58	8.3	18
MIN	8.6	6.9	5.8	4.3	3.9	14	12	5.1	3.8	3.8	3.6	3.1
CFSM	3.24	.94	.86	.36	1.14	3.28	2.34	.52	.42	.57	.29	.32
IN.	3.74	1.05	.99	.41	1.19	3.78	2.61	.60	.46	.65	.34	.35
CAL YR 1976	TOTAL	6700.8	MEAN	18.3	MAX	585	MIN	3.0	CFSM	1.22	IN	16.62
WTR YR 1977	TOTAL	6523.9	MEAN	17.9	MAX	585	MIN	3.1	CFSM	1.19	IN	16.18

01568000 SHERMAN CREEK AT SHERMANS DALE, PA

LOCATION.--Lat 40°19'24", long 77°10'09", Perry County, Hydrologic Unit 02050305, on left bank on downstream side of bridge on State Highway 34 at Shermans Dale, and 1.2 mi (1.9 km) upstream from Fishing Run. Water-quality sampling site at bridge 10.2 mi (16.4 km) downstream.

DRAINAGE AREA.--200 mi² (518 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some months, published in WSP 1302. Prior to October 1962, published as "at Shermantale".

REVISED RECORDS.--WSP 1302: 1930(M), WSP 1502: 1933, 1934(M), 1935-36.

GAGE.--Water-stage recorder. Datum of gage is 422.63 ft (128.818 m) above mean sea level. Prior to Jan. 29, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good, except those for winter periods which are fair. Some regulation at low flow by mills above station.

AVERAGE DISCHARGE.--48 years, 282 ft³/s (7.99 m³/s), 1915 in/yr (486 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s (779 m³/s) June 23, 1972, gage height, 18.09 ft (5.514 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum, 3.9 ft³/s (0.11 m³/s) Dec. 1, 1930; minimum gage height, 0.62 ft or 0.189 m Sept. 11, 1966; minimum daily discharge, 10 ft³/s (0.28 m³/s) Dec. 24, 25, 1930, Sept. 30, 1941.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 22, 1927 reached a stage of 20.34 ft or 6.200 m, from floodmark, discharge, about 44,000 ft³/s (1,250 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1545	*15,500 439	*14.15 4.313	Mar. 13	1130	4,920 139	7.83 2.387
Feb. 25	0630	6,210 176	8.82 2.688	Mar. 22	1915	4,330 123	7.34 2.237
Mar. 4	2245	5,770 163	8.49 2.588				

Minimum discharge, 22 ft³/s (0.62 m³/s) Sept. 5, 15, 16, gage height, 0.74 ft (0.226 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275	754	71	120	105	336	412	134	60	37	38	25
2	357	571	103	120	110	270	930	130	63	35	34	27
3	546	508	73	120	120	226	1690	125	55	32	34	26
4	391	465	90	130	130	1980	1020	118	49	31	35	24
5	214	404	93	135	130	2820	1570	139	47	35	34	24
6	154	347	88	135	120	1140	1070	180	57	32	33	24
7	126	308	953	130	110	829	802	164	67	47	35	25
8	360	277	707	130	110	657	812	134	62	70	37	26
9	8440	248	377	135	115	548	609	118	60	54	31	24
10	3820	236	311	140	140	491	530	113	79	41	30	25
11	1240	214	258	130	210	424	478	109	79	39	30	24
12	834	191	232	125	300	373	424	101	59	59	30	23
13	647	175	206	120	340	2900	377	95	52	56	29	24
14	548	164	137	120	320	1690	340	91	52	43	29	24
15	461	157	180	120	270	1020	301	86	57	35	30	23
16	389	147	189	115	250	791	274	83	55	31	31	23
17	325	137	152	110	220	628	248	79	54	64	33	24
18	277	134	134	105	215	682	232	78	60	200	43	30
19	220	130	120	100	220	807	217	76	57	81	39	30
20	449	120	122	105	230	609	206	73	54	159	30	31
21	1360	115	120	105	210	657	191	69	41	88	27	35
22	687	111	86	105	250	2120	180	66	39	56	35	32
23	517	103	125	110	400	2130	180	64	38	43	32	29
24	491	97	109	115	1150	1160	211	64	37	41	29	27
25	613	95	113	120	2010	862	239	63	37	47	24	144
26	1030	95	127	125	770	702	189	62	66	154	27	186
27	723	93	140	125	530	585	164	59	51	63	25	101
28	590	93	130	110	449	628	157	57	54	47	25	58
29	513	113	130	100	---	662	167	56	122	38	24	41
30	449	103	125	100	---	517	149	56	57	37	26	37
31	1020	---	120	100	---	470	---	56	---	38	24	---
TOTAL	28066	6705	5921	3660	9534	29714	14369	2898	1720	1833	973	1196
MEAN	905	224	191	118	341	959	479	93.5	57.3	59.1	31.4	39.9
MAX	8440	754	953	140	2010	2900	1690	180	122	200	43	186
MIN	126	93	71	100	105	226	149	56	37	31	25	23
CFSM	4.53	1.12	.96	.59	1.71	4.80	2.40	.47	.29	.30	.16	.20
IN.	5.22	1.25	1.10	.68	1.77	5.53	2.67	.54	.32	.34	.18	.22

CAL YR 1976 TOTAL 105700 MEAN 289 MAX 8440 MIN 22 CFSM 1.45 IN 19.66
WTR YR 1977 TOTAL 106589 MEAN 292 MAX 8440 MIN 22 CFSM 1.46 IN 19.83

CLARK CREEK BASIN

RESERVOIR IN CLARK CREEK BASIN

01568400 DeHART RESERVOIR---Lat 40°27'50", long 76°44'50", Dauphin County, Hydrologic Unit 02050305, at dam on Clark Creek, 1.8 mi (2.9 km) southeast of Carsonville, and 15.3 mi (24.6 km) upstream from mouth. DRAINAGE AREA, 21.7 mi² (56.2 km²). PERIOD OF RECORD: October 1940 to current year. STAFF GAGE, Datum of gage is at mean sea level (levels by city of Harrisburg).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 644.0 ft or 196.291 m (crest of spillway raised 4 ft (1.22 m) in November 1954). Storage began Jan. 21, 1940. Capacity at elevation 644.00 ft (196.291 m) is 18,480 acre-ft (22.8 hm³). Reservoir is used for municipal water supply. Figures given herein represent total contents. There are no gates on spillway and regulation is controlled by valves on pipe through dam. Records furnished by city of Harrisburg.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 19,460 acre-ft (24.0 hm³) Sept. 27, 1975 (elevation, 645.75 ft or 196.825 m); minimum (after first filling), 4,680 acre-ft (5.77 hm³) Jan. 2, 1966 (elevation, 613.33 ft or 186.943 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 19,320 acre-ft (23.82 hm³) Mar. 5 (elevation, 645.50 ft or 196.748 m); minimum, 14,410 acre-ft (17.8 hm³) Sept. 25 (elevation, 637.08 ft or 194.182 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01568400 DeHart Reservoir			
Sept. 30	642.00	17,310	--
Oct. 31	644.17	18,570	+20.5
Nov. 30	644.00	18,480	- 1.5
Dec. 31	644.00	18,480	0
CAL YR 1976	--	--	- 0.1
Jan. 31	643.92	18,430	- 0.8
Feb. 28	643.33	18,080	- 6.3
Mar. 31	644.17	18,570	+ 8.0
Apr. 30	644.08	18,520	- .8
May 31	643.42	18,140	- 6.2
June 30	642.00	17,310	-13.9
July 31	641.00	16,720	- 9.6
Aug. 31	638.83	15,430	-21
Sept. 30	637.17	14,460	-16.3
WTR YR 1977	--	--	- 3.9

CLARK CREEK BASIN

245

01568500 CLARK CREEK NEAR CARSONVILLE, PA

LOCATION.--Lat 40°27'37", long 76°45'06", Dauphin County, Hydrologic Unit 02050305, on right bank 0.3 mi (0.5 km) downstream from DeHart Dam, 1.8 mi (2.9 km) southeast of Carsonville, and 15 mi (24 km) upstream from mouth.

DRAINAGE AREA.--22.5 mi² (58.3 km²).

PERIOD OF RECORD.--September 1937 to current year.

REVISED RECORDS.--WSP 1302: 1940(M). WSP 1702: 1942 (monthly mean).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 552.32 ft (168.347 m) above mean sea level. Prior to Jan. 6, 1939, water-stage recorder at site 1,700 ft (518 m) upstream at datum 9.49 ft (2.893 m) higher. Jan. 6, 1939 to July 27, 1940, nonrecording gage at site 100 ft (30 m) downstream at different datum.

REMARKS.--Records good. Flow regulated by DeHart Reservoir (see p. 244). Diversion from reservoir to city of Harrisburg.

AVERAGE DISCHARGE.--39 years (1937-39, 1940-77), 39.5 ft³/s (1.119 m³/s), 23.86 in/yr (606 mm/yr), adjusted for storage and diversion since 1941.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s (136 m³/s) June 22, 1972, gage height, 10.98 ft (3.347 m), from rating curve extended above 240 ft³/s (6.80 m³/s) on basis of computation of peak flow over dam; minimum daily, 0.2 ft³/s (0.006 m³/s) Jan. 29 to Feb. 3, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft³/s (37.9 m³/s) Oct. 9, gage height, 6.15 ft (1.875 m); minimum daily, 4.6 ft³/s (0.13 m³/s) Oct. 1, 2, Feb. 16-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	70	5.7	5.3	5.1	6.2	30	21	5.5	5.5	6.2	5.7
2	4.6	58	5.3	5.1	5.1	5.7	58	20	5.5	5.5	6.2	6.2
3	7.3	55	4.8	5.0	5.0	5.7	119	19	5.5	5.5	6.2	6.0
4	5.3	55	4.8	5.0	5.0	150	91	18	5.5	5.5	6.2	6.0
5	5.1	47	4.8	5.0	5.0	564	120	18	5.5	5.5	6.2	6.0
6	5.0	41	5.0	5.1	5.0	278	107	20	5.7	5.7	6.2	5.7
7	5.0	36	37	5.1	5.0	172	87	21	5.5	5.7	6.0	5.7
8	5.7	32	71	5.0	5.0	119	77	17	5.3	6.0	5.7	5.7
9	550	29	49	5.0	5.0	85	63	16	5.5	5.7	5.7	5.7
10	520	24	38	5.0	5.0	64	53	12	5.3	5.7	5.7	5.7
11	300	21	33	5.0	5.0	50	46	11	5.3	5.7	5.7	5.7
12	155	19	30	5.0	5.0	42	38	8.9	5.3	5.7	5.7	5.7
13	103	17	27	5.0	5.1	249	33	8.4	7.1	5.7	5.7	5.7
14	96	15	21	5.0	5.0	275	29	7.6	5.5	5.7	5.7	5.7
15	63	15	19	5.0	5.0	176	24	6.9	5.5	5.7	5.7	5.7
16	47	13	17	5.0	4.6	125	22	6.2	5.5	5.7	5.7	6.0
17	41	12	15	5.0	4.6	94	20	6.0	5.7	6.2	6.9	5.7
18	49	11	14	5.0	4.6	84	18	5.5	5.3	6.0	6.0	5.7
19	68	9.7	13	5.0	4.6	74	17	6.2	5.3	6.2	5.7	5.7
20	91	8.4	13	5.1	4.6	63	15	8.6	5.5	6.6	5.7	6.0
21	117	7.8	13	5.0	4.6	52	12	6.0	5.5	6.2	5.7	6.0
22	99	7.1	9.7	5.0	4.6	129	14	6.0	5.3	6.2	5.7	6.0
23	88	6.0	8.4	5.0	4.8	230	10	5.7	5.5	6.2	5.7	6.0
24	88	5.3	7.6	5.0	7.8	155	18	5.7	5.5	6.2	5.7	6.0
25	88	5.3	7.1	5.0	7.6	115	30	5.7	5.7	6.4	5.7	7.1
26	91	5.5	8.1	5.0	6.4	90	30	5.7	6.0	6.2	5.7	7.8
27	87	5.0	7.8	5.0	6.4	71	27	5.7	5.5	6.2	5.7	6.6
28	87	5.0	7.3	5.0	6.6	64	24	5.5	5.7	6.2	5.7	6.2
29	36	6.9	6.6	5.0	---	56	24	5.5	5.7	6.2	5.7	5.5
30	6.4	6.2	6.0	5.0	---	45	22	5.5	5.7	6.2	5.7	5.5
31	46	---	5.5	5.0	---	36	---	5.5	---	6.2	5.7	---
TOTAL	2959.0	648.2	514.5	155.7	147.1	3724.6	1278	319.8	166.9	183.9	181.5	178.7
MEAN	95.5	21.6	16.6	5.02	5.25	120	42.6	10.3	5.56	5.93	5.85	5.96
MAX	550	70	71	5.3	7.8	564	120	21	7.1	6.6	6.9	7.8
MIN	4.6	5.0	4.8	5.0	4.6	5.7	10	5.5	5.3	5.5	5.7	5.5
(/)	20.6	19.2	19.0	20.7	21.7	19.7	19.1	20.2	21.3	22.0	21.8	20.8
MEAN#	137	39.3	35.6	24.9	20.7	148	60.8	24.4	12.9	18.4	6.69	10.4
CFSM#	6.07	1.75	1.58	1.11	.92	6.57	2.70	1.08	.57	.82	.30	.46
IN.#	7.00	1.95	1.82	1.28	.96	7.57	3.01	1.24	.64	.94	.35	.51

CAL YR 1976 TOTAL 9918.4 MEAN 27.1 MAX 550 MIN 3.9 MEAN# 47.3 CFSM# 2.10 IN.# 28.60
WTR YR 1977 TOTAL 10457.9 MEAN 28.7 MAX 564 MIN 4.6 MEAN# 45.2 CFSM# 2.01 IN.# 27.29

/ Diversion, equivalent in cubic feet per second, from DeHart Reservoir for municipal supply; furnished by city of Harrisburg.

Adjusted for diversion and change in reservoir contents.

STONY CREEK BASIN

01568700 STONY CREEK ABOVE PUMP-STORAGE RESERVOIR SITE NEAR DAUPHIN, PA

LOCATION.--Lat 40°27'30", long 76°39'53", Lebanon County, Hydrologic Unit 02050305, on right bank 3.1 mi (5.0 km) upstream from Rattling Run, and 16 mi (26 km) northeast of Dauphin.

DRAINAGE AREA.--11.5 mi² (29.8 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 730 ft (223 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,010 ft³/s (85.2 m³/s) Sept. 26, 1975, gage height, 10.10 ft (3.078 m), from rating curve extended above 110 ft³/s (3.12 m³/s); minimum, 3.0 ft³/s (0.085 m³/s) Feb. 22, 1977; minimum gage height, 2.12 ft (0.646 m) July 21, 22, 23, Aug. 21, 22, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 3	1815	288	8.16	5.82	1.774	Feb. 25	0830	159	4.50	4.99	1.521
Oct. 9	1545	*1,970	55.8	*9.10	2.774	Mar. 4	2330	676	19.1	7.14	2.176
Oct. 21	0930	182	5.15	5.23	1.594	Mar. 13	1630	317	8.98	5.92	1.804
Oct. 26	1515	112	3.17	4.61	1.405	Mar. 22	2330	228	6.46	5.45	1.661
Oct. 31	2100	124	3.51	4.73	1.442	Apr. 3	0415	158	4.47	4.90	1.494
Dec. 7	2115	167	4.73	5.06	1.542						

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Feb. 22, gage height, 2.14 ft (0.652 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	95	14	11	9.3	55	32	22	8.1	6.2	4.3	4.3
2	24	62	13	12	9.1	34	57	21	8.1	5.4	4.2	7.2
3	144	53	12	11	9.0	27	133	20	6.5	5.0	4.1	10
4	154	54	11	10	9.0	182	78	19	6.2	4.9	4.3	5.3
5	61	49	11	9.7	9.0	294	105	23	6.1	4.8	4.2	4.9
6	45	43	10	9.5	9.0	123	91	26	9.2	8.1	4.1	4.4
7	37	39	83	10	9.1	85	67	23	9.0	63	3.9	4.2
8	51	36	107	11	9.5	64	61	18	7.0	53	3.7	3.9
9	857	32	49	9.6	9.8	51	53	17	9.4	21	3.5	3.8
10	330	30	32	11	11	43	46	15	9.0	10	7.4	3.7
11	176	29	27	10	9.8	36	41	14	7.0	7.4	6.4	3.4
12	125	26	25	11	8.4	31	37	13	6.3	11	9.8	3.2
13	97	24	23	11	8.5	165	32	12	5.9	13	9.8	3.3
14	80	23	20	12	9.3	152	30	11	5.9	7.8	10	3.7
15	66	22	18	12	8.8	96	28	10	6.1	5.8	8.3	3.5
16	55	21	17	11	7.3	76	26	9.8	5.6	4.9	6.3	4.1
17	47	20	17	10	7.4	61	24	9.3	6.8	5.4	21	5.9
18	42	20	16	10	6.2	54	22	8.9	8.8	8.1	34	4.7
19	36	19	15	9.8	5.2	56	21	8.8	6.2	6.3	18	4.4
20	52	18	15	9.7	5.0	51	20	8.3	5.9	18	8.9	6.2
21	151	17	17	9.4	4.9	45	19	7.9	6.1	12	7.0	5.6
22	89	16	17	9.3	5.4	103	18	7.6	5.4	7.5	7.5	5.0
23	58	15	13	9.2	5.2	156	17	7.4	5.1	5.5	7.0	4.6
24	53	15	13	9.1	22	91	29	7.2	5.0	4.8	6.4	4.6
25	74	14	13	8.9	130	72	64	7.1	6.7	6.1	5.9	35
26	102	14	12	8.8	85	61	46	6.9	17	8.0	5.3	73
27	82	14	12	10	66	53	43	6.6	7.9	6.0	5.1	66
28	60	14	11	10	84	49	32	6.4	8.2	5.1	7.7	30
29	52	18	11	9.8	---	49	30	6.3	12	4.6	4.7	17
30	47	17	10	9.6	---	42	25	6.3	8.0	4.8	4.6	12
31	88	---	10	9.4	---	37	---	6.6	---	4.6	4.4	---
TOTAL	3355	869	674	314.8	572.2	2494	1327	385.4	224.5	338.1	241.8	346.9
MEAN	108	29.0	21.7	10.2	20.4	80.5	44.2	12.4	7.48	10.9	7.80	11.6
MAX	857	95	107	12	130	294	133	26	17	63	34	73
MIN	20	14	10	8.8	4.9	27	17	6.3	5.0	4.6	3.5	3.2
CFSM	9.39	2.52	1.89	.89	1.77	7.00	3.84	1.08	.65	.95	.68	1.01
IN.	10.85	2.81	2.18	1.02	1.85	8.07	4.29	1.25	.73	1.09	.78	1.12

CAL YR 1976 TOTAL 12422.1 MEAN 33.9 MAX 857 MIN 5.3 CFSM 2.95 IN 40.18
WTR YR 1977 TOTAL 11142.7 MEAN 30.5 MAX 857 MIN 3.2 CFSM 2.65 IN 36.04

01569800 LETORT SPRING RUN NEAR CARLISLE, PA

LOCATION.--Lat 40°14'05", long 77°08'23", Cumberland County, Hydrologic Unit 02050305, on right bank 320 ft (98 m) downstream from bridge on U.S. Highway No. 11, 3.1 mi (5.0 km) west of New Kingston and 3.7 mi (6.0 km) east of Carlisle.

DRAINAGE AREA.--21.6 mi² (55.9 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 410 ft (125 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) Oct. 9, 1976, gage height, 6.43 ft (1.960 m); minimum, no flow part of Aug. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 8.8 ft (2.7 m), discharge not determined, and flood in June 1972 reached a stage of 8.4 ft (2.56 m), discharge not determined, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1300	*1,200 34.0	*6.43 1.960	Apr. 2	1430	112 3.17	4.33 1.320
Oct. 31	0730	106 3.00	4.30 1.311	Apr. 5	0330	119 3.37	4.30 1.311
Dec. 7	1045	108 3.06	4.31 1.314	Apr. 24	1815	290 8.21	4.99 1.521
Mar. 4	1600	106 3.00	4.30 1.311	July 17	2330	114 3.23	4.34 1.323
Mar. 22	1445	129 3.65	4.42 1.347	Sept. 25	0715	117 3.31	4.36 1.329

Minimum discharge, 22 ft³/s (0.62 m³/s) Feb. 10, gage height, 3.49 ft (1.064 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	70	41	37	34	42	41	60	38	30	30	29
2	37	66	40	37	34	41	66	59	37	30	29	29
3	57	66	39	37	34	40	69	58	36	32	32	29
4	47	63	38	37	33	65	69	59	35	32	32	28
5	45	63	37	38	35	58	94	58	37	32	32	28
6	42	59	37	37	33	53	77	58	41	32	30	32
7	41	57	66	38	33	51	97	53	38	37	30	31
8	53	56	50	38	34	49	89	51	37	34	30	29
9	364	54	46	38	34	46	83	51	43	33	30	29
10	157	53	46	38	34	43	77	49	40	32	33	28
11	123	53	43	38	34	42	66	48	38	30	32	28
12	101	51	42	37	35	39	67	47	35	35	32	28
13	91	50	42	36	40	61	67	46	37	28	32	28
14	83	49	42	36	46	53	67	45	39	28	30	28
15	77	49	42	35	46	50	65	44	37	30	30	25
16	71	48	46	34	42	48	64	44	36	30	29	26
17	66	47	42	34	39	46	63	44	42	36	30	26
18	65	46	42	34	38	52	63	45	42	47	30	27
19	61	46	40	34	37	50	59	44	36	35	29	32
20	80	45	41	34	36	51	58	45	36	39	29	42
21	78	45	40	34	34	50	58	42	36	35	28	33
22	69	45	40	34	34	83	59	42	35	33	30	32
23	64	44	40	34	36	70	61	41	35	32	30	30
24	65	43	40	34	55	61	148	41	34	32	30	29
25	65	42	38	35	54	54	103	41	36	34	30	63
26	80	42	39	38	46	50	81	41	35	39	29	47
27	70	41	37	35	44	48	73	39	33	36	29	41
28	66	41	37	37	43	52	71	38	34	34	28	35
29	65	44	38	35	---	47	69	38	33	32	29	32
30	61	40	38	35	---	46	64	38	32	31	29	32
31	81	---	38	34	---	43	---	38	---	30	29	---
TOTAL	2467	1518	1287	1112	1077	1584	2188	1447	1103	1030	932	957
MEAN	79.6	50.6	41.5	35.9	38.5	51.1	72.9	46.7	36.8	33.2	30.1	31.9
MAX	364	70	66	38	55	83	148	60	43	47	33	63
MIN	37	40	37	34	33	39	41	38	32	28	28	26
CFSM	3.69	2.34	1.92	1.66	1.78	2.37	3.38	2.16	1.70	1.54	1.39	1.48
IN.	4.25	2.61	2.22	1.92	1.85	2.73	3.77	2.49	1.90	1.77	1.61	1.65

WTR YR 1977 TOTAL 16702 MEAN 45.8 MAX 364 MIN 26 CFSM 2.12 IN 28.76

CONODOGUINET CREEK BASIN

01569900 CONODOGUINET CREEK NEAR NEW KINGSTON, PA

LOCATION.--Lat 40°15'36", long 77°06'11", Cumberland County, Hydrologic Unit 02050305, at bridge on Legislative Route 21102, 2.2 mi (3.5 km) northwest of New Kingston and 4.5 mi (7.2 km) downstream from Letort Spring Run.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY C02 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 27...	1150	9813	250	8.0	7.0	20	--	108	--	0	28	9.0
NOV 17...	0830	9813	400	8.0	4.0	2	12.0	209	--	0	56	17
DEC 14...	1315	9813	290	7.7	1.5	4	14.5	125	--	0	40	6.2
MAR 16...	1425	9813	190	8.2	12.0	20	10.3	78	--	0	27	2.5
APR 20...	1525	9813	410	8.8	17.5	1	11.6	138	--	0	52	2.0
MAY 10...	1000	9813	380	7.5	11.0	2	11.5	162	--	0	53	7.0
JUN 08...	1100	9813	200	8.3	16.0	2	9.5	190	--	0	67	5.5
JUL 19...	0900	9813	420	7.5	24.0	4	5.8	152	--	0	56	3.0
AUG 02...	1445	9813	450	6.8	25.5	3	12.1	175	0	0	48	13
SEP 12...	1030	9813	470	7.6	17.5	8	8.2	174	--	0	63	4.0

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 27...	68	10	--	10	154	--	--	2.8	.02	.08	.11	1000
NOV 17...	150	28	--	16	250	--	--	4.7	.04	.15	.14	110
DEC 14...	114	20	--	13	232	--	--	3.4	.03	.10	.12	150
MAR 16...	62	15	--	12	130	38	168	2.6	.03	.10	.12	1570
APR 20...	130	18	--	16	226	0	226	3.4	.05	.14	.10	120
MAY 10...	148	20	--	17	242	2	244	3.0	.06	.21	.14	170
JUN 08...	186	20	--	20	302	10	312	3.4	.10	.20	.25	70
JUL 19...	108	24	--	4.0	290	42	332	3.5	.17	.72	.27	1820
AUG 02...	158	14	.40	23	284	10	--	3.2	.08	.09	.32	240
SEP 12...	176	26	--	21	288	--	--	3.2	.09	.23	.33	230

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 02...	1445	9813	100	<3	<10	10	<50	50	<10	<10

01570000 CONODOGUINET CREEK NEAR HOGESTOWN, PA

LOCATION.--Lat 40°15'08", long 77°01'17", Cumberland County, Hydrologic Unit 02050305, on left bank 1,000 ft (305 m) upstream from highway bridge, 0.4 mi (0.6 km) downstream from Hogestown Run, and 1 mi (1.6 km) northeast of Hogestown.

DRAINAGE AREA.--470 mi² (1,217 km²).

PERIOD OF RECORD.--October 1911 to September 1917, October 1929 to September 1958, June 1967 to current year. Monthly discharges only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, contained in reports of Water Supply Commission of Pennsylvania. Published as "at Brysons Bridge" 1912-17.

REVISED RECORDS.--WSP 1722: 1913, 1917.

GAGE.--Water-stage recorder. Datum of gage is 351.00 ft (106.985 m) above mean sea level. Prior to December 1919, nonrecording gage at site 2 mi (3.2 km) downstream at different datum. Oct. 1, 1929 to Aug. 3, 1931, nonrecording gage at site 1,000 ft (305 m) downstream at present datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--45 years (1911-17, 1929-58, 1967-77), 589 ft³/s (16.7 m³/s), 17.01 in/yr (432 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,700 ft³/s (954 m³/s) June 23, 1972, gage height, 17.01 ft (5.185 m), from floodmark in gage shelter; minimum, 24 ft³/s (0.68 m³/s) Dec. 16, 1930; minimum daily, 26 ft³/s (0.74 m³/s) Dec. 23, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	1430	*11,800 334	*10.84 3.304	Mar. 14	1400	5,070 144	7.07 2.155
Mar. 5	1430	5,040 143	7.05 2.149	Mar. 23	1100	5,110 145	7.10 2.164

Minimum daily discharge, 104 ft³/s (2.95 m³/s) minimum gage height, 0.99 ft (0.302 m) Aug. 31, Sept. 1, 5, 14, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	2250	296	200	190	606	772	398	170	130	141	104
2	2300	1480	276	205	195	497	1150	372	173	119	134	110
3	1570	1200	271	205	205	432	2980	358	173	112	134	121
4	1460	1180	252	205	205	1020	1970	353	163	110	134	117
5	941	1040	267	205	200	4460	3050	365	158	112	131	107
6	637	880	261	200	190	2460	2770	391	168	110	129	112
7	486	776	685	205	190	1570	1870	425	175	137	129	190
8	630	704	1880	205	190	1180	1640	363	180	148	127	168
9	6470	635	986	210	210	940	1330	336	183	141	122	137
10	11400	591	733	220	240	789	1100	312	221	128	122	124
11	6220	558	624	220	259	681	965	295	201	121	134	115
12	2190	515	570	215	351	602	862	288	178	144	127	112
13	1590	478	532	210	673	1870	761	275	163	168	140	108
14	1260	449	444	205	941	4550	688	266	165	178	140	105
15	1010	430	392	200	716	2200	626	259	175	142	132	105
16	851	413	403	200	437	1590	581	244	165	126	129	107
17	725	394	390	195	344	1200	539	241	163	121	130	114
18	642	383	375	195	294	1080	504	238	188	269	136	110
19	565	372	353	190	281	1400	479	238	165	196	126	112
20	639	361	345	190	347	1100	457	241	165	233	126	165
21	1890	348	350	190	256	1170	436	221	148	191	120	213
22	1640	340	292	185	235	2000	417	212	139	188	127	162
23	1100	329	305	180	253	4580	415	206	135	177	135	132
24	914	313	285	180	621	2430	782	204	130	163	142	126
25	1170	308	262	175	1400	1690	706	198	139	164	130	481
26	1760	308	290	190	1270	1340	595	188	168	225	118	585
27	1780	305	283	200	890	1120	486	185	130	191	114	501
28	1290	307	277	190	765	1040	444	180	137	162	114	372
29	1050	323	270	180	---	1310	473	175	141	147	110	306
30	887	328	210	170	---	1050	437	173	139	142	116	249
31	1610	---	200	175	---	894	---	173	---	144	107	---
TOTAL	56981	18298	13359	6095	12348	48851	30285	8373	4898	4839	3956	5570
MEAN	1838	610	431	197	441	1576	1010	270	163	156	128	186
MAX	11400	2250	1880	220	1400	4580	3050	425	221	269	142	585
MIN	304	305	200	170	190	432	415	173	130	110	107	104
CFSM	3.91	1.30	.92	.42	.94	3.35	2.15	.57	.35	.33	.27	.40
IN.	4.51	1.45	1.06	.48	.98	3.87	2.40	.66	.39	.38	.31	.44
CAL YR 1976	TOTAL	229049	MEAN 626	MAX 11400	MIN 100	CFSM 1.33	IN 18.13					
WTR YR 1977	TOTAL	213853	MEAN 586	MAX 11400	MIN 104	CFSM 1.25	IN 16.93					

CONODOGUINET CREEK BASIN

01570280 CONODOGUINET CREEK AT ENOLA, PA.

LOCATION.--Lat 40°16'38", long 76°57'00", Cumberland County, Hydrologic Unit 02050305, at bridge on Oyster Mill Road, 1.0 mi (1.6 km) west of Enola and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
OCT 27...	0945	9813	270	7.5	7.0	30	--	110	--	0	32	7.5
NOV 18...	1430	9813	400	8.7	6.0	2	15.7	200	--	0	55	15
DEC 14...	1400	9813	310	8.2	1.5	3	14.5	132	--	0	44	5.5
MAR 16...	1545	9813	200	8.2	12.0	25	10.3	80	--	0	25	4.0
APR 20...	1240	9813	410	8.5	17.5	2	10.2	135	--	0	53	.3
MAY 10...	1430	9813	400	8.2	13.5	1	14.7	168	--	0	54	8.0
JUN 08...	1335	9813	210	8.5	19.0	2	10.7	190	--	0	69	4.0
JUL 19...	0940	9813	460	8.3	27.0	5	7.3	162	--	0	60	2.5
AUG 08...	1405	9813	455	8.5	28.0	3	6.6	144	0	0	44	8.0
SEP 20...	1015	9813	400	7.5	22.5	10	6.1	195	--	0	64	8.2

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 27...	78	10	--	12	172	--	--	2.6	.03	.10	.12	1250
NOV 18...	158	24	--	17	256	--	--	5.0	.04	.05	.14	80
DEC 14...	114	20	--	14	232	--	--	3.4	.04	.11	.13	180
MAR 16...	62	15	--	12	148	38	186	3.0	.03	.10	.15	1820
APR 20...	132	20	--	15	214	10	224	2.8	.03	.13	.09	18
MAY 10...	52	24	--	18	242	2	244	2.8	.04	.22	.12	80
JUN 08...	190	26	--	24	308	18	326	3.4	.08	.24	.25	170
JUL 19...	154	20	--	26	284	10	294	2.1	.06	.09	.25	410
AUG 08...	158	10	.10	28	282	<10	--	1.8	.05	.05	.37	210
SEP 20...	108	20	--	30	334	10	344	2.1	.11	.14	.46	740

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 08...	1405	9813	100	<3	10	20	<50	20	<10	<10

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA

LOCATION.--Lat 40°15'17", long 76°53'11", Dauphin County, Hydrologic Unit 02050305, on east bank of City Island, 60 ft (18 m) downstream from Market Street Bridge, 3,670 ft (1,120 m) upstream from sanitary dam, in Harrisburg, and 1.7 mi (2.7 km) upstream from Paxton Creek. Water-quality sampling site 600 ft (183 m) upstream.

DRAINAGE AREA.--24,100 mi² (62,400 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1890 to current year.

REVISED RECORDS.--WSP 711: 1929. WSP 1502: 1891-1923, 1926(M), 1928. WSP 1702: 1953 (total runoff in inches), 1958 (1957 calendar year mean discharge).

GAGE.--Water-stage recorder and concrete-slab control. Datum of gage is 290.01 ft (88.395 m) above mean sea level. Prior to Oct. 1, 1928, nonrecording gage at Walnut Street Bridge, and, Oct. 1, 1928 to Aug. 31, 1975, recording gage at site 3,170 ft (966 m) downstream, all gages at same datum.

REMARKS.--Records good except those for winter months, which are fair.

AVERAGE DISCHARGE.--87 years, 34,300 ft³/s (971 m³/s), 19.33 in/yr (491 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020,000 ft³/s (28,900 m³/s) June 24, 1972, gage height, 32.57 ft (9.927 m), from floodmark; minimum, 1,600 ft³/s (45.3 m³/s) Nov. 29, 1930, result of freezeup. Minimum daily discharge since construction of sanitary dam and not affected by freezeup, 1,700 ft³/s (48.1 m³/s) Sept. 18, 1964; minimum gage height, 1.83 ft (0.558 m) Sept. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known during period 1786 to 1890, 26.8 ft (8.17 m) at Walnut Street Bridge June 2, 1889, discharge, 654,000 ft³/s (18,500 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180,000 ft³/s (5,100 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	1700	*254,000 7,190	*14.89 4.538	Mar. 15	1600	211,000 5,980	13.06 3.981
Mar. 6	0200	195,000 5,520	12.43 3.789	Apr. 4	1100	217,000 6,150	13.31 4.057

Minimum discharge, 4,470 ft³/s (127 m³/s) Sept. 16, gage height, 3.14 ft (0.957).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15600	67900	16400	9300	8900	105000	141000	44400	12300	13300	13900	8360
2	19600	70700	16000	9700	8500	102000	135000	38600	11200	13200	11100	7920
3	28400	73400	14000	10000	9000	84600	161000	34900	9940	12300	11200	7770
4	36000	65300	12000	10500	9300	74900	209000	32100	10700	10900	11600	7230
5	27600	57300	13000	12500	8900	147000	183000	30200	9610	9570	11400	7030
6	25000	50500	15000	13000	7900	188000	155000	30200	8390	9840	10100	7030
7	21600	46000	20000	13500	8200	166000	128000	33100	9960	10600	9550	6700
8	17800	42000	35000	12000	8600	133000	106000	42700	9880	13800	9470	6500
9	76300	38500	44000	13000	8300	103000	91400	38100	9950	18200	10000	6950
10	227000	35900	45000	12500	9700	80900	76900	34100	11500	18800	11500	6630
11	216000	33300	43000	12000	9300	69900	65500	32600	12700	20200	17200	6160
12	174000	31800	39000	12000	8800	71100	56500	32100	14000	22500	17500	5440
13	125000	30100	35000	11000	11500	90800	50400	33800	13600	20600	14400	5580
14	94700	28500	32000	10500	13500	150000	45400	32300	12500	26100	13600	4820
15	74000	27400	30000	10000	17000	206000	41200	30800	11500	26800	14600	4990
16	57200	24300	28000	10500	18000	188000	37900	29600	10700	20300	13100	4860
17	48400	22400	27000	9800	18500	155000	34800	27200	9770	18400	14100	5730
18	43100	24000	26000	10500	17000	132000	32100	24500	9310	16600	15800	9050
19	38600	24000	25000	10000	18000	114000	30100	22600	9910	15600	15900	17900
20	36100	24900	24000	10000	19000	104000	28300	22700	9950	16900	17000	33500
21	47200	23300	22000	10500	17000	91600	26800	20000	10000	19100	15800	35400
22	92300	21600	18000	11000	16000	86900	25800	18700	11400	23100	14400	56600
23	111000	20700	16000	10500	15000	133000	24200	17600	11000	32700	14700	65800
24	107000	19700	22000	10000	20000	139000	24500	17200	9200	24000	12800	58500
25	90900	19000	15000	10500	46900	114000	41100	16300	9850	22700	11600	54400
26	87700	18400	17500	11000	124000	92400	78300	15200	12000	20500	10900	63800
27	96100	17800	18000	11000	134000	78200	86600	14600	12500	19900	9480	143000
28	90900	17300	18000	10500	110000	68500	77500	14500	12400	22000	9460	141000
29	78800	17300	17500	11000	---	68800	64300	14200	15400	20300	9620	106000
30	66100	17300	16000	10000	---	97400	52600	14400	14400	16900	9280	77500
31	59600	---	13000	9200	---	142000	---	13300	---	15600	9010	---
TOTAL	2329600	1010600	732400	337500	720800	3577000	2310200	822600	335520	571310	390070	972150
MEAN	75150	33690	23630	10890	25740	115400	77010	26540	11180	18430	12580	32410
MAX	227000	73400	45000	13500	134000	206000	209000	44400	15400	32700	17500	143000
MIN	15600	17300	12000	9200	7900	68500	24200	13300	8390	9570	9010	4820
CFSM	3.12	1.40	.98	.45	1.07	4.79	3.20	1.10	.46	.77	.52	1.35
IN.	3.60	1.56	1.13	.52	1.11	5.52	3.57	1.27	.52	.88	.60	1.50
CAL YR 1976	TOTAL	14426680	MEAN	39420	MAX	233000	MIN	7470	CFSM	1.64	IN	22.27
WTR YR 1977	TOTAL	14109750	MEAN	38660	MAX	227000	MIN	4820	CFSM	1.60	IN	21.78

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to January 1953, March 1956 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1974 to current year.

pH: May 1974 to current year.

WATER TEMPERATURES: May 1974 to current year.

DISSOLVED OXYGEN: May 1974 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1963 to September 1968, April 1970 to current year.

REMARKS.--Composite samples taken as part of the USGS-EPA surveillance network.

COOPERATION.--Three water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 356 micromhos Sept. 2, 1975; minimum, 77 micromhos Sept. 27, 1975.

pH: Maximum, 10.4 Aug. 27, 1975; minimum, 6.5 Dec. 10, 1974.

WATER TEMPERATURES: Maximum, 32.0°C Aug. 2, 3, 1975; minimum, freezing point on many days during January and February, 1977.

DISSOLVED OXYGEN: Maximum, 15.2 mg/L Jan. 23, 24, 1976; minimum, 5.1 mg/L Sept. 2, 1974.

SEDIMENT CONCENTRATIONS: Maximum daily, 879 mg/L Jun. 23, 1972; minimum daily, 0 mg/L on many days during August and September 1964.

SEDIMENT DISCHARGES: Maximum daily, 2,210,000 tons (2,000,000 tonnes) Jun. 24, 1972; minimum daily, 0 ton (0 tonne) on many days during August and September 1964.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 30.0°C July 16, 17; minimum, freezing point on many days during January and February.

SEDIMENT CONCENTRATIONS: Maximum daily, 488 mg/L Oct. 10; minimum daily, 4 mg/L Nov. 15.

SEDIMENT DISCHARGES: Maximum daily, 299,000 tons (271,000 tonnes) Oct. 10; minimum daily, 104 tons (94 tonnes) Sept. 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL./100 ML)
OCT										
14...	0930	95800	205	7.3	12.0	13	10.1	14	2.6	2200
26...	1415	88500	170	7.1	8.0	20	11.2	14	1.5	1500
NOV										
08...	1030	42000	210	7.4	5.0	3	12.2	<10	1.6	--
22...	1430	21100	285	7.6	4.0	9	13.1	16	1.0	180
DEC										
20...	1430	24000	290	7.2	3.0	7	8.0	<10	1.1	260
MAR										
02...	1200	102000	145	6.9	3.0	14	12.6	31	2.2	235
16...	1200	183000	105	6.9	9.0	110	11.6	46	2.0	220
30...	1020	94300	205	6.9	11.0	4	11.4	<10	1.3	E60
APR										
14...	0945	45900	210	7.7	15.0	4	10.8	10	2.0	810
28...	0845	78200	170	7.6	14.0	15	10.2	19	1.8	270
MAY										
12...	1100	32200	230	7.6	17.5	2	10.6	17	2.0	8
25...	0945	16300	270	8.4	23.0	--	8.8	--	3.0	B130
JUN										
06...	1445	8840	320	8.3	17.5	5	10.0	10	3.0	4
20...	1200	10100	320	8.8	26.0	4	10.2	15	4.8	6
JUL										
05...	1500	9830	320	8.6	27.0	2	10.2	20	--	83
21...	1015	19600	260	8.1	29.5	3	7.8	15	1.8	50
AUG										
03...	0945	11300	300	8.3	25.5	1	7.6	20	2.8	E24
16...	1130	12900	8	8.0	26.0	1	8.0	20	2.4	21
31...	0930	9260	340	8.2	28.0	5	7.8	20	5.4	810
SEP										
12...	1400	5740	340	7.1	20.5	4	8.6	--	2.9	E3
28...	1200	137000	150	7.2	15.5	150	9.0	30	2.2	3000

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	FECAL STREP- TOCOC KF AGAR (COL. PER 100 ML)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	SUS- PENDE SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
OCT										
14...	--	120	199	.63	.04	.61	.65	1.3	.18	510
26...	--	94	46	.87	.05	.38	.43	1.3	.09	710
NOV										
08...	--	130	8	1.1	.06	.22	.28	1.4	.08	250
22...	--	169	8	1.0	.15	.23	.38	1.4	.05	200
DEC										
20...	780	154	12	1.0	--	--	2.8	3.8	.06	190
MAR										
02...	--	94	117	1.0	.13	.65	.78	1.8	.14	1800
16...	8212	76	294	.90	--	--	1.1	2.0	.22	3000
30...	--	108	34	.97	.05	.35	.40	1.4	.04	710
APR										
14...	92	128	27	1.0	.05	.35	.40	1.4	.06	420
28...	--	106	77	.79	.06	.64	.70	1.5	.09	840
MAY										
12...	20	138	2	.66	.06	.38	.44	1.1	.03	300
25...	--	--	8	--	--	--	--	--	--	--
JUN										
06...	--	221	23	.61	.10	.65	.75	1.4	.06	170
20...	76	206	9	--	--	--	.00	--	.08	30
JUL										
05...	--	236	9	.48	.03	.97	1.0	1.5	.09	220
21...	800	166	30	.82	.06	.62	.68	1.5	.10	560
AUG										
03...	--	210	11	.43	.07	.76	.83	1.3	.07	240
16...	820	206	18	.54	.04	.76	.80	1.3	.10	340
31...	--	182	11	.38	.01	.60	.61	.99	.18	270
SEP										
12...	132	202	10	.30	.07	.85	.92	1.2	.07	170
28...	--	86	304	.68	.12	.98	1.1	1.8	.31	7000

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT									
14...	2	0	<10	10	1100	11	170	0	30
26...	1	1	<10	20	1700	6	210	0	20
NOV									
08...	0	1	<10	0	890	9	220	0	30
22...	1	1	<10	10	1100	23	400	0	40
DEC									
20...	1	1	<10	880	790	200	2000	1	1000
MAR									
02...	4	1	<10	10	4700	20	390	0	40
16...	7	0	10	20	12000	15	490	1	70
30...	0	2	<10	0	1700	12	250	0	30
APR									
14...	0	1	10	10	1000	4	240	0	30
28...	2	0	<10	10	2000	8	230	0	30
MAY									
12...	0	0	10	11	850	19	160	0	20
25...	--	--	--	--	--	--	--	--	--
JUN									
06...	3	0	<10	7	350	4	170	0	20
20...	4	0	10	7	500	11	170	2	10
JUL									
05...	3	0	20	26	300	17	120	0	50
21...	2	0	10	8	1100	7	230	0	20
AUG									
03...	2	0	<10	6	510	2	100	0	10
16...	0	9	<10	10	500	7	130	0	30
31...	1	0	<10	5	390	17	130	3	10
SEP									
12...	1	0	<10	7	190	2	140	0	10
28...	4	2	<10	38	13000	19	770	0	80

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)	TRITIUM IN WATER MOLE- CULES (TU)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT									
14...	4.6	0	.000	.000	46.2	4.7	199	51500	98
26...	5.2	0	--	--	--	--	--	--	--
NOV									
08...	5.1	1	.000	.000	51.5	4.6	8	907	100
22...	4.9	0	.000	.000	--	--	--	--	--
DEC									
20...	4.2	0	5.90	1.99	51.2	4.8	12	778	100
MAR									
02...	7.2	--	--	--	--	--	--	--	--
16...	9.0	0	--	--	--	--	294	145000	92
30...	1.7	0	--	--	45.7	3.9	--	--	--
APR									
14...	2.9	0	7.30	.000	48.5	3.8	27	3350	81
28...	3.6	1	3.45	.000	--	--	--	--	--
MAY									
12...	5.7	0	7.00	1.20	--	--	2	174	100
25...	--	--	3.09	.570	--	--	--	--	--
JUN									
06...	5.2	1	10.8	.000	--	--	--	--	--
20...	5.2	1	--	--	62.0	4.8	9	245	100
JUL									
05...	6.1	1	--	--	--	--	--	--	--
21...	6.3	0	11.0	2.30	59.2	4.8	30	1590	94
AUG									
03...	4.1	0	1.98	.000	--	--	--	--	--
16...	6.3	4	27.2	4.96	62.6	4.3	18	627	100
31...	6.6	9	4.45	.277	--	--	11	275	82
SEP									
12...	6.4	--	--	--	63.8	4.4	10	155	100
28...	15	2	--	--	--	--	--	--	--

DATE	TIME	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
DEC											
20...	1430	92	54	25	7.2	6.0	2.0	47	0	39	4.7
MAR											
16...	1200	44	27	12	3.5	3.8	1.3	21	0	17	4.2
JUN											
20...	1300	130	--	35	10	10	2.0	--	--	--	--
SEP											
12...	1400	140	75	37	11	12	2.4	76	0	62	9.7

DATE	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
DEC											
20...	52	9.3	.1	3.9	132	40	1	2	<10	4	3
MAR											
16...	17	6.2	.1	4.2	59	110	1	1	<10	10	0
JUN											
20...	66	16	.1	1.7	--	30	3	0	0	0	0
SEP											
12...	69	16	.1	.9	186	50	0	0	1	0	0

DATE	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC										
20...	620	90	33	2000	<.5	<.5	0	0	0	1000
MAR										
16...	0	160	6	60	<.5	<.5	1	1	0	0
JUN										
20...	4	10	2	20	.0	.0	0	0	0	0
SEP										
12...	12	170	5	20	.5	.5	0	0	0	10

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT 27...	0900	9813	99000	180	7.3	5.0	15	--	60	0	16
NOV 30...	0940	9813	15450	220	7.7	.5	2	12.3	92	0	25
DEC 14...	1515	9813	32500	200	8.5	.5	3	14.1	68	0	21

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	PHENOLS (UG/L)
OCT 27...	4.5	36	14	8.0	120	1.2	.02	.09	.08	750	<10
NOV 30...	7.0	60	42	10	124	1.7	.02	.15	.17	110	<10
DEC 14...	3.5	36	48	12	168	1.4	.03	.09	.06	200	<10

DATE	TIME	TOTAL ALDRIN (UG/L)	TOTAL ATRA- ZINE (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
NOV 08...	1030	ND	ND	ND	ND	ND	ND	ND
MAR 16...	1200	ND	ND	ND	ND	ND	ND	ND
MAY 12...	1100	ND	ND	ND	ND	ND	ND	ND
AUG 16...	1130	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METH- OXY- CHLOR (UG/L)	TOTAL METHYL PARA- THION (UG/L)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY 12...	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	.01	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
NOV 08...	ND	ND	ND	ND	ND	ND	ND	ND
MAR 16...	ND	ND	ND	ND	ND	ND	ND	ND
MAY 12...	ND	ND	ND	ND	ND	ND	ND	ND
AUG 16...	ND	ND	ND	ND	ND	ND	ND	ND

DATE	TIME	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDE GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)
NOV 08...	1030	120	<1.6	.7	2.4	.4	1.9	<.4	.08	.06

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	282	270	276	149	146	147	227	221	225	233	212	219
2	271	265	268	148	132	137	228	221	225	249	223	236
3	271	235	260	146	139	144	228	224	226	256	231	246
4	234	187	208	149	145	146	230	227	228	249	231	236
5	195	187	190	147	145	146	238	224	230	245	227	236
6	---	---	---	148	145	146	272	239	262	253	236	243
7	---	---	---	150	145	148	273	252	258	288	252	259
8	---	---	---	156	150	153	292	262	275	271	258	264
9	---	---	---	162	155	159	298	225	258	292	258	273
10	---	---	---	167	162	164	247	202	233	492	283	320
11	---	---	---	170	167	168	201	172	181	297	278	287
12	---	---	---	172	170	171	194	183	190	282	275	279
13	---	---	---	176	172	174	195	189	192	299	276	287
14	---	---	---	179	176	177	194	189	192	302	281	292
15	---	---	---	183	179	182	190	185	188	350	283	297
16	---	---	---	184	182	182	192	189	191	299	279	285
17	---	---	---	191	184	188	195	191	193	293	284	288
18	---	---	---	200	188	194	193	188	191	294	272	282
19	---	---	---	198	194	196	188	181	186	328	284	305
20	---	---	---	201	196	198	186	181	183	325	306	315
21	---	---	---	206	202	203	185	179	182	317	298	306
22	---	---	---	212	206	208	199	186	194	309	294	301
23	---	---	---	219	212	217	198	193	196	322	293	307
24	---	---	---	220	218	219	219	197	209	369	290	313
25	---	---	---	222	220	221	218	187	205	391	308	328
26	---	---	---	223	221	222	203	187	195	324	303	313
27	---	---	---	223	221	222	204	193	198	321	304	314
28	---	---	---	225	223	224	224	189	199	316	306	311
29	151	137	144	236	221	224	233	204	224	318	304	311
30	152	150	151	224	222	223	274	210	243	338	304	322
31	153	148	150	---	---	---	245	232	239	336	310	323
MONTH	282	137	206	236	132	183	298	172	213	492	212	287

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	334	322	328	---	---	---	113	106	109	138	130	134
2	328	316	322	---	---	---	107	103	105	145	138	142
3	327	314	321	127	124	125	107	103	105	150	144	147
4	323	311	319	124	118	120	105	93	97	157	150	154
5	351	313	333	126	111	119	98	95	97	---	---	---
6	320	310	314	110	92	98	102	97	100	---	---	---
7	326	316	321	109	101	106	113	101	107	---	---	---
8	348	328	340	111	108	110	124	113	119	---	---	---
9	347	331	339	111	109	110	132	124	128	---	---	---
10	357	333	343	---	---	---	139	132	135	---	---	---
11	339	327	333	---	---	---	145	138	142	---	---	---
12	353	317	339	---	---	---	148	145	147	---	---	---
13	333	309	320	---	---	---	156	148	152	---	---	---
14	309	293	301	---	---	---	164	156	160	---	---	---
15	293	285	290	---	---	---	169	164	167	---	---	---
16	286	262	277	---	---	---	---	---	---	---	---	---
17	286	267	276	---	---	---	---	---	---	---	---	---
18	283	261	271	109	103	106	---	---	---	---	---	---
19	315	277	298	119	109	113	---	---	---	---	---	---
20	315	279	290	126	119	123	---	---	---	---	---	---
21	287	281	284	132	126	129	---	---	---	198	195	196
22	297	289	293	145	132	137	---	---	---	202	198	200
23	313	297	307	147	126	142	---	---	---	204	201	202
24	343	277	296	129	121	124	---	---	---	210	203	207
25	277	235	250	139	129	133	---	---	---	215	207	212
26	---	---	---	144	138	142	---	---	---	220	214	217
27	---	---	---	145	142	143	---	---	---	223	217	220
28	---	---	---	148	144	146	---	---	---	227	221	224
29	---	---	---	149	147	148	---	---	---	234	226	230
30	---	---	---	148	142	146	130	124	126	245	234	238
31	---	---	---	143	113	124	---	---	---	249	246	247
MONTH	357	235	308	149	92	126	169	93	125	249	130	198

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	249	246	248	262	242	256	187	181	184	247	236	242
2	252	246	248	245	232	237	194	184	190	239	233	236
3	253	249	251	239	221	227	208	193	197	257	237	248
4	264	251	260	232	223	227	---	---	---	264	256	260
5	263	259	233	235	229	233	242	208	221	269	261	264
6	261	254	257	230	220	228	220	203	210	281	262	270
7	268	254	261	225	219	223	215	204	210	280	269	274
8	272	260	266	226	216	219	217	206	214	286	279	281
9	264	256	260	223	194	210	231	213	224	292	284	287
10	265	253	256	228	214	221	230	222	227	295	289	292
11	277	259	268	226	207	217	231	223	227	297	291	293
12	268	257	264	208	193	199	239	223	233	297	290	293
13	261	256	259	208	191	201	252	239	243	295	288	291
14	256	246	252	231	192	202	273	253	267	297	290	295
15	252	243	246	240	206	219	268	219	242	299	293	296
16	260	252	256	216	207	211	223	215	221	307	299	304
17	267	260	264	205	158	175	215	208	211	314	305	309
18	273	263	269	---	---	---	233	216	225	327	309	315
19	283	273	279	---	---	---	226	220	222	387	321	342
20	285	278	280	---	---	---	219	201	211	386	252	317
21	287	279	284	---	---	---	199	183	189	249	202	220
22	282	267	274	---	---	---	190	181	185	204	162	174
23	277	258	266	---	---	---	208	190	197	164	138	149
24	262	258	260	---	---	---	228	209	219	140	131	136
25	272	255	267	---	---	---	229	227	228	131	127	128
26	269	261	266	---	---	---	228	221	224	136	128	132
27	264	243	252	---	---	---	222	217	220	141	124	133
28	265	243	255	166	162	164	221	218	220	124	113	116
29	270	231	252	165	163	164	233	222	231	126	115	122
30	239	217	224	178	165	172	240	234	238	130	126	128
31	---	---	---	186	177	181	245	237	242	---	---	---
MONTH	287	217	259	262	158	209	273	181	219	387	113	238

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.5	7.3	7.4	7.2	7.1	7.2	7.9	7.7	7.8	---	---	---
2	7.5	7.3	7.4	7.2	7.1	7.1	7.7	7.6	7.7	---	---	---
3	7.5	7.4	7.4	7.3	7.1	7.2	8.7	7.6	8.0	---	---	---
4	7.5	7.4	7.5	7.3	7.1	7.2	8.8	8.6	8.7	---	---	---
5	7.6	7.4	7.5	7.2	7.2	7.2	8.6	7.9	8.2	---	---	---
6	7.6	7.5	7.5	7.2	7.2	7.2	7.9	7.8	7.8	---	---	---
7	7.7	7.5	7.6	7.2	7.2	7.2	7.8	7.7	7.7	---	---	---
8	7.5	7.4	7.5	7.3	7.2	7.3	7.7	7.6	7.7	---	---	---
9	7.5	6.9	7.4	7.4	7.3	7.3	7.6	7.3	7.4	---	---	---
10	7.1	6.8	6.9	7.4	7.3	7.3	7.4	7.3	7.3	---	---	---
11	6.9	6.8	6.8	7.3	7.3	7.3	7.4	7.3	7.3	---	---	---
12	7.0	6.9	7.0	7.3	7.3	7.3	7.4	7.4	7.4	---	---	---
13	7.0	6.9	6.9	7.4	7.3	7.3	7.5	7.3	7.4	---	---	---
14	7.1	7.0	7.1	7.4	7.2	7.3	7.5	7.4	7.4	---	---	---
15	7.1	7.1	7.1	7.4	7.3	7.3	7.5	7.4	7.4	---	---	---
16	7.2	7.1	7.2	7.4	7.3	7.3	7.5	7.4	7.5	---	---	---
17	7.3	7.2	7.2	7.4	7.2	7.4	7.4	7.4	7.4	---	---	---
18	7.4	7.3	7.3	7.5	7.3	7.4	7.5	7.4	7.4	7.2	7.1	7.1
19	7.4	7.3	7.3	7.4	7.4	7.4	7.5	7.3	7.4	7.2	7.0	7.1
20	7.4	7.3	7.4	7.5	7.4	7.4	7.4	7.3	7.3	7.1	7.1	7.1
21	7.4	7.3	7.3	7.5	7.4	7.5	7.5	7.2	7.4	7.1	7.0	7.1
22	7.3	7.1	7.2	7.6	7.5	7.5	7.5	7.4	7.4	7.1	7.0	7.0
23	7.2	7.0	7.1	7.6	7.5	7.6	7.6	7.4	7.4	7.1	7.0	7.1
24	7.3	7.2	7.2	7.7	7.5	7.6	7.5	7.4	7.5	7.1	7.0	7.1
25	7.2	7.1	7.1	7.7	7.6	7.6	8.2	7.4	7.6	7.1	7.0	7.1
26	7.2	7.1	7.1	7.7	7.6	7.6	8.8	7.7	8.1	7.1	7.0	7.0
27	7.2	7.1	7.2	7.7	7.6	7.6	8.8	7.9	8.4	7.0	7.0	7.0
28	7.2	7.1	7.2	7.7	7.6	7.6	8.8	7.5	8.0	7.1	7.0	7.0
29	7.2	7.1	7.2	7.8	7.5	7.6	---	---	---	7.1	7.1	7.1
30	7.2	7.1	7.2	7.8	7.7	7.7	---	---	---	7.2	7.0	7.1
31	7.2	7.2	7.2	---	---	---	---	---	---	7.1	7.0	7.1
MONTH	7.7	6.8	7.2	7.8	7.1	7.4	8.8	7.2	7.6	7.2	7.0	7.1

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	7.0	7.1	---	---	---	7.0	7.0	7.0	7.4	7.2	7.3
2	7.1	7.0	7.1	---	---	---	7.0	7.0	7.0	7.5	7.2	7.3
3	7.1	7.0	7.1	7.0	6.9	7.0	7.0	6.9	7.0	8.0	7.2	7.6
4	7.2	7.0	7.1	6.9	6.9	6.9	6.9	6.5	6.7	7.6	7.3	7.5
5	7.2	7.0	7.1	6.9	6.7	6.8	6.6	6.5	6.5	---	---	---
6	7.1	7.0	7.1	6.7	6.6	6.7	6.7	6.6	6.7	---	---	---
7	7.1	7.0	7.1	6.8	6.7	6.8	6.7	6.7	6.7	---	---	---
8	7.1	7.0	7.1	6.9	6.8	6.8	6.8	6.7	6.8	---	---	---
9	7.2	7.0	7.1	6.9	6.8	6.9	6.9	6.8	6.9	---	---	---
10	7.2	7.0	7.1	---	---	---	6.9	6.9	6.9	---	---	---
11	7.1	7.0	7.1	---	---	---	6.9	6.9	6.9	---	---	---
12	7.4	7.1	7.3	---	---	---	6.9	6.8	6.9	---	---	---
13	7.5	7.2	7.3	---	---	---	6.9	6.8	6.9	---	---	---
14	7.8	7.3	7.5	---	---	---	7.0	6.9	7.0	---	---	---
15	7.8	7.5	7.6	---	---	---	7.1	7.0	7.1	---	---	---
16	7.7	7.4	7.6	---	---	---	---	---	---	---	---	---
17	7.4	7.3	7.3	---	---	---	---	---	---	---	---	---
18	7.6	7.3	7.4	7.0	6.9	7.0	---	---	---	---	---	---
19	7.4	7.3	7.4	7.1	7.0	7.1	---	---	---	---	---	---
20	7.4	7.3	7.3	7.1	7.0	7.0	---	---	---	---	---	---
21	7.3	7.2	7.2	7.1	7.0	7.0	---	---	---	9.2	8.6	8.9
22	7.3	7.1	7.2	7.0	7.0	7.0	---	---	---	9.2	8.5	8.9
23	7.5	7.2	7.3	7.0	6.9	7.0	---	---	---	9.2	8.4	8.8
24	7.5	7.4	7.4	7.0	6.9	6.9	---	---	---	9.2	8.5	8.9
25	---	---	---	7.1	7.0	7.0	---	---	---	9.1	8.3	8.8
26	---	---	---	7.1	7.0	7.1	---	---	---	9.1	8.4	8.8
27	---	---	---	7.0	7.0	7.0	---	---	---	9.1	8.6	8.9
28	---	---	---	7.0	7.0	7.0	---	---	---	9.1	8.4	8.8
29	---	---	---	7.0	7.0	7.0	---	---	---	8.9	8.2	8.6
30	---	---	---	7.0	7.0	7.0	7.3	7.1	7.2	8.6	7.8	8.3
31	---	---	---	7.1	7.0	7.0	---	---	---	8.7	7.8	8.2
MONTH	7.8	7.0	7.2	7.1	6.6	7.0	7.3	6.5	6.9	9.2	7.2	8.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.2	7.5	7.9	8.9	7.4	8.2	7.9	6.7	7.3	8.9	7.9	8.4
2	8.2	7.4	7.8	9.1	7.9	8.6	8.5	6.9	7.6	8.7	7.6	8.2
3	7.8	7.3	7.5	9.0	8.0	8.6	8.6	7.0	7.7	8.5	7.5	8.0
4	8.4	7.4	8.0	8.7	7.7	8.3	---	---	---	8.5	7.7	8.1
5	8.7	7.6	8.2	9.1	7.9	8.7	8.7	7.5	8.2	8.5	7.6	8.1
6	8.4	7.5	7.8	9.0	8.3	8.6	8.4	7.3	7.9	8.5	7.5	8.1
7	8.5	7.5	7.9	8.9	7.5	8.3	8.2	7.2	7.7	8.6	7.5	8.1
8	8.6	7.8	8.3	9.0	7.5	8.4	8.5	7.3	7.9	8.7	7.7	8.2
9	8.3	7.6	8.0	8.8	7.7	8.2	8.6	7.2	7.9	8.5	7.7	8.2
10	8.7	7.5	8.0	9.1	7.5	8.5	8.4	7.4	7.9	8.6	7.6	8.2
11	8.9	8.1	8.6	8.7	7.6	8.1	8.8	7.3	8.1	8.7	8.0	8.4
12	9.0	7.9	8.6	8.4	7.1	7.6	8.4	7.2	7.8	8.8	8.1	8.5
13	9.1	8.0	8.7	8.9	7.2	8.0	8.0	7.1	7.5	8.7	7.9	8.4
14	8.8	8.1	8.4	8.2	7.0	7.2	7.8	7.0	7.4	8.6	7.8	8.2
15	9.0	7.6	8.3	8.0	6.9	7.3	8.2	6.9	7.5	8.7	7.9	8.3
16	9.1	8.0	8.7	7.5	6.9	7.1	8.2	6.9	7.5	8.4	7.7	8.0
17	9.1	8.3	8.7	7.3	6.8	7.0	7.5	6.9	7.2	8.5	7.5	8.0
18	8.9	7.8	8.5	---	---	---	8.3	6.9	7.5	8.5	7.6	8.1
19	9.0	8.0	8.6	---	---	---	8.6	7.1	7.8	8.9	7.5	8.2
20	9.0	8.4	8.8	---	---	---	8.6	7.3	8.0	8.5	7.5	7.8
21	8.8	8.2	8.5	---	---	---	8.4	7.2	7.8	7.5	7.4	7.5
22	8.7	8.0	8.4	---	---	---	8.3	7.1	7.6	7.4	7.2	7.3
23	8.7	8.0	8.4	---	---	---	8.5	7.2	7.8	7.2	7.1	7.2
24	8.6	7.9	8.3	---	---	---	8.7	7.4	8.1	7.2	7.1	7.2
25	8.4	7.8	8.1	---	---	---	8.5	7.3	7.9	7.2	7.2	7.2
26	8.7	7.5	8.1	---	---	---	8.8	7.4	8.1	7.2	7.1	7.2
27	8.9	7.6	8.4	---	---	---	8.4	7.3	7.9	7.1	6.9	7.0
28	8.6	7.7	8.1	6.8	6.6	6.7	8.5	7.3	8.0	7.0	6.8	6.9
29	8.8	7.2	8.0	6.8	6.6	6.7	8.9	7.8	8.4	7.1	6.4	7.0
30	8.9	7.3	8.2	6.8	6.6	6.7	9.0	8.0	8.6	7.1	7.0	7.0
31	---	---	---	6.9	6.6	6.7	8.9	7.8	8.5	---	---	---
MONTH	9.1	7.2	8.3	9.1	6.6	7.8	9.0	6.7	7.8	8.9	6.4	7.8

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	0.5	0.0	0.0	---	---	---	10.5	9.5	10.0	15.5	13.5	14.5
2	0.5	0.0	0.5	---	---	---	10.5	9.0	9.5	15.5	15.0	15.0
3	0.5	0.0	0.5	---	---	---	10.0	9.0	9.5	17.0	15.0	16.0
4	0.5	0.5	0.5	4.5	3.0	3.5	9.5	8.5	8.5	16.5	14.5	15.5
5	0.5	0.0	0.5	5.0	4.0	4.5	8.5	8.0	8.5	---	---	---
6	0.0	0.0	0.0	5.5	4.0	5.0	8.0	7.5	7.5	---	---	---
7	0.5	0.0	0.0	5.0	4.5	5.0	8.0	7.0	7.5	---	---	---
8	0.5	0.0	0.5	5.0	4.0	5.0	8.0	7.0	7.5	---	---	---
9	0.5	0.5	0.5	6.0	4.5	5.0	8.0	6.5	7.5	---	---	---
10	0.5	0.5	0.5	---	---	---	8.5	7.0	8.0	---	---	---
11	0.5	0.5	0.5	---	---	---	11.0	8.5	9.5	---	---	---
12	0.5	0.5	0.5	---	---	---	13.0	11.0	12.0	---	---	---
13	0.5	0.5	0.5	---	---	---	14.5	13.0	14.0	---	---	---
14	0.5	0.5	0.5	---	---	---	15.5	14.0	14.5	---	---	---
15	0.5	0.5	0.5	---	---	---	15.5	14.5	15.0	---	---	---
16	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
17	0.5	0.0	0.5	---	---	---	---	---	---	---	---	---
18	0.5	0.5	0.5	7.5	6.0	6.5	---	---	---	---	---	---
19	0.5	0.5	0.5	6.0	5.0	5.5	---	---	---	---	---	---
20	0.5	0.5	0.5	6.0	4.5	5.0	---	---	---	---	---	---
21	0.5	0.5	0.5	5.5	4.0	5.0	---	---	---	25.5	23.0	24.0
22	0.5	0.5	0.5	5.5	4.5	5.0	---	---	---	25.5	23.0	24.5
23	0.5	0.5	0.5	5.0	4.0	4.5	---	---	---	26.0	23.0	24.5
24	0.5	0.5	0.5	5.0	4.0	4.5	---	---	---	26.5	24.0	25.0
25	---	---	---	4.5	3.5	4.0	---	---	---	25.5	24.0	25.0
26	---	---	---	5.5	3.5	4.5	---	---	---	26.0	23.5	25.0
27	---	---	---	6.5	5.0	5.5	---	---	---	26.0	23.0	25.0
28	---	---	---	6.5	6.5	6.5	---	---	---	27.0	24.0	25.5
29	---	---	---	9.0	6.5	7.5	---	---	---	26.5	24.0	25.5
30	---	---	---	10.5	9.0	9.5	14.0	12.5	13.0	24.5	21.5	22.0
31	---	---	---	10.5	9.5	10.0	---	---	---	21.5	20.5	21.0
MONTH	0.5	0.0	0.5	10.5	3.0	5.5	15.5	6.5	10.0	27.0	13.5	22.0

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.4	8.6	9.0	12.0	11.8	11.9	---	---	---	15.2	14.6	14.8
2	9.6	8.9	9.2	12.1	11.8	12.0	---	---	---	15.2	15.0	15.1
3	9.4	8.8	9.1	11.9	11.8	11.9	---	---	---	15.5	14.6	15.1
4	8.9	8.7	8.8	12.0	11.9	11.9	16.5	15.3	15.9	15.2	14.6	14.9
5	9.2	8.8	9.0	12.1	12.0	12.1	16.0	14.7	15.2	15.3	14.7	14.9
6	9.5	8.8	9.1	12.4	12.2	12.3	14.8	14.1	14.5	15.5	14.9	15.1
7	9.6	9.0	9.2	12.4	12.3	12.4	14.1	12.8	13.6	15.7	14.5	15.0
8	9.1	8.8	8.9	12.8	12.5	12.6	13.7	12.8	13.2	15.0	14.2	14.5
9	9.0	8.8	8.9	13.2	12.9	13.1	13.5	13.0	13.2	15.0	14.3	14.6
10	9.8	8.4	9.0	13.3	13.1	13.2	13.1	13.0	13.0	15.1	14.2	14.6
11	9.9	9.5	9.7	13.1	13.0	13.1	---	---	---	14.3	14.2	14.3
12	9.9	9.7	9.8	13.3	13.0	13.1	---	---	---	14.5	13.9	14.1
13	10.1	9.9	10.0	13.4	13.1	13.3	---	---	---	15.2	14.4	14.7
14	10.1	9.9	10.0	13.4	13.1	13.3	---	---	---	15.1	14.0	14.5
15	---	---	---	13.2	13.1	13.2	---	---	---	15.1	13.5	14.2
16	10.2	9.9	10.1	13.3	13.0	13.2	14.1	13.9	13.9	14.0	13.0	13.6
17	10.4	10.2	10.3	13.3	13.0	13.1	13.9	13.8	13.8	13.4	12.9	13.2
18	10.6	10.5	10.5	13.0	12.8	12.9	14.2	13.8	14.0	14.3	13.3	13.9
19	10.9	10.7	10.9	13.0	12.6	12.8	14.4	14.0	14.2	14.6	13.6	14.0
20	11.0	10.7	10.9	12.9	12.6	12.8	14.2	13.6	14.0	14.3	13.5	13.9
21	11.0	10.8	10.9	12.9	12.7	12.8	17.1	13.4	14.2	14.0	13.3	13.7
22	11.0	10.9	11.0	13.1	12.8	13.0	14.7	14.4	14.5	14.3	13.2	13.7
23	11.3	11.0	11.2	13.7	13.1	13.4	14.5	14.3	14.4	14.4	13.1	13.8
24	11.3	11.2	11.2	---	---	---	14.6	14.3	14.4	14.6	13.2	13.9
25	11.3	11.2	11.3	---	---	---	15.0	14.5	14.6	14.7	13.0	13.8
26	11.5	11.2	11.4	---	---	---	15.3	13.8	14.5	13.9	12.5	13.2
27	11.7	11.5	11.6	---	---	---	15.4	13.8	14.5	13.5	12.0	12.7
28	11.8	11.6	11.7	---	---	---	15.3	13.7	14.2	13.7	12.4	12.9
29	12.0	11.8	11.9	---	---	---	14.3	14.0	14.1	14.6	13.0	13.7
30	12.0	11.9	12.0	---	---	---	14.5	14.3	14.4	15.0	12.8	14.0
31	12.0	11.8	11.8	---	---	---	15.1	14.4	14.7	15.0	12.9	13.8
MONTH	12.0	8.4	10.3	13.7	11.8	12.8	17.1	12.8	14.2	15.7	12.0	14.1

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	15.0	13.4	14.2	---	---	---	11.2	10.9	11.1	11.2	10.7	10.9
2	15.2	13.8	14.5	---	---	---	11.2	10.9	11.1	11.3	10.7	11.0
3	15.7	13.6	14.6	---	---	---	11.3	11.2	11.2	11.8	10.7	11.2
4	15.7	13.4	14.5	---	---	---	11.5	11.3	11.4	11.4	10.8	11.1
5	15.3	12.9	14.0	---	---	---	11.5	11.3	11.4	---	---	---
6	14.8	13.2	14.5	---	---	---	11.8	11.5	11.7	---	---	---
7	15.2	13.4	14.8	---	---	---	12.1	11.9	12.0	---	---	---
8	15.7	13.8	14.7	---	---	---	12.1	11.9	12.1	---	---	---
9	16.6	13.8	15.2	---	---	---	12.2	12.1	12.2	---	---	---
10	16.6	13.7	15.1	---	---	---	12.2	11.9	12.1	---	---	---
11	15.7	13.8	14.8	---	---	---	---	---	---	---	---	---
12	17.3	15.3	16.3	---	---	---	---	---	---	---	---	---
13	17.1	15.3	16.2	---	---	---	---	---	---	---	---	---
14	17.1	15.3	16.3	---	---	---	---	---	---	---	---	---
15	16.3	15.0	15.6	---	---	---	---	---	---	---	---	---
16	15.5	14.7	15.1	---	---	---	---	---	---	---	---	---
17	15.4	14.7	15.1	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	12.6	12.4	12.5	---	---	---	---	---	---
26	---	---	---	12.6	12.4	12.5	---	---	---	---	---	---
27	---	---	---	12.5	12.2	12.4	---	---	---	---	---	---
28	---	---	---	12.4	12.0	12.1	---	---	---	---	---	---
29	---	---	---	12.1	11.8	12.0	---	---	---	8.6	6.3	7.6
30	---	---	---	11.8	11.2	11.5	11.1	10.8	10.9	8.2	5.9	7.1
31	---	---	---	11.3	11.2	11.3	---	---	---	8.5	6.2	7.3
MONTH	17.3	12.9	15.0	12.6	11.2	12.0	12.2	10.8	11.6	11.8	5.9	9.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.5	6.8	7.7	9.9	6.6	8.2	9.1	7.0	7.8	---	---	---
2	8.3	6.4	7.4	9.8	6.9	8.6	9.3	7.7	8.1	---	---	---
3	8.7	6.6	7.8	9.8	7.1	8.5	8.9	7.5	7.9	---	---	---
4	9.1	6.9	8.1	9.3	6.7	8.1	---	---	---	---	---	---
5	8.9	6.7	8.0	9.8	9.8	8.3	8.7	6.6	7.8	---	---	---
6	8.7	6.7	7.7	9.5	6.0	7.4	8.2	6.4	7.4	---	---	---
7	9.7	7.6	8.8	9.4	5.6	7.4	8.1	6.5	7.4	---	---	---
8	10.2	8.3	9.4	9.8	6.2	8.0	8.6	6.5	7.5	---	---	---
9	9.8	7.9	8.8	9.5	6.3	7.6	8.9	6.6	7.7	9.1	7.1	8.1
10	10.1	7.7	9.0	10.4	6.4	8.4	8.5	6.6	7.5	9.0	7.1	8.1
11	10.5	8.7	9.7	8.3	6.5	7.4	9.1	6.6	7.8	9.0	7.5	8.3
12	10.6	8.2	9.6	9.2	6.9	7.8	8.4	6.8	7.7	9.9	7.9	8.8
13	11.0	7.8	9.5	9.6	6.7	8.1	8.4	7.0	7.8	9.7	7.9	8.8
14	9.3	7.6	8.5	7.5	6.5	6.8	8.4	7.1	7.8	9.5	7.8	8.6
15	10.7	7.4	9.0	8.3	6.6	7.4	8.5	7.2	7.9	10.1	8.2	9.1
16	10.1	7.6	9.0	8.0	6.6	7.2	8.4	6.9	7.7	9.4	8.4	8.9
17	9.6	6.6	7.9	7.7	6.5	7.1	8.1	7.0	7.5	10.4	8.3	9.2
18	9.2	6.2	7.7	---	---	---	8.8	7.4	8.1	9.7	8.1	8.9
19	9.0	6.3	7.8	---	---	---	9.3	7.7	8.5	10.9	7.6	8.9
20	9.2	6.2	7.6	---	---	---	9.0	7.6	8.4	8.5	7.5	8.0
21	8.9	6.2	7.6	---	---	---	9.1	7.7	8.4	8.2	7.6	8.0
22	9.0	6.7	8.1	---	---	---	8.9	7.7	8.3	---	---	---
23	9.3	7.0	8.2	---	---	---	9.1	7.6	8.4	---	---	---
24	8.6	6.7	7.7	---	---	---	9.1	7.5	8.3	---	---	---
25	7.8	6.3	7.2	---	---	---	9.1	7.7	8.5	---	---	---
26	8.9	6.6	7.8	---	---	---	9.3	7.7	8.6	---	---	---
27	---	---	---	---	---	---	8.9	7.5	8.3	8.7	8.5	8.6
28	---	---	---	7.9	7.4	7.7	8.6	7.3	8.0	9.1	8.8	9.0
29	---	---	---	7.9	7.5	7.7	8.8	6.7	7.8	9.3	9.2	9.3
30	9.9	6.4	8.2	7.9	7.5	7.6	8.9	6.4	7.6	9.4	9.0	9.2
31	---	---	---	7.8	7.3	7.6	8.6	6.2	7.4	---	---	---
MONTH	11.0	6.2	8.3	10.4	5.6	7.8	9.3	6.2	7.9	10.9	7.1	8.7

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	15600	20	842	67900	35	6420	16400	5	221
2	19600	35	1850	70700	39	7440	16000	5	216
3	28400	68	5210	73400	50	9910	14000	5	189
4	36000	93	9040	65300	40	7050	12000	5	162
5	27600	44	3280	57300	30	4640	13000	8	281
6	25000	28	1890	50500	20	2730	15000	10	405
7	21600	23	1340	46000	12	1490	20000	12	648
8	17800	21	1010	42000	8	907	35000	14	1320
9	76300	307	63200	38500	7	728	44000	15	1780
10	227000	488	299000	35900	6	582	45000	15	1820
11	216000	275	160000	33300	6	539	43000	12	1390
12	174000	360	169000	31800	5	429	39000	10	1050
13	125000	188	63500	30100	5	406	35000	10	945
14	94700	82	21000	28500	5	385	32000	9	778
15	74000	50	9990	27400	4	296	30000	9	729
16	57200	41	6330	24300	5	328	28000	8	605
17	48400	38	4970	22400	6	363	27000	8	583
18	43100	34	3960	24000	6	389	26000	8	562
19	38600	21	2190	24000	6	389	25000	7	472
20	36100	17	1660	24900	8	538	24000	7	454
21	47200	17	2170	23300	8	503	22000	7	416
22	92300	81	20200	21600	8	467	18000	7	340
23	111000	87	26100	20700	8	447	16000	6	259
24	107000	131	37800	19700	7	372	22000	10	594
25	90900	84	20600	19000	7	359	15000	8	324
26	87700	50	11800	18400	7	348	17500	6	283
27	96100	30	7780	17800	6	288	18000	6	292
28	90900	25	6140	17300	6	280	18000	8	389
29	78800	20	4260	17300	6	280	17500	8	378
30	66100	18	3210	17300	6	280	16000	7	302
31	59600	20	3220	---	---	---	13000	7	246
TOTAL	2329600	---	972542	1010600	---	49583	732400	---	18433

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	9300	7	176	8900	5	120	105000	125	35400
2	9700	7	183	8500	6	138	102000	115	31700
3	10000	10	270	9000	6	146	84600	110	25100
4	10500	14	397	9300	7	176	74900	95	19200
5	12500	16	540	8900	7	168	147000	285	113000
6	13000	15	526	7900	6	128	188000	260	132000
7	13500	14	510	8200	7	155	166000	175	78400
8	12000	12	389	8600	9	209	133000	90	32300
9	13000	11	386	8300	8	179	103000	70	19500
10	12500	10	337	9700	8	210	80900	50	10900
11	12000	10	324	9300	8	201	69900	40	7550
12	12000	9	292	8800	7	166	71100	45	8640
13	11000	9	267	11500	10	310	90800	60	14700
14	10500	8	227	13500	16	583	150000	140	56700
15	10000	9	243	17000	18	826	206000	265	147000
16	10500	10	283	18000	20	972	188000	285	145000
17	9800	9	238	18500	18	899	155000	170	71100
18	10500	10	283	17000	16	734	132000	115	41000
19	10000	10	270	18000	14	680	114000	75	23100
20	10000	8	216	19000	13	667	104000	55	15400
21	10500	8	227	17000	11	505	91600	40	9890
22	11000	7	208	16000	9	389	86900	53	12400
23	10500	7	198	15000	8	324	133000	148	53100
24	10000	7	189	20000	16	864	139000	95	35700
25	10500	7	198	46900	35	4430	114000	53	16300
26	11000	6	178	124000	140	46900	92400	38	9480
27	11000	6	178	134000	160	57900	78200	30	6330
28	10500	6	170	110000	135	40100	68500	28	5180
29	11000	5	148	---	---	---	68800	30	5570
30	10000	5	135	---	---	---	97400	39	10300
31	9200	5	124	---	---	---	142000	95	36400
TOTAL	337500	---	8310	720800	---	159079	3577000	---	1228340

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	141000	132	50300	44400	26	3120	12300	8	266
2	135000	77	28100	38600	15	1560	11200	7	212
3	161000	110	47800	34900	11	1040	9940	11	295
4	209000	153	86300	32100	8	693	10700	12	347
5	183000	104	51400	30200	7	571	9610	10	259
6	155000	56	23400	30200	9	734	8390	14	317
7	128000	47	16200	33100	11	983	9960	16	430
8	106000	40	11400	42700	28	3230	9880	13	347
9	91400	35	8640	38100	24	2470	9950	14	376
10	76900	28	5810	34100	19	1750	11500	18	559
11	65500	22	3890	32600	17	1500	12700	20	686
12	56500	20	3050	32100	16	1390	14000	18	680
13	50400	21	2860	33800	18	1640	13600	16	588
14	45400	23	2820	32300	17	1480	12500	15	506
15	41200	19	2110	30800	17	1410	11500	14	435
16	37900	18	1840	29600	16	1280	10700	13	376
17	34800	17	1600	27200	16	1180	9770	12	317
18	32100	15	1300	24500	15	992	9310	12	302
19	30100	13	1060	22600	15	915	9910	10	268
20	28300	13	993	22700	14	858	9950	9	242
21	26800	12	868	20000	14	756	10000	8	216
22	25800	11	766	18700	14	707	11400	14	431
23	24200	9	588	17600	13	618	11000	13	386
24	24500	10	661	17200	9	418	9200	11	273
25	41100	55	6100	16300	8	352	9850	10	266
26	78300	120	25400	15200	6	246	12000	12	389
27	86600	105	24600	14600	5	197	12500	13	439
28	77500	72	15100	14500	6	235	12400	16	536
29	64300	44	7640	14200	7	268	15400	24	998
30	52600	35	4970	14400	8	311	14400	20	778
31	---	---	---	13300	8	287	---	---	---
TOTAL	2310200	---	437566	822600	---	33191	335520	---	12520

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	13300	18	646	13900	14	525	8360	9	203
2	13200	16	570	11100	9	270	7920	9	192
3	12300	12	399	11200	12	363	7770	8	168
4	10900	10	294	11600	15	470	7230	8	156
5	9570	9	233	11400	14	431	7030	7	133
6	9840	8	213	10100	11	300	7030	7	133
7	10600	20	572	9550	9	232	6700	6	109
8	13800	45	1680	9470	10	256	6500	7	123
9	18200	55	2700	10000	12	324	6950	8	150
10	18800	48	2440	11500	17	528	6630	8	143
11	20200	60	3270	17200	45	2090	6160	8	133
12	22500	45	2730	17500	25	1180	5440	9	132
13	20600	50	2780	14400	14	544	5580	9	136
14	26100	90	6340	13600	16	588	4820	8	104
15	26800	75	5430	14600	19	749	4990	8	108
16	20300	45	2470	13100	18	637	4860	10	131
17	18400	35	1740	14100	24	914	5730	13	201
18	16600	28	1250	15800	19	811	9050	50	1220
19	15600	24	1010	15900	18	773	17900	85	4110
20	16900	28	1280	17000	16	734	33500	135	12200
21	19100	33	1700	15800	14	597	35400	135	12900
22	23100	60	3740	14400	16	622	56600	215	32900
23	32700	125	11000	14700	14	556	65800	210	37300
24	24000	85	5510	12800	13	449	58500	150	23700
25	22700	65	3980	11600	12	376	54400	118	17300
26	20500	45	2490	10900	10	294	63800	115	19800
27	19900	35	1880	9480	10	256	143000	255	98500
28	22000	40	2380	9460	9	230	141000	275	105000
29	20300	30	1640	9620	11	286	106000	108	30900
30	16900	23	1050	9280	12	301	77500	86	18000
31	15600	17	716	9010	11	268	---	---	---
TOTAL	571310	---	74133	390070	---	16954	972150	---	416285

YELLOW BREECHES CREEK BASIN

01571500 YELLOW BREECHES CREEK NEAR CAMP HILL, PA

LOCATION.--Lat 40°13'29", long 76°53'54", Cumberland County, Hydrologic Unit 02050305, on left bank 50 ft (15 m) downstream from single-span highway bridge, 150 ft (46 m) downstream from Olmsted's Mill dam, 1 mi (1.6 km) southeast of Camp Hill and 3.1 miles (5.0 km) upstream from mouth.

DRAINAGE AREA.--216 mi² (559 km²).

PERIOD OF RECORD.--April 1909 to December 1919, June 1954 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to June 1954, published as "at Olmsted's Mill".

REVISED RECORDS.--WSP 1302: 1910, 1912-13, 1914(M), 1916.

GAGE.--Water-stage recorder. Datum at gage is 307.49 ft (93.723 m) above mean sea level. March 1909 to December 1919, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. The Mechanicsburg Water Co. diverts water at a point about 4 miles (6.44 km) upstream from station for municipal water supply, equivalent to a mean discharge at station of 1.1 ft³/s (0.031 m³/s).

AVERAGE DISCHARGE.--33 years (1909-1919, 1954-1977), 288 ft³/s (8.16 m³/s), 18.11 in/yr (460 mm/year).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s (547 m³/s) Sept. 26, 1975, gage height, 18.77 ft (5.721 m), from floodmarks; minimum 23 ft³/s (0.651 m³/s) Sept. 12, 1966, gage height, 0.17 ft (0.052 m); minimum daily, 67 ft³/s (1.90 m³/s) Sept. 13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 22, 1953 reached a stage of 9.4 ft (2.87 m), from floodmarks, discharge, 3,940 ft³/s (112 m³/s), from rating curve extended above 2,500 ft³/s (70.8 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,250 ft³/s (35.4 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2015	*6,360 180	*11.66 3.554	Mar. 13	1330	1,550 43.9	4.90 1.494
Feb. 24	2330	1,310 37.1	4.42 1.347	Mar. 22	1800	1,900 53.8	5.56 1.695
Mar. 4	2115	1,660 47.0	5.12 1.561				

Minimum discharge, 98 ft³/s (2.78 m³/s) Sept. 15, gage height, 1.06 ft (0.323 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	568	214	177	170	277	430	311	169	159	137	117
2	217	451	214	208	180	255	700	300	164	154	130	119
3	280	428	200	214	190	241	1000	294	157	150	128	117
4	265	421	198	214	200	707	800	283	152	147	130	110
5	201	396	198	208	210	1090	900	314	152	145	126	110
6	182	383	198	200	190	572	800	356	167	147	123	106
7	171	359	582	206	170	464	730	356	182	172	128	133
8	204	341	518	198	170	408	657	302	169	203	123	135
9	3380	323	326	200	170	374	593	272	187	167	121	117
10	3830	311	294	214	172	353	533	263	269	154	121	115
11	1120	302	283	200	185	332	498	258	222	152	128	108
12	695	291	277	174	244	317	467	244	192	216	123	104
13	547	283	272	170	283	967	441	233	182	211	130	104
14	467	274	250	180	266	928	418	227	187	167	133	102
15	412	272	249	210	244	601	399	216	203	152	130	100
16	377	266	249	150	214	529	383	208	195	145	126	104
17	346	258	249	150	195	471	368	206	190	145	126	112
18	320	258	241	170	187	484	356	206	235	227	128	110
19	297	255	233	190	187	515	346	216	216	200	123	121
20	408	249	235	210	198	441	335	206	192	185	121	261
21	734	244	244	198	190	461	326	195	203	172	119	154
22	454	241	216	185	180	1030	320	185	185	157	119	121
23	371	233	224	180	206	1120	320	182	172	150	115	115
24	362	227	216	187	488	730	415	180	164	142	112	117
25	428	224	206	192	680	608	649	174	177	167	112	255
26	634	224	216	192	362	547	431	174	216	192	110	261
27	494	224	222	190	311	500	374	169	172	157	110	198
28	421	224	216	180	320	520	350	167	172	145	108	164
29	399	255	214	137	---	560	380	164	177	137	106	145
30	386	247	198	160	---	490	346	162	167	140	130	133
31	649	---	200	170	---	420	---	164	---	140	117	---
TOTAL	19235	9032	7852	5814	6762	17312	15065	7187	5587	5097	3793	4068
MEAN	620	301	253	188	242	558	502	232	186	164	122	136
MAX	3830	568	582	214	680	1120	1000	356	269	227	137	261
MIN	171	224	198	137	170	241	320	162	152	137	106	100
CFSM	2.87	1.39	1.17	.87	1.12	2.58	2.32	1.07	.86	.76	.57	.63
IN.	3.31	1.56	1.35	1.00	1.16	2.98	2.59	1.24	.96	.88	.65	.70

CAL YR 1976 TOTAL 118493 MEAN 324 MAX 3830 MIN 128 CFSM 1.50 IN 20.41
WTR YR 1977 TOTAL 106804 MEAN 293 MAX 3830 MIN 100 CFSM 1.36 IN 18.39

01573000 SWATARA CREEK AT HARPER TAVERN, PA

LOCATION.--Lat 40°24'09", long 76°34'39", Lebanon County, Hydrologic Unit 02050305, on left bank 10 ft (3 m) downstream from bridge on State Highway 934 at Harper Tavern, 6 mi (9.7 km) northwest of Annville and 8.5 mi (13.7 km) downstream from Little Swatara Creek.

DRAINAGE AREA.--337 mi² (873 km²).

PERIOD OF RECORD.--January 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1927, published as "at Harpers".

REVISED RECORDS.--WSP 1202: 1948. WSP 1302: 1920(M), 1921, 1924-25(M), 1927-28(M), 1930(M). WSP 1903: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 356.68 ft (108.716 m) above mean sea level. Prior to July 16, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--58 years, 568 ft³/s (16.1 m³/s), 22.89 in/yr (581 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 66,700 ft³/s (1,890 m³/s) June 23, 1972, gage height, 23.72 ft (7.230 m), from floodmark in gage shelter, from rating curve extended above 25,000 ft³/s (708 m³/s) on basis of slope-area measurement of peak flow; minimum 6.0 ft³/s (0.17 m³/s) Aug. 21, 1965; minimum gage height, -0.30 ft (-0.091 m) Sept. 4, 13, 14, 1966.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of June 1, 1889, reached a stage of 25.6 ft (7.80 m), from floodmark, discharge, 88,000 ft³/s (2,490 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,800 ft³/s (136 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	0530	*13,400 379	*12.89 3.929	Mar. 23	0400	7,420 210	9.16 2.792
Mar. 5	1000	9,820 278	10.85 3.307	Apr. 3	0230	5,020 142	7.20 2.195
Mar. 14	0100	6,860 194	8.73 2.661				

Minimum daily discharge, 71 ft³/s (2.01 m³/s) Sept. 13, gage height, -0.01 ft (-0.03 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	417	1980	190	165	115	1180	874	543	133	161	114	90
2	425	1500	235	160	115	920	1890	495	158	140	109	94
3	2400	1290	192	160	115	802	3670	494	141	122	109	159
4	1860	1160	198	160	110	3180	2020	431	123	114	159	101
5	1140	992	205	155	110	8720	3440	521	116	111	126	88
6	857	879	181	155	110	3290	2390	571	127	186	115	85
7	698	770	2000	150	110	2060	1760	675	178	834	119	92
8	982	697	1730	150	115	1540	1550	461	145	482	120	85
9	8050	622	948	150	115	1240	1240	425	154	301	108	81
10	10800	586	770	150	120	1050	1080	399	296	208	122	81
11	2640	540	662	145	125	880	944	354	210	174	132	78
12	2090	500	595	145	130	780	824	321	157	192	126	73
13	1570	457	533	140	135	3060	725	295	133	952	168	72
14	1320	432	362	140	140	5210	654	270	126	334	163	75
15	1040	409	442	140	140	2540	579	251	135	216	123	76
16	870	354	403	140	130	1850	530	237	126	182	109	78
17	732	327	368	135	125	1420	490	223	121	167	133	96
18	644	318	330	135	120	1280	465	212	188	208	214	109
19	557	316	300	135	120	1330	425	214	166	191	136	89
20	522	299	280	130	120	1110	392	205	133	510	110	92
21	4700	285	260	130	120	1040	363	190	175	365	100	100
22	3500	272	250	130	115	3040	343	180	136	232	107	94
23	1700	251	230	125	130	5480	318	170	115	177	127	87
24	1300	237	220	125	500	2650	504	166	107	153	106	88
25	1800	235	210	125	3900	1840	1070	159	114	174	103	411
26	3310	229	200	125	2340	1470	856	155	512	242	98	756
27	1880	227	190	125	1720	1260	982	144	246	161	94	542
28	1470	224	180	125	2170	1150	834	136	194	132	92	443
29	1250	285	180	120	---	1120	812	132	320	121	90	252
30	1150	293	170	120	---	980	629	127	214	121	90	190
31	3540	---	170	115	---	932	---	129	---	121	88	---
TOTAL	65214	16966	13184	4305	13415	64404	32653	9285	5199	7784	3710	4757
MEAN	2104	566	425	139	479	2078	1088	300	173	251	120	159
MAX	10800	1980	2000	165	3900	8720	3670	675	512	952	214	756
MIN	417	224	170	115	110	780	318	127	107	111	88	72
CFSM	6.24	1.68	1.26	.41	1.42	6.17	3.23	.89	.51	.75	.36	.47
IN.	7.20	1.87	1.46	.48	1.48	7.11	3.60	1.02	.57	.86	.41	.53

CAL YR 1976 TOTAL 275021 MEAN 751 MAX 11800 MIN 106 CFSM 2.23 IN 30.36
WTR YR 1977 TOTAL 240876 MEAN 660 MAX 10800 MIN 72 CFSM 1.96 IN 26.59

SWATARA CREEK BASIN

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to current year.

WATER TEMPERATURES: October 1976 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 635 mg/L Mar. 5, 1977; minimum daily, 1 mg/L on many days.

SEDIMENT LOADS: Maximum daily, 15,600 tons (14,150 tonnes) Mar. 5, 1977; minimum daily, 0.31 ton (0.28 tonne) Jan. 31, Feb. 22, 1977.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 635 mg/L Mar. 5; minimum daily, 1 mg/L on many days.

SEDIMENT LOAD: Maximum daily, 15,600 tons (14,150 tonnes) Mar. 5; minimum daily, 0.31 ton (0.28 tonne) Jan. 31, Feb. 22.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.0	2.0	---	---	3.5	11.0	16.0	17.0	24.0	24.5	24.5
2	---	8.0	2.0	1.0	---	3.0	9.0	16.0	21.0	23.5	25.0	24.5
3	---	8.5	2.0	1.0	---	4.0	11.0	15.5	19.5	25.5	24.0	25.0
4	---	9.0	2.0	1.5	---	5.0	8.0	14.0	20.0	23.0	24.5	24.5
5	---	8.0	3.0	2.0	---	7.0	7.5	12.5	22.0	25.5	25.0	25.5
6	---	8.5	3.0	1.5	---	7.0	7.5	16.5	17.0	28.0	26.0	24.0
7	---	7.0	2.5	2.0	---	6.0	6.5	17.0	17.0	23.0	24.5	22.0
8	---	7.0	2.0	---	---	6.0	7.0	18.0	16.0	26.0	26.5	21.0
9	---	6.0	2.0	1.5	---	6.5	7.0	12.0	16.0	23.0	27.0	21.0
10	13.0	5.5	3.0	2.0	---	8.0	10.0	10.5	16.0	26.0	26.0	22.0
11	11.5	5.5	3.0	---	---	9.0	14.0	13.0	17.0	23.5	26.0	---
12	---	5.0	3.5	---	---	9.5	18.0	15.0	20.5	23.0	25.5	---
13	---	---	---	---	---	10.5	16.5	17.0	22.0	25.0	24.0	---
14	---	---	---	---	---	10.0	15.5	17.5	21.5	27.0	23.0	20.0
15	---	5.0	---	---	---	10.0	13.5	19.0	21.0	25.0	24.0	18.5
16	---	5.0	2.5	---	---	10.0	14.0	17.0	22.5	27.0	23.0	17.0
17	---	5.0	3.0	---	---	8.0	15.5	19.0	22.0	27.5	23.0	19.5
18	---	5.0	3.5	---	---	7.0	15.0	21.0	23.0	27.0	22.0	19.0
19	---	5.0	3.0	---	---	7.0	15.0	21.5	26.0	27.5	21.0	22.0
20	---	---	3.0	---	---	5.0	14.5	22.0	24.0	26.0	21.0	22.0
21	---	---	2.5	---	---	5.5	15.0	23.5	22.0	27.0	19.0	21.0
22	---	4.0	2.0	---	---	6.0	19.0	24.0	21.0	25.5	22.0	19.0
23	---	3.0	2.0	---	---	6.0	---	22.0	21.5	24.0	21.5	18.0
24	---	4.0	1.0	---	---	6.0	15.0	23.0	21.0	26.0	22.0	---
25	---	2.5	1.0	---	2.0	4.0	13.0	22.5	22.0	24.0	20.0	16.0
26	---	4.0	2.0	---	3.5	5.0	13.5	22.5	22.0	22.0	19.0	16.0
27	---	4.5	2.0	---	5.5	8.0	12.0	21.5	23.0	21.0	20.0	14.0
28	---	---	1.5	---	4.5	8.0	13.0	24.0	23.0	22.0	23.0	15.0
29	9.0	---	2.0	---	---	10.0	10.5	25.0	23.0	24.0	25.0	14.5
30	9.0	---	1.0	---	---	14.0	12.0	19.0	23.5	22.0	26.0	16.0
31	10.0	---	1.0	---	---	14.0	---	18.0	---	25.5	26.0	---
MEAN	10.5	6.0	2.5	1.5	4.0	7.5	12.5	18.5	21.0	25.0	23.5	20.0

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	110	157	---	---	126	127	122	192	183	---	---
2	---	114	159	168	---	125	127	133	192	191	---	---
3	---	121	170	165	---	127	96	142	191	203	---	---
4	---	119	182	167	---	137	104	139	188	203	---	---
5	---	125	169	169	---	89	106	144	191	202	---	---
6	---	125	165	171	---	109	107	144	192	---	---	---
7	---	127	140	174	---	107	111	133	193	---	---	---
8	---	118	121	---	---	114	114	136	190	---	---	---
9	105	130	105	175	---	116	111	139	184	---	---	---
10	89	133	115	166	---	118	117	139	183	---	---	---
11	100	131	121	---	---	120	121	133	178	---	---	---
12	---	134	119	---	---	121	121	143	171	---	---	---
13	---	---	123	---	---	129	124	147	179	---	---	---
14	---	---	126	---	---	94	126	152	194	---	---	250
15	---	137	134	---	---	102	129	151	200	---	---	252
16	---	143	137	---	---	106	130	155	211	---	---	257
17	---	148	139	---	---	111	132	156	214	---	---	253
18	---	149	141	---	---	113	126	163	211	---	---	262
19	---	155	144	---	---	123	130	167	212	---	---	240
20	---	---	146	---	---	118	141	171	203	---	---	232
21	---	---	148	---	---	123	150	158	205	---	---	224
22	---	147	151	---	---	124	153	171	208	---	---	232
23	---	148	166	---	---	94	---	172	217	---	---	243
24	---	155	161	---	---	105	162	174	220	---	---	---
25	---	156	167	---	125	108	147	177	225	---	---	234
26	---	159	160	---	117	111	146	181	201	---	---	193
27	---	151	158	---	125	116	143	184	155	---	---	173
28	---	157	153	---	133	116	130	193	171	---	---	197
29	126	156	156	---	---	119	138	195	174	---	---	196
30	127	164	160	---	---	120	135	196	177	---	---	203
31	119	---	165	---	---	125	---	182	---	---	---	---
MEAN	111	139	147	169	125	115	128	158	194	196	---	228

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	417	10	11	1980	40	214	190	19	9.7
2	425	12	14	1500	38	154	235	16	10
3	2400	200	1300	1290	34	118	192	14	7.3
4	1860	45	226	1160	27	85	198	17	9.1
5	1140	30	92	992	25	67	205	22	12
6	857	18	42	879	37	88	181	18	8.8
7	698	12	23	770	30	62	2000	556	3820
8	982	35	93	697	37	70	1730	130	607
9	8050	329	8200	622	20	34	948	40	102
10	10800	175	5490	586	17	27	770	25	52
11	2640	90	642	540	20	29	662	27	48
12	2090	45	254	500	18	24	595	13	21
13	1570	30	127	457	19	23	533	15	22
14	1320	26	93	432	14	16	362	14	14
15	1040	23	65	409	16	18	442	25	30
16	870	18	42	354	15	14	403	9	9.8
17	732	14	28	327	16	14	368	5	5.0
18	644	12	21	318	20	17	330	4	3.6
19	557	9	14	316	18	15	300	3	2.4
20	522	8	11	299	16	13	280	5	3.8
21	4700	300	3810	285	17	13	260	6	4.2
22	3500	140	1320	272	15	11	250	3	2.0
23	1700	60	275	251	17	12	230	4	2.5
24	1300	30	105	237	19	12	220	3	1.8
25	1800	65	316	235	18	11	210	3	1.7
26	3310	125	1120	229	15	9.3	200	3	1.6
27	1880	60	305	227	14	8.6	190	2	1.0
28	1470	45	179	224	13	7.9	180	3	1.5
29	1250	39	132	285	20	15	180	1	0.49
30	1150	75	233	293	24	19	170	2	0.92
31	3540	250	2390	---	---	---	170	2	0.92
TOTAL	65214	---	26973	16966	---	1220.8	13184	---	4816.13

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	165	3	1.3	115	2	0.62	1180	35	112
2	160	2	0.86	115	2	0.62	920	20	50
3	160	2	0.86	115	2	0.62	802	14	30
4	160	1	0.43	110	3	0.89	3180	558	8990
5	155	3	1.3	110	4	1.2	8720	635	15600
6	155	3	1.3	110	3	0.89	3290	150	1330
7	150	3	1.2	110	3	0.89	2060	46	256
8	150	4	1.6	115	4	1.2	1540	34	141
9	150	6	2.4	115	2	0.62	1240	27	90
10	150	3	1.2	120	2	0.65	1050	24	68
11	145	2	0.78	125	2	0.68	880	19	45
12	145	2	0.78	130	2	0.70	780	16	34
13	140	2	0.76	135	1	0.36	3060	507	6620
14	140	1	0.38	140	1	0.38	5210	274	4280
15	140	1	0.38	140	1	0.38	2540	80	549
16	140	1	0.38	130	1	0.35	1850	48	240
17	135	2	0.73	125	1	0.34	1420	27	104
18	135	2	0.73	120	1	0.32	1280	25	86
19	135	3	1.1	120	1	0.32	1330	25	90
20	130	3	1.1	120	1	0.32	1110	15	45
21	130	3	1.1	120	1	0.32	1040	23	65
22	130	2	0.70	115	1	0.31	3040	296	3920
23	125	4	1.4	130	4	1.4	5480	208	3500
24	125	2	0.68	500	5	6.8	2650	80	572
25	125	2	0.68	3900	400	4210	1840	36	179
26	125	2	0.68	2340	135	853	1470	30	119
27	125	1	0.34	1720	65	302	1260	18	61
28	125	1	0.34	2170	85	498	1150	19	59
29	120	1	0.32	---	---	---	1120	18	54
30	120	1	0.32	---	---	---	980	15	40
31	115	1	0.31	---	---	---	932	14	35
TOTAL	4305	---	26.44	13415	---	5884.18	64404	---	47364

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	874	10	24	543	6	8.8	133	2	0.72
2	1890	188	1720	495	4	5.3	158	3	1.3
3	3670	153	1750	494	4	5.3	141	5	1.9
4	2020	57	309	431	3	3.5	123	2	0.66
5	3440	155	1450	521	5	7.0	116	2	0.63
6	2390	40	258	571	7	11	127	3	1.0
7	1760	25	119	675	68	135	178	6	2.9
8	1550	20	84	461	5	6.2	145	4	1.6
9	1240	17	57	425	4	4.6	154	5	2.1
10	1080	8	23	399	5	5.4	296	20	16
11	944	8	20	354	2	1.9	210	13	7.4
12	824	8	18	321	3	2.6	157	7	3.0
13	725	7	14	295	3	2.4	133	4	1.4
14	654	6	11	270	3	2.2	126	6	2.0
15	579	4	6.3	251	4	2.7	135	8	2.9
16	530	6	8.6	237	4	2.6	126	6	2.0
17	490	4	5.3	223	2	1.2	121	13	4.2
18	465	2	2.5	212	4	2.3	188	13	6.6
19	425	3	3.4	214	4	2.3	166	11	4.9
20	392	4	4.2	205	3	1.7	133	12	4.3
21	363	3	2.9	190	2	1.0	175	40	19
22	343	5	4.6	180	2	0.97	136	38	14
23	318	7	6.0	170	3	1.4	115	20	6.2
24	504	40	54	166	4	1.8	107	15	4.3
25	1070	97	308	159	3	1.3	114	18	5.5
26	856	25	58	155	1	285	512	192	265
27	982	29	77	144	2	0.78	246	70	46
28	834	14	32	136	2	0.73	194	50	26
29	812	13	29	132	2	0.71	320	80	69
30	629	9	15	127	4	1.4	214	45	26
31	---	---	---	129	3	1.0	---	---	---
TOTAL	32653	---	6473.8	9285	---	510.09	5199	---	548.51

SWATARA CREEK BASIN

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01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY			AUGUST			SEPTEMBER			
1	161	30	13	114	11	3.4	90	8	1.9
2	140	24	9.1	109	8	2.4	94	10	2.5
3	122	17	5.6	109	13	3.8	159	17	7.3
4	114	14	4.3	159	13	5.6	101	22	6.0
5	111	10	3.0	126	18	6.1	88	15	3.6
6	186	87	86	115	40	12	85	12	2.8
7	834	484	1340	119	30	9.6	92	13	3.2
8	482	105	137	120	35	11	85	15	3.4
9	301	44	36	108	55	16	81	12	2.6
10	208	27	15	122	45	15	81	10	2.2
11	174	23	11	132	40	14	78	8	1.7
12	192	32	17	126	20	6.8	73	14	2.8
13	952	530	1960	168	40	18	72	18	3.5
14	334	70	63	163	38	17	75	24	4.9
15	216	34	20	123	22	7.3	76	16	3.3
16	182	18	8.8	109	18	5.3	78	21	4.4
17	167	14	6.3	133	50	18	96	30	7.8
18	208	17	9.5	214	41	24	109	20	5.9
19	191	13	6.7	136	32	12	89	21	5.0
20	510	101	177	110	22	6.5	92	17	4.2
21	365	65	64	100	17	4.6	100	19	5.1
22	232	25	16	107	15	4.3	94	16	4.1
23	177	20	9.6	127	18	6.2	87	15	3.5
24	153	17	7.0	106	16	4.6	88	12	2.9
25	174	26	12	103	14	3.9	411	300	333
26	242	50	33	98	16	4.2	756	240	490
27	161	23	10	94	14	3.6	542	70	102
28	132	16	5.7	92	8	2.0	443	100	120
29	121	20	6.5	90	6	1.5	252	37	25
30	121	11	3.6	90	8	1.9	190	22	11
31	121	9	2.9	88	6	1.4	---	---	---
TOTAL	7784	---	4098.6	3710	---	252.0	4757	---	1175.6

SWATARA CREEK BASIN

01573086 BECK CREEK NEAR CLEONA, PA

LOCATION.--Lat 40°19'24", long 76°29'00", Lebanon County, Hydrologic Unit 02050305, on right bank at bridge on Township Road T421, 0.4 mi (0.6 km) upstream from mouth and 1 mi (1.6 km) south of Cleona.

DRAINAGE AREA.--7.87 mi² (20.38 km²).

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 414.77 ft (126.422 m) above mean sea level.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--14 years, 8.02 ft³/s (0.227 m³/s), 13.84 in/yr (352 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,150 ft³/s (146 m³/s) June 22, 1972, gage height, 11.53 ft (3.514 m), from rating curve extended above 100 ft³/s (2.83 m³/s) on basis of computation of peak flow through culvert and over road; no flow Jan. 30, 31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s (2.15 m³/s) Oct. 9, gage height, 4.89 ft (1.490 m), no peak above base of 80 ft³/s (2.27 m³/s); minimum 4.04 ft³/s (0.11 m³/s) Sept. 21, 22, 23, 24, 25, gage height, 3.58 ft (1.091 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	20	11	7.8	6.0	11	14	8.4	8.0	5.4	5.0	4.4
2	5.8	19	11	7.8	6.0	11	22	8.4	6.0	5.0	4.9	4.5
3	13	18	11	7.8	5.8	9.9	19	8.7	5.8	4.8	4.9	4.4
4	6.3	18	10	7.6	5.8	25	16	8.4	5.6	5.0	4.9	4.2
5	5.8	18	9.9	7.6	5.8	20	32	8.4	5.6	5.0	4.9	4.2
6	5.4	16	9.9	7.6	5.6	15	22	8.3	5.6	9.6	4.9	4.2
7	5.0	16	20	7.6	5.8	14	19	8.1	5.6	12	5.6	4.2
8	15	16	12	7.1	5.8	13	18	8.0	5.6	7.8	4.9	4.2
9	66	15	11	7.3	5.8	12	16	7.7	5.8	6.3	4.7	4.2
10	26	15	11	7.3	5.8	12	15	7.6	6.1	5.4	4.9	4.2
11	19	14	11	7.3	5.8	11	15	7.3	5.2	5.4	4.9	4.2
12	17	14	11	7.3	5.8	11	14	7.2	5.8	10	4.7	4.2
13	16	14	11	7.1	7.6	20	14	7.0	5.2	6.7	5.6	4.0
14	15	13	10	7.1	6.7	24	14	7.0	5.0	5.8	4.9	4.0
15	14	14	9.9	7.1	6.7	16	13	7.0	5.0	5.4	4.7	4.0
16	14	12	9.9	6.9	6.5	15	12	6.8	5.0	5.4	4.7	4.0
17	13	12	9.9	6.7	6.3	14	11	6.6	7.1	5.4	4.9	4.4
18	13	12	9.6	6.7	6.3	14	10	6.7	5.8	5.4	4.9	4.2
19	12	12	9.4	6.7	6.3	13	10	6.8	5.0	5.2	4.7	4.2
20	16	12	9.1	6.7	6.3	13	9.8	6.3	5.0	5.4	4.7	4.0
21	35	11	9.4	6.5	6.1	13	9.6	6.2	5.1	5.4	4.5	4.0
22	17	11	8.9	6.5	6.1	32	9.4	6.2	5.2	5.4	5.2	4.0
23	17	11	8.9	6.5	6.7	24	9.4	6.2	4.8	5.2	4.7	3.9
24	17	11	8.4	6.5	21	20	9.4	6.1	6.6	5.0	4.5	4.0
25	18	11	8.2	6.3	20	18	9.1	6.0	5.7	5.4	4.4	5.6
26	27	10	8.4	6.3	12	17	9.4	5.8	5.2	5.6	4.4	4.7
27	19	11	8.2	6.3	12	16	9.1	5.8	5.1	5.2	4.4	4.2
28	18	11	8.2	6.1	13	16	8.9	5.9	5.6	5.0	4.4	4.4
29	17	12	8.4	6.0	---	16	8.7	5.9	6.1	5.0	4.4	4.2
30	17	11	8.2	6.1	---	15	8.9	6.0	5.4	5.2	4.4	4.0
31	28	---	8.2	6.1	---	15	---	6.0	---	5.2	4.4	---
TOTAL	532.9	410	311.0	214.3	219.4	495.9	407.7	216.8	168.6	184.0	148.0	126.9
MEAN	17.2	13.7	10.0	6.91	7.84	16.0	13.6	6.99	5.62	5.94	4.77	4.23
MAX	66	20	20	7.8	21	32	32	8.7	8.0	12	5.6	5.6
MIN	5.0	10	8.2	6.0	5.6	9.9	8.7	5.8	4.8	4.8	4.4	3.9
CFSM	2.19	1.74	1.27	.88	1.00	2.03	1.73	.89	.71	.76	.61	.54
IN.	2.52	1.94	1.47	1.01	1.04	2.34	1.93	1.02	.80	.87	.70	.60

CAL YR 1976 TOTAL 4116.5 MEAN 11.2 MAX 143 MIN 5.0 CFSM 1.42 IN 19.46
WTR YR 1977 TOTAL 3435.5 MEAN 9.41 MAX 66 MIN 3.9 CFSM 1.20 IN 16.24

SWATARA CREEK BASIN

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01573160 QUITTAPAHILLA CREEK NEAR BELLEGROVE, PA

LOCATION.--Lat 40°20'34", long 76°33'46", Lebanon County, Hydrologic Unit 02050305, on right bank 210 ft (64.0 m) downstream from bridge on L.R. 38001, 0.7 mi (1.1 km) downstream from Killinger Creek and 1.8 mi (2.9 km) south of Belle Grove.

DRAINAGE AREA.--74.2 mi² (192.2 km²).

PERIOD OF RECORD.--October 1975 to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 370 ft (113 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 13	0200	660 18.7	6.40 1.951	Feb. 2	0100	534 15.1	5.98 1.823
Jan. 26	2200	*1,990 56.4	*9.32 2.841	July 30	0800	1,140 32.3	7.69 2.344

Minimum discharge, 76 ft³/s (2.51 m³/s) June 10, gage height, 3.69 ft (1.125 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	129	131	235	285	120	254	116	92	182	173	106
2	---	129	122	169	325	114	178	137	153	122	159	104
3	---	127	122	178	228	108	162	103	100	122	145	103
4	---	127	118	160	208	136	162	98	95	122	137	100
5	---	122	118	143	193	117	143	98	90	107	129	100
6	---	118	117	138	184	117	140	96	90	100	134	100
7	---	116	114	137	180	114	129	94	90	110	232	98
8	---	135	113	139	166	107	135	94	89	113	279	96
9	---	126	114	129	154	111	128	103	87	107	206	95
10	---	135	116	122	159	114	118	93	92	104	209	107
11	---	132	113	118	162	116	123	95	95	111	171	98
12	---	255	108	118	152	120	111	107	88	100	157	96
13	---	463	108	123	145	162	111	92	88	99	207	95
14	---	265	107	220	143	142	113	92	90	96	361	95
15	---	226	101	137	137	139	114	90	85	98	221	93
16	---	208	103	128	132	129	108	99	90	96	196	193
17	---	191	101	122	180	131	110	96	121	98	175	192
18	---	180	101	114	169	123	108	108	89	96	162	129
19	---	173	100	108	169	122	103	96	90	89	152	116
20	---	164	98	108	145	120	107	92	101	93	145	111
21	---	187	101	107	140	124	106	99	96	94	142	108
22	---	167	99	106	150	114	104	96	121	94	137	106
23	---	154	96	107	143	108	101	94	112	112	129	101
24	167	145	96	104	132	107	106	90	95	115	128	100
25	162	142	95	99	131	106	103	92	93	95	124	96
26	154	137	202	1020	129	106	116	93	90	87	122	100
27	154	140	145	994	129	107	101	88	88	87	117	100
28	143	135	124	503	128	126	96	85	93	88	114	100
29	137	132	120	321	124	103	98	89	93	226	111	95
30	107	140	122	255	---	100	94	136	172	698	108	98
31	137	---	140	221	---	106	---	97	---	202	107	---
TOTAL	---	5000	3565	6683	4822	3669	3682	3058	2968	4063	5089	3231
MEAN	---	167	115	216	166	118	123	98.6	98.9	131	164	108
MAX	---	463	202	1020	325	162	254	137	172	698	361	193
MIN	---	116	95	99	124	100	94	85	85	87	107	93
CFSM	---	2.25	1.55	2.91	2.24	1.59	1.66	1.33	1.33	1.77	2.21	1.46
IN.	---	2.51	1.79	3.35	2.42	1.84	1.85	1.53	1.49	2.04	2.55	1.62

SWATARA CREEK BASIN

01573160 QUITTAPAHILLA CREEK NEAR BELLEGROVE, PA

LOCATION.--Lat 40°20'34", long 76°33'46", Lebanon County, Hydrologic Unit 02050305, on right bank 210 ft (64.0 m) downstream from bridge on L.R. 38001, 0.7 mi (1.1 km) downstream from Killinger Creek and 1.8 mi (2.9 km) south of Bellegrove.

DRAINAGE AREA.--74.2 mi² (192.2 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 370 ft (113 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) Jan. 26, 1976, gage height, 9.32 ft (2.841 m) on basis of rating curve extended above 1,770 ft³/s (50.1 m³/s); minimum, 59 ft³/s (1.67 m³/s) Sept. 15, 1977, gage height, 3.51 ft (1.070 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	2100	*714 20.2	*6.57 2.003	Mar. 4	2030	488 13.8	5.81 1.771
Oct. 21	0630	478 13.5	5.73 1.747	Mar. 14	0130	405 11.5	5.48 1.670
Feb. 24	2330	500 14.2	5.86 1.786	Mar. 22	2130	591 16.7	6.17 1.881

Minimum discharge, 59 ft³/s (1.67 m³/s) Sept. 15, gage height, 3.51 ft (1.070 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	232	116	99	85	114	147	123	94	100	92	74
2	88	208	116	100	82	108	237	122	95	100	89	81
3	238	198	110	100	80	103	236	120	92	99	94	90
4	159	193	110	96	80	254	193	122	90	95	89	75
5	137	179	113	98	77	274	359	134	90	96	92	77
6	132	176	111	98	77	193	291	129	111	124	88	78
7	124	171	234	98	77	169	244	120	101	232	99	76
8	145	166	159	96	76	159	232	111	95	135	94	70
9	502	160	145	96	75	143	209	107	107	118	86	71
10	420	157	139	98	71	137	196	106	131	107	86	70
11	266	152	134	92	74	131	185	104	92	104	85	72
12	225	148	132	90	84	129	176	103	100	125	82	69
13	204	145	126	90	98	214	173	104	100	145	122	67
14	184	145	122	92	93	280	164	100	100	122	94	66
15	167	145	122	93	94	191	154	99	106	110	82	65
16	155	137	117	92	87	180	152	99	94	106	85	66
17	152	134	118	91	82	160	145	98	104	106	88	80
18	148	132	118	90	80	166	142	103	113	100	85	73
19	142	132	117	90	88	160	139	110	114	101	82	70
20	202	132	117	89	88	152	135	103	106	114	80	75
21	367	129	114	89	80	148	132	103	122	99	82	68
22	225	124	107	93	79	323	131	98	100	99	94	67
23	200	122	107	92	85	338	128	96	99	94	80	70
24	197	122	106	94	171	249	154	101	98	94	80	73
25	162	122	106	93	239	219	163	96	107	111	79	158
26	302	117	106	92	144	204	164	96	162	103	77	118
27	232	118	104	89	134	191	135	89	111	95	72	89
28	213	116	104	86	132	185	134	92	107	100	76	88
29	198	137	106	79	---	173	140	96	111	86	76	75
30	189	118	103	86	---	162	128	92	103	88	78	72
31	301	---	104	85	---	157	---	88	---	88	77	---
TOTAL	6472	4467	3743	2866	2712	5766	5318	3264	3155	3396	2665	2342
MEAN	209	149	121	92.5	96.9	186	177	105	105	110	86.0	78.1
MAX	502	232	234	100	239	338	359	134	162	232	122	158
MIN	88	116	103	79	71	103	128	88	90	86	72	65
CFSM	2.82	2.01	1.63	1.25	1.31	2.51	2.39	1.42	1.42	1.48	1.16	1.05
IN.	3.24	2.24	1.88	1.44	1.36	2.89	2.67	1.64	1.58	1.70	1.34	1.17

CAL YR 1976	TOTAL	51947	MEAN 142	MAX 1020	MIN 85	CFSM 1.91	IN 26.04
WTR YR 1977	TOTAL	46166	MEAN 126	MAX 502	MIN 65	CFSM 1.70	IN 23.14

SWATARA CREEK BASIN

273

01573205 QUITTAPAHILLA CREEK NEAR PALMYRA, PA

LOCATION.--Lat 40°21'02", long 76°36'52", Lebanon County, Hydrologic Unit 02050305, at bridge on Legislative Route 38003, 600 ft (183 m) upstream from mouth, and 3.1 mi (5.0 km) northwest of Palmyra.

DRAINAGE AREA.--77.3 mi² (200 km²) approximately.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 28...	1145	9813	500	7.5	9.0	6	9.0	248	--	0	73	16
NOV 18...	1200	9813	500	7.7	8.0	9	10.5	270	--	0	71	23
DEC 20...	0820	9813	500	7.3	6.0	8	9.7	256	--	0	74	17
FEB 16...	1230	9813	500	7.5	3.5	6	12.0	236	0	0	71	14
MAR 16...	0915	9813	500	7.5	10.0	30	9.0	230	--	0	68	14
APR 06...	1535	9813	490	6.5	10.0	20	10.1	200	--	0	64	10
MAY 23...	1430	9813	600	7.6	19.0	15	--	270	--	0	77	19
JUN 07...	0920	9813	250	7.5	13.0	6	6.3	250	--	0	40	37
JUL 12...	1515	9813	500	7.5	20.5	95	6.5	224	--	0	48	26
AUG 08...	1040	9813	500	7.5	19.0	5	8.0	216	0	0	71	9.5
SEP 13...	1530	9813	1000	7.5	18.0	6	8.1	244	--	0	24	45

DATE	ALKA- LITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT 28...	178	46	--	21	388	--	--	5.0	.09	.45	.26	780
NOV 18...	188	68	--	20	404	--	--	9.2	.15	.40	.32	710
DEC 20...	184	60	--	23	382	--	--	6.4	.19	.46	.37	1160
FEB 16...	168	66	--	30	348	24	372	5.5	--	1.6	.54	1800
MAR 16...	168	52	--	23	350	70	420	5.3	.11	.48	.33	3500
APR 06...	154	.0	--	22	346	--	--	4.9	.10	.57	.39	2610
MAY 23...	178	68	--	33	--	30	434	--	--	--	.49	1190
JUN 07...	156	62	--	25	220	--	--	4.6	4.3	.78	.59	1090
JUL 12...	158	50	--	21	274	302	576	6.3	.28	.20	.75	10260
AUG 08...	168	50	<.10	22	420	24	--	6.2	.13	.06	.41	450
SEP 13...	56	60	--	26	--	--	--	6.8	3.0	.35	.71	170

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 08...	1040	9813	300	<3	<10	10	<50	40	<10	<10

SWATARA CREEK BASIN

01573560 SWATARA CREEK NEAR HERSHEY, PA

LOCATION.--Lat 40°17'54", long 76°40'05", Dauphin County, Hydrologic Unit 02050305, on left bank, 0.4 mi (0.6 km) downstream from Manada Creek, 0.5 mi (0.8 km) upstream from State Highway 39, and 1.5 mi (2.4 km) northwest of Hershey.

DRAINAGE AREA.--483 mi² (1,250 km²).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 340 ft (104 km), from topographic map.

REMARKS.--Records good, except for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s (833 m³/s) Sept. 27, 1975, gage height, 15.36 ft (4.682 m); minimum, 79 ft³/s (2.24 m³/s) Sept. 12, 13, 1976, gage height, 1.44 ft (0.439 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,900 ft³/s (195 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	1100	*13,400 379	*9.18 2.798	Mar. 14	0730	7,090 201	6.08 1.853
Feb. 24	1345	7,400 210	6.24 1.902	Mar. 23	0900	7,740 219	6.42 1.957
Mar. 5	1800	9,170 260	7.15 2.179				

Minimum (daily) discharge, 79 ft³/s (2.24 m³/s) Sept. 12, 13, gage height, 1.44 ft (0.439 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	504	2750	275	220	160	1490	911	794	194	226	161	105
2	515	2000	326	220	160	1190	2130	729	188	194	145	115
3	2580	1720	233	215	160	978	4600	690	188	178	150	188
4	2480	1580	261	215	160	3230	2700	630	178	161	178	156
5	1480	1370	284	215	160	8690	4530	729	166	166	183	115
6	1100	1230	268	210	160	4560	3390	781	188	188	161	105
7	924	1090	1950	210	160	2720	2480	872	233	1030	156	105
8	1290	992	2470	210	160	2030	2150	654	212	630	156	100
9	8840	898	1310	210	160	1640	1740	582	219	440	140	96
10	12700	833	1050	210	160	1380	1500	606	343	300	140	96
11	4770	768	924	205	170	1190	1330	559	300	247	145	96
12	2750	716	820	205	180	1060	1170	493	226	254	161	90
13	2080	642	742	205	190	3000	1050	440	200	881	254	86
14	1730	618	526	200	200	6350	937	410	188	548	240	86
15	1420	582	526	200	190	3340	859	390	205	292	172	86
16	1190	537	548	195	185	2410	781	370	183	233	140	93
17	1020	482	493	190	180	1860	716	360	178	226	166	115
18	911	471	460	190	170	1700	666	370	254	233	240	135
19	807	460	420	185	165	1740	630	390	261	261	188	115
20	1190	440	390	185	165	1480	594	360	205	456	145	110
21	5990	420	330	180	170	1380	548	343	247	442	130	110
22	4780	390	290	180	170	3380	515	309	205	300	156	110
23	2200	360	280	180	200	7080	493	300	172	226	161	105
24	1890	343	280	180	700	3460	742	292	166	188	145	110
25	2270	343	270	170	5140	2480	1460	275	172	226	130	438
26	3380	334	270	170	2540	2000	1130	275	698	318	125	859
27	2480	326	260	170	1790	1670	1220	261	380	226	120	729
28	1980	326	250	170	2060	1560	1090	247	275	183	120	548
29	1680	390	240	165	---	1480	1060	240	400	172	110	334
30	1480	420	230	165	---	1230	872	233	309	172	115	254
31	3190	---	225	160	---	1090	---	219	---	172	105	---
TOTAL	81601	23831	17201	5985	16165	78848	43994	14203	7333	9809	4838	5790
MEAN	2632	794	555	193	577	2543	1466	458	244	316	156	193
MAX	12700	2750	2470	220	5140	8690	4600	872	698	1030	254	859
MIN	504	326	225	160	160	978	493	219	166	161	105	85
CFSM	5.45	1.64	1.15	.40	1.20	5.27	3.04	.95	.51	.65	.32	.40
IN.	6.28	1.84	1.32	.46	1.25	6.07	3.39	1.09	.56	.76	.37	.45

CAL YR 1976 TOTAL 348203 MEAN 951 MAX 12900 MIN 156 CFSM 1.97 IN 26.42
WTR YR 1977 TOTAL 309598 MEAN 848 MAX 12700 MIN 86 CFSM 1.76 IN 23.84

01573610 SWATARA CREEK AT MIDDLETOWN, PA

LOCATION.--Lat 40°11'28", long 76°43'52", Dauphin County, Hydrologic Unit 02050305, at bridge on State Route 441 at Middletown and 2300 ft (701 m) upstream from mouth.

DRAINAGE AREA.--571 mi² (1,480 km²) approximately.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO ₃ (MG/L)
NOV									
18...	1000	9813	300	7.7	4.0	3	11.7	140	--
DEC									
20...	0910	9813	260	7.7	2.5	4	12.0	108	--
FEB									
16...	1130	9813	250	7.0	.0	7	13.0	90	0
MAR									
16...	1000	9813	160	8.0	10.5	30	9.5	50	--
APR									
13...	1000	9813	240	7.2	16.5	3	9.1	94	0
MAY									
23...	0900	9813	340	8.0	24.0	4	--	124	--
JUN									
09...	0930	9813	350	7.0	17.0	3	8.5	137	--
JUL									
07...	1040	9813	400	8.0	25.0	--	7.5	150	--
AUG									
08...	0910	9813	380	8.0	25.0	9	7.7	140	0
SEP									
20...	1320	9813	420	9.0	23.0	10	8.5	156	--

DATE	ACIDITY CO ₂ AS CACO ₃ (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LITY AS CACO ₃ (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
NOV									
18...	0	36	12	90	38	--	13	206	--
DEC									
20...	0	35	5.0	82	28	--	13	202	--
FEB									
16...	0	25	6.5	58	28	--	43	208	6
MAR									
16...	0	17	1.5	38	20	--	11	126	42
APR									
13...	0	28	6.0	424	24	--	13	168	--
MAY									
23...	0	41	5.0	100	36	--	21	232	10
JUN									
09...	0	47	4.7	182	44	--	19	224	14
JUL									
07...	0	48	7.5	118	38	--	19	326	86
AUG									
08...	0	44	7.0	104	35	.10	19	254	28
SEP									
20...	0	48	8.5	162	46	--	18	286	10

SWATARA CREEK BASIN

01573610 SWATARA CREEK AT MIDDLETOWN, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 18...	--	3.8	.06	.18	.19	190	80	.00
DEC 20...	--	3.0	.05	.32	.14	--	130	<.01
FEB 18...	214	3.0	.06	1.2	.24	840	--	--
MAR 18...	168	2.1	.03	.09	.15	335	190	<.01
APR 18...	--	2.8	.04	.13	.10	290	--	--
MAY 23...	242	3.5	.14	.27	.17	300	130	--
JUN 09...	--	3.6	.12	.23	.21	450	80	.05
JUL 07...	412	3.4	.08	.14	.35	3150	260	--
AUG 08...	--	3.3	.09	.07	.32	780	140	--
SEP 20...	296	3.0	.11	.07	.30	730	80	--

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 08...	0910	9813	600	3	<10	10	<50	140	<10	20

WEST CONEWAGO CREEK BASIN

277

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA

LOCATION.--Lat 40°04'56", long 76°43'13", York County, Hydrologic Unit 02050306, on left bank 500 ft (150 m) upstream from bridge on State Highway 181, 0.7 mi (1.1 km) downstream from Little Conewago Creek and 1.5 mi (2.4 km) north of Manchester. Water-quality sampling site at bridge 500 ft (150 m) downstream.

DRAINAGE AREA.--510 mi² (1,321 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for October 1928, published in WSP 1302. Prior to October 1931, published as Conewago Creek near Manchester.

REVISED RECORDS.--WSP 741: Drainage area. WSP 1502: 1930, 1936.

GAGE.--Water-stage recorder. Datum of gage is 263.68 ft (80.370 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Conewago Lake, capacity, 3,570 acre-ft (4.40 hm³) since October 1959.

AVERAGE DISCHARGE.--49 years, 582 ft³/s (16.48 m³/s), 15.50 in/yr (394 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96,200 ft³/s (2,720 m³/s) Sept. 26, 1975, gage height, 32.11 ft (9.787 m), from floodmarks, from rating curve extended above 45,000 ft³/s (1,270 m³/s) on basis of slope-area measurement at gage height 30.26 ft (9.223 m); minimum, 1.9 ft³/s (0.054 m³/s) Oct. 13, 1941; minimum gage height, 1.03 ft (0.314 m) Aug. 9, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,800 ft³/s (306 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	0230	*29,200 827	*18.55 5.654	Apr. 5	1400	14,000 396	13.12 3.999
Mar. 23	0300	11,700 331	12.13 3.697				

Minimum discharge, 16 ft³/s (0.45 m³/s) Sept. 16, gage height, 2.35 ft (0.716 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	2260	284	115	83	639	616	388	78	166	42	19
2	466	1170	204	110	85	461	1500	338	91	111	41	20
3	586	959	204	105	87	383	4670	325	76	72	40	26
4	979	847	169	105	87	1970	1730	304	74	50	41	28
5	487	778	166	105	95	5510	9460	304	70	46	52	32
6	300	705	158	100	102	1730	3840	616	69	52	44	24
7	221	664	1320	100	102	1100	1730	592	69	83	41	21
8	257	598	2410	98	93	784	1410	436	72	64	39	19
9	11600	547	873	97	82	652	1150	338	93	135	33	19
10	17200	503	604	96	85	569	962	284	123	91	31	23
11	1680	477	503	96	100	519	844	253	158	67	40	24
12	1100	456	451	96	487	472	754	232	128	58	35	23
13	841	426	421	95	1100	2340	664	214	100	69	42	20
14	705	407	304	92	1070	5320	593	194	80	49	69	20
15	586	392	272	91	759	1740	531	178	85	55	64	18
16	508	346	304	90	503	1100	477	166	80	46	58	17
17	461	292	300	88	342	834	436	155	93	41	66	21
18	411	276	284	86	261	765	407	146	138	38	70	21
19	364	272	250	84	217	999	379	152	228	35	66	53
20	441	261	242	87	187	729	360	146	169	74	98	89
21	2630	242	296	89	181	834	334	141	126	80	74	51
22	1310	235	616	90	175	3380	312	128	104	70	100	83
23	784	224	239	93	207	6110	300	113	78	74	224	70
24	646	217	194	98	536	1810	342	104	66	56	128	69
25	952	201	152	100	2200	1200	1250	100	55	51	82	188
26	2860	197	140	111	1240	979	784	98	59	70	62	304
27	1670	201	130	116	784	834	569	93	59	95	62	261
28	1020	201	125	116	790	796	446	87	88	93	52	231
29	854	239	120	116	---	1220	536	82	182	66	43	200
30	699	308	120	102	---	913	525	78	170	52	35	158
31	2530	---	115	91	---	735	---	76	---	46	21	---
TOTAL	55259	14901	11970	3058	12040	47427	37911	6861	3061	2155	1895	2152
MEAN	1783	497	386	98.6	430	1530	1264	221	102	69.5	61.1	71.7
MAX	17200	2260	2410	116	2200	6110	9460	616	228	166	224	304
MIN	111	197	115	84	82	383	300	76	55	35	21	17
CFSM	3.50	.98	.76	.19	.84	3.00	2.48	.43	.20	.14	.12	.14
IN.	4.03	1.09	.87	.22	.88	3.46	2.77	.50	.22	.16	.14	.16

CAL YR 1976	TOTAL	236294	MEAN 646	MAX 17200	MIN 27	CFSM 1.27	IN 17.24
WTR YR 1977	TOTAL	198690	MEAN 544	MAX 17200	MIN 17	CFSM 1.07	IN 14.49

CONEWAGO CREEK BASIN

01574000 WEST CONEWAGO CREEK NEAR MANCHESTER, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

		CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
DATE	TIME							
NOV 16...	1400	9813	329	190	8.0	4.0	3	13.6
DEC 01...	1325	9813	284	200	9.2	.0	4	15.0
MAR 09...	1200	9813	772	190	7.3	8.0	7	11.7
APR 14...	0930	9813	599	180	7.8	15.0	2	10.5
MAY 18...	1500	9813	147	290	8.0	23.5	9	10.1
JUN 21...	1230	9813	120	250	6.6	22.0	15	8.1
JUL 20...	1500	9813	91	290	8.6	30.0	7	9.2
AUG 03...	1500	9813	40	300	7.5	25.0	15	8.0

DATE	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV 16...	98	0	0	21	11	56	24	--	11
DEC 01...	85	--	0	24	6.2	70	24	--	13
MAR 09...	700	--	0	20	4.5	46	18	--	13
APR 14...	64	--	0	19	4.0	52	18	--	10
MAY 18...	88	--	0	27	5.0	6	96	--	15
JUN 21...	95	--	0	28	6.2	304	26	--	16
JUL 20...	100	--	0	29	6.5	100	14	--	19
AUG 03...	100	--	0	29	6.5	86	10	.30	19

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 16...	136	--	--	2.3	.04	.07	.08	130
DEC 01...	166	--	--	1.9	.03	.08	.11	100
MAR 09...	144	8	--	2.8	.04	.08	.10	290
APR 14...	102	8	110	2.1	.04	.07	.09	200
MAY 18...	142	40	182	1.0	.03	.13	.14	870
JUN 21...	--	--	--	1.8	.06	.18	.22	910
JUL 20...	198	18	206	.61	.03	.04	.27	410
AUG 03...	164	32	--	.50	.02	.05	.29	610

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 03...	1500	9813	640	<3	<10	<10	<50	140	30	<10

01574500 CODORUS CREEK AT SPRING GROVE, PA

LOCATION.--Lat 39°52'43", long 76°51'13", York County, Hydrologic Unit 02050306, on right bank at downstream side of county highway bridge No. 132, 0.1 mi (0.2 km) downstream from unnamed tributary, 0.3 mi (0.5 km) downstream from east boundary of Spring Grove and 7 mi (11 km) southwest of York.

DRAINAGE AREA.--75.5 mi² (195.5 km²). Area of site used prior to Nov. 1, 1965, 74.3 mi² (192.4 km²).

PERIOD OF RECORD.--May 1929 to September 1964, November 1965 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1962 to September 1968, published as West Branch Codorus Creek at Spring Grove.

REVISED RECORDS.--WSP 1302: 1929-30, WSP 1502: 1932(M), 1933, 1935(M), 1940, 1942(M), 1943, 1944-46(M), 1951(M), 1955(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 430.86 ft (131.326 m) above mean sea level. Prior to Jan. 18, 1930, nonrecording gage, Jan. 18, 1930 to Sept. 9, 1941, water-stage recorder at site 0.9 mi (1.4 km) upstream and Sept. 10, 1941 to Sept. 30, 1964, water-stage recorder at site 0.8 mi (1.3 km) upstream, all at datum 5.64 ft (1.719 m) higher. Nov. 1 to Dec. 20, 1965, nonrecording gage about 40 ft (12 m) downstream from gage at unknown datum, Dec. 21, 1965 to Mar. 31, 1966, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage-height record and winter periods, which are fair. Daily discharges include water diverted around station by waste treatment plant of P. H. Glatfelter Company. Flow regulated by Lake Marburg about 20 miles (32 km) upstream (see p. 283).

COOPERATION.--Records of change in lake contents and daily diversion furnished by P. H. Glatfelter Company.

AVERAGE DISCHARGE.--46 years (1929-64, 1966-77), 78.3 ft³/s (2.217 m³/s), 14.08 in/yr (358 mm/yr), adjusted for diversion since March 1961 and, for storage, since 1966.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 19,400 ft³/s (549 m³/s) June 22, 1972, gage height, 15.57 ft (4.746 m), from floodmark in gage shelter, from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of computations of flow over dam at gage height 6.80 ft (2.073 m) and at peak flow; no flow part of day Oct. 26, 1947; minimum daily, 0.6 ft³/s (0.017 m³/s) Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) Apr. 5, gage height, 6.74 ft (2.054 m); minimum, 2.2 ft³/s (0.062 m³/s) Feb. 16, gage height, 1.56 ft (0.475 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	90	34	39	37	34	49	80	45	48	46	228
2	121	71	41	39	31	31	308	79	64	49	50	55
3	173	63	37	41	32	37	163	82	45	47	48	55
4	127	61	36	41	33	253	127	78	44	45	50	50
5	146	55	35	42	32	130	907	88	44	46	47	50
6	136	51	37	40	29	68	314	95	48	47	44	53
7	126	47	179	42	35	54	218	82	50	50	50	53
8	148	49	59	41	33	45	176	73	41	54	46	51
9	510	44	38	40	27	42	135	86	44	60	50	53
10	186	42	42	44	28	40	126	70	58	48	52	54
11	165	42	40	41	72	38	116	44	42	49	60	51
12	149	40	33	39	55	35	104	54	42	51	50	53
13	139	38	38	35	49	240	98	48	41	42	52	53
14	125	39	33	34	32	196	90	49	43	27	44	49
15	107	42	44	36	28	105	85	47	44	24	47	47
16	76	40	37	33	26	88	85	50	49	21	48	51
17	106	33	37	30	29	60	83	52	41	28	95	53
18	102	44	36	31	31	74	83	51	43	23	64	48
19	62	42	38	31	31	60	85	53	64	64	54	49
20	90	39	41	29	30	55	82	48	55	41	50	53
21	123	38	46	30	36	54	82	48	44	60	46	50
22	82	38	39	29	35	441	82	53	48	42	91	50
23	68	38	42	29	39	214	79	53	48	65	54	48
24	68	37	28	30	40	109	130	51	46	48	53	46
25	91	41	24	29	78	101	145	47	41	50	53	49
26	220	57	28	30	39	77	124	47	45	53	52	46
27	78	48	33	32	41	68	96	52	51	58	54	45
28	64	43	35	37	49	87	95	49	49	47	53	62
29	63	62	37	39	---	73	113	46	62	44	53	40
30	56	35	35	40	---	58	88	49	53	45	54	41
31	181	---	41	39	---	55	---	53	---	48	56	---
TOTAL	4033	1409	1303	1112	1057	3022	4468	1857	1434	1424	1666	1686
MEAN	130	47.0	42.0	35.9	37.8	97.5	149	59.9	47.8	45.9	53.7	56.2
MAX	510	90	179	44	78	441	907	95	64	65	95	228
MIN	56	33	24	29	26	31	49	44	41	21	44	40
MEAN#	116	55.8	47.2	23.9	45.4	168	211	42.7	27.8	10.8	20.8	14.9
CFSM#	1.54	.74	.63	.32	.60	2.22	2.80	.57	.37	.14	.28	.20
IN.#	1.78	.83	.73	.37	.62	2.56	3.12	.66	.41	.16	.32	.22
CAL YR 1976	TOTAL	34859	MEAN	95.2	MAX	1020	MIN	24	MEAN#	87.7	CFSM#	1.16
WTR YR 1977	TOTAL	24471	MEAN	67.0	MAX	907	MIN	21	MEAN#	65.4	CFSM#	.87
											IN.#	15.82
											IN.#	11.77

Adjusted for change in contents in Lake Marburg.

CODORUS CREEK BASIN

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°55'14", long 76°44'57", York County, Hydrologic Unit 02050306, on right bank 100 ft (30 m) downstream from dam at pumping station of York Water Co., 200 ft (60 m) upstream from Penn Central Railroad Bridge, 0.5 mi (0.8 km) upstream from mouth, and 3 mi (4.8 km) southwest of York.

DRAINAGE AREA.--117 mi² (303 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only prior to October 1931, published in WSP 1302. May 1925 to September 1927, gage heights and discharge measurements only in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1302: 1931. WSP 1502: 1932-33, 1941, 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 373.03 ft (113.700 m) above mean sea level, adjustment of 1907. Prior to Aug. 21, 1928, nonrecording gage at site 180 ft (55 m) upstream at datum 5.00 ft (1.524 m) higher. Nonrecording gage June 22, 1972 to Jan. 12, 1973 at present site.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow by pumping plant above station. Some regulation during entire period of record from reservoirs of York Water Company, combined capacity, 2,500,000,000 gal (9.462 hm³). Diversion above station for municipal supply of city of York.

AVERAGE DISCHARGE.--50 years, 133 ft³/s (3.767 m³/s), 15.45 in/yr (392 mm/yr), adjusted for diversion and, since October 1966, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) June 22, 1972, gage height, 22.62 ft (6.895 m), from floodmarks, from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of slope-area, contracted opening, and contracted-opening and flow-over-road measurements at gage heights 9.04 ft (2.755 m), 17.97 ft (5.477 m), and of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,800 ft³/s (79.3 m³/s) Apr. 5, gage height, 5.75 ft (1.753 m), from rating curve extended as explained above; minimum, 4.2 ft³/s (0.12 m³/s) July 19, 24, gage height, 0.59 ft (0.180 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	128	127	39	64	44	74	116	109	36	16	6.5	113		
2	58	100	43	34	36	63	445	95	185	8.0	6.5	34		
3	144	96	33	32	25	52	337	90	47	5.6	7.0	25		
4	97	93	40	31	27	401	254	89	27	12	9.5	27		
5	53	98	34	30	22	330	1850	105	22	9.0	6.5	25		
6	40	81	36	28	25	178	877	122	40	12	6.5	24		
7	29	81	338	34	27	127	493	92	44	18	6.5	30		
8	56	76	304	35	18	117	408	92	32	23	6.5	15		
9	997	67	58	35	18	98	343	75	51	12	7.6	15		
10	379	67	49	47	23	87	282	72	65	14	6.0	12		
11	144	63	50	52	99	78	262	73	41	14	16	13		
12	110	57	49	70	295	72	219	74	37	7.6	9.5	17		
13	93	54	50	40	172	282	206	73	36	9.5	20	14		
14	80	56	38	27	95	415	185	60	26	6.5	23	13		
15	64	59	49	25	62	229	177	64	34	5.6	16	12		
16	58	49	56	24	47	157	265	64	29	6.5	15	11		
17	58	47	55	23	40	138	159	58	28	7.0	47	12		
18	58	54	49	23	33	162	138	54	60	20	51	17		
19	48	50	53	23	31	147	131	54	57	6.0	23	13		
20	87	47	51	22	37	139	127	47	30	13	19	14		
21	322	47	67	22	28	125	115	37	22	13	21	14		
22	109	49	39	21	22	807	102	40	16	11	35	12		
23	83	43	45	21	33	535	68	36	14	5.1	22	8.7		
24	85	41	38	21	216	329	89	35	12	4.7	27	20		
25	114	41	41	20	345	254	165	35	13	7.6	37	47		
26	258	52	51	20	122	229	150	35	21	18	20	20		
27	139	44	48	20	96	188	111	29	13	6.0	16	11		
28	109	50	44	22	93	201	108	23	19	6.5	19	39		
29	105	78	42	25	---	181	138	22	99	6.0	18	15		
30	98	57	23	38	---	155	107	25	24	10	19	8.0		
31	205	---	35	46	---	137	---	32	---	15	19	---		
TOTAL	4408	1924	1947	975	2131	6487	8427	1911	1180	328.2	561.6	650.7		
MEAN	142	64.1	62.8	31.5	76.1	209	281	61.6	39.3	10.6	18.1	21.7		
MAX	997	127	338	70	345	807	1850	122	185	23	51	113		
MIN	29	41	23	20	18	52	68	22	12	4.7	6.0	8.0		
(f)	27.2	27.6	26.7	29.6	30.4	29.4	26.7	30.1	29.1	30.6	29.2	29.4		
MEAN#	169	91.7	89.5	61.1	107	239	308	91.7	68.4	35.4	33.7	36.1		
CFSM#	1.45	.78	.77	.52	.91	2.04	2.63	.78	.58	.30	.29	.31		
IN.#	1.67	.87	.89	.60	.95	2.35	2.93	.90	.65	.35	.33	.35		
CAL YR 1976	TOTAL	40595.4	MEAN	111	MAX	1930	MIN	5.8	MEAN#	139	CFSM#	1.19	IN.#	16.22
WTR YR 1977	TOTAL	30930.5	MEAN	84.7	MAX	1850	MIN	4.7	MEAN#	111	CFSM#	.95	IN.#	12.85

/ Diversion for municipal supply of city of York, equivalent in cubic feet per second; furnished by York Water Co.
Adjusted for diversion and change in reservoir contents.

CODORUS CREEK BASIN

281

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
NOV 16...	1030	9813	54	160	7.5	3.0	3	12.0
MAY 18...	1030	9813	61	150	7.6	19.0	4	9.0
AUG 03...	1310	9813	5.6	210	7.0	21.0	15	8.7

DATE	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV 16...	76	0	0	14	10	44	5.0	--	13
MAY 18...	40	--	0	14	1.0	110	8.0	--	15
AUG 03...	68	--	0	16	6.5	46	8.0	.20	15

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 16...	108	--	--	4.1	.03	.09	.08	200
MAY 18...	100	20	120	3.0	.04	.17	.07	660
AUG 03...	100	38	--	3.7	.05	.15	.13	1560

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 03...	1310	9813	1000	<3	<10	10	<50	380	10	<10

CODORUS CREEK BASIN

01575500 CODORUS CREEK NEAR YORK, PA

LOCATION.--Lat 39°56'46", long 76°45'20", York County, Hydrologic Unit 02050306, on left bank 0.5 mi (0.8 km) upstream from Richland Avenue Bridge, 2 mi (3 km) downstream from South Branch Codorus Creek and 2 mi (3 km) southwest of York.

DRAINAGE AREA.--222 mi² (575 km²).

PERIOD OF RECORD.--August 1940 to current year. October 1915 to August 1923, August 1926 to September 1932 (gage heights and discharge measurements only) in reports of Pennsylvania Department of Forests and Waters. Published as "at York" 1915-32.

GAGE.--Water-stage recorder. Datum of gage is 356.39 ft (108.628 m) above mean sea level (Corps of Engineers benchmark). Prior to Sept. 30, 1932, nonrecording gage at site 1.6 mi (2.6 km) downstream at different datum.

REMARKS.--Records good except for periods of missing record, which are fair. Regulation at low flow by mills and pumping plant above station. Diversion above station for municipal supply of city of York. Flood flows regulated by Indian Rock Reservoir 2.1 mi (3.4 km) upstream (see p. 283) and by three reservoirs (combined capacity, 21,385 mil gal (80.94 hm³).

AVERAGE DISCHARGE.--37 years, 244 ft³/s (6.910 m³/s), 14.90 in/yr (378 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1972, gage height, 26.36 ft (8.035 m), from floodmark in gage shelter, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurement at gage height 20.11 ft (6.130 m); minimum 3.0 ft³/s (0.085 m³/s) Oct. 25, 1966, gage height, 1.40 ft (0.427 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) Apr. 5, gage height, 8.40 ft (2.560 m); minimum, 30 ft³/s (0.85 m³/s) July 19, gage height, 1.73 ft (0.527 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	328	102	79	89	136	181	300	98	69	56	194
2	212	230	97	78	87	115	720	310	242	60	58	98
3	379	203	88	78	87	105	740	310	98	56	64	82
4	324	190	96	78	89	666	447	300	80	61	65	85
5	204	187	87	79	88	669	2430	330	74	59	57	85
6	189	163	88	80	85	324	1740	370	93	64	58	86
7	159	156	533	82	88	226	868	310	98	75	59	88
8	197	148	498	78	86	198	722	270	89	84	59	77
9	1370	138	141	76	86	167	585	310	109	65	62	77
10	1000	134	114	110	86	150	484	230	116	67	61	76
11	401	128	112	105	156	138	444	120	95	71	83	74
12	310	121	109	98	351	128	410	160	95	64	62	79
13	274	115	109	90	271	503	380	140	93	62	75	77
14	242	115	95	86	164	848	350	130	88	41	77	75
15	209	118	106	83	116	423	320	120	91	40	72	72
16	170	111	115	80	101	305	320	101	81	38	64	71
17	174	106	111	77	92	246	320	118	88	37	98	78
18	184	109	105	74	121	272	320	116	123	66	158	83
19	154	111	106	72	84	261	310	118	109	42	80	77
20	172	109	107	70	91	223	310	112	85	71	72	84
21	624	105	131	68	86	217	310	100	81	68	72	81
22	239	106	98	66	103	1120	300	98	74	81	114	79
23	192	99	106	66	87	1080	310	103	72	61	78	76
24	176	98	95	76	290	549	450	101	72	62	83	83
25	223	98	88	87	588	421	600	101	83	74	101	108
26	534	108	99	89	203	362	480	100	93	87	75	89
27	330	113	96	89	158	298	400	91	81	57	70	75
28	232	113	93	87	174	317	390	85	92	56	76	124
29	205	121	98	88	---	299	460	79	110	57	75	79
30	188	148	81	92	---	242	350	91	96	66	76	60
31	358	---	80	91	---	215	---	107	---	72	84	---
TOTAL	9958	4129	3984	2552	4107	11223	16451	5331	2899	1933	2344	2572
MEAN	321	138	129	82.3	147	362	548	172	96.6	62.4	75.6	85.7
MAX	1370	328	533	110	588	1120	2430	370	242	87	158	194
MIN	154	98	80	66	84	105	181	79	72	37	56	60
(f)	27.2	27.6	26.7	29.6	30.4	29.4	26.7	30.1	29.1	30.6	29.2	29.4
MEAN#	338	170	161	98.4	184	462	637	185	106	52.1	48.0	58.8
CFSM#	1.52	.76	.72	.44	.83	2.08	2.87	.83	.48	.23	.22	.26
IN.#	1.75	.85	.83	.51	.86	2.40	3.20	.96	.54	.26	.25	.29
CAL YR 1976 TOTAL	86992			MEAN 238	MAX 2800	MIN 65	MEAN# 259	CFSM#	1.16	IN.# 15.86		
WTR YR 1977 TOTAL	67483			MEAN 185	MAX 2430	MIN 37	MEAN# 209	CFSM#	.94	IN.# 12.78		

/ Diversion for municipal supply of city of York, equivalent in cubic feet per second. Records of diversion and change in contents in four reservoirs furnished by P.H.Glatfelter Co., York water Co., and Corps of Engineers.

Adjusted for diversion and change in reservoir contents.

CODORUS CREEK BASIN

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LAKE AND RESERVOIR IN CODORUS CREEK BASIN

01574390 LAKE MARBURG.--Lat 39°48'26", long 76°52'58", York County, Hydrologic Unit 02050306, at dam on West Branch Codorus Creek, 0.7 mi (1.1 km) upstream from Codorus Creek and 4.5 mi (7.2 km) south of Spring Grove. DRAINAGE AREA, 23.2 mi² (60.1 km²). PERIOD OF RECORD, October 1972 to current year in reports of Geological Survey; July 1972 to September 1974 in files of P. H. Glatfelter Co., Spring Grove. Records for period December 1966 to June 1972 were lost in the flood of June 1972. NONRECORDING GAGE. Datum of gage is at mean sea level.

Lake is formed by earthfill dam with two bascule spillway gates. Each is 7 ft (2 m) high and 106.5 ft (32.5 m) long. Elevation of top of gates is 623.0 ft (189.89 m). Top of dam is at elevation 627.0 ft (191.11 m). Storage began in December 1966. Capacity at elevation 627.0 ft (191.11 m) is 53,210 acre-ft (65.6 hm³), at elevation 623.0 ft or 189.89 m (normal pool) is 47,680 acre-ft (58.8 hm³), and at elevation 616.0 ft or 187.76 m (crest of spillway) is 39,430 acre-ft (48.6 hm³). Lake is used for water supply and recreation. An average of about 3,376 acre-ft (4.16 hm³) is diverted from Codorus Creek into the lake each year. Records furnished by P. H. Glatfelter Company.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 47,680 acre-ft (58.8 hm³) many times (elevation, 623.0 ft or 189.89 m); minimum, 38,570 acre-ft (47.6 hm³) Oct. 21, 1976 (elevation, 615.20 ft or 187.513 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 47,680 acre-ft (58.8 hm³) Apr. 14 to May 5 (elevation, 623.00 ft or 189.89 m); minimum, 38,570 acre-ft (47.6 hm³) Oct. 21 (elevation, 615.20 ft or 187.513 m).

01574700 INDIAN ROCK RESERVOIR.--Lat 39°55'22", long 76°45'14", York County, Hydrologic Unit 02050306, at dam on Codorus Creek, 0.1 mi (0.2 km) upstream from mouth of South Branch Codorus Creek, 0.3 mi (0.5 km) west of pumping station of York Water Co., and 3 mi (5 km) southwest of York. DRAINAGE AREA, 93.7 mi² (242.7 km²). PERIOD OF RECORD, September 1962 to current year in reports of Geological Survey, September 1942 to August 1962 in files of Baltimore District, Corps of Engineers. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 435.0 ft (132.59 m). Reservoir completed in June 1942; storage began in June 1946. Capacity at elevation 435.0 ft (132.59 m) is 28,000 acre-ft (34.5 hm³). No dead storage. Reservoir is used for flood control. Figures given herein represent total contents. Flood storage is regulated by three vertical-lift tractor gates. Water is stored only during high flows and released when downstream conditions warrant. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 30,200 acre-ft (37.2 hm³) June 23, 1972 (elevation, 436.44 ft or 133.027 m); minimum, no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 1,700 acre-ft (2.10 hm³) Apr. 5 (elevation, 396.13 ft or 120.740 m); minimum, 8 acre-ft (9,864 m³) Sept. 14 (elevation, 371.61 ft or 113.267 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
	01574390 Lake Marburg			01574700 Indian Rock Reservoir		
Sept. 30	616.5	39,960	--	380.85	176	--
Oct. 31	615.7	39,110	-13.8	385.23	388	+3.4
Nov. 30	616.2	39,640	+ 8.9	379.22	127	-4.4
Dec. 31	616.5	39,960	+ 5.2	379.74	142	+ .2
CAL YR 1976	--	--	- 7.6	--	--	- .01
Jan. 31	615.8	39,220	-12.0	375.50	51.8	-1.5
Feb. 28	616.2	39,640	+ 7.6	372.63	15.1	- .7
Mar. 31	620.2	43,970	+70.4	373.99	29.9	+ .2
Apr. 30	623.0	47,680	+62.3	372.76	16.2	- .2
May 31	622.2	46,620	-17.2	372.16	11.2	- .08
June 30	621.3	45,430	-20.0	372.02	10.1	- .02
July 31	619.6	43,270	-35.1	371.92	9.4	- .01
Aug. 31	617.7	41,250	-32.9	372.05	10.4	+ .02
Sept. 30	615.4	38,790	-41.3	371.83	8.8	- .03
WTR YR 1977	--	--	- 1.6	--	--	- .2

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA

LOCATION.--Lat 40°03'16", long 76°31'52", Lancaster County, Hydrologic Unit 02050306, on left bank, 420 ft (128 m) upstream from Chickies Creek and 1 mi (2 km) downstream from Marietta. Records include flow of Chickies Creek. Water-quality sampling site at bridge 2.0 mi (3.2 km) downstream.

DRAINAGE AREA.--25,990 mi² (67,310 km²), approximately, includes that of Chickies Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 1502: 1937.

GAGE.--Water-stage recorder. Datum of gage is 200.56 ft (61.131 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Discharge below 8,000 ft³/s (227 m³/s) regulated by Metropolitan Edison Co., plant at York Haven. Accuracy of records for entire period have been independently verified by comparison with records obtained by Pennsylvania Power and Light Co. and Safe Harbor Water Power Corp. at Safe Harbor, Holtwood, and Conowingo powerplants.

COOPERATION.--Gage-height record furnished by Safe Harbor Water Power Corp.

AVERAGE DISCHARGE.--46 years, 36,570 ft³/s (1,040 m³/s), 19.11 in/yr (485 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080,000 ft³/s (30,600 m³/s) June 23, 1972, gage height, 64.54 ft (19.672 m), from floodmarks; minimum, 618 ft³/s (17.5 m³/s) Sept. 26, 1932, gage height, 30.89 ft (9.415 m), when York Haven powerplant was shut down in order to obtain current-meter measurements at low water; minimum daily, 1,380 ft³/s (39.1 m³/s) Sept. 26, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1931, 58.2 ft (17.8 m) June 2, 1889, from floodmark, discharge, about 630,000 ft³/s (18,000 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 283,000 ft³/s (8,010 m³/s) Oct. 10, gage height, 48.35 ft (14.737 m); minimum, 4,510 ft³/s (128 m³/s) Sept. 15, gage height, 32.41 ft (9.879 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16000	74800	17500	10000	13000	114000	153000	51500	12800	14400	15300	9270
2	19600	75600	17700	10500	12200	112000	147000	44000	12700	13700	14000	8670
3	25300	78700	16000	11000	12300	95700	169000	38600	10900	13200	10900	8210
4	36500	73300	12900	11500	12300	85500	219000	34800	10800	12400	11900	8300
5	32100	64600	13600	13500	12000	151000	221000	32600	11000	10900	12000	7750
6	28200	57400	14400	14000	12200	208000	182000	32400	10200	10400	11400	7880
7	26100	52200	18100	14000	11800	186000	148000	33400	10000	11300	10500	7430
8	23000	47700	32400	13000	11800	152000	122000	43200	10800	13600	9910	7250
9	51100	43900	44900	14000	11400	118000	104000	43100	10900	16000	10100	7170
10	236000	40300	48000	13500	12600	92200	88500	37200	11300	19100	10600	7240
11	246000	37200	45400	13000	12200	77300	76100	34300	13100	19300	13400	7120
12	197000	34900	43800	12500	11400	75800	65600	33200	14300	22700	18100	6840
13	144000	32900	38000	12000	14400	93800	58800	34100	14700	21500	17200	6220
14	107000	31300	35100	11500	16200	158000	52500	34300	13900	23100	14000	6270
15	84400	29700	31800	10500	19900	215000	47000	32000	13200	28800	14400	5660
16	66800	27600	30000	11000	21700	208000	42800	30900	12200	24100	14400	5730
17	55500	24800	28300	10500	24100	171000	38900	28700	11300	20100	13200	5720
18	48800	23700	27300	12000	20100	147000	35400	26200	10500	18800	15200	6610
19	44400	24800	27400	11000	22000	127000	32600	23900	10900	17200	16100	12900
20	39800	25000	27000	11000	22400	115000	30500	22500	11200	16700	16300	27300
21	49700	25400	24100	11000	20700	103000	28700	21200	11300	18400	16800	34000
22	84900	23800	20200	11500	18900	98800	27500	19700	11300	20300	15700	52400
23	114000	22100	16300	11500	17800	147000	26000	18000	12500	29300	14500	73900
24	117000	21300	20400	11000	18800	161000	25500	17900	10900	28400	14700	68400
25	100000	20400	18000	11000	32400	133000	34600	17200	9610	24000	12300	63600
26	96500	19800	19000	11500	86000	107000	79800	16200	11600	23000	11500	64700
27	102000	19200	20000	11500	139000	89700	94700	15000	13600	20700	10400	140000
28	98800	18700	20000	11000	121000	78300	87300	14400	13100	21100	9310	160000
29	87400	18500	19000	12000	---	74300	74500	14300	14500	22000	10300	123000
30	74600	18600	17000	10500	---	91300	61300	14000	16300	19500	9710	92400
31	68600	---	15000	9800	---	143000	---	14000	---	16700	9460	---
TOTAL	2521100	1108200	778600	362300	760600	3928700	2573600	872800	361410	590700	403590	1041940
MEAN	81330	36940	25120	11690	27160	126700	85790	28150	12050	19050	13020	34730
MAX	246000	78700	48000	14000	139000	215000	221000	51500	16300	29300	18100	160000
MIN	16000	18500	12900	9800	11400	74300	25500	14000	9610	10400	9310	5660
CFSM	3.13	1.42	.97	.45	1.05	4.88	3.30	1.08	.46	.73	.50	1.34
IN.	3.61	1.59	1.11	.52	1.09	5.62	3.68	1.25	.52	.85	.58	1.49
CAL YR 1976	TOTAL	15987970	MEAN	43680	MAX	253000	MIN	8730	CFSM	1.68	IN	22.88
WTR YR 1977	TOTAL	15303540	MEAN	41930	MAX	246000	MIN	5660	CFSM	1.61	IN	21.90

SUSQUEHANNA RIVER BASIN

01576000 SUSQUEHANNA RIVER AT MARIETTA, PA--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources

WATER QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 15...	1600	9813	29500	200	7.5	5.0	2	11.5	100
MAR 21...	1310	9813	102300	150	7.5	9.0	20	--	58
MAY 12...	1315	9813	33000	180	8.0	17.0	4	13.5	78
JUN 22...	1430	9813	10100	335	9.1	25.0	4	8.8	126
SEP 29...	1230	9813	123000	130	7.9	16.0	--	9.5	48

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV 15...	0	0	--	19	--	13	46	40	9.0
MAR 21...	0	0	--	19	--	2.5	36	24	9.0
MAY 12...	0	0	--	22	--	5.5	40	42	10
JUN 22...	--	0	--	34	--	10	62	87	20
SEP 29...	--	--	13	--	3.8	--	48	20	8.0

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15...	130	--	--	1.4	.02	.14	.07	490
MAR 21...	98	46	144	1.4	.02	.11	.12	2110
MAY 12...	130	6	136	1.0	.02	.07	.07	710
JUN 22...	240	--	--	.78	.03	.04	.14	270
SEP 29...	106	158	264	1.1	.06	.10	.49	8172

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA

LOCATION.--Lat 40°03'00", long 76°16'39", Lancaster County, Hydrologic Unit 02050306, on left bank at Penn Central Railroad bridge, 50 ft (15 m) downstream from small tributary, 500 ft (150 m) downstream from diversion dam at city water works, and 0.75 mi (1.21 km) east of Lancaster.

DRAINAGE AREA.--324 mi² (839 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1928 to March 1932; August, September 1932; April 1933 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1973, published as Conestoga Creek at Lancaster.

REVISED RECORDS.--WSP 1202: Drainage area. WSP 1502: 1943(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 245.63 ft (74.868 m) above mean sea level. Prior to May 1, 1933, at site 600 ft (183 m) upstream at different datum, excluding small tributary.

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow by waterworks and mill above station. Diversion above station for municipal supply of city of Lancaster.

AVERAGE DISCHARGE.--47 years, (1928-31, 1933-77), 395 ft³/s (11.2 m³/s), 16.56 in/yr (421 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,300 ft³/s (2,500 m³/s) June 23, 1972, gage height 27.80 ft (8.473 m), from floodmark, from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of slope-area measurement at gage height, 17.52 ft (5.340 m) and contracted-opening measurement of peak flow; probably no flow at times: minimum daily discharge, 7 ft³/s (0.20 m³/s) Aug. 11, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 3	0945	3,870 110	7.47 2.277	Mar. 14	0515	3,490 98.8	7.18 2.188
Oct. 9	1845	3,340 94.6	7.06 2.152	Mar. 23	0400	*7,550 214	*10.01 3.051
Oct. 21	0900	5,520 156	8.67 2.643	Apr. 5	1615	6,030 171	9.02 2.749
Feb. 25	Unk.	2,860 81.0	6.66 2.030	Sept. 1	0130	2,980 84.4	6.76 2.060

Minimum discharge, 58 ft³/s (1.64 m³/s) Aug. 12, gage height, 2.80 ft (0.853 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	929	272	160	146	502	556	431	195	146	141	902
2	316	689	267	160	145	352	517	414	230	149	179	164
3	2230	650	237	160	140	313	1750	409	194	145	178	148
4	1160	638	245	160	140	791	1040	385	172	145	210	157
5	670	599	236	160	140	1620	4020	523	165	141	176	137
6	553	563	236	160	135	765	2330	459	181	247	157	131
7	479	510	982	160	135	597	1470	391	219	972	150	120
8	497	508	860	160	135	513	1310	358	190	339	149	112
9	1870	476	387	160	130	447	1100	335	201	256	147	108
10	1380	463	364	170	130	423	993	336	350	181	128	105
11	822	440	336	170	147	394	918	313	235	190	573	106
12	662	417	329	165	915	369	840	295	190	328	135	113
13	615	399	324	160	726	985	772	278	178	465	177	103
14	564	387	270	160	924	2240	719	266	171	266	202	99
15	486	381	279	160	456	942	655	255	198	197	181	97
16	457	369	274	160	319	751	613	249	191	171	163	99
17	428	354	279	160	314	630	582	241	168	165	147	135
18	412	353	270	160	314	639	551	242	206	169	202	159
19	385	340	256	160	271	769	532	306	188	175	162	219
20	699	332	260	160	209	563	504	252	201	196	137	395
21	3600	317	292	160	233	617	480	228	319	209	121	177
22	1170	314	210	155	223	1970	464	215	166	163	186	164
23	875	298	200	155	209	3710	447	211	162	147	178	163
24	790	288	200	155	718	1310	511	207	150	137	124	153
25	985	284	190	155	2060	1020	969	200	141	151	157	664
26	1530	283	180	155	675	897	730	202	666	231	154	383
27	962	281	180	160	980	799	613	197	210	187	124	255
28	828	278	170	154	675	751	511	186	202	152	120	225
29	767	342	170	141	---	758	602	181	317	141	123	197
30	710	362	170	156	---	728	479	179	217	137	115	169
31	1080	---	165	152	---	603	---	184	---	135	303	---
TOTAL	28297	12844	9090	4923	11744	27768	27578	8928	6573	6833	5399	6159
MEAN	913	428	293	159	419	896	919	288	219	220	174	205
MAX	3600	929	982	170	2060	3710	4020	523	666	972	573	902
MIN	315	278	165	141	130	313	447	179	141	135	115	97
(f)	6.5	7.4	11	16.3	11.6	11.8	10.0	10.4	6.9	5.9	4.7	9.4
MEAN#	920	435	304	175	43	908	929	298	226	226	179	214
CFSM#	2.84	1.34	.94	.54	1.33	2.80	2.87	.92	.70	.70	.55	.66
IN.#	3.27	1.50	1.08	.62	1.38	3.23	3.20	1.06	.78	.81	.63	.74
CAL YR 1976 TOTAL	182121	MEAN 498	MAX 11100	MIN 118	MEAN# 499	CFSM# 1.54	IN.# 20.91					
CTR YR 1977 TOTAL	156136	MEAN 428	MAX 4020	MIN 97	MEAN# 428	CFSM# 1.32	IN.# 17.93					

/ Diversion above station for municipal supply, equivalent in cubic feet per second, furnished by the city of Lancaster.

Adjusted for diversion.

CONESTOGA RIVER BASIN

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01576500 CONESTOGA RIVER AT LANCASTER, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1947 to September 1950, October 1958 to September 1972, April 1974 to current year.

COOPERATION.--Water-quality data for the 1977 water year were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 15...	1000	9813	432	430	8.0	1.5	2	12.3	220	0	0	53
MAR 21...	0910	9813	675	350	8.0	6.0	10	--	150	0	0	40
APR 18...	1110	9813	556	410	8.0	15.0	7	--	172	--	0	50
MAY 23...	1100	9813	223	370	8.0	23.0	10	--	190	--	0	54
JUN 27...	1310	9813	184	380	7.7	23.0	320	8.0	110	0	0	35
JUL 21...	0945	9813	256	470	8.0	26.5	35	7.2	170	--	0	45
AUG 04...	0930	9813	213	450	7.3	22.0	30	7.7	236	0	0	60
SEP 21...	1330	9813	172	440	7.7	21.5	50	7.8	170	--	0	46

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15...	21	158	30	19	286	--	--	10	.05	.13	.10	170
MAR 21...	12	116	30	20	228	22	250	5.0	.04	.23	.13	420
APR 18...	11	134	30	19	504	0	504	7.2	.05	.17	.08	390
MAY 23...	13	156	30	28	330	18	348	6.2	.14	.34	.17	880
JUN 27...	4.5	98	30	21	236	372	608	--	.12	.37	.72	16500
JUL 21...	14	156	18	22	338	60	--	5.6	.10	.07	.31	2170
AUG 04...	21	152	46	29	386	86	--	4.3	.09	.20	.25	1610
SEP 21...	13	118	28	22	298	38	336	5.0	.19	.35	.47	2860

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL RESI- DUAL CHLO- RINE (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 04...	0930	9813	.15	1760	<3	10	10	<50	180	<10	20

CONESTOGA RIVER BASIN

01576515 MILL CREEK NEAR LEOLA, PA

LOCATION.--Lat 40°03'46", long 76°09'25", Lancaster County, Hydrologic Unit 02050306, at bridge on State Route 772, 1.3 mi (2.1 km) upstream from Muddy Run and 2.3 mi (3.7 km) southeast of Leola.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
NOV 15...	1145	9813	450	8.2	6.0	5	12.3	230	0	0	41	31
MAR 21...	0955	9813	390	7.6	6.0	--	--	180	0	0	44	17
APR 18...	1140	9813	440	8.0	14.0	6	--	186	--	0	44	18
MAY 23...	1300	9813	450	8.6	21.0	6	9.7	190	--	0	44	20
JUN 27...	1430	9813	450	8.1	25.0	15	8.3	156	0	0	36	18
JUL 21...	1045	9813	550	8.0	26.0	5	7.1	190	--	0	44	19
AUG 04...	1030	9813	465	7.0	21.0	20	7.2	148	0	0	34	15
SEP 21...	1430	9813	500	8.0	20.0	30	8.5	200	--	0	43	23

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15...	176	24	--	15	292	--	--	11	.14	.37	.36	420
MAR 21...	156	24	--	18	282	30	312	5.1	.09	.83	.46	1340
APR 18...	156	20	--	16	492	0	492	9.7	.13	.39	.41	300
MAY 23...	158	20	--	26	250	76	326	7.3	.74	.24	.31	320
JUN 27...	152	26	--	143	302	46	348	7.2	.39	.99	.53	1320
JUL 21...	148	28	--	65	470	28	--	9.5	.37	.16	.96	880
AUG 04...	130	18	.10	34	344	28	--	5.2	<.02	.64	.97	2050
SEP 21...	164	20	--	29	350	42	392	5.0	.02	.67	.87	2050

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 04...	1030	9813	1220	<3	<10	20	<50	160	<10	20

01576600 CONESTOGA RIVER NEAR MILLERSVILLE, PA

LOCATION.--Lat 39°57'41", long 76°21'58", Lancaster County, Hydrologic Unit 02050306, at bridge on Township Route 561, adjacent to mouth of Skehman Run, and 2.6 mi (4.2 km) south of Millersville.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)
NOV 15...	1300	9813	470	8.0	5.0	5	11.5	230	0
MAR 21...	1100	9813	400	8.0	7.0	10	--	166	0
APR 18...	1300	9813	460	8.0	16.0	9	--	190	--
MAY 12...	1130	9813	500	7.2	14.0	6	10.8	200	0
JUN 27...	1610	9813	390	7.5	24.0	200	7.6	132	0
JUL 21...	1350	9813	400	8.0	29.5	35	7.5	190	--
AUG 04...	1310	9813	455	7.2	23.5	25	7.6	160	0
SEP 29...	1130	9813	500	8.0	17.0	--	8.8	176	--

DATE	ACIDITY CO2 AS CAC03 (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINE- ITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV 15...	0	--	56	--	22	168	38	--	25
MAR 21...	0	--	51	--	9.5	132	32	--	26
APR 18...	0	--	59	--	10	150	30	--	24
MAY 12...	0	--	35	--	28	152	34	--	29
JUN 27...	0	--	40	--	7.5	106	35	--	25
JUL 21...	0	--	52	--	15	108	32	--	27
AUG 04...	0	--	47	--	10	124	28	.20	29
SEP 29...	--	56	--	9.3	--	148	48	--	36

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 15...	334	--	--	7.6	.08	.62	.33	340
MAR 21...	266	26	292	4.9	.07	.61	.33	830
APR 18...	468	0	468	7.1	.10	.38	.25	660
MAY 12...	340	10	350	4.9	.20	.44	.50	670
JUN 27...	236	276	--	7.1	.18	.52	.73	10300
JUL 21...	386	48	--	5.4	.26	.17	.54	1980
AUG 04...	328	44	--	2.6	.33	.60	.51	2030
SEP 29...	290	98	388	4.3	.28	.89	.82	>3580

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INIUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 04...	1710	9813	1600	<3	30	20	<50	140	<10	30

PEQUEA CREEK BASIN

01576763 PEQUEA CREEK AT NEW MILLTOWN, PA

LOCATION.--Lat 40°01'04", long 76°04'12", Lancaster County, Hydrologic Unit 02050306, at bridge on secondary road 0.1 mi (0.2 km) south of State Highway 772 at New Milltown and 0.2 mi (0.4 km) upstream from Houston Run.

DRAINAGE AREA.--42.8 mi² (111 km²).

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

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)
FEB												
24...	1250	35	4.6	4.6	.06	.06	4.7	4.7	.13	.11	.41	.23
24...	1900	80	4.3	4.3	.07	.05	4.4	4.3	.68	.54	2.8	.66
24...	2045	145	4.3	4.3	.09	.07	4.4	4.4	1.3	1.1	3.9	1.1
24...	2215	470	3.9	3.9	.15	.10	4.0	4.0	2.8	2.2	11	2.0
24...	2345	595	3.3	3.3	.19	.14	3.5	3.4	3.7	3.0	16	3.4
25...	0940	70	3.6	3.6	.11	.09	3.7	3.7	2.1	1.7	3.8	1.9
MAR												
22...	1305	160	3.9	3.9	.09	.03	4.0	3.9	.41	.29	3.8	.61
22...	1515	800	2.0	2.0	.10	.04	2.1	2.0	.75	.48	7.3	1.0
22...	1545	980	1.6	1.6	.07	.03	1.7	1.6	.74	.49	10	1.4
22...	1648	1120	1.5	1.4	.08	.02	1.6	1.4	.58	.42	8.9	.98
22...	1820	1030	1.4	1.4	.08	.02	1.5	1.4	.49	.36	5.0	1.0
22...	2125	400	1.9	1.9	.07	.01	2.0	1.9	.43	.30	3.5	.90
23...	0005	220	2.5	2.5	.06	.01	2.6	2.5	.35	.26	1.8	.94
23...	1140	110	4.2	4.2	.04	.01	4.2	4.2	.14	.11	.59	.59
31...	0930	61	4.7	4.6	.06	.02	4.8	4.6	.05	.02	2.3	.18
JUN												
01...	1045	35	5.1	4.8	.08	.07	5.2	4.9	.15	.13	.60	.33
01...	2120	82	4.6	4.2	.08	.06	4.7	4.3	.14	.10	1.9	.52
01...	2220	93	4.3	4.3	.09	.07	4.4	4.4	.39	.18	3.6	1.4
01...	2315	207	4.7	4.1	.12	.09	4.8	4.2	.42	.27	5.8	.83
02...	0030	310	4.2	3.7	.15	.10	4.3	3.8	.82	.56	9.0	1.5
02...	0125	225	4.0	3.6	.14	.09	4.1	3.7	.90	.63	7.9	1.2
02...	0225	206	3.6	3.3	.16	.10	3.8	3.4	1.1	.67	7.5	1.8
02...	0500	108	3.5	3.2	.13	.09	3.6	3.3	1.1	.69	6.1	1.4
02...	0705	72	3.3	2.8	.11	.08	3.4	2.9	.93	.66	3.3	1.1
02...	1200	50	3.3	3.3	.13	.10	3.4	3.4	.72	.52	3.2	1.1
14...	0930	36	5.0	4.8	.09	.08	5.1	4.9	.15	.13	.68	.36
AUG												
17...	0910	28	4.9	4.8	.10	.10	5.0	4.9	.13	.07	.76	.21
17...	1700	38	4.7	4.5	.12	.11	4.8	4.6	.19	.12	1.0	.49
17...	2300	59	4.4	4.4	.11	.11	4.5	4.5	.19	.13	1.1	.45
18...	0325	48	4.3	4.3	.13	.12	4.4	4.4	.27	.16	1.3	.43
18...	0700	40	3.4	3.4	.14	.12	3.5	3.5	.26	.15	1.3	.83
18...	1425	31	3.8	3.8	.11	.10	3.9	3.9	.22	.11	.98	.81
SEP												
30...	1130	30	5.1	5.1	.05	.04	5.1	5.1	.07	.06	.49	.26

01576763 PEQUEA CREEK AT NEW MILLTOWN, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHOPHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHOPHOS- PHORUS (P) (MG/L)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L)	SUS- PENDE D ORGANIC CARBON (C) (MG/L)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)	
FEB												
24...	.54	.34	5.2	.09	.05	.08	.05	3.1	1.2	28	2.6	
24...	3.5	1.2	7.9	.81	.15	.18	.14	8.7	8.5	454	98	
24...	5.2	2.2	9.6	1.6	.33	.35	.29	15	12	970	380	
24...	14	4.2	18	2.6	.57	.57	.44	15	66	3580	4540	
24...	20	6.4	23	5.6	.77	.75	.60	32	E60	5180	8320	
25...	5.9	3.6	9.6	1.3	.47	.50	.40	18	10	461	87	
MAR												
22...	4.2	.90	8.2	1.1	.22	.22	.17	3.4	16	786	340	
22...	8.0	1.5	10	2.1	.31	.38	.24	7.2	E52	4080	8810	
22...	11	1.9	13	2.0	.30	.38	.24	7.7	46	4650	12300	
22...	9.5	1.4	11	1.9	.24	.30	.19	7.3	43	3870	11700	
22...	5.5	1.4	7.0	1.6	.20	.27	.16	7.6	37	2630	7310	
22...	3.9	1.2	5.9	1.1	.22	.24	.18	16	20	1140	1230	
23...	2.1	1.2	4.7	.79	.16	.22	.16	9.7	9.7	615	365	
23...	.73	.70	4.9	.20	.09	.09	.07	11	2.1	107	32	
31...	2.3	.20	7.1	.07	.03	.04	.01	1.0	1.3	41	6.8	
JUN												
01...	.75	.46	6.0	.12	.05	.04	.04	4.5	E1.5	59	5.6	
01...	2.0	.62	6.7	.58	.08	.08	.04	4.2	E10	738	163	
01...	4.0	1.6	8.4	1.5	.35	.37	.25	4.9	E14	1030	259	
01...	6.2	1.1	11	1.6	.22	.25	.17	6.1	E120	9960	5430	
02...	9.8	2.1	14	4.5	.23	.27	.13	3.6	E45	3560	2980	
02...	8.8	1.8	13	3.9	.26	.38	.19	2.8	E36	2380	1450	
02...	8.6	2.5	12	4.7	.25	.45	.16	5.2	E46	2700	1500	
02...	7.2	2.1	11	1.4	.31	.47	.23	4.7	E33	1320	385	
02...	4.2	1.8	7.6	.94	.29	.24	.23	4.5	E14	640	124	
02...	3.9	1.6	7.3	.64	.14	.11	.10	4.1	E10	402	54	
14...	.83	.49	5.9	.16	.06	.06	.04	5.4	1.0	109	11	
AUG												
17...	.89	.28	5.9	.26	.13	.09	.06	9.1	E3.0	119	9.0	
17...	1.2	.61	6.0	.40	.12	.14	.11	9.9	E3.0	143	15	
17...	1.3	.58	5.8	.59	.13	.16	.13	--	--	218	35	
18...	1.6	.59	6.0	.57	.20	.22	.17	12	E4.0	231	30	
18...	1.6	.98	5.1	.48	.19	.23	.18	9.1	E4.0	157	17	
18...	1.2	.92	5.1	.34	.12	.14	.09	--	--	94	7.9	
SEP												
30...	.56	.32	5.7	.16	.08	.08	.06	7.4	.4	43	3.5	
DATE	TIME	TOTAL NITRITE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL NITRATE PLUS NITRATE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL AMMONIA NITRO- GEN IN BOTTOM MAT. (N) (MG/KG)	TOTAL KJEL- NITRO- GEN IN BOTTOM MAT. (N) (MG/KG)	TOTAL NITRO- GEN IN BOTTOM MATERI- AL (N) (MG/KG)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (N) (MG/KG)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (G/KG)	PCB IN BOTTOM MA- TERIAL (UG/KG)	PCN TOTAL IN BOTTOM MATRL (UG/KG)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	
MAR												
31...	0930	--	20	20	980	--	280	14	0	.0	.0	
JUN												
14...	0930	.0	3.4	27	5100	5100	780	21	0	.0	.0	
SEP												
30...	1130	.1	1.0	11	6700	6700	780	18	2	.0	.0	
DATE	TIME	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	DDD IN BOTTOM MA- TERIAL (UG/KG)	DDE IN BOTTOM MA- TERIAL (UG/KG)	DDT IN BOTTOM MA- TERIAL (UG/KG)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	ENDO- SULFANE TOT. IN BOTTOM MATRL (UG/KG)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
MAR												
31...	3	.7	2.5	1.2	.0	1.4	.0	.0	.0	.0	.0	.0
JUN												
14...	0	4.2	8.7	3.4	.0	6.0	.0	.0	.0	.0	.0	.0
SEP												
30...	21	12	7.8	27	.0	2.9	.0	.0	.0	.0	.0	.0
DATE	TIME	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)	
MAR												
31...	.0	.0	.0	.0	.0	.0	0	.0	0	0	0	0
JUN												
14...	.0	.0	.0	.0	.0	.0	0	.0	0	0	0	0
SEP												
30...	.0	.0	.0	.0	.0	.0	0	.0	0	0	0	0

PEQUEA CREEK BASIN

01576763 PEQUEA CREEK AT NEW MILLTOWN, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
JUN 02...	0045	.0	.00	.00	.0	.00	.00	.01	.00
AUG 17...	1700	.0	.00	.00	.0	.00	.00	.00	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN 02...	.03	.00	.00	.00	.00	.01	.01	.00	.00
AUG 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 02...	.00	.00	.00	0	.00	.27	.00	.00
AUG 17...	.00	.00	.00	0	.00	.00	.00	.00

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG 17...	1700	.20	.0	.0	.0	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR 31...	0930	42	73	87	96	--	--	100	--	--
JUN 14...	0930	50	71	80	91	98	--	--	99	100
SEP 30...	1130	43	65	75	86	96	99	99	100	--

PEQUEA CREEK BASIN

293

01576768 UNNAMED TRIBUTARY TO PEQUEA CREEK AT STRASBURG, PA

LOCATION.--Lat 40°00'01", long 76°10'16", Lancaster County, Hydrologic Unit 02050306, at bridge on secondary road 0.6 mi (1.0 km) east of State Highway 896, 1.0 mi (1.6 km) northeast of Strasburg, and 0.2 mi (0.3 km) upstream from mouth.

DRAINAGE AREA.--1.62 mi² (4.2 km²).

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

WATER QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)
FEB												
24...	1250	1.2	8.4	8.4	.04	.04	8.4	8.4	.11	.09	.21	.13
24...	1650	1.7	7.3	7.3	.08	.04	7.4	7.3	.51	.42	4.2	.58
24...	1750	34	3.9	3.9	.25	.13	4.1	4.0	3.6	3.4	31	2.5
24...	1810	33	3.0	3.0	.26	.13	3.3	3.1	3.0	2.5	33	1.9
24...	1830	28	3.8	3.8	.27	.12	4.1	3.9	3.2	2.6	24	2.5
24...	1940	34	3.5	3.5	.28	.13	3.8	3.6	3.7	2.3	11	3.5
24...	2040	14	4.1	4.1	.26	.18	4.4	4.3	3.8	3.5	12	5.2
25...	0100	3.0	6.0	6.0	.21	.21	6.2	6.2	3.4	2.9	6.6	3.9
25...	1105	1.8	7.7	7.7	.10	.10	7.8	7.8	.93	.80	1.5	.80
MAR												
22...	0950	5.5	7.0	7.0	.07	.03	7.1	7.0	.35	.14	2.0	.56
22...	1115	27	2.3	2.3	.18	.06	2.5	2.4	1.5	.90	12	2.3
22...	1215	55	1.6	1.6	.20	.04	1.8	1.6	.72	.37	11	.73
22...	1315	71	1.3	1.3	.31	.04	1.6	1.3	.59	.25	9.0	1.3
22...	1440	44	1.8	1.7	.24	.03	2.0	1.7	.43	.22	12	.68
22...	1620	21	3.1	3.1	.17	.04	3.3	3.1	.49	.24	4.6	.96
22...	2305	5.5	8.0	8.0	.06	.03	8.1	8.0	.37	.24	1.0	.76
23...	1010	3.5	9.1	9.0	.08	.07	9.2	9.1	.08	.01	.72	.39
31...	1230	2.0	8.5	8.5	.03	.03	8.5	8.5	.06	.04	.46	.46
JUN												
01...	2050	17	4.2	4.0	.14	.08	4.3	4.1	.76	.62	14	2.3
01...	2145	66	3.4	3.4	.33	.09	3.7	3.5	1.7	.82	16	2.5
01...	2150	62	3.6	3.6	.34	.12	3.9	3.7	2.7	1.1	17	3.2
01...	2210	49	3.0	3.0	.43	.12	3.4	3.1	2.5	.66	9.5	2.7
01...	2230	33	2.8	2.8	.33	.10	3.1	2.9	1.5	.54	13	2.9
01...	2320	7.4	2.6	2.6	.32	.14	2.9	2.7	1.5	.62	7.8	2.7
02...	0730	1.5	6.6	6.3	.13	.12	6.7	6.4	.59	.35	2.6	.23
14...	1350	1.0	8.6	8.4	.05	.05	8.6	8.4	.04	.04	.05	.00
AUG												
17...	0925	.80	8.2	8.2	.07	.06	8.3	8.3	.06	.05	.18	.15
17...	1415	3.0	5.2	5.1	.06	.05	5.3	5.1	.27	.01	2.5	1.1
17...	1500	11	6.5	6.2	.10	.06	6.6	6.3	.17	.06	1.8	.46
17...	1545	6.4	3.9	3.9	.22	.22	4.1	4.1	.83	.44	3.0	1.6
17...	1830	1.8	3.3	3.2	.23	.23	3.5	3.4	1.1	.66	3.0	1.8
18...	0240	.95	6.5	6.4	.16	.11	6.7	6.5	.17	.11	1.2	.53
SEP												
30...	1245	.76	8.1	8.2	.05	.04	8.1	8.2	.05	.04	.07	.07

PEQUEA CREEK BASIN

01576768 UNNAMED TRIBURATRY TO PEQUEA CREEK AT STRASBURG, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- ORGANIC CARBON (C) (MG/L)	SUS- PENDE ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
FEB										
24...	.32	.22	8.7	.07	.03	.05	.03	2.3	1.5	103 .33
24...	4.7	1.0	12	1.6	.22	.34	.22	10	47	2310 11
24...	35	5.9	39	7.5	.45	.43	.26	22	E170	18600 1730
24...	36	4.4	39	9.1	.32	.39	.23	28	E125	12800 1140
24...	27	5.1	31	8.0	.33	.55	.24	31	E100	9940 751
24...	15	5.8	19	3.8	.71	.80	.50	38	E96	9230 847
24...	16	8.7	20	2.1	1.2	1.0	.95	36	48	5060 191
25...	10	6.8	16	.63	.40	.45	.35	35	10	482 3.9
25...	2.4	1.6	10	.38	.23	.24	.21	8.4	2.0	71 .35
MAR										
22...	2.3	.70	9.4	.67	.12	.09	.06	4.1	16	880 13
22...	13	3.2	16	2.6	.44	.48	.22	12	E46	3660 267
22...	12	1.1	14	3.0	.24	.43	.18	5.4	E70	8540 1270
22...	9.6	1.5	11	3.0	.26	.54	.16	5.6	E130	13100 2510
22...	12	.90	14	2.5	.36	.49	.29	13	E60	5090 605
22...	5.1	1.2	8.4	1.6	.44	.54	.38	6.5	24	1660 94
22...	1.4	1.0	9.5	.35	.16	.16	.13	3.1	5.8	120 1.8
23...	.80	.40	10	.12	.07	.04	.04	.5	1.0	57 .54
31...	.52	.50	9.0	.06	.01	.01	.01	.8	.9	63 .34
JUN										
01...	15	2.9	19	3.9	.51	.45	.36	6.1	E40	4120 189
01...	18	3.3	22	8.7	.47	.81	.39	5.0	E78	10600 1890
01...	20	4.3	24	7.7	.64	.90	.39	6.1	E110	11400 1910
01...	12	3.4	15	6.6	.59	E.90	.39	E5.0	E105	9980 1320
01...	14	3.4	17	E5.7	.70	.93	.44	4.8	E80	8220 732
01...	9.3	3.3	12	4.2	.71	.94	.52	4.8	E55	4720 94
02...	3.2	.58	9.9	.91	.40	.41	.34	4.3	E9.0	375 1.5
14...	.09	.04	8.7	.06	.05	.03	.03	4.7	.7	37 .10
AUG										
17...	.24	.20	8.5	.10	.07	.07	.06	10	E1.0	34 .07
17...	2.8	1.1	8.1	1.5	.35	.38	.30	18	E15	602 4.9
17...	2.0	.52	8.6	1.0	.21	.22	.19	12	E13	547 16
17...	3.8	2.0	7.9	1.6	.65	.69	.59	15	E9.0	388 6.7
17...	4.1	2.5	7.6	1.5	.79	.89	.72	16	E11	355 1.7
18...	1.4	.64	8.1	.51	.23	.26	.23	13	E4.0	116 .30
SEP										
30...	.12	.11	8.2	.10	.08	.07	.06	5.0	.3	15 .03

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG						
17...	1500	.40	.0	.0	.5	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR										
31...	1230	16	22	29	48	74	88	94	97	100
JUN										
14...	1350	26	36	45	69	95	99	100	--	--
SEP										
30...	1745	38	57	690	83	95	98	100	--	--

01576768 UNNAMED TRIBUTARY TO PEQUEA CREEK AT STRASBURG, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL NITRO- GEN IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (C) (MG/KG)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (UG/KG)	PCB IN BOTTOM MA- TERIAL (UG/KG)	PCN TOTAL IN BOTTOM MATRL DRY WT. (UG/KG)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	1230	--	1.5	9.5	870	--	190	12	0	.0	.0
JUN 14...	1350	.2	6.5	18	4800	4800	740	14	0	.0	.0
SEP 30...	1245	.1	1.5	15	5200	5200	650	--	0	.0	.0

DATE	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	DDD IN BOTTOM MA- TERIAL (UG/KG)	DDE IN BOTTOM MA- TERIAL (UG/KG)	DDT IN BOTTOM MA- TERIAL (UG/KG)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	ENDO- SULFANE TOT. IN BOTTOM MATRL DRY WT (UG/KG)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	0	.0	3.9	1.5	.0	.4	.0	.0	.0	.0	.0
JUN 14...	0	9.5	45	97	.0	2.0	.0	.0	.0	.0	.6
SEP 30...	16	8.2	19	8.4	.0	6.2	.0	.0	.0	2.9	.0

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	.0	.0	.0	.0	.0	0	.0	0	0	0
JUN 14...	.0	.0	.0	.0	.0	0	.0	0	0	0
SEP 30...	.0	.0	.0	.0	.0	0	.0	0	0	0

DATE	TIME	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL DI- ELDRIN (UG/L)
JUN 01...	2150	.0	.00	.00	.0	.01	.00	.07	.08	.08
AUG 17...	1500	.0	.00	.00	.0	.00	.00	.08	.00	.03

DATE	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METH- OXY- CHLOR (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN 01...	.00	.00	.00	.01	.02	.00	.00	.02	.00
AUG 17...	.00	.00	.00	.00	.00	.00	.00	--	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL MIREX (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 01...	.00	.00	.00	.00	0	.00	.22	.00	.00
AUG 17...	.00	--	.00	.00	0	.00	.00	.00	.00

PEQUEA CREEK BASIN

01576769 PEQUEA CREEK NEAR STRASBURG, PA

LOCATION.--Lat 40°00'21", long 76°11'12", Lancaster County, Hydrologic Unit 02050306, at bridge on State Highway 896, 1.6 mi (2.5 km) north of Strasburg and 7.1 mi (11.4 km) upstream from Walnut Run.

DRAINAGE AREA.--72.9 mi² (189 km²).

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

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)
FEB												
24...	1220	55	6.1	6.0	.05	.04	6.1	6.0	.15	.15	.31	.08
24...	1900	150	5.6	5.6	.06	.05	5.7	5.6	.35	.28	1.4	.65
24...	2115	310	4.3	4.3	.16	.09	4.5	4.4	2.0	1.5	7.7	1.4
25...	0115	710	4.2	4.2	.18	.12	4.4	4.3	2.5	2.0	9.5	2.3
25...	0150	730	3.7	3.7	.21	.12	3.9	3.8	2.9	2.3	10	2.3
25...	1045	280	3.5	3.5	.18	.13	3.7	3.6	3.6	2.8	8.4	3.0
MAR												
22...	1035	72	5.7	5.6	.04	.03	5.7	5.6	.05	.03	.38	.27
22...	1420	320	3.6	3.4	.10	.04	3.7	3.4	.27	.26	8.7	.64
22...	1735	705	2.9	2.7	.11	.04	3.0	2.7	.87	.63	8.1	1.2
22...	1850	830	2.9	2.5	.11	.04	3.0	2.5	.64	.52	8.9	.68
22...	2100	970	2.2	1.9	.14	.04	2.3	1.9	.64	.54	24	1.1
22...	2315	860	1.9	1.7	.14	.04	2.0	1.7	.57	.46	10	.84
23...	0705	240	3.3	3.3	.10	.02	3.4	3.3	.42	.27	3.7	E.90
23...	1205	205	4.2	4.2	.07	.02	4.3	4.2	.30	.14	1.6	.96
31...	1100	94	5.9	5.9	.04	.02	5.9	5.9	.04	.01	.36	.19
JUN												
01...	1115	60	5.6	5.5	.10	.09	5.7	5.6	.15	.15	.71	.08
01...	2145	205	5.4	4.9	.10	.08	5.5	5.0	.65	.46	6.3	.74
01...	2250	325	5.8	5.3	.16	.09	6.0	5.4	1.6	1.0	13	1.8
02...	0020	370	4.9	4.6	.15	.10	5.0	4.7	.79	.39	6.5	1.4
02...	0100	450	5.2	4.6	.14	.10	5.3	4.7	.58	.34	6.5	1.3
02...	0330	602	6.1	5.5	.20	.13	6.3	5.6	1.3	.98	8.4	1.5
02...	0525	587	5.2	4.6	.16	.10	5.4	4.7	.94	.45	9.1	2.0
02...	0635	517	5.3	5.3	.17	.11	5.5	5.4	.94	.58	8.4	1.4
02...	0900	412	5.0	4.5	.15	.12	5.1	4.6	.83	.59	6.0	1.4
02...	1230	305	4.4	4.0	.14	.11	4.5	4.1	.89	.63	4.7	1.1
03...	1030	80	4.9	4.7	.16	.13	5.1	4.8	.43	.33	2.2	.77
14...	1215	58	5.9	5.7	.10	.09	6.0	5.8	.09	.07	.83	.07
AUG												
17...	0945	44	5.6	5.6	.11	.10	5.7	5.7	.09	.04	E.90	.84
17...	1800	61	5.6	5.4	.13	.11	5.7	5.5	.15	.07	1.2	.76
17...	2215	78	5.4	5.3	.14	.11	5.5	5.4	.10	.08	1.3	.50
18...	0300	96	5.4	5.3	.14	.12	5.5	5.4	.16	.12	1.3	.41
18...	0750	103	5.1	5.1	.15	.12	5.2	5.2	.12	.08	1.1	.48
18...	1013	105	5.2	5.2	.14	.12	5.3	5.3	.13	.08	1.2	.60
18...	1500	73	5.1	5.0	.14	.12	5.2	5.1	.14	.06	.96	.58
SEP												
30...	1330	42	5.4	5.4	.07	.06	5.5	5.5	.07	.04	.56	.39

01576769 PEQUEA CREEK NEAR STRASBURG, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L)	SUS- PENDED ORGANIC CARBON (C) (MG/L)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
FEB											
24...	.46	.23	6.6	.17	.04	.08	.03	3.1	1.9	27	4.0
24...	1.7	.93	7.4	.47	.10	.13	.09	5.6	7.2	245	99
24...	9.7	2.9	14	2.3	.59	.63	.51	22	38	3140	2630
25...	12	4.3	16	2.4	.62	.65	.51	21	43	2640	5060
25...	13	4.6	17	4.3	.69	.77	.60	22	53	2900	5720
25...	12	5.8	16	2.9	.79	.86	.65	24	32	1440	1090
MAR											
22...	.43	.30	6.1	.12	.11	.09	.05	.8	1.6	64	12
22...	9.0	.90	13	2.4	.22	.25	.20	14	E58	4350	3760
22...	9.0	1.8	12	2.6	.40	.43	.36	7.7	E51	3920	7460
22...	9.5	1.2	13	2.8	.34	.36	.31	7.3	E52	4040	9050
22...	25	1.6	27	2.8	.24	.38	.19	7.9	E50	3880	10200
22...	11	1.3	13	2.1	.21	.31	.17	7.3	34	2620	6080
23...	4.1	E1.2	7.5	.97	.21	.23	.17	4.0	16	631	409
23...	1.9	1.1	6.2	.61	.16	.22	.11	4.2	6.7	287	159
31...	.40	.20	6.3	.12	.03	.02	.02	.7	1.3	60	15
JUN											
01...	.86	.23	6.6	.15	.12	.12	.12	5.6	E2.0	75	12
01...	6.9	1.2	12	3.0	.25	.33	.21	5.5	E26	2500	1380
01...	15	2.8	21	3.0	.17	.29	.15	5.2	E90	9260	8130
02...	7.3	1.8	12	3.9	.47	.56	.38	4.6	E36	3450	3450
02...	7.1	1.6	12	3.4	.35	.44	.29	4.7	E38	2830	3440
02...	9.7	2.5	16	4.2	.32	.37	.26	4.8	E33	3570	5800
02...	10	2.4	15	3.4	.27	.38	.16	5.0	E36	2410	3820
02...	9.3	2.0	15	4.0	.28	.41	.21	3.9	E46	2580	3600
02...	6.8	2.0	12	1.7	.24	.37	.19	4.1	E26	1470	1640
02...	5.6	1.7	10	1.3	.24	.36	.19	7.1	E21	916	754
03...	2.6	1.1	7.7	.38	.14	.17	.12	4.7	E9.0	701	151
14...	.92	.14	6.9	.21	.10	.07	.07	5.1	.9	119	19
AUG											
17...	E.99	.88	E6.7	.31	.13	.13	.10	E12	E3.0	129	15
17...	1.3	.83	7.0	.53	.18	.22	.18	12	E4.0	183	30
17...	1.4	.58	6.9	.54	.16	.16	.14	8.9	E5.0	252	53
18...	1.5	.53	7.0	.68	.16	.17	.15	10	E5.0	237	61
18...	1.2	.56	6.4	.48	.17	.19	.16	9.5	E4.5	203	56
18...	1.3	.68	6.6	.52	.16	.18	.14	E10	E3.5	159	45
18...	1.1	.64	6.3	.37	.15	.18	.14	8.7	E3.0	101	20
SEP											
30...	.63	.43	6.1	.25	.12	.12	.10	5.4	.5	60	6.8

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG						
17...	1800	.40	.0	.0	.2	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
MAR								
31...	1100	83	100	--	--	--	--	--
JUN								
14...	1215	87	100	--	--	--	--	--
SEP								
30...	1330	45	57	65	77	94	99	100

PEQUEA CREEK BASIN

01576769 PEQUEA CREEK NEAR STRASBURG, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL NITRO- GEN IN MATERI- AL (N) (MG/KG)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (C) (MG/KG)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (UG/KG)	PCB IN BOTTOM MA- TERIAL (UG/KG)	PCN TOTAL IN BOTTOM MATRL DRY WT. (UG/KG)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	1100	--	5.9	70	2000	--	380	21	0	.0	.0
JUN 14...	1215	.0	1.9	26	7900	7900	910	21	0	.0	.0
SEP 30...	1330	.1	1.5	25	6800	6800	800	16	0	.0	.0

DATE	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	DDD IN BOTTOM MA- TERIAL (UG/KG)	DDE IN BOTTOM MA- TERIAL (UG/KG)	DDT IN BOTTOM MA- TERIAL (UG/KG)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	ENDO- SULFANE TOT. IN BOTTOM MATRL DRY WT (UG/KG)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	25	1.6	8.9	4.4	.0	6.7	.0	.0	.0	.0	.0
JUN 14...	57	6.0	24	11	.0	8.0	.0	.0	.0	.0	.0
SEP 30...	28	6.4	16	5.4	.0	3.5	.0	.0	.0	.0	.0

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	.0	.0	.0	.0	.0	0	.0	0	0	0
JUN 14...	.0	.0	.0	.0	.0	0	.0	0	0	0
SEP 30...	.0	.0	.0	.0	.0	0	.0	0	0	0

DATE	TIME	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
JUN 02...	0330	.0	.00	.00	.0	.00	.00	.01	.00
AUG 17...	1800	.0	.00	.00	.0	.00	.00	.02	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN 02...	.03	.00	.00	.00	.00	.01	.01	.00	.00
AUG 17...	.01	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 02...	.00	.00	.00	0	.00	.70	.00	.05
AUG 17...	.00	.00	.00	0	.00	.00	.00	.00

01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA

LOCATION.--Lat. 39°56'00", long 76°12'04", Lancaster County, Hydrologic Unit 02050306, at bridge on Legislative Route 36160 at New Providence and 400 ft (122 m) upstream from mouth.

DRAINAGE AREA.--0.66 mi² (1.71 km²).

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

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA-NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA-NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)
FEB												
24...	1350	.50	5.4	5.4	.01	.01	5.4	5.4	.06	.05	.26	.20
24...	1700	9.4	3.5	3.5	.11	.06	3.6	3.6	.75	.52	12	.88
24...	1800	20	2.8	2.4	.17	.06	3.0	2.5	1.5	.99	14	1.3
24...	1815	16	3.3	3.3	.17	.07	3.5	3.4	1.6	1.2	10	1.9
24...	2030	10	4.2	4.2	.15	.07	4.3	4.3	1.2	1.0	5.3	1.3
24...	2230	5.2	4.8	4.4	.12	.07	4.9	4.5	1.2	.93	3.2	1.7
25...	1125	1.5	5.3	5.3	.03	.03	5.3	5.3	.21	.19	.57	.33
MAR												
22...	0935	2.7	3.4	3.4	.06	.03	3.5	3.4	.14	.06	1.8	.44
22...	1100	10	1.8	1.7	.09	.02	1.9	1.7	.22	.13	4.9	.47
22...	1200	17	1.6	1.5	.11	.02	1.7	1.5	.27	.18	5.7	.52
22...	1300	24	1.3	1.3	.10	.02	1.4	1.3	.31	.18	9.2	.52
22...	1400	17	1.5	1.5	.10	.02	1.6	1.5	.31	.14	4.7	.56
22...	1725	3.8	3.7	3.7	.05	.02	3.7	3.7	.15	.06	1.2	.54
23...	0925	1.4	5.6	5.6	.02	.01	5.6	5.6	.03	.01	.35	.29
31...	1330	.50	5.5	5.4	.02	.01	5.5	5.4	.02	.01	.49	.49
JUN												
01...	0755	.40	4.6	4.4	.03	.03	4.6	4.4	.20	.13	.41	.06
01...	2045	3.3	4.0	3.8	.09	.03	4.1	3.8	.17	.12	2.5	.48
01...	2115	32	6.8	6.8	.16	.08	7.0	6.9	1.5	.84	32	3.1
01...	2145	55	5.6	5.6	.27	.07	5.9	5.7	1.3	.55	16	2.0
01...	2200	36	4.9	4.9	.32	.06	5.2	5.0	1.3	.71	12	2.0
01...	2230	12	5.6	5.4	.22	.06	5.8	5.5	1.1	.70	13	1.5
01...	2300	6.0	5.9	5.6	.21	.06	6.1	5.7	.98	.49	9.0	1.4
02...	0245	1.2	4.9	4.7	.09	.06	5.0	4.8	.35	.34	1.5	.46
02...	0700	.80	5.2	5.2	.08	.05	5.3	5.2	.18	.14	1.0	.24
AUG												
17...	0900	.35	4.4	4.4	.01	.01	4.4	4.4	.03	.03	.23	.23
17...	1345	6.6	3.4	3.3	.02	.02	3.4	3.3	.05	.02	3.8	.49
17...	1410	12	1.3	1.3	.08	.04	1.4	1.3	.41	.17	12	1.1
17...	1425	9.9	1.3	1.3	.10	.04	1.4	1.3	.47	.12	8.1	1.2
17...	1550	2.4	1.9	1.9	.06	.03	2.0	1.9	.26	.09	2.4	1.1
18...	0050	.42	3.8	3.8	.02	.02	3.8	3.8	.08	.02	.39	.36
SEP												
30...	1500	.17	4.4	4.3	.01	.01	4.4	4.3	.01	.01	.28	.13
DATE		TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORGANIC CARBON (C) (MG/L)	SUS-PENDED ORGANIC CARBON (C) (MG/L)	SUS-PENDED SEDIMENT (T/DAY)	SUS-PENDED SEDIMENT DIS-CHARGE (T/DAY)
FEB												
24...		.32	.25	5.7	.08	.04	.02	.01	2.7	.4	9	.01
24...	13		1.4	17	1.7	.08	.10	.02	9.7	61	7090	180
24...	15		2.3	18	1.7	.08	.20	.04	17	E63	7445	402
24...	12		3.1	16	1.5	.09	.20	.05	20	E39	4630	206
24...	6.5		2.3	11	.98	.15	.15	.08	19	21	2275	61
24...	4.4		2.6	9.3	.69	.17	.19	.13	15	6.8	480	6.7
25...	.78		.52	6.1	.07	.03	.05	.03	4.1	.8	20	.08
MAR												
22...	1.9		.50	5.4	.53	.05	.09	.05	5.1	7.8	275	2.0
22...	5.1		.60	7.0	1.3	.09	.15	.09	6.1	E21	2270	64
22...	6.0		.70	7.7	1.3	.06	.14	.06	--	40	4790	220
22...	9.5		.70	11	1.6	.07	.15	.07	9.7	E61	7280	472
22...	5.0		.70	6.6	1.2	.10	.20	.10	7.6	29	3040	140
22...	1.3		.60	5.0	.43	.05	.09	.05	5.5	4.9	291	3.0
23...	.38		.30	6.0	.08	.01	.07	.01	1.5	.5	10	.04
31...	.51		.50	6.0	.04	.01	.01	.01	1.3	.6	6	.01
JUN												
01...	.61		.19	5.2	.05	.01	.00	.00	5.1	.4	14	.02
01...	2.7		.60	6.8	.23	.01	.04	.00	4.7	E5.0	279	2.5
01...	33		3.9	40	1.8	.11	.27	.01	3.5	E70	8510	735
01...	17		2.5	23	5.4	.09	.87	.00	5.6	E95	14300	2120
01...	13		2.7	18	E3.5	.06	.71	.01	4.5	E100	13300	1290
01...	14		2.2	20	4.4	.07	.40	.02	4.2	E73	7150	232
01...	10		1.9	16	1.4	.08	.58	.00	7.0	E45	3520	57
02...	1.9		.80	6.9	.45	.09	.14	.08	3.9	E7.0	254	.82
02...	1.2		.38	6.5	.20	.03	.05	.01	4.8	E4.0	93	.20
AUG												
17...	.26		.26	4.7	.03	.02	.02	.02	8.4	.6	7	.01
17...	3.8		.51	7.2	1.2	.06	.04	.03	22	E13	1370	24
17...	12		1.3	13	5.5	.28	.33	.21	29	E45	3870	125
17...	8.6		1.3	10	4.7	.18	.32	.14	16	E35	2350	63
17...	2.7		1.2	4.7	.98	.10	.14	.08	18	E13	530	3.4
18...	.47		.38	4.3	.08	.02	.02	.01	7.4	E2.0	35	.04
SEP												
30...	.29		.14	4.7	.03	.01	.01	.01	17	.2	10	.00

PEQUEA CREEK BASIN

01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITRO- GEN IN BOTTOM MAT. (MG/KG)	TOTAL NITRO- GEN IN BOTTOM MATERI- AL (N) (MG/KG)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (MG/KG)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (G/KG)	PCB IN BOTTOM MA- TERIAL (UG/KG)	PCN TOTAL IN BOTTOM MATRL DRY WT. (UG/KG)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	1330	--	1.0	2.7	190	--	140	3.9	0	.0	.0
JUN 14...	1515	.0	5.4	4.8	400	400	190	1.3	0	.0	.0
SEP 30...	1500	.0	4.0	2.9	1200	1200	340	3.6	0	.0	.0

DATE	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	DDD IN BOTTOM MA- TERIAL (UG/KG)	DDE IN BOTTOM MA- TERIAL (UG/KG)	DDT IN BOTTOM MA- TERIAL (UG/KG)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	ENDO- SULFANE TOT. IN BOTTOM MATRL DRY WT (UG/KG)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
JUN 14...	0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
SEP 30...	0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	.0	.0	.0	.0	.0	0	.0	0	0	0
JUN 14...	.0	.0	.0	.0	.0	0	.0	0	0	0
SEP 30...	.0	.0	.0	.0	.0	0	.0	0	0	0

PEQUEA CREEK BASIN

301

01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
JUN 01...	2145	.0	.00	.00	.0	.00	.00	.00	.00
01...	2200	.0	.00	.00	.0	.00	.00	.00	.00
AUG 17...	1410	.0	.00	.00	.0	.00	.00	.01	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN 01...	.03	.00	.00	.00	.00	.01	.01	.00	.00
01...	.01	.00	.00	.00	.00	.00	.00	.00	.00
AUG 17...	.02	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 01...	.00	.00	.00	0	.00	.49	.00	.01
01...	.00	.00	.00	0	.00	.00	.00	.00
AUG 17...	.00	.00	.00	0	.00	.00	.00	.00

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG 17...	1410	4.9	.0	.0	.0	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR 31...	1330	2	6	16	42	72	87	92	94	98	100
JUN 14...	1515	0	2	9	43	75	86	94	99	100	--
SEP 30...	1500	4	11	28	66	85	93	97	99	100	--

PEQUEA CREEK BASIN

01576777 BIG BEAVER CREEK AT REFTON, PA

LOCATION.--Lat 39°56'28", long 76°14'28", Lancaster County, Hydrologic Unit 02050306, at bridge on Legislative Route 36091, 1 mi (1.6 km) southwest of Refton, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--20.4 mi² (52.8 km²).

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

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)
FEB												
24...	1315	15	3.5	3.5	.06	.06	3.6	3.6	.35	.31	.57	.38
24...	1725	32	3.3	3.3	.06	.05	3.4	3.3	.41	.33	2.2	.54
24...	1830	120	2.7	2.7	.13	.07	2.8	2.8	2.0	1.3	8.0	1.4
24...	1915	520	2.8	2.8	.15	.08	2.9	2.9	2.1	1.7	16	1.8
24...	2300	245	1.8	1.8	.14	.06	1.9	1.9	2.3	1.3	7.7	1.6
25...	0600	45	2.6	2.6	.09	.08	2.7	2.7	1.6	1.3	3.3	1.9
25...	0920	40	2.8	2.4	.09	.07	2.9	2.5	1.3	.93	2.5	1.3
MAR												
22...	1115	45	3.1	3.1	.08	.05	3.2	3.1	.26	.23	.74	.67
22...	1145	260	2.4	2.2	.08	.04	2.5	2.2	.37	.32	3.3	.58
22...	1245	640	1.7	1.6	.08	.02	1.8	1.6	.44	.43	6.1	.77
22...	1345	980	1.1	.93	.06	.02	1.2	.95	.52	.44	8.5	.86
22...	1415	1050	1.1	.91	.07	.02	1.2	.93	.36	.31	8.6	.79
22...	1500	920	1.1	.88	.08	.02	1.2	.90	.32	.28	8.7	.82
22...	2045	140	1.7	1.7	.05	.02	1.7	1.7	.34	.26	2.0	.84
23...	1100	55	3.1	3.1	.05	.02	3.1	3.1	.19	.15	.85	.85
31...	1415	2.5	3.3	3.3	.06	.05	3.4	3.3	.09	.05	.31	.15
MAY												
31...	1800	14	3.4	3.4	.14	.13	3.5	3.5	.14	.13	.34	.34
JUN												
01...	2130	52	3.9	3.7	.16	.10	4.1	3.8	.23	.23	29	.54
01...	2200	315	4.1	4.1	.20	.10	4.3	4.2	1.2	.71	22	1.9
01...	2230	465	4.0	4.0	.20	.10	4.2	4.1	1.4	.97	25	1.3
01...	2330	416	4.0	4.0	.22	.13	4.2	4.1	1.5	.90	30	2.3
01...	2400	375	3.6	3.5	.22	.13	3.8	3.6	1.1	.89	E25	1.2
02...	0215	88	2.8	2.4	.18	.09	3.0	2.5	.99	.84	17	.96
02...	0440	44	2.7	2.5	.15	.10	2.8	2.6	1.1	.76	6.2	1.3
02...	1300	23	2.9	2.8	.14	.12	3.0	2.9	1.3	1.2	2.3	1.4
14...	1400	13	3.5	3.5	.11	.10	3.6	3.6	.07	.07	.50	.21
AUG												
17...	0900	12	2.7	2.6	.03	.03	2.7	2.6	.04	.03	.27	.25
17...	1450	36	2.7	2.6	.05	.04	2.7	2.6	.06	.03	1.2	.77
17...	1550	110	2.2	1.8	.10	.07	2.3	1.9	.36	.27	4.7	.83
17...	1620	350	2.3	1.8	.10	.09	2.4	1.9	.34	.30	11	.90
17...	1650	330	1.9	1.6	.09	.07	2.0	1.7	.30	.27	7.6	.93
17...	1750	162	1.5	1.2	.10	.07	1.6	1.3	.31	.28	5.9	1.0
17...	2015	45	1.3	1.2	.10	.07	1.4	1.3	.59	.39	3.5	1.3
18...	0545	19	1.8	1.7	.08	.06	1.9	1.8	.21	.10	1.6	.90
SEP												
30...	1530	11	3.0	3.0	.06	.06	3.1	3.1	.04	.04	.41	.17

01576777 BIG BEAVER CREEK AT REFTON, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L)	SUS- PENDED ORGANIC CARBON (C) (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
FEB										
24...	.92	.69	4.5	.23	.14	.16	.14	4.2	F1.0	20 .81
24...	2.6	.87	6.0	.59	.14	.16	.14	11	6.4	372 32
24...	10	2.7	13	2.4	.54	.57	.44	20	45	2130 690
24...	18	3.5	21	5.4	.38	.39	.27	19	E52	7220 10100
24...	10	2.9	12	1.8	.33	.35	.19	27	28	3020 2000
25...	4.9	3.2	7.6	.79	.31	.28	.20	18	7.4	388 47
25...	3.8	2.2	6.7	.56	.17	.21	.14	16	6.8	154 17
MAR										
22...	1.0	.90	4.2	.38	.09	.12	.09	4.5	3.7	275 33
22...	3.7	.90	6.2	1.1	.13	.16	.12	5.5	20	2260 1590
22...	6.5	1.2	8.3	1.5	.16	.16	.12	7.3	E52	8080 14000
22...	9.0	1.3	10	1.8	.16	.19	.10	6.8	E38	4360 11500
22...	9.0	1.1	10	1.7	.12	.16	.06	7.7	E49	6660 18900
22...	9.0	1.1	10	1.8	.09	.15	.08	7.1	40	5430 13500
22...	2.3	1.1	4.0	.60	.14	.16	.09	9.8	9.0	541 204
23...	1.0	1.0	4.1	.18	.07	.07	.04	6.2	3.3	46 6.8
31...	.40	.20	3.8	.10	.03	.08	.03	3.5	.9	10 .07
MAY										
31...	.48	.47	4.0	.15	.12	.13	.11	5.7	.8	12 .45
JUN										
01...	29	.77	33	1.8	.13	.22	.11	4.8	E22	1870 263
01...	23	2.6	27	5.2	.13	.45	.04	6.0	E97	9650 8210
01...	26	2.3	30	5.6	.13	.47	.06	5.8	E120	12200 15300
01...	31	3.2	35	5.5	.19	.50	.06	4.9	E80	8000 8990
01...	E26	2.1	E30	E4.5	.12	.43	.07	5.9	E78	7860 7960
02...	18	1.8	21	2.0	.13	.41	.08	5.4	E70	5120 1220
02...	7.3	2.1	10	1.6	.16	.39	.09	4.3	E40	1880 233
02...	3.6	2.6	6.6	.94	.35	.41	.32	5.0	E9.0	416 26
14...	.57	.28	4.2	.19	.15	.14	.13	3.2	.4	53 1.9
AUG										
17...	.31	.28	3.0	.20	.13	.13	.12	8.0	F1.0	22 .71
17...	1.3	.80	4.0	.59	.15	.16	.13	9.0	E5.0	242 24
17...	5.1	1.1	7.4	1.9	.27	.37	.24	12	E18	1270 377
17...	11	1.2	13	7.3	.45	.55	.41	23	E37	2990 2830
17...	7.9	1.2	9.9	5.6	.20	.27	.19	16	E31	2850 2540
17...	6.2	1.3	7.8	4.6	.19	.25	.15	16	E21	1660 726
17...	4.1	1.7	5.5	1.8	.54	.62	.50	9.6	E15	707 86
18...	1.8	1.0	3.7	.99	.28	.33	.25	15	E5.0	160 8.2
SEP										
30...	.45	.21	3.6	.20	.15	.16	.13	3.0	.2	5 .15

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG						
17...	1650	.60	.0	.0	.0	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
MAR									
31...	1415	4	11	28	63	83	90	100	--
JUN									
14...	1400	2	3	8	53	86	94	96	100
SEP									
30...	1530	29	40	54	72	91	98	100	--

PEQUEA CREEK BASIN

01576777 BIG BEAVER CREEK AT REFTON, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE IN BOT- TOM MA- TERIAL (N) (MG/KG)	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA GEN IN BOT- TOM MA- TERIAL (MG/KG)	TOTAL KJEL. NITRO- GEN IN BOT- TOM MA- TERIAL (MG/KG)	TOTAL NITRO- GEN IN BOT- TOM MA- TERIAL (MG/KG)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (MG/KG)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (G/KG)	PCB IN BOT- TOM MA- TERIAL (UG/KG)	PCN TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	1415	--	2.7	1.3	340	--	150	6.4	0	.0	.0
JUN 14...	1400	1.0	1.2	4.0	810	810	160	4.9	0	.0	.0
SEP 30...	1530	1.0	2.0	14	14000	14000	900	19	13	.0	.0

DATE	CHLOR- DANE IN BOT- TOM MA- TERIAL (UG/KG)	DDD IN BOT- TOM MA- TERIAL (UG/KG)	DDE IN BOT- TOM MA- TERIAL (UG/KG)	DDT IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFANE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN IN BOT- TOM MA- TERIAL (UG/KG)	ETHION IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
JUN 14...	4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
SEP 30...	39	2.2	5.1	1.0	.0	.0	.0	.0	.0	.0	.0

DATE	LINDANE IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX IN BOT- TOM MA- TERIAL (UG/KG)
MAR 31...	.0	.0	.0	.0	.0	0	.0	0	0	0
JUN 14...	.0	.0	.0	.0	.0	0	.0	0	0	0
SEP 30...	.0	.0	.0	.0	.0	0	.0	0	0	0

DATE	TIME	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL PCB (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
JUN 01...	2230	.00	.00	.00	.0	.00	.00	.00	.02
AUG 17...	1650	.00	.00	.00	.2	.00	.00	.00	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN 01...	.01	.00	.00	.00	.00	.00	.03	.00	.00
AUG 17...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN 01...	.00	.00	.00	0	.00	1.2	.00	.00
AUG 17...	.00	.00	.00	0	.00	.03	.00	.00

PEQUEA CREEK BASIN

305

01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA

LOCATION.--Lat 39°54'28", long 76°19'06", Lancaster County, Hydrologic Unit 02050396, at bridge on State Highway 324 at Martic Forge and 0.6 mi (1.0 km) upstream from mouth.

DRAINAGE AREA.--1.56 mi² (4.0 km²).

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

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)
FEB												
24...	1245	.73	3.9	3.9	.01	.01	3.9	3.9	.04	.04	.21	.14
24...	1715	10	3.3	3.3	.00	.01	3.3	3.3	.14	.09	3.9	1.5
24...	1800	7.0	3.1	3.1	.03	.01	3.1	3.1	.21	.14	3.7	.67
24...	1815	5.7	3.2	2.6	.06	.02	3.3	2.6	.41	.19	3.6	1.0
24...	2105	3.3	3.2	3.2	.02	.01	3.2	3.2	.26	.22	.94	.88
25...	0330	1.7	3.4	3.3	.01	.01	3.4	3.3	.07	.07	.54	.49
25...	1205	1.6	3.6	3.5	.00	.01	3.6	3.5	.01	.01	.34	.33
MAR												
22...	1038	14	3.3	3.3	.01	.01	3.3	3.3	.01	.00	1.3	.30
22...	1130	14	2.6	2.6	.02	.00	2.6	2.6	.02	.02	1.4	.38
22...	1200	14	2.2	2.2	.01	.00	2.2	2.2	.02	.01	2.2	.29
22...	1300	20	1.9	1.9	.01	.01	1.9	1.9	.02	.02	3.3	.38
22...	1330	2	1.7	1.7	.01	.00	1.7	1.7	.02	.01	2.5	.39
22...	1415	20	1.7	1.7	.02	.00	1.7	1.7	.04	.03	2.1	.57
22...	1750	14	2.4	2.4	.01	.00	2.4	2.4	.01	.01	.59	.39
23...	0900	11	4.2	4.2	.01	.00	4.2	4.2	.01	.00	.34	.20
31...	1500	3.2	4.6	4.6	.01	.00	4.6	4.6	.01	.00	.09	.00
JUN												
01...	1645	.80	E3.7	3.7	.01	.00	E3.7	3.7	.01	.01	E.19	.19
01...	2030	7.1	2.1	1.9	.02	.01	2.1	1.9	.11	.08	3.1	.67
01...	2105	15	2.2	2.1	.01	.01	2.2	2.1	E.24	.13	11	.52
01...	2130	9.7	2.2	2.0	.02	.01	2.2	2.0	E.30	.16	E9.7	.53
01...	2200	11	2.0	2.0	.07	.02	2.1	2.0	E.55	.31	15	1.4
01...	2230	6.0	2.0	1.9	.10	.02	2.1	1.9	.65	.44	8.7	1.1
01...	2315	4.0	2.1	2.1	.07	.02	2.2	2.1	.44	.31	4.0	.69
02...	0500	2.4	3.0	3.0	.01	.01	3.0	3.0	.06	.02	.81	.36
14...	1145	.66	4.2	4.2	.00	.00	4.2	4.2	.01	.01	.14	.14
AUG												
17...	1000	.55	3.8	3.8	.01	.01	3.8	3.8	.00	.00	.18	.18
17...	1335	2.0	2.8	2.7	.00	.00	2.8	2.7	.08	.01	.52	.21
17...	1405	2.6	3.0	2.9	.00	.00	3.0	2.9	.01	.00	.77	.36
17...	1445	5.4	3.0	3.0	.00	.00	3.0	3.0	.01	.00	1.9	.29
17...	1615	2.2	2.7	2.5	.01	.01	2.7	2.5	.02	.02	.80	.55
17...	2125	.74	2.6	2.6	.00	.00	2.6	2.6	.01	.00	.45	.21
18...	0620	.62	3.2	3.2	.00	.00	3.2	3.2	.01	.00	.25	.23
SEP												
30...	1630	.50	4.1	3.9	.00	.00	4.1	3.9	.00	.00	.13	.10

PEQUEA CREEK BASIN

307

01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	TOTAL PCB (UG/L)	POLY- CHLO- RINATED NAPH- THA- LENES (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)
JUN									
01...	2130	.0	.00	.00	.0	.00	.00	.00	.01
01...	2200	.0	.00	.00	.0	.00	.00	.00	.03
AUG									
17...	1445	.0	.00	.00	.0	.00	.00	.01	.00

DATE	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDO- SULFAN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL ETHION (UG/L)	TOTAL HEPTA- CHLOR (UG/L)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)
JUN									
01...	.00	.00	.00	.00	.00	.00	.00	.00	.00
01...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG									
17...	.01	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
JUN								
01...	.00	.00	.00	0	.00	--	--	--
01...	.00	.00	.00	0	.00	.00	.00	.00
AUG								
17...	.00	.00	.00	0	.00	.00	.01	.00

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG						
17...	1445	.10	.0	.0	.1	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR										
31...	1500	3	6	14	26	43	62	78	95	100
SEP										
30...	1630	13	26	43	61	72	80	86	93	100

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA

LOCATION.--Lat 39°54'21", long 76°19'43", Lancaster County, Hydrologic Unit 02050306, on left bank 400 ft (122 m) upstream from bridge on State Highway 324 at Martic Forge and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--148 mi² (383 km²).

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

PERIOD OF DAILY RECORD.--

KJELDAHL NITROGEN DISCHARGE: February 1977 to current year.
NITRITE PLUS NITRATE DISCHARGE: February 1977 to current year.
PHOSPHORUS DISCHARGE: February 1977 to current year.
DISSOLVED ORGANIC CARBON DISCHARGE: February 1977 to current year.
SUSPENDED ORGANIC CARBON DISCHARGE: February 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: February 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

KJELDAHL NITROGEN CONCENTRATIONS: Maximum daily, 14 mg/L Jun. 2, 1977; minimum daily, 0.26 mg/L Mar. 12, 1977.
KJELDAHL NITROGEN DISCHARGES: Maximum daily, 21 tons (19 tonnes) Jun. 2, 1977; minimum daily, 0.06 ton (0.05 tonne) on several days during August and September, 1977.
NITRITE PLUS NITRATE CONCENTRATIONS: Maximum daily, 6.9 mg/L Jun. 1, 1977; minimum daily, 2.8 mg/L Sept. 1, 1977.
NITRITE PLUS NITRATE DISCHARGES: Maximum daily, 10 tons (9.1 tonnes) Apr. 5, 1977; minimum daily, 0.77 ton (0.70 tonne) Jul. 29, 1977.
PHOSPHORUS CONCENTRATIONS: Maximum daily, 5.8 mg/L Jun. 2, 1977; minimum daily, 0.05 mg/L on several days during April, 1977.
PHOSPHORUS DISCHARGES: Maximum daily, 8.4 tons (7.6 tonnes) Jun. 2, 1977; minimum daily, 0.03 ton (0.03 tonne) on many days during March, April, July, and September, 1977.
DISSOLVED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 30 mg/L Apr. 5, 1977; minimum daily, 0.48 mg/L Sept. 14, 1977.
DISSOLVED ORGANIC CARBON DISCHARGES: Maximum daily, 19 tons (17 tonnes) Feb. 25, 1977; minimum daily, 1.2 tons (1.1 tonnes) Mar. 21, 1977.
SUSPENDED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 84 mg/L Jun. 2, 1977; minimum daily, 0.20 mg/L Sept. 10, 1977.
SUSPENDED ORGANIC CARBON DISCHARGES: Maximum daily, 121 tons (110 tonnes) Jun. 2, 1977; minimum daily, 0.04 ton (0.04 tonne) Sept. 10, 1977.
SEDIMENT CONCENTRATIONS: Maximum daily, 6630 mg/L Jun. 2, 1977; minimum daily, 15 mg/L Mar. 21, 1977.
SEDIMENT DISCHARGES: Maximum daily, 9580 tons (8690 tonnes) Jun. 2, 1977; minimum daily, 4.7 tons (4.3 tonnes) Sept. 12, 1977.

EXTREMES FOR CURRENT YEAR.--

KJELDAHL NITROGEN CONCENTRATIONS: Maximum daily, 14 mg/L Jun. 2; minimum daily, 0.26 mg/L Mar. 12.
KJELDAHL NITROGEN DISCHARGES: Maximum daily, 21 tons (19 tonnes) Jun. 2; minimum daily, 0.06 ton (0.05 tonne) on several days during August and September.
NITRITE PLUS NITRATE CONCENTRATIONS: Maximum daily, 6.9 mg/L Jun. 1; minimum daily, 2.8 mg/L Sept. 1.
NITRITE PLUS NITRATE DISCHARGES: Maximum daily, 10 tons (9.1 tonnes) Apr. 5; minimum daily, 0.77 ton (0.70 tonne) Jul. 29.
PHOSPHORUS CONCENTRATIONS: Maximum daily, 5.8 mg/L Jun. 2; minimum daily, 0.05 mg/L on several days during April.
PHOSPHORUS DISCHARGES: Maximum daily, 8.4 tons (7.6 tonnes) Jun. 2; minimum daily, 0.03 ton (0.03 tonne) on many days during March, April, July, and September.
DISSOLVED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 30 mg/L Apr. 5; minimum daily, 0.48 mg/L Sept. 14.
DISSOLVED ORGANIC CARBON DISCHARGES: Maximum daily, 19 tons (17 tonnes) Feb. 25; minimum daily, 1.2 tons (1.1 tonnes) Mar. 21.
SUSPENDED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 84 mg/L Jun. 2; minimum daily, 0.20 mg/L Sept. 10.
SUSPENDED ORGANIC CARBON DISCHARGES: Maximum daily, 121 tons (110 tonnes) Jun. 2; minimum daily, 0.04 ton (0.04 tonne) Sept. 10.
SEDIMENT CONCENTRATIONS: Maximum daily, 6630 mg/L Jun. 2; minimum daily, 15 mg/L Mar. 21.
SEDIMENT DISCHARGES: Maximum daily, 9580 tons (8690 tonnes) Jun. 2; minimum daily, 4.7 tons (4.3 tonnes) Sept. 12.

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOLVED ORGANIC NITRO- GEN (N) (MG/L)
FEB												
24...	1235	105	5.8	4.7	.04	.03	5.8	4.7	.10	.07	.38	.37
24...	1740	215	4.5	4.1	.09	.05	4.6	4.1	1.2	.72	6.6	1.3
24...	1955	340	4.7	3.9	.09	.07	4.8	4.0	1.1	.70	4.4	.80
24...	2115	340	4.8	4.8	.06	.05	4.9	4.8	.60	.45	3.5	.85
24...	2230	880	E5.4	4.6	E.08	.07	5.5	4.7	E2.0	1.4	E2.8	1.1
24...	2400	1130	E4.6	3.8	E.08	.07	4.7	3.9	E2.0	1.3	E3.4	1.2
25...	0245	810	E3.0	3.0	.15	.08	E3.1	3.1	--	1.6	2.2	2.1
25...	1430	480	4.3	4.3	.14	.10	4.4	4.4	2.1	1.6	6.6	.60
MAR												
22...	1140	340	4.3	4.3	.06	.02	4.4	4.3	.14	.05	2.2	.55
22...	1525	1280	3.5	3.3	.11	.04	3.6	3.3	.22	.21	4.7	.49
22...	2000	1460	2.1	2.0	.13	.04	2.2	2.0	.52	.36	12	.84
22...	2215	1220	2.4	2.3	.09	.03	2.5	2.3	.48	.38	5.0	.82
22...	2400	1230	3.5	3.3	.10	.03	3.6	3.3	.34	.30	4.2	.70
23...	0145	1280	3.3	3.2	.10	.03	3.4	3.2	.32	.29	7.2	1.0
23...	0840	760	2.5	2.3	.12	.03	2.6	2.3	.53	.45	6.7	.75
23...	1400	480	2.6	2.6	.07	.02	2.7	2.6	.43	.36	3.6	1.1
24...	1200	305	4.4	4.3	.07	.01	4.5	4.3	.14	.13	.78	.57
31...	1600	200	5.4	5.4	.07	.03	5.5	5.4	.03	.00	.27	.10
MAY												
31...	1845	122	4.9	4.9	.10	.09	5.0	5.0	E.09	.09	.60	E.04
JUN												
01...	2359	1050	6.3	5.8	.19	.12	6.5	5.9	1.1	.78	19	1.5
02...	0159	1390	5.0	4.3	.18	.11	5.2	4.4	E1.0	.69	21	1.0
02...	0445	760	4.7	E4.9	.23	.13	E5.1	5.0	1.3	.88	24	1.4
02...	0630	472	4.6	E6.5	.21	.12	E6.7	6.6	1.3	.87	E13	1.9
02...	0815	460	4.7	4.7	.20	.12	4.9	4.8	1.0	.67	18	1.4
02...	1320	370	4.5	4.2	.20	.10	4.7	4.3	.85	.46	8.2	1.2
03...	1000	151	4.7	4.6	.17	.12	4.9	4.7	.56	.42	2.3	1.2
14...	1000	11	5.5	5.5	.06	.05	5.6	5.5	.03	.01	.73	.12
AUG												
17...	0945	90	4.4	4.4	.06	.06	4.5	4.5	.03	.03	.83	.43
17...	1530	161	3.8	3.7	.08	.07	3.9	3.8	.18	.10	2.8	.85
17...	1745	170	3.9	3.9	.07	.05	4.0	3.9	.07	.03	1.5	.65
17...	2100	360	4.3	4.2	.07	.06	4.4	4.3	.05	.02	2.1	.62
17...	2345	249	3.8	3.7	.08	.07	3.9	3.8	.03	.00	2.2	.58
18...	0310	162	2.9	2.7	.11	.09	3.0	2.8	.44	.22	2.0	1.4
18...	0635	134	2.9	2.8	.12	.10	3.0	2.9	.33	.22	1.6	.88
SEP												
30...	1715	86	4.6	4.5	.06	.06	4.7	4.6	.04	.04	.61	.53

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	TOTAL KJEL- DAHL NITRO- GEN (MG/L)	DIS- SOLVED KJEL- NITRO- GEN (MG/L)	TOTAL NITRO- GEN (MG/L)	TOTAL PHOS- PHORUS (MG/L)	DIS- SOL- VED- PHOS- PHORUS (MG/L)	TOTAL ORTHO PHOS- PHORUS (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (MG/L)	DIS- SOL- VED ORGANIC CARBON (MG/L)	SUS- PENDE D ORGANIC CARBON (MG/L)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D DIS- CHARGE (T/DAY)
FER											
24....	E.48	.44	6.3	.13	.07	.05	.04	5.5	.6	30	8.5
24....	7.8	2.0	12	1.9	.22	.31	.18	9.8	43	2240	1300
24....	5.5	1.5	10	1.5	.26	.27	.19	15	17	1760	1620
24....	4.1	1.3	9.0	.89	.21	.16	.16	9.7	10	987	919
24....	--	2.5	10	1.7	.26	.24	.21	15	--	3560	8460
24....	3.0	2.5	E10	1.7	.37	.19	.16	14	11	4600	14000
25....	--	3.7	19	2.5	.27	.28	.16	22	--	5490	12000
25....	8.7	2.2	13	2.0	.53	.54	.44	18	24	1520	1970
MAR											
22....	2.3	.60	6.7	.83	.13	.15	.09	5.7	15	750	688
22....	4.9	.70	8.5	1.4	.12	.13	.09	4.8	--	2950	10200
22....	13	1.2	15	1.6	.13	.22	.07	11	--	6300	24800
22....	5.5	1.2	8.0	1.4	.19	.22	.15	11	--	4461	14700
22....	4.5	1.0	8.1	1.4	.19	.22	.15	5.4	--	2980	9900
23....	7.5	1.3	11	1.9	.20	.23	.16	4.6	--	3640	12600
23....	7.2	1.2	9.8	1.8	.16	.24	.11	8.6	--	2680	5500
23....	4.0	1.5	6.7	1.1	.14	.18	.11	5.6	18	1220	1580
24....	.90	.70	5.4	.27	.10	.06	.05	3.3	3.6	182	150
31....	.30	.10	5.8	.08	.03	.03	.02	1.5	1.0	28	15
MAY											
31....	.65	E.13	5.6	.14	.08	.09	.06	4.6	F1.5	46	15
JUN											
01....	20	2.3	27	6.4	.21	.44	.15	3.2	E120	12300	34900
02....	22	1.7	27	7.2	.17	.32	.12	3.8	E80	10400	39000
02....	25	2.3	30	5.2	.18	.62	.12	2.2	E90	9910	20300
02....	E14	2.8	E21	6.0	.17	.49	.09	4.0	E80	7120	9070
02....	19	2.1	24	4.3	.18	.50	.11	2.4	E55	4810	5970
02....	9.0	1.7	14	1.6	.21	.44	.15	5.2	E40	2370	2370
03....	2.9	1.6	7.8	.95	.21	.27	.17	5.8	E12	439	179
14....	.76	.13	6.4	.22	.11	.09	.08	5.0	.8	91	28
AUG											
17....	.86	.46	5.4	.28	.16	.17	.15	11	F2.0	67	16
17....	3.0	.95	6.9	1.4	.30	.34	.28	13	F9.0	416	181
17....	1.6	.68	5.6	.59	.15	.18	.15	15	F6.0	273	125
17....	2.1	.64	6.5	1.2	.18	.19	.16	9.9	F8.0	591	574
17....	2.2	.58	6.1	1.4	.18	.20	.16	12	E10	585	393
18....	2.4	1.6	5.4	1.4	.23	.30	.20	11	F8.0	325	142
18....	1.9	1.1	4.9	1.3	.21	.27	.20	9.7	F7.0	227	85
SEP											
30....	.65	.57	5.4	.24	.14	.15	.11	4.0	.4	47	11

DATE	TIME	TOTAL ATRA- ZINE (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
AUG						
17....	2140	.20	.0	.0	.2	.0

DATE	TIME	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR											
31....	1600	19	42	57	68	77	95	100	--	--	--
JUN											
14....	1000	8	16	26	34	49	84	98	100	--	--
14....	1145	7	10	140	23	36	53	65	79	98	100
SEP											
30....	1715	40	63	77	91	98	10	--	--	--	--

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WATER-QUALITY DATA, FEBRUARY TO SEPTEMBER 1977

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)
MAR 31...	.0	.0	.0	.0	.0	0	.0	0	0	0
JUN 14...	.0	.0	.0	.0	.0	0	.0	0	0	0
SEP 30...	.0	.0	.0	.0	.0	0	.0	0	0	0

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	MEAN DIS CHARGE (CFS)	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOSPHORUS (P)		DISSOLVED ORGANIC CARBON (C)		SUSPENDED ORGANIC CARBON (C)		SUSPENDED SEDIMENT	
		MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
FEBRUARY 1977													
1	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---
24	220	5.0	3.0	4.6	2.8	0.97	0.57	5.3	9.0	22	13	1660	990
25	556	11	17	3.7	5.5	1.9	2.9	29	19	38	58	3430	5150
26	165	6.3	2.8	3.8	1.7	1.2	0.56	---	---	---	---	450	200
27	140	3.1	1.2	4.4	1.7	0.70	0.26	---	---	---	---	210	79
28	150	1.4	0.57	5.0	2.0	0.25	0.10	---	---	---	---	72	29
29	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	1231	---	24	---	13	---	4.3	---	28.0	---	71	---	6448
MARCH 1977													
1	134	0.80	0.29	5.4	2.0	0.17	0.06	---	---	---	---	37	13
2	127	0.53	0.18	5.5	1.9	0.13	0.04	---	---	---	---	31	11
3	121	0.28	0.09	5.6	1.8	0.12	0.04	---	---	---	---	33	11
4	292	3.6	2.8	4.7	3.7	0.85	0.67	---	---	---	---	1710	1340
5	336	3.5	3.2	4.5	4.1	0.95	0.86	---	---	---	---	755	685
6	211	1.5	0.85	4.7	2.7	0.44	0.25	---	---	---	---	95	54
7	159	1.0	0.43	4.8	2.1	0.25	0.11	---	---	---	---	55	24
8	147	0.72	0.29	4.9	1.9	0.19	0.08	---	---	---	---	60	24
9	138	0.55	0.20	5.0	1.9	0.15	0.06	---	---	---	---	65	24
10	134	0.41	0.15	5.1	1.8	0.13	0.05	---	---	---	---	70	25
11	132	0.30	0.10	5.3	1.9	0.10	0.04	0.96	2.7	0.9	0.32	77	27
12	130	0.26	0.09	5.4	1.9	0.09	0.03	0.88	2.5	0.8	0.28	60	21
13	259	1.2	0.86	4.5	3.2	0.49	0.34	3.2	4.5	6.7	4.7	432	302
14	582	5.4	8.5	3.9	6.1	1.5	2.3	14	8.6	22	35	2600	4080
15	232	3.1	1.9	3.6	2.3	1.1	0.68	3.9	6.3	15	9.4	670	419
16	195	1.4	0.74	4.5	2.4	0.37	0.19	1.6	3.1	2.9	1.5	130	68
17	177	0.90	0.43	4.8	2.3	0.20	0.10	0.72	1.5	1.6	0.76	95	45
18	190	0.78	0.40	5.5	2.8	0.15	0.08	1.2	2.3	2.3	1.2	55	28
19	187	0.74	0.37	5.2	2.6	0.14	0.07	1.7	3.4	1.2	0.61	40	20
20	172	0.62	0.28	5.3	2.5	0.14	0.06	0.60	1.3	0.9	0.42	26	12
21	174	0.50	0.23	5.4	2.5	0.14	0.06	0.56	1.2	0.8	0.38	15	7.0
22	734	8.9	18	3.0	6.0	1.7	3.4	19	9.7	48	96	4810	9540
23	704	6.8	13	3.0	5.6	1.4	2.7	12	6.2	30	57	2550	4840
24	315	1.1	0.94	4.5	3.8	0.32	0.27	3.6	4.2	3.6	3.1	189	160
25	270	0.45	0.32	5.6	4.0	0.20	0.14	1.4	1.9	1.3	0.95	75	55
26	251	0.30	0.20	5.8	3.9	0.15	0.10	1.1	1.6	1.0	0.68	53	36
27	236	0.30	0.19	5.9	3.8	0.08	0.05	0.76	1.2	0.8	0.51	39	25
28	234	0.30	0.18	5.8	3.7	0.09	0.06	0.89	1.4	0.8	0.51	37	23
29	225	0.30	0.18	5.8	3.5	0.12	0.07	1.0	1.7	0.9	0.55	36	22
30	214	0.30	0.17	5.7	3.3	0.10	0.06	0.92	1.6	0.9	0.52	28	16
31	195	0.30	0.15	5.5	2.9	0.08	0.04	0.79	1.5	1.0	0.53	23	12
TOTAL	7607	---	55	---	94	---	13	---	68.4	---	214.92	---	21969.0

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	MEAN DIS CHARGE (CFS)	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOSPHORUS (P)		DISSOLVED ORGANIC CARBON (C)		SUSPENDED ORGANIC CARBON (C)		SUSPENDED SEDIMENT	
		MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
APRIL 1977													
1	185	0.30	0.15	5.5	2.7	0.08	0.04	0.75	1.5	1.0	0.50	20	10
2	294	1.2	0.99	4.9	3.9	0.34	0.27	4.6	5.8	3.5	2.8	347	276
3	308	1.0	0.86	4.7	3.9	0.30	0.24	5.6	6.7	2.0	1.6	181	150
4	232	0.71	0.45	4.8	3.0	0.23	0.14	2.8	4.5	1.2	0.77	83	52
5	1240	5.5	18	2.9	10	1.6	5.2	30	8.9	17	58	2490	8340
6	533	2.0	2.9	3.7	5.3	0.66	0.94	11	7.6	6.0	8.6	423	609
7	376	0.80	0.81	5.2	5.3	0.14	0.14	3.8	3.7	1.7	1.7	100	102
8	340	0.60	0.55	5.6	5.1	0.08	0.07	2.6	2.8	1.3	1.2	73	67
9	302	0.55	0.45	5.9	4.8	0.07	0.06	2.1	2.6	1.0	0.82	51	42
10	285	0.50	0.38	5.8	4.5	0.06	0.05	1.9	2.5	0.8	0.62	28	22
11	273	0.45	0.33	5.7	4.2	0.06	0.04	1.8	2.5	0.8	0.55	25	18
12	263	0.40	0.28	5.6	4.0	0.05	0.04	1.8	2.5	0.7	0.50	40	28
13	254	0.35	0.24	5.5	3.8	0.05	0.03	1.7	2.5	0.7	0.45	32	22
14	247	0.30	0.20	5.5	3.7	0.05	0.03	2.7	4.0	0.6	0.40	33	22
15	233	0.50	0.31	5.5	3.5	0.05	0.03	1.9	3.0	0.8	0.50	33	21
16	227	1.0	0.61	5.6	3.4	0.05	0.03	0.86	1.4	1.3	0.80	36	22
17	219	0.60	0.35	5.5	3.2	0.05	0.03	0.83	1.4	1.0	0.59	32	19
18	214	0.50	0.29	5.5	3.2	0.07	0.04	0.75	1.3	1.8	1.0	36	21
19	211	0.40	0.23	5.5	3.1	0.08	0.05	0.74	1.3	3.3	1.9	40	23
20	206	0.50	0.28	5.5	3.1	0.06	0.03	0.78	1.4	2.0	1.1	36	20
21	204	0.50	0.27	5.5	3.0	0.05	0.03	0.94	1.7	0.8	0.44	32	18
22	201	0.50	0.27	5.5	3.0	0.05	0.03	0.87	1.6	0.8	0.43	31	17
23	198	0.50	0.27	5.5	2.9	0.05	0.03	0.86	1.6	0.8	0.43	30	16
24	215	0.84	0.49	5.3	3.1	0.15	0.09	1.2	2.2	1.5	0.90	63	36
25	296	1.3	1.0	5.0	4.0	0.24	0.20	4.1	5.1	4.4	3.6	141	113
26	233	0.80	0.50	5.1	3.2	0.14	0.09	2.1	3.4	2.5	1.6	53	33
27	209	0.60	0.34	5.3	3.0	0.10	0.06	1.4	2.5	1.7	0.96	45	25
28	204	0.50	0.28	5.4	3.0	0.06	0.03	1.2	2.1	1.3	0.72	42	23
29	211	0.50	0.28	5.6	3.2	0.13	0.07	1.0	1.8	0.7	0.40	39	22
30	195	0.50	0.26	5.5	2.9	0.08	0.04	1.3	2.4	0.9	0.47	32	17
31	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	8608	---	32	---	115	---	8.1	---	92.3	---	94.35	---	10206
MAY 1977													
1	183	0.50	0.25	5.5	2.7	0.08	0.04	1.1	2.3	0.9	0.44	40	20
2	181	0.50	0.24	5.5	2.7	0.08	0.04	1.1	2.2	0.9	0.44	37	18
3	179	0.50	0.24	5.4	2.6	0.08	0.04	1.0	2.1	0.9	0.44	34	16
4	177	0.50	0.24	5.4	2.6	0.08	0.04	0.96	2.0	0.9	0.43	28	13
5	189	0.50	0.26	5.3	2.7	0.08	0.04	1.0	2.0	0.9	0.46	35	18
6	226	0.67	0.41	5.3	3.2	0.15	0.09	1.6	2.6	1.8	1.1	144	88
7	223	1.8	1.1	5.0	3.0	0.36	0.22	2.0	3.3	2.3	1.4	182	109
8	190	0.73	0.37	5.3	2.7	0.20	0.10	1.2	2.3	1.1	0.56	75	38
9	170	0.55	0.25	5.3	2.4	0.14	0.06	1.3	2.8	1.1	0.50	55	25
10	168	0.47	0.21	5.6	2.5	0.11	0.05	1.3	2.8	0.7	0.32	34	15
11	164	0.45	0.20	5.7	2.5	0.10	0.04	1.2	2.8	0.8	0.35	45	20
12	162	0.40	0.18	5.6	2.4	0.10	0.04	1.0	2.4	1.0	0.44	42	18
13	157	0.34	0.14	5.5	2.3	0.12	0.05	1.3	3.0	1.2	0.51	39	16
14	153	0.45	0.18	5.4	2.2	0.12	0.05	1.2	2.9	0.9	0.37	48	20
15	149	0.55	0.22	5.4	2.2	0.12	0.05	1.2	3.0	0.9	0.36	48	19
16	149	0.55	0.22	5.3	2.1	0.12	0.05	1.2	3.0	1.0	0.40	46	18
17	146	0.50	0.20	5.2	2.0	0.12	0.05	1.2	3.1	1.0	0.39	45	18
18	149	0.55	0.22	5.2	2.1	0.12	0.05	1.2	3.1	1.0	0.40	43	17
19	151	0.68	0.28	5.0	2.0	0.11	0.04	1.1	2.8	0.8	0.33	40	16
20	149	0.62	0.25	5.0	2.0	0.13	0.05	0.80	2.0	0.7	0.28	36	14
21	142	0.60	0.23	4.9	1.9	0.15	0.06	0.65	1.7	0.5	0.19	45	17
22	138	0.62	0.23	4.9	1.8	0.15	0.06	0.63	1.7	0.5	0.19	55	20
23	134	0.65	0.24	4.9	1.8	0.15	0.05	0.72	2.0	0.6	0.22	60	22
24	130	0.70	0.24	4.9	1.7	0.15	0.05	0.81	2.3	0.6	0.21	66	23
25	130	0.70	0.24	5.0	1.8	0.15	0.05	0.98	2.8	0.5	0.18	67	24
26	128	0.75	0.26	5.1	1.8	0.14	0.05	1.0	3.0	0.4	0.14	66	23
27	124	0.90	0.30	5.2	1.7	0.14	0.05	1.3	3.8	0.4	0.13	62	21
28	122	0.90	0.30	5.2	1.7	0.15	0.05	1.3	4.0	0.5	0.16	62	20
29	120	0.90	0.29	5.2	1.7	0.15	0.05	1.3	4.0	0.5	0.16	55	18
30	118	0.85	0.27	5.2	1.7	0.14	0.04	1.2	3.8	0.4	0.13	55	18
31	120	0.65	0.21	5.0	1.6	0.14	0.04	1.4	4.2	0.5	0.16	50	16
TOTAL	4821	---	8.4	---	68	---	1.7	---	85.8	---	11.79	---	758

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	MEAN DIS CHARGE (CFS)	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOSPHORUS (P)		DISSOLVED ORGANIC CARBON (C)		SUSPENDED ORGANIC CARBON (C)		SUSPENDED SEDIMENT	
		MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
JUNE 1977													
1	204	6.5	3.6	6.9	3.8	1.9	1.1	2.3	4.1	32	18	2030	1110
2	535	14	21	5.2	7.5	5.8	8.4	5.6	3.9	84	121	6630	9580
3	150	2.6	1.1	4.9	2.0	0.91	0.37	2.0	5.0	9.1	3.7	444	180
4	126	1.9	0.65	4.8	1.6	0.60	0.20	1.3	3.8	4.0	1.4	260	88
5	122	1.4	0.46	5.1	1.7	0.45	0.15	1.2	3.7	2.0	0.66	120	40
6	130	0.85	0.30	5.2	1.8	0.35	0.12	1.4	3.9	2.0	0.70	110	39
7	134	0.82	0.30	5.4	2.0	0.25	0.09	1.6	4.4	1.5	0.54	120	43
8	122	0.72	0.24	5.5	1.8	0.24	0.08	1.6	5.0	0.8	0.26	110	36
9	136	0.65	0.24	5.4	2.0	0.24	0.09	1.7	4.7	0.9	0.33	130	48
10	192	1.7	0.89	5.0	2.6	1.0	0.53	3.0	5.7	11	5.9	1160	602
11	132	1.3	0.46	5.1	1.8	0.62	0.22	1.3	3.6	2.0	0.71	220	78
12	120	1.0	0.32	5.2	1.7	0.35	0.11	1.2	3.7	2.0	0.65	170	55
13	116	0.78	0.24	5.3	1.7	0.22	0.07	1.2	3.8	1.0	0.31	135	42
14	112	0.76	0.23	5.5	1.7	0.22	0.07	1.4	4.6	1.0	0.30	90	27
15	120	0.60	0.19	5.3	1.7	0.24	0.08	1.2	3.8	1.0	0.32	115	37
16	118	0.45	0.14	5.2	1.7	0.22	0.07	0.89	2.8	0.9	0.29	95	30
17	110	0.45	0.13	5.1	1.5	0.19	0.06	0.74	2.5	0.8	0.24	95	28
18	120	0.60	0.19	5.1	1.6	0.20	0.06	0.71	2.2	0.8	0.26	100	32
19	112	0.60	0.18	5.0	1.5	0.16	0.05	0.60	2.0	0.7	0.21	75	23
20	110	0.55	0.16	5.0	1.5	0.18	0.05	0.59	2.0	0.7	0.21	70	21
21	105	0.50	0.14	5.1	1.4	0.19	0.05	0.54	1.9	0.7	0.20	60	17
22	101	0.50	0.14	5.0	1.4	0.19	0.05	0.52	1.9	0.7	0.19	55	15
23	96	0.50	0.13	5.0	1.3	0.18	0.05	0.57	2.2	0.8	0.21	50	13
24	94	0.50	0.13	4.9	1.2	0.16	0.04	0.66	2.6	1.0	0.25	45	11
25	94	0.63	0.16	4.9	1.2	0.15	0.04	0.76	3.0	1.2	0.30	43	11
26	231	2.0	1.2	5.2	3.2	0.69	0.43	2.4	3.8	7.5	4.7	690	431
27	134	1.6	0.58	4.9	1.8	0.62	0.22	1.7	4.7	6.8	2.4	389	141
28	154	1.7	0.72	4.4	1.8	0.62	0.26	2.9	7.0	6.6	2.8	466	193
29	226	2.4	1.4	4.2	2.6	0.81	0.50	3.9	6.4	9.5	5.8	715	437
30	120	1.5	0.49	4.0	1.3	0.50	0.16	1.6	5.1	4.6	1.5	260	84
31	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	4376	---	36	---	60	---	13	---	113.8	---	174.34	---	13492
JULY 1977													
1	101	1.2	0.33	4.2	1.1	0.40	0.11	1.3	4.7	2.8	0.76	140	38
2	98	0.80	0.21	4.6	1.2	0.32	0.08	1.2	4.4	2.8	0.74	80	21
3	93	0.63	0.16	5.0	1.3	0.28	0.07	1.0	4.1	2.8	0.70	65	16
4	89	0.60	0.14	5.0	1.2	0.24	0.06	0.94	3.9	2.8	0.67	50	12
5	89	0.55	0.13	5.0	1.2	0.22	0.05	0.89	3.7	2.8	0.67	40	9.6
6	212	4.2	2.4	4.7	2.7	3.8	2.2	2.5	4.3	36	20	3510	2010
7	305	3.0	2.4	4.6	3.8	1.3	1.0	4.6	5.6	15	12	974	802
8	136	2.0	0.74	4.1	1.5	0.53	0.20	1.6	4.5	6.4	2.4	286	105
9	108	1.5	0.44	3.8	1.1	0.36	0.10	1.3	4.3	4.0	1.2	140	41
10	100	1.1	0.30	4.6	1.2	0.30	0.08	1.1	4.2	3.3	0.89	100	27
11	96	0.65	0.17	5.0	1.3	0.26	0.07	1.0	4.0	2.5	0.65	80	21
12	94	0.80	0.20	4.8	1.2	0.25	0.06	0.96	3.8	2.2	0.56	90	23
13	197	2.9	1.5	4.8	2.6	1.3	0.69	2.0	3.9	17	8.9	907	483
14	128	2.4	0.83	3.9	1.4	1.3	0.45	1.4	3.9	16	5.4	577	200
15	93	1.2	0.30	4.1	1.0	0.65	0.16	1.0	4.0	2.6	0.65	130	33
16	89	1.0	0.24	4.3	1.0	0.65	0.16	0.91	3.8	1.9	0.46	82	20
17	86	0.96	0.22	4.5	1.0	0.66	0.15	0.81	3.5	1.6	0.37	60	14
18	86	0.90	0.21	4.4	1.0	0.66	0.15	0.81	3.5	1.2	0.28	50	12
19	84	0.80	0.18	4.3	0.98	0.50	0.11	0.86	3.8	1.0	0.23	40	9.1
20	84	0.70	0.16	4.1	0.93	0.40	0.09	0.91	4.0	0.9	0.20	40	9.1
21	84	0.75	0.17	4.1	0.93	0.16	0.04	0.95	4.2	0.9	0.20	60	14
22	76	0.80	0.16	4.2	0.86	0.15	0.03	0.82	4.0	1.1	0.23	36	7.4
23	71	0.65	0.12	4.2	0.81	0.15	0.03	0.73	3.8	1.1	0.21	45	8.6
24	69	0.50	0.09	4.2	0.78	0.15	0.03	0.71	3.8	1.1	0.20	56	10
25	79	0.80	0.17	4.3	0.92	0.20	0.04	0.70	3.3	1.9	0.41	114	24
26	106	0.94	0.27	4.2	1.2	0.27	0.08	0.94	3.3	2.1	0.61	154	44
27	81	0.85	0.19	4.2	0.92	0.21	0.05	0.92	4.2	1.7	0.37	105	23
28	71	0.70	0.13	4.3	0.82	0.20	0.04	0.79	4.1	1.3	0.25	70	13
29	68	0.60	0.11	4.2	0.77	0.18	0.03	0.75	4.1	1.0	0.18	55	10
30	74	0.60	0.12	4.3	0.86	0.18	0.04	0.76	3.8	1.0	0.20	60	12
31	74	0.60	0.12	4.3	0.86	0.17	0.03	0.64	3.2	1.0	0.20	55	11
TOTAL	3221	---	12	---	38	---	6.4	---	123.7	---	60.79	---	4082.8

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	MEAN DISCHARGE (CFS)	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOSPHORUS (P)		DISSOLVED ORGANIC CARBON (C)		SUSPENDED ORGANIC CARBON (C)		SUSPENDED SEDIMENT	
		MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
AUGUST 1977													
1	80	0.91	0.20	4.3	0.93	0.23	0.05	0.67	3.1	2.2	0.48	207	45
2	319	4.7	4.1	3.9	3.4	1.5	1.3	7.4	8.6	16	14	1350	1160
3	179	3.2	1.5	2.9	1.4	1.1	0.55	4.9	10	8.3	4.0	589	285
4	266	4.1	3.0	3.0	2.2	1.3	0.95	6.2	8.6	13	9.5	799	574
5	105	1.3	0.37	3.0	0.85	0.60	0.17	2.3	8.0	10	2.8	155	44
6	125	2.0	0.68	3.2	1.1	0.56	0.19	2.4	7.3	7.4	2.5	408	138
7	142	2.7	1.0	3.6	1.4	0.93	0.36	3.4	8.8	10	3.9	484	185
8	100	1.3	0.35	4.0	1.1	0.43	0.12	1.5	5.5	5.0	1.4	135	36
9	89	1.1	0.26	4.1	0.99	0.30	0.07	1.2	4.8	3.0	0.72	100	24
10	115	1.8	0.56	4.2	1.3	0.68	0.21	1.7	5.5	7.3	2.3	296	92
11	233	3.4	2.2	3.9	2.5	1.1	0.72	4.9	11	8.0	5.0	698	439
12	128	1.2	0.41	3.8	1.3	0.59	0.20	2.9	11	1.3	0.45	175	60
13	126	1.1	0.37	4.0	1.4	0.45	0.15	3.2	9.5	2.1	0.71	160	54
14	159	1.5	0.65	4.2	1.8	0.60	0.26	4.8	10	4.4	1.9	244	105
15	147	1.3	0.51	4.3	1.7	0.51	0.20	4.5	7.0	2.9	1.1	196	78
16	105	0.94	0.27	4.6	1.3	0.34	0.10	2.8	10	0.5	0.14	90	26
17	150	1.9	0.75	4.2	1.7	0.83	0.34	4.8	12	5.6	2.2	409	165
18	144	1.6	0.61	3.3	1.3	1.1	0.41	4.0	10	5.6	2.2	218	84
19	107	1.1	0.32	4.7	1.4	0.40	0.12	2.0	6.8	2.2	0.64	110	32
20	91	0.90	0.22	4.8	1.2	0.35	0.09	1.6	6.4	1.8	0.44	70	17
21	87	0.76	0.18	4.8	1.1	0.28	0.07	1.5	6.2	1.7	0.40	65	15
22	167	1.8	0.83	4.6	2.1	0.75	0.34	3.2	7.1	5.7	2.6	379	171
23	112	1.0	0.30	4.1	1.2	0.43	0.13	2.1	7.0	4.5	1.4	105	32
24	91	0.70	0.17	4.6	1.1	0.35	0.09	1.6	6.6	3.5	0.86	70	17
25	91	0.45	0.11	4.7	1.2	0.26	0.06	1.5	6.2	2.5	0.61	68	17
26	86	0.35	0.08	4.7	1.1	0.23	0.05	1.4	5.8	1.5	0.35	66	15
27	81	0.32	0.07	4.8	1.0	0.21	0.05	1.2	5.5	0.7	0.15	53	12
28	79	0.28	0.06	4.9	1.0	0.19	0.04	1.1	5.2	0.3	0.06	47	10
29	77	0.29	0.06	4.7	0.98	0.18	0.04	1.1	5.5	0.3	0.06	43	8.9
30	76	0.30	0.06	4.4	0.90	0.18	0.04	1.3	6.3	0.3	0.06	38	7.8
31	309	9.1	7.6	3.8	3.1	5.3	4.4	9.0	11	18	15	5150	4290
TOTAL	4166	---	27	---	45	---	11	---	236.3	---	77.93	---	8238.7
SEPTEMBER 1977													
1	468	6.6	8.3	2.8	3.6	3.4	4.3	13	10	16	20	2880	3640
2	125	2.0	0.68	3.4	1.1	0.71	0.24	3.1	9.2	9.7	3.3	174	59
3	101	1.4	0.38	3.8	1.0	0.40	0.11	2.7	9.8	4.5	1.2	90	24
4	94	0.88	0.22	4.2	1.1	0.30	0.08	2.7	10	1.5	0.38	75	19
5	89	0.74	0.18	4.6	1.1	0.22	0.05	1.7	7.0	0.5	0.12	58	14
6	82	0.66	0.15	5.0	1.1	0.20	0.04	0.89	4.0	0.3	0.07	41	9.1
7	100	0.63	0.17	4.7	1.3	0.20	0.05	1.0	3.8	0.3	0.08	70	19
8	82	0.60	0.13	4.8	1.1	0.21	0.05	0.84	3.8	0.4	0.09	50	11
9	79	0.55	0.12	5.0	1.1	0.21	0.04	0.81	3.8	0.3	0.06	43	9.2
10	77	0.48	0.10	5.0	1.0	0.19	0.04	0.77	3.7	0.2	0.04	37	7.7
11	73	0.43	0.08	5.0	0.98	0.18	0.04	0.73	3.7	0.3	0.06	33	6.5
12	69	0.37	0.07	5.0	0.93	0.16	0.03	0.80	4.3	0.3	0.06	25	4.7
13	69	0.34	0.06	5.0	0.93	0.15	0.03	0.54	2.9	0.3	0.06	30	5.6
14	69	0.35	0.06	5.0	0.93	0.15	0.03	0.48	2.6	0.3	0.06	30	5.6
15	73	0.40	0.08	5.0	0.98	0.15	0.03	0.57	2.9	0.3	0.06	27	5.3
16	73	0.45	0.09	5.0	0.98	0.15	0.03	0.63	3.2	0.3	0.06	28	5.5
17	93	0.60	0.15	4.9	1.2	0.19	0.05	1.3	5.2	0.3	0.08	50	12
18	91	0.53	0.13	4.8	1.2	0.21	0.05	1.1	4.4	0.3	0.07	45	11
19	79	0.52	0.11	4.7	1.0	0.20	0.04	1.2	5.5	0.3	0.06	40	8.5
20	235	2.1	1.3	4.8	3.0	0.92	0.58	4.8	7.6	1.5	0.93	594	377
21	107	1.8	0.53	4.2	1.2	0.71	0.20	2.0	6.8	1.8	0.52	178	51
22	87	1.1	0.26	4.4	1.0	0.45	0.10	1.5	6.2	1.5	0.35	105	25
23	87	0.70	0.16	4.5	1.1	0.40	0.09	1.4	5.9	1.5	0.35	85	20
24	89	0.60	0.14	4.6	1.1	0.35	0.08	1.4	5.6	1.3	0.31	70	17
25	138	0.90	0.33	4.6	1.7	0.48	0.18	2.4	6.4	1.5	0.55	142	53
26	124	1.3	0.44	4.6	1.5	0.60	0.20	2.7	8.0	1.0	0.33	110	37
27	96	0.70	0.18	4.5	1.2	0.45	0.12	1.9	7.2	0.8	0.21	82	21
28	126	0.97	0.33	4.4	1.5	0.35	0.12	1.7	5.0	0.7	0.24	95	32
29	98	0.70	0.18	4.6	1.2	0.34	0.09	1.1	4.2	0.7	0.18	70	18
30	87	0.55	0.13	4.8	1.1	0.28	0.07	0.89	3.8	0.8	0.19	50	12
31	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	3260	---	15	---	38	---	7.1	---	166.5	---	30.07	---	4539.7

OCTORARO CREEK BASIN

01578400 BOWERY RUN NEAR QUARRYVILLE, PA

LOCATION.--Lat 39°53'41", long 76°06'50", Lancaster County, Hydrologic Unit 02050306, on left bank at single-span bridge, 1.1 mi (1.8 km) upstream from mouth and 2.5 mi (4.0 km) east of Quarryville.

DRAINAGE AREA.--5.98 mi² (15.49 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 468.08 ft (142.671 m) above mean sea level.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--15 years, 7.45 ft³/s (0.211 m³/s), 16.92 in/yr (430 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft³/s (62.9 m³/s) July 3, 1964, gage height, 7.7 ft (2.35 m), from floodmark, from rating curve extended above 150 ft³/s (4.25 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.0 ft³/s (0.028 m³/s) Sept. 1, 2, 3, 4, 9, 10, 11, 12, 1966; minimum gage height, 2.32 ft (0.707 m) July 6, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 20	2145	252 7.14	4.99 1.521	Mar. 22	1345	*353 10.0	*5.30 1.615
Dec. 7	0915	247 7.00	4.97 1.515	Apr. 5	0300	224 6.34	4.89 1.490
Mar. 13	1945	283 8.01	5.09 1.551				

Minimum discharge, 2.9 ft³/s (0.082 m³/s) Sept. 29, 30, gage height, 3.02 ft (0.920 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	6.7	5.0	5.0	3.8	5.9	6.4	5.2	5.9	3.1	3.9	3.7
2	6.4	6.4	5.0	4.8	3.7	5.7	15	5.2	5.4	3.1	3.9	3.6
3	9.2	6.1	4.8	4.8	3.6	5.4	8.8	5.0	3.9	3.1	3.9	3.4
4	5.2	6.1	4.6	4.8	3.6	22	14	5.2	3.9	3.1	3.8	3.4
5	4.8	5.9	4.6	4.8	4.5	9.9	49	5.4	3.9	3.1	14	3.4
6	4.8	5.9	4.6	4.8	3.7	7.0	11	14	4.4	3.5	4.0	3.4
7	4.8	5.9	26	4.6	3.6	6.4	9.2	7.0	4.1	20	4.0	3.6
8	5.0	5.9	6.4	4.8	3.6	5.9	8.5	5.9	3.9	10	3.9	3.4
9	22	5.9	5.4	4.6	3.5	5.9	7.9	5.2	5.2	6.0	3.9	3.3
10	5.4	5.9	5.4	5.9	3.5	5.7	7.6	5.0	4.4	5.0	6.1	3.3
11	4.8	5.9	5.7	5.0	4.3	5.7	7.3	5.0	3.9	4.5	4.1	3.3
12	4.6	5.7	5.7	4.6	13	5.7	6.7	4.8	3.9	25	4.1	3.1
13	4.6	5.7	5.7	4.4	8.8	28	6.7	4.6	3.7	5.7	9.0	3.3
14	4.6	5.7	5.4	4.6	7.3	11	6.4	4.6	3.7	3.6	8.3	3.1
15	5.0	5.7	5.4	4.6	6.7	7.9	6.1	4.6	3.9	3.4	4.5	3.1
16	5.2	5.4	5.7	4.4	6.2	7.3	6.1	4.6	7.9	3.4	4.3	3.1
17	5.2	5.4	5.4	4.3	5.9	7.0	5.9	4.4	4.6	12	17	3.6
18	5.2	5.4	5.4	4.2	5.7	7.9	5.9	4.4	3.6	6.0	3.9	3.3
19	5.2	5.4	5.4	4.1	5.4	7.0	5.7	4.6	3.6	3.7	3.7	3.3
20	33	5.4	5.7	4.0	5.7	7.3	5.7	4.1	3.4	3.6	3.6	3.4
21	13	5.4	5.7	4.0	5.4	7.0	5.4	4.1	3.6	3.5	3.6	3.3
22	6.4	5.7	5.4	3.9	5.9	56	5.4	4.1	3.4	3.5	16	3.3
23	5.9	5.9	5.2	3.9	5.9	11	5.4	4.1	3.3	3.4	3.9	3.3
24	6.4	5.4	5.2	3.9	26	8.8	7.9	3.9	7.3	3.4	3.9	3.4
25	7.0	5.2	5.2	3.9	11	8.2	7.0	4.1	5.4	10	3.7	4.4
26	11	5.2	5.4	3.9	6.7	7.6	6.1	3.9	3.6	6.0	3.6	3.3
27	6.4	5.2	5.2	3.9	6.7	7.3	5.7	3.7	3.4	4.5	3.6	3.6
28	6.1	5.2	5.2	3.9	6.7	7.6	5.7	3.7	3.4	3.7	3.6	3.7
29	6.1	7.0	5.2	3.9	---	7.3	5.9	3.7	4.6	3.5	3.4	3.1
30	5.9	5.2	5.0	3.9	---	7.0	5.2	3.9	3.8	7.0	3.4	3.1
31	15	---	4.8	3.8	---	6.7	---	3.9	---	4.0	3.7	---
TOTAL	240.9	171.8	184.8	136.0	180.4	309.1	259.6	151.9	129.0	183.4	166.2	101.6
MEAN	7.77	5.73	5.96	4.39	6.44	9.97	8.65	4.90	4.30	5.92	5.36	3.39
MAX	33	7.0	26	5.9	26	56	49	14	7.9	25	17	4.4
MIN	4.6	5.2	4.6	3.8	3.5	5.4	5.2	3.7	3.3	3.1	3.4	3.1
CFSM	1.30	.96	1.00	.73	1.08	1.67	1.45	.82	.72	.99	.90	.57
IN.	1.50	1.07	1.15	.85	1.12	1.92	1.61	.94	.80	1.14	1.03	.63

CAL YR 1976 TOTAL 3114.6 MEAN 8.51 MAX 189 MIN 3.3 CFSM 1.42 IN 19.37
WTR YR 1977 TOTAL 2214.7 MEAN 6.07 MAX 56 MIN 3.1 CFSM 1.02 IN 13.77

T
A
X
M

EVITTS CREEK BASIN

317

01603500 EVITTS CREEK NEAR CENTERVILLE, PA

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, Hydrologic Unit 02070002, on left bank 2.0 mi (3.2 km) upstream from Thomas W. Koon Dam, 3.0 mi (4.8 km) south of Centerville, 7.0 mi (11.3 km) upstream from Rock Gully Creek, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--30.2 mi² (78.2 km²).

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley".

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft (313.209 m) above mean sea level (city of Cumberland bench mark).

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

AVERAGE DISCHARGE.--45 years, 31.7 ft³/s (0.898 m³/s), 14.25 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,240 ft³/s (148 m³/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurements at gage heights, 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum, 0.70 ft³/s (0.020 m³/s) Dec. 17, 1958, gage height, 0.79 ft (0.241 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 8 ft (2.4 m), from floodmark, date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 1	1830	447 12.7	2.87 0.875	Apr. 2	1330	461	13.1 2.89 0.881
Oct. 9	1645	1,110 31.4	3.64 1.109	July 20	1245	*1,310	37.1 *3.84 1.170
Mar. 13	0715	461 13.1	2.89 0.881				

Minimum discharge, 3.3 ft³/s (0.093 m³/s) July 6, 7, gage height, 1.12 ft (0.341).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	68	15	16	6.4	41	55	21	10	4.1	9.0	6.0
2	116	56	15	15	6.7	35	225	20	9.1	3.8	8.0	4.6
3	61	53	13	14	6.7	31	164	20	8.8	3.6	7.7	4.4
4	43	66	13	14	7.4	195	129	19	7.9	3.6	7.0	4.3
5	35	51	13	13	8.3	136	211	27	7.9	3.6	6.4	4.1
6	30	45	13	13	8.0	86	136	31	11	3.5	6.2	4.2
7	42	41	160	12	7.5	68	109	47	12	3.7	6.2	4.2
8	215	38	54	12	7.2	56	93	29	8.9	5.0	6.5	4.3
9	806	34	40	12	6.2	49	76	26	11	5.7	7.0	4.2
10	364	34	32	12	7.8	44	67	25	13	5.9	7.6	4.2
11	164	31	33	11	15	39	59	24	8.8	94	7.0	3.9
12	107	30	35	11	25	38	53	23	7.7	65	7.2	3.6
13	81	28	32	11	36	270	48	22	7.6	68	7.4	3.4
14	64	27	28	11	40	139	45	21	7.9	15	7.7	3.4
15	53	26	26	10	28	99	41	19	8.4	9.9	8.7	3.4
16	46	24	25	9.8	23	77	38	18	7.1	8.1	8.7	4.1
17	40	23	25	8.7	20	63	35	17	6.8	7.3	11	5.6
18	35	23	24	6.9	20	154	33	17	11	6.4	6.7	6.4
19	31	22	22	12	19	107	32	24	7.3	5.7	6.1	5.1
20	103	21	23	13	18	91	30	18	6.3	394	6.4	4.8
21	137	20	22	11	20	78	28	15	6.1	47	6.4	4.2
22	63	19	21	9.4	26	148	27	14	5.6	27	7.6	3.8
23	54	18	20	8.3	33	104	27	14	5.3	19	7.2	3.8
24	81	17	20	8.9	101	82	29	15	5.1	15	6.6	3.8
25	90	17	19	9.4	105	69	27	13	5.4	14	6.4	4.5
26	126	18	19	8.3	65	60	24	12	6.0	15	6.0	11
27	81	19	18	7.7	57	53	24	11	4.9	12	5.4	12
28	69	18	18	7.4	48	138	24	11	5.4	10	5.4	13
29	61	22	17	7.0	---	90	30	10	5.4	9.4	5.2	6.6
30	55	16	16	6.7	---	72	22	10	4.3	15	5.4	5.1
31	113	---	14	6.7	---	64	---	10	---	10	5.8	---
TOTAL	3643	925	845	328.2	771.2	2776	1941	603	232.0	909.3	215.9	156.0
MEAN	118	30.8	27.3	10.6	27.5	89.5	64.7	19.5	7.73	29.3	6.96	5.20
MAX	806	68	160	16	105	270	225	47	13	394	11	13
MIN	30	16	13	6.7	6.2	31	22	10	4.3	3.5	5.2	3.4
CFSM	3.91	1.02	.90	.35	.91	2.96	2.14	.65	.26	.97	.23	.17
IN.	4.49	1.14	1.04	.40	.95	3.42	2.39	.74	.29	1.12	.27	.19

CAL YR 1976 TOTAL 13201.4 MEAN 36.1 MAX 806 MIN 4.9 CFSM 1.20 IN 16.26
WTR YR 1977 TOTAL 13345.6 MEAN 36.6 MAX 806 MIN 3.4 CFSM 1.21 IN 16.44

TONOLOWAY CREEK BASIN

01613050 TONOLOWAY CREEK NEAR NEEDMORE, PA

LOCATION.--Lat 39°53'54", long 78°07'57", Fulton County, Hydrologic Unit 02070004, on left bank 10 ft (3 m) downstream from bridge on Legislative Route 29015, 0.2 mi (0.3 km) upstream from Foster Creek, and 3.5 mi (5.6 km) north of Needmore.

DRAINAGE AREA.--10.7 mi² (27.7 km²).

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1963-65. October 1965 to current year.

REVISED RECORDS.--WDR PA-69: 1966-68(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 688.94 ft (209.989 m) above mean sea level. Prior to Sept. 2, 1965, crest-stage gage at same site at datum 2.0 ft (0.61 m) higher.

REMARKS.--Records good except for those of no gage-height record and winter periods, which are fair.

AVERAGE DISCHARGE.--12 years, 12.3 ft³/s (0.348 m³/s), 15.64 in/yr (397 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) June 22, 1972, 9.17 ft (2.795 m), from rating curve extended above 550 ft³/s (15.6 m³/s) on basis of contracted-opening measurement of peak flow; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 9	1100	*417 11.8	*5.99 1.826	Mar. 13	0645	166 4.70	4.68 1.426

Minimum discharge, 0.01 ft³/s (<0.001 m³/s) July 6, 7, gage height, 2.45 ft (0.747 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	34	4.2	3.8	.98	17	21	5.6	1.1	.03	1.4	.14
2	73	29	3.6	3.5	.98	15	52	5.6	.87	.03	.98	.10
3	37	25	3.5	3.4	.98	13	57	6.0	.78	.02	.87	.09
4	22	22	5.2	3.1	.99	40	44	5.6	.53	.02	.87	.09
5	14	17	6.9	2.9	1.0	98	58	6.8	.47	.01	.69	.06
6	11	14	5.2	2.6	.98	45	45	6.8	1.1	.01	.61	.05
7	9.2	13	26	2.4	.98	35	33	9.2	1.5	.02	.41	.05
8	19	11	31	2.2	.96	25	27	7.2	.87	.05	.41	.05
9	225	9.7	22	2.1	1.3	23	21	7.2	1.4	.06	.61	.05
10	86	9.2	16	1.8	2.5	21	19	6.8	1.8	.08	.61	.04
11	40	8.2	14	1.7	6.0	19	17	6.4	.87	.98	.47	.03
12	25	7.4	13	1.6	10	18	15	6.0	.69	4.2	.41	.03
13	19	6.9	12	1.5	40	106	12	5.6	.53	5.6	.47	.02
14	15	6.0	17	1.4	29	75	12	5.2	.53	2.5	.69	.02
15	13	5.6	15	1.3	23	43	11	4.2	.98	1.4	.98	.02
16	11	5.0	10	1.3	17	32	9.2	3.9	.69	.78	.87	.02
17	8.7	4.7	8.7	1.2	19	26	8.7	3.7	.47	.47	.87	.03
18	7.4	4.9	7.8	1.2	25	34	7.8	2.9	.87	.61	1.5	.05
19	6.0	4.8	7.8	1.1	11	32	7.7	3.2	.78	.30	1.4	.04
20	15	4.5	7.3	1.1	16	33	7.2	2.9	.41	19	.98	.03
21	29	4.4	7.2	1.1	14	29	6.4	2.5	.41	13	.78	.03
22	24	4.2	7.0	1.1	12	73	6.0	2.0	.19	14	.69	.03
23	19	3.8	6.6	1.0	11	72	7.2	1.8	.14	9.2	.78	.02
24	19	3.7	6.2	1.0	45	43	9.7	1.8	.09	6.0	.69	.02
25	24	3.5	5.8	1.0	62	31	6.8	1.6	.09	4.5	.69	.03
26	42	3.4	5.5	1.0	46	26	6.4	1.5	.12	4.5	.41	.07
27	40	3.6	5.2	1.0	32	21	6.0	1.4	.08	2.9	.30	.12
28	30	3.5	5.0	1.0	23	34	6.0	1.1	.07	2.3	.22	.26
29	23	4.0	4.7	1.0	---	32	8.2	1.1	.19	1.6	.14	.26
30	18	3.6	4.4	1.0	---	30	6.4	.98	.06	1.6	.09	.14
31	31	---	4.0	1.0	---	25	---	.98	---	1.6	.10	---
TOTAL	1070.3	279.6	297.8	52.4	452.65	1166	553.7	127.56	18.68	97.37	20.99	1.99
MEAN	34.5	9.32	9.61	1.69	16.2	37.6	18.5	4.11	.62	3.14	.68	.066
MAX	225	34	31	3.8	62	106	58	9.2	1.8	19	1.5	.26
MIN	6.0	3.4	3.5	1.0	.96	13	6.0	.98	.06	.01	.09	.02
CFSM	3.22	.87	.90	.16	1.51	3.51	1.73	.38	.06	.29	.06	.006
IN.	3.72	.97	1.04	.18	1.57	4.05	1.92	.44	.06	.34	.07	.01
CAL YR 1976	TOTAL	4177.12	MEAN	11.4	MAX	225	MIN	.05	CFSM	1.07	IN	14.52
WTR YR 1977	TOTAL	4139.04	MEAN	11.3	MAX	225	MIN	.01	CFSM	1.06	IN	14.39

POTOMAC RIVER BASIN

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01614090 CONOCOCHAEQUE CREEK NEAR FAYETTEVILLE, PA

LOCATION.--Lat 39°55'48", long 77°26'23", Adams County, Hydrologic Unit 02070004, on right bank 20 ft (6 m) downstream from bridge on State Highway 233, 0.3 mi (0.5 km) upstream from Birch Run, 1.3 mi (2.1 km) upstream from Chambersburg Reservoir Dam, 4 mi (6 km) northeast of Fayetteville, and 12 mi (19 km) east of Chambersburg.

DRAINAGE AREA.--5.05 mi² (13.08 km²).

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 1,132.76 ft (345.265 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--17 years, 7.03 ft³/s (0.199 m³/s), 18.91 in/yr (480 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft³/s (11.1 m³/s) June 22, 1972, gage height 3.45 ft (1.052 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of contracted opening and flow-over-road measurement of peak flow; minimum, 0.1 ft³/s (0.003 m³/s) on many days; minimum gage height, 0.49 ft (0.149 m) Sept. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 382 ft³/s (10.8 m³/s) Oct. 9, gage height, 3.44 ft (1.049 m); minimum, 0.20 ft³/s (0.006 m³/s) Sept. 13, gage height, 0.49 ft (0.149 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	19	4.1	3.4	2.5	4.1	12	5.9	3.0	1.7	1.1	.55
2	8.5	18	4.3	3.3	2.5	3.9	26	5.9	2.7	1.6	1.0	.53
3	14	17	3.7	3.2	2.6	3.9	20	5.6	2.6	1.5	.99	.55
4	9.7	17	3.9	3.1	2.6	15	20	5.9	2.5	1.6	.97	.52
5	8.9	16	3.7	3.0	2.5	13	38	8.6	2.5	1.6	.90	.47
6	8.1	15	3.9	2.9	2.4	11	27	8.2	3.1	1.5	.88	.99
7	7.7	14	16	3.2	2.4	10	24	6.2	3.0	4.7	.88	1.2
8	14	13	7.3	3.1	2.4	9.7	23	5.4	2.6	2.5	.88	.81
9	155	12	5.3	3.1	2.4	9.4	20	5.1	3.4	2.0	.94	.72
10	89	12	4.8	3.2	2.4	9.0	18	5.1	4.1	1.9	1.1	.68
11	51	11	5.1	3.1	2.5	8.2	16	4.9	2.8	2.1	1.4	.47
12	35	10	5.1	3.0	2.9	7.9	15	4.7	2.5	2.0	1.1	.38
13	31	9.2	5.1	3.0	2.9	29	14	4.5	2.4	1.8	1.5	.45
14	25	8.9	4.3	3.0	2.8	18	13	4.2	2.7	1.6	1.4	.66
15	21	8.9	4.6	3.0	2.7	17	12	4.1	3.3	1.5	1.2	.78
16	19	8.1	4.6	3.0	2.6	16	12	3.9	2.6	1.4	.94	.99
17	17	7.7	4.6	2.9	2.5	14	11	3.9	3.3	1.7	1.5	1.3
18	15	7.7	4.3	2.9	2.5	16	10	4.5	3.9	2.7	1.4	1.0
19	14	7.3	4.3	2.9	2.6	14	9.4	4.7	2.5	1.6	1.0	.90
20	25	6.9	4.6	2.9	2.5	14	9.0	3.9	2.5	3.6	.92	1.7
21	25	6.2	4.6	2.8	2.4	13	8.2	3.7	2.8	1.8	.85	1.1
22	17	5.9	3.9	2.7	2.2	33	7.8	3.6	2.2	1.7	.97	.99
23	16	5.6	3.9	2.7	3.0	25	7.8	4.7	2.1	1.4	.85	.99
24	20	5.3	3.7	2.7	6.2	22	8.2	4.5	2.0	1.3	1.1	1.0
25	20	5.3	3.9	2.7	7.2	19	7.5	3.4	2.0	1.6	.94	1.5
26	25	5.1	4.1	2.7	4.9	17	6.8	3.3	2.0	1.8	.76	2.0
27	18	5.1	3.9	2.7	4.5	16	6.5	3.0	1.8	1.4	.74	1.8
28	18	5.1	3.9	2.6	4.3	21	7.5	2.9	2.0	1.2	.70	1.5
29	17	6.2	3.7	2.5	---	17	9.0	2.9	2.1	1.2	.61	1.3
30	17	4.6	3.6	2.5	---	15	6.2	2.9	1.7	1.3	.61	1.2
31	30	---	3.5	2.5	---	13	---	3.0	---	1.2	.66	---
TOTAL	814.9	293.1	146.3	90.3	85.9	454.1	424.9	143.1	78.7	56.5	30.79	29.03
MEAN	26.3	9.77	4.72	2.91	3.07	14.6	14.2	4.62	2.62	1.82	.99	.97
MAX	155	19	16	3.4	7.2	33	38	8.6	4.1	4.7	1.5	2.0
MIN	7.7	4.6	3.5	2.5	2.2	3.9	6.2	2.9	1.7	1.2	.61	.38
CFSM	5.21	1.94	.94	.58	.61	2.89	2.81	.92	.52	.36	.20	.19
IN.	6.00	2.16	1.08	.67	.63	3.34	3.13	1.05	.58	.42	.23	.21

CAL YR 1976 TOTAL 3276.03 MEAN 8.95 MAX 155 MIN .74 CFSM 1.77 IN 24.13
WTR YR 1977 TOTAL 2647.62 MEAN 7.25 MAX 155 MIN .38 CFSM 1.44 IN 19.50

CONOCOCHEAGUE CREEK BASIN

01614140 BACK CREEK NEAR CHAMBERSBURG, PA

LOCATION.--Lat 39°53'36", long 77°44'30", Franklin County, Hydrologic Unit 02070004, on right bank, 190 ft (58 m) downstream from two-span steel bridge on L.R. 28052, 1.0 mi (1.6 km) west of Turkeyfoot, 4.1 mi (6.6 km) downstream from confluence of Dennis Creek and Wilson Run, and 5 mi (8.0 km) southwest of Chambersburg.

DRAINAGE AREA.--63.0 mi² (163.2 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1970-76. Reassigned as a continuous-record station Nov. 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 520 ft (158 m), from topographic map. Prior to Nov. 1976, nonrecording gage at site 190 ft (58 m) upstream at different datum.

REMARKS.--Records good, except those for periods of no gage-height record or winter periods, which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Dec. 7	1000	898 25.4	6.87 2.094	Mar. 13	Unknown	1,580 44.7	8.56 2.609
Feb. 24	2400	540 15.3	5.81 1.771	Mar. 22	Unknown	Unknown	Unknown
Mar. 4	Unknown	*1,630 46.2	*8.67 2.643	Apr. 2	Unknown	961 27.2	7.04 2.146

Minimum discharge, 3.6 ft³/s (0.10 m³/s) Aug. 29, 30, Sept. 1, 2, 12, gage height, 3.14 ft (0.957 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	19	27	8.8	71	106	31	11	6.2	6.5	4.4
2		---	18	26	8.7	59	433	31	10	5.9	6.5	4.2
3		---	18	25	8.7	56	396	29	9.4	5.9	6.2	4.2
4		---	17	24	8.7	1100	261	29	9.0	5.9	6.2	4.0
5		---	17	23	8.6	600	350	34	9.4	5.9	5.9	4.0
6		114	17	22	8.5	370	283	37	11	5.6	5.6	4.0
7		100	355	21	8.5	200	232	38	12	6.8	5.6	4.2
8		89	189	19	8.4	150	187	34	11	7.4	5.6	4.0
9		76	124	18	8.7	116	136	31	17	5.9	5.6	4.0
10		70	91	18	9.7	101	120	28	18	6.5	7.4	4.2
11		62	81	17	10	93	105	26	15	11	10	3.8
12		59	74	16	11	81	92	23	13	109	5.6	3.8
13		59	64	15	11	965	79	21	13	29	5.9	4.0
14		59	56	15	10	531	71	19	12	16	6.2	4.0
15		59	49	14	10	298	63	18	13	12	5.6	4.0
16		46	43	14	9.8	211	57	18	11	9.7	5.1	4.4
17		34	43	13	9.4	140	52	16	12	9.0	9.4	4.8
18		34	38	13	9.2	180	45	16	12	11	6.5	4.4
19		32	33	12	9.2	240	50	16	9.7	8.6	4.6	4.2
20		28	34	12	9.2	210	44	15	9.4	43	4.2	5.4
21		27	33	11	9.4	180	39	14	9.7	18	4.0	4.4
22		25	43	11	9.6	410	37	13	8.6	14	6.2	4.4
23		23	33	10	118	490	45	13	8.2	9.7	5.4	4.6
24		23	32	10	193	350	54	13	8.6	9.0	4.8	4.4
25		23	30	10	178	240	40	13	9.0	9.0	4.6	5.6
26		21	38	9.8	120	161	36	12	14	9.4	4.4	5.6
27		21	36	9.7	101	132	34	12	9.0	7.4	4.4	5.9
28		21	35	9.5	89	206	39	11	8.6	6.8	4.2	9.0
29		25	34	9.2	---	191	32	10	7.7	6.8	4.0	7.8
30		21	29	9.1	---	153	31	10	6.8	8.6	4.0	7.1
31		---	28	9.0	---	129	---	11	---	7.1	7.4	---
TOTAL	---	---	1751	472.3	1090.5	8414	3549	642	328.1	426.1	177.6	142.8
MEAN	---	---	56.5	15.2	38.9	271	118	20.7	10.9	13.7	5.73	4.76
MAX	---	---	355	27	193	1100	433	38	18	109	10	9.0
MIN	---	---	17	9.0	8.4	56	31	10	6.8	5.6	4.0	3.8
CFSM	---	---	.90	.24	.62	4.30	1.87	.33	.17	.22	.09	.08
IN.	---	---	1.03	.28	.64	4.97	2.10	.38	.19	.25	.10	.08

01614175 CONOCOCHEAGUE CREEK AT WORLEYTOWN, PA

LOCATION.--Lat 39°44'31", long 77°47'41", Franklin County, Hydrologic Unit 02070004, 1.0 mi (1.6 km) southwest of Worleytown, 2.4 mi (3.9 km) downstream from West Branch, and 2.7 mi (4.3 km) upstream from PA-MD border.

DRAINAGE AREA.-- not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT									
21...	0900	9813	170	7.2	9.0	8	10.5	.4	90
NOV									
17...	1100	9813	500	8.2	4.0	2	12.3	.6	182
DEC									
16...	1010	9813	340	7.8	2.0	4	13.3	--	140
MAR									
08...	1115	9813	230	7.7	6.5	9	11.8	.4	100
APR									
05...	1030	9813	180	7.2	7.5	90	11.1	2.7	82
MAY									
02...	1100	9813	410	7.6	16.5	2	10.8	1.0	146
JUN									
15...	1400	9813	430	8.0	19.0	6	11.0	<.4	175
JUL									
26...	1000	9813	365	7.7	20.0	26	7.5	1.1	162
AUG									
09...	1100	9813	430	8.0	24.5	2	8.2	.6	178
SEP									
08...	1200	9813	400	8.0	20.0	7	8.1	.8	192

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (CL) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
21...	--	0	18	11	52	20	--	10	110
NOV									
17...	--	0	48	15	142	30	<.10	12	216
DEC									
16...	--	0	44	7.5	134	28	.00	12	214
MAR									
08...	0	0	28	7.0	86	10	.00	12	126
APR									
05...	0	0	27	3.5	66	15	.00	4.0	145
MAY									
02...	--	0	47	7.0	142	10	.00	13	212
JUN									
15...	--	0	57	7.7	106	22	--	16	256
JUL									
26...	0	0	49	9.8	148	18	.10	17	280
AUG									
09...	0	0	56	9.0	130	20	.00	19	300
SEP									
08...	0	0	57	13	140	20	<.10	17	270

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT								
21...	8	118	1.4	.02	.28	.27	--	270
NOV								
17...	12	--	3.6	.03	.04	.12	.06	90
DEC								
16...	12	226	3.0	.03	.09	.11	--	200
MAR								
08...	20	146	3.2	.03	.10	.08	.06	430
APR								
05...	156	290	.07	.07	.27	.27	.15	7450
MAY								
02...	8	220	3.0	.04	.22	.20	.14	130
JUN								
15...	18	274	3.4	.09	.13	.57	.24	290
JUL								
26...	48	328	3.7	.05	.11	.41	1.1	1460
AUG								
09...	<10	310	2.9	.08	.05	.38	.37	80
SEP								
08...	22	292	3.5	.05	.10	.36	.30	370

ANTIETAM CREEK BASIN

01618950 EAST BRANCH ANTIETAM CREEK NEAR WAYNESBORO, PA

LOCATION.--Lat 39°43'34", long 77°35'38", Franklin County, Hydrologic Unit 02070004, at bridge on Township Route 393, 0.9 mi (1.5 km) upstream from mouth, and 1.7 mi (2.7 km) southwest of Waynesboro.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA, MG)
OCT									
21...	1030	9813	270	7.1	9.0	40	10.3	1.0	132
NOV									
17...	1330	9813	270	6.5	6.0	2	12.5	.0	108
DEC									
16...	1125	9813	270	8.3	4.5	1	13.1	--	95
MAR									
08...	1300	9813	190	8.5	8.0	3	12.8	1.1	75
APR									
05...	1200	9813	110	7.5	8.5	25	11.0	.8	45
MAY									
02...	1220	9813	250	7.8	15.0	3	11.3	1.2	90
JUN									
15...	1230	9813	300	7.2	16.0	20	8.8	3.1	104
JUL									
26...	1200	9813	270	7.3	18.0	15	9.0	2.0	118
AUG									
09...	1300	9813	395	8.0	22.5	4	9.0	2.5	150
SEP									
08...	1430	9813	456	8.0	19.0	4	9.5	1.3	152

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
21...	--	0	34	11	86	20	--	11	184
NOV									
17...	--	0	27	10	94	22	.10	13	132
DEC									
16...	--	0	26	7.2	98	14	.00	18	168
MAR									
08...	0	0	16	8.2	68	10	.00	13	34
APR									
05...	0	0	14	2.0	40	10	.00	7.0	74
MAY									
02...	--	0	22	8.5	88	10	.00	9.0	132
JUN									
15...	--	0	30	7.0	10	20	--	19	158
JUL									
26...	0	0	32	9.8	110	10	.10	11	194
AUG									
09...	--	0	40	12	168	18	.00	21	250
SEP									
08...	0	0	39	14	24	20	.15	27	260

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT								
21...	58	242	2.6	.03	.07	.35	.16	2000
NOV								
17...	20	152	2.1	.04	.55	.42	.35	110
DEC								
16...	10	178	2.1	.04	.84	.62	--	180
MAR								
08...	18	52	1.4	.03	.50	.25	.21	120
APR								
05...	46	120	1.5	.02	.17	.15	.07	1320
MAY								
02...	14	147	1.9	.03	.64	.25	.23	170
JUN								
15...	52	210	2.0	.09	.82	.50	.50	1620
JUL								
26...	28	222	2.4	.09	.72	.58	.41	630
AUG								
09...	<10	260	2.1	.14	--	1.0	1.0	420
SEP								
08...	16	276	3.9	.07	1.2	1.3	1.0	290

01638890 ROCK CREEK NEAR GETTYSBURG, PA

LOCATION.--Lat 39°48'17", long 77°12'42", Adams County, Hydrologic Unit 02070009, at bridge on U.S. Route 140, 2.1 mi (3.4 km) southeast of Gettysburg, and 2.3 mi (3.7 km) upstream from White Run.

DRAINAGE AREA.--not available.

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

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT									
19...	0900	9813	500	7.3	7.0	4	10.5	2.7	145
21...	1030	9813	270	7.1	9.0	40	10.3	1.0	132
NOV									
22...	1420	9813	500	--	3.0	5	12.5	--	170
DEC									
16...	1355	9813	460	7.8	2.5	4	12.6	--	138
MAR									
08...	1420	9813	290	7.5	7.0	6	11.1	1.7	105
APR									
05...	1400	9813	140	7.5	8.0	40	11.1	1.5	540
MAY									
02...	1430	9813	530	7.0	16.0	5	7.5	7.1	130
JUN									
15...	1030	9813	800	7.3	18.0	--	5.0	18	180
JUL									
26...	1345	9813	700	7.3	23.0	3	4.5	6.3	196
AUG									
09...	1425	9813	800	7.3	27.0	5	3.8	10	197

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL RESI- DUAL CHLO- RINE (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
19...	--	0	--	--	108	70	.00	44	352
21...	--	0	34	11	86	20	--	11	184
NOV									
22...	--	0	39	18	132	75	.00	37	308
DEC									
16...	--	0	36	11	118	68	.00	30	294
MAR									
08...	--	0	27	9.2	62	32	.00	24	172
APR									
05...	0	0	16	3.0	42	18	.00	8.0	110
MAY									
02...	--	0	36	10	120	58	.00	31	272
JUN									
15...	--	80	43	18	190	96	--	100	470
JUL									
26...	0	0	48	19	186	102	.10	95	502
AUG									
09...	0	0	47	19	114	106	.00	59	502

DATE	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT								
19...	<5	356	2.5	.28	4.3	1.7	1.6	200
21...	58	242	2.6	.03	.07	.35	.16	2000
NOV								
22...	4	312	2.7	--	.12	2.4	--	290
DEC								
16...	10	304	2.0	.09	5.0	1.8	--	290
MAR								
08...	10	182	2.5	.07	.74	.27	.20	230
APR								
05...	46	156	1.7	.03	.29	.21	.15	2570
MAY								
02...	12	284	1.3	.20	19	1.9	1.8	360
JUN								
15...	12	482	--	.37	17	5.0	4.3	610
JUL								
26...	8	510	3.5	.61	15	7.3	5.4	270
AUG								
09...	16	518	1.9	.33	13	8.6	5.8	840

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

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 when 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 1977

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Discharge (cfs)
SUSQUEHANNA RIVER BASIN						
Chemung River basin						
01516300	Tioga River at Covington, Pa.	Lat 41°44'42", long 77°04'49", Tioga County, at bridge on L.R. 58060, 0.1 mile west of Covington.	105	1970-77	9-30-76 5-26-77	37 72
01530850	Bentley Creek at Ridgebury, Pa.	Lat 41°58'25", long 76°43'12", Bradford County, at bridge on L.R. 08068, at Ridgebury and 300 ft downstream from Three Falls Glen.	47.2	1970-77	9-30-76 5-26-77	4.0 4.9
Sugar Run Creek basin						
01533100	Sugar Run Creek at Sugar Run, Pa.	Lat 41°38'31", long 76°13'55", Bradford County, at bridge on rural road, 0.3 mile east of Sugar Run and 0.4 mile upstream from mouth.	56.6	1970-77	9-30-76 5-26-77	5.3 11
Tunkhannock Creek basin						
01533840	Tunkhannock Creek at Glenwood, Pa.	Lat 41°39'03", long 75°43'15", Susquehanna County, at bridge on State Highway 374 at Glenwood and 0.4 mile upstream from East Branch Tunkhannock Creek.	107	1970-74 1976-77	4-20-77	76
01533960	South Branch Tunkhannock Creek near East Benton, Pa.	Lat 41°34'23", long 75°40'00", Lackawanna County, at bridge on county road, 0.4 mile south of East Benton and 0.6 mile upstream from Corder Pond tributary.	29.3	1970-74 1976-77	4-20-77	18
Lackawanna River basin						
01534170	East Branch Lackawanna River at Uniondale, Pa.	Lat 41°43'08", long 75°28'49", Susquehanna County, at bridge on L.R. 57041, 0.3 mile east of intersection of State Highway 171 and L.R. 57041 and 0.7 mile east of Uniondale.	17.3	1951 1970-74 1976-77	4-20-77	18
01535540	Spring Brook near Spring Brook, Pa.	Lat 41°17'07", long 75°35'33", Lackawanna County, at bridge on private road, 1.5 miles south of Spring Brook and 1.8 miles upstream from Watres Reservoir dam.	8.98	1970-74 1976-77	4-20-77	11
Abrahams Creek basin						
01536200	Abrahams Creek near Dallas, Pa.	Lat 41°20'41", long 75°54'00", Luzerne County, at culvert on L.R. 40131, 1.7 miles upstream from Francis Slocum State Park dam and 3 miles east of Dallas.	2.79	1970-74 1976-77	4-21-77	2.4

Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Discharge (cfs)
SUSQUEHANNA RIVER BASIN--Continued						
Little Wapwallopen Creek basin						
01537900	Little Wapwallopen Creek nr Wapwallopen, Pa.	Lat 41°05'43", long 76°07'18", Luzerne County, at bridge on State Highway 239, 1 mile downstream from Pond Creek and 2 miles north of Wapwallopen.	39.4	1970-74 1976-77	4-21-77	25
Nescopeck Creek basin						
01538520	Little Nescopeck Creek at Sybertsville, Pa.	Lat 41°00'12", long 76°04'25", Luzerne County, at bridge on county road, at Sybertsville and 0.6 mile upstream from mouth.	13.8	1970-74 1976-77	4-21-77	1.2
Fishing Creek basin						
01538970	Fishing Creek at Forks, Pa.	Lat 41°06'27", long 76°21'44", Columbia County, at bridge on L.R. 19068, at Forks, 0.2 mile upstream from Huntingdon Creek.	114	1970-77	4-20-77	136
Catawissa Creek basin						
01540350	Catawissa Creek at Catawissa, Pa.	Lat 40°57'00", long 76°27'56", Columbia County, at bridge on Second Street, at Catawissa and 0.2 mile upstream from mouth.	149	1949-50 1970-77	4-20-77	198
West Branch Susquehanna River basin						
01541325	Clearfield Creek at Flinton, Pa.	Lat 40°43'05", long 78°31'38", Cambria County, at bridge on L.R. 11063, 0.2 mile upstream from Beaverdam Run and 0.5 mile northwest of Flinton.	98.1	1970-77	5-19-77	56
01541331	Killbuck Run near St. Augustine, Pa.	Lat 40°39'42", long 78°34'55", Cambria County, 800 ft upstream from mouth and 3.3 miles north of St. Augustine.	7.13	1968-77	5-19-77	2.1
01542330	Black Moshannon Creek near Philipsburg, Pa.	Lat 40°52'43", long 78°04'36", Centre County, at bridge on Shirk Road, 0.5 mile southeast of Black Moshannon State Airport and 6 miles east of Philipsburg.	2.33	1970-77	5-25-77	1.1
01542950	Sinnemahoning Portage Creek near Emporium, Pa.	Lat 41°32'36", long 78°12'43", Cameron County, at bridge on State Highway 155, 2.6 miles north of intersection with State Highway 120, and 2.8 miles above mouth.	59.8	1976-77	5-24-77	15
01543700	First Fork Sinnemahoning Creek at Wharton, Pa.	Lat 41°31'08", long 78°01'40", Potter County, at bridge on State Highway 872, 0.8 mile southwest of Wharton and 1 mile downstream from East Fork Sinnemahoning.	182	1970-77	5-16-77	126
01545610	Left Branch Young Womans Creek near Renovo, Pa.	Lat 41°22'19", long 77°42'01", Clinton County, at bridge on L.R. 18022, 400 ft upstream from mouth and 4 miles northeast of Renovo.	35.9	1970-77	5-24-77	16
01545680	Tangascootack Creek near Lock Haven, Pa.	Lat 41°10'32", long 77°32'53", Clinton County, at bridge on State Highway 120, 600 ft upstream from mouth and 7 miles northwest of Lock Haven.	36.5	1970-77	5-24-77	18
01547280	Antis Run near Milesburg, Pa.	Lat 40°58'35", long 77°44'42", Centre County, at bridge on U.S. Highway 220 at Curtin, 500 ft upstream from mouth and 3.7 miles east of Milesburg.	1.56	1956-57 1970-77	5-25-77	.31
01547600	Romola Branch near Howard, Pa.	Lat 41°03'27", long 77°41'10", Centre County, at bridge on L.R. 14009, at Romola, 200 ft upstream from mouth and 3.4 miles northwest of Howard.	5.05	1956-57 1970-77	5/25/77	1.5
01549550	Little Pine Creek near English Center, Pa.	Lat 41°24'46", long 77°19'19", Lycoming County, at bridge on L.R. 41021, 2.4 miles southwest of English Center	135	1970-77	9-30-76 5-27-77	35 64

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Discharge (cfs)
01549790	Larrys Creek at Larrys Creek, Pa.	Lat 41°13'10", long 77°13'12", Lycoming County, at bridge on U.S. Highway 220, at Larrys Creek, 0.2 mile upstream from mouth.	89.0	1970-77	10- 1-76 5-27-77	17 33
01551830	Loyalsock Creek near Forksville, Pa.	Lat 41°28'10", long 76°35'05", Sullivan County, at bridge on State Highway 154, at Worlds End, 1.8 miles south-east of Forksville.	131	1970-77	9-30-76 5-26-77	83 76
01553110	White Deer Hole Creek at Allenwood, Pa.	Lat 41°06'14", long 76°53'54", Union County, at bridge on county road 0.9 mile upstream from mouth and 0.4 mile south of Allenwood.	66.4	1970-77	5-27-77	48
01553480	Buffalo Creek at Lewisburg, Pa.	Lat 40°58'19", long 76°53'30", Union County, at bridge on U.S. Highway 15, at Lewisburg and 0.6 mile upstream from mouth.	134	1970-77	5-27-77	56
Mahanoy Creek basin						
01555250	Mahanoy Creek at Dornsife, Pa.	Lat 40°44'40", long 76°47'28", Northumberland County, at bridge on State Highway 225 at Dornsife, 1.9 miles upstream from Schwaben Creek.	117	1949-50 1970-77	4-19-77	248
Wiconisco Creek basin						
01555570	Wiconisco Creek near Elizabethville, Pa.	Lat 40°33'40", long 76°48'30", Dauphin County, at bridge on State Highway 225 and 1 mile north of Elizabethville.	79.2	1949-50 1970-77	4-19-77	117
Juniata River basin						
01555578	Frankstown Branch Juniata River at East Freedom, Pa.	Lat 40°21'23", long 78°25'41", Blair County, at bridge on State Highway 164, 400 ft upstream from South Dry Run and 0.2 mile east of East Freedom.	47.4	1970-77	5-19-77	22
01559750	Raystown Branch Juniata River near Manns Choice, Pa.	Lat 40°01'03", long 78°37'07", Bedford County, at bridge on State Highway 31, 0.3 mile upstream from Shawnee Branch and 2 miles northwest of Manns Choice.	50.8	1952-53 1970-77	5-18-77	47
01559756	Shawnee Branch at Schellsburg, Pa.	Lat 40°02'17", long 78°39'16", Bedford County, at covered bridge, 0.3 mile upstream from mouth and 0.9 mile southwest of Schellsburg.	18.6	1968-77	5-17-77	8.5
01564550	Blacklog Creek near Orbisonia, Pa.	Lat 40°13'55", long 77°52'25", Huntingdon County, at bridge on U.S. Highway 522, 0.5 mile downstream from Shade Creek and 1.4 miles southeast of Orbisonia.	65.0	1970-77	5-23-77	15
01566900	Buffalo Creek near Newport, Pa.	Lat 40°29'37", long 77°08'20", Perry County, at bridge on L.R. 50013, 0.4 mile upstream from mouth and 1.2 miles north of Newport.	69.5	1958 1970-77	4-19-77	54
Yellow Breeches Creek basin						
01571110	Yellow Breeches Creek near Walnut Bottom, Pa.	Lat 40°05'47", long 77°23'34", Cumberland County, at bridge on State Highway 174, 0.7 mile northeast of Walnut Bottom.	16.4	1970-77	5-18-77	2.6
01571185	Mountain Creek at Pine Grove Furnace, Pa.	Lat 40°01'51", long 77°18'18", Cumberland County, at bridge on county road, 0.2 mile south of Pine Grove Furnace and 0.5 mile upstream from Toms Run.	13.9	1970-77	5-18-77	15

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Date	Discharge (cfs)
SUSQUEHANNA RIVER BASIN--Continued						
Yellow Breeches Creek basin--Continued						
01571190	Mountain Creek near Mount Holly Springs, Pa.	Lat 40°05'36", long 77°11'14", Cumberland County, 0.6 mile upstream from reservoir dam and 2 miles south of Mount Holly Springs.	37.4	1970-77	5-18-77	36
Swatara Creek basin						
01572950	Swatara Creek tributary near Harper Tavern, Pa.	Lat 40°26'28", long 76°36'00", Lebanon County, at bridge just west of State Highway 443 in Indiantown Gap Military Reservation, 1.9 miles upstream from State Memorial Lake dam and 2.5 miles north of Harper Tavern.	5.48	1970-77	5-20-77	4.4
Beaver Creek basin						
01573940	Beaver Creek at Rossville, Pa.	Lat 40°04'39", long 76°54'56", York County, at bridge on Squire Gratz Road 4,000 ft upstream from mouth and 1 mile north of Rossville.	8.21	1968-77	4-22-77	6.1
Octoraro Creek basin						
01578360	East Branch Octoraro Creek near Mt. Vernon, Pa.	Lat 39°49'50", long 76°01'05", Lancaster County, at county bridge, 0.2 mi downstream from Muddy Run, 1 mile upstream from Octoraro Lake, and 1.5 miles north of Mt. Vernon.	75.6	1970-75 1977	a4-20-76 11-17-76 4-21-77	82 81 103
01578440	West Branch Octoraro Creek at White Rock, Pa.	Lat 39°49'29", long 76°05'25", Lancaster County, at county highway bridge at White Rock, 1 mile upstream from Octoraro Lake, 1.2 miles downstream from Kings Run, and 4 miles west of Mt. Vernon.	39.6	1970-75 1977	a4-20-76 11-17-76 4-21-77	51 38 39
POTOMAC RIVER BASIN						
Wills Creek basin						
01600400	Shaffers Run near Fairhope, Pa.	Lat 39°50'57", long 78°47'53", Somerset County, at bridge on L.R. 05012, 0.8 mile upstream from mouth and 1 mile north of Fairhope.	9.77	1970-77	5-18-77	3.6
*01600700	Little Wills Creek at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96, at Bard.	10.2	1970-77	5-18-77	2.2
Town Creek basin						
01608900	Town Creek at Chaneyville, Pa.	Lat 39°48'31", long 78°29'46", Bedford County, at ford on county road, 1.2 miles downstream from Confluence of Elk Lick and Wilson Run and 1.2 miles south of Chaneyville.	36.3	1970-77	5-17-77	12
Sideling Hill Creek basin						
01610130	West Branch Sideling Hill Creek at Purcell, Pa.	Lat 39°47'11", long 78°21'53", Bedford County, at bridge on L.R. 05009, 0.2 mile south of Purcell, and 0.4 mile upstream from mouth.	21.3	1970-77	5-23-77	1.5
Tonoloway Creek basin						
01613080	Little Tonoloway Creek at Warfordsburg, Pa.	Lat 39°45'30", long 78°11'19", Fulton County, at bridge on U.S. Highway 522, 0.2 mile upstream from Cove Run, and 0.5 mile north of Warfordsburg.	44.8	1968-77	5-19-77	20
Licking Creek basin						
01613450	Licking Creek nr Hustontown, Pa.	Lat 40°00'54", long 78°02'33", Fulton County, 200 ft downstream from Fortune Teller Creek and 2.8 miles south of Hustontown.	20.4	1970-77	5-23-77	4.6

* Also a crest-stage partial-record station.
a Not previously published.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements Discharge Date (cfs)
POTOMAC RIVER BASIN--Continued					
Back Creek basin					
01614140	Back Creek near Chambersburg, Pa.	Lat 39°53'36", long 77°44'30", Franklin County, bridge on L.R. 28052, 1.2 miles west of Turkey Foot and 5 miles southwest of Chambersburg.	63.0	1968-77	5-18-77 16
Monocacy Creek basin					
*01638900	White Run near Gettysburg, Pa.	Lat 39°47'45", long 77°11'50", Adams County, at concrete bridge on U.S. Highway 140, 1 mile above mouth and 2.5 miles southeast of Gettysburg. Datum of gage is 414.65 ft above mean sea level.	12.4	1961-77	4- 7-77 16

*Also a crest-stage partial-record station.

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	Date	Annual maximum Gage height (feet)	Dis-charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN							
Chemung River basin							
01516800	Manns Creek near Mansfield, Pa.	Lat 41°49'19", long 77°05'50", Tioga County, at bridge on gravel road, 0.5 mile above mouth, and 1.8 miles northwest of Mansfield.	3.01	1960-77	2-24-77	5.75	128
Sugar Creek basin							
01531250	North Branch Sugar Creek tributary near Columbia Cross Roads, Pa.	Lat 41°50'25", long 76°49'38", Bradford County, at bridge on secondary road, 14 miles upstream from mouth and 1.5 miles west of Columbia Cross Roads.	8.83	1962-68 [#] 1969-77	10- 9-76	6.68	935
Towanda Creek basin							
01532200	South Branch Towanda Creek at New Albany, Pa.	Lat 41°35'25", long 76°26'00", Bradford County, at bridge on gravel road, 0.1 mile below French Creek, 0.7 mi above Beaver Run and 0.8 mile south of New Albany.	13.3	1963-77	10- 9-76	6.25	920
Tuscarora Creek basin							
01533250	Tuscarora Creek near Silvara, Pa.	Lat 41°42'25", long 76°07'10", Bradford County, at culvert on gravel road, 1 mile northeast of Silvara, 1.1 miles above Mill Creek, and 4.6 miles above mouth.	11.8	1963-77	10- 9-76	9.31	a975
Fishing Creek basin							
01538800	Huntingdon Creek near Pikes Creek, Pa.	Lat 41°18'40", long 76°08'50", Luzerne County, at bridge on State Highway 118, 1.5 miles above Mitchler Run, and 2.8 miles west of Pikes Creek.	4.94	1960-77	10- 9-76	b11.84	a1,280
West Branch Susquehanna River basin							
01542720	Wilson Run at Penfield, Pa.	Lat 41°12'58", long 78°35'00", Clearfield County, at wooden bridge, 200 ft north of State Highway 153, 0.8 mile northwest of Penfield, and 0.7 mile above mouth.	8.34	1962-77	5- 6-77	3.00	237
01544450	Germania Branch at Germania, Pa.	Lat 41°38'49", long 77°39'22", Potter County, at concrete bridge on private road, 50 ft below Baders Hollow, 0.3 mile east of Germania and 4.6 miles above mouth.	2.40	1964-77	9-25-77	2.13	65
01545800	West Branch Susquehanna River at Lock Haven, Pa.	Lat 41°03'17", long 77°26'32", Clinton County, on right bank, 50 feet downstream from Jay St. Bridge and 2.3 miles upstream from Bald Eagle Creek.	3,345	1975-77	4- 3-77	16.20	46,200

[#] Operated as a continuous-record station.

a Approximately.

b Backwater from debris.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum Gage height (feet)	Dis-charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued							
West Branch Susquehanna River basin--Continued							
01548020	Bull Run near Loganton, Pa.	Lat 41°00'30", long 77°19'35", Clinton County, at pipe culvert on State Route 477, and 2 miles southeast of Loganton.	1.99	1963-77	10- 9-76	6.20	44
01552100	Mill Creek near Warrensville, Pa.	Lat 41°20'10", long 76°57'45", Lycoming County, at bridge on L.R. 41044, 1.2 miles northwest of Warrensville, and 6 miles above mouth.	11.9	1961-77	3- 4-77	2.48	316
01553050	White Deer Hole Creek near Elimsport, Pa.	Lat 41°07'05", long 77°04'00", Lycoming County, at bridge on L.R. 41001, 2.5 miles west of Elimsport, and 12.5 miles above mouth. Datum of gage is 650.84 ft above mean sea level.	18.2	1961-77	10- 9-76	7.83	768
Juniata River basin							
01555800	McDonald Run near East Freedom, Pa.	Lat 40°22'35", long 78°25'55", Blair County, at concrete culvert on U.S. Highway 220, 0.4 mile above mouth, and 1.5 miles north of East Freedom. Datum of gage is 1,014.18 ft above mean sea level.	1.54	1959-77	10- 9-76	c3.31	98
01556400	Sandy Run near Bellwood, Pa.	Lat 40°33'47", long 78°20'35", Blair County, at bridge on private road, 0.6 mile above mouth, and 2.5 miles south of Bellwood.	5.58	1962-77	7-20-77	5.89	550
01556500	Little Juniata River at Tipton, Pa.	Lat 40°37'40", long 78°17'38", Blair County, at Tipton, 100 ft below bridge on State Highway 220, and 150 ft below Tipton Run. Datum of gage is 946.76 ft above mean sea level.	93.7	1946-62 [#] 1963-77	7-20-77	9.07	5,580
01557100	Schell Run at Tyrone, Pa.	Lat 40°40'00", long 78°15'00", Blair County, 0.2 mile above U.S. Highway 220 between 5th Street and Shippen Street, Tyrone. Datum of gage is 919.11 ft above mean sea level.	1.68	1958-62 [#] 1963-77	3- 4-77	2.63	162
01563800	Elders Branch nr Hustontown, Pa.	Lat 40°05'20", long 78°02'55", Fulton County, at timber bridge on gravel road, 2.2 miles above mouth, and 5 miles northeast of Hustontown.	3.46	1960-77	10- 9-76	5.99	141
01565920	Lick Run near East Waterford, Pa.	Lat 40°21'15", long 77°38'55", Juniata County, at culvert on L.R. 34070, 0.7 mile above mouth, and 1.5 miles southwest of East Waterford.	8.38	1962-77	10- 9-76	9.39	1,470
Conodoguinet Creek basin							
01569340	Newburg Run at Newburg, Pa.	Lat 40°07'40", long 77°32'50", Cumberland County, at concrete bridge on State Highway 696, 0.4 mile above mouth, and 0.8 mile south of Newburg.	5.29	1964-77	10- 9-76	6.41	524
Paxton Creek basin							
01571000	Paxton Creek near Penbrook, Pa.	Lat 40°18'30", long 76°51'00", on right bank, 92 feet upstream from culvert on North Progress Ave. and 2 miles north of Penbrook, Dauphin County.	11.2	1940-50 1974-77	10- 9-76	8.31	2,830

[#] Operated as a continuous-record station.

c Maximum gage height, 3.99 ft, Dec. 7, 1976 (ice jam).

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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	Gage height (feet)	Dis-charge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued							
Swatara Creek basin							
01572900	Reeds Creek near Ono, Pa.	Lat 40°24'25", long 76°33'15", Lebanon County, at concrete culvert on U.S. Highway 22, 1 mile west of Ono, and 1.1 miles above mouth. Datum of gage is 367.72 ft above mean sea level.	8.63	1962-77	10- 9-76	d8.36	2,300
Conestoga River basin							
01576320	Stony Run at Reamstown, Pa.	Lat 40°12'44", long 76°07'30", Lancaster County, at double-arch bridge, 0.1 mile southeast of U.S. Highway 222, 0.1 mile northwest of Reamstown, and 0.7 mile above mouth.	3.55	1964-77	3-22-77	3.95	310
Conowingo Creek basin							
01578200	Conowingo Creek near Buck, Pa.	Lat 39°50'35", long 76°11'45", Lancaster County, at concrete bridge on L.R. 36135, 2 miles above Jackson Run, and 2.5 miles southeast of Buck.	8.71	1963-77	10- 9-76	5.68	381
POTOMAC RIVER BASIN							
Wills Creek basin							
01600700	Little Wills Cr at Bard, Pa.	Lat 39°55'35", long 78°39'40", Bedford County, at bridge on State Highway 96 at Bard. Datum of gage is 1,264.2 ft above mean sea level.	10.2	1961-77	7-20-77	d11.00	3,000
Monocacy Creek basin							
01638900	White Run near Gettysburg, Pa.	Lat 39°47'45", long 77°11'50", Adams County, at concrete bridge on U.S. Highway 140, 1 mile above mouth, and 2.5 miles southeast of Gettysburg. Datum of gage is 414.65 ft above mean sea level.	12.4	1961-77	10- 9-76	d14.48	a4,900

* Also low-flow partial-record station.

a Approximately.

d Flood mark.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN						
Chemung River basin						
Tioga River	Chemung River	Lat 41°39'32", long 77°02'53", Tioga County, at bridge on Gulick Street, 0.4 mi upstream from Morris Run and 1 mi southeast of Blossburg.	57.5	1975-76	10- 6-76 11- 9-76	11 76
Morris Run	Tioga River	Lat 41°39'47", long 77°02'23", Tioga County, 0.7 mi upstream from mouth, 1 mi southeast of Blossburg and 1.5 mi southwest of the village of Morris Run.	7.13	1975-76	10- 6-76 11- 9-76	2.2 7.5
Coal Creek	Tioga River	Lat 41°40'17", long 77°03'41", Tioga County, at bridge on Main Street, at Blossburg.	1.81	1975-76	10- 6-76 11- 9-76	1.8 5.4
Bear Creek	Tioga River	Lat 41°41'00", long 77°03'53", Tioga County, at bridge on Main Street, at Blossburg.	.73	1975-76	10- 6-76 11- 9-76	.08 .91
Tioga River	Chemung River	Lat 41°41'31", long 77°04'09", Tioga County, at Blossburg, at bridge on secondary road 500 ft northwest of U.S. Highway 15 and 0.6 mi downstream from Bear Creek.	87.6	1975-76	10- 6-76 11- 9-76	23 110
Tioga River	Chemung River	Lat 41°50'29", long 77°06'13", Tioga County, at bridge on Legislative Route 58044, 500 ft upstream from Lambs Creek, and 2.7 mi northwest of Mansfield.	186	1973-76	10- 6-76	30
Mill Creek	Tioga River	Lat 41°52'50", long 77°07'05", Tioga County, 0.3 mi upstream from mouth and 2.5 mi south of Tioga.	76.8	1938-40# 1973-76	10- 6-76 11- 9-76 3- 7-77 4-13-77 5- 2-77 6- 9-77 7- 6-77 8- 8-77 9-15-77	7.6 51 113 59 55 12 7.5 12 11
Crooked Creek	Tioga River	Lat 41°50'35", long 77°16'30", Tioga County, at bridge at Middlebury Center, 0.15 mi downstream from Catlin Hollow.	-	1973-76	10- 7-76 11- 9-76 3- 7-77 4-13-77 4-21-77 5- 2-77 6- 9-77 7- 6-77 8- 8-77 9-15-77	4.7 32 142 60 29 49 13 8.4 36 18
Crooked Creek	Tioga River	Lat 41°54'55", long 77°08'42", Tioga County, at Tioga, at bridge on secondary road 500 ft north of State Highway 287 and 1.3 mi upstream from mouth.	131	1975-76	10- 7-76 11-10-76 3- 7-77 6- 9-77 9-15-77	10 52 226 18 3.8
Cowanesque River	Tioga River	Lat 41°58'25", long 77°14'25", Tioga County, at bridge at Nelson and 0.75 mi upstream from Cummings Creek.	266	1938-41# 1973-74 1976	10- 7-76 11-10-76 3- 7-77 4-13-77 4-21-77 5- 3-77 6-10-77 8- 9-77	18 115 490 205 112 133 193 204

[#] Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
West Branch Susquehanna River basin						
Alder Run	West Branch Susquehanna River	Lat 41°00'50", long 78°11'59", Centre County, at bridge on county road, 80 ft downstream from Mans Run, 170 ft downstream from Hubler Run, and 2.2 mi northwest of Kylertown.	-	1975-76	5-23-77	1.4
Moshannon Creek	West Branch Susquehanna River	Lat 41°02'12", long 78°03'28", Centre County, at bridge on State Highway 53, 3.0 mi west of Moshannon and 5.0 mi upstream from mouth.	263	1945 1949 1975 1976	7- 5-77	179
Mosquito Creek	West Branch Susquehanna River	Lat 40°07'03", long 78°06'35", Clearfield County, at mouth, at Karthaus.	71.2	1940-76	3- 2-77 8-16-77 9-29-77	358 57 161
Bennett Branch	Driftwood Branch Sinnemahoning Creek	Lat 41°20'02", long 78°08'10", Cameron County, at county bridge at Driftwood and 1,000 ft above mouth.	367	1975-76	5-24-77	131
*First Fork Sinnemahoning Creek	Sinnemahoning Creek	Lat 41°31'08", long 78°01'40", Potter County, at bridge on State Highway 872, 0.8 mi southwest of Wharton and 1 mi downstream from East Fork.	182	1968-72 1974-76	7-12-77 8-24-77	568 182
Unnamed Tributary	Blockhouse Creek	Lat 41°34'04", long 77°06'06", Tioga County, on gravel road, 100 ft upstream from mouth at Liberty.	1.08	1973-76	10-12-76 11-22-76 3-29-77 4-22-77 5-20-77 7-20-77 9-13-77	1.6 .54 6.8 .55 .53 .18 .06
Blockhouse Creek	Little Pine Creek	Lat 41°29'43", long 77°09'02", Lycoming County, 100 ft upstream from confluence with Steam Valley Run at Buttonwood.	-	1973-76	10-12-76 11-22-76 1-27-77 3-29-77 5-31-77 6-29-77 7-20-77 9-13-77	31 11 4.2 173 6.4 40 8.8 1.6
Steam Valley Run	Blockhouse Creek	Lat 41°29'39", long 77°09'03", Lycoming County, at bridge on State Highway 284, 500 ft upstream from mouth at Buttonwood.	5.33	1973-76	10-12-76 11-22-76 1-26-77 3-14-77 5-31-77 7-20-77 9-13-77	16 3.4 1.7 65 2.6 6.1 .74
Mahanoy Creek basin						
Mahanoy Creek	Susquehanna River	Lat 40°43'28", long 76°48'17", Northumberland County, at bridge on county road, 1.8 mi northeast of Herndon, 4.4 mi from mouth.	155	1976	4- 5-77 8-25-77	877 135
Juniata River basin						
Bloody Run	Raystown Branch Juniata River	Lat 40°00'55", long 78°22'26", Bedford County, at bridge on Third Street, Everett, and 0.4 mi upstream from mouth.	-	1969-76	6- 7-77 12-20-77	.60 3.4
Paxton Creek basin						
Paxton Creek	Susquehanna River	Lat 40°16'30", long 76°52'50", Dauphin County, at bridge on Calder Street, Harrisburg, Pennsylvania.	-	-	3- 4-77	304
Yellow Breeches Creek basin						
Yellow Breeches Creek	Susquehanna River	Lat 40°13'34", long 76°51'32", Cumberland-York County, at New Cumberland, at mouth.	219	-	9-13-77	111

* Also low-flow partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
Swatara Creek basin						
Swatara Creek	Susquehanna River	Lat 40°34'30", long 76°24'10", Schuylkill County, at bridge on Spittler Road and 0.1 mi east of Ravine.	44.6	1975	10- 9-76 4-20-77 7-22-77	c3,900 64 25
Conewago Creek basin						
Long Arm Creek	South Branch Conewago Creek	Lat 39°45'24", long 76°59'44", York County, at Long Arm Reservoir, 3.5 miles south of Hanover, Pa., 1,600 ft upstream from mouth.	5.63	1970-76	4-22-77 9-19-77	5.7 8.7
South Branch Conewago Creek	Conewago Creek	Lat 39°44'08", long 76°57'36", York County, at Sheppard-Meyers Reservoir, 4.7 miles south of Hanover, Pa.	-	1970-76	4-22-77 9-19-77	7.5 .98
Codorus Creek basin						
Codorus Creek	Susquehanna River	Lat 39°48'57", long 76°52'43", York County, at Lake Marburg, 3,000 ft below dam, 5.7 miles east of Hanover, Pa.	-	1970-76	4-22-77 9-19-77	37 41
Pequea Creek basin						
Pequea Creek	Susquehanna River	Lat 40°01'04", long 76°04'12", Lancaster County, at bridge on secondary road, 0.1 mi south of State Highway 772, at New Milltown and 0.2 mi upstream from Houston Run.	42.8	-	2-25-77 2-25-77 3-17-77 3-22-77 3-23-77 3-31-77 5- 5-77 6-14-77 7-21-77 8-13-77 8-17-77 8-17-77 9-14-77	252 70 54 390 131 61 59 36 30 41 39 56 22
Unnamed Tributary	Pequea Creek	Lat 40°00'01", long 76°10'16", Lancaster County, at bridge on secondary road 0.6 mi east of State Highway 896, 1.0 mi north- east of Strasburg and 0.2 mi upstream from mouth.	1.62	-	2-24-77 3-13-77 3-13-77 3-22-77 3-31-77 4- 5-77 4- 5-77 5- 5-77 6- 1-77 6- 1-77 6- 2-77 6-14-77 7-21-77 7-25-77 8-13-77 8-17-77 8-17-77 9-14-77 9-26-77	33 3.0 29 54 2.0 37 7.4 1.7 .83 44 2.1 1.0 .49 .79 1.3 9.3 1.7 .91 .81
Pequea Creek	Susquehanna River	Lat 40°00'21", long 76°11'12", Lancas- ter County, at bridge on State Highway 896, 1.6 mi north of Strasburg and 7.1 mi upstream from Walnut Run.	72.9	-	3- 7-77 3-22-77 3-23-77 3-31-77 4- 5-77 4- 5-77 5- 5-77 6- 1-77 6- 2-77 6-14-77 7-21-77 8-13-77 8-17-77 8-17-77 9-14-77	92 839 207 94 533 407 96 59 570 58 43 58 71 75 39

c Peak flow.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1977--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
Unnamed Tributary	Big Beaver Creek	Lat 39°56'00", long 76°12'04", Lancaster County, at bridge on Legislative Route 36160 at New Providence and 400 ft upstream from mouth.	0.66		3- 4-77	2.8
					3-13-77	.94
					3-13-77	8.2
					3-13-77	6.8
					3-22-77	23
					3-22-77	1.0
					4- 1-77	.55
					5- 5-77	.91
					6- 1-77	6.4
					6-14-77	.39
					7-21-77	.16
					8-13-77	.42
					8-17-77	1.1
					9-14-77	.17
Big Beaver Creek	Pequea Creek	Lat 39°56'28", long 76°14'28", Lan- caster County, at bridge on Legis- lative Route 36091, 1 mi southwest of Refton, and 1.2 mi upstream from mouth.	20.4	-	2-24-77	17
					2-25-77	36
					3- 4-77	157
					3-13-77	66
					3-22-77	446
					3-23-77	44
					4- 1-77	21
					5- 5-77	18
					6-14-77	13
					7-21-77	11
					8-13-77	19
Unnamed Tributary	Pequea Creek	Lat 39°54'28", long 76°19'06", Lancaster County, at bridge on State Highway 324 at Martic Forge and 0.6 mi upstream from mouth.	1.56	-	8-17-77	199
					9-14-77	8.5
					2-24-77	2.0
					2-24-77	5.6
					2-24-77	3.2
					2-25-77	1.8
					3-22-77	14
					3-22-77	19
					3-23-77	11
					4- 1-77	2.9
					4- 2-77	9.3
Octoraro Creek	Susquehanna River	Lat 39°47'49", long 76°02'35", Chester County, at Octoraro Reservoir, 3.4 miles west of Oxford, Pa.	-	1970-76	4- 2-77	5.9
					5- 5-77	1.6
					5- 9-77	1.8
					6- 1-77	.83
					6- 2-77	2.2
					6-14-77	.66
					7-21-77	.66
					8- 3-77	.74
					8-17-77	2.5
					8-17-77	4.3
					8-17-77	1.4
					8-17-77	.94
					9-14-77	.61
					Octoraro Creek basin	
					4-21-77	120

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CAC03 (MG/L)	BICARBONATE (HC03) (MG/L)
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Chemung River Basin

01516250 - TIOGA RIVER ABOVE MORRIS RUN, PA. (LAT 41 39 32 LONG 077 02 53)

OCT , 1976										
06...	1100	11	74	6.5	12.5	9.9	92	.1	7.0	5
NOV										
09...	0945	76	50	6.1	1.5	13.0	93	.1	3.0	4

01516256 - MORRIS RUN NEAR BLOSSBURG, PA. (LAT 41 39 47 LONG 077 02 23)

OCT , 1976										
06...	1200	2.2	2630	2.9	12.0	10.4	96	11	528	0
NOV										
09...	1040	7.5	1740	3.1	3.0	12.0	89	6.8	338	0

01516260 - COAL CREEK AT BLOSSBURG, PA. (LAT 41 40 17 LONG 077 03 41)

OCT , 1976										
06...	1245	1.8	2740	2.4	11.5	10.3	94	16	815	0
NOV										
09...	1125	5.4	1940	2.8	7.0	11.0	90	11	550	0

01516267 - BEAR CREEK AT BLOSSBURG, PA. (LAT 41 41 00 LONG 077 03 53)

OCT , 1976										
06...	1240	.08	1620	2.6	12.5	9.7	91	7.2	358	0
NOV										
09...	1200	.91	1170	3.0	4.5	11.9	92	4.5	223	0

01516269 - TIOGA RIVER AT BLOSSBURG, PA. (LAT 41 41 31 LONG 077 04 09)

OCT , 1976										
06...	1415	23	695	3.1	15.5	9.4	93	2.3	115	0
NOV										
09...	1230	110	383	3.8	3.0	12.4	92	1.1	53	0

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
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01518600 - CROOKED CREEK AT TIOGA, PA (LAT 41 54 38 LONG 077 08 16)

NOV , 1976										
18...	1515	9813	90	7.2	8.0	11.0	30	--	0	7.1
AUG , 1977										
25...	1130	9813	240	8.8	19.0	--	90	--	0	30

01531210 - CHEMUNG RIVER AT ATHENS, PA. (LAT 41 56 56 LONG 076 31 03)

NOV , 1976										
18...	1515	9813	100	6.8	8.0	11.0	20	--	0	8.0
FEB , 1977										
16...	1220	9813	310	6.8	.2	--	106	0	0	32
MAY										
04...	1145	9813	290	8.8	15.0	9.5	90	--	0	28
AUG										
25...	1000	9813	50	8.2	16.0	--	123	--	0	34

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	SUS- PENDE SEDIMENT (MG/L)	
Chemung River Basin										
01516250 - TIOGA RIVER ABOVE MORRIS RUN, PA. (LAT 41 39 32 LONG 077 02 53)										
OCT , 1976										
06...	0	5	3.0	16	170	40	100	100	E0	
NOV										
09...	0	3	5.1	13	140	40	190	190	E0	
01516256 - MORRIS RUN NEAR BLOSSBURG, PA. (LAT 41 39 47 LONG 077 02 23)										
OCT , 1976										
06...	0	0	.0	1400	29000	29000	6700	6700	E0	
NOV										
09...	0	0	.0	990	19000	19000	49000	49000	E0	
01516260 - COAL CREEK AT BLOSSBURG, PA. (LAT 41 40 17 LONG 077 03 41)										
OCT , 1976										
06...	0	0	.0	1400	100000	110000	2300	2300	E0	
NOV										
09...	0	0	.0	1000	71000	71000	17000	17000	E0	
01516267 - BEAR CREEK AT BLOSSBURG, PA. (LAT 41 41 00 LONG 077 03 53)										
OCT , 1976										
06...	0	0	.0	850	15000	16000	1800	1800	E0	
NOV										
09...	0	0	.0	500	14000	14000	8800	9000	E0	
01516269 - TIOGA RIVER AT BLOSSBURG, PA. (LAT 41 41 31 LONG 077 04 09)										
OCT , 1976										
06...	0	0	.0	330	8700	7300	9500	9500	17	
NOV										
09...	0	0	.0	150	4300	3900	4400	4400	10	
DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
01518600 - CROOKED CREEK AT TIOGA, PA (LAT 41 54 38 LONG 077 08 16)										
NOV , 1976										
18...	3.0	24	14	10	--	.51	.01	.02	.05	680
AUG , 1977										
25...	3.5	96	10	10	152	.38	.02	.06	.15	1760
01531210 - CHEMUNG RIVER AT ATHENS, PA. (LAT 41 56 56 LONG 076 31 03)										
NOV , 1976										
18...	.0	24	20	10	--	.49	.01	.02	.05	650
FEB , 1977										
16...	6.5	66	52	48	216	2.1	.04	.77	.13	790
MAY										
04...	4.5	10	34	18	162	.78	.06	.07	.05	120
AUG										
25...	9.2	110	26	24	230	1.0	.04	.09	.15	380

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
Susquehanna River Basin										
01533205 - SUSQUEHANNA RIVER AT LACEYVILLE, PA (LAT 41 38 34 LONG 076 09 40)										
NOV , 1976										
16...	1515	9813	240	7.1	9.0	10.0	110	0	0	29
AUG , 1977										
17...	1720	9813	235	8.2	23.0	10.0	--	--	0	52
Tunkhannock Creek Basin										
01533992 - SOUTH BR TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA (LAT 41 33 48 LONG 075 52 30)										
NOV , 1976										
16...	1515	9813	140	7.1	8.0	11.0	50	0	0	14
MAR , 1977										
01...	1515	9813	140	7.5	2.0	12.0	30	0	0	5.5
Bowman Creek Basin										
01534055 - BOWMAN CREEK NEAR TUNKHANNOCK, PA (LAT 41 30 53 LONG 075 57 41)										
NOV , 1976										
16...	1515	9813	140	7.2	8.0	12.0	54	0	0	16
MAR , 1977										
01...	1515	9813	140	7.2	2.0	12.0	30	0	0	6.3
Susquehanna River Basin										
01534060 - SUSQUEHANNA RIVER AT TUNKHANNOCK, PA (LAT 41 32 05 LONG 076 56 55)										
OCT , 1976										
13...	1515	9813	300	7.0	12.0	10.0	95	--	0	33
NOV										
16...	1515	9813	380	6.7	9.0	11.0	145	0	0	39
MAR , 1977										
01...	1515	9813	140	7.0	2.0	11.0	30	0	0	6.3
21...	1515	9813	90	7.0	5.0	11.0	25	--	0	2.3
APR										
07...	1515	9813	90	6.7	1.0	--	15	0	0	6.3
AUG										
17...	1725	9813	240	8.0	24.0	9.8	--	--	0	45
SEP										
20...	1720	9813	170	7.7	18.0	9.0	60	--	0	16
01534090 - SUSQUEHANNA R AT FALLS, PA. (LAT 41 27 42 LONG 075 51 15)										
NOV , 1976										
16...	1515	9813	330	6.8	9.0	11.0	130	0	0	36
MAR , 1977										
01...	1515	9813	140	6.8	2.0	11.0	30	0	0	7.1
AUG										
17...	1020	9813	245	7.7	24.0	10.0	82	--	0	30
Lackawanna River Basin										
01534850 - LEGETTS CREEK AT SCRANTON, PA (LAT 41 26 41 LONG 075 38 40)										
NOV , 1976										
15...	1515	9813	130	7.7	8.0	12.0	50	0	0	16
MAR , 1977										
01...	1515	9813	140	7.7	2.0	12.0	25	0	0	6.3
01535060 ROARING BROOK AT SCRANTON, PA (LAT 41 24 11 LONG 073 39 52)										
NOV , 1976										
15...	1515	9813	85	6.7	10.0	11.0	40	--	0	8.7
MAR , 1977										
01...	1515	9813	140	6.7	2.0	11.0	20	0	0	5.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	ALKA- LINE- ITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
Susquehanna River Basin										
01533205 - SUSQUEHANNA RIVER AT LACEYVILLE, PA (LAT 41 38 34 LONG 076 09 40)										
NOV , 1976										
16...	9.0	80	24	15	--	1.4	.03	.88	.07	220
MAR , 1977										
17...	--	94	18	17	--	.86	.02	.07	.13	430
Tunkhannock Creek Basin										
01533992 - SOUTH BR TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA (LAT 41 33 48 LONG 075 52 30)										
NOV , 1976										
16...	3.5	36	18	13	--	1.0	.02	.08	.19	110
MAR , 1977										
01...	4.0	10	10	34	104	.55	.02	.09	.04	100
Bowman Creek Basin										
01534055 - BOWMAN CREEK NEAR TUNKHANNOCK, PA (LAT 41 30 53 LONG 075 57 41)										
NOV , 1976										
16...	3.0	36	24	13	--	1.0	.02	.07	.06	90
MAR , 1977										
01...	3.5	12	10	34	108	.51	.01	.05	.04	140
Susquehanna River Basin										
01534060 - SUSQUEHANNA RIVER AT TUNKHANNOCK, PA (LAT 41 32 05 LONG 076 56 55)										
OCT , 1976										
13...	2.7	34	50	16	--	1.6	.01	<.02	.12	1460
NOV										
16...	11	68	30	61	--	2.1	.03	.49	.80	1820
MAR , 1977										
01...	3.5	10	10	34	100	.56	.01	.05	.04	110
21...	4.7	--	10	14	86	.89	.03	.05	.12	750
APR										
07...	<.5	10	--	13	80	.88	.03	.11	.05	80
AUG										
17...	--	96	14	18	--	.86	.03	.04	.12	640
SEP										
20...	5.0	56	10	10	100	1.0	.04	.10	.22	4950
01534090 - SUSQUEHANNA R AT FALLS, PA. (LAT 41 27 42 LONG 075 51 15)										
NOV , 1976										
16...	9.5	68	25	50	--	2.1	.03	.11	.05	420
MAR , 1977										
01...	3.0	10	10	34	98	.53	.01	.05	.04	100
AUG										
17...	1.5	94	18	18	--	.90	.02	.10	.11	900
Lackawanna River Basin										
01534850 - LEGETTS CREEK AT SCRANTON, PA (LAT 41 26 41 LONG 075 38 40)										
NOV , 1976										
15...	2.5	34	22	13	--	1.0	.02	.07	.06	90
MAR , 1977										
01...	2.0	20	10	34	102	.58	.02	.06	.04	80
01535060 ROARING BROOK AT SCRANTON, PA (LAT 41 24 11 LONG 073 39 52)										
NOV , 1976										
15...	4.5	20	15	13	--	.53	.03	.35	.72	210
MAR , 1977										
01...	1.5	14	10	34	104	.59	.01	.09	.04	90

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
Lackawanna River Basin--Continued											
01536103 - LACKAWANNA RIVER AT PITTSBURGH, PA. (LAT 41 20 38 LONG 075 47 13)											
FEB , 1977											
24...	1515	9813	600	6.5	--	--	86	0	4	22	7.5
Solomon Creek Basin											
01537510 - SOLOMON CREEK AT BUTTOWOOD, PA (LAT 41 13 28 LONG 075 56 59)											
NOV , 1976											
30...	1515	9813	1200	5.8	8.0	10.0	925	--	12	120	156
FEB , 1977											
24...	1515	9813	1100	5.7	9.0	--	550	0	20	81	86
Harvey Creek Basin											
01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)											
NOV , 1976											
08...	1515	9813	70	7.1	8.0	12.0	20	--	0	8.0	.0
FEB , 1977											
24...	1515	9813	70	7.7	--	12.0	25	0	0	6.3	2.0
AUG											
18...	1415	9813	90	7.6	19.0	11.7	8	--	0	8.0	.0
Nescopeck Creek Basin											
01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)											
FEB , 1977											
24...	1515	9813	70	6.5	--	--	25	0	0	7.1	1.5
01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)											
NOV , 1976											
08...	1515	9813	70	6.8	8.0	11.0	20	--	0	8.0	.0
FEB , 1977											
24...	1515	9813	70	7.7	--	12.0	25	0	0	6.3	2.0
AUG											
18...	1210	9813	430	4.5	19.0	10.3	144	--	62	17	25
Fishing Creek Basin											
01540002 - FISHING CREEK AT BLOOMSBURG, PA (LAT 40 59 42 LONG 076 28 25)											
DEC , 1976											
15...	1330	9813	70	7.1	.5	12.0	15	0	0	8.0	.0
FEB , 1977											
24...	1345	9813	110	7.0	2.0	12.0	26	0	0	9.5	.5
AUG											
30...	0930	9813	130	7.0	22.0	8.1	35	--	0	9.5	2.7
Catawissa Creek Basin											
01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)											
NOV , 1976											
16...	1100	9813	130	5.2	3.0	12.0	60	0	24	8.0	10
FEB , 1977											
24...	1100	9813	160	4.8	1.5	12.0	54	0	14	8.0	8.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
Lackawanna River Basin--Continued											
01536103 - LACKAWANNA RIVER AT PITTSBURGH, PA. (LAT 41 20 38 LONG 075 47 13)											
FEB , 1977 24...	20	48	138	--	--	--	.81	.40	1.2	.96	--
Solomon Creek Basin											
01537510 - SOLOMON CREEK AT BUTTOWOOD, PA (LAT 41 13 28 LONG 075 56 59)											
NOV , 1976 30...	64	825	26	1240	--	--	.58	.01	.94	.10	--
FEB , 1977 24...	14	475	91	--	--	--	1.0	.03	1.5	.40	--
Harvey Creek Basin											
01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)											
NOV , 1976 08...	20	6.0	12	--	--	--	.58	.02	.08	.03	--
FEB , 1977 24...	10	15	9.0	--	--	--	.52	.01	.06	.04	--
AUG 18...	20	10	11	82	--	--	.74	.02	.07	.12	80
Nescopeck Creek Basin											
01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)											
FEB , 1977 24...	10	12	9.0	--	--	--	.52	.02	.05	.03	--
01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)											
NOV , 1976 08...	20	6.0	12	--	--	--	.59	.02	.05	.03	--
FEB , 1977 24...	10	10	9.0	--	--	--	.54	.02	.05	.03	--
AUG 18...	6	151	18	416	--	--	1.7	.07	1.7	.35	5220
Fishing Creek Basin											
01540002 - FISHING CREEK AT BLOOMSBURG, PA (LAT 40 59 42 LONG 076 28 25)											
DEC , 1976 15...	18	15	6.0	74	10	--	1.5	.01	.09	.04	--
FEB , 1977 24...	24	10	13	62	56	118	1.7	.04	.20	1.4	--
AUG 30...	28	8.0	8.0	64	10	74	1.2	.02	.06	.05	60
Catawissa Creek Basin											
01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)											
NOV , 1976 16...	8	50	8.0	94	0	94	1.1	.02	.09	.03	--
FEB , 1977 24...	4	40	13	82	58	150	1.5	.03	.17	.11	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
Lackawanna River Basin--Continued											
01536103 - LACKAWANNA RIVER AT PITTSBURGH, PA. (LAT 41 20 38 LONG 075 47 13)											
FEB , 1977											
24...	--	--	--	--	2670	--	--	--	--	--	--
Solomon Creek Basin											
01537510 - SOLOMON CREEK AT BUTTOWOOD, PA (LAT 41 13 28 LONG 075 56 59)											
NOV , 1976											
30...	--	--	--	--	38500	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	20400	--	--	--	--	--	--
Harvey Creek Basin											
01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)											
NOV , 1976											
08...	--	--	--	--	110	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	220	--	--	--	--	--	--
AUG											
18...	--	<10	<10	10	120	<50	10	--	<10	20	--
Nescopeck Creek Basin											
01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)											
FEB , 1977											
24...	--	--	--	--	220	--	--	--	--	--	--
01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)											
NOV , 1976											
08...	--	--	--	--	100	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	220	--	--	--	--	--	--
AUG											
18...	--	<10	<10	20	160	<50	2770	--	100	400	--
Fishing Creek Basin											
01540002 - FISHING CREEK AT BLOOMSBURG, PA (LAT 40 59 42 LONG 076 28 25)											
DEC , 1976											
15...	--	--	--	--	310	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	1780	--	--	--	--	--	--
AUG											
30...	--	<3	<10	10	130	<50	10	--	<10	70	--
Catawissa Creek Basin											
01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)											
NOV , 1976											
16...	--	--	--	--	200	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	1430	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY C02 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
West Branch Susquehanna River Basin											
01541248 - ANDERSON CREEK AT CURWENSVILLE, PA (LAT 40 58 31 LONG 078 31 50)											
OCT , 1976											
07...	1100	9813	--	--	--	--	--	--	18	--	--
NOV											
15...	1430	9813	160	4.8	3.0	11.0	54	--	10	9.5	7.2
FEB , 1977											
15...	1300	9813	190	4.6	--	7.0	52	--	--	11	5.8
MAY											
04...	1130	9813	160	4.0	12.0	9.0	--	--	22	--	--
01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)											
NOV , 1976											
15...	1300	9813	320	5.1	3.0	11.0	138	--	8	28	16
MAY , 1977											
05...	1115	9813	360	4.5	12.0	8.1	140	--	17	34	13
01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)											
NOV , 1976											
04...	1300	9813	650	4.7	12.0	10.0	176	--	116	32	23
FEB , 1977											
24...	1130	9813	650	--	--	--	140	--	--	24	19
MAY											
05...	0915	9813	600	--	11.0	8.5	--	--	72	--	--
01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)											
OCT , 1976											
07...	1330	9813	--	--	--	--	--	--	104	--	--
NOV											
18...	1435	9813	700	3.0	4.0	--	300	24	118	51	43
AUG , 1977											
11...	1225	9813	850	3.0	22.5	8.3	440	--	120	66	72
01542790 - BENNETT BR SINNEMAHONING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)											
OCT , 1976											
21...	1400	9813	--	--	--	--	--	--	62	--	--
NOV											
19...	1030	9813	180	5.0	1.0	11.0	62	--	--	12	7.2
MAY , 1977											
12...	1100	9813	180	4.1	--	8.6	55	--	15	12	5.8
01543400 - DRIFTWOOD BR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)											
NOV , 1976											
18...	1100	9813	80	7.0	1.0	11.0	32	--	--	6.3	3.8
MAY , 1977											
11...	1245	9813	70	6.5	20.0	10.0	24	--	--	7.1	1.5
01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)											
NOV , 1976											
18...	1200	9813	70	7.5	3.0	11.0	40	--	--	8.0	4.8
MAY , 1977											
12...	1045	9813	60	6.8	14.0	9.5	24	--	--	4.7	2.8

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKALINITY AS CACO ₃ (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NON-FILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)
West Branch Susquehanna River Basin											
01541248 - ANDERSON CREEK AT CURWENSVILLE, PA (LAT 40 58 31 LONG 078 31 50)											
OCT , 1976											
07...	5	48	--	--	--	--	--	--	--	--	--
NOV											
15...	1	40	8.0	114	10	124	.34	.01	.80	.02	--
FEB , 1977											
15...	97	40	17	148	18	164	.80	.01	.28	.02	--
MAY											
04...	15	20	--	134	6	140	.32	<.01	.02	.01	--
01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)											
NOV , 1976											
15...	2	122	4.0	222	10	232	.38	.01	.58	.02	--
MAY , 1977											
05...	--	138	9.0	294	6	300	.64	.01	.08	.01	--
01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)											
NOV , 1976											
04...	44	220	16	454	2	456	.38	.02	.29	.04	--
FEB , 1977											
24...	8	160	62	350	2	352	1.5	.02	.61	.01	--
MAY											
05...	22	210	--	132	12	144	.28	.01	.06	.01	--
01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)											
OCT , 1976											
07...	0	280	--	--	--	--	--	--	--	--	--
NOV											
18...	--	280	8.0	--	--	--	.57	.01	.19	.07	--
AUG , 1977											
11...	46	350	10	702	<10	--	.72	.01	.20	.06	7200
01542790 - BENNETT BR SINNEMAHONING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)											
OCT , 1976											
21...	6	148	--	--	--	--	--	--	--	--	--
NOV											
19...	2	50	5.0	100	4	104	.14	.02	.20	.04	--
MAY , 1977											
12...	5	44	10	--	--	--	--	--	--	--	--
01543400 - DRIFTWOOD RR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)											
NOV , 1976											
18...	11	10	4.0	42	2	44	.29	.02	.16	.04	--
MAY , 1977											
11...	9	12	5.0	42	2	44	.11	.01	.02	.01	--
01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)											
NOV , 1976											
18...	14	10	3.0	44	8	52	.40	.01	.19	.03	--
MAY , 1977											
12...	90	8.0	5.0	26	2	28	.03	<.01	.05	.02	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PR) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
West Branch Susquehanna River Basin											
01541248 - ANDERSON CREEK AT CURWENSVILLE, PA (LAT 40 58 31 LONG 078 31 50)											
OCT , 1976											
07...	--	--	--	--	270	--	--	--	--	--	--
NOV											
15...	--	--	--	--	420	--	1090	--	--	--	--
FEB , 1977											
15...	--	--	--	--	610	--	--	--	--	--	--
MAY											
04...	--	--	--	--	190	--	1550	--	--	--	--
01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)											
NOV , 1976											
15...	--	--	--	--	--	--	--	--	--	--	--
MAY , 1977											
05...	--	--	--	--	1740	--	--	--	--	--	--
01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)											
NOV , 1976											
04...	--	--	--	--	6400	--	--	--	--	--	--
FEB , 1977											
24...	--	--	--	--	2530	--	--	--	--	--	--
MAY											
05...	--	--	--	--	1940	--	--	--	--	--	--
01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)											
OCT , 1976											
07...	--	--	--	--	5300	--	--	--	--	--	--
NOV											
18...	--	--	--	--	11130	--	--	--	--	--	--
AUG , 1977											
11...	--	<3	<10	30	2950	<50	4500	--	180	280	--
01542790 - BENNETT BR SINNEMAHONING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)											
OCT , 1976											
21...	--	--	--	--	1300	--	--	--	--	--	--
NOV											
19...	--	--	--	--	1000	--	770	--	--	--	--
MAY , 1977											
12...	--	--	--	--	190	--	540	--	--	--	--
01543400 - DRIFTWOOD BR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)											
NOV , 1976											
18...	--	--	--	--	130	--	--	--	--	--	--
MAY , 1977											
11...	--	--	--	--	180	--	--	--	--	--	--
01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)											
NOV , 1976											
18...	--	--	--	--	120	--	--	--	--	--	--
MAY , 1977											
12...	--	--	--	--	190	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS).	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
West Branch Susquehanna River Basin--Continued											
01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)											
NOV , 1976											
16...	1100	9813	60	5.6	3.0	13.5	30	0	0	5.5	4.0
MAR , 1977											
02...	1115	9813	50	6.5	--	--	25	0	0	7.1	2.0
AUG											
23...	1045	9813	40	7.0	19.5	10.0	10	--	0	6.3	.0
01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)											
NOV , 1976											
08...	1100	9813	35	4.5	4.0	12.7	55	4	14	8.0	10
MAR , 1977											
01...	1215	9813	90	--	--	--	40	0	2	5.5	6.5
AUG											
25...	1030	9813	275	4.0	--	--	106	--	32	19	14
01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)											
NOV , 1976											
08...	1245	9813	185	7.6	6.5	14.0	98	--	0	18	13
MAR , 1977											
01...	1345	9813	160	8.5	--	--	66	0	0	19	4.5
AUG											
23...	1315	9813	200	--	15.0	12.1	92	0	0	36	6.0
01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA (LAT 41 27 22 LONG 076 41 24)											
NOV , 1976											
18...	1515	9813	90	7.7	8.0	11.0	38	--	0	8.0	4.5
FEB , 1977											
16...	0950	9813	90	--	.5	--	29	0	0	11	<.5
MAY											
04...	0815	9813	70	7.5	12.0	10.3	10	--	0	6.3	.0
AUG											
30...	0915	9813	90	7.0	21.0	6.5	20	--	0	7.1	.0
01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)											
NOV , 1976											
17...	1330	9813	41	7.6	4.0	11.0	10	0	0	4.7	.0
FEB , 1977											
23...	1400	9813	--	7.8	1.5	12.5	20	0	0	4.7	2.0
AUG											
09...	1500	9813	50	7.3	22.0	11.0	10	0	0	4.7	.0
01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)											
NOV , 1976											
17...	1030	9813	220	7.3	4.0	12.0	102	0	0	23	11
FEB , 1977											
23...	1100	9813	230	7.2	2.5	12.0	94	0	0	31	4.0
AUG											
09...	1130	9813	230	7.3	25.0	9.0	97	0	0	26	7.7

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKALINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
West Branch Susquehanna River Basin--Continued											
01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)											
NOV , 1976											
16...	16	18	4.0	--	--	--	.68	.02	.06	.02	180
MAR , 1977											
02...	12	10	4.0	46	0	46	1.0	.01	.03	.04	--
AUG											
23...	38	5.0	4.0	--	--	--	.78	.03	.05	.05	--
01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)											
NOV , 1976											
08...	--	32	4.0	--	--	--	.64	.01	.06	.03	1530
MAR , 1977											
01...	4	20	4.0	62	10	72	.68	.01	.05	.04	--
AUG											
25...	0	100	6.0	192	<10	--	.72	.03	.06	.04	2360
01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)											
NOV , 1976											
08...	90	6.0	7.0	--	--	--	1.7	.01	.06	.04	130
MAR , 1977											
01...	56	10	13	94	8	102	1.2	.02	.05	.05	--
AUG											
23...	26	8.0	7.0	--	--	--	1.5	.03	.05	.06	120
01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA (LAT 41 27 22 LONG 076 41 24)											
NOV , 1976											
18...	22	20	10	--	--	--	.49	.01	.04	.06	--
FEB , 1977											
16...	12	14	12	80	--	--	1.1	.01	.06	.04	--
MAY											
04...	58	15	10	64	--	--	.89	.03	.06	.04	--
AUG											
30...	24	8.0	6.0	52	--	--	.86	.02	.05	.05	--
01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)											
NOV , 1976											
17...	16	10	3.0	38	0	38	.48	.02	.03	.05	--
FEB , 1977											
23...	20	10	8.0	34	0	34	.45	.03	.06	.08	--
AUG											
09...	150	5.0	5.0	38	<10	--	.56	.02	.04	.03	50
01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)											
NOV , 1976											
17...	72	24	10	138	6	144	1.7	.03	.04	.08	--
FEB , 1977											
23...	82	30	10	164	2	166	1.8	.04	.14	.22	--
AUG											
09...	70	14	9.0	146	18	--	1.6	.04	.08	.15	800

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
West Branch Susquehanna River Basin--Continued											
01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)											
NOV , 1976											
16...	--	<3	<10	<10	70	<50	160	--	<10	20	--
MAR , 1977											
02...	--	--	--	--	200	--	--	--	--	--	--
AUG											
23...	--	--	--	--	130	--	--	--	--	--	--
01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)											
NOV , 1976											
08...	--	3	<10	10	250	<50	1110	--	40	50	--
MAR , 1977											
01...	--	--	--	--	580	--	--	--	--	--	--
AUG											
25...	<10	<3	<10	10	160	<50	2510	<5.0	10	150	--
01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)											
NOV , 1976											
08...	--	3	<10	20	80	<50	<10	--	<20	<10	--
MAR , 1977											
01...	--	--	--	--	180	--	--	--	--	--	--
AUG											
23...	--	<3	<10	<10	80	<50	10	--	20	10	--
01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA (LAT 41 27 22 LONG 076 41 24)											
NOV , 1976											
18...	--	--	--	--	610	--	--	--	--	--	--
FEB , 1977											
16...	--	--	--	--	60	--	--	--	--	--	--
MAY											
04...	--	--	--	--	40	--	--	--	--	--	--
AUG											
30...	--	--	--	--	40	--	--	--	--	--	--
01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)											
NOV , 1976											
17...	--	--	--	--	30	--	--	--	--	--	--
FEB , 1977											
23...	--	--	--	--	60	--	--	--	--	--	--
AUG											
09...	--	<3	<10	<10	140	<50	10	--	<10	<10	--
01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)											
NOV , 1976											
17...	--	--	--	--	80	--	--	--	--	--	--
FEB , 1977											
23...	--	--	--	--	180	--	--	--	--	--	--
AUG											
09...	--	<3	<10	30	1090	<50	80	--	<10	20	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
Penns Creek Basin											
01555100 - PENNS CREEK AT SELINGSGROVE, PA (LAT 40 48 50 LONG 076 51 20)											
NOV , 1976											
17...	1330	9813	200	7.7	8.0	11.0	98	--	0	27	7.5
MAR , 1977											
02...	1330	9813	150	8.0	8.5	11.0	60	0	0	21	1.5
AUG											
09...	1115	9813	205	7.8	24.5	--	90	0	0	31	3.0
Middle Creek Basin											
01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)											
NOV , 1976											
18...	1400	9813	150	6.8	8.0	10.0	90	--	0	12	14
FEB , 1977											
22...	1245	9813	160	--	--	--	70	0	0	20	4.5
MAR											
02...	1200	9813	110	8.0	5.0	11.0	40	0	0	14	1.0
AUG											
09...	1400	9813	155	7.5	23.5	--	68	0	0	17	6.0
01555210 - MIDDLE CREEK NEAR SELINGSGROVE, PA (LAT 40 46 29 LONG 076 52 11)											
NOV , 1976											
18...	1130	9813	200	6.7	8.0	10.0	96	--	0	19	12
MAR , 1977											
02...	1030	9813	120	8.0	5.0	11.0	48	0	0	16	1.5
AUG											
09...	1240	9813	180	7.5	25.5	--	80	0	0	24	4.5
Mahanoy Creek Basin											
01555251 - MAHANAY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)											
NOV , 1976											
17...	1020	9813	1000	5.5	8.0	8.0	725	--	0	88	126
AUG , 1977											
15...	1210	9813	1000	3.7	25.0	8.0	730	0	0	123	106
Wiconisco Creek Basin											
01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)											
NOV , 1976											
15...	1200	9813	165	6.1	3.0	13.6	75	--	0	12	8.7
FEB , 1977											
28...	1020	9813	110	6.6	4.0	11.5	40	0	0	8.7	4.5
MAY											
19...	0830	9813	160	6.2	19.0	8.6	74	--	0	14	9.5
AUG											
01...	1030	9813	280	7.6	23.0	9.1	74	--	0	16	8.0
Juniata River Basin											
01559920 - BOBS CR AT REYNOLDSDALE, PA. (LAT 40 08 50 LONG 078 33 21)											
NOV , 1976											
22...	1045	9813	190	7.5	1.5	14.1	85	--	0	23	6.7
FEB , 1977											
16...	0915	9813	150	6.5	.0	14.3	56	0	0	16	4.0
AUG											
16...	1005	9813	240	7.5	19.0	8.3	92	0	0	28	5.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
Penns Creek Basin											
01555100 - PENNS CREEK AT SELINGROVE, PA (LAT 40 48 50 LONG 076 51 20)											
NOV , 1976											
17...	76	24	6.0	--	--	--	1.3	.02	.03	.04	--
MAR , 1977											
02...	60	10	6.0	102	6	108	1.2	.02	.03	.05	--
AUG											
09...	68	5.0	7.0	122	22	--	1.3	.04	.05	.07	230
Middle Creek Basin											
01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)											
NOV , 1976											
18...	58	18	322	--	--	--	--	1.2	1.0	.07	--
FEB , 1977											
22...	60	18	6.0	106	2	108	1.3	.04	.07	.07	--
MAR											
02...	40	15	6.0	78	8	86	1.0	.02	.04	.05	--
AUG											
09...	46	14	6.0	106	18	--	1.1	.03	.07	.10	130
01555210 - MIDDLE CREEK NEAR SELINGROVE, PA (LAT 40 46 29 LONG 076 52 11)											
NOV , 1976											
18...	64	20	403	--	--	--	--	1.3	2.0	.07	--
MAR , 1977											
02...	40	18	7.0	86	12	98	1.3	.02	.08	.06	--
AUG											
09...	52	14	8.0	118	16	--	1.3	.04	.10	.12	140
Mahanoy Creek Basin											
01555251 - MAHANAY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)											
NOV , 1976											
17...	20	660	9.0	--	--	--	1.2	.02	.37	--	--
AUG , 1977											
15...	38	635	15	0	32	1186	1.2	.03	1.6	.49	770
Wiconisco Creek Basin											
01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)											
NOV , 1976											
15...	18	48	7.0	124	--	--	1.3	.02	.20	.08	--
FEB , 1977											
28...	12	18	10	62	38	100	1.9	.02	.13	.09	--
MAY											
19...	22	46	8.0	132	6	138	1.0	.03	.07	.07	--
AUG											
01...	52	42	9.0	154	6	160	1.6	.02	.05	.08	160
Juniata River Basin											
01559920 - BOBS CR AT REYNOLDSDALE, PA. (LAT 40 08 50 LONG 078 33 21)											
NOV , 1976											
22...	58	28	6.0	--	--	--	1.9	.02	<.02	.06	--
FEB , 1977											
16...	35	24	8.0	96	2	98	2.3	.02	.06	.05	--
AUG											
16...	86	28	8.0	170	60	230	1.2	.02	.06	.07	1220

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
Penns Creek Basin											
01555100 - PENNS CREEK AT SELINS GROVE, PA (LAT 40 48 50 LONG 076 51 20)											
NOV , 1976											
17...	--	--	--	--	90	--	--	--	--	--	--
MAR , 1977											
02...	--	--	--	--	250	--	--	--	--	--	--
AUG											
09...	--	<3	<10	20	620	<50	40	--	20	40	--
Middle Creek Basin											
01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)											
NOV , 1976											
18...	--	--	--	--	110	--	--	--	--	--	--
FEB , 1977											
22...	--	--	--	--	60	--	--	--	--	--	--
MAR											
02...	--	--	--	--	180	--	--	--	--	--	--
AUG											
09...	--	<3	<10	10	870	<50	50	--	30	20	--
01555210 - MIDDLE CREEK NEAR SELINS GROVE, PA (LAT 40 46 29 LONG 076 52 11)											
NOV , 1976											
18...	--	--	--	--	190	--	--	--	--	--	--
MAR , 1977											
02...	--	--	--	--	270	--	--	--	--	--	--
AUG											
09...	--	<3	<10	10	670	<50	90	--	10	20	--
Mahanoy Creek Basin											
01555251 - MAHANAY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)											
NOV , 1976											
17...	--	--	--	--	6600	--	--	--	--	--	--
AUG , 1977											
15...	<10	<3	490	10	2800	<50	4450	<5.0	620	100	--
Wiconisco Creek Basin											
01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)											
NOV , 1976											
15...	--	--	--	--	500	--	--	--	--	--	--
FEB , 1977											
28...	--	--	--	--	2000	--	--	--	--	--	--
MAY											
19...	--	--	--	--	230	--	--	--	--	--	--
AUG											
01...	--	<3	40	<10	410	<50	70	--	<10	10	--
Juniata River Basin											
01559920 - BOBS CR AT REYNOLDS DALE, PA. (LAT 40 08 50 LONG 078 33 21)											
NOV , 1976											
22...	--	--	--	--	130	--	--	--	--	--	--
FEB , 1977											
16...	--	--	--	--	170	--	--	--	--	--	--
AUG											
16...	--	<3	<10	10	1060	<50	60	--	<10	10	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY C02 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
Juniata River Basin--Continued											
01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)											
NOV , 1976											
22...	1115	9813	220	--	1.5	14.5	100	--	0	27	8.0
FEB , 1977											
16...	1000	9813	130	6.5	.0	14.2	54	0	0	--	--
AUG											
16...	1115	9813	260	7.5	21.0	7.6	105	0	0	32	6.0
01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)											
DEC , 1976											
07...	0945	9813	100	7.0	.5	11.0	58	0	0	17	3.5
MAR , 1977											
01...	0950	9813	100	6.6	2.0	12.5	40	0	0	9.5	4.0
AUG											
17...	1515	9813	200	7.5	26.0	--	82	--	0	25	4.5
01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)											
NOV , 1976											
30...	1315	9813	150	9.5	2.0	15.0	60	--	0	23	.5
AUG , 1977											
18...	1245	9813	150	7.6	17.0	10.5	76	--	0	20	6.0
01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)											
NOV , 1976											
30...	1305	9813	280	9.0	2.0	15.1	145	--	0	40	10
AUG , 1977											
18...	1330	9813	250	8.0	19.0	12.1	112	--	0	33	7.0
01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)											
NOV , 1976											
30...	1245	9813	280	9.0	1.0	14.3	140	--	0	39	10
FEB , 1977											
14...	1335	9813	300	9.0	7.0	10.3	132	--	--	43	6.0
AUG											
18...	1120	9813	250	7.5	19.0	10.2	118	--	0	33	8.5
01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)											
NOV , 1976											
30...	1135	9813	210	7.5	1.0	13.7	95	--	0	27	6.7
AUG , 1977											
18...	1010	9813	310	7.2	17.6	8.7	124	--	0	29	12
01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)											
NOV , 1976											
30...	1100	9813	180	5.5	1.0	12.1	80	--	0	25	4.0
AUG , 1977											
18...	0945	9813	160	7.1	19.0	8.6	80	--	0	21	6.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
Juniata River Basin--Continued											
01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)											
NOV , 1976											
22...	72	34	7.0	--	--	--	1.7	.03	<.02	.07	--
FEB , 1977											
16...	26	26	9.0	116	12	128	2.4	.03	.11	--	--
AUG											
16...	98	32	8.0	182	18	200	1.1	.02	.03	.05	470
01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)											
DEC , 1976											
07...	46	18	12	102	318	--	1.2	.07	.10	.55	--
MAR , 1977											
01...	22	10	10	64	10	74	1.0	.02	.06	.05	--
AUG											
17...	82	10	14	146	--	--	.84	.03	.12	.07	210
01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)											
NOV , 1976											
30...	62	10	5.0	110	--	--	1.5	.00	.11	.16	--
AUG , 1977											
18...	110	5.0	5.0	124	8	132	1.0	.02	.07	.08	110
01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)											
NOV , 1976											
30...	126	15	9.0	208	--	--	4.8	.02	.14	.16	--
AUG , 1977											
18...	74	5.0	9.0	200	26	226	2.1	.03	.10	.26	730
01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)											
NOV , 1976											
30...	114	20	8.0	210	--	--	4.3	.02	.07	.15	--
FEB , 1977											
14...	116	24	14	110	24	134	3.2	.06	.34	.22	--
AUG											
18...	112	8.0	9.0	210	26	236	2.4	.03	.08	.25	790
01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)											
NOV , 1976											
30...	72	24	10	154	--	--	1.7	.02	.09	.05	--
AUG , 1977											
18...	80	36	13	260	8	268	1.4	.04	.11	.08	400
01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)											
NOV , 1976											
30...	70	24	6.0	112	--	--	1.6	.02	.10	.10	--
AUG , 1977											
18...	36	8.0	6.0	150	8	158	.90	.03	.08	.11	550

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
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Juniata River Basin--Continued

01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)

NOV , 1976											
22...	--	--	--	--	200	--	--	--	--	--	--
FEB , 1977											
16...	--	--	--	--	400	--	--	--	--	--	--
AUG											
16...	--	<3	<10	<10	330	<50	20	--	<10	10	--

01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)

DEC , 1976											
07...	--	--	--	--	11700	--	--	--	--	--	--
MAR , 1977											
01...	--	--	--	--	280	--	--	--	--	--	--
AUG											
17...	--	<3	<10	<10	230	<50	40	--	30	<10	--

01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)

NOV , 1976											
30...	--	--	--	--	140	--	--	--	--	--	--
AUG , 1977											
18...	--	<10	<10	<10	380	<50	20	--	20	90	--

01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)

NOV , 1976											
30...	--	--	--	--	120	--	--	--	--	--	--
AUG , 1977											
18...	--	<10	<10	10	620	<50	30	--	20	30	<10

01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)

NOV , 1976											
30...	--	--	--	--	120	--	--	--	--	--	--
FEB , 1977											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	--	<10	<10	<10	950	<50	50	--	30	20	<10

01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)

NOV , 1976											
30...	--	--	--	--	200	--	--	--	--	--	--
AUG , 1977											
18...	--	<10	<10	50	400	<50	60	--	<10	180	--

01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)

NOV , 1976											
30...	--	--	--	--	210	--	--	--	--	--	--
AUG , 1977											
18...	--	<10	<10	10	610	<50	50	--	20	10	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
Juniata River Basin--Continued											
01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)											
NOV , 1976											
22...	1030	9813	170	--	3.0	14.3	55	--	0	21	.3
MAY , 1977											
19...	1200	9813	170	7.5	21.0	10.0	72	--	0	22	4.0
AUG											
01...	1420	9813	305	8.0	26.0	10.6	84	0	0	29	2.5
Sherman Creek Basin											
01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)											
NOV , 1976											
22...	1115	9813	160	--	3.0	14.0	55	--	0	20	1.2
MAY , 1977											
19...	1300	9813	160	8.0	24.0	10.5	70	--	0	65	3.5
AUG											
02...	1030	9813	290	8.0	24.0	8.8	88	0	0	24	6.5
Conodoguinet Creek Basin											
01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)											
NOV , 1976											
30...	1400	9813	420	8.0	5.0	12.3	200	--	0	62	11
MAY , 1977											
10...	1300	9813	410	7.6	12.0	11.7	168	--	0	57	6.0
AUG											
02...	1245	9813	--	6.8	18.5	11.1	165	0	0	50	9.7
Yellow Breeches Creek Basin											
01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)											
NOV , 1976											
30...	1100	9813	80	8.2	1.0	12.3	<10	--	0	4.0	.0
FEB , 1977											
22...	0925	9813	110	7.8	2.0	13.2	42	0	0	9.5	4.5
MAY											
10...	1100	9813	80	6.5	10.0	12.0	35	--	0	7.1	4.2
AUG											
02...	1400	9813	175	6.5	22.0	8.0	50	0	0	10	6.0
Swatara Creek Basin											
01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)											
OCT , 1976											
13...	1030	9813	--	--	--	--	--	--	36	--	--
NOV											
16...	0810	9813	220	5.3	4.0	8.0	115	0	12	16	18
DEC											
21...	1100	9813	--	--	--	--	--	--	12	--	--
FEB , 1977											
23...	0855	9813	260	6.1	5.0	10.0	100	0	0	17	14
MAY											
03...	1055	9813	190	5.7	11.0	9.0	76	--	10	12	11
AUG											
10...	1140	9813	260	5.3	20.0	--	97	--	12	20	11

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA- LITY AS CAO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)
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Juniata River Basin--Continued

01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)

NOV , 1976											
22...	54	15	8.0	88	0	88	1.4	.03	<.02	.06	--
MAY , 1977											
19...	74	8.0	10	108	4	112	.89	.04	--	.05	--
AUG											
01...	78	8.0	21	164	2	166	.60	.02	.06	.12	80

Sherman Creek Basin

01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)

NOV , 1976											
22...	62	18	6.0	88	2	90	1.5	.02	.02	.04	--
MAY , 1977											
19...	68	8.0	7.0	100	4	104	.98	.04	.07	.03	--
AUG											
02...	78	14	7.0	142	16	--	.98	.03	.07	.07	280

Conodoguinet Creek Basin

01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)

NOV , 1976											
30...	176	20	15	270	--	--	6.5	.11	.29	.47	--
MAY , 1977											
10...	156	20	15	254	4	258	3.8	.14	.39	9.5	--
AUG											
02...	158	14	13	268	<10	--	3.2	.15	.07	.46	40

Yellow Breeches Creek Basin

01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)

NOV , 1976											
30...	26	10	6.0	52	--	--	1.0	.02	.17	.20	--
FEB , 1977											
22...	40	14	5.0	70	4	74	.72	.02	.15	.09	--
MAY											
10...	206	15	6.0	48	4	52	.74	.02	.23	.11	--
AUG											
02...	50	8.0	5.0	84	<10	--	.88	.07	.19	.17	400

Swatara Creek Basin

01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)

OCT , 1976											
13...	6	70	--	--	--	--	--	--	--	--	--
NOV											
16...	10	105	7.0	182	--	--	.46	.02	.10	.02	--
DEC											
21...	10	81	--	--	--	--	--	--	--	--	--
FEB , 1977											
23...	12	110	16	214	--	--	.36	.03	.21	.06	--
MAY											
03...	8	74	10	170	--	--	--	.02	.19	.03	--
AUG											
10...	6	85	12	246	--	--	.90	.02	.15	.14	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	PHENOLS (UG/L)
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Juniata River Basin--Continued

01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)

NOV , 1976											
22...	--	--	--	--	120	--	--	--	--	--	--
MAY , 1977											
19...	--	--	--	--	160	--	--	--	--	--	--
AUG											
01...	--	7	<10	<10	140	<50	<10	--	<10	10	--

Sherman Creek Basin

01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)

NOV , 1976											
22...	--	--	--	--	80	--	--	--	--	--	--
MAY , 1977											
19...	--	--	--	--	150	--	--	--	--	--	--
AUG											
02...	--	<3	<10	<10	530	<50	60	--	<10	10	--

Conodoguinet Creek Basin

01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)

NOV , 1976											
30...	--	--	--	--	370	--	--	--	--	--	--
MAY , 1977											
10...	--	--	--	--	130	--	--	--	--	--	--
AUG											
02...	--	<3	<10	<10	130	<50	30	--	<10	10	--

Yellow Breeches Creek Basin

01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)

NOV , 1976											
30...	--	--	--	--	140	--	--	--	--	--	--
FEB , 1977											
22...	--	--	--	--	160	--	--	--	--	--	--
MAY											
10...	--	--	--	--	220	--	--	--	--	--	--
AUG											
02...	--	<3	50	10	370	<50	50	--	<10	<10	--

Swatara Creek Basin

01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)

OCT , 1976											
13...	--	--	--	--	2200	--	--	--	--	--	--
NOV											
16...	--	--	--	--	1450	--	--	--	--	--	--
DEC											
21...	--	--	--	--	1000	--	--	--	--	--	--
FEB , 1977											
23...	--	--	--	--	1560	--	1460	--	--	--	--
MAY											
03...	--	--	--	--	1320	--	1100	--	--	--	--
AUG											
10...	--	--	--	--	6600	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CAC03 (MG/L)	ACIDITY CO2 AS CAC03 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
01575990 - CHICKIES CREEK AT MARIETTA, PA (LAT 40 03 19 LONG 076 31 33)											
NOV , 1976											
15...	1615	9813	410	8.2	6.0	10.7	222	--	0	0	54
MAY , 1977											
12...	1415	9813	400	7.0	14.0	11.1	170	--	0	0	53
JUN											
22...	1530	9813	430	7.8	21.0	8.6	176	--	--	0	52
JUL											
20...	1445	9813	450	8.0	25.5	8.0	125	--	--	0	49
AUG											
04...	1420	9813	425	7.5	22.0	8.2	200	--	0	0	57
SEP											
29...	1315	9813	420	--	15.5	8.8	140	--	--	--	--
01576789 - PEQUEA CREEK NEAR MARTIC FORGE, PA (LAT 39 53 39 LONG 076 21 34)											
NOV , 1976											
15...	1410	9813	380	8.2	6.5	12.5	200	--	0	0	47
MAY , 1977											
12...	1000	9813	360	8.0	12.0	11.7	162	--	0	0	43
JUN											
27...	1530	9813	270	7.9	23.5	7.8	90	--	0	0	28
JUL											
21...	1245	9813	380	8.2	27.5	7.7	156	--	--	0	36
AUG											
04...	1140	9813	290	7.1	22.0	7.1	106	--	--	0	29
SEP											
29...	1045	9813	390	8.3	15.5	9.8	144	--	--	--	--
01578340 - OCTORARO CR NR ATGLEN, PA. (LAT 39 56 52 LONG 075 59 29)											
NOV , 1976											
02...	1410	--	240	7.2	10.0	11.8	81	47	--	--	18
01578343 - VALLEY CREEK NR ATGLEN, PA. (LAT 39 56 17 LONG 075 59 06)											
NOV , 1976											
02...	1500	--	240	7.4	10.0	11.6	92	49	--	--	24
01578345 - OCTORARO CR NR ATGLEN, PA. (LAT 39 54 44 LONG 075 59 44)											
NOV , 1976											
01...	1345	--	220	7.6	9.0	11.5	89	50	--	--	24
01579850 - EBAUGHS CR NR STEWARTSTOWN, PA. (LAT 39 44 44 LONG 076 36 20)											
NOV , 1976											
16...	0900	9813	120	7.0	2.0	13.1	80	--	0	0	9.5
MAY , 1977											
18...	0900	9813	120	6.5	14.0	10.0	35	--	--	0	8.7
AUG											
03...	1010	9813	130	6.8	18.0	8.8	55	--	--	0	10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)
01575990 - CHICKIES CREEK AT MARIETTA, PA (LAT 40 03 19 LONG 076 31 33)											
NOV , 1976											
15...	21	--	--	--	--	138	--	24	20	--	--
MAY , 1977											
12...	9.0	--	--	--	--	132	--	20	20	--	--
JUN											
22...	11	--	--	--	--	142	--	35	25	--	--
JUL											
20...	12	--	--	--	--	136	--	18	31	--	--
AUG											
04...	14	--	--	--	--	164	--	18	29	--	--
SEP											
29...	--	--	--	--	--	134	--	26	26	--	--
01576789 - PEQUEA CREEK NEAR MARTIC FORGE, PA (LAT 39 53 39 LONG 076 21 34)											
NOV , 1976											
15...	20	--	--	--	--	142	--	22	15	--	--
MAY , 1977											
12...	13	--	--	--	--	130	--	15	15	--	--
JUN											
27...	5.0	--	--	--	--	82	--	28	19	--	--
JUL											
21...	16	--	--	--	--	164	--	10	15	--	--
AUG											
04...	8.0	--	--	--	--	90	--	20	13	--	--
SEP											
29...	--	--	--	--	--	146	--	24	14	--	--
01578340 - OCTORARO CR NR ATGLEN, PA. (LAT 39 56 52 LONG 075 59 29)											
NOV , 1976											
02...	8.8	6.9	3.8	42	0	34	4.2	28	14	.1	16
01578343 - VALLEY CREEK NR ATGLEN, PA. (LAT 39 56 17 LONG 075 59 06)											
NOV , 1976											
02...	7.8	5.9	2.8	53	0	43	3.4	22	13	.1	11
01578345 - OCTORARO CR NR ATGLEN, PA. (LAT 39 54 44 LONG 075 59 44)											
NOV , 1976											
01...	7.0	5.4	4.0	47	0	39	1.9	22	12	.1	11
01579850 - EBAUGHS CR NR STEWARTSTOWN, PA. (LAT 39 44 44 LONG 076 36 20)											
NOV , 1976											
16...	14	--	--	--	--	26	--	5.0	12	--	--
MAY , 1977											
18...	3.2	--	--	--	--	28	--	8.0	14	--	--
AUG											
03...	7.2	--	--	--	--	22	--	<5.0	12	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)
01575990 - CHICKIES CREEK AT MARIETTA, PA (LAT 40 03 19 LONG 076 31 33)											
NOV , 1976											
15...	--	284	--	--	--	9.1	.04	.10	--	--	--
MAY , 1977											
12...	--	282	--	4	286	6.5	.07	.11	--	--	--
JUN											
22...	--	304	--	--	--	3.2	.03	.03	--	--	--
JUL											
20...	--	306	--	22	328	6.3	.04	.05	--	--	--
AUG											
04...	--	362	--	20	--	<.02	.04	.05	--	--	--
SEP											
29...	--	250	--	46	296	3.5	.11	.15	--	--	--
01576789 - PEQUEA CREEK NEAR MARTIC FORGE, PA (LAT 39 53 39 LONG 076 21 34)											
NOV , 1976											
15...	--	272	--	--	--	6.7	.03	.07	--	--	--
MAY , 1977											
12...	--	252	--	16	268	5.4	.05	.08	--	--	--
JUN											
27...	--	248	--	328	--	4.9	.11	.37	--	--	--
JUL											
21...	--	258	--	36	--	--	.05	--	--	--	--
AUG											
04...	--	148	--	632	--	2.1	.13	.35	--	--	--
SEP											
29...	--	250	--	58	308	4.3	.09	.10	--	--	--
01578340 - OCTORARO CR NR ATGLEN, PA. (LAT 39 56 52 LONG 075 59 29)											
NOV , 1976											
02...	148	--	116	--	--	6.0	.03	.13	.32	.45	6.5
01578343 - VALLEY CREEK NR ATGLEN, PA. (LAT 39 56 17 LONG 075 59 06)											
NOV , 1976											
02...	138	--	113	--	--	5.1	.05	.10	.43	.53	5.6
01578345 - OCTORARO CR NR ATGLEN, PA. (LAT 39 54 44 LONG 075 59 44)											
NOV , 1976											
01...	128	--	109	--	--	4.1	.02	.05	.45	.50	4.6
01579850 - EBAUGHS CR NR STFWARTSTOWN, PA. (LAT 39 44 44 LONG 076 36 20)											
NOV , 1976											
16...	--	74	--	--	--	5.2	.03	.15	--	--	--
MAY , 1977											
18...	--	98	--	20	100	4.2	.10	.18	--	--	--
AUG											
03...	--	98	--	<10	100	4.1	.02	.01	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
------	---	--	--	---	--	--	---	--	-----------------------------------	--

01575990 - CHICKIES CREEK AT MARIETTA, PA (LAT 40 03 19 LONG 076 31 33)

NOV , 1976										
15...	.11	--	--	--	--	--	--	--	--	--
MAY , 1977										
12...	.10	--	--	--	--	--	--	--	--	--
JUN										
22...	.19	--	--	--	--	--	--	--	--	--
JUL										
20...	.33	--	--	--	--	--	--	--	--	--
AUG										
04...	.19	--	640	<3	--	<10	--	--	20	--
SEP										
29...	.33	--	--	--	--	--	--	--	--	--

01576789 - PEQUEA CREEK NEAR MARTIC FORGE, PA (LAT 39 53 39 LONG 076 21 34)

NOV , 1976										
15...	.07	--	--	--	--	--	--	--	--	--
MAY , 1977										
12...	.10	--	--	--	--	--	--	--	--	--
JUN										
27...	.86	--	--	--	--	--	--	--	--	--
JUL										
21...	.19	--	--	--	--	--	--	--	--	--
AUG										
04...	2.0	--	--	--	--	--	--	--	--	--
SEP										
29...	.35	--	--	--	--	--	--	--	--	--

01578340 - OCTORARO CR NR ATGLEN, PA. (LAT 39 56 52 LONG 075 59 29)

NOV , 1976										
02...	.08	.04	--	--	1	--	<10	0	--	0

01578343 - VALLEY CREEK NR ATGLEN, PA. (LAT 39 56 17 LONG 075 59 06)

NOV , 1976										
02...	.08	.05	--	--	1	--	<10	0	--	10

01578345 - OCTORARO CR NR ATGLEN, PA. (LAT 39 54 44 LONG 075 59 44)

NOV , 1976										
01...	.09	.05	--	--	1	--	<10	0	--	10

01579850 - EBAUGHS CR NR STEWARTSTOWN, PA. (LAT 39 44 44 LONG 076 36 20)

NOV , 1976										
16...	.07	--	--	--	--	--	--	--	--	--
MAY , 1977										
18...	.05	--	--	--	--	--	--	--	--	--
AUG										
03...	.06	--	80	<3	--	<10	--	--	<10	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

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DATE	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
------	---------------------------------	--	---------------------------------	--	---	--	-----------------------------------	--	---------------------------------	--

01575990 - CHICKIES CREEK AT MARIETTA, PA (LAT 40 03 19 LONG 076 31 33)

NOV , 1976										
15...	170	--	--	--	--	--	--	--	--	--
MAY , 1977										
12...	340	--	--	--	--	--	--	--	--	--
JUN										
22...	640	--	--	--	--	--	--	--	--	--
JUL										
20...	940	--	--	--	--	--	--	--	--	--
AUG										
04...	730	--	<50	--	80	--	<10	--	20	--
SEP										
29...	>1949	--	--	--	--	--	--	--	--	--

01576789 - PEQUEA CREEK NEAR MARTIC FORGE, PA (LAT 39 53 39 LONG 076 21 34)

NOV , 1976										
15...	170	--	--	--	--	--	--	--	--	--
MAY , 1977										
12...	1040	--	--	--	--	--	--	--	--	--
JUN										
27...	21500	--	--	--	--	--	--	--	--	--
JUL										
21...	1510	--	--	--	--	--	--	--	--	--
AUG										
04...	32200	--	--	--	--	--	--	--	--	--
SEP										
29...	2981	--	--	--	--	--	--	--	--	--

01578340 - OCTOPARO CR NR ATGLEN, PA. (LAT 39 56 52 LONG 075 59 29)

NOV , 1976										
02...	--	80	--	2	--	80	--	3	--	0

01578343 - VALLEY CREEK NR ATGLEN, PA. (LAT 39 56 17 LONG 075 59 06)

NOV , 1976										
02...	--	60	--	2	--	60	--	3	--	10

01578345 - OCTOPARO CR NR ATGLEN, PA. (LAT 39 54 44 LONG 075 59 44)

NOV , 1976										
01...	--	80	--	1	--	40	--	4	--	10

01579850 - EBAUGHS CR NR STEWARTSTOWN, PA. (LAT 39 44 44 LONG 076 36 20)

NOV , 1976										
16...	160	--	--	--	--	--	--	--	--	--
MAY , 1977										
18...	130	--	--	--	--	--	--	--	--	--
AUG										
03...	120	--	<50	--	20	--	10	--	<10	--

GROUND-WATER LEVELS

ADAMS COUNTY

395846077040601. Local number, AD 146.

LOCATION.--Lat 39°58'46", long 77°04'06", Hydrologic Unit 02050306, at State Game Land Number 249.

Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of Gettysburg Formation of Upper Triassic age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 17 ft (5.1 m), open hole.

DATUM.--Altitude of land-surface datum is 540 ft (165 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.

REMARKS.--Water-quality records for 1973-75 are available in files of district office.

PERIOD OF RECORD.--January 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.87 ft (3.008 m) below land-surface datum, June 21, 1972; lowest, 13.55 ft (4.130 m) below land-surface datum, August 11, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.52	11.38	12.20	12.47	12.61	11.12	10.84	11.81	12.94	13.19	13.45	13.33
10	10.99	11.63	11.45	12.33	12.64	11.45	11.45	12.01	12.71	13.20	13.50	13.32
15	11.54	11.74	11.70	12.45	11.74	11.23	11.85	12.41	12.78	13.30	13.44	13.50
20	11.65	11.95	11.68	12.58	12.08	11.41	12.11	12.50	12.75	13.27	13.41	13.40
25	11.00	12.03	12.12	12.45	11.37	11.34	11.77	12.61	12.93	13.31	13.14	13.11
EOM	10.96	11.85	12.29	12.57	11.42	11.51	11.70	12.83	13.07	13.38	13.27	12.97

MTR YR 1977 HIGH 10.19 OCT 9 LOW 13.55 AUG 11

BEDFORD COUNTY

400217078281901. Local number, BD 150.

LOCATION.--Lat 40°02'17", long 78°28'19", Hydrologic Unit 02050303, at Bedford.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Onondaga Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 150 ft (45.7 m), cased to 47 ft (14.3 m), open hole.

DATUM.--Altitude of land-surface datum is 1,160 ft (354 m). Measuring point: Top of casing, 3.05 ft (93 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.56 ft (1.085 m) below land-surface datum, April 7, 1977; lowest, 41.42 ft (12.625 m) below land-surface datum, Feb. 12, 13, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.00	6.17	13.03	14.49	19.69	17.09	4.11	8.69	12.97	18.51	16.47	20.82
10	10.99	7.23	12.66	15.09	20.58	14.35	3.85	6.99	14.02	19.42	17.26	21.47
15	9.71	8.75	12.03	15.99	20.65	11.73	5.15	8.09	15.01	20.18	18.02	22.17
20	10.50	9.66	11.95	16.96	20.39	9.56	6.80	9.32	15.80	20.62	18.67	22.63
25	8.32	10.68	12.67	17.71	20.38	7.36	7.80	10.33	16.65	17.62	19.34	23.12
EOM	6.70	11.88	13.55	18.83	18.65	6.12	8.80	11.97	17.58	15.38	20.23	23.30

MTR YR 1977 HIGH 3.56 APR 7 AND OTHERS LOW 23.30 SEP 29

BLAIR COUNTY

402452078271301. Local number, BA 74.

LOCATION.--Lat 40°24'52", long 78°27'13", Hydrologic Unit 02050302, at National Park Land.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Brallier Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 150 ft (45.7 m), cased to 14 ft (4.3 m), open hole.

DATUM.--Altitude of land-surface datum is 1,130 ft (344 m). Measuring point: Top of casing, 1.80 ft (55 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.97 ft (3.344 m) below land-surface datum, April 5, 1977; lowest, 18.65 ft (5.685 m) below land-surface datum, Oct. 29, 30, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.76	11.40	12.71	12.97	13.76	11.28	10.97	11.99	14.07	14.56	13.75	14.86
10	---	11.52	12.15	13.00	13.80	11.54	---	12.43	13.82	14.88	13.77	15.06
15	---	---	11.94	13.14	12.49	11.28	---	12.96	13.85	14.40	14.00	15.41
20	---	11.91	12.04	13.42	12.14	11.06	---	---	13.86	13.90	13.88	14.89
25	11.26	12.42	12.23	13.29	11.36	11.37	11.92	13.52	14.11	13.50	14.22	14.99
EOM	11.23	12.53	12.64	13.53	11.40	11.38	12.16	13.91	14.43	13.25	14.79	14.28

WTR YR 1977 HIGH 10.97 APR 5 LOW 15.41 SEP 15

BRADFORD COUNTY

414330076280501. Local number, BR 92.

LOCATION.--Lat 41°43'30", long 76°28'05", Hydrologic Unit 02050106, at Monroeton.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Gardeau Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 117 ft (35.7 m), cased to 55 ft (16.8 m), open hole.

DATUM.--Altitude of land-surface datum is 750 ft (229 m). Measuring point: Top of casing, 3.05 ft (93 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.54 ft (47 cm) below land-surface datum, Sept. 27, 1975; lowest, 11.05 ft (3.368 m) below land-surface datum, Aug. 29, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.53	7.15	9.41	9.00	---	4.57	3.09	5.57	9.57	10.26	10.50	10.86
10	7.10	7.62	7.98	9.00	---	4.08	4.45	6.31	9.63	10.06	10.54	10.95
15	6.23	8.18	8.31	9.00	9.37	3.07	5.88	7.26	9.67	10.22	10.61	10.99
20	7.30	8.55	8.73	---	9.32	3.81	7.05	8.00	9.77	10.34	10.62	10.72
25	6.41	8.92	9.00	---	8.99	2.37	5.40	8.70	10.01	10.34	10.71	10.18
EOM	6.91	9.13	9.00	---	5.20	2.92	4.19	9.23	10.12	10.47	10.80	8.70

WTR YR 1977 HIGH 2.16 MAR 23 LOW 11.01 SEP 14

CAMERON COUNTY

412732078034201. Local number, CM 13.

LOCATION.--Lat 41°27'32", long 78°03'42", Hydrologic Unit 02050202, at Sinnemahoning State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Catskill Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 102 ft (31.1 m), cased to 57 ft (17.4 m), open hole.

DATUM.--Altitude of land-surface datum is 1,010 ft (308 m). Measuring point: Top of casing, 3.07 ft (94 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.35 ft (6.203 m) below land-surface datum, Feb. 20, 1976; lowest, 25.98 ft (7.919 m) below land-surface datum, Sept. 10, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.88	23.14	23.75	23.57	23.85	23.04	22.34	23.04	23.88	23.85	23.79	23.59
10	23.53	23.20	23.56	23.52	23.92	23.12	22.90	23.18	23.76	24.00	23.67	23.77
15	23.29	23.30	23.29	23.57	23.77	22.89	22.98	23.38	23.88	23.75	23.60	23.85
20	23.48	23.25	23.26	23.70	23.72	22.94	23.16	23.51	23.70	23.45	23.46	23.30
25	23.15	23.47	23.37	23.57	23.25	22.91	22.84	23.55	23.84	23.49	23.50	23.09
EOM	23.11	23.82	23.38	23.74	23.19	22.79	23.26	23.81	23.72	23.57	23.55	23.01

WTR YR 1977 HIGH 22.34 APR 5 LOW 24.07 FEB 8

CENTRE COUNTY

404518077575501. Local number, CE 118.

LOCATION.--Lat 40°45'18", long 77°57'55", Hydrologic Unit 02050302, at State Game Land Number 176.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and dolomite of Gatesburg Formation of Upper Cambrian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 130 ft (39.6 m), cased to 40 ft (12.2 m), open hole.

DATUM.--Altitude of land-surface datum is 1,150 ft (351 m). Measuring point: Top of casing, 2.50 ft (76 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--January 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.80 ft (16.703 m) below land-surface datum, Oct. 7, 1972; lowest, 80.14 ft (24.427 m) below land-surface datum, March 26, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.31	61.62	62.13	62.67	63.39	63.92	63.86	63.24	62.68	62.36	62.37	62.73
10	61.35	61.67	62.18	62.78	63.53	63.99	63.81	63.12	62.59	62.33	62.40	62.82
15	61.35	61.77	62.24	62.89	63.65	64.02	63.68	63.06	62.54	62.33	62.47	62.95
20	61.46	61.80	62.30	63.00	63.74	64.06	63.56	63.01	62.47	62.32	62.52	63.01
25	61.50	61.90	62.41	63.09	63.80	64.05	63.40	62.88	62.42	62.32	62.59	63.12
EOM	61.57	62.03	62.53	63.25	63.85	64.00	63.37	62.77	62.37	62.34	62.67	63.20

WTR YR 1977 HIGH 61.23 OCT 1 LOW 64.07 MAR 21

CLEARFIELD COUNTY

367

405810078313301. Local number, CF 4.

LOCATION.--Lat 40°58'10", long 78°31'33", Hydrologic Unit 02050201, at Curwensville.

Owner: Jared I. McNaul.

AQUIFER.--Shale and sandstone of Clarion Formation of Middle Pennsylvanian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 5 ft (1.5 m), depth 30 ft (9.1 m), casing information not available.

DATUM.--Altitude of land-surface datum is 1,160 ft (354 m). Measuring point: Top of 1-inch pipe in cover at land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.78 ft (5.115 m) below land-surface datum, June 25, 1972; lowest measured, 21.44 ft (6.535 m) below land-surface datum, Nov. 16, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	19.66	DEC 5	20.13	FEB 5	20.32	APR 2	18.28	JUN 4	19.57	AUG 6	19.74
10	19.19	12	19.41	12	20.35	9	17.50	11	19.33	13	19.20
17	19.09	19	19.50	19	19.53	16	18.48	18	19.47	20	18.87
24	19.25	26	19.66	26	18.42	23	19.03	25	19.59	27	19.60
31	18.64	--	----	--	----	30	19.01	--	----	--	----
NOV 7	19.10	JAN 1	19.86	MAR 5	18.15	MAY 7	19.03	JUL 2	18.84	SEP 3	19.89
14	19.61	8	20.06	12	18.64	14	19.04	9	18.42	10	20.03
21	19.84	15	20.16	19	17.87	21	19.39	16	18.23	17	20.10
28	19.90	22	20.25	26	17.62	28	19.46	23	18.95	24	18.95
--	----	29	20.28	--	----	--	----	30	19.45	--	----

WTR YR 1977 HIGH 17.50 APR 9 LOW 20.35 FEB 12

CLINTON COUNTY

411424077462201. Local number, CN 1.

LOCATION.--Lat 41°14'24", long 77°46'22", Hydrologic Unit 02050203, at Sproul State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Pocono Formation of Upper Mississippian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 78 ft (23.8 m), cased to 38 ft (11.6 m), open hole.

DATUM.--Altitude of land-surface datum is 2,050 ft (625 m). Measuring point: Top of platform, 0.20 ft (6 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.00 ft (13.411 m) below land-surface datum, Jan. 13, 1951; lowest, 57.24 ft (17.447 m) below land-surface datum, Dec. 21, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.51	48.01	48.87	---	50.66	50.09	46.81	47.91	49.95	50.86	50.73	50.82
10	49.39	47.97	49.08	---	50.86	49.49	46.73	48.23	50.24	50.94	50.68	50.96
15	48.99	48.13	49.06	---	51.01	48.84	46.73	48.65	50.49	50.90	50.67	51.13
20	48.80	48.19	49.01	---	51.00	48.34	47.15	49.01	50.60	50.82	50.60	51.12
25	48.57	48.37	---	50.07	50.88	47.99	47.33	49.33	50.78	50.73	50.64	51.01
EOM	48.24	48.63	---	---	50.65	47.52	47.69	49.68	50.83	50.67	50.71	50.57

WTR YR 1977 HIGH 46.69 APR 12 LOW 51.15 SEP 19 AND OTHERS

LOCATION.--Lat 41°00'10", long 76°27'50", Hydrologic Unit 02050107, at Fernville.

Owner: Fred E. Walters.

AQUIFER.--Alluvium of Holocene age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (91 cm), depth 19 ft (5.8 m), casing information not available.

DATUM.--Altitude of land-surface datum is 490 ft (149 m). Measuring point: Top of concrete cover, 2.4 ft (73 cm) above land-surface datum.

REMARKS. - -None.

PERIOD OF RECORD.--November 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.75 ft (1.448 m) below land-surface datum, Sept. 2, 1933; lowest measured, 14.30 ft (4.359 m) below land-surface datum, Nov. 28, 1931.

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	4	10.80	DEC	6	10.10	FEB	7	10.90	APR	4	9.80	JUN	6	11.20	AUG	1	11.50
	11	9.70		13	10.30		14	10.60		11	9.90		13	11.27		8	11.60
	18	10.60		20	11.00		21	10.60		18	10.60		20	11.40		15	11.70
	25	10.40		27	11.00		28	10.50		25	10.60		27	11.60		22	11.60
	--	----		--	----		--	----		--	----		--	----		29	11.60
NOV	1	10.20	JAN	3	10.80	MAR	7	10.30	MAY	7	10.60	JUL	4	10.60	SEP	5	11.70
	8	10.40		10	11.00		14	10.00		9	10.50		11	11.20		12	11.70
	15	10.50		17	11.00		21	9.90		16	10.60		18	11.50		19	12.10
	22	10.00		24	11.00		28	10.20		23	10.90		25	11.50		26	10.20
	29	10.10		31	10.80		--	----		30	10.90		--	----		--	----

WTR YR 1977 HIGH 9.70 OCT 11 LOW 12.10 SEP 19

COLUMBIA COUNTY

LOCATION.--Lat 41°00'33", long 76°26'49", Hydrologic Unit 02050107, at Bloomsburg.

Owner: U.S. Geological Survey

AQUIFER.--Shale of Bloomsburg Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 282 ft (85.9 m), cased to 32 ft (9.8 m), open hole.

DATUM.--Altitude of land-surface datum is 690 ft (210 m). Measuring point: Top of plywood cover, 2.60 ft (79 cm) above land-surface datum.

REMARKS. - - None.

PERIOD OF RECORD.--October 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.60 ft (23.348 m) below land-surface datum, March 23, 1977 and others; lowest, 88.78 ft (27.060 m) below land-surface datum, Oct. 20, 1972 and others.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.68	83.38	85.49	85.67	86.14	83.14	81.60	83.44	---	85.38	---	83.98
10	83.69	83.71	84.48	85.78	86.06	83.54	82.59	83.76	---	84.94	---	84.50
15	84.23	84.35	84.54	85.81	84.91	82.58	82.98	84.31	84.84	85.10	---	85.48
20	84.95	84.67	84.75	86.07	84.75	82.55	83.64	83.76	84.75	84.29	---	84.68
25	83.46	85.23	85.10	86.11	83.87	81.55	83.13	83.98	85.09	84.47	---	83.80
EOM	83.54	85.24	85.36	86.37	83.89	82.90	83.55	---	85.10	83.89	---	83.79

WTR YR 1977 HIGH 76.60 MAR 23 AND OTHERS LOW 86.57 FEB 2

CUMBERLAND COUNTY

369

400209077183301. Local number, CU 2.

LOCATION.--Lat 40°02'09", long 77°18'33", Hydrologic Unit 02050305, at Michaux State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Metarhyolite of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 37 ft (11.3 m), casing information not available.

DATUM.--Altitude of land-surface datum is 955 ft (291 m). Measuring point: Top of casing, 1.5 ft (46 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.51 ft (2.899 m) below land-surface datum, April 18, 1961; lowest, 33.50 ft (10.211 m) below land-surface datum, Feb. 3, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.71	19.02	19.05	19.15	21.37	20.61	12.44	14.84	---	22.31	24.79	27.24
10	24.09	18.43	18.80	19.42	21.74	19.42	11.76	15.42	---	22.78	25.23	27.45
15	23.23	18.33	18.56	19.76	21.99	17.70	12.20	16.14	---	23.15	25.63	27.67
20	22.81	18.23	18.35	20.20	22.11	16.72	13.05	17.01	---	23.50	26.07	27.89
25	21.66	18.51	18.59	20.48	22.04	14.95	---	17.71	21.23	23.92	26.47	28.00
EOM	20.38	18.85	18.78	20.95	21.83	13.78	14.46	18.57	21.76	24.35	26.89	27.88

WTR YR 1977 HIGH 11.76 APR 10 LOW 28.02 SEP 24

DAUPHIN COUNTY

402118076462201. Local number, DA 350.

LOCATION.--Lat 40°21'18", long 76°46'22", Hydrologic Unit 02050305, at R. D. 1, Linglestown.

Owner: William R. Miller.

AQUIFER.--Hamburg Sequence of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 225 ft (68.6 m), cased to 19 ft (5.79 m), open hole.

DATUM.--Altitude of land-surface datum is 450 ft (137 m). Measuring point: Top of casing, 1.34 ft (41 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.15 ft (35 cm) below land-surface datum, June 22, 1972; lowest, 6.95 ft (2.118 m) below land-surface datum, Sept. 11, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.39	4.02	5.11	5.22	5.55	3.70	3.38	4.49	5.60	5.85	5.85	5.90
10	3.65	4.34	4.36	5.21	5.52	4.16	3.89	4.70	5.57	5.72	5.73	6.00
15	4.25	4.56	4.58	5.29	4.78	3.82	4.38	5.06	5.61	5.61	5.53	6.07
20	4.47	4.78	4.69	5.41	4.85	3.96	4.72	5.22	5.70	5.68	5.54	5.96
25	3.75	4.92	4.96	5.40	3.99	3.85	---	5.33	5.78	5.73	5.76	5.78
EOM	3.79	4.97	5.08	5.42	4.10	4.20	4.19	5.51	5.77	5.81	5.88	5.46

WTR YR 1977 HIGH 3.38 APR 5 LOW 6.07 SEP 15

FRANKLIN COUNTY

395958077393301. Local number, FR 2.

LOCATION.--Lat 39°59'58", long 77°39'33", Hydrologic Unit 02070004, at Chambersburg.

Owner: U.S. Army Letterkenny Ordnance Depot.

AQUIFER.--St. Paul Group of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20.3 cm) to 6 in (15 cm), depth 441 ft (134 m), cased to 60 ft (18.3 m), open hole.

DATUM.--Altitude of land-surface datum is 694 ft (212 m). Measuring point: Top of casing, 2.49 ft (76 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.26 ft (3.127 m) below land-surface datum, May 12, 1958; lowest, 62.98 ft (19.196 m) below land-surface datum, Dec. 11, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.23	23.18	47.24	47.75	---	29.23	17.01	41.75	48.70	48.96	48.56	---
10	23.77	27.65	32.14	47.90	---	24.93	18.18	45.42	46.32	48.84	48.69	---
15	---	34.13	40.37	48.20	---	21.35	24.15	46.29	47.86	46.60	48.48	---
20	---	39.55	45.35	48.40	---	20.93	30.60	47.17	48.50	47.42	48.52	48.88
25	24.32	44.52	46.22	48.54	35.60	16.46	34.98	47.87	48.76	47.29	48.53	49.00
EOM	23.96	46.38	46.95	---	36.37	20.02	40.00	48.48	48.78	48.32	---	48.16
WTR YR 1977	HIGH	14.72	APR 6	LOW	49.21	SEP 16						

FRANKLIN COUNTY

394731077411701. Local number, FR 332.

LOCATION.--Lat 39°47'31", long 77°41'17", Hydrologic Unit 02070004, near Greencastle.

Owner: Borough of Greencastle.

AQUIFER.--Stonehenge Formation of Lower Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 296 ft (90 m), cased to 92 ft (28 m), open hole.

DATUM.--Altitude of land-surface datum is 730 ft (223 m). Measuring point: Top of casing, 1 ft (30 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.30 ft (3.749 m) below land-surface datum, Sept. 27, 1975; lowest, 36.68 ft (11.18 m) below land-surface datum, Sept. 6, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.23	26.53	30.29	29.39	32.87	31.47	24.77	28.03	32.48	33.24	32.88	33.14
10	---	27.48	27.85	31.54	31.35	31.21	22.37	28.84	32.49	33.25	33.21	33.58
15	23.90	28.46	29.88	30.57	30.34	28.91	24.33	29.71	32.75	33.53	32.38	34.02
20	26.20	29.24	30.29	31.85	30.65	29.82	25.37	30.61	32.84	32.96	32.15	33.85
25	26.77	29.95	30.24	32.95	30.62	26.54	25.75	31.08	32.95	32.85	33.32	34.14
EOM	26.02	30.45	29.94	33.35	31.93	27.46	27.14	31.96	33.34	32.49	33.55	34.37
WTR YR 1977	HIGH	19.90	OCT 11	LOW	34.37	SEP 30						

FULTON COUNTY

371

400302078090401. Local number, FU 93.

LOCATION.--Lat 40°03'02", long 78°09'04", Hydrologic Unit 02050304, at Buchanan State Forest.

Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Pocono Formation of Lower Mississippian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 191 ft (58.2 m), cased to 45 ft (13.7 m), open hole.

DATUM.--Altitude of land-surface datum is 1,180 ft (360 m). Measuring point: Top of casing, 2.0 ft (61 cm) above land-surface datum.

REMARKS.--Water level above and below (-) land surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.00 ft (61 cm) above land-surface datum, Feb. 22, 1971; lowest, -4.46 ft (-1.359 m) below land-surface datum, Sept. 12, 1966.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-0.69	0.56	-1.02	-0.92	-1.50	0.91	1.50	-0.05	-1.31	-1.93	-1.73	-1.96
10	0.81	0.10	0.42	-0.97	-1.51	0.75	1.43	0.32	-1.21	-1.97	-1.93	-2.19
15	0.27	-0.20	---	-1.07	-0.81	1.30	0.80	-0.16	-1.37	-1.72	-1.78	-2.44
20	-0.18	-0.51	---	-1.24	-0.67	1.34	0.27	-0.49	-1.30	-1.74	-1.66	-2.29
25	0.79	-0.75	-0.39	-1.17	0.23	1.50	0.21	-0.69	-1.50	-1.25	-1.88	-2.24
EOM	0.94	-0.91	-0.65	-1.38	0.60	1.50	-0.12	-1.22	-1.81	-1.42	-1.88	-1.89

WTR YR 1977 MAX 1.50 MAR 25 AND OTHERS MIN -2.44 SEP 15

HUNTINGDON COUNTY

401843078075401. Local number, HU 301.

LOCATION.--Lat 40°18'43", long 78°07'54", Hydrologic Unit 02050303, at Trough Creek State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Burgoon Sandstone of Lower Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 105 ft (32 m), cased to 18 ft (5.5 m), open hole.

DATUM.--Altitude of land-surface datum is 970 ft (296 m). Measuring point: Top of casing, 3.30 ft (1.01 m) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.82 ft (14.880 m) below land-surface datum, June 23, 1972; lowest, 55.58 ft (16.941 m) below land-surface datum, Sep. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.89	53.24	54.50	54.37	55.05	53.06	52.33	53.85	54.84	55.10	55.18	55.29
10	52.55	53.59	53.92	54.42	55.09	53.28	52.91	54.11	54.72	55.10	55.19	55.34
15	53.09	53.91	53.81	54.56	54.43	53.12	53.48	54.40	54.82	55.02	55.26	55.56
20	53.63	54.19	53.96	54.78	54.11	53.08	53.94	54.59	54.80	54.91	55.09	55.21
25	53.30	54.36	54.13	54.65	53.46	52.91	53.64	54.58	54.90	54.76	55.25	55.16
EOM	52.90	54.46	54.15	54.93	53.51	53.20	53.83	54.87	55.09	54.97	55.27	54.91

WTR YR 1977 HIGH 52.33 APR 5 LOW 55.58 SEP 16

JUNIATA COUNTY

402411077374801. Local number, JU 351.

LOCATION.--Lat 40°24'11", long 77°37'48", Hydrologic Unit 02050304, at State Game Land Number 215.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 18 ft (5.5 m), open hole.

DATUM.--Altitude of land-surface datum is 635 ft (194 m). Measuring point: Top of plywood cover, 3.55 ft (1.08 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--June 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.67 ft (3.557 m) below land-surface datum, Feb. 23, 1971; lowest, 15.40 ft (4.694 m) below land-surface datum, Sep. 15, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.18	13.14	13.83	13.74	13.90	11.99	12.06	13.44	14.86	15.01	14.83	15.17
10	12.20	13.36	13.10	13.61	13.93	13.00	12.88	13.39	14.78	14.91	14.92	15.26
15	13.26	13.44	13.33	13.69	13.20	12.53	13.20	13.66	14.89	15.01	15.06	15.40
20	13.54	13.62	13.47	13.79	13.40	12.71	13.39	14.00	14.92	14.19	14.92	15.13
25	12.89	13.66	13.59	13.66	12.50	12.62	13.22	14.28	14.99	14.31	15.13	14.84
EOM	12.96	13.67	13.63	13.83	12.84	13.04	13.43	14.76	14.98	14.76	15.12	14.09

WTR YR 1977 HIGH 11.99 MAR 5 AND OTHERS LOW 15.40 SEP 15

LANCASTER COUNTY

400506076235201. Local number, LN 514.

LOCATION.--Lat 40°05'06", long 76°23'52", Hydrologic Unit 02050306, near Landisville.

Owner: Benjamin Landis.

AQUIFER.--Shale and limestone of Kinzers Formation of Lower Cambrian age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 260 ft (79.2 m), casing information not available.

DATUM.--Altitude of land-surface datum is 415 ft (126 m). Measuring point: Top of casing, 1 ft (30 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.36 ft (5.596 m) below land-surface datum, July 15, 1975; lowest, 35.47 ft (10.811 m) below land-surface datum, Nov. 15, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.64	31.15	32.99	33.12	33.25	31.73	28.10	32.52	33.04	33.24	33.25	33.29
10	31.23	32.12	32.83	33.12	33.26	32.68	25.50	32.70	33.04	33.18	33.29	33.33
15	32.25	32.65	32.95	33.16	33.01	31.05	27.59	32.78	33.11	33.22	33.26	33.33
20	32.73	32.82	33.05	33.18	33.20	31.90	29.73	32.83	33.11	33.23	33.28	33.24
25	30.76	32.85	33.02	33.20	32.72	28.33	31.17	32.95	33.17	33.27	33.27	33.27
EOM	30.23	32.89	33.09	33.22	32.86	30.33	32.06	33.01	33.16	33.28	33.29	33.31

WTR YR 1977 HIGH 24.40 APR 7 AND OTHERS LOW 33.39 JAN 27

LUZERNE COUNTY

373

411800076162501. Local number, LU 243.

LOCATION.--Lat 41°18'00", long 76°16'25", Hydrologic Unit 02050107, at Ricketts Glen State Park, Fairmount Township. Owner: Commonwealth of Pennsylvania.

AQUIFER.--Sandstone of Catskill Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 160 ft (48.8 m), cased to 40 ft (12.2 m), open hole.

DATUM.--Altitude of land-surface datum is 1,266 ft (386 m). Measuring point: Top of casing, 1.3 ft (40 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--November 1948 to July 1950, July 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.08 ft (10.997 m) below land-surface datum, March 31, 1950; lowest, 58.70 ft (17.891 m) below land-surface datum, Oct. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	51.14	53.30	53.59	54.58	51.34	49.00	51.83	54.45	54.97	54.38	55.68
10	---	51.00	52.46	53.74	54.70	50.18	50.23	52.45	53.95	54.59	54.69	55.33
15	---	51.62	51.96	53.98	54.69	49.47	51.11	52.59	54.20	53.84	54.81	55.32
20	---	52.18	52.37	54.26	54.60	50.27	51.94	52.67	54.33	53.72	---	55.02
25	49.75	52.64	52.71	54.24	54.56	49.58	51.99	53.19	54.36	54.22	54.81	54.19
EOM	50.12	52.99	53.18	54.46	53.22	49.82	52.33	53.88	54.74	54.51	54.92	51.56

WTR YR 1977 HIGH 49.00 APR 5 LOW 55.68 SEP 5

LYCOMING COUNTY

412427076594401. Local number, LY 112.

LOCATION.--Lat 41°24'27", long 76°59'44", Hydrologic Unit 02050206, at State Game Land Number 133, near Trout Run. Owner: U.S. Geological Survey.

AQUIFER.--Shale of Catskill Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 200 ft (61 m), cased to 23 ft (7.0 m), open hole.

DATUM.--Altitude of land-surface datum is 1,400 ft (427 m). Measuring point: Top of plywood cover, 3.07 ft (94 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.10 ft (23.195 m) below land-surface datum, June 23, 1972; lowest, 93.45 ft (28.483 m) below land-surface datum, March 20, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	91.66	86.24	90.02	90.21	91.97	88.09	84.29	87.17	90.32	89.57	90.36	91.68
10	89.55	87.41	88.29	90.44	92.26	86.72	---	87.98	90.64	89.61	90.62	92.01
15	87.31	88.25	88.11	90.82	90.60	84.71	---	88.70	90.80	90.00	90.97	92.33
20	88.22	88.71	88.68	91.18	90.33	---	---	---	90.85	90.06	90.20	92.25
25	85.96	89.24	89.05	91.38	90.27	85.41	87.23	89.51	90.92	89.15	90.77	89.36
EOM	86.23	89.64	89.59	91.77	88.27	85.05	86.22	90.00	89.35	89.49	91.43	86.40

WTR YR 1977 HIGH 84.27 APR 4 AND OTHERS LOW 92.34 SEP 16

MIFFLIN COUNTY

404210077331001. Local number, MF 1.

LOCATION.--Lat 40°42'10", long 77°33'10", Hydrologic Unit 02050304, at Village of Naginey.

Owner: Charles C. Naginey.

AQUIFER.--Limestone of Nealmont Formation of Middle Ordovician age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (91 cm), depth 28 ft (8.5 m), cased with stone.

DATUM.--Altitude of land-surface datum is 680 ft (207 m). Measuring point: Top of wooden cover at land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.03 ft (1.228 m) below land-surface datum, June 26, 1972; lowest measured, 24.94 ft (7.602 m) below land-surface datum, Sep. 10, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	19.95	DEC 7	19.93	FEB 1	15.97	APR 7	15.93	JUN 4	23.99	AUG 1	23.00
11	8.98	13	16.94	10	24.91	15	18.92	14	23.99	8	22.93
18	16.95	20	18.98	19	20.93	21	18.98	20	23.95	10	22.90
26	14.93	28	14.97	26	17.50	26	17.96	27	19.91	22	23.40
NOV 1	12.92	JAN 4	14.94	MAR 2	16.90	MAY 4	18.96	JUL 6	23.40	29	24.00
9	16.00	11	16.99	10	16.00	9	18.99	13	20.96	SEP 5	24.92
15	15.97	17	13.99	19	15.49	21	20.93	20	20.70	19	23.95
22	18.97	24	9.91	25	15.50	24	22.92	26	19.99	27	16.94
29	19.91	--	-----	30	13.99	--	-----	--	-----	--	-----

WTR YR 1977 HIGH 8.98 OCT 11 LOW 24.92 SEP 5

PERRY COUNTY

402339077074502. Local number, PE 518.

LOCATION.--Lat 40°23'39", long 77°07'45", Hydrologic Unit 02050305, at State Game Land Number 256.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 138 ft (42.1 m), cased 17 ft (5.2 m), open hole.

DATUM.--Altitude of land-surface datum is 590 ft (180 m). Measuring point: Top of plywood cover, 3.05 ft (93 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.75 ft (3.277 m) below land-surface datum, Apr. 6, 1977; lowest, 19.51 ft (5.947 m) below land-surface datum, August 19, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.50	12.40	13.61	12.95	13.27	11.04	11.04	11.88	14.20	13.74	13.91	14.22
10	12.28	12.65	12.55	12.86	13.30	11.51	---	12.30	13.23	13.37	13.85	14.59
15	12.77	13.07	12.72	13.20	12.68	10.92	---	12.58	13.38	13.63	14.26	14.57
20	13.20	13.11	12.44	13.15	12.37	11.65	---	12.70	13.53	13.34	14.01	14.45
25	12.28	13.27	12.79	13.20	11.80	---	11.63	12.78	---	13.38	14.17	14.37
EOM	12.28	13.49	12.91	13.19	11.53	---	12.07	12.98	---	13.67	14.37	13.84

WTR YR 1977 HIGH 10.75 APR 6 LOW 14.72 JUN 4

POTTER COUNTY

375

414640077493801. Local number, PO 72.

LOCATION.--Lat 41°46'40", long 77°49'38", Hydrologic Unit 02050205, at Denton Hill State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Catskill Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 110 ft (33.5 m), cased to 21 ft (6.4 m), open hole.

DATUM.--Altitude of land-surface datum is 1,810 ft (552 m). Measuring point: Top of plywood cover, 1.10 ft (34 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.20 ft (1.585 m) below land-surface datum, March 23, 1968; lowest, 29.00 ft (8.839 m) below land-surface datum, Oct. 20, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.97	18.70	21.73	22.28	26.80	13.91	14.20	19.12	26.24	25.47	25.94	26.90
10	15.07	20.38	20.50	23.02	27.26	15.31	17.71	19.53	24.98	19.29	23.28	27.53
15	19.57	21.52	20.92	24.16	23.72	12.92	19.23	21.01	26.96	---	23.69	21.47
20	20.92	22.30	21.46	25.22	24.28	17.90	20.61	22.23	26.81	---	25.33	13.58
25	16.83	23.19	18.80	25.89	17.52	19.70	19.89	23.20	27.61	22.70	23.81	16.40
EOM	18.72	21.59	20.98	26.47	14.17	12.21	17.75	24.84	22.93	23.84	26.30	16.61
WTR YR 1977	HIGH	11.71	MAR 14	LOW	28.20	OCT 7						

SCHUYLKILL COUNTY

403223076224201. Local number, SC 1.

LOCATION.--Lat 40°32'23", long 76°22'42", Hydrologic Unit 02050305, at Pine Grove.

Owner: Nick C. Donofrio.

AQUIFER.--Shale of Mahantango Formation of Middle Devonian age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 52 in (132 cm), depth 33 ft (10.1 m), cased with stone.

DATUM.--Altitude of land-surface datum is 560 ft (171 m). Measuring point: Top of wooden cover at land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--October 1931, January 1932 to December 1942, September 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.56 ft (1.085 m) below land-surface datum, Aug. 31, 1940; lowest measured, 31.78 ft (9.687 m) below land-surface datum, Nov. 5, 1944.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	13.60	DEC 4	13.90	FEB 5	19.60	APR 2	11.70	JUN 4	18.20	AUG 6	17.70
9	12.20	11	14.37	12	18.80	9	13.90	11	17.90	13	18.30
16	13.60	18	13.60	19	18.00	16	14.70	18	17.50	20	19.60
23	13.40	25	15.20	26	14.60	23	14.20	25	18.20	27	20.47
30	11.88	31	18.20	MAR 5	13.66	30	13.18	JUL 2	17.90	SEP 3	20.80
NOV 6	14.20	JAN 8	17.30	12	13.20	MAY 7	14.40	9	17.69	10	21.00
13	15.60	15	17.50	19	12.28	14	14.80	16	16.40	17	20.60
20	16.30	22	17.60	26	13.40	21	15.80	23	15.60	24	20.17
27	16.90	29	18.00	--	----	28	18.00	30	17.30	30	19.50
WTR YR 1977	HIGH	11.70	APR 2	LOW	21.00	SEP 10					

SNYDER COUNTY

403939076591001. Local number, SN 130.

LOCATION.--Lat 40°39'39", long 76°59'10", Hydrologic Unit 02050301, at State Game Land Number 194.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Marine Beds of Chemung Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 40 ft (12.2 m), open hole.

DATUM.--Altitude of land-surface datum is 740 ft (226 m). Measuring point: Top of plywood cover, 3.55 ft (1.08 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--June 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.45 ft (3.795 m) below land-surface datum, Sept. 26, 1975; lowest, 19.45 ft (5.928 m) below land-surface datum, Feb. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.17	18.65	19.30	19.30	19.41	16.69	17.87	19.15	19.32	19.20	19.19	19.33
10	16.60	18.80	18.63	19.28	19.43	18.51	18.57	19.19	19.34	18.51	19.23	19.37
15	18.61	18.97	18.96	19.33	18.86	18.12	18.88	19.26	19.37	18.59	19.28	19.42
20	18.93	19.08	19.08	19.38	19.05	18.45	19.05	19.28	19.38	18.92	19.30	19.40
25	18.40	19.18	19.19	19.33	17.95	18.04	19.06	19.28	19.35	19.06	19.34	19.38
EOM	18.54	19.25	19.24	19.37	18.16	18.78	19.15	19.32	19.04	19.13	19.33	19.08

WTR YR 1977 HIGH 16.60 OCT 10 LOW 19.45 FEB 8

SULLIVAN COUNTY

413026076352901. Local number, SU 34.

LOCATION.--Lat 41°30'26", long 76°35'29", Hydrologic Unit 02050206, near Forksville.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Catskill Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (15 cm), depth 50 ft (15.2 m), cased to 34 ft (10.4 m), open hole.

DATUM.--Altitude of land-surface datum is 1,060 ft (323 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.42 ft (2.262 m) below land-surface datum, June 23, 1972; lowest, 31.12 ft (9.485 m) below land-surface datum, Sept. 4, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.27	24.74	27.83	28.19	28.57	17.52	22.82	26.01	28.90	29.35	29.10	29.44
10	19.59	25.98	23.85	28.33	28.75	24.05	25.52	26.39	28.74	28.55	28.90	29.45
15	24.66	26.65	25.57	28.34	25.70	20.54	26.39	26.95	28.56	29.19	29.13	29.59
20	26.24	27.08	26.28	28.42	27.20	22.80	27.25	27.67	28.63	28.05	26.96	28.77
25	23.53	27.43	26.94	28.52	21.52	21.16	24.02	28.06	29.19	28.43	28.67	---
EOM	24.83	27.50	27.72	28.52	22.49	23.93	24.67	28.60	28.86	29.15	29.12	25.35

WTR YR 1977 HIGH 17.40 MAR 23 LOW 29.64 SEP 14

SUSQUEHANNA COUNTY

377

415323077451301. Local number, SQ 61.

LOCATION.--Lat 41°53'23", long 77°45'13", Hydrologic Unit 02050101, at State Game Land Number 175.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone and shale of Susquehanna Group of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 175 ft (53.3 m), cased to 80 ft (24.4 m), open hole.

DATUM.--Altitude of land-surface datum is 1,270 ft (387 m). Measuring point: Top of casing, 3.0 ft (91 cm) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.59 ft (6.581 m) below land-surface datum, Feb. 24, 1976; lowest, 37.11 ft (11.311 m) below land-surface datum, Oct. 22, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.02	27.17	33.01	33.14	34.86	27.04	24.97	28.42	33.38	34.88	35.89	35.72
10	32.59	28.61	30.50	33.46	35.08	25.29	27.89	28.42	33.42	34.78	35.87	35.82
15	27.37	29.96	30.48	---	35.07	25.08	29.89	29.56	33.83	35.11	35.41	35.97
20	29.12	30.89	31.35	---	34.73	26.40	31.32	30.73	34.06	35.35	34.85	34.46
25	25.88	31.89	32.04	34.41	34.46	27.68	29.31	31.79	34.15	35.62	35.17	32.53
EOM	27.01	32.36	32.57	---	31.28	25.40	26.50	32.86	34.54	35.77	35.69	26.64

WTR YR 1977 HIGH 24.33 MAR 16 LOW 34.03 SEP 12

TIOGA COUNTY

414510077333301. Local number, TI 1.

LOCATION.--Lat 41°45'10", long 77°33'33", Hydrologic Unit 02050205, at Gaines.

Owner: Mrs. Ruth K. Wilson.

AQUIFER.--Alluvium of Holocene age.

WELL CHARACTERISTICS.--Dug unused water-table well, diameter 30 in (76 cm), depth 23 ft (7.0 m), cased with stone.

DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of wooden cover, 3.80 ft (1.2 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--August 1935 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.17 ft (1.271 m) below land-surface datum, April 22, 1961; lowest measured, 22.04 ft (6.718 m) below land-surface datum, Nov. 6, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	18.65	DEC 4	18.78	FEB 5	19.45	APR 2	6.70	JUN 4	19.40	AUG 6	17.65
9	18.70	11	17.68	11	20.10	9	8.80	11	20.30	13	17.28
16	15.90	18	17.70	19	18.65	16	13.80	JUL 2	17.74	20	17.35
23	15.10	25	17.40	26	17.30	23	16.55	9	16.53	27	18.00
30	15.67	JAN 1	18.40	MAR 5	15.03	30	15.69	16	18.10	SEP 3	18.48
NOV 6	15.88	8	18.65	12	14.80	MAY 7	16.60	23	17.59	10	18.40
13	17.08	15	18.70	20	13.35	14	17.25	30	18.15	17	16.97
20	17.75	22	19.10	26	13.36	21	18.60	--	-----	24	13.12
27	17.78	29	19.50	--	-----	28	18.50	--	-----	--	-----

WTR YR 1977 HIGH 6.70 APR 2 LOW 20.30 JUN 11

TIOGA COUNTY

414513077333701. Local number, TI 100.

LOCATION.--Lat 41°45'13", long 77°33'37", Hydrologic Unit 02050205, at State Game Land Number 208.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Oswayo Formation of Upper Devonian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 77 ft (23.5 m), cased to 67 ft (20.4 m), open hole.

DATUM.--Altitude of land-surface datum is 1,310 ft (399 m). Measuring point: Top of casing, 4.0 ft (1.2 m) above land-surface datum.

REMARKS.--Water-quality records for 1973-75 are available in files of district office.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.25 ft (9.525 m) below land-surface datum, June 25, 1976; lowest, 34.66 ft (10.564 m) below land-surface datum, Oct. 18, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.92	32.19	33.01	32.98	33.49	32.56	---	32.36	---	---	33.03	33.15
10	32.56	32.33	32.94	33.02	33.57	32.58	---	---	---	---	32.89	33.18
15	32.38	32.51	32.60	33.01	33.41	32.33	---	32.68	---	32.95	33.03	33.29
20	32.52	32.52	32.54	33.19	33.26	32.41	---	32.80	---	32.93	32.96	32.62
25	32.12	32.72	32.75	33.05	32.88	32.30	32.11	32.81	---	32.96	33.09	32.27
EOM	32.20	32.96	32.90	33.35	32.78	---	32.43	---	---	32.94	33.13	32.14

WTR YR 1977 HIGH 32.07 SEP 26 LOW 33.67 FEB 8

UNION COUNTY

405928077115501. Local number, UN 51.

LOCATION.--Lat 40°59'28", long 77°11'55", Hydrologic Unit 02050206, at Raymond B. Winter State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Shale of Reedsville Formation of Upper Ordovician age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 115 ft (35.1 m), cased to 91 ft (27.7 m), open hole.

DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of plywood cover, 3.58 ft (1.09 m) above land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.46 ft (7.760 m) below land-surface datum, June 30, 1972; lowest, 41.50 ft (12.649 m) below land-surface datum, Nov. 6, 7, 8, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.12	35.26	38.78	39.61	40.31	40.17	30.74	34.84	39.16	40.22	40.70	40.42
10	40.83	35.64	38.99	39.72	40.42	38.67	31.48	36.06	39.40	40.30	40.75	40.41
15	---	36.42	39.18	39.81	40.52	35.33	33.91	37.11	39.61	40.39	40.77	40.44
20	---	37.13	39.34	39.93	40.60	31.79	35.77	37.84	39.80	40.48	40.57	40.43
25	---	37.80	39.43	40.03	40.63	33.27	36.46	38.34	39.95	40.53	40.49	40.43
EOM	35.77	38.35	39.52	40.18	40.49	33.93	34.84	38.84	40.07	40.62	40.45	40.20

WTR YR 1977 HIGH 30.27 APR 7 AND OTHERS LOW 41.14 OCT 6

YORK COUNTY

379

400320076451501. Local number, YO 180.

LOCATION.--Lat 40°03'20", long 76°45'15", Hydrologic Unit 02050306, near Zions View.

Owner: New York Wire Cloth Company.

AQUIFER.--Shale of New Oxford Formation of Upper Triassic age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 490 ft (149 m), casing information not available.

DATUM.--Altitude of land-surface datum is 360 ft (110 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--None.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.41 ft (6.221 m) below land-surface datum, April 23, 1974; lowest, 37.55 ft (11.445 m) below land-surface datum, Nov. 3, 4, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	26.36	26.92	29.08	27.01	22.01	23.88	28.30	29.39	30.37	30.64
10	---	---	25.92	27.26	29.28	26.13	21.57	24.16	28.89	29.59	30.69	30.92
15	---	---	25.31	27.64	29.05	25.19	21.69	24.82	29.11	29.75	30.85	31.24
20	---	---	25.36	28.05	28.81	24.70	22.44	25.47	29.03	29.91	30.56	31.22
25	---	25.07	25.86	28.16	28.40	23.54	22.90	25.99	29.01	30.08	30.48	30.96
EOM	23.37	25.80	26.31	28.68	28.11	23.20	23.50	27.73	29.29	30.17	30.44	30.31
WTR YR 1977	HIGH	21.48	APR 13	LOW	31.27	SEP 21						

YORK COUNTY

395855076401701. Local number, YO 241.

LOCATION.--Lat 39°58'55", long 76°40'17", Hydrologic Unit 02050306, at York.

Owner: Caterpillar Tractor Company.

AQUIFER.--Limestone of Conestoga Formation of Lower Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 411 ft (125.3 m), cased to 28 ft (8.53 m), open hole.

DATUM.--Altitude of land-surface datum is 430 ft (131 m). Measuring point: Top of well pit cover 1.50 ft (46 cm) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--March 1968 to June 17, 1977 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.60 ft (3.231 m) below land-surface datum, June 22, 1972; lowest, 21.61 ft (6.587 m) below land-surface datum, Nov. 6, 7, 8, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.03	19.37	20.37	20.68	---	17.75	14.71	19.41	20.49	---	---	---
10	16.77	19.71	19.46	20.70	21.03	19.60	16.68	19.43	19.73	---	---	---
15	19.02	19.83	19.93	20.77	20.14	17.80	18.21	19.73	20.35	---	---	---
20	19.77	20.01	20.16	---	20.73	18.96	19.19	19.92	---	---	---	---
25	18.51	20.20	20.44	---	18.45	16.99	---	20.10	---	---	---	---
EOM	18.80	19.94	20.63	---	19.66	18.76	18.54	20.33	---	---	---	---
WTR YR 1977	HIGH	14.71	APR 5 AND OTHERS	LOW	21.03	FEB 9						

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FACTORS FOR CONVERTING U.S. CUSTOMARY UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
<i>Length</i>		
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)
<i>Area</i>		
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)
<i>Volume</i>		
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)
<i>Flow</i>		
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)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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