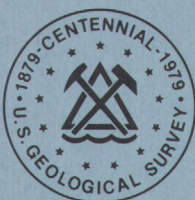
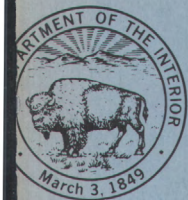


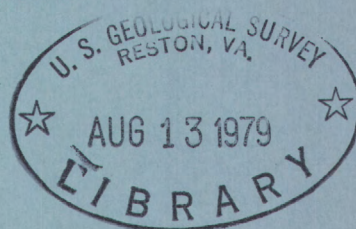
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Water Resources Data for Pennsylvania

Volume 2. Susquehanna and Potomac
River Basins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-78-2

WATER YEAR 1978

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

CALENDAR FOR WATER YEAR 1978

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River Basins

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WATER YEAR 1978

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

1979

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 D. C. Perkins, Acting 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 O. Milton Hackett, Acting Chief Hydrologist, U.S. Geological Survey, and Philip Cohen, 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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WATER RESOURCES DATA FOR PENNSYLVANIA, 1978

INTRODUCTION

Water resources data for the 1978 water year for Pennsylvania consist of records of discharge and water quality of streams; contents of lakes and reservoirs; and water levels of ground-water wells. This volume contains records for water discharge at 99 gaging stations; contents at 10 lakes and reservoirs; water quality at 95 gaging stations; and water levels at 29 observation wells. Also included are data for 23 crest-stage, 47 low-flow, and 46 water-quality partial-record stations. Locations of these sites are shown on figures 3 and 4. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 1 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

Records of discharge and 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 in 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 the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 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 in official Survey reports 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 volume is identified as "U.S. Geological Survey Water-Data Report PA-78-2". For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the district chief at the address given on the back of the title page or by telephone (518) 472-2457.

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, Clifford L. Jones, 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, Thomas Larson, secretary, through the Bureau of Materials Testing and Research.

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

City of Harrisburg, Paul E. Doutrich, mayor.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 42 gaging stations. Assistance was also furnished by 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.

HYDROLOGIC CONDITIONS

Runoff for the 1978 water year was above average. At the index station used for the Susquehanna River basin, Susquehanna River at Harrisburg, Pa. (01570500), streamflow was 163 percent of the 1941-70 median. Yearly mean streamflow has been above average since 1970.

Excessive runoff occurred October, November, December, January, March, May, and September resulting in some lowland flooding. It was otherwise normal in the basin.

Figure 1 on page 2, for which records for the Susquehanna River at Harrisburg were used, shows a comparison of the monthly and yearly mean discharge for the 1978 water year with the median discharge for the standard reference period 1941-70.

Ground water levels of the 1978 water year were generally above their monthly means for most of the year. February and June seemed to be a period of recovery with a nearly equal number of wells below mean as above.

Ground water levels were also above those of the previous year.

Comparison of 1978 water levels in network observation wells with a) 1977 water levels and b) monthly mean water levels for period of record is shown in figure 2.

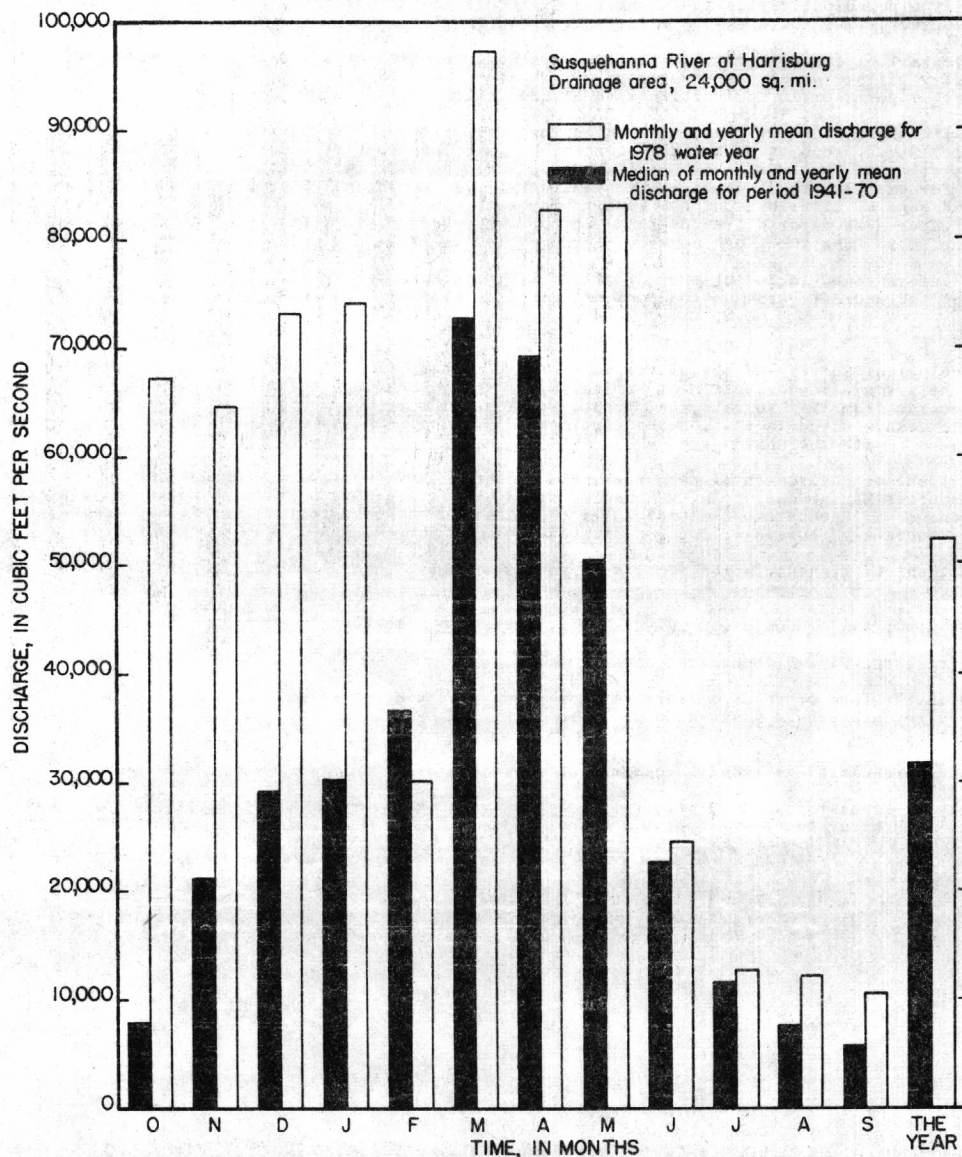


Figure 1.--Comparison of discharge at Susquehanna River at Harrisburg during the 1978 water year with median discharge for period 1941-70.

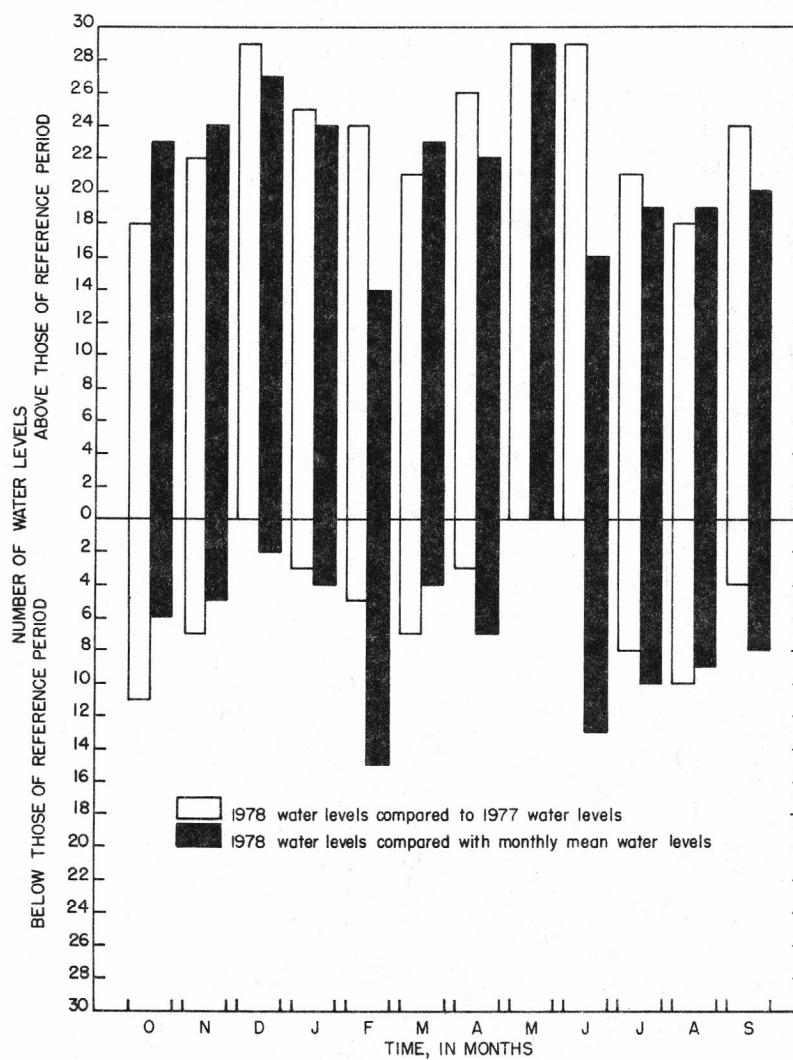


Figure 2.--Comparison of 1978 water levels in network observation wells with
a) 1977 water levels and
b) monthly mean water levels for period of record.

DEFINITION OF TERMS

During water year 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology and to conform to a joint USGS-EPA agreement on terminology. They do not represent a change in the way codes have been used in the past or in the association of specific code numbers with identified analytical procedures.

Use of the new terminology began with data for the 1978 water year, and therefore, it first appears in this publication. Definitions on which the terminology is based are included in the "Definitions" section of this report, and a table showing both old and new terminology is attached as an appendix to the report.

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

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/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

Dry mass refers to the mass of residue present after drying in an oven at 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 that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

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.

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

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 (m²), 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.

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

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 the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in 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 planimeted. All areas shown are those for the stage when the planimeted 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, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μ m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

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

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration 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 is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

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

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

Total 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-digit 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 3 below.

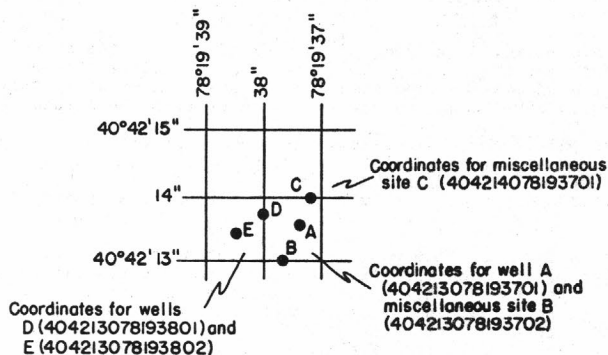


Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

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

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 referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page

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 (1sd). 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 effective October 1978 but 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. 1975. 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. \$0.35.
- 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. \$1.00.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. \$0.35.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages. \$1.00.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$1.40.
- 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. \$1.20.
- 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. \$2.50.
- 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. \$2.10.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. \$1.60.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$1.20.
- 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. \$1.10.
- 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. R. 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*, edited by P.E. Greeson, T.A. Ehlike, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. \$20.00.
- 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. \$2.10.
- 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. \$1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

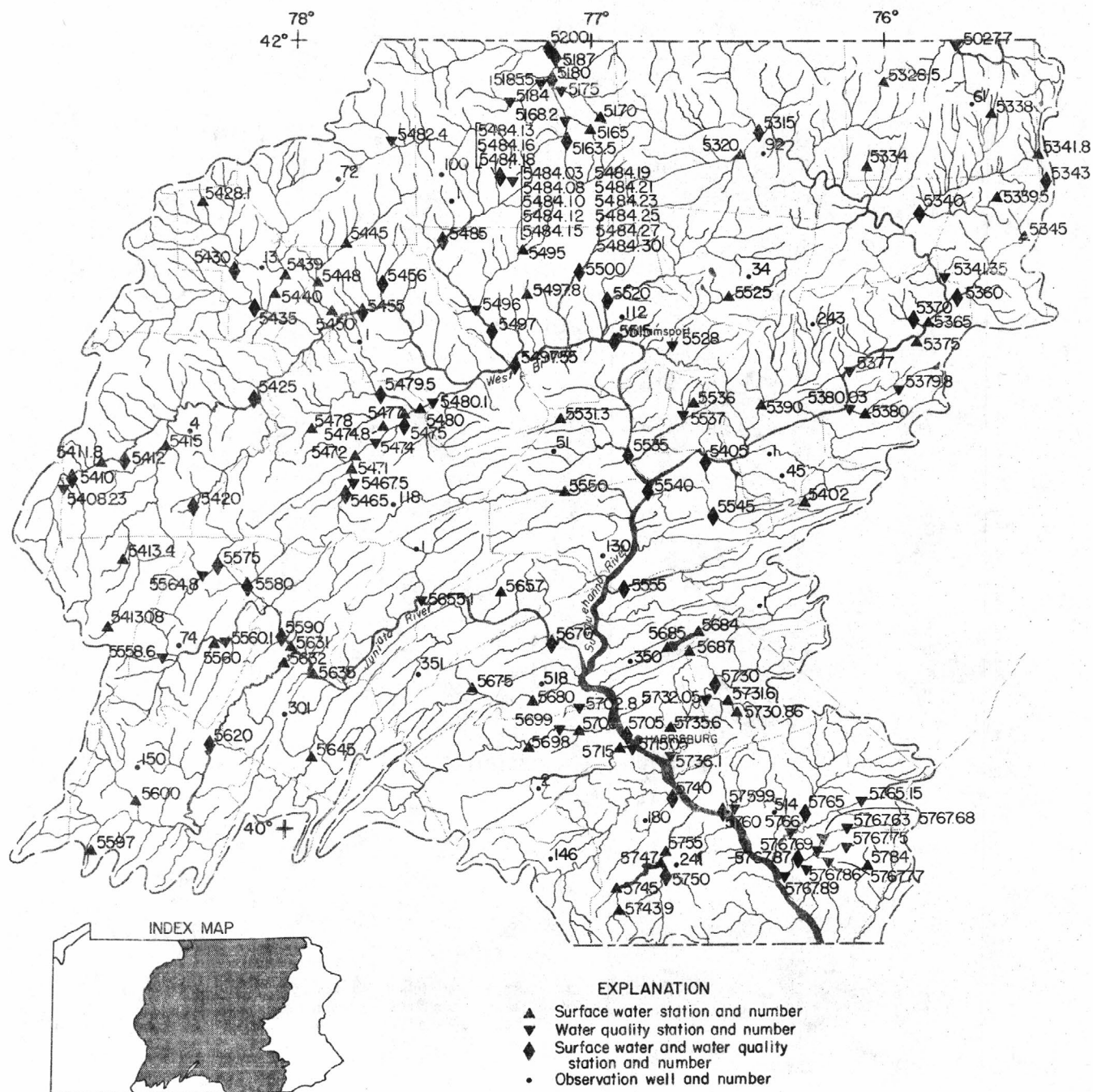


FIGURE 4 —Location of data collection stations and observation wells

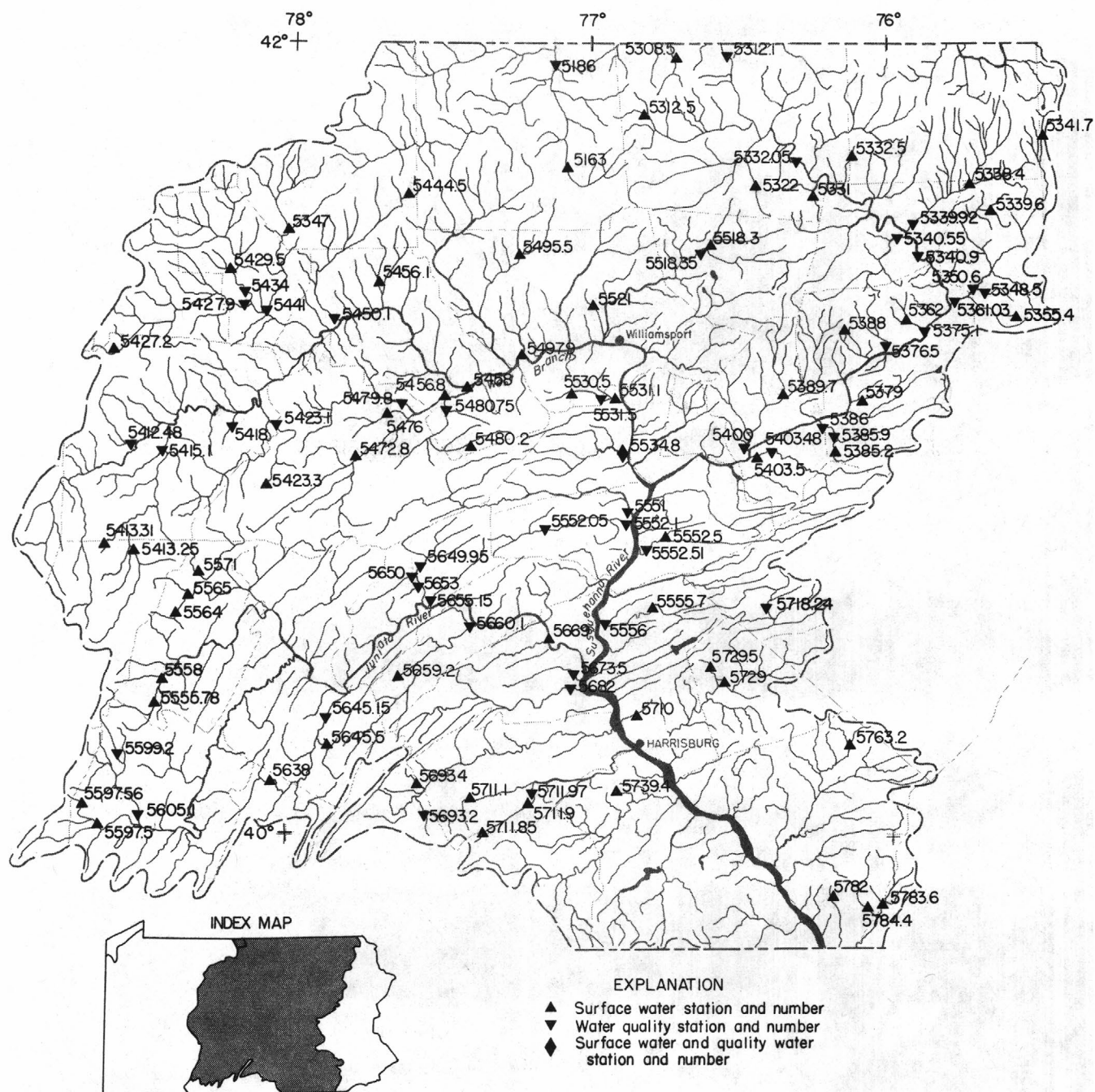
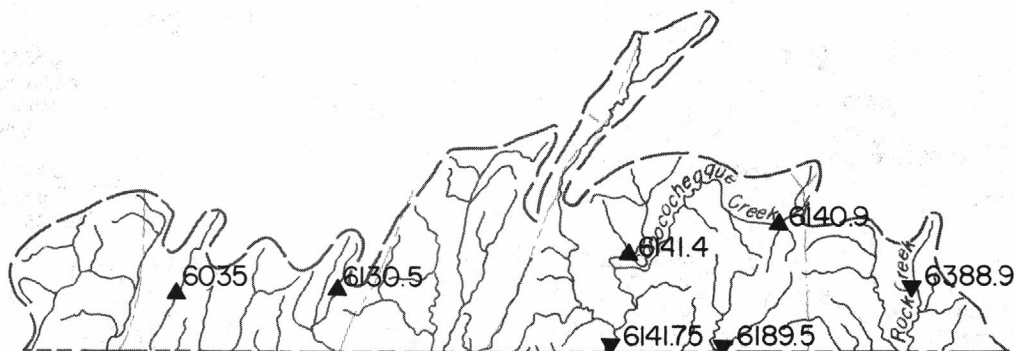
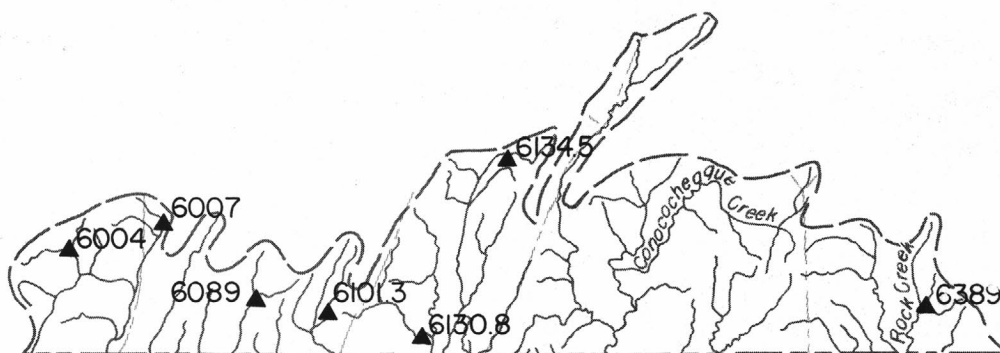


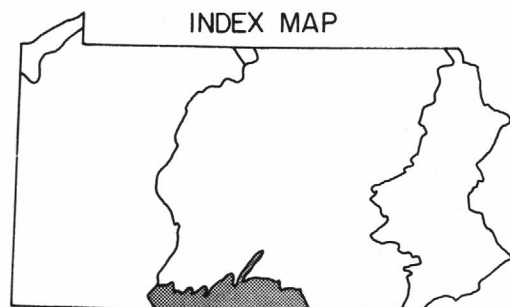
FIGURE 5 — Locations of partial-record data collection stations



A-Data collection stations



B-Partial record stations



INDEX MAP

EXPLANATION

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

FIGURE 6 — Location of data collection and partial record stations.

SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMRER)	AGENCY ANA- LYZING SAMPLE (CODE NUMRER)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT											
26...	1115	9813	9813	130	9.0	8.7	11.8	54	0	--	20
NOV											
28...	1140	9813	9813	140	--	--	--	72	--	20	--
DEC											
29...	1300	9813	9813	140	--	--	--	64	--	23	--
JAN											
06...	1000	9813	9813	150	--	--	--	70	--	24	--
FEB											
14...	1000	9813	9813	160	--	--	--	74	--	24	--
MAY											
02...	--	9813	9813	170	--	--	--	56	--	19	--
25...	1000	9813	9813	150	--	--	--	48	--	21	--
JUL											
05...	1115	9813	9813	130	--	--	--	58	--	15	--
31...	1100	9813	9813	200	20.0	--	7.4	75	0	28	--
SEP											
18...	1045	9813	9813	230	20.0	8.6	8.1	74	0	27	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT											
26...	--	1.0	54	6.0	5.0	78	.90	.03	.05	.10	500
NOV											
28...	5.5	--	62	14	8.0	240	1.2	.05	.25	.05	280
DEC											
29...	1.6	--	56	8.0	7.0	102	1.2	.03	.07	.07	399
JAN											
06...	2.2	--	62	10	7.0	100	1.4	.04	.08	.11	210
FEB											
14...	3.8	--	68	14	7.0	20	1.3	.03	.10	.05	140
MAY											
02...	2.2	--	64	12	7.0	78	1.0	.03	.09	.08	250
25...	.0	--	54	10	8.0	104	.63	.03	.12	.06	280
JUL											
05...	5.5	--	44	5.0	15	114	.98	.02	.11	2.6	900
31...	1.0	--	70	15	10	136	.71	.03	.13	.07	460
SEP											
18...	1.5	--	72	25	14	448	--	.01	.12	.02	410

CHEMUNG RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,940 ft³/s (253 m³/s) May 14, 1978, gage height 16.17 ft (4.929 m), from rating curve extended above 1,400 ft³/s (39.6 m³/s); 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)
Nov. 4	2215	5,340 151	14.59 4.447	Feb. 10	1730	ice jam	13.47 4.106
Nov. 8	0400	3,060 86.7	13.02 3.968	Mar. 21	1645	4,190 119	13.45 4.100
Nov. 10	2315	3,860 109	13.60 4.145	Mar. 27	1445	4,020 114	13.32 4.060
Jan. 9	0245	7,150 202	15.26 4.651	Apr. 1	2130	3,580 101	12.98 3.956
Jan. 26	1145	3,650 103	13.04 3.975	May 14	1700	*8,940 253	*16.17 4.929

Minimum discharge, 25 ft³/s (0.708 m³/s) July 21, 27, gage height, 7.87 ft (2.399 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	155	601	153	331	105	1960	131	148	48	77	122
2	236	146	371	142	280	104	2120	121	189	44	49	60
3	173	140	309	135	245	103	1170	109	275	48	129	47
4	146	1780	281	130	222	103	1010	100	172	74	367	43
5	122	1770	245	140	206	103	1470	178	130	64	118	37
6	129	699	278	125	195	102	1090	187	108	50	496	33
7	130	1770	238	118	183	102	1420	146	128	43	431	31
8	109	2040	211	300	174	102	1370	126	451	42	378	58
9	222	1030	188	3410	167	101	902	183	327	46	210	53
10	234	1380	177	1020	160	101	713	224	206	48	154	44
11	173	1790	170	690	152	103	708	168	157	50	121	55
12	155	849	165	574	146	108	849	155	134	38	104	56
13	139	607	200	496	141	118	650	158	243	34	86	55
14	128	475	1310	374	136	708	506	3860	152	105	71	42
15	188	401	1190	319	132	1470	392	2460	119	97	63	39
16	495	355	600	279	128	786	327	1600	101	42	62	38
17	894	392	450	261	125	511	279	2130	92	36	55	35
18	760	360	590	236	121	396	243	1350	121	33	48	41
19	808	287	512	210	119	531	250	1070	169	30	44	883
20	1250	253	421	195	117	645	471	719	103	28	42	225
21	1020	239	475	180	115	2120	590	611	99	27	38	135
22	789	224	395	170	114	2450	396	468	97	39	35	106
23	566	208	330	163	113	2300	323	375	75	31	33	81
24	426	206	298	158	112	1670	287	708	65	28	31	66
25	349	190	728	156	110	1040	253	583	59	27	32	58
26	300	197	358	2400	109	1010	225	405	57	28	30	50
27	278	168	274	1930	107	2550	202	329	70	27	28	45
28	244	159	230	1080	106	1970	180	278	84	55	39	42
29	213	148	205	702	---	1710	159	236	64	36	39	38
30	189	169	185	531	---	1370	145	200	52	100	33	35
31	169	---	168	438	---	1200	---	172	---	79	143	---
TOTAL	11180	18587	12153	17215	4366	25792	20660	19540	4247	1477	3586	2653
MEAN	361	620	392	555	156	832	689	630	142	47.6	116	88.4
MAX	1250	2040	1310	3410	331	2550	2120	3860	451	105	496	883
MIN	109	140	165	118	106	101	145	100	52	27	28	31
CFSM	2.36	4.05	2.56	3.63	1.02	5.44	4.50	4.12	.93	.31	.76	.58
IN.	2.72	4.52	2.95	4.19	1.06	6.27	5.02	4.75	1.03	.36	.87	.65

CAL YR 1977	TOTAL	88519	MEAN	243	MAX	2040	MIN	14	CFSM	1.59	IN	21.52
WTR YR 1978	TOTAL	141456	MEAN	388	MAX	3860	MIN	27	CFSM	2.54	IN	34.39

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER NEAR MANSFIELD, PA--Continued

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.

INSTRUMENTATION: Water-quality monitor since October 1976.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	335	271	320	363	356	359	199	120	139	311	271	294
2	274	208	226	366	361	364	161	124	144	308	285	297
3	258	240	251	364	348	355	172	162	169	350	304	328
4	279	257	266	345	112	196	191	172	182	341	268	315
5	309	275	291	338	110	193	214	191	202	316	298	308
6	310	278	300	150	128	139	201	186	192	315	299	311
7	295	260	275	---	---	---	218	198	208	318	310	315
8	317	294	307	---	---	---	236	217	226	---	---	---
9	318	167	260	---	---	---	249	216	228	---	---	---
10	210	166	191	---	---	---	242	221	233	---	---	---
11	235	210	224	---	---	---	269	225	239	---	---	---
12	252	234	243	197	145	171	257	246	253	---	---	---
13	272	250	262	235	198	217	244	207	228	---	---	---
14	292	272	282	252	235	246	209	111	165	---	---	---
15	283	220	244	264	251	257	118	105	111	---	---	---
16	224	157	202	265	255	261	164	118	134	---	---	---
17	190	155	171	263	206	232	169	155	163	---	---	---
18	190	178	183	240	205	220	174	148	162	---	---	---
19	---	---	---	258	238	249	184	153	170	---	---	---
20	---	---	---	266	256	260	195	185	190	---	---	---
21	---	---	---	266	259	263	195	184	189	---	---	---
22	---	---	---	269	259	263	212	194	201	---	---	---
23	250	195	221	272	267	270	223	207	217	---	---	---
24	284	250	267	268	259	263	290	211	227	---	---	---
25	308	284	294	271	262	267	---	---	---	271	252	265
26	318	307	311	270	246	253	---	---	---	250	91	141
27	318	304	311	283	260	274	---	---	---	131	94	106
28	324	310	317	286	278	282	---	---	---	202	132	173
29	344	325	333	290	285	288	292	250	265	240	202	220
30	349	342	345	291	203	269	285	255	269	249	226	238
31	358	348	352	---	---	---	279	259	269	255	232	246
MONTH	358	155	268	366	110	256	292	105	199	350	91	254

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER AT MANSFIELD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	282	245	260	297	274	284	153	77	127	270	258	262
2	271	245	257	294	284	288	---	---	---	283	266	272
3	274	250	263	304	285	294	---	---	---	293	276	282
4	---	---	---	301	290	293	---	---	---	302	289	294
5	---	---	---	---	---	---	---	---	---	296	185	235
6	---	---	---	---	---	---	---	---	---	203	183	192
7	---	---	---	---	---	---	---	---	---	230	202	216
8	---	---	---	---	---	---	122	96	109	240	228	236
9	---	---	---	---	---	---	147	121	135	236	182	212
10	---	---	---	---	---	---	163	146	153	182	156	169
11	---	---	---	283	260	275	165	128	156	204	180	192
12	---	---	---	277	261	271	137	120	128	219	191	198
13	---	---	---	278	266	275	151	136	143	212	200	207
14	---	---	---	267	129	220	175	151	162	---	---	---
15	285	264	273	151	126	139	194	175	185	---	---	---
16	279	256	267	165	150	157	204	193	197	---	---	---
17	275	254	260	200	164	183	214	203	208	---	---	---
18	278	267	275	213	200	207	230	212	221	---	---	---
19	286	268	279	211	160	192	228	192	216	169	131	150
20	297	263	280	178	160	168	192	131	161	194	169	181
21	288	266	275	171	88	133	141	127	133	199	185	191
22	290	272	279	103	92	97	157	140	148	222	197	210
23	287	272	279	125	102	110	170	156	163	241	222	232
24	279	268	273	169	109	142	183	169	175	244	127	187
25	274	265	269	250	169	200	196	183	188	181	137	163
26	276	267	272	249	155	207	215	194	204	209	181	199
27	285	270	279	155	96	120	224	205	215	225	208	218
28	291	272	281	125	105	117	236	222	228	245	224	235
29	---	---	---	141	121	134	247	234	240	---	---	---
30	---	---	---	165	139	158	257	244	249	---	---	---
31	---	---	---	175	150	167	---	---	---	---	---	---
MONTH	297	245	272	304	88	193	257	77	177	302	127	214
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	355	287	317	304	235	266
2	---	---	---	---	---	---	432	356	388	384	305	339
3	---	---	---	---	---	---	455	219	396	426	385	407
4	---	---	---	---	---	---	213	125	164	471	425	448
5	---	---	---	---	---	---	281	203	245	515	471	487
6	---	---	---	---	---	---	290	148	217	550	516	529
7	---	---	---	---	---	---	206	157	174	571	550	559
8	---	---	---	---	---	---	206	173	186	596	348	473
9	---	---	---	---	---	---	272	206	248	438	348	403
10	---	---	---	---	---	---	313	271	291	469	365	444
11	---	---	---	---	---	---	354	313	335	420	350	396
12	---	---	---	---	---	---	380	351	365	415	341	382
13	---	---	---	545	507	528	411	373	391	416	377	393
14	---	---	---	556	153	509	447	410	424	454	400	420
15	273	225	249	373	256	313	473	444	455	494	456	475
16	291	253	271	463	374	421	479	450	466	498	481	488
17	286	273	279	507	460	484	499	458	473	513	495	504
18	---	---	---	541	507	520	530	494	507	516	389	478
19	---	---	---	566	541	552	543	517	530	374	122	153
20	---	---	---	587	566	578	564	536	548	211	155	185
21	---	---	---	600	577	591	589	561	569	253	211	233
22	---	---	---	608	536	568	602	582	593	292	247	269
23	---	---	---	560	541	548	619	600	608	326	292	308
24	---	---	---	585	559	570	629	613	621	353	326	338
25	---	---	---	633	584	600	630	618	623	382	353	363
26	---	---	---	604	582	596	637	619	628	412	378	391
27	---	---	---	612	528	597	642	630	636	443	406	419
28	---	---	---	578	393	474	643	408	561	457	429	438
29	---	---	---	502	465	489	553	427	505	476	447	457
30	---	---	---	509	282	363	565	548	555	485	468	475
31	---	---	---	372	303	352	558	237	411	---	---	---
MONTH	291	225	266	633	153	508	643	125	433	596	122	397

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER AT MANSFIELD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	4.8	4.1	4.2	4.0	3.9	3.9	6.6	5.3	5.7	4.4	4.2	4.3
2	4.7	4.6	4.7	3.9	3.9	3.9	5.4	5.2	5.3	4.3	4.2	4.2
3	4.7	4.5	4.6	4.0	3.9	3.9	5.4	5.4	5.4	4.3	4.1	4.1
4	4.6	4.4	4.5	6.6	4.0	5.8	5.4	5.3	5.4	4.9	4.1	4.2
5	4.4	4.2	4.3	7.3	6.1	6.6	5.3	5.1	5.3	4.3	4.1	4.2
6	4.5	4.1	4.3	6.1	5.7	5.9	5.4	5.3	5.4	4.2	4.1	4.2
7	4.4	4.3	4.4	---	---	---	5.4	5.3	5.3	4.2	4.1	4.1
8	4.3	4.1	4.2	---	---	---	5.4	5.2	5.3	6.7	4.1	4.9
9	5.2	4.1	4.6	---	---	---	5.4	4.9	5.2	6.7	5.5	5.8
10	5.2	5.0	5.1	---	---	---	5.4	5.3	5.3	---	---	---
11	5.0	4.8	4.9	---	---	---	5.9	5.1	5.3	---	---	---
12	4.8	4.5	4.7	4.9	4.4	4.7	5.1	4.6	4.9	---	---	---
13	4.5	4.4	4.5	4.4	4.2	4.3	5.4	4.7	4.9	---	---	---
14	4.4	4.3	4.4	4.3	4.2	4.2	6.8	5.4	6.1	---	---	---
15	5.1	4.4	4.9	4.3	4.1	4.2	6.7	6.3	6.5	---	---	---
16	6.8	4.7	5.8	4.3	4.1	4.1	6.5	6.0	6.2	---	---	---
17	7.0	6.6	6.8	5.0	4.1	4.5	6.4	5.5	6.0	---	---	---
18	7.0	6.6	6.8	4.8	4.3	4.5	6.4	5.4	5.8	---	---	---
19	---	---	---	4.3	4.2	4.3	6.1	5.7	5.8	---	---	---
20	---	---	---	4.3	4.2	4.2	5.8	5.5	5.6	---	---	---
21	---	---	---	4.2	4.1	4.2	5.8	5.5	5.7	---	---	---
22	---	---	---	4.3	4.2	4.3	6.0	5.5	5.7	---	---	---
23	4.4	4.1	4.3	4.3	4.2	4.2	6.1	5.6	5.9	---	---	---
24	4.2	4.1	4.1	4.3	4.2	4.2	6.8	5.4	5.8	---	---	---
25	4.3	4.0	4.0	4.3	4.2	4.2	---	---	---	4.7	4.4	4.5
26	4.1	4.0	4.0	4.7	4.2	4.5	---	---	---	6.1	4.7	5.6
27	4.1	4.0	4.0	4.4	4.2	4.3	---	---	---	5.8	5.3	5.6
28	4.1	4.0	4.0	4.3	4.2	4.2	---	---	---	5.3	4.6	5.0
29	4.0	4.0	4.0	4.2	4.2	4.2	6.5	4.2	4.8	4.6	4.3	4.5
30	4.0	3.9	4.0	5.5	4.2	4.5	4.5	4.3	4.4	4.5	4.2	4.3
31	4.0	3.9	4.0	---	---	---	4.6	4.3	4.4	4.5	4.2	4.3
MONTH	7.0	3.9	4.6	7.3	3.9	4.5	6.8	4.2	5.5	6.7	4.1	4.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.4	4.1	4.3	4.8	4.5	4.7	4.9	4.4	4.6	4.2	4.1	4.2
2	4.4	4.2	4.3	4.8	4.5	4.7	---	---	---	4.2	4.1	4.1
3	4.4	4.2	4.2	4.9	4.6	4.7	---	---	---	4.1	4.0	4.1
4	---	---	---	4.7	4.5	4.6	---	---	---	4.1	4.0	4.1
5	---	---	---	---	---	---	---	---	---	4.8	4.0	4.5
6	---	---	---	---	---	---	---	---	---	4.8	4.5	4.7
7	---	---	---	---	---	---	---	---	---	4.5	4.3	4.4
8	---	---	---	---	---	---	4.9	4.6	4.7	4.5	4.3	4.4
9	---	---	---	---	---	---	4.8	4.4	4.6	4.8	4.3	4.6
10	---	---	---	---	---	---	4.6	4.3	4.5	4.8	4.6	4.7
11	---	---	---	5.2	5.1	5.1	4.6	4.3	4.4	4.6	4.3	4.5
12	---	---	---	5.3	5.2	5.2	4.8	4.5	4.6	4.4	4.3	4.4
13	---	---	---	5.7	5.3	5.4	4.7	4.5	4.6	4.5	4.3	4.4
14	---	---	---	6.7	5.7	6.1	4.7	4.4	4.5	---	---	---
15	4.7	4.4	4.5	6.7	6.5	6.6	4.5	4.3	4.4	---	---	---
16	4.7	4.4	4.6	6.7	5.7	6.2	4.4	4.3	4.4	---	---	---
17	4.7	4.5	4.6	5.7	5.4	5.5	4.4	4.3	4.3	---	---	---
18	4.7	4.6	4.6	5.4	5.3	5.4	4.4	4.2	4.3	---	---	---
19	4.8	4.6	4.7	6.5	5.4	5.8	4.4	4.1	4.2	5.1	4.6	4.9
20	5.0	4.6	4.8	6.4	5.9	6.2	5.7	4.5	5.1	4.9	4.5	4.7
21	4.8	4.6	4.7	6.9	5.9	6.4	5.8	5.1	5.3	4.9	4.4	4.7
22	4.9	4.6	4.8	6.4	5.8	6.1	5.2	4.8	5.0	4.7	4.4	4.5
23	4.8	4.4	4.7	6.0	5.3	5.6	5.0	4.6	4.8	4.5	4.3	4.4
24	4.8	4.5	4.7	5.4	4.6	5.0	4.8	4.5	4.7	5.5	4.3	4.8
25	4.7	4.6	4.6	4.6	4.1	4.4	4.7	4.4	4.5	5.1	4.6	4.9
26	4.7	4.6	4.6	5.3	4.1	4.6	4.5	4.3	4.4	4.8	4.5	4.6
27	4.7	4.6	4.7	6.0	5.2	5.6	4.6	4.2	4.3	4.6	4.3	4.5
28	4.8	4.6	4.7	5.5	5.0	5.2	4.3	4.2	4.2	4.4	4.2	4.3
29	---	---	---	5.0	4.6	4.9	4.3	4.1	4.2	---	---	---
30	---	---	---	4.7	4.4	4.5	4.3	4.1	4.2	---	---	---
31	---	---	---	4.6	4.4	4.4	---	---	---	---	---	---
MONTH	5.0	4.1	4.6	6.9	4.1	5.3	5.8	4.1	4.5	5.5	4.0	4.5

CHEMUNG RIVER BASIN

01516350 TIOGA RIVER AT MANSFIELD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	4.6	4.0	4.3	5.0	4.4	4.8
2	---	---	---	---	---	---	4.0	3.8	3.9	4.7	4.2	4.5
3	---	---	---	---	---	---	6.1	3.7	4.2	4.2	4.0	4.1
4	---	---	---	---	---	---	4.8	4.5	4.7	4.0	3.8	3.9
5	---	---	---	---	---	---	4.7	4.3	4.5	3.9	3.7	3.8
6	---	---	---	---	---	---	6.7	4.3	5.4	3.8	3.7	3.7
7	---	---	---	---	---	---	5.4	5.1	5.2	3.7	3.7	3.7
8	---	---	---	---	---	---	5.1	4.8	5.0	4.8	3.7	4.2
9	---	---	---	---	---	---	4.9	4.8	4.9	4.8	4.1	4.5
10	---	---	---	---	---	---	4.8	4.5	4.7	4.8	3.9	4.1
11	---	---	---	---	---	---	4.5	4.3	4.4	5.0	4.5	4.7
12	---	---	---	---	---	---	4.3	4.1	4.2	5.1	4.4	4.7
13	---	---	---	3.7	3.6	3.7	4.2	4.0	4.1	4.9	4.5	4.7
14	---	---	---	6.5	3.6	3.8	4.1	3.9	4.0	4.5	4.1	4.3
15	4.6	4.4	4.5	4.7	4.4	4.5	3.9	3.9	3.9	4.1	3.8	4.0
16	4.4	4.2	4.3	4.4	4.0	4.2	3.9	3.8	3.9	3.9	3.8	3.9
17	4.2	4.2	4.2	4.0	3.8	3.9	3.9	3.8	3.9	3.8	3.8	3.8
18	---	---	---	3.9	3.7	3.8	3.8	3.8	3.8	4.3	3.8	4.0
19	---	---	---	3.8	3.7	3.7	3.8	3.7	3.8	6.5	4.4	5.6
20	---	---	---	3.7	3.6	3.7	3.8	3.7	3.7	5.6	4.8	5.2
21	---	---	---	3.7	3.6	3.6	3.7	3.7	3.7	5.0	4.9	4.9
22	---	---	---	3.7	3.6	3.7	3.7	3.6	3.7	5.2	5.0	5.0
23	---	---	---	3.7	3.7	3.7	3.6	3.6	3.6	5.0	4.7	4.9
24	---	---	---	3.7	3.6	3.6	3.6	3.6	3.6	4.7	4.4	4.6
25	---	---	---	3.6	3.6	3.6	3.6	3.6	3.6	4.5	4.2	4.4
26	---	---	---	3.6	3.6	3.6	3.6	3.6	3.6	4.2	4.0	4.2
27	---	---	---	3.8	3.6	3.6	3.6	3.6	3.6	4.1	3.9	4.0
28	---	---	---	4.1	3.6	3.9	4.6	3.6	3.9	4.0	3.8	3.9
29	4.3	4.0	4.1	3.9	3.7	3.8	4.6	3.8	4.1	3.9	3.8	3.9
30	5.9	3.9	4.1	4.3	3.6	4.0	3.8	3.7	3.8	3.9	3.8	3.8
31	---	---	---	4.6	4.0	4.2	4.9	3.7	4.3	---	---	---
MONTH	5.9	3.9	4.2	6.5	3.6	3.8	6.7	3.6	4.1	6.5	3.7	4.3

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

CHEMUNG RIVER BASIN

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01516350 TIOGA RIVER AT MANSFIELD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	28.0	19.5	24.0	27.0	17.0	21.0	25.0	16.0	20.0
2	23.0	16.0	19.0	26.5	18.5	22.5	27.5	19.0	23.0	25.0	16.0	20.0
3	---	---	---	---	---	---	26.0	20.5	23.0	20.0	16.5	18.5
4	---	---	---	---	---	---	22.0	18.5	20.0	24.0	17.0	19.5
5	---	---	---	---	---	---	21.5	17.0	19.5	24.0	15.5	20.0
6	---	---	---	---	---	---	20.5	18.5	19.5	28.0	18.0	22.5
7	---	---	---	---	---	---	21.0	17.5	19.0	23.5	19.5	22.0
8	---	---	---	---	---	---	22.0	17.5	19.5	19.5	17.0	17.5
9	---	---	---	---	---	---	24.0	16.5	20.0	22.0	16.0	18.5
10	---	---	---	---	---	---	23.5	18.0	20.5	18.0	13.5	15.5
11	---	---	---	---	---	---	21.5	17.0	19.0	20.5	14.5	17.0
12	---	---	---	---	---	---	24.5	18.0	21.0	19.5	16.0	18.0
13	---	---	---	27.0	16.0	21.5	26.5	19.0	22.5	21.0	14.0	17.0
14	---	---	---	29.0	17.5	23.0	27.5	18.0	22.5	19.5	14.5	17.0
15	23.5	10.5	17.0	28.0	17.0	22.0	27.5	19.5	23.5	22.0	15.0	17.5
16	23.5	12.5	18.0	27.5	19.5	23.0	27.5	21.0	24.0	21.0	16.0	18.0
17	20.5	16.5	18.0	25.0	19.5	22.0	28.0	20.5	24.0	18.0	14.5	16.5
18	29.5	16.5	21.0	29.0	18.5	23.0	28.0	19.0	23.0	22.0	16.5	19.0
19	---	---	---	29.0	18.5	23.5	28.5	19.0	23.5	20.5	16.5	17.5
20	---	---	---	30.5	20.5	25.0	24.5	19.0	21.5	21.5	15.5	18.5
21	---	---	---	31.5	22.5	26.0	26.0	16.0	20.5	23.5	17.5	20.0
22	---	---	---	30.5	22.5	26.0	27.0	16.5	21.5	20.5	14.0	17.0
23	---	---	---	32.0	23.5	27.0	27.5	17.5	22.0	19.0	12.0	15.0
24	---	---	---	28.5	21.5	25.0	28.5	19.0	23.5	18.5	12.0	15.0
25	---	---	---	23.5	19.5	21.0	26.5	21.5	23.5	18.0	13.0	15.0
26	---	---	---	27.0	18.5	22.0	27.5	19.0	22.5	18.5	11.0	14.0
27	---	---	---	27.5	21.0	24.0	24.5	18.5	21.5	18.0	10.5	14.0
28	---	---	---	24.0	20.0	22.0	24.0	20.5	22.0	18.0	12.5	15.0
29	26.5	17.5	22.0	23.0	17.5	20.0	27.0	20.5	23.0	17.0	9.0	12.5
30	26.0	18.0	22.0	23.0	18.0	20.0	26.0	20.0	22.5	17.5	10.0	13.0
31	---	---	---	19.0	16.0	17.0	21.5	17.0	18.5	---	---	---
MONTH	29.5	10.5	19.5	32.0	16.0	23.0	28.5	16.0	21.5	28.0	9.0	17.5

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) National Geodetic Vertical Datum of 1929. 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.--24 years, 12.6 ft³/s (0.357 m³/s), 13.99 in/yr (355 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)
Nov. 4	2230	920 26.0	5.91 1.801	Jan. 26	0715	ice jam	5.37 1.637
Nov. 7	1100	339 9.60	4.28 1.305	Mar. 21	1545	606 17.2	5.16 1.573
Nov. 10	2245	401 11.4	4.51 1.375	Mar. 27	1215	401 11.4	4.51 1.375
Dec. 14	1630	ice jam	4.18 1.274	May 14	1445	*860 24.4	*5.79 1.765
Jan. 9	0230	676 19.1	5.34 1.628				

Minimum discharge, 0.59 ft³/s (0.017 m³/s) July 19, 20, 21, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.6	49	12	28	2.6	73	6.8	6.5	1.8	2.2	7.2
2	6.5	7.1	23	11	25	2.5	73	6.5	6.9	2.0	1.4	2.8
3	5.6	6.7	21	10	22	2.4	43	6.1	9.5	2.3	27	2.6
4	4.7	134	19	9.8	19	2.3	48	5.8	6.7	3.8	11	2.2
5	4.0	121	16	11	17	2.2	56	9.8	5.4	2.5	4.3	1.6
6	5.1	53	14	9.7	16	2.2	45	9.3	4.3	2.0	86	1.5
7	4.4	157	13	9.2	14	2.1	52	8.3	9.0	1.6	30	1.4
8	3.9	149	13	74	13	2.1	47	8.3	16	2.0	22	2.0
9	8.1	73	12	204	11	2.2	33	11	9.9	1.8	13	1.9
10	6.9	125	12	47	10	2.4	27	10	6.5	1.5	7.6	1.9
11	5.5	129	11	33	9.2	2.7	29	9.5	4.9	1.3	5.9	2.3
12	5.0	61	11	27	8.3	3.1	32	8.8	5.5	1.1	4.6	5.9
13	4.5	44	11	23	7.6	12	24	9.9	23	1.0	3.2	3.4
14	4.3	34	123	20	6.9	105	19	239	7.4	.96	2.6	2.2
15	6.7	28	131	18	6.4	181	15	114	5.4	.94	2.2	1.9
16	35	24	61	16	5.9	77	13	102	4.4	.84	2.8	1.6
17	58	30	43	15	5.4	44	11	121	3.9	.87	2.0	1.6
18	67	24	68	14	5.0	33	9.9	93	6.4	.80	1.9	2.0
19	98	18	49	12	4.7	54	11	66	9.1	.66	1.6	22
20	123	16	39	12	4.4	59	26	42	5.0	.62	1.5	6.5
21	72	15	50	11	4.1	252	29	37	26	.88	1.4	6.2
22	50	14	38	10	3.9	169	18	25	16	1.7	1.1	7.2
23	34	13	29	10	3.6	136	15	20	9.0	.90	1.0	4.1
24	26	12	28	9.7	3.4	77	14	46	4.6	.79	.93	3.4
25	21	11	91	9.5	3.2	48	12	27	3.5	.87	1.0	2.8
26	17	13	33	170	3.0	68	11	21	3.2	.90	.93	2.6
27	15	11	25	146	2.9	180	9.7	20	3.9	1.7	.75	2.2
28	13	9.5	21	99	2.7	102	8.6	18	3.8	2.9	3.8	2.0
29	11	8.7	18	71	---	79	7.7	16	2.3	1.4	2.2	1.9
30	9.5	14	15	56	---	58	7.4	9.6	2.5	2.6	1.6	1.6
31	8.3	---	14	35	---	49	---	7.8	---	3.3	15	---
TOTAL	738.4	1362.6	1101	1214.9	265.6	1811.8	819.3	1134.5	230.5	48.33	262.51	108.5
MEAN	23.8	45.4	35.5	39.2	9.49	58.4	27.3	36.6	7.68	1.56	8.47	3.62
MAX	123	157	131	204	28	252	73	239	26	3.8	86	22
MIN	3.9	6.7	11	9.2	2.7	2.1	7.4	5.8	2.3	.62	.75	1.4
CFSM	1.95	3.72	2.91	3.21	.78	4.79	2.24	3.00	.63	.13	.69	.30
IN.	2.25	4.15	3.36	3.70	.81	5.52	2.50	3.46	.70	.15	.80	.33

CAL YR 1977 TOTAL 5853.07 MEAN 16.0 MAX 157 MIN .24 CFSM 1.31 IN 17.85
WTR YR 1978 TOTAL 9097.94 MEAN 24.9 MAX 252 MIN .62 CFSM 2.04 IN 27.74

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 September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT 27...	1000	320	270	4.4	10.5	10.8	96	K2	52	86	86
MAR 24...	1020	1780	135	5.3	2.0	13.3	96	0	190	44	41
MAY 25...	0955	653	165	5.1	13.0	10.4	98	<1	K2	56	55
JUN 28...	0955	104	325	4.5	21.5	9.0	101	<1	K5	120	120
JUL 25...	0950	30	515	4.0	21.0	9.4	104	<1	K10	190	190
AUG 24...	1030	36	505	3.8	21.5	8.7	98	<1	<1	210	210
SEP 27...	0955	51	335	4.8	12.0	10.7	99	<1	K3	150	150

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)
OCT 27...	.6	31	18	10	2.6	6	.1	1.4	0	0	0
MAR 24...	.4	18	10	4.5	2.6	11	.2	1.2	4	0	3
MAY 25...	.3	17	13	5.6	3.2	11	.2	1.6	1	0	1
JUN 28...	.9	46	26	13	5.4	9	.2	2.0	0	0	0
JUL 25...	1.2	59	39	22	7.3	8	.2	2.3	0	0	0
AUG 24...	1.9	94	44	25	7.0	7	.2	2.4	0	0	0
SEP 27...	.8	39	30	19	5.2	7	.2	1.7	2	0	2

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	.0	110	3.4	.51	.00	.51	.08	.19	.27	.00	.00
MAR 24...	29	47	3.2	.54	.00	.54	.07	.23	.30	.00	.00
MAY 25...	13	59	4.2	.34	.00	.34	.04	.25	.29	.00	.00
JUN 28...	.0	130	9.5	.54	.00	.54	.01	.25	.26	.01	.01
JUL 25...	.0	250	11	.37	.00	.37	.05	.11	.16	.00	.00
AUG 24...	.0	250	11	.49	.00	.49	.17	.11	.28	.03	.02
SEP 27...	51	170	8.6	.40	.00	.40	.12	.00	.12	.00	.00

01516820 TIOGA RIVER AT LAMBS CREEK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT CHARGE, SUS- PENDE (T/DAY)
OCT 27...	4000	27	340	3600	340	--	--	--	20	17
MAR 24...	1000	16	350	1300	150	160	.000	.000	54	260
MAY 25...	220	10	180	1800	170	110	.000	.000	39	69
JUN 28...	2700	23	130	4300	730	1700	.000	.000	28	7.9
JUL 25...	8000	38	290	7400	1700	5000	7.17	1.92	E0	--
AUG 24...	8000	2	510	8100	1600	10000	.000	.000	E1	--
SEP 27...	5100	19	220	5500	1000	460	.000	.000	11	1.5

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 1020	MAY 25,78 0955	JUN 28,78 0955	JUL 25,78 0950	AUG 24,78 1030	SEP 27,78 0955
TOTAL CELLS/ML	160	110	1700	5000	10000	460
DIVERSITY: DIVISION	1.3	0.0	1.1	0.7	0.1	0.5
..CLASS	1.3	0.0	1.1	0.7	0.1	0.5
..ORDER	1.3	0.0	1.1	0.8	0.1	0.5
..FAMILY	1.9	1.8	1.6	0.8	0.1	0.7
....GENUS	1.9	1.8	1.9	0.8	0.1	0.7

ORGANISM	CELLS /ML	PER- CENT	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												
...OOCYSTACEAE												
....ANKISTRODESMS	--	-	--	-	--	-	* 0	--	-	--	-	
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	59 1	--	-	--	-	
...VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	22 1	--	-	* 0	--	-	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISCACEAE												
....MELOSIRA	--	-	--	-	--	-	670 13	--	-	--	-	
...PENNALES												
....ACHNANTHACEAE												
...ACHNANTHES	--	-	--	-	--	-	--	-	--	-	22 5	
...CYMBELLACEAE												
....CYMBELLA	--	-	32# 29		160 9		44 1	--	-	--	-	
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	560# 32		--	-	67 1	--	-	
...FRAGILARIACEAE												
....SYNEDRA	14 8		--	-	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEMA	14 8		16 14		--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	14 8		48# 43		22 1		* 0		* 0		22 5	
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	22 1		--	-	--	-	11 2	
...SURIPELLACEAE												
....SURIPELLA	14 8		16 14		--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...HORMOGONALES												
...OSCILLATORIACEAE												
....LYNGBYA	95# 58		--	-	800# 47		--	-	9900# 99		--	-
...OSCILLATORIA	--	-	--	-	130 8		4200# 84		--	-	400# 88	
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	14 8		--	-	--	-	--	-	--	-	--	-

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

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

CHEMUNG RIVER BASIN

27

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 September 1978 (discontinued).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 1,385.05 ft (422.163 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 29, 1956, nonrecording gage and crest-stage gage at bridge 250 ft (76 m) upstream at same datum.

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

AVERAGE DISCHARGE.--24 years, 11.0 ft³/s (0.312 m³/s), 14.67 in/yr (373 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)
Nov. 4	2200	450 12.7	2.41 0.735	Mar. 14	2300	260 7.36	1.95 0.594
Nov. 7	1000	385 10.9	2.27 0.692	Mar. 21	1530	500 14.2	2.51 0.765
Nov. 10	2230	343 9.71	2.17 0.661	Mar. 27	1230	372 10.5	2.24 0.683
Jan. 9	0200	678 19.2	2.85 0.869	May 14	1400	*1,050 29.7	*3.42 1.042
Jan. 26	1200	335 9.49	2.15 0.655	May 16	2030	339 9.60	2.16 0.658

Minimum discharge, 0.05 ft³/s (0.001 m³/s) July 21, gage height, 0.05 ft (0.015 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	5.4	35	9.4	40	2.0	70	5.8	5.4	1.0	1.9	5.8
2	4.0	5.1	16	8.6	32	1.9	66	5.4	5.4	.92	1.0	2.5
3	3.3	4.8	14	7.8	26	1.9	36	4.8	7.0	1.1	22	2.0
4	2.7	74	13	7.4	22	1.8	45	4.5	5.1	4.8	9.6	1.8
5	2.0	66	9.2	7.9	19	1.8	51	9.4	4.2	2.4	4.0	1.3
6	3.1	33	11	7.4	16	1.7	39	8.7	3.1	1.5	73	1.1
7	2.7	160	10	7.0	14	1.7	46	7.0	7.8	1.2	34	.98
8	2.2	134	9.6	75	12	1.7	38	6.6	12	1.5	24	1.4
9	3.7	58	9.2	208	11	1.8	27	8.3	7.4	1.3	13	1.4
10	4.2	110	8.9	38	9.6	1.9	21	7.9	4.8	.98	9.2	1.3
11	3.3	94	8.6	26	8.2	2.0	24	6.6	3.5	.86	7.0	1.8
12	2.9	45	8.4	21	7.2	2.4	27	5.8	3.1	.70	5.8	1.9
13	2.5	31	8.2	18	6.4	4.1	20	6.6	15	.65	4.5	2.0
14	2.5	22	91	16	5.7	85	16	249	5.1	.57	3.3	1.3
15	3.7	19	98	14	5.2	158	13	114	3.3	.53	2.5	1.1
16	15	16	52	13	4.5	54	12	112	2.7	.49	2.0	1.0
17	30	22	35	12	4.2	31	11	113	2.4	.40	1.6	.98
18	37	16	50	10	4.0	21	9.6	79	4.0	.34	1.3	1.3
19	66	13	34	9.5	3.5	34	11	56	6.6	.13	1.3	6.6
20	89	12	30	8.8	3.3	39	25	35	3.3	.09	1.2	3.1
21	51	11	31	8.2	3.1	218	25	31	19	.19	1.0	2.5
22	35	10	25	7.8	2.9	166	16	20	9.2	.80	.92	4.2
23	22	9.6	20	7.5	2.7	135	14	16	5.5	.53	.80	2.5
24	16	9.2	20	7.2	2.5	74	13	39	3.5	.40	.75	1.9
25	14	8.3	74	7.0	2.4	45	11	21	2.5	.25	.70	1.6
26	12	9.6	28	192	2.3	54	10	16	2.2	.40	.70	1.4
27	10	7.0	21	132	2.2	159	9.2	14	2.2	.62	.61	1.3
28	9.2	7.0	18	108	2.1	94	8.3	12	1.8	3.1	2.7	1.2
29	7.9	6.6	15	82	---	76	7.0	9.2	1.5	1.2	1.8	1.0
30	6.6	10	13	65	---	54	6.2	7.9	1.4	1.7	1.3	.92
31	5.8	---	11	50	---	45	---	6.2	---	1.9	9.2	---
TOTAL	472.4	1028.6	827.1	1191.5	274.0	1568.7	727.3	1037.7	160.0	32.55	242.68	59.18
MEAN	15.2	34.3	26.7	38.4	9.79	50.6	24.2	33.5	5.33	1.05	7.83	1.97
MAX	89	160	98	208	40	218	70	249	19	4.8	73	6.6
MIN	2.0	4.8	8.2	7.0	2.1	1.7	6.2	4.5	1.4	.09	.61	.92
CFSM	1.49	3.36	2.62	3.77	.96	4.96	2.37	3.28	.52	.10	.77	.19
IN.	1.72	3.75	3.02	4.35	1.00	5.72	2.65	3.78	.58	.12	.88	.22

CAL YR 1977 TOTAL 4456.98 MEAN 12.2 MAX 160 MIN .00 CFSM 1.20 IN 16.25
WTR YR 1978 TOTAL 7621.71 MEAN 20.9 MAX 249 MIN .09 CFSM 2.05 IN 27.79

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 September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT 27...	1120	78	140	7.9	11.0	11.6	105	67	240	57	21
FEB 09...	0955	E110	125	7.5	.0	14.6	100	K4	--	56	24
MAR 24...	1155	E150	79	7.2	2.5	13.3	95	21	840	30	14
MAY 25...	1120	153	115	8.8	16.5	11.0	112	270	120	44	8
JUN 28...	1130	20	185	8.5	23.0	9.4	108	95	71	74	10
JUL 25...	1215	7.4	193	8.9	21.0	10.0	111	110	150	84	3
AUG 24...	1215	8.0	190	8.8	24.5	10.1	119	53	120	88	16
SEP 27...	1115	8.8	190	8.6	15.0	12.0	118	K7	K19	61	0

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)
OCT 27...	.0	1.0	18	2.9	3.2	11	.2	1.9	44	0	36
FEB 09...	.0	1.0	18	2.7	3.4	11	.2	1.4	39	0	32
MAR 24...	.1	4.0	9.2	1.6	2.2	13	.2	1.4	20	0	16
MAY 25...	.0	.0	14	2.3	2.6	11	.2	1.7	40	2	36
JUN 28...	.0	.0	24	3.5	4.1	10	.2	2.2	76	1	64
JUL 25...	.0	.0	27	4.0	4.5	10	.2	2.3	91	4	81
AUG 24...	.0	.0	28	4.4	4.3	9	.2	2.2	78	5	72
SEP 27...	.0	.0	16	5.1	5.0	15	.3	2.0	82	7	79

CHEMUNG RIVER BASIN

29

01517500 MILL CREEK NEAR TIOGA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	.9	20	5.0	.35	.00	.35	.00	.39	.39	.00	.00
FEB 09...	2.0	17	4.9	.77	.00	.77	.00	.21	.21	.00	.00
MAR 24...	2.0	15	2.4	.60	.00	.60	.06	.41	.47	.02	.01
MAY 25...	.1	14	3.8	.18	.00	.18	.00	.40	.40	.01	.00
JUN 28...	.4	15	6.5	.24	.01	.25	.00	.31	.31	.06	.02
JUL 25...	.2	16	6.4	.01	.00	.01	.00	.12	.12	.00	.00
AUG 24...	.2	16	6.3	.00	.00	.00	.00	.26	.26	.01	.00
SEP 27...	.3	16	8.5	.00	.00	.00	.03	.00	.03	.00	.00

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 27...	220	1	40	30	0	--	--	--	0	.00
FEB 09...	20	0	420	10	10	--	--	--	E0	--
MAR 24...	30	4	30	40	10	82	.000	.000	29	--
MAY 25...	50	3	40	20	10	450	.000	.000	3	1.2
JUN 28...	50	1	10	20	10	870	.000	.000	4	.22
JUL 25...	40	0	0	10	30	880	1.55	.141	3	.06
AUG 24...	30	2	0	0	0	380	.000	.000	E4	--
SEP 27...	30	1	0	0	70	1200	.000	.000	4	.10

CHEMUNG RIVER BASIN

01517500 MILL CREEK NEAR TIOGA, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 1155	MAY 25,78 1120	JUN 28,78 1130	JUL 25,78 1215	AUG 24,78 1215	SEP 27,78 1115				
TOTAL CELLS/ML	82	450	870	880	380	1200				
DIVERSITY: DIVISION	0.0	0.5	1.1	1.0	0.3	1.4				
..CLASS	0.0	0.5	1.1	1.0	0.3	1.4				
...ORDFR	0.0	0.5	1.2	1.6	0.3	1.6				
....FAMILY	1.5	2.5	2.2	2.4	2.2	2.4				
.....GENUS	1.5	2.5	2.2	2.6	2.2	2.6				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT		
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....HYDRODICTYACEAE										
.....PEDIASTRUM	--	-	--	-	180# 20	--	-	--	-	
.....OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	58 7	--	-	86 7		
....QUADRIGULA	--	-	--	-	--	-	--	-	100 9	
....SCENEDESMACEAE										
.....CRUCIGENIA	--	-	--	-	59 7	--	-	--	-	
....SCENEDESMUS	--	-	--	-	230# 27	--	-	420# 36		
...VOLVOCALES										
....CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	14 2	--	-	22 6	--	-
...ZYGNEMATALES										
....DESMIDIACEAE										
.....COSMARIMUM	--	-	--	-	29 3	--	-	29 2		
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCACEAE										
.....MELOSIRA	--	-	--	-	220# 25	--	-	--	-	
...PENNALES										
....ACHNANTHACEAE										
.....ACHNANTHES	--	-	32 7	43 5	--	-	--	-	43 4	
....COCCONEIS	--	-	--	-	--	-	--	-	43 4	
....CYMBELLACEAE										
.....CYMBELLA	--	-	110# 25	430# 50	73 8	180# 47	190# 16			
....DIATOMACEAE										
.....DIATOMA	--	-	--	-	--	-	22 6	--	-	
....FRAGILARIACEAE										
.....SYNEDRA	14# 17	80# 18	--	-	--	-	--	-	14 1	
....GOMPHONEMATACEAE										
.....GOMPHONEMA	--	-	--	-	29 3	44 5	45 12	--	-	
....MERIDIONACEAE										
.....MERIDION	27# 33	--	-	--	-	--	-	--	-	
....NAVICULACEAE										
.....NAVICULA	41# 50	80# 18	29 3	--	-	67# 18	14 1			
....NITZSCHACEAE										
.....NITZSCHIA	--	-	--	-	87 10	44 5	45 12	--	-	
....SURIRELLACEAE										
.....SURIRELLA	--	-	96# 21	--	-	--	-	--	-	
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCOCCALES										
....CHROCOCCOCCAEAE										
.....ANACYSTIS	--	-	48 11	--	-	--	-	230# 20		
....HORMOGONALES										
.....OSCILLATORIACEAE										
.....OSCILLATORIA	--	-	--	-	170# 20	--	-	--	-	

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

31

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 and 0.9 mi downstream from Tioga Lake.

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) National Geodetic Vertical Datum of 1929. 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, which are fair. Discharges include flow diverted from Crooked Creek into Tioga River since Oct. 1, 1977.

AVERAGE DISCHARGE.--39 years (water years 1939-77), 331 ft³/s (9.374 m³/s), 15.89 in/yr (404 mm/yr), prior to inflow diverted from Crooked Creek.

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, 14,300 ft³/s (405 m³/s) Nov. 4, gage height, 8.84 ft (2.694 m); minimum daily discharge, 60 ft³/s (1.70 m³/s) July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	268	2010	390	742	237	3310	337	275	92	131	223
2	418	253	1210	365	620	234	4160	316	264	89	92	119
3	310	247	888	340	530	232	2470	295	581	89	98	100
4	266	2800	801	320	472	230	2030	274	401	138	520	90
5	224	7720	661	370	430	229	2730	417	301	134	194	79
6	215	2560	749	330	400	228	1970	452	257	104	938	69
7	224	4400	646	310	380	226	2410	370	233	90	1020	62
8	193	5660	576	733	365	239	2350	340	638	86	708	73
9	297	3070	529	8360	350	249	1650	416	570	142	384	110
10	402	2780	497	2550	340	255	1310	454	396	97	269	85
11	284	5260	460	1370	330	283	1150	380	308	92	214	106
12	250	2530	450	1050	325	308	1380	354	258	79	189	111
13	226	1580	500	880	320	324	1100	357	432	71	302	124
14	209	1190	2000	748	313	986	894	7250	304	71	158	98
15	297	1010	5120	672	305	4110	730	4860	233	244	129	84
16	812	871	2540	590	297	2560	640	3320	200	101	115	80
17	2070	955	1600	540	292	1390	562	4340	178	81	104	76
18	1780	969	1890	481	287	1030	493	2560	176	73	92	88
19	1810	742	1820	430	281	1260	505	1790	357	70	86	710
20	2370	653	1320	405	274	1730	906	1160	223	69	83	380
21	1700	611	1390	370	269	4230	1280	1020	195	68	76	239
22	1260	585	1180	350	264	7320	862	773	307	74	71	206
23	918	544	957	335	260	5860	706	631	181	73	70	163
24	701	523	856	325	257	4860	634	1150	144	70	68	136
25	586	490	1970	320	253	2920	570	896	129	66	66	121
26	509	512	1070	3860	249	2280	515	639	119	63	64	108
27	464	452	724	4380	244	5280	472	530	119	60	63	97
28	414	426	606	2480	240	4320	425	460	144	86	65	90
29	359	405	530	1420	---	3720	387	400	121	76	83	84
30	324	464	480	1050	---	2910	366	311	102	117	70	80
31	290	---	440	887	---	2460	---	306	---	110	143	---
TOTAL	20424	50530	36470	37011	9689	62500	38967	37158	8146	2875	6665	4191
MEAN	659	1684	1176	1194	346	2016	1299	1199	272	92.7	215	140
MAX	2370	7720	5120	8360	742	7320	4160	7250	638	244	1020	710
MIN	193	247	440	310	240	226	366	274	102	60	63	62
CFSM	2.34	5.97	4.17	4.23	1.23	7.15	4.61	4.25	.97	.33	.76	.50
IN.	2.69	6.67	4.81	4.88	1.28	8.24	5.14	4.90	1.07	.38	.88	.55

CAL YR 1977 TOTAL 174646 MEAN 478 MAX 7720 MIN 22 CFSM 1.70 IN 23.04
WTR YR 1978 TOTAL 314626 MEAN 862 MAX 8360 MIN 60 CFSM 3.06 IN 41.50

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971, October 1971 to September 1972, September 1973 to September 1978 (discontinued).

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS, (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)
OCT 27...	1400	550	195	6.9	12.5	10.7	100	K11	K15	74	54
FEB 09...	1340	350	180	6.5	.0	14.1	97	0	--	71	57
MAR 24...	1540	4640	110	6.7	4.5	12.7	98	1	200	38	30
MAY 25...	1615	820	140	7.5	18.0	10.4	109	170	62	54	23
JUN 28...	1645	149	270	7.1	24.5	8.5	101	--	K10	110	91
JUL 25...	1815	66	360	7.2	22.0	9.4	107	K4	K5	150	130
AUG 24...	1710	68	360	6.1	25.5	8.8	106	<1	<1	160	160
SEP 28...	1300	90	305	6.2	15.5	10.4	103	<1	K11	140	130

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CaCO3)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	SODIUM, DISSOLVED (MG/L AS Na)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CaCO3)
OCT 27...	.2	8.0	20	5.8	3.4	9	.2	1.8	24	0	20
FEB 09...	.2	8.0	19	5.6	4.0	11	.2	1.4	17	0	14
MAR 24...	.2	8.0	10	3.2	2.4	12	.2	1.3	10	0	8
MAY 25...	.1	4.0	16	3.4	3.4	12	.2	1.6	38	0	31
JUN 28...	.1	4.0	27	9.4	5.1	9	.2	2.1	23	0	19
JUL 25...	.1	3.0	36	14	6.8	9	.2	2.4	23	0	19
AUG 24...	.1	7.0	38	17	6.5	8	.2	2.4	6	0	5
SEP 28...	.2	10	31	16	5.4	7	.2	1.8	12	0	10

DATE	CARBON DIOXIDE DISSOLVED (MG/L AS CO2)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
OCT 27...	4.8	54	4.3	.40	.00	.40	.03	.23	.26	.00	.00
FEB 09...	8.6	50	5.3	.69	.00	.69	.07	.27	.34	.00	.00
MAR 24...	3.2	32	2.5	.53	.00	.53	.06	.35	.41	.00	.00
MAY 25...	1.7	27	3.9	.18	.00	.18	.01	.42	.43	.01	.00
JUN 28...	2.9	88	7.7	.38	.01	.39	.02	.17	.19	.00	.00
JUL 25...	2.3	130	8.9	.22	.00	.22	.02	.14	.16	.00	.00
AUG 24...	7.6	150	8.1	.36	.00	.36	.02	.17	.19	.01	.00
SEP 28...	12	360	.4	.29	.01	.30	.13	.12	.25	.00	.00

CHEMUNG RIVER BASIN

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01518000 TIOGA RIVER AT TIOGA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...	50	5	60	1300	100	--	--	--	13	19
FEB 09...	50	6	170	1400	250	--	--	--	E10	--
MAR 24...	40	4	370	700	70	82	.000	.000	70	877
MAY 25...	80	4	50	470	20	460	.000	.000	25	55
JUN 28...	110	3	10	2400	270	1200	2.24	.000	8	3.2
JUL 25...	80	3	0	3600	40	2300	.000	.000	3	.53
AUG 24...	80	6	60	4600	700	1600	.000	.000	11	2.0
SEP 28...	20	5	330	3800	490	110	.000	.000	11	2.7

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
NOV 17...	0955	9813	9813	868	150	--	--	60	--	15	6.0
FEB 22...	1032	9813	9813	264	210	--	--	86	--	21	8.8
MAY 22...	1500	9813	9813	748	160	--	--	70	--	15	8.8
AUG 23...	1400	9813	9813	70	400	27.0	9.2	136	0	35	12

DATE	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	26	34	6.0	120	14	1.0	.03	.10	.10	1000
FEB 22...	28	56	9.0	148	--	1.0	.02	.15	.07	470
MAY 22...	28	34	6.0	104	--	.74	.01	.15	.10	1010
AUG 23...	18	120	12	278	--	.60	.01	.05	.05	180

CHEMUNG RIVER BASIN

01518000 TIOGA RIVER AT TIOGA, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 1540	MAY 25,78 1615	JUN 28,78 1645	JUL 25,78 1815	AUG 24,78 1710	SEP 28,78 1300				
TOTAL CELLS/ML	82	460	1200	2300	1600	110				
DIVERSITY: DIVISION	0.0	1.8	1.3	1.6	0.6	1.2				
..CLASS	0.0	1.8	1.4	1.6	0.6	1.2				
...ORDER	0.0	2.1	1.4	1.8	0.6	1.2				
....FAMILY	1.8	2.8	2.3	2.2	0.7	2.6				
.....GENUS	1.8	3.0	2.3	2.2	0.7	2.6				
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										
....OOCYSTACEAE										
.....ANKISTRODESMUS	--	-	16	3	45	4	--	-	--	-
.....SELENASTRUM	--	-	--	-	--	-	36	2	--	-
.....SCENEDESMACEAE										
.....SCENEDESMUS	--	-	--	-	--	-	290	13	--	-
.....TETRASTRUM	--	-	64	14	--	-	--	-	22#	20
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	32	7	--	-	110	5	89	5
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCAEAE										
.....CYCLOTELLA	--	-	--	-	--	-	36	2	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	540#	44	570#	25	45	3
...CYMBELLACEAE										
....CYMBELLA	--	-	48	10	45	4	71	3	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	45	4	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	41#	50	16	3	--	-	--	-	22	1
...MERIDIONACEAE										
....MERIDION	--	-	16	3	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	14#	17	130#	28	130	11	71	3	22	1
...NITZSCHIACEAE										
....NITZSCHIA	14#	17	--	-	22	2	--	-	--	-
...SURIRELLACEAE										
....SURIRELLA	14#	17	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCALES										
....CHROCOCCACEAE										
.....ANACYSTIS	--	-	80#	17	--	-	--	-	--	-
...HORMOGONALES										
....OSCILLATORIACEAE										
.....OSCILLATORIA	--	-	--	-	340#	27	1100#	47	1500#	89
EUGLENOPHYTA (EUGLENOIDS)										
..CRYPTOPHYCEAE										
...CRYPTOMONIDAE										
....CRYPTOMONODACEAE										
.....CRYPTOMONAS	--	-	--	-	22	2	--	-	--	-
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	--	-	32	7	45	4	36	2	--	-
....TRACHELOMONAS	--	-	32	7	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

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 September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT 27...	1215	73	155	7.8	10.5	11.7	104	K37	600	64	18
FEB 09...	1135	E45	145	7.4	.0	13.8	95	K7	--	58	18
MAR 24...	0720	E300	85	7.1	1.5	13.3	95	100	5900	32	13
MAY 25...	1350	113	140	9.1	18.5	12.0	127	81	130	52	8
JUN 28...	1335	10	200	7.8	23.0	8.4	97	--	130	82	12
JUL 25...	1600	7.3	220	7.9	22.0	9.2	105	160	240	86	6
AUG 24...	1440	4.6	235	8.8	25.0	12.3	146	29	86	100	14
SEP 28...	1030	6.8	210	7.4	14.5	9.6	93	180	210	57	0

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)
OCT 27...	.0	2.0	21	2.9	3.8	11	.2	2.0	56	0	46
FEB 09...	.0	.0	19	2.6	4.4	14	.3	1.8	49	0	40
MAR 24...	.1	4.0	10	1.6	2.5	14	.2	1.7	23	0	19
MAY 25...	.0	.0	17	2.3	3.5	12	.2	1.7	45	4	44
JUN 28...	.1	5.0	27	3.5	5.6	13	.3	2.2	85	0	70
JUL 25...	.0	2.0	28	3.8	11	21	.5	2.5	98	0	80
AUG 24...	.0	.0	35	4.0	8.8	15	.4	2.2	93	6	86
SEP 28...	.1	4.0	15	4.7	7.2	21	.4	2.1	84	0	69

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	1.4	18	4.5	.41	.00	.41	.00	.39	.39	.01	.01
FEB 09...	3.1	18	5.0	.76	.00	.76	.02	.23	.25	.09	.08
MAR 24...	2.6	13	2.2	.57	.01	.58	.07	E.30	E.37	.02	.01
MAY 25...	.1	14	4.3	--	--	--	--	--	.39	.05	--
JUN 28...	2.2	16	7.5	.46	.01	.47	.04	.54	.58	.03	.02
JUL 25...	2.0	18	8.6	.11	.01	.12	.01	.34	.35	.50	.48
AUG 24...	.3	21	8.8	.01	.00	.01	.00	.28	.28	.21	.18
SEP 28...	5.4	22	11	.08	.01	.09	.04	.43	.47	.02	.01

01518400 CROOKED CREEK AT MIDDLEBURY CENTER, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...	20	1	100	30	10	--	--	--	3	.60
FEB 09...	10	1	110	30	0	--	--	--	E10	--
MAR 24...	30	5	40	30	30	68	.000	.000	115	--
MAY 25...	50	1	30	20	10	960	5.42	.000	7	2.1
JUN 28...	30	1	30	100	30	920	.000	.000	9	.25
JUL 25...	50	3	10	100	10	7800	36.9	6.77	11	.22
AUG 24...	30	2	20	50	0	560	11.1	2.57	4	.05
SEP 28...	30	1	70	100	10	210	3.30	.622	7	.13

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 0720	MAY 25,78 1350	JUN 28,78 1335	JUL 25,78 1600	AUG 24,78 1440	SEP 28,78 1030
TOTAL CELLS/ML	68	960	920	7800	560	210
DIVERSITY: DIVISION	0.0	0.1	0.4	1.4	0.6	0.0
..CLASS	0.0	0.1	0.4	1.4	0.6	0.0
..ORDFR	0.0	0.3	0.4	1.9	1.1	0.0
...FAMILY	1.9	2.3	1.8	2.3	2.6	1.8
....GENUS	1.9	2.3	1.8	3.1	2.6	1.8

ORGANISM	CELLS /ML	PER- CENT	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												
....OOCYSTACEAE												
....ANKISTRODESUMUS	--	-	--	-	45	5	69	1	15	3	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	69	1	--	-	--	-
....QUADRIGULA	--	-	--	-	--	-	270	4	--	-	--	-
....SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	690	9	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	16	2	22	2	1400#	18	59	11	--	-
....CHLOROGONIUM	--	-	--	-	--	-	2100#	26	--	-	--	-
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	32	3	--	-	69	1	59	11	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	16	2	--	-	69	1	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	15	3	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	220#	23	470#	51	210	3	--	-	59#	29
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	44	8	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	100#	18	15	7
...SYNEDRA	14#	20	96	10	22	2	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	14#	20	16	2	22	2	140	2	--	-	15	7
...NAVICULACEAE												
....NAVICULA	27#	40	450#	47	290#	32	410	5	88#	16	100#	50
...NITZSCHIACEAE												
....NITZSCHIA	--	-	64	7	45	5	210	3	180#	32	15	7
...SURIPELLACEAE												
....SURIPELLA	14#	20	48	5	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..EUGLENOPHYCEAE												
...EUGLENALES												
....EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	1200#	16	--	-	--	-
....LEPOTINCLIS	--	-	--	-	--	-	890	11	--	-	--	-

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

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

CHEMUNG RIVER BASIN

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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 September 1978 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)
OCT 27...	1310	8.5	155	9.2	12.0	14.3	132	K13	K260	68	10
FEB 09...	1245	--	118	7.2	.0	13.7	94	K2	--	50	20
MAR 24...	1405	E45	85	7.2	4.5	13.3	103	K3	58	30	13
MAY 25...	1510	13	120	9.3	22.5	11.9	136	53	120	44	6
JUN 28...	1520	1.2	250	8.4	28.0	10.2	129	--	56	110	24
JUL 25...	1715	1.3	240	8.8	22.0	10.3	117	35	50	110	25
AUG 24...	1600	.50	240	8.5	29.0	12.4	159	K6	310	110	31
SEP 28...	1150	1.2	255	8.4	16.0	13.2	132	K3	160	76	0

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)
OCT 27...	.0	.0	22	3.1	2.6	7	.1	1.8	59	6	58
FEB 09...	.0	2.0	16	2.5	4.5	16	.3	1.5	37	0	30
MAR 24...	.1	3.0	9.2	1.6	2.7	16	.2	1.4	21	0	17
MAY 25...	.0	.0	14	2.2	4.0	16	.3	2.0	34	6	38
JUN 28...	.0	.0	36	4.7	7.1	12	.3	2.5	105	0	86
JUL 25...	.0	.0	35	4.7	7.2	12	.3	2.5	93	5	85
AUG 24...	.0	.0	35	5.6	7.6	13	.3	2.5	92	2	79
SEP 28...	.0	.0	20	6.4	7.6	17	.4	2.0	116	1	97

CHEMUNG RIVER BASIN

01518550 CROOKED CREEK AT TIOGA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	.1	20	4.5	.18	.00	.18	.00	.18	.18	.00	.00
FEB 09...	3.7	18	5.4	.63	.00	.63	.00	.27	.27	.04	.03
MAR 24...	2.1	14	2.0	.51	.00	.51	.03	.33	.36	.01	.01
MAY 25...	.0	15	4.6	.16	.00	.16	.01	.48	.49	.02	.01
JUN 28...	.7	25	10	.57	.01	.58	.02	.36	.38	.01	.01
JUL 25...	.3	24	9.7	.48	.01	.49	.00	.17	.17	.01	.01
AUG 24...	.5	27	9.7	.60	.01	.61	.00	.44	.44	.01	.00
SEP 28...	.8	28	9.5	.37	.01	.38	.03	.00	.03	.00	.00

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 27...	30	1	10	40	10	--	--	--	3	.07
FEB 09...	20	1	100	30	10	--	--	--	E15	--
MAR 24...	30	3	30	30	0	42	3.47	1.26	27	--
MAY 25...	40	2	20	10	0	700	.000	.000	9	.32
JUN 28...	50	1	0	40	10	2400	5.02	1.03	3	.01
JUL 25...	70	1	0	10	10	2000	4.29	.000	2	.01
AUG 24...	20	2	0	10	0	1900	3.13	.155	4	.01
SEP 28...	20	1	40	0	10	530	.000	.000	2	.01

01518550 CROOKED CREEK AT TIOGA, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 1405	MAY 25,78 1510	JUN 28,78 1520	JUL 25,78 1715	AUG 24,78 1600	SEP 28,78 1150
TOTAL CELLS/ML	42	700	2400	2000	1900	530
DIVERSITY: DIVISION	0.0	0.3	1.8	1.4	1.5	1.0
..CLASS	0.0	0.3	1.8	1.4	1.5	1.0
..ORDER	0.9	0.3	2.0	2.1	2.0	1.2
..FAMILY	1.6	2.6	3.0	3.1	2.7	2.2
....GENUS	1.6	2.6	3.2	3.2	3.3	2.8

ORGANISM	CELLS /ML	PER- CENT	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												
...MICRACTINIAEAE												
....GOLENKINIA	--	-	--	-	--	-	22	1	15	1	--	-
....OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	130	6	45	2	44	2	15	3
....CHODATELLA	--	-	--	-	67	3	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	22	1	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	59	3	--	-
....SELENASTRUM	--	-	--	-	22	1	--	-	73	4	15	3
....SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-	180#	33
....CRUCIGENIA	--	-	--	-	--	-	--	-	15	1	--	-
....SCENEDESMUS	--	-	--	-	630#	26	380#	19	--	-	59	11
....TETRASTRUM	--	-	--	-	22	1	--	-	--	-	--	-
..TETRASPORALES												
..PALMELLACEAE												
...SPHAEROCYSTIS	--	-	--	-	--	-	--	-	120	6	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	45	2	180	9	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIVUM	--	-	--	-	--	-	--	-	--	-	15	3
CHRYSOPHYTA												
..BACILLARIOPHYCEAE												
...CENTRALES												
...COSCINODISCAEAE												
....CYCLOTETRA	14#	33	--	-	22	1	270	14	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	490#	25	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	45	2	--	-	59	11
...CYMBELLACEAE												
....CYMBELLA	--	-	140#	20	160	7	89	5	280	15	73	14
...DIATOMACEAE												
....DIATOMA	14#	33	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	44	2	--	-
....SYNEDRA	--	-	110#	16	180	8	--	-	--	-	--	-
...GOMPHONEMATAEAE												
....GOMPHONEMA	14#	33	64	9	200	8	110	6	29	2	15	3
...MERIDIONACEAE												
....MERIDION	--	-	--	-	22	1	--	-	--	-	--	-
...NAVICULACEAE												
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	15	3
....NAVICULA	--	-	190#	27	89	4	45	2	130	7	88#	17
....STAURONEIS	--	-	--	-	--	-	--	-	15	1	--	-
...NITZSCHACEAE												
....NITZSCHIA	--	-	48	7	89	4	67	3	88	5	--	-
...SURIACEAE												
....SURIELLA	--	-	110#	16	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
..CYANOPHYCEAE												
...CHROCOCCOCCALES												
...CHROCOCCOCCAEAE												
....AGMENELLUM	--	-	--	-	--	-	--	-	350#	19	--	-
....ANACYSTIS	--	-	32	5	560#	24	160	8	430#	23	--	-
...HORMOGONALES												
...OSCILLATORIAEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	180	9	--	-
EUGLENOPHYTA (EUGLENOIDS)												
..CRYPTOPHYCEAE												
...CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	45	2	--	-	--	-
..EUGLENOPHYCEAE												
...EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	45	2	--	-	--	-	--	-
...TRACHELOMONAS	--	-	--	-	89	4	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CHEMUNG RIVER BASIN

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 and 5.0 mi (8.0 km) downstream from Tioga Lake.

DRAINAGE AREA.--446 mi² (1,160 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 19th 196 to current year.

GAGE.--Water-stage recorder. Datum of gage is 990.43 ft (301.883 m) National Geodetic Vertical Datum of 1929.

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)
Nov. 5	0245	13,400 379	16.45 5.014	Mar. 21	2400	11,400 323	15.60 4.755
Jan. 9	0615	13,300 377	16.42 5.005	May 14	2015	*14,000 396	16.70 5.090
Jan. 26	1445	ice jam	*17.20 5.243				

Minimum discharge, 57.8 ft³/s (1.64 m³/s) July 21, gage height, 6.57 ft (2.003 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	278	2280	430	902	248	3450	328	320	105	154	278
2	491	261	1380	390	813	246	4260	302	293	98	114	138
3	343	250	1040	360	696	244	2600	278	680	98	121	98
4	281	2930	919	345	543	242	2210	257	499	148	613	90
5	232	7930	739	380	490	241	2870	379	360	156	256	76
6	215	2910	839	350	450	240	2190	482	300	121	1440	69
7	226	4390	713	330	420	240	2560	380	267	101	1710	60
8	190	5830	634	810	400	240	2510	332	727	90	1100	69
9	297	3300	579	8510	380	250	1860	386	704	148	553	112
10	471	2870	544	2740	365	260	1490	464	495	118	344	86
11	299	5370	520	1600	350	280	1310	376	364	98	256	103
12	254	2670	510	1220	340	310	1550	329	300	84	232	103
13	226	1790	600	1030	325	340	1240	328	492	72	380	126
14	204	1340	2500	853	315	1200	994	7700	364	130	187	96
15	305	1140	5250	739	305	4300	792	5790	270	320	148	76
16	958	980	2760	665	300	2750	687	3800	228	135	126	74
17	2970	1060	1870	619	295	1550	596	5060	206	96	114	70
18	2480	1110	2120	560	290	1270	516	2860	199	82	96	72
19	2500	807	2110	520	285	1450	525	2260	389	70	88	960
20	3270	689	1570	480	280	2020	1010	1490	267	65	86	526
21	2280	637	1620	450	275	4810	1540	1280	206	65	78	278
22	1660	601	1410	420	270	8130	1010	990	372	86	70	232
23	1200	543	1120	400	266	6460	797	794	222	86	65	182
24	911	532	960	385	262	4710	706	1230	173	72	60	151
25	739	489	2100	370	258	2790	620	1190	154	65	58	128
26	623	516	1260	4100	255	2360	551	804	138	69	56	114
27	552	445	809	4570	252	5320	490	669	135	65	54	101
28	480	412	668	2790	250	4450	436	558	162	94	54	92
29	404	386	595	1780	---	3850	392	483	143	88	80	86
30	353	464	530	1280	---	3070	362	376	118	123	69	78
31	308	---	480	1080	---	2630	---	360	---	126	118	---
TOTAL	25977	52920	41029	40556	10632	66501	42124	42315	9547	3274	8880	4724
MEAN	838	1764	1324	1308	380	2145	1404	1365	318	106	286	157
MAX	3270	7930	5250	8510	902	8130	4260	7700	727	320	1710	960
MIN	190	250	480	330	250	240	362	257	118	65	54	60
CFSM	1.88	3.96	2.97	2.93	.85	4.81	3.15	3.06	.71	.24	.64	.35
IN.	2.17	4.41	3.42	3.38	.89	5.55	3.51	3.53	.80	.27	.74	.39

CAL YR 1977 TOTAL 238841 MEAN 654 MAX 7930 MIN 28 CFSM 1.47 IN 19.92
WTR YR 1978 TOTAL 348479 MEAN 955 MAX 8510 MIN 54 CFSM 2.14 IN 29.07

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

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 September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1976.

COOPERATION.--Twelve 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 (water year 1977) 8.0 units May 23, 24, 25, 1978; minimum, 5.1 units Sept. 8, 1977.

WATER TEMPERATURES: Maximum, 29.0°C July 18, 20, 21, 1977; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum 8.0 units May 23, 24, 25, 1978; minimum, 6.3 units Oct. 25, Jan. 26.

WATER TEMPERATURES: Maximum, 26.0°C July 7; minimum, 0.0°C Mar. 14, 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
OCT											
27...	1505	549	210	6.3	12.5	10.6	99	K1	K12	78	70
FEB											
09...	1519	380	180	6.6	.0	14.0	96	0	--	71	56
MAR											
24...	1715	3960	102	6.4	4.0	13.1	100	K4	740	37	27
MAY											
25...	1745	1050	150	7.0	16.5	9.4	99	110	50	52	35
JUN											
28...	1800	173	290	7.2	26.0	8.6	105	--	30	120	110
JUL											
25...	1920	65	340	7.2	22.0	9.6	109	100	40	140	120
AUG											
24...	1845	58	340	6.8	25.5	8.8	106	K11	28	150	140
SEP											
28...	1430	92	290	6.7	16.5	10.1	103	K2	85	140	130

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CAC03)
OCT											
27...	.2	8.0	19	7.4	3.2	8	.2	1.6	10	0	8
FEB											
09...	.1	6.0	19	5.6	4.0	11	.2	1.4	18	0	15
MAR											
24...	.2	10	10	2.9	2.4	12	.2	1.4	12	0	10
MAY											
25...	.1	6.0	14	4.2	3.2	11	.2	1.5	21	0	17
JUN											
28...	.0	3.0	28	11	5.3	9	.2	2.0	16	0	13
JUL											
25...	.1	3.0	35	13	7.0	10	.3	1.6	27	0	22
AUG											
24...	.1	4.0	37	15	6.2	8	.2	2.3	16	0	13
SEP											
28...	.1	7.0	32	14	5.6	8	.2	1.8	16	0	13

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO ₂)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	8.0	72	4.4	.45	.00	.45	.04	.22	.26	.00	.00
FEB 09...	7.2	51	5.4	.73	.00	.73	.08	.17	.25	.00	.00
MAR 24...	7.6	28	2.6	.52	.00	.52	.06	.51	.57	.00	.00
MAY 25...	3.0	39	4.3	.26	.00	.26	.01	.32	.33	.00	.00
JUN 28...	1.6	100	7.7	.22	.01	.23	.01	.20	.21	.00	.00
JUL 25...	2.7	110	8.9	.26	.01	.27	.02	.07	.09	.00	.00
AUG 24...	4.1	140	8.7	.27	.00	.27	.01	.23	.24	.00	.00
SEP 28...	5.1	110	8.8	.36	.00	.36	.05	.00	.05	.00	.00

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, DIS- SOLVED (UG/L AS ZN)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 27...	30	8	100	2000	190	--	--	--	17	25
FEB 09...	30	5	280	1400	200	--	--	--	6	6.2
MAR 24...	30	4	190	550	50	1300	.000	.000	71	759
MAY 25...	60	4	50	960	50	160	.000	.000	26	74
JUN 28...	130	2	10	2200	120	4100	.000	.000	1	.47
JUL 25...	50	1	10	2700	260	1300	.000	.000	9	1.6
AUG 24...	50	0	10	480	430	250	.000	.000	7	1.1
SEP 28...	30	3	10	3200	680	0	.000	.000	4	.99

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 26...	1045	9813	9813	624	200	--	--	7.9	78	0	--	18
NOV 15...	0905	9813	9813	1170	--	--	--	--	66	--	14	--
DEC 08...	1030	9813	9813	553	170	--	--	--	78	--	16	--
JAN 09...	1500	9813	9813	7020	110	--	--	--	50	--	11	--
FEB 22...	1320	9813	9813	270	190	--	--	--	94	--	20	--
MAR 20...	1315	9813	9813	1700	150	--	--	--	50	--	15	--
MAY 22...	1415	9813	9813	960	170	--	--	--	73	--	14	--
JUN 29...	1120	9813	9813	140	310	--	--	--	92	--	40	--
AUG 01...	1405	9813	9813	156	330	--	23.0	9.4	99	0	32	--
23...	1500	9813	9813	67	410	--	--	9.4	137	0	31	--
SEP 21...	1400	9813	9813	259	280	8.4	26.0	9.1	84	0	>.0	--

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 26...	8.0	--	18	64	6.0	156	--	.82	.02	.10	.12	920
NOV 15...	--	8.2	16	52	7.0	138	20	1.1	.03	.10	.05	1510
DEC 08...	--	9.9	22	46	8.0	106	--	.96	.03	.10	.06	680
JAN 09...	--	6.0	20	29	7.0	150	--	1.1	.04	.09	.15	2444
FEB 22...	--	12	28	60	10	108	--	1.2	.03	.15	.05	290
MAR 20...	--	3.3	34	24	11	86	--	1.2	.02	.24	.14	2340
MAY 22...	--	10	18	44	6.0	116	--	.80	.01	.17	.10	1530
JUN 29...	--	.0	26	85	11	202	--	.96	.02	.07	.05	150
AUG 01...	--	4.5	16	85	12	276	--	.80	.02	.10	.07	430
23...	--	14	18	120	12	298	--	.60	.02	.06	.04	180
SEP 21...	--	7.5	28	50	9.0	186	--	.84	.03	.09	.07	670

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO SEPTEMBER 1978

DATE TIME	MAR 24,78 1715	MAY 25,78 1745	JUN 28,78 1800	JUL 25,78 1920	AUG 24,78 1845	SEP 28,78 1430				
TOTAL CELLS/ML	1300	160	4100	1300	250	0				
DIVERSITY: DIVISION	0.5	1.0	0.4	0.8	0.7	0.0				
..CLASS	0.5	1.0	0.4	0.8	0.7	0.0				
...ORDFR	0.5	2.2	0.4	0.9	0.7	0.0				
....FAMILY	0.7	2.2	0.9	1.6	1.3	0.0				
.....GENUS	0.7	2.2	0.9	1.8	1.3	0.0				
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										
....OOCYSTACEAE										
.....ANKISTRODESMUS	--	-	--	-	36	1	--	-	--	-
.....KIRCHNERIELLA	--	-	--	-	67	5	--	-	--	-
.....SELENASTRUM	--	-	--	-	89	7	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	32#	20	72	2	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	32#	20	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	16	10	110	3	45	3	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	45#	18	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCACEAE										
.....CYCLOTELLA	--	-	32#	20	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	3600#	88	920#	71	160#	64
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	110	3	45	3	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	72	2	22	2	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	68	5	--	-	--	-	--	-	--	-
...MERIDIONACEAE										
....MERIDION	14	1	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	41	3	48#	30	36	1	22	2	45#	18
...NITZSCHACEAE										
....NITZSCHIA	27	2	--	-	36	1	22	2	--	-
...SURIPELLACEAE										
....SURIPELLA	--	-	--	-	--	-	22	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...HORMOGONALES										
....OSCILLATORIACEAE										
.....OSCILLATORIA	1200#	89	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	--	-	--	-	36	1	22	2	--	-
.....TRACHELOMONAS	--	-	--	-	--	-	22	2	--	-

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

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

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	242	232	237	154	232	233	173	113	132	209	196	203
2	233	186	210	239	220	237	123	114	118	212	204	208
3	210	190	201	241	238	239	130	123	126	224	210	218
4	218	210	215	239	103	176	137	129	132	237	221	228
5	242	218	225	109	99	103	146	137	140	242	219	225
6	241	228	234	125	109	117	146	139	143	222	211	216
7	242	223	235	129	99	120	155	142	150	219	214	216
8	239	224	232	103	97	99	164	155	161	218	154	210
9	244	228	239	124	104	113	172	152	161	---	---	---
10	225	172	185	144	123	135	175	168	172	---	---	---
11	202	185	194	138	100	108	183	173	178	---	---	---
12	211	202	207	133	114	123	182	175	178	---	---	---
13	217	211	214	151	132	142	179	164	173	---	---	---
14	227	218	223	165	151	157	166	94	135	---	---	---
15	232	208	223	171	162	166	93	87	89	---	---	---
16	208	157	187	176	171	173	104	91	97	---	---	---
17	---	---	---	177	164	172	116	104	110	---	---	---
18	---	---	---	168	159	162	118	104	113	---	---	---
19	141	134	136	177	168	172	124	106	114	---	---	---
20	136	116	123	183	177	179	131	122	125	---	---	---
21	130	113	115	185	181	183	131	125	128	---	---	---
22	146	126	133	187	181	184	167	127	148	---	---	---
23	168	146	155	189	185	187	173	166	170	---	---	---
24	186	167	176	188	185	186	179	173	176	201	195	199
25	199	186	191	189	184	186	179	139	158	200	188	196
26	205	198	200	188	182	185	180	140	159	194	96	145
27	208	202	205	188	181	184	216	179	189	107	99	103
28	209	203	205	200	186	192	209	194	198	129	107	120
29	216	209	213	199	194	196	215	204	210	145	129	138
30	224	216	221	196	168	191	210	199	203	153	145	150
31	233	224	227	---	---	---	200	193	195	161	150	155
MONTH	244	113	199	241	97	167	216	87	151	242	96	183

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	170	156	164	190	175	184	---	---	---	159	151	154
2	170	162	165	188	178	183	---	---	---	163	158	161
3	176	165	170	191	178	183	---	---	---	169	161	165
4	188	174	177	185	176	181	---	---	---	171	164	166
5	189	181	186	184	179	182	---	---	---	172	156	165
6	190	176	183	190	178	184	---	---	---	155	140	145
7	187	168	177	187	176	182	---	---	---	148	144	146
8	187	177	181	188	177	182	---	---	---	153	147	150
9	179	169	171	184	171	178	---	---	---	156	149	152
10	182	172	178	182	175	179	---	---	---	150	129	138
11	84	175	181	189	177	185	---	---	---	143	132	137
12	182	177	180	185	178	182	---	---	---	148	143	145
13	181	176	179	189	178	183	---	---	---	155	147	150
14	181	163	172	188	137	176	---	---	---	155	71	119
15	175	165	171	139	101	109	---	---	---	88	73	80
16	180	168	176	125	104	115	---	---	---	114	91	103
17	178	170	175	126	116	119	---	---	---	110	97	101
18	178	171	175	132	120	125	---	---	---	137	107	123
19	185	175	181	135	122	131	---	---	---	124	112	117
20	189	167	183	122	116	118	---	---	---	137	124	130
21	172	162	168	---	---	---	---	---	---	141	135	138
22	187	166	175	---	---	---	---	---	---	152	140	145
23	190	179	184	---	---	---	---	---	---	162	151	155
24	188	177	183	---	---	---	---	---	---	162	131	154
25	180	173	176	---	---	---	---	---	---	143	127	135
26	185	175	179	---	---	---	---	---	---	160	143	149
27	182	174	178	---	---	---	---	---	---	173	155	161
28	185	174	180	---	---	---	141	104	138	178	163	166
29	---	---	---	---	---	---	150	140	145	189	167	173
30	---	---	---	---	---	---	152	148	150	210	177	183
31	---	---	---	---	---	---	---	---	---	195	189	192
MONTH	190	156	177	191	101	163	152	104	144	210	71	145

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	202	195	199	272	251	265	283	280	282	239	230	233
2	209	196	204	283	273	279	281	260	266	249	229	237
3	203	166	181	284	278	282	283	211	258	268	249	259
4	182	169	175	286	270	278	281	153	202	284	266	275
5	190	181	185	274	250	268	204	163	186	298	283	291
6	198	189	193	274	243	251	212	102	165	311	296	304
7	201	197	199	287	256	264	164	133	156	322	310	318
8	204	154	184	289	271	276	177	156	162	335	321	326
9	160	153	156	285	246	268	194	160	173	352	308	333
10	169	159	163	294	255	270	211	192	201	313	297	303
11	183	168	174	309	281	293	225	210	217	305	296	300
12	195	180	184	317	290	310	---	---	---	304	292	299
13	208	174	187	312	291	297	---	---	---	301	276	290
14	187	177	180	307	147	269	---	---	---	300	277	292
15	197	186	191	294	178	219	---	---	---	295	285	291
16	211	197	205	238	209	223	---	---	---	316	293	308
17	220	211	216	---	---	---	---	---	---	324	315	320
18	224	217	220	---	---	---	---	---	---	319	310	314
19	241	188	211	---	---	---	---	---	---	322	140	215
20	225	194	202	---	---	---	---	---	---	183	144	164
21	226	211	219	---	---	---	---	---	---	210	182	197
22	242	184	205	---	---	---	---	---	---	232	209	223
23	226	207	215	---	---	---	---	---	---	251	232	241
24	241	225	231	---	---	---	---	---	---	262	249	256
25	247	239	242	---	---	---	---	---	---	274	261	267
26	253	246	249	---	---	---	---	---	---	282	272	277
27	266	254	259	---	---	---	---	---	---	290	282	286
28	275	257	267	---	---	---	---	---	---	303	289	295
29	262	250	256	---	---	---	---	---	---	314	300	306
30	259	244	254	---	---	---	---	---	---	321	313	316
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	275	153	207	317	147	270	283	102	206	352	140	278

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.1	7.0	7.0	6.9	6.7	6.7	7.4	7.2	7.2	6.8	6.7	6.8
2	7.3	7.0	7.1	6.8	6.7	6.8	7.3	7.2	7.2	6.8	6.7	6.8
3	7.3	7.2	7.3	6.9	6.8	6.8	7.2	7.2	7.2	6.9	6.7	6.8
4	7.3	7.2	7.2	7.2	6.7	7.1	7.2	7.2	7.2	6.8	6.7	6.8
5	7.2	7.1	7.2	7.1	7.0	7.1	7.2	6.9	7.1	6.8	6.7	6.7
6	7.2	7.1	7.1	7.1	7.1	7.1	7.2	6.9	7.1	6.8	6.6	6.8
7	7.2	7.1	7.1	7.2	7.0	7.1	7.2	7.1	7.1	6.9	6.8	6.9
8	7.2	7.1	7.2	7.1	7.0	7.1	7.2	7.0	7.1	7.1	6.8	6.9
9	7.2	7.0	7.1	7.0	6.9	7.0	7.2	7.0	7.1	7.2	6.8	6.9
10	7.3	7.1	7.3	6.9	6.7	6.8	7.2	7.0	7.1	6.9	6.7	6.8
11	7.3	7.2	7.2	7.1	6.7	7.0	7.2	7.0	7.1	6.7	6.6	6.7
12	7.3	7.2	7.2	7.0	6.9	6.9	7.2	6.9	7.0	6.7	6.6	6.6
13	7.2	7.1	7.1	6.9	6.7	6.8	7.0	6.9	6.9	---	---	---
14	7.1	7.0	7.1	6.7	6.6	6.6	7.2	6.9	7.1	---	---	---
15	7.3	7.1	7.2	6.8	6.6	6.7	7.2	7.2	7.2	---	---	---
16	7.6	7.2	7.4	6.8	6.7	6.7	7.2	7.1	7.1	---	---	---
17	---	---	---	7.1	6.7	6.8	7.2	7.1	7.1	---	---	---
18	7.4	7.3	7.4	7.1	6.9	7.0	7.2	7.0	7.1	---	---	---
19	7.4	7.3	7.3	6.9	6.8	6.9	7.1	7.1	7.1	---	---	---
20	7.3	7.0	7.2	6.9	6.8	6.9	7.1	7.0	7.1	---	---	---
21	7.0	6.9	6.9	6.9	6.8	6.9	7.1	7.0	7.1	---	---	---
22	6.9	6.7	6.8	7.0	6.9	7.0	7.1	7.1	7.1	---	---	---
23	6.7	6.5	6.6	7.0	6.9	7.0	7.1	7.0	7.1	---	---	---
24	6.6	6.4	6.5	7.0	6.9	7.0	7.2	7.0	7.1	6.6	6.5	6.5
25	6.6	6.3	6.4	7.0	7.0	7.0	7.3	7.0	7.2	6.6	6.5	6.5
26	6.5	6.4	6.4	7.2	7.0	7.1	7.2	7.0	7.1	6.9	6.3	6.8
27	6.5	6.3	6.4	7.2	7.0	7.1	7.1	6.8	6.9	6.9	6.9	6.9
28	6.6	6.5	6.5	7.1	7.0	7.1	7.0	6.8	6.9	6.9	6.7	6.8
29	6.7	6.5	6.6	7.1	7.0	7.1	6.9	6.6	6.6	6.6	6.5	6.6
30	6.7	6.6	6.6	7.3	7.1	7.1	6.7	6.6	6.7	6.6	6.5	6.5
31	6.8	6.6	6.7	---	---	---	6.8	6.7	6.8	6.7	6.5	6.6
MONTH	7.6	6.3	7.0	7.3	6.6	6.9	7.4	6.6	7.1	7.2	6.3	6.7

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

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

CHEMUNG RIVER BASIN

01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	14.0	14.5	10.0	7.0	8.5	6.0	4.5	6.0	1.0	1.0	1.0
2	15.0	13.5	14.5	12.0	9.5	10.5	6.0	5.0	5.0	1.0	1.0	1.0
3	13.5	11.0	12.0	14.0	12.0	13.0	5.0	3.5	4.0	1.0	1.0	1.0
4	13.5	10.5	11.5	14.0	13.5	14.0	3.5	3.0	3.5	1.0	1.0	1.0
5	13.0	10.5	11.5	14.0	13.0	13.5	3.0	1.0	1.5	1.0	1.0	1.0
6	15.0	12.0	13.5	13.0	12.5	13.0	1.5	1.0	1.0	1.5	1.0	1.0
7	13.5	11.5	12.5	13.0	12.5	13.0	1.0	1.0	1.0	1.5	1.0	1.5
8	12.0	10.0	10.5	12.5	11.0	11.5	1.0	1.0	1.0	2.0	1.0	1.5
9	13.5	10.5	11.5	12.5	11.0	11.5	1.0	1.0	1.0	1.0	.5	1.0
10	13.0	11.0	12.0	12.5	12.0	12.5	1.0	1.0	1.0	1.5	.5	1.0
11	13.5	10.0	11.5	11.5	8.0	9.0	1.0	1.0	1.0	1.5	1.0	1.5
12	12.5	11.0	11.5	7.5	6.0	6.5	1.0	.5	1.0	1.5	1.5	1.5
13	11.0	8.5	10.0	6.0	4.5	5.5	1.0	1.0	1.0	---	---	---
14	10.5	8.0	9.0	5.5	3.5	4.0	1.0	1.0	1.0	---	---	---
15	11.0	8.0	9.0	6.5	5.0	6.0	2.5	1.0	2.0	---	---	---
16	10.5	8.0	10.0	9.0	6.5	7.5	3.5	2.0	3.0	---	---	---
17	---	---	---	9.0	8.0	8.5	3.5	2.5	3.0	---	---	---
18	8.0	6.0	7.5	8.0	6.0	6.5	3.5	3.0	3.5	---	---	---
19	8.0	6.5	7.0	6.0	5.5	6.0	3.5	2.5	3.0	---	---	---
20	8.5	7.5	8.0	6.0	4.5	5.5	3.5	3.0	3.0	---	---	---
21	8.5	7.0	7.5	7.0	5.5	6.0	3.5	2.5	3.0	---	---	---
22	9.5	8.0	9.0	6.5	5.5	6.0	2.5	2.0	2.5	---	---	---
23	9.5	7.5	8.5	5.5	5.5	5.5	2.5	1.5	2.0	---	---	---
24	9.5	6.5	8.0	6.5	5.5	6.0	2.5	1.0	1.5	.5	.5	.5
25	10.5	7.5	9.0	6.0	5.5	6.0	3.0	1.5	2.5	1.0	.5	.5
26	13.0	10.0	11.5	5.5	2.5	4.5	1.5	1.0	1.0	1.0	.5	1.0
27	12.5	12.0	12.0	2.5	1.5	2.0	1.0	1.0	1.0	1.0	1.0	1.0
28	13.0	11.5	12.0	3.0	1.5	2.0	1.0	1.0	1.0	1.0	.5	1.0
29	11.5	10.0	10.5	3.5	2.5	3.0	1.0	1.0	1.0	1.0	1.0	1.0
30	10.5	8.5	9.5	4.5	3.0	3.5	1.5	1.0	1.0	1.0	1.0	1.0
31	9.5	7.0	8.0	---	---	---	1.5	1.0	1.0	1.0	.5	1.0
MONTH	15.0	4.0	10.5	14.0	1.5	7.5	6.0	.5	2.0	2.0	.5	1.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.0	.5	1.0	1.0	.5	1.0	8.0	5.0	6.5	9.5	7.5	8.0
2	1.0	1.0	1.0	.5	.5	.5	6.5	4.0	5.0	11.0	6.5	8.5
3	1.0	1.0	1.0	.5	.5	.5	5.0	3.0	3.5	13.5	8.0	10.5
4	1.0	.5	1.0	.5	.5	.5	6.0	3.0	4.5	10.5	8.5	9.5
5	1.0	.5	1.0	.5	.5	.5	6.0	5.0	5.5	10.5	8.0	9.0
6	1.0	.5	.5	.5	.5	.5	6.0	4.0	5.0	9.5	7.5	8.5
7	1.0	.5	.5	.5	.5	.5	8.5	5.0	6.5	12.0	9.0	10.0
8	1.0	.5	1.0	.5	.5	.5	8.0	5.5	6.0	11.0	9.5	10.0
9	1.0	.5	1.0	.5	.5	.5	7.0	4.0	6.0	14.5	9.5	11.5
10	1.0	.5	1.0	.5	.5	.5	7.5	5.0	6.5	13.0	11.0	12.0
11	1.0	.5	1.0	.5	.5	.5	9.5	7.0	8.0	16.0	9.5	12.5
12	1.0	1.0	1.0	.5	.5	.5	10.5	7.0	9.0	14.5	13.5	14.0
13	1.0	1.0	1.0	.5	.5	.5	11.0	8.5	10.0	14.0	13.5	14.0
14	1.0	.5	1.0	.5	.0	.5	9.5	7.5	8.0	13.5	12.0	13.0
15	1.0	.5	1.0	.5	.0	.5	7.5	6.0	6.5	12.0	11.0	11.5
16	1.0	.5	1.0	1.0	.5	1.0	6.5	5.0	6.0	12.0	11.0	11.0
17	1.0	1.0	1.0	1.5	1.0	1.0	8.5	5.0	6.5	12.0	11.0	11.5
18	1.0	1.0	1.0	2.5	.5	1.5	10.0	6.0	8.0	13.5	11.0	12.5
19	1.0	.5	1.0	3.5	1.0	2.0	9.0	7.5	8.0	16.5	11.5	14.0
20	1.0	.5	1.0	3.0	1.5	2.5	8.0	7.0	7.5	17.0	14.0	15.5
21	1.0	.5	1.0	4.0	1.5	2.5	7.0	5.5	6.0	16.5	14.5	15.5
22	1.0	.5	1.0	3.5	1.0	2.0	9.5	5.0	7.0	16.5	12.5	14.5
23	1.0	.5	1.0	5.0	2.5	3.5	10.5	6.5	8.5	16.0	13.5	15.0
24	1.0	.5	1.0	4.0	2.0	3.0	11.5	8.0	9.5	15.5	14.0	14.5
25	1.0	1.0	1.0	3.0	1.5	2.0	12.0	8.0	10.0	14.0	13.5	13.5
26	1.0	1.0	1.0	2.0	1.5	2.0	12.5	9.0	11.0	19.5	15.0	17.5
27	1.0	.5	1.0	2.5	2.0	2.5	13.0	9.5	11.0	21.0	16.5	18.5
28	1.0	.5	1.0	5.0	2.0	3.5	13.5	9.0	12.0	22.0	18.0	20.0
29	---	---	---	5.0	3.5	4.5	12.5	9.5	11.0	23.0	18.5	20.5
30	---	---	---	5.5	3.0	4.0	12.5	9.0	10.5	23.5	19.0	21.0
31	---	---	---	6.5	3.5	5.0	---	---	---	23.0	20.5	21.5
MONTH	1.0	.5	1.0	6.5	.0	1.5	13.5	3.0	7.5	23.5	6.5	13.5

CHEMUNG RIVER BASIN

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01518700 TIOGA RIVER AT TIOGA JUNCTION, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

CHEMUNG RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--27 years, 294 ft³/s (8.326 m³/s), 13.44 in/yr (341 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 discharge before construction of Cowanesque Dam, 0.8 ft³/s (0.023 m³/s), Aug. 31, Sept. 1, 27, 1964; no flow Aug. 22, 1978, during dam construction.

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)
Nov. 7	1700	6,870 195	12.09 3.685	Mar. 15	0600	ice jam	*15.41 4.697
Dec. 14	1945	6,780 192	12.06 3.676	Mar. 21	2230	10,300 292	13.38 4.078
Jan. 9	0500	10,800 306	13.30 4.054	May 14	1530	*10,900 309	13.56 4.133
Jan. 26	1515	7,170 203	12.19 3.716				

No flow, Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	467	165	1460	230	364	84	2660	183	140	29	38	44
2	873	156	711	215	306	83	2460	172	126	26	31	40
3	467	151	533	204	249	82	1350	155	131	26	34	24
4	395	942	488	197	202	81	1310	140	136	35	39	21
5	303	1430	378	227	185	80	2150	287	117	46	43	19
6	259	689	443	208	170	80	1320	361	109	39	837	16
7	231	2810	421	198	162	80	1660	247	96	30	831	13
8	190	3020	355	375	153	79	1280	205	178	26	669	13
9	444	1630	311	4870	146	79	946	255	216	22	261	17
10	472	1570	285	1030	140	78	782	319	172	23	175	19
11	293	2560	275	766	134	82	744	239	112	21	124	30
12	255	1180	268	629	128	89	761	205	94	19	91	44
13	228	887	365	497	123	100	697	326	94	18	101	53
14	206	675	2490	391	118	350	570	4280	98	61	76	39
15	286	588	3890	345	113	3000	467	2790	78	72	55	24
16	875	502	1780	310	*110	1820	400	1750	66	31	42	20
17	1880	935	1230	290	107	1010	352	3090	60	186	36	17
18	1390	807	1490	270	103	718	305	1530	60	83	27	19
19	1170	559	1370	250	100	757	291	1090	67	47	23	74
20	1150	465	996	235	98	1060	888	788	79	32	21	130
21	760	417	964	225	96	3340	1060	767	68	52	9.7	74
22	585	386	827	216	94	5320	676	585	59	62	.00	52
23	478	346	659	209	92	4210	518	453	56	50	11	40
24	398	339	565	202	91	2770	453	510	47	39	12	34
25	350	304	1250	197	89	1570	389	475	40	37	15	28
26	309	300	692	3660	88	1260	334	338	36	30	12	23
27	279	250	435	3030	87	1810	292	271	35	24	11	19
28	255	239	372	1500	86	1880	254	229	37	26	11	17
29	225	223	317	881	---	1920	226	201	46	27	11	15
30	203	243	275	593	---	1490	204	180	36	40	11	14
31	183	---	250	472	---	1460	---	160	---	46	20	---
TOTAL	15859	24768	26145	22922	3934	36822	25799	22581	2689	1305	3677.70	992
MEAN	512	826	843	739	141	1188	860	728	89.6	42.1	119	33.1
MAX	1880	3020	3890	4870	364	5320	2660	4280	216	186	837	130
MIN	183	151	250	197	86	78	204	140	35	18	.00	13
CFSM	1.72	2.77	2.83	2.48	.47	3.99	2.89	2.44	.30	.14	.40	.11
IN.	1.98	3.09	3.26	2.86	.49	4.60	3.22	2.82	.34	.16	.46	.12

CAL YR 1977 TOTAL 156848.00 MEAN 430 MAX 4480 MIN 20 CFSM 1.44 IN 19.58
WTR YR 1978 TOTAL 187493.70 MEAN 514 MAX 5320 MIN .00 CFSM 1.73 IN 23.41

CHEMUNG RIVER BASIN

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01520000 COWANESQUE RIVER AT LAWRENCEVILLE, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.

WATER TEMPERATURES: May 1972 to September 1975, November 1976 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 31.0°C July 9, 1975; minimum, freezing point on many days each year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 26...	1115	9813	9813	308	--	--	--	--	76	--	--	21
NOV 15...	0920	9813	9813	608	170	--	--	--	60	--	16	--
DEC 08...	1050	9813	9813	336	180	--	--	--	76	--	19	--
JAN 09...	1500	9813	9813	2680	140	--	--	--	60	--	16	--
FEB 22...	1309	9813	9813	94	200	--	--	--	86	--	22	--
MAR 20...	1300	9813	9813	848	140	--	--	--	54	--	15	--
MAY 22...	1310	9813	9813	573	160	--	--	--	70	--	17	--
JUN 29...	1120	9813	9813	50	330	--	--	--	82	--	40	--
AUG 01...	1310	9813	9813	32	320	--	25.0	11.2	94	0	30	--
23...	1400	9813	9813	11	340	--	31.0	10.1	95	0	31	--
SEP 21...	1315	9813	9813	74	300	8.8	26.0	10.2	83	0	31	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 26...	--	6.0	--	20	12	--	--	.80	.03	.05	--	--
NOV 15...	5.5	--	46	24	11	114	22	1.0	.04	.17	.13	1340
DEC 08...	7.7	--	50	24	11	76	--	1.1	.04	.11	.07	360
JAN 09...	5.5	--	40	20	10	124	--	1.3	.04	.15	.16	3142
FEB 22...	8.2	--	62	26	14	136	--	1.3	.03	.12	.06	170
MAR 20...	4.4	--	46	12	12	88	--	1.5	.03	.20	.20	4850
MAY 22...	7.1	--	46	10	9.0	50	--	.76	.02	.15	.10	520
JUN 29...	.0	--	88	25	26	190	--	.56	.02	.13	.06	330
AUG 01...	4.5	--	94	25	24	178	--	.00	.03	.08	.09	990
23...	4.5	--	88	30	23	214	--	.60	.03	.10	.10	630
SEP 21...	1.5	--	82	20	23	170	--	.65	.03	.08	.09	1440

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER AT LAWRENCEVILLE, 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				---	---	---	.0	.0	.0	.0	.0	.0
2				---	---	---	.0	.0	.0	.0	.0	.0
3				---	---	---	.0	.0	.0	.0	.0	.0
4				---	---	---	.0	.0	.0	.0	.0	.0
5				---	---	---	.0	.0	.0	.0	.0	.0
6				---	---	---	.0	.0	.0	.0	.0	.0
7				---	---	---	.0	.0	.0	.0	.0	.0
8				---	---	---	.0	.0	.0	.0	.0	.0
9				---	---	---	.0	.0	.0	.0	.0	.0
10				---	---	---	.0	.0	.0	.0	.0	.0
11				---	---	---	.0	.0	.0	.0	.0	.0
12				---	---	---	.0	.0	.0	.0	.0	.0
13				---	---	---	.0	.0	.0	.0	.0	.0
14				---	---	---	.0	.0	.0	.0	.0	.0
15				---	---	---	.0	.0	.0	.0	.0	.0
16				---	---	---	.0	.0	.0	.0	.0	.0
17				---	---	---	.0	.0	.0	.0	.0	.0
18				---	---	---	.0	.0	.0	.0	.0	.0
19				---	---	---	.5	.0	.0	.0	.0	.0
20				---	---	---	.0	.0	.0	.0	.0	.0
21				---	---	---	.0	.0	.0	.0	.0	.0
22				---	---	---	.0	.0	.0	.0	.0	.0
23				---	---	---	.0	.0	.0	.0	.0	.0
24				---	---	---	.0	.0	.0	.0	.0	.0
25				---	---	---	.0	.0	.0	---	---	---
26				---	---	---	.0	.0	.0	---	---	---
27				---	---	---	.0	.0	.0	---	---	---
28				---	---	---	.0	.0	.0	---	---	---
29				2.5	.0	1.0	.0	.0	.0	---	---	---
30				.0	.0	.0	.0	.0	.0	---	---	---
31				---	---	---	.0	.0	.0	---	---	---
MONTH				2.5	.0	.5	.5	.0	.0	.0	.0	.0

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

CHEMUNG RIVER BASIN

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01520000 COWANESQUE RIVER AT LAWRENCEVILLE, 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	26.5	18.5	22.0				---	---	---	30.0	22.5	25.5
2	21.5	17.5	19.5				---	---	---	28.0	23.0	25.5
3	24.0	14.5	19.0				---	---	---	28.0	23.0	25.5
4	26.5	14.0	20.0				---	---	---	28.0	20.5	23.5
5	27.0	18.0	22.0				---	---	---	27.0	21.0	23.5
6	21.0	15.5	17.5				---	---	---	26.5	21.5	23.5
7	17.0	13.5	15.0				---	---	---	25.0	18.5	21.0
8	20.0	12.0	15.5				---	---	---	25.5	17.5	20.5
9	15.5	13.0	14.0				---	---	---	26.0	18.0	21.5
10	14.5	13.0	13.5				---	---	---	26.0	20.0	22.5
11	22.0	12.5	17.0				---	---	---	25.5	16.5	20.0
12	21.0	15.5	18.5				---	---	---	22.5	13.5	17.5
13	25.5	16.0	20.5				---	---	---	23.0	16.5	19.0
14	23.5	18.5	20.5				---	---	---	18.5	17.0	17.5
15	24.5	19.0	21.5				---	---	---	17.5	15.0	16.5
16	27.5	17.5	22.5				---	---	---	17.0	15.5	16.0
17	25.0	21.0	22.5				---	---	---	17.0	15.5	16.0
18	24.5	21.0	22.5				---	---	---	18.0	17.0	17.0
19	25.5	19.5	22.5				---	---	---	19.0	17.5	18.0
20	---	---	---				---	---	---	19.5	18.0	18.5
21	---	---	---				---	---	---	19.0	17.0	18.5
22	---	---	---				---	---	---	17.5	16.0	16.5
23	---	---	---				---	---	---	16.5	14.5	15.5
24	---	---	---				---	---	---	16.5	15.5	16.0
25	---	---	---				24.0	14.5	19.0	16.0	14.5	15.5
26	---	---	---				23.0	16.0	19.5	14.5	14.0	14.0
27	---	---	---				26.5	17.5	21.5	15.5	14.0	14.5
28	---	---	---				30.0	21.0	25.0	16.0	13.5	15.0
29	---	---	---				30.5	23.0	26.5	15.5	12.5	14.0
30	---	---	---				30.5	23.5	26.0	14.0	12.5	13.5
31	---	---	---				28.0	22.0	25.0	---	---	---
MONTH	27.5	12.0	19.5				30.5	14.5	23.0	30.0	12.5	18.5

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

CHEMUNG RIVER BASIN

01520000 COWANESQUE RIVER AT LAWRENCEVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

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

SUSQUEHANNA RIVER BASIN

55

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) National Geodetic Vertical Datum of 1929. 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.--65 years, 10,670 ft³/s (302.2 m³/s), 18.60 in/yr (472 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. 18	0330	94,600 2,680	15.94 4.859	Jan. 27	1030	*97,700 2,770	*16.29 4.965
Nov. 11	2000	73,300 2,080	13.48 4.109	Mar. 22	2230	92,800 2,630	15.75 4.801
Dec. 15	1830	78,400 2,220	14.11 4.301	Mar. 28	0830	82,000 2,320	14.55 4.435
Jan. 10	0130	94,000 2,660	15.88 4.840	Apr. 2	1630	81,700 2,310	14.51 4.423

Minimum discharge, 1,080 ft³/s (30.6 m³/s), Sept. 14, gage height, 0.26 ft (0.079 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26500	8880	24200	13000	20000	4300	49800	7100	4430	2670	2010	1820
2	31100	8180	40100	11500	17000	4100	74100	6500	4250	2440	1900	1840
3	33800	7670	37900	9800	14000	4000	63900	6100	4190	2250	1820	1620
4	33500	7590	31700	8400	12000	3900	50600	5880	4590	2280	3250	1470
5	28400	29400	25700	8000	10400	3800	56800	5830	4860	2770	3040	1380
6	23000	23200	21300	10000	8600	3750	60000	8150	4690	3480	9610	1310
7	20300	19000	19600	8200	7190	3700	56400	9660	4370	2850	18100	1200
8	17500	46500	17200	9800	8000	3680	58400	8660	4640	2470	13600	1210
9	14800	51000	15500	23000	8600	3700	49100	8710	6320	2250	9140	1200
10	22600	37600	13600	74400	7600	3750	38800	12000	7850	2050	6900	1140
11	25500	59700	12100	46200	7100	3900	32500	11600	7640	2030	6330	1150
12	21100	57800	9950	32900	8000	4200	33500	9710	6310	1890	5160	1120
13	17700	43700	9070	27800	7500	4860	35000	8490	5300	1810	6080	1110
14	15000	31900	17100	24000	7000	6520	32200	10200	5990	1690	4360	1120
15	16000	24900	66600	19900	6600	29200	28400	32600	6350	1590	3300	1250
16	28400	21500	65900	15600	6400	42100	24400	20500	5500	1770	2800	1280
17	65900	19500	49900	14700	6600	31400	20600	26300	4760	2350	2460	1280
18	88200	22500	38400	12100	6100	23200	17500	25600	4200	2240	2210	1330
19	74800	20800	39600	10800	5700	19600	17000	18700	4350	2530	2010	1450
20	79900	18300	35000	11600	5400	22400	18500	15400	4810	2190	1830	3150
21	65300	15900	30000	9540	5100	28800	21000	12900	5420	1930	1700	7130
22	45000	14600	26000	9440	4900	77900	23000	12000	5400	1880	1630	6010
23	34100	14000	22000	9630	4700	81600	23000	9850	5080	1740	1530	4240
24	28200	13100	19000	8930	4800	81100	18000	8970	4800	1620	1470	3530
25	24300	12300	20000	9020	5000	57700	15000	9210	4660	1450	1420	3030
26	21400	11900	30000	27600	4800	41800	12000	8110	4030	1330	1340	2640
27	18800	12000	25000	88500	4600	56400	10800	6860	3530	1250	1300	2370
28	15100	11500	21000	69500	4400	78900	9790	6090	3190	1260	1290	2110
29	12400	11000	18000	49600	---	72000	8800	5550	2940	1340	1270	1910
30	10900	10700	16000	35800	---	60000	7800	5130	2820	1670	1410	1760
31	9780	---	14600	25000	---	49300	---	4780	---	1980	1650	---
TOTAL	969280	686620	832020	734260	218090	911560	966690	347140	147270	63050	121920	63160
MEAN	31270	22890	26840	23690	7789	29410	32220	11200	4909	2034	3933	2105
MAX	88200	59700	66600	88500	20000	81600	74100	32600	7850	3480	18100	7130
MIN	9700	7590	9070	8000	4400	3680	7800	4780	2820	1250	1270	1110
CFSM	4.01	2.94	3.44	3.04	1.00	3.77	4.13	1.44	.63	.26	.50	.27
IN.	4.62	3.28	3.97	3.50	1.04	4.35	4.61	1.66	.70	.30	.58	.30
CAL YR 1977 TOTAL	5926110	MEAN	16240	MAX	91400	MIN	1300	CFSM	2.08	IN	28.27	
WTR YR 1978 TOTAL	6061060	MEAN	16610	MAX	88500	MIN	1110	CFSM	2.13	IN	28.92	

SUSQUEHANNA RIVER BASIN

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 26...	0900	9813	9813	27500	190	7.2	--	8.2	80	0	--	22
NOV 15...	1330	9813	9813	49900	180	--	--	--	66	--	20	--
DEC 08...	1345	9813	9813	21600	180	--	--	--	76	--	20	--
JAN 10...	1145	9813	9813	83500	90	--	--	--	46	--	10	--
FEB 21...	1315	9813	9813	5780	240	--	--	--	98	--	28	--
MAR 20...	1100	9813	9813	28200	200	--	--	--	62	--	16	--
MAY 22...	0957	9813	9813	17400	220	--	--	--	82	--	20	--
JUN 29...	1120	9813	9813	5590	320	--	--	--	82	--	35	--
AUG 01...	1100	9813	9813	4360	350	--	20.0	7.8	110	0	37	--
23...	1005	9813	9813	3680	380	--	23.0	6.4	105	0	36	--
SEP 21...	1045	9813	9813	11400	300	8.5	22.0	7.9	103	0	36	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 26...	--	6.0	64	18	10	122	--	.68	.02	.34	.20	400
NOV 15...	3.8	--	52	20	11	106	26	1.1	.04	.48	.08	620
DEC 08...	7.1	--	58	18	11	90	--	1.2	.04	.28	.10	340
JAN 10...	5.5	--	32	14	10	148	--	1.1	.04	.13	.27	8480
FEB 21...	7.7	--	80	14	16	42	--	1.6	.03	.17	.08	150
MAR 20...	5.5	--	50	16	21	106	--	1.3	.02	.22	.09	2330
MAY 22...	8.8	--	56	15	17	180	--	.96	.02	.32	.10	660
JUN 29...	.0	--	90	25	23	176	--	1.2	.07	1.1	.23	670
AUG 01...	4.0	--	98	25	26	230	--	.90	.03	.10	.25	290
23...	4.0	--	98	25	26	224	--	.99	.10	3.2	.29	700
SEP 21...	3.5	--	100	20	22	218	--	1.1	.07	.54	.21	1980

01532000 TOWANDA CREEK NEAR MONROETON, PA

LOCATION.--Lat 41°42'25", long 76°29'06", 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.--Water-stage recorder. Datum of gage is 765.527 ft (233.333 m) National Geodetic Vertical Datum of 1929. Non-recording gage Aug. 27, 1976, to Oct. 20, 1977, at present site and datum. Non-recording gage Sept. 26, 1975, to Aug. 26, 1976, at bridge 0.6 mi (1.0 km) downstream at datum 11.82 ft (3.603 m) lower. Water-stage recorder Oct. 1, 1942, 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, non-recording gage at present site at datum 8.62 ft (2.627 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--64 years, 290 ft³/s (8.213 m³/s), 18.33 in/yr (466 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft³/s (2,100 m³/s), revised, June 22, 1972, gage height, 15.3 ft (4.66 m) in gage well, 16.9 ft (5.15 m) outside, from floodmark, site and datum then in use 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)
Jan. 9	0430	*41,400 1,170	*14.56 4.438	Mar. 27	1400	14,100 399	12.04 3.670
Jan. 26	1100	11,400 323	11.63 3.545	May 14	1715	10,600 300	11.54 3.517
Mar. 21	2345	7,880 223	11.07 3.374				

Minimum daily discharge, 22 ft³/s (0.623 m³/s), July 27.

REVISIONS.--The maximum discharge for the water year 1972 has been revised to 74,000 ft³/s (2,100 m³/s) June 22, 1972, gage height, 15.3 ft (4.66 m) in gage well, 16.9 ft (5.15 m) outside, from floodmark, superseding figure published in the report for 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	180	860	220	880	64	1810	160	163	68	84	220
2	586	168	633	200	740	61	2140	152	368	62	47	100
3	280	165	479	180	620	58	1020	142	845	59	37	60
4	140	231	423	167	530	56	849	131	502	110	1190	49
5	205	423	357	200	470	53	1620	197	332	190	196	42
6	280	306	370	170	410	50	1040	241	255	80	307	38
7	205	940	310	157	360	48	1400	201	250	62	486	35
8	154	1980	265	702	320	46	1220	183	688	56	1010	32
9	256	1120	235	15600	290	48	781	222	548	52	312	50
10	373	1020	215	1440	260	51	588	232	365	58	184	38
11	280	2170	200	1310	235	54	532	202	278	52	134	45
12	248	963	187	412	210	58	693	185	228	46	102	42
13	210	681	175	600	190	80	505	180	312	42	95	40
14	189	520	788	500	175	1000	400	3880	240	40	72	33
15	718	440	1900	430	160	2660	328	2550	194	39	62	30
16	556	379	1030	370	150	1290	288	1450	168	39	56	33
17	2510	380	752	335	140	698	258	2100	164	47	55	30
18	1240	405	889	300	131	478	232	1080	149	52	46	32
19	1230	312	869	270	124	608	238	956	160	41	43	580
20	1950	269	663	250	116	815	407	588	139	35	38	286
21	1390	251	736	230	108	3280	594	538	126	32	36	152
22	1020	238	644	215	102	3750	402	409	154	45	33	114
23	696	218	515	203	95	2750	332	331	122	37	30	90
24	508	218	452	196	88	1800	296	796	103	32	28	74
25	407	206	1590	190	83	919	263	628	93	28	27	62
26	342	229	816	5550	77	1110	237	408	89	25	34	55
27	348	199	511	2960	72	6980	217	327	104	22	30	49
28	306	180	399	1440	68	3500	198	277	125	25	27	42
29	253	170	330	1600	---	2110	181	237	98	32	26	38
30	222	183	280	1300	---	1470	170	207	78	42	30	36
31	198	---	250	1030	---	1150	---	185	---	53	170	---
TOTAL	17496	15144	18123	38727	7204	37095	19239	19375	7440	1603	5027	2527
MEAN	564	505	585	1249	257	1197	641	625	248	51.7	162	84.2
MAX	2510	2170	1900	15600	880	6980	2140	3880	845	190	1190	580
MIN	140	165	175	157	68	46	170	131	78	22	26	30
CFSM	2.62	2.35	2.72	5.81	1.20	5.57	2.98	2.91	1.15	.24	.75	.39
IN.	3.03	2.62	3.14	6.70	1.25	6.42	3.33	3.35	1.29	.28	.87	.44

CAL YR 1977	TOTAL	120303	MEAN	330	MAX	2510	MIN	21	CFSM	1.54	IN	20.82
WTR YR 1978	TOTAL	189000	MEAN	518	MAX	15600	MIN	22	CFSM	2.41	IN	32.70

WYALUSING CREEK BASIN

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) National Geodetic Vertical Datum of 1929. Oct. 7, 1959 to Aug. 12, 1965, crest-stage gage at same site and datum.

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

AVERAGE DISCHARGE.--13 years, 9.51 ft³/s (0.269 m³/s), 22.78 in/yr (579 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. 16	2400	329 9.32	5.66 1.725	Mar. 23	1745	284 8.04	5.54 1.689
Jan. 9	0515	*1,200 34.0	6.93 2.112	Mar. 27	1315	305 8.64	5.60 1.707
Jan. 26	1100	610 17.3	6.20 1.890	Apr. 1	1900	199 5.64	5.29 1.612
Feb. 5	1230	288 8.16	5.55 1.692	Apr. 5	0315	225 6.37	5.37 1.637
Feb. 7	0815	333 9.43	5.67 1.728	June 21	2315	225 6.37	5.37 1.637
Mar. 15	0015	446 12.6	5.91 1.801	July 4	1345	325 9.20	5.65 1.722

Minimum discharge, 1.2 ft³/s (0.034 m³/s) Sept. 17, 18; minimum recorded gage height, 3.83 ft (1.167 m) Jan. 6, but may have been less during period of no gage height record Sept. 20-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	3.5	53	4.0	32	3.2	124	4.0	2.4	2.4	2.2	6.0
2	11	3.3	36	2.8	29	3.1	126	3.7	2.2	2.2	2.2	4.0
3	8.6	3.3	24	2.3	26	3.0	56	3.5	3.5	2.2	1.7	2.9
4	7.8	3.3	18	1.8	24	2.8	51	3.5	2.8	67	3.1	2.4
5	5.9	4.0	14	1.5	21	2.7	136	15	2.4	24	6.7	2.1
6	11	3.7	12	1.3	19	2.6	68	11	2.0	9.1	2.8	1.8
7	7.0	4.6	10	1.3	17	2.5	99	9.5	3.5	6.7	11	1.6
8	5.9	33	9.0	1.8	16	2.5	67	9.5	11	5.2	7.8	1.6
9	24	18	8.2	276	14	2.4	35	26	6.3	4.9	15	2.7
10	12	21	8.0	61	13	2.7	23	12	4.3	4.0	6.7	1.7
11	9.5	80	7.7	44	12	3.5	24	9.5	3.5	4.9	5.2	2.0
12	8.2	40	7.4	25	11	5.0	30	8.2	3.3	3.3	4.3	1.7
13	6.3	26	7.2	17	9.7	11	17	9.1	42	2.8	4.0	1.6
14	6.7	19	51	13	9.0	108	11	8.2	10	2.4	5.9	1.5
15	55	15	55	11	8.4	306	9.5	7.0	7.0	2.2	3.7	1.4
16	64	13	33	10	7.6	46	9.5	10	5.2	2.2	3.1	1.3
17	196	11	24	9.6	7.0	20	8.2	24	4.6	5.6	2.8	1.3
18	58	11	24	8.8	6.4	15	7.0	11	4.3	3.5	2.4	1.3
19	56	8.6	23	8.0	5.9	15	6.3	10	5.9	2.4	2.2	4.9
20	53	7.4	18	7.6	5.4	17	10	9.1	3.7	2.0	2.0	3.1
21	29	7.4	18	7.2	5.1	86	12	10	9.1	1.9	1.7	2.8
22	20	7.4	17	6.8	4.8	186	8.2	7.4	30	2.2	1.5	3.3
23	14	5.9	9.5	6.6	4.5	186	7.8	6.3	8.2	2.2	1.4	2.6
24	11	5.9	4.9	6.3	4.2	131	7.0	7.8	6.3	1.9	1.3	2.3
25	9.5	6.3	14	6.0	3.9	67	6.3	6.3	4.9	1.6	1.3	2.1
26	8.2	6.3	8.6	50	3.7	52	5.9	4.9	6.3	1.4	1.4	2.0
27	7.4	5.9	7.0	174	3.5	199	5.2	4.3	5.9	1.4	1.4	1.8
28	6.3	5.2	5.2	91	3.3	180	4.9	3.7	5.6	1.4	1.4	1.7
29	5.2	4.9	4.2	56	---	144	4.9	3.5	3.5	2.2	1.5	1.6
30	4.6	5.9	3.1	41	---	99	4.3	3.1	2.8	2.0	1.6	1.6
31	4.0	---	3.8	36	---	84	---	2.7	---	3.5	3.8	---
TOTAL	738.1	389.8	537.8	988.7	326.4	1988.0	984.0	263.8	212.5	180.7	113.1	68.7
MEAN	23.8	13.0	17.3	31.9	11.7	64.1	32.8	8.51	7.08	5.83	3.65	2.29
MAX	196	80	55	276	32	306	136	26	42	67	15	6.0
MIN	4.0	3.3	3.1	1.3	3.3	2.4	4.3	2.7	2.0	1.4	1.3	1.3
CFSM	4.20	2.29	3.05	5.63	2.06	11.3	5.79	1.50	1.25	1.03	.64	.40
IN.	4.84	2.56	3.53	6.49	2.14	13.04	6.45	1.73	1.39	1.19	.74	.45

CAL YR 1977 TOTAL 3910.90 MEAN 10.7 MAX 196 MIN .12 CFSM 1.89 IN 25.65
WTR YR 1978 TOTAL 6791.60 MEAN 18.6 MAX 306 MIN 1.3 CFSM 3.28 IN 44.55

SUSQUEHANNA RIVER BASIN

59

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 current year.

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 FOR PERIOD OF RECORD.--Maximum discharge, 115,000 ft³/s (3,260 m³/s) Sept. 26, 1977, gage height, 26.47 ft (8.068 m); minimum, 1,280 ft³/s (36.2 m³/s) Sept. 15, 1978, gage height, 7.50 ft (2.286 m).

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. 18	0800	*108,000 3,060	*26.45 8.062	Jan. 27	1700	99,100 2,810	25.54 7.785
Nov. 12	0700	77,400 2,190	23.06 7.029	Mar. 23	0330	104,000 2,950	26.10 7.955
Dec. 16	0300	82,000 2,320	23.61 7.196	Mar. 28	0600	93,200 2,640	24.89 7.586
Jan. 10	0730	99,600 2,820	25.60 7.803	Apr. 2	2230	86,400 2,450	24.13 7.355

Minimum discharge, 1,280 ft³/s (36.2 m³/s) Sept. 15, gage height, 7.50 ft (2.286 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29800	10600	15200	13600	25000	5660	53100	8700	5170	3060	2230	2380
2	31700	9710	36500	12900	21300	5550	73900	8020	4790	2810	2260	2260
3	36700	9100	42600	11300	19500	5370	74100	7410	5460	2580	2060	2170
4	36500	8620	38700	10000	16300	4770	57100	6830	5620	2750	3490	1970
5	32300	19500	32000	9300	13600	4710	58100	7100	5710	3560	3930	1780
6	26400	29200	26500	9270	12100	4600	66900	9100	5420	3840	4220	1640
7	23200	20200	23000	9100	10300	4600	60200	11700	5070	3400	20100	1570
8	19900	35500	20900	9000	8680	4700	63700	10900	6270	2890	16400	1460
9	16900	58600	18800	56600	9500	4700	55500	10700	7640	2610	12800	1460
10	21400	44900	16900	88600	9400	4700	44100	13300	9270	2380	8450	1430
11	28000	53900	15900	56200	9100	4900	36600	14300	9360	2260	7440	1380
12	24400	70800	13200	39800	8800	5200	35800	12300	7780	2170	6240	1380
13	20100	52300	11100	31400	9600	5480	38700	10500	7360	2030	5960	1330
14	17100	40300	15200	27700	9000	6930	36300	13000	7150	1920	6560	1300
15	20900	30200	61400	22800	8400	27400	32500	33200	7590	1840	4710	1300
16	29900	25500	75600	18100	8100	47800	28400	30900	6650	1780	3730	1410
17	70000	22700	57200	16400	8230	38300	24500	31800	5680	2640	3250	1460
18	98300	22500	44400	14700	8210	28900	21000	34100	4960	2490	2810	1510
19	82800	24400	43800	12300	7940	23600	18400	24900	4670	2640	2460	1700
20	87400	21500	38200	11500	7380	26200	17000	20100	5200	2490	2230	2170
21	77400	18800	33000	11000	6800	32200	22100	16700	5840	2170	2060	4610
22	54300	17000	31300	10200	6750	81000	27900	15200	6120	2120	1890	7960
23	39500	16000	28400	10000	6150	97900	23200	12900	5890	2030	1810	5680
24	32200	15300	24400	9800	6000	93300	19000	11400	5330	1890	1730	4220
25	27300	14400	24500	9600	6200	70700	16300	12600	5110	1730	1640	3640
26	24200	13800	30600	29100	6340	50100	14200	11000	4580	1590	1590	3200
27	21600	13700	24500	88800	6050	61300	12800	8990	4010	1460	1510	2780
28	18200	13400	20000	81600	5710	91400	11600	7750	3730	1460	1460	2490
29	14900	12900	16100	60000	---	82900	10600	6880	3480	1460	1460	2230
30	13000	12400	13800	45000	---	70800	9560	6170	3260	1620	1430	2060
31	11700	---	13500	34000	---	56600	---	5660	---	2090	1730	---
TOTAL	1088000	757730	907200	869670	280440	1052270	1063160	434110	174170	71760	139640	71930
MEAN	35100	25260	29260	28050	10020	33940	35440	14000	5806	2315	4505	2398
MAX	98300	70800	75600	88800	25000	97900	74100	34100	9360	3840	20100	7960
MIN	11700	8620	11100	9000	5710	4600	9560	5660	3260	1460	1430	1300
CFSM	4.03	2.90	3.36	3.22	1.15	3.89	4.06	1.61	.67	.27	.52	.28
IN.	4.64	3.23	3.87	3.71	1.20	4.49	4.54	1.85	.74	.31	.60	.31
CAL YR 1977 TOTAL	6665320			MEAN 18260	MAX 106000	MIN 1640	CFSM 2.09	IN 28.43				
WTR YR 1978 TOTAL	6910080			MEAN 18930	MAX 98300	MIN 1300	CFSM 2.17	IN 29.48				

TUNKHANNOCK CREEK BASIN

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) National Geodetic Vertical Datum of 1929. 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.

AVERAGE DISCHARGE.--5 years, 13.8 ft³/s (0.391 m³/s), 25.39 in/yr (645 mm/yr).

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 (<0.001 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. 1	1830	193 5.47	3.98 1.213	Dec. 14	1815	302 8.55	4.39 1.338
Oct. 17	0800	211 5.98	4.06 1.237	Jan. 9	0515	*396 11.2	*4.67 1.423
Oct. 20	0215	184 5.21	3.94 1.201	Jan. 26	0945	344 9.74	4.52 1.378

Minimum discharge, 0.22 ft³/s (0.006 m³/s) Aug. 3, gage height, 2.04 ft (0.622 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	8.3	78	11	11	11	42	4.8	5.1	2.3	.91	7.9
2	54	7.2	54	11	11	11	41	4.3	4.3	2.0	.44	3.3
3	43	7.2	36	11	11	10	27	4.0	5.1	2.0	.26	1.7
4	32	7.2	31	11	11	10	26	4.5	5.4	5.1	1.6	1.4
5	24	7.2	27	11	11	10	45	10	4.8	6.8	1.0	1.0
6	29	6.4	27	11	11	10	31	14	4.0	4.0	13	.75
7	26	6.4	26	10	11	10	38	13	4.5	3.3	25	.75
8	22	19	25	10	11	10	29	13	21	2.7	24	.75
9	46	13	24	169	11	10	22	35	26	2.7	2.9	1.8
10	38	16	24	76	11	10	17	20	17	2.5	.61	1.0
11	29	71	24	35	11	11	17	15	13	2.9	.55	1.2
12	24	43	23	29	11	12	20	12	12	1.8	.75	1.0
13	21	32	35	24	11	35	19	11	19	1.7	2.3	.91
14	24	25	95	19	11	67	17	12	13	1.7	1.2	.75
15	102	23	107	18	11	64	15	10	8.3	1.8	.68	.91
16	71	21	60	17	11	52	13	12	7.2	1.8	.55	.91
17	147	22	46	15	11	44	12	17	6.1	2.5	.55	.75
18	62	22	33	15	11	37	11	19	5.1	2.1	.55	.75
19	60	20	25	14	11	31	10	20	8.7	1.8	.68	4.5
20	95	19	20	14	11	26	17	14	6.1	1.7	.75	4.5
21	44	19	18	14	11	47	20	13	4.8	1.4	.75	2.3
22	31	18	17	13	11	57	15	10	4.5	1.7	.75	2.9
23	22	17	16	13	11	61	13	9.1	3.8	1.6	.75	1.8
24	19	17	15	13	11	61	12	10	3.5	1.4	.68	1.4
25	16	16	14	12	11	71	10	10	3.1	1.4	.75	1.2
26	13	20	14	12	11	82	9.1	7.9	3.1	1.2	.83	.91
27	13	19	13	12	11	112	8.3	6.8	3.8	1.1	.75	.91
28	12	17	13	12	11	78	7.6	5.8	5.8	1.2	.91	.91
29	11	16	12	12	---	70	7.2	6.1	4.0	1.2	1.0	.91
30	10	17	12	12	---	50	6.8	5.4	3.1	1.7	1.2	1.0
31	8.7	---	12	12	---	38	---	5.4	---	1.3	4.0	---
TOTAL	1190.7	571.9	976	668	308	1208	578.0	354.1	235.2	68.4	90.65	50.77
MEAN	38.4	19.1	31.5	21.5	11.0	39.0	19.3	11.4	7.84	2.21	2.92	1.69
MAX	147	71	107	169	11	112	45	35	26	6.8	25	7.9
MIN	8.7	6.4	12	10	11	10	6.8	4.0	3.1	1.1	.26	.75
CFSM	5.20	2.59	4.27	2.91	1.49	5.29	2.62	1.55	1.06	.30	.40	.23
IN.	6.00	2.88	4.92	3.37	1.55	6.09	2.91	1.78	1.19	.34	.46	.26

CAL YR 1977 TOTAL 6141.56 MEAN 16.8 MAX 147 MIN .34 CFSM 2.28 IN 30.95
WTR YR 1978 TOTAL 6299.72 MEAN 17.3 MAX 169 MIN .26 CFSM 2.34 IN 31.75

TUNKHANNOCK CREEK BASIN

61

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, 5.5 mi (8.6 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 September 30 (discontinued).

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 (332 m), from topographic map.

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

AVERAGE DISCHARGE.--18 years, 17.3 ft³/s (0.49 m³/s), 18.65 in/yr (474 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)	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. 17	0145	507	14.4	4.22	1.286	Mar. 21	1915	500	14.2	4.20	1.280
Dec. 1	0745	309	8.8	3.56	1.085	Mar. 27	1430	415	11.8	3.95	1.204
Jan. 9	0745	514	14.6	4.24	1.292	May 16	2000	393	11.1	3.88	1.183
Jan. 26	1115	*824	23.3	*4.90	1.494	Aug. 12	Unknown	655	18.5	4.57	1.393
Mar. 14	1815	304	8.6	3.54	1.079						

Minimum discharge, 1.5 ft³/s (0.042 m³/s) Sept. 14, 15; minimum gage height, 0.90 ft (0.274 m), July 24, 25, 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	6.9	157	9.6	21	7.6	57	7.5	8.8	3.3	2.8	3.9
2	40	6.2	65	8.3	17	7.6	54	7.5	8.0	3.2	2.6	2.6
3	25	5.9	43	7.4	15	7.5	44	6.9	8.8	3.5	2.5	2.3
4	22	6.2	33	6.6	14	7.5	35	6.2	11	5.1	4.0	2.1
5	15	6.2	25	6.2	14	7.5	35	18	8.8	4.2	3.0	1.8
6	25	6.1	26	5.8	13	7.5	32	22	7.5	3.5	12	1.7
7	17	7.1	20	5.6	12	7.5	37	20	6.6	3.2	5.7	1.6
8	13	35	17	15	12	7.6	35	18	13	2.9	14	1.9
9	73	17	14	225	12	7.7	28	26	29	2.8	8.6	2.3
10	40	17	12	75	11	7.9	23	36	20	2.7	5.8	1.9
11	26	124	10	57	10	7.5	22	25	11	2.7	4.5	1.9
12	19	46	9.5	39	10	7.2	33	19	8.0	2.6	4.0	1.8
13	15	32	8.8	23	9.7	7.5	23	16	13	2.6	7.5	1.7
14	31	23	35	20	9.4	87	19	34	11	2.5	6.0	1.5
15	113	19	140	17	9.3	128	17	44	7.5	2.6	4.8	1.7
16	101	17	70	15	9.1	59	15	99	6.2	2.6	4.2	1.8
17	287	16	37	13	9.0	37	13	132	5.8	2.6	3.5	1.7
18	115	15	37	12	8.8	30	12	125	6.2	2.6	3.0	2.2
19	127	11	32	12	8.7	33	12	95	14	2.4	2.5	6.9
20	148	9.2	27	11	8.6	41	20	65	6.9	2.3	2.2	2.9
21	76	9.2	39	10	8.5	166	31	53	5.7	2.2	2.0	2.7
22	53	8.5	32	9.7	8.4	217	23	39	5.3	2.2	1.8	8.8
23	38	8.0	22	9.2	8.1	145	18	29	5.0	2.2	1.7	4.2
24	28	7.5	20	8.8	7.9	103	15	28	4.4	2.2	1.6	3.3
25	22	6.9	94	19	7.8	65	11	27	4.0	2.1	1.6	2.9
26	18	15	48	362	7.7	71	11	22	4.4	2.2	1.7	2.7
27	14	11	29	140	7.7	243	10	17	4.8	2.2	1.7	2.5
28	12	9.6	18	73	7.6	142	9.2	14	4.2	3.9	1.6	2.4
29	9.2	8.5	15	44	---	108	8.5	12	3.8	2.6	1.6	2.3
30	8.3	11	15	35	---	85	8.3	10	3.5	3.0	1.6	2.2
31	7.7	---	13	26	---	66	---	9.2	---	2.7	5.0	---
TOTAL	1576.2	521.0	1163.3	1320.2	297.3	1924.1	711.0	1082.3	256.2	87.4	125.1	80.2
MEAN	50.8	17.4	37.5	42.6	10.6	62.1	23.7	34.9	8.54	2.82	4.04	2.67
MAX	287	124	157	362	21	243	57	132	29	5.1	14	8.8
MIN	7.7	5.9	8.8	5.6	7.6	7.2	8.3	6.2	3.5	2.1	1.6	1.5
CFSM	4.03	1.38	2.98	3.38	.84	4.93	1.88	2.77	.68	.22	.32	.21
IN.	4.65	1.54	3.43	3.90	.88	5.68	2.10	3.20	.76	.26	.37	.24

CAL YR 1977	TOTAL	8550.8	MEAN 23.4	MAX 311	MIN 1.1	CFSM 1.86	IN 25.24
WTR YR 1978	TOTAL	9144.3	MEAN 25.1	MAX 362	MIN 1.5	CFSM 1.99	IN 27.00

TUNKHANNOCK CREEK BASIN

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) Pennsylvania Department of Transportation datum. 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.--64 years, 546 ft³/s (15.46 m³/s), 19.36 in/yr (492 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. 17	0615	9,790 277	9.53 2.905	Jan. 9	1200	12,900 365	11.17 3.405
Oct. 20	0845	7,560 214	8.17 2.490	Jan. 26	1645	*13,700 388	*11.47 3.496
Nov. 11	0700	5,900 167	7.07 2.155	Mar. 22	0015	7,280 206	7.99 2.435
Dec. 15	0115	6,380 181	7.40 2.256	Mar. 27	1715	8,310 235	8.64 2.633

Minimum discharge, 44.5 ft³/s (1.26 m³/s) Aug. 30, gage height, 1.16 ft (0.354 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	714	428	2650	420	935	210	1790	247	296	119	91	251
2	1920	401	1980	390	750	210	1900	243	260	104	82	140
3	1090	380	1360	360	680	210	1390	251	278	104	74	102
4	983	396	1150	350	521	210	1240	238	325	159	170	86
5	757	385	943	340	485	210	1740	551	264	212	161	72
6	778	360	943	350	470	200	1350	800	226	156	257	62
7	771	391	814	350	450	200	1570	721	201	128	336	57
8	608	1290	667	423	420	200	1400	627	1040	114	365	56
9	874	1010	530	8700	410	200	1110	959	943	104	238	70
10	1100	951	450	3150	390	200	943	1050	601	104	171	72
11	764	4180	420	1740	380	200	866	807	423	104	139	63
12	640	1940	400	1240	370	210	1090	674	335	95	129	72
13	563	1370	390	950	350	230	866	608	521	83	213	66
14	551	1070	1440	840	340	300	742	627	503	76	170	59
15	4330	904	5130	700	320	3850	647	749	355	75	128	57
16	2840	800	2600	650	310	2260	588	1080	287	73	104	58
17	8540	749	1760	600	300	1460	545	2590	251	91	89	56
18	4510	792	1560	560	290	1140	497	2040	238	99	77	61
19	3560	647	1460	540	280	1090	451	1730	355	81	68	199
20	5890	563	1190	520	270	1400	708	1210	296	70	62	193
21	2970	539	1460	500	260	3080	991	1110	238	66	57	141
22	1870	539	1500	490	250	6150	742	897	215	69	54	251
23	1380	491	1080	490	240	4740	608	728	194	66	50	205
24	1080	462	912	480	230	3980	545	764	171	72	47	154
25	912	440	1660	728	230	2340	491	771	154	64	47	125
26	807	582	1320	11600	220	2690	456	588	143	57	51	104
27	764	582	829	5810	220	7020	434	491	165	56	49	91
28	701	497	674	2730	220	4940	385	434	175	65	47	83
29	588	462	582	1800	---	3480	350	385	156	71	47	75
30	527	491	500	1480	---	2520	330	350	138	94	45	69
31	468	---	460	1180	---	1920	---	315	---	103	185	---
TOTAL	53850	24092	38814	50461	10591	57050	26765	24635	9747	2934	3803	3150
MEAN	1737	803	1252	1628	378	1840	892	795	325	94.6	123	105
MAX	8540	4180	5130	11600	935	7020	1900	2590	1040	212	365	251
MIN	468	360	390	340	220	200	330	238	138	56	45	56
CFSM	4.54	2.10	3.27	4.25	.99	4.80	2.33	2.08	.85	.25	.32	.27
IN.	5.23	2.34	3.77	4.90	1.03	5.54	2.60	2.39	.95	.28	.37	.31
CAL YR 1977	TOTAL	295543	MEAN 810	MAX 8540	MIN 38	CFSM 2.12	IN 28.71					
WTR YR 1978	TOTAL	305892	MEAN 838	MAX 11600	MIN 45	CFSM 2.19	IN 29.71					

TUNKHANNOCK CREEK BASIN

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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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY C02 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 20...	1230	9813	9813	6430	70	8.0	8.0	12.0	34	0	--	8.0
NOV 17...	1200	9813	9813	721	110	--	--	--	40	--	12	--
DEC 08...	1030	9813	9813	614	110	--	--	--	50	--	12	--
FEB 14...	1352	9813	9813	401	90	--	--	--	45	--	11	--
MAR 08...	1000	9813	9813	219	140	--	--	--	46	--	14	--
APR 03...	1130	9813	9813	1360	80	--	--	--	30	--	9.6	--
MAY 18...	1045	9813	9813	2180	100	--	--	--	35	--	4.8	--
JUN 29...	1120	9813	9813	154	140	--	--	--	46	--	16	--
JUL 13...	1035	9813	9813	84	150	--	--	--	55	--	18	--
JUL 18...	0955	9813	9813	99	150	--	--	--	51	--	16	--
SEP 27...	1025	9813	9813	91	160	8.8	13.0	11.6	51	0	92	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 20...	--	3.5	24	14	8.0	76	.98	.03	.06	.10	1250
NOV 17...	2.7	--	32	20	8.0	115	.92	.02	.05	.06	50
DEC 08...	5.5	--	28	14	9.0	46	.94	.03	.05	.06	130
FEB 14...	4.6	--	28	8.0	10	60	1.1	.01	.10	.04	60
MAR 08...	2.7	--	34	20	13	136	1.4	.58	.11	1.9	190
APR 03...	1.6	--	22	6.0	8.0	70	1.1	.01	.14	.07	680
MAY 18...	6.3	--	24	18	9.0	68	.64	.02	.14	.10	650
JUN 29...	1.6	--	40	20	13	90	1.2	.03	.13	1.0	520
JUL 13...	2.4	--	42	25	12	100	.72	.01	.10	.16	140
JUL 18...	2.4	--	46	10	12	126	.70	.01	.10	.06	150
SEP 27...	.8	--	48	25	13	116	.60	.02	.08	.06	40

SUSQUEHANNA RIVER BASIN

01534135 SUSQUEHANNA RIVER AT PITTSBURGH, 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, OCTOBER 1977 TO JULY 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT												
20...	1100	9813	9813	90	7.0	7.3	12.0	34	0	--	12	--
NOV												
14...	1455	9813	9813	120	--	--	--	64	--	13	--	8.2
DEC												
05...	1059	9813	9813	120	--	--	--	58	--	14	--	6.0
JAN												
04...	1005	9813	9813	210	--	--	--	85	--	27	--	4.6
FEB												
02...	1240	9813	9813	160	--	--	--	58	--	17	--	3.8
MAR												
22...	1045	9813	9813	110	--	--	--	36	--	12	--	1.6
APR												
04...	--	9813	9813	110	--	--	--	40	--	12	--	2.8
MAY												
08...	1415	9813	9813	210	--	--	--	60	--	21	--	1.6
JUL												
11...	1000	9813	9813	270	--	--	--	106	--	31	--	7.7
18...	0955	9813	9813	300	--	--	--	90	--	35	--	.5

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT											
20...	1.0	32	18	6.0	136	--	.90	.02	.08	.13	3200
NOV											
14...	--	42	14	8.0	94	24	.84	.03	.09	.09	1190
DEC											
05...	--	42	10	8.0	100	--	1.0	.04	.10	.09	800
JAN											
04...	--	66	14	17	204	--	1.5	.04	.10	.64	190
FEB											
02...	--	44	18	11	--	--	1.4	.03	.16	.06	419
MAR											
22...	--	32	10	10	140	--	1.2	.03	.19	.18	14000
APR											
04...	--	32	8.0	6.0	34	--	1.0	.03	.13	.17	1120
MAY											
08...	--	60	20	15	132	--	1.0	.04	.20	.07	510
JUL											
11...	--	82	30	22	172	--	.82	.02	.17	.11	320
18...	--	82	25	23	214	--	.50	.01	.10	.08	270

LACKAWANNA RIVER BASIN

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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 National Geodetic Vertical Datum of 1929 (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, 3,230 acre-ft (3.98 hm³) Oct. 31 (elevation 1,592.33 ft or 485.342 m); minimum, 380 acre-ft (0.469 hm³) Aug. 24 (elevation, 1,572.40 ft or 479.268 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01534180 Stillwater Reservoir			
Sept. 30	1,577.61	961	--
Oct. 31	1,573.53	553	- 6.6
Nov. 30	1,573.69	569	+ 0.3
Dec. 31	1,573.86	586	+ 0.3
CAL YR 1977	--	--	+ .05
Jan. 31	1,574.70	670	+ 1.4
Feb. 28	1,572.99	499	- 3.1
Mar. 31	1,582.60	1,600	+17.9
Apr. 30	1,573.46	546	-17.7
May 31	1,573.54	554	+ 0.1
June 30	1,572.70	470	- 1.4
July 31	1,572.59	459	- 0.2
Aug. 31	1,573.08	508	+ 0.8
Sept. 30	1,572.50	450	- 1.0
WTR YR 1978	--	--	- 0.7

LACKAWANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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. 65).

AVERAGE DISCHARGE.--20 years, 74.4 ft³/s (2.107 m³/s), 26.04 in/yr (661 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, 690 ft³/s (19.5 m³/s) Oct. 21, gage height, 4.40 ft (1.341 m); no flow July 21, 22, when gates were closed at Stillwater Dam; minimum gage-height 1.30 ft (0.396 m), July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	53	99	66	126	31	467	48	48	15	9.2	39
2	275	49	225	60	101	31	503	44	44	12	7.8	36
3	288	24	220	54	88	30	481	41	45	11	6.6	25
4	268	25	169	49	74	30	432	39	45	17	14	16
5	235	26	132	46	67	29	425	70	42	26	26	11
6	188	25	111	45	69	29	419	142	36	25	31	7.4
7	161	26	115	43	67	28	416	148	32	19	38	5.8
8	136	90	90	45	67	27	436	128	69	15	36	4.5
9	150	142	83	148	63	26	406	140	104	14	30	6.6
10	222	122	72	432	58	26	345	183	88	13	23	6.6
11	209	188	63	485	55	26	270	161	70	12	16	7.8
12	167	250	57	324	51	26	260	130	55	11	15	9.7
13	130	183	60	209	50	28	275	109	58	9.7	25	9.7
14	117	123	83	152	49	44	265	106	74	8.3	30	8.3
15	204	92	214	119	46	108	245	126	61	7.4	23	7.8
16	281	77	330	95	44	157	202	136	44	6.6	16	7.8
17	93	70	318	88	44	146	144	202	35	7.0	12	7.8
18	159	78	224	80	42	117	113	247	32	9.2	8.3	8.3
19	443	74	165	77	40	97	93	262	37	19	6.6	35
20	467	78	132	77	37	88	115	247	38	2.2	5.8	58
21	655	56	117	69	37	102	174	219	32	.00	4.8	48
22	663	56	117	69	36	232	165	193	27	.00	3.9	42
23	528	53	108	64	35	288	134	152	24	1.6	3.3	38
24	333	53	92	57	34	327	115	126	21	2.8	3.0	30
25	195	49	108	61	34	409	97	124	19	2.2	3.0	24
26	130	58	144	174	34	348	85	111	18	2.8	3.0	18
27	108	69	113	367	32	296	75	92	18	2.6	2.8	15
28	93	60	87	426	31	333	66	78	19	4.2	2.6	14
29	78	56	70	330	---	360	60	69	19	4.2	3.3	11
30	66	53	69	227	---	432	53	61	17	10	2.6	9.7
31	58	---	74	165	---	485	---	55	---	8.3	12	---
TOTAL	7413	2358	4061	4703	1511	4736	7336	3989	1271	298.10	423.6	567.8
MEAN	239	78.6	131	152	54.0	153	245	129	42.4	9.62	13.7	18.9
MAX	663	250	330	485	126	485	503	262	104	26	38	58
MIN	58	24	57	43	31	26	53	39	17	.00	2.6	4.5
MEAN#	232	78.9	131	153	50.9	171	227	129	41.0	9.42	14.5	17.9
CFSM#	5.98	2.03	3.38	3.94	1.31	4.41	5.85	3.32	1.06	.24	.37	.46
IN.#	6.89	2.26	3.90	4.54	1.36	5.08	6.53	3.83	1.18	.28	.43	.51

CAL YR 1977 TOTAL 37399.20 MEAN 102 MAX 802 MIN 1.6 MEAN# 102 CFSM# 2.63 IN.# 35.86
WTR YR 1978 TOTAL 38667.50 MEAN 106 MAX 663 MIN .00 MEAN# 106 CFSM# 2.73 IN.# 37.07

Adjusted for change in contents in Stillwater Lake.

LACKAWANNA RIVER BASIN

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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 1977 TO MAY 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)
NOV 14...	1125	9813	9813	126	50	34	7.2	4.4	18
FEB 09...	1100	9813	9813	63	250	98	15	16	20
MAY 24...	1000	9813	9813	121	50	32	7.2	3.8	1

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 14...	14	5.0	46	12	.66	.03	.07	.06	190
FEB 09...	84	8.0	108	--	.68	.02	.21	.15	229
MAY 24...	6.0	6.0	56	--	.60	.02	.12	.08	450

LACKAWANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. 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. 65).

AVERAGE DISCHARGE.--39 years, 206 ft³/s (5.834 m³/s), 25.90 in/yr (658 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. 1, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft³/s (69.4 m³/s) Jan. 9, gage height, 5.66 ft (1.725 m); minimum, 29 ft³/s (0.82 m³/s) Sept. 14, 15; gage height, 1.64 ft (0.500 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	649	164	560	212	361	78	1170	148	156	58	44	71
2	628	153	607	196	268	77	1270	140	143	50	41	69
3	565	148	550	178	232	76	1040	131	170	43	42	61
4	514	143	454	161	216	75	906	124	161	75	55	54
5	430	140	383	158	206	74	978	302	140	90	55	45
6	482	138	335	150	200	74	888	379	126	84	98	44
7	335	156	298	145	180	74	964	356	124	71	83	39
8	279	535	257	140	175	76	926	326	239	60	81	41
9	459	483	243	845	165	78	803	406	287	55	67	44
10	473	459	212	1100	160	80	660	473	219	54	60	40
11	416	857	181	1020	155	80	596	397	181	52	54	40
12	343	693	167	932	150	81	628	339	156	49	156	39
13	279	560	178	721	140	89	570	298	175	46	158	39
14	272	434	298	545	135	150	519	392	172	45	106	35
15	617	361	721	388	130	370	464	464	150	44	87	36
16	744	310	682	310	120	352	402	623	129	45	78	37
17	1520	294	671	268	105	322	318	926	117	44	56	37
18	900	294	545	246	96	283	272	978	109	42	62	41
19	1120	260	449	232	94	268	243	857	135	44	56	87
20	1200	232	370	216	92	264	326	682	113	45	54	76
21	1180	216	361	212	90	478	411	586	107	36	50	71
22	1110	206	379	190	87	951	370	493	96	33	49	83
23	900	193	326	175	85	1040	318	411	89	36	45	69
24	633	184	290	158	84	1020	275	388	83	39	41	56
25	459	175	352	190	82	938	239	361	78	36	40	49
26	352	219	439	1100	81	826	225	294	78	36	42	46
27	294	196	352	1060	80	1220	209	257	76	36	41	43
28	257	187	294	900	79	1190	190	225	80	46	37	41
29	225	172	246	820	---	1180	172	203	82	37	39	39
30	196	175	232	600	---	1120	161	181	69	49	36	37
31	178	---	229	420	---	1110	---	167	---	45	66	---
TOTAL	17929	8737	11661	13988	4048	14094	16513	12307	4040	1525	1979	1509
MEAN	578	291	376	451	145	455	550	397	135	49.2	63.8	50.3
MAX	1520	857	721	1100	361	1220	1270	978	287	90	158	87
MIN	178	138	167	140	79	74	161	124	69	33	36	35
MEAN#	571	291	376	452	142	473	532	397	134	49.0	63.0	49.3
CFSM#	5.29	2.69	3.48	4.18	1.31	4.38	4.93	3.68	1.24	.45	.58	.46
IN.#	6.10	3.00	4.01	4.82	1.36	5.05	5.50	4.24	1.38	.52	.67	.51

CAL YR 1977	TOTAL	100813	MEAN	276	MAX	1520	MIN	33	MEAN#	276	CFSM#	2.56	IN.#	34.72
WTR YR 1978	TOTAL	108330	MEAN	297	MAX	1520	MIN	33	MEAN#	297	CFSM#	2.75	IN.#	37.31

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) National Geodetic Vertical Datum of 1929. Prior to Oct 1, 1974, water-stage recorder at same site and datum. Oct 1, 1974 to Aug. 17, 1975, non-recording gage at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records good, except for periods of no gage-height record, Oct. 1-25, Nov. 7-14, 20-30, Jan. 26 to Feb. 8, March 15-28, and May 14-17, which are fair. Flow regulated since December 1959 by Stillwater Lake about 33 mi (53 km) upstream (see p. 65).

AVERAGE DISCHARGE.--40 years, 507 ft³/s (14.36 m³/s), 20.74 in/yr (527 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 daily discharge, 3,200 ft³/s (90.6 m³/s) March 27, gage height, 5.94 ft (1.810 m); minimum, 58 ft³/s (1.64 m³/s) Sept. 30, gage height, 2.12 ft (0.646 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1900	425	1690	516	720	160	2030	252	332	98	97	138
2	1700	366	1750	481	660	155	2250	238	283	92	86	108
3	1500	349	1450	409	600	155	1820	217	457	115	83	101
4	1400	337	1200	355	560	150	1590	201	407	126	141	92
5	1200	321	1010	355	530	148	1680	482	310	115	94	88
6	1050	304	917	328	500	153	1510	688	247	105	143	88
7	900	380	766	308	470	153	1630	637	221	100	143	93
8	780	1300	637	369	450	154	1550	568	321	90	144	120
9	1150	1200	586	1850	410	156	1330	732	534	84	113	114
10	1300	1150	494	1890	368	175	1120	839	378	82	104	95
11	1050	2100	404	1810	350	194	1010	702	288	82	163	97
12	920	1700	358	1400	330	230	1060	595	243	80	163	84
13	750	1400	397	1120	310	292	927	534	378	76	375	75
14	740	1100	824	1000	290	383	831	1040	299	74	172	73
15	1150	887	1890	813	270	700	724	1910	238	74	137	83
16	1700	777	1640	666	250	600	644	1780	204	94	121	75
17	2600	808	1430	620	240	540	548	2850	177	131	113	72
18	1600	855	1290	560	221	500	469	2580	170	89	102	94
19	1900	702	1140	510	211	460	425	2180	501	84	93	259
20	2100	630	933	490	192	540	673	1660	225	88	87	130
21	2100	570	1210	460	180	900	903	1380	185	79	88	113
22	2000	500	1200	430	180	1700	724	1140	167	72	84	153
23	1700	450	942	390	170	1800	602	960	148	69	82	110
24	1400	410	809	350	170	1800	528	951	137	82	78	95
25	1100	380	1250	488	170	1600	469	855	126	76	77	91
26	839	510	1260	1890	170	1500	425	688	126	75	74	84
27	754	450	943	1900	170	3200	389	575	134	74	72	79
28	688	400	767	1600	160	3000	349	495	137	93	79	76
29	595	380	648	1400	---	2610	310	444	148	76	109	74
30	528	750	607	1100	---	2410	283	383	120	90	74	71
31	469	---	571	880	---	2120	---	354	---	94	307	---
TOTAL	39563	21891	31013	26738	9302	28638	28803	28910	7641	2759	3798	3025
MEAN	1276	730	1000	863	332	924	960	933	255	89.0	123	101
MAX	2600	2100	1890	1900	720	3200	2250	2850	534	131	375	259
MIN	469	304	358	308	160	148	283	201	120	69	72	71
MEAN#	1269	730	1000	864	329	942	942	933	254	88.8	124	100
CFSM#	3.82	2.20	3.01	2.60	0.99	2.84	2.84	2.81	.76	.27	.37	.30
IN.#	4.40	2.46	3.47	3.00	1.03	3.27	3.17	3.24	.85	.31	.43	.34

CAL YR 1977 TOTAL 229865 MEAN 630 MAX 3630 MIN 59 MEAN# 630 CFSM# 1.90 IN.# 25.76
WTR YR 1978 TOTAL 232081 MEAN 636 MAX 3200 MIN 69 MEAN# 636 CFSM# 1.92 IN.# 26.00

Adjusted for change in contents in Stillwater Lake.

LACKAWANNA RIVER BASIN

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMMR)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)
OCT 20...	1015	9813	9813	2100	90	5.9	8.0	11.4	40	0	--	7.2
NOV 14...	1425	9813	9813	1040	140	--	--	--	62	--	9.6	--
DEC 05...	1205	9813	9813	993	160	--	--	--	64	--	12	--
JAN 04...	1200	9813	9813	360	260	--	--	--	92	--	14	--
FEB 02...	1400	9813	9813	660	215	--	--	--	72	--	15	--
MAR 08...	1400	9813	9813	148	370	--	--	--	116	--	32	--
MAY 08...	1515	9813	9813	561	180	--	--	--	52	--	11	--
JUL 11...	1000	9813	9813	80	400	--	--	--	104	--	24	--
JUL 18...	0955	9813	9813	86	350	--	--	--	86	--	19	--
SEP 27...	1245	9813	9813	82	400	7.5	17.0	10.4	110	0	29	--

DATE	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS-PENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 20...	--	5.5	18	28	8.0	90	--	.90	.03	.09	.09	730
NOV 14...	10	--	18	38	8.0	98	?	.80	.03	.20	.23	310
DEC 05...	8.8	--	16	42	11	128	--	1.0	.04	.39	.23	320
JAN 04...	15	--	26	66	18	176	--	1.1	.10	.69	.53	479
FEB 02...	9.3	--	16	57	16	--	--	1.2	.02	.30	.29	279
MAR 08...	9.3	--	32	74	40	156	--	1.5	.07	1.9	.93	520
MAY 08...	6.6	--	14	44	14	124	--	1.2	.03	.47	.37	690
JUL 11...	12	--	26	70	26	258	--	5.2	.08	.40	1.3	590
JUL 18...	10	--	20	70	25	236	--	4.4	.09	.65	1.2	690
SEP 27...	9.0	--	30	75	29	292	--	3.8	.08	.33	1.5	530

SUSQUEHANNA RIVER BASIN

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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) National Geodetic Vertical Datum of 1929. 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.--79 years, 13,420 ft³/s (380 m³/s), 18.30 in/yr (465 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. 18	1515	114,000 3,230	20.82 6.346	Jan. 27	2400	*116,000 3,280	*21.08 6.425
Nov. 12	1115	84,700 2,400	17.15 5.227	Mar. 23	1230	115,000 3,260	20.89 6.367
Dec. 16	1120	91,300 2,590	17.97 5.477	Mar. 28	1500	109,000 3,090	20.20 6.157
Jan. 10	1545	109,000 3,090	20.22 6.163	Apr. 4	0600	93,300 2,640	18.23 5.556

Minimum discharge, 1,500 ft³/s (42.5 m³/s) Sept. 14, 15, 16, 17, gage height, 0.19 ft (0.058 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33200	12500	19100	15900	34300	6570	60500	10300	7030	3630	2590	2810
2	32800	11400	41700	15400	30600	6470	72400	9420	6300	3430	2650	3080
3	37500	10600	47700	13900	26500	6220	87600	8820	6570	3260	2680	2770
4	37400	10100	42900	12000	22200	5740	68200	8170	7220	3280	2730	2620
5	35100	11800	35400	11500	19500	5510	60800	8170	6920	3780	4480	2350
6	29400	31300	29900	11100	16000	5200	73300	10200	6590	4280	4400	2070
7	25400	23100	25500	10900	14000	5400	67600	12400	6200	4460	12900	1910
8	22400	31000	22500	11500	12000	5500	70100	13900	7970	3780	18800	1830
9	20100	63200	21000	58900	10000	5600	64900	13100	10600	3300	15400	1830
10	21000	53100	19400	104000	11000	5800	52600	15000	11000	3070	10600	1700
11	27900	59000	17800	72400	11000	6000	42700	17100	11000	2810	8200	1700
12	27300	80500	16000	48200	10500	6320	38500	16700	9510	2730	7580	1630
13	22700	61200	13500	37000	10500	6690	41400	14500	9210	2600	6770	1590
14	19800	47400	20000	32500	11000	8000	40400	14000	9040	2400	7350	1520
15	25400	35000	57700	27700	10500	25000	36400	32500	8760	2300	6270	1520
16	31600	28800	87600	22000	9800	51700	32300	42400	8170	2150	4910	1520
17	66000	25600	70500	19000	9300	48400	27900	40900	7080	2500	4080	1520
18	109000	24500	54000	17000	9400	36200	23900	44700	6340	3100	3540	1590
19	99800	26600	48200	15000	9500	28700	21100	36000	6100	2940	3140	2410
20	102000	23600	45700	14000	9100	28700	19700	27700	6100	3080	2820	2680
21	96500	21100	38700	13000	8400	33500	21300	22500	6390	2910	2600	2840
22	70700	19100	37000	12500	8000	75300	29300	19700	6770	2590	2390	6770
23	49700	17900	33400	12000	7940	111000	27500	17500	6950	2510	2190	7580
24	38600	17200	29100	11500	7330	108000	22500	15100	6250	2390	2070	5580
25	32000	16200	27700	11000	7000	93400	19300	15800	5860	2150	1950	4500
26	27800	16100	34500	50100	7200	65200	17000	14700	5600	1950	2300	3900
27	24800	15800	30800	101000	7200	71400	15300	12200	5040	1790	2260	3410
28	21900	15400	24100	103000	6920	104000	13900	10300	4570	1720	2200	3080
29	18300	14600	19600	73100	---	100000	12500	9070	4320	1640	2220	2790
30	15800	14200	17000	53100	---	87700	11400	8140	3940	1700	2160	2560
31	13900	---	15900	40800	---	69300	---	7410	---	1910	2110	---
TOTAL	1235800	837900	1043900	1051000	356690	1222520	1192300	548400	213400	86140	156340	83660
MEAN	39860	27930	33670	33900	12740	39440	39740	17690	7113	2779	5043	2789
MAX	109000	80500	87600	104000	34300	111000	87600	44700	11000	4460	18800	7580
MIN	13900	10100	13500	10900	6920	5200	11400	7410	3940	1640	1950	1520
CFSM	4.00	2.80	3.38	3.40	1.28	3.96	3.99	1.78	.71	.28	.51	.28
IN.	4.62	3.13	3.90	3.93	1.33	4.57	4.45	2.05	.80	.32	.58	.31

CAL YR 1977 TOTAL 7485050 MEAN 20510 MAX 109000 MIN 1850 CFSM 2.06 IN 27.96
WTR YR 1978 TOTAL 8028050 MEAN 21990 MAX 111000 MIN 1520 CFSM 2.21 IN 29.96

TOBY CREEK BASIN

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) National Geodetic Vertical Datum of 1929.

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.--37 years, 45.9 ft³/s (1.300 m³/s), 19.24 in/yr (489 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)
Jan. 9	0430	1,060 30.0	3.03 0.924	Mar. 26	2345	*1,110 31.4	*3.09 0.942
Jan. 26	0930	1,020 28.9	2.99 0.911	Sept. 19	Unknown	934 26.5	2.88 0.878

Minimum discharge, 6.5 ft³/s (0.18 m³/s) July 22, gage height, 0.32 ft (0.098 m); but could have been less during a period of no gage-height record, Sept. 15-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	34	195	43	83	21	133	22	31	12	15	18
2	62	33	139	40	66	21	113	20	27	12	12	16
3	37	33	106	36	58	20	91	20	55	13	13	17
4	29	41	91	33	52	20	93	20	55	23	24	16
5	25	34	79	28	46	20	111	46	33	16	16	14
6	30	33	81	26	42	20	91	42	26	15	19	14
7	27	39	66	25	39	20	93	32	26	15	17	14
8	24	179	52	56	37	20	87	29	30	13	17	19
9	66	116	51	623	35	21	74	62	30	12	14	16
10	50	128	45	257	33	22	64	61	25	18	14	16
11	32	285	39	158	31	23	58	46	22	15	15	15
12	29	173	40	111	29	25	56	40	22	12	15	14
13	26	128	36	90	28	33	47	38	43	12	15	15
14	41	95	85	80	26	111	41	144	25	12	14	15
15	213	81	182	72	25	152	35	199	21	13	12	16
16	147	70	147	66	26	116	33	206	19	14	11	16
17	370	79	118	56	24	85	30	351	19	14	13	16
18	179	76	155	53	23	67	29	337	19	12	15	20
19	202	58	152	48	23	83	29	293	17	11	14	120
20	245	50	121	46	22	118	59	192	16	11	14	15
21	167	46	179	43	22	245	67	147	17	10	12	14
22	136	43	167	41	22	390	52	109	19	9.8	12	26
23	106	39	121	39	22	341	41	83	16	15	11	15
24	85	38	98	39	21	285	37	116	15	12	12	14
25	72	35	220	61	21	202	33	106	14	11	13	13
26	69	54	161	591	21	395	29	74	14	11	13	12
27	69	40	104	400	21	815	27	59	15	11	13	12
28	58	35	78	242	21	437	25	51	13	11	21	12
29	48	31	61	167	---	289	23	45	12	13	16	11
30	42	42	52	126	---	206	24	39	15	15	18	11
31	37	---	48	98	---	158	---	33	---	14	41	---
TOTAL	2769	2168	3269	3794	919	4781	1725	3062	711	407.8	481	562
MEAN	89.3	72.3	105	122	32.8	154	57.5	98.8	23.7	13.2	15.5	18.7
MAX	370	285	220	623	83	815	133	351	55	23	41	120
MIN	24	31	36	25	21	20	23	20	12	9.8	11	11
(f)	4.7	4.9	4.5	4.5	4.3	4.5	5.0	4.8	5.1	5.5	5.4	5.3
MEAN#	94.0	77.2	110	126	37.1	158	62.5	104	28.8	18.7	20.9	24.0
CFSM#	2.90	2.38	3.40	3.89	1.15	4.88	1.93	3.21	0.89	0.58	0.65	0.74
IN.#	3.34	2.66	3.92	4.48	1.20	5.63	2.15	3.70	0.99	0.67	0.75	0.83

CAL YR 1977 TOTAL 20013.6 MEAN 54.8 MAX 437 MIN 9.8 MEAN# 58.9 CFSM# 1.82 IN.# 24.70
WTR YR 1978 TOTAL 24648.8 MEAN 67.5 MAX 815 MIN 9.8 MEAN# 72.4 CFSM# 2.23 IN.# 30.35

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

SUSQUEHANNA RIVER BASIN

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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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBR)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 20...	1500	9813	9813	227	110	8.0	10.0	11.2	26	0	--	9.6
NOV 17...	1350	9813	9813	70	180	--	--	--	60	--	12	--
DEC 05...	1320	9813	9813	78	150	--	--	--	40	--	12	--
JAN 09...	2100	9813	9813	405	90	--	--	--	25	--	9.6	--
FEB 06...	1100	9813	9813	40	160	--	--	--	45	--	16	--
MAR 09...	1000	9813	9813	19	200	--	--	--	62	--	14	--
APR 03...	1210	9813	9813	87	130	--	--	--	35	--	12	--
MAY 18...	0715	9813	9813	380	120	--	--	--	28	--	8.8	--
JUL 13...	1035	9813	9813	15	--	--	--	--	51	--	16	--
JUL 18...	0955	9813	9813	9.4	190	--	--	--	47	--	12	--
SEP 27...	0915	9813	9813	12	180	8.4	10.0	10.2	42	0	16	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 20...	--	.5	28	18	--	66	1.0	.03	.14	.19	480
NOV 17...	7.7	--	28	30	14	106	1.2	.04	.50	.23	350
DEC 05...	2.2	--	24	18	20	136	1.4	.07	.44	.22	180
JAN 09...	.2	--	18	10	15	168	1.2	.05	.19	.44	8779
FEB 06...	.8	--	32	14	19	2	1.2	.02	.54	.36	160
MAR 09...	7.1	--	32	20	26	84	1.3	.04	.87	1.0	390
APR 03...	1.3	--	20	10	19	108	1.3	.02	.38	.22	250
MAY 18...	1.6	--	20	20	17	96	.96	.02	.17	.14	1050
JUL 13...	3.0	--	36	25	21	148	1.7	.16	.89	.60	310
JUL 18...	4.1	--	34	20	22	150	1.7	.18	.89	.59	830
SEP 27...	.5	--	32	300	20	152	1.2	.09	.41	.52	320

SOLOMON CREEK BASIN

01537500 SOLOMON CRBEK 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 good. Regulation by mine pumps above station.

AVERAGE DISCHARGE.--38 years, 19.9 ft³/s (0.564 m³/s), 17.21 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) (m ³ /s)	Gage height (ft) (m)
Jan. 26	0815	*417 11.8	*4.27 1.301

Minimum discharge, 0.25 ft³/s (0.007 m³/s) July 21, 22, 23; minimum gage height, 0.75 ft (0.229 m), Aug. 20, 21, 22, 23, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	9.1	56	14	31	3.3	39	6.5	9.7	5.4	1.7	1.6
2	29	8.0	42	12	26	2.8	31	6.0	12	5.4	1.2	1.3
3	22	7.2	37	14	21	3.8	26	6.3	33	10	.99	.88
4	19	6.9	30	15	19	2.6	26	5.2	18	11	11	1.7
5	16	6.3	26	8.5	16	2.4	26	12	12	8.0	2.0	2.9
6	18	5.8	22	7.4	14	2.4	20	7.2	11	6.5	1.8	2.8
7	14	7.4	18	6.9	12	2.4	22	6.3	10	5.2	7.4	2.9
8	12	41	15	13	11	2.2	18	6.3	12	4.9	3.8	8.0
9	26	25	13	146	9.5	2.3	16	10	10	4.5	21	6.3
10	21	47	16	81	8.5	2.4	15	9.7	8.2	7.4	11	4.9
11	19	83	11	105	6.9	3.2	15	10	7.0	3.6	13	4.7
12	17	59	8.5	126	6.3	3.8	14	11	5.4	2.8	14	4.5
13	15	44	8.5	31	5.6	9.7	12	12	24	2.4	10	4.1
14	25	24	37	26	5.2	54	10	95	9.1	2.2	8.0	3.5
15	80	27	56	24	4.5	61	9.4	90	8.0	2.1	5.8	3.8
16	69	22	48	32	4.5	49	8.8	95	7.4	.76	5.2	4.0
17	118	29	39	14	4.3	40	8.0	100	7.2	1.1	8.0	4.0
18	76	21	48	13	4.3	33	7.2	99	6.7	.94	13	6.0
19	83	16	39	11	4.5	36	7.2	79	5.6	.47	.76	46
20	83	14	32	10	4.5	37	16	61	4.9	.33	.70	8.2
21	65	14	77	8.5	3.6	59	11	49	4.5	.29	.70	6.0
22	53	12	56	8.8	4.1	90	10	38	4.1	.29	.58	9.7
23	39	11	43	8.5	3.6	95	10	33	3.3	1.7	.52	6.7
24	30	10	34	8.5	3.3	82	10	39	5.4	2.3	.58	5.8
25	23	11	49	14	3.2	60	9.4	30	10	2.2	.58	5.8
26	21	19	41	240	3.0	77	9.4	24	9.1	2.0	.58	5.4
27	17	11	40	109	3.3	134	9.1	20	8.8	.76	.82	5.6
28	15	10	33	66	3.8	101	8.2	19	8.0	.70	1.1	5.8
29	13	9.4	35	48	---	77	7.7	17	7.7	.52	.82	5.8
30	11	13	19	38	---	59	7.2	13	7.7	1.0	.58	5.6
31	10	---	16	29	---	48	---	11	---	1.8	4.5	---
TOTAL	1094	623.1	1045.0	1288.1	246.5	1235.3	438.6	1020.5	289.8	98.56	151.71	184.28
MEAN	35.3	20.8	33.7	41.6	8.80	39.8	14.6	32.9	9.66	3.18	4.89	6.14
MAX	118	83	77	240	31	134	39	100	33	11	21	46
MIN	10	5.8	8.5	6.9	3.0	2.2	7.2	5.2	3.3	.29	.52	.88
CFSM	2.25	1.33	2.15	2.65	.56	2.54	.93	2.10	.62	.20	.31	.39
INF.	2.59	1.48	2.48	3.05	.58	2.93	1.04	2.42	.69	.23	.36	.44

CAL YR 1977 TOTAL 6601.19 MEAN 18.1 MAX 175 MIN .33 CFSM 1.15 IN 15.64
WTR YR 1978 TOTAL 7715.45 MEAN 21.1 MAX 240 MIN .29 CFSM 1.34 IN 18.28

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 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)
OCT											
13...	1300	22800	190	7.2	11.5	10.0	15	1.3	420	92	29
26...	1215	28200	200	7.3	9.5	10.4	6	.9	210	128	11
NOV											
09...	1315	67300	160	7.1	12.0	10.0	25	2.2	4200	83	324
22...	1700	19900	230	7.1	6.5	12.0	8	1.0	560	119	22
DEC											
07...	1500	25400	180	7.0	1.5	13.6	14	.8	6700	104	3
20...	1115	47400	175	7.0	2.0	14.2	9	1.0	470	82	30
MAR											
21...	1230	33200	215	7.1	4.0	12.8	5	2.0	250	100	56
APR											
06...	1100	77000	150	7.1	5.0	12.4	10	.7	240	69	84
19...	1230	21400	200	--	8.0	10.8	15	.9	K60	105	17
MAY											
03...	1600	9160	300	7.9	14.5	11.0	8	1.7	K86	146	8
16...	1400	42600	140	7.4	13.0	10.6	40	3.1	1000	93	87
31...	1045	7530	300	6.4	23.5	8.4	15	3.0	80	173	27
JUN											
13...	1430	9380	--	--	--	--	--	--	--	--	--
27...	1130	5150	335	7.6	23.0	8.2	20	3.8	220	209	22
JUL											
11...	1430	2960	400	7.6	25.0	8.6	31	7.1	1500	268	19
25...	1130	2190	390	7.4	26.0	6.4	31	3.8	K3200	279	15
AUG											
09...	1330	15680	185	7.5	23.5	6.4	32	2.4	1400	132	160
22...	1430	2400	370	7.6	24.5	9.2	38	5.0	1000	207	15
SEP											
06...	1230	2070	400	7.5	24.5	10.4	26	4.6	1070	285	17
19...	1300	2470	380	7.1	20.5	8.0	30	3.6	2700	248	32

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
OCT										
13...	.50	.06	.27	.33	.83	.06	590	2	1	<10
26...	.63	.07	.41	.48	1.1	.04	260	0	0	10
NOV										
09...	.41	.03	1.2	1.2	1.6	.26	5500	1	0	10
22...	.65	.09	.40	.49	1.1	.04	210	0	0	<10
DEC										
07...	.61	.07	.19	.26	.87	.03	180	0	0	<10
20...	.65	.05	.22	.27	.92	.04	360	3	0	<10
MAR										
21...	.89	.14	.36	.50	1.4	.08	1100	1	0	<10
APR										
06...	.67	.05	.38	.43	1.1	.08	1800	2	2	20
19...	.68	.09	.20	.29	.97	.05	390	1	0	<10
MAY										
03...	.50	.04	.29	.33	.83	.03	140	--	0	10
16...	.43	.05	1.2	1.2	1.6	.33	12000	1	0	20
31...	1.7	.06	.55	.61	2.3	--	480	1	0	10
JUN										
13...	--	--	--	--	--	--	--	--	--	--
27...	.41	.14	.96	1.1	1.5	.10	160	2	0	10
JUL										
11...	.14	.02	1.4	1.4	1.5	.15	200	0	1	10
25...	.11	.15	.81	.96	1.1	.12	70	1	0	10
AUG										
09...	.62	.11	1.1	1.2	1.8	.20	930	2	1	20
22...	.28	.11	.89	1.0	1.3	.11	100	1	1	20
SEP										
06...	.79	.13	.82	.95	1.7	.13	160	1	2	10
19...	.72	.24	.96	1.2	1.9	.13	410	1	1	10

SUSQUEHANNA RIVER BASIN

01537700 SUSQUEHANNA RIVER NEAR HUNLOCK CREEK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)
OCT										
13...	37	2100	20	170	0	20	8.0	0	.462	.000
26...	4	1600	12	180	0	40	8.4	0	.086	.000
NOV										
09...	12	1000	13	930	0	50	12	0	--	--
22...	8	1600	1	210	0	10	12	0	.849	.377
DEC										
07...	5	1200	2	140	0	10	5.8	2	.923	.000
20...	6	1200	6	110	1	10	11	--	.000	.000
MAR										
21...	7	2500	9	160	0	20	2.6	1	--	--
APR										
06...	7	2800	3	110	0	20	4.2	0	.000	.000
19...	4	1800	0	190	0	20	9.3	1	.000	.000
MAY										
03...	6	2000	2	270	0	20	9.1	1	7.20	.000
16...	23	21000	58	520	0	70	9.2	0	--	--
31...	10	3900	13	440	0	30	7.5	0	21.4	4.49
JUN										
13...	--	--	--	--	--	--	--	--	117	15.6
27...	9	3100	6	540	0	10	--	0	44.5	10.4
JUL										
11...	7	16000	11	620	0	20	4.1	2	61.2	4.75
25...	6	2700	0	700	0	10	5.3	1	17.8	7.28
AUG										
09...	11	9000	21	450	0	50	7.6	0	6.81	.000
22...	7	2700	5	520	0	20	6.8	0	29.8	5.39
SEP										
06...	5	2900	5	570	0	30	3.8	0	24.4	5.61
19...	5	3200	7	700	0	30	4.3	0	21.6	2.20

WAPWALLOPEN CREEK BASIN

77

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, OCTOBER 1977 TO JULY 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMRER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT 26...	1335	9813	9813	80	8.6	12.0	11.4	34	0	--	6.4	--
NOV 15...	1410	9813	9813	70	--	--	--	24	--	6.4	--	2.2
DEC 07...	0900	9813	9813	100	--	--	--	34	--	8.8	--	3.3
FEB 01...	1000	9813	9813	90	--	--	--	25	--	8.0	--	1.3
MAR 07...	1000	9813	9813	130	--	--	--	42	--	11	--	3.8
APR 06...	--	9813	9813	100	--	--	--	30	--	9.6	--	1.6
MAY 09...	0945	9813	9813	110	--	--	--	28	--	8.8	--	1.6
JUL 10...	1200	9813	9813	150	--	--	--	42	--	13	--	2.2
25...	1000	9813	9813	130	--	--	--	36	--	10	--	2.7

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 26...	4.5	16	10	10	58	--	.82	.02	.05	.09	170
NOV 15...	--	10	18	10	72	8	1.0	.04	.10	.06	130
DEC 07...	--	16	8.0	12	74	--	1.1	.05	.09	.09	110
FEB 01...	--	12	14	13	80	--	1.5	.15	.17	.10	99
MAR 07...	--	20	24	15	46	--	1.3	.04	.32	.07	130
APR 06...	--	12	6.0	16	140	--	1.4	.09	.14	.11	190
MAY 09...	--	16	15	14	50	--	1.3	.04	.19	.13	410
JUL 10...	--	22	15	15	90	--	1.8	.01	.03	3.2	160
25...	--	22	15	13	86	--	1.2	.01	.07	.14	220

WAPWALLOPEN CREEK BASIN

01538000 WAPWALLOPEN CREEK NEAR WAPWALLOPEN, PA

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.

DRAINAGE AREA.--43.8 mi² (113.4 km²).

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

REVISED RECORDS.--WSP 1302: 1926(M), 1929(M), 1938(M). WSP 1432: Drainage area.

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

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

AVERAGE DISCHARGE.--59 years, 64.6 ft³/s (1.829 m³/s), 20.03 in/yr (509 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 580 ft³/s (16.4 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. 19	1830	764	21.6	4.71	1.436	Jan. 26	1200	*1,770	50.1	*7.06	2.152
Nov. 11	0500	784	22.2	4.77	1.454	Mar. 15	0030	681	19.3	4.47	1.362
Dec. 14	2200	651	18.4	4.37	1.332	Mar. 21	2130	624	17.7	4.28	1.304
Dec. 21	1700	624	17.7	4.28	1.304	Mar. 27	1400	964	27.3	5.26	1.603
Jan. 9	0930	1,470	41.6	6.46	1.969	May 14	1830	1,170	33.1	5.78	1.762

Minimum discharge, 8.3 ft³/s (0.235 m³/s) July 23, Aug. 23, 27, Sept. 4, 5, 7, 8, gage height, 1.26 ft (0.384 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	66	306	81	120	50	174	43	59	17	16	17
2	92	62	170	76	98	49	143	42	51	16	14	12
3	73	61	140	72	90	48	124	41	86	23	13	9.6
4	63	70	126	68	86	48	124	39	93	40	33	8.7
5	52	61	114	65	84	47	145	60	59	26	22	8.3
6	59	54	115	59	80	46	114	65	49	21	19	8.7
7	56	78	96	56	78	46	120	50	47	18	34	8.7
8	46	263	90	71	75	46	102	47	53	18	35	11
9	82	146	82	875	73	45	89	75	59	19	20	32
10	83	149	81	339	71	45	83	84	43	16	16	12
11	61	524	80	353	70	46	80	62	36	15	15	10
12	54	255	79	414	68	48	79	55	32	14	15	11
13	49	188	77	239	66	50	71	54	86	14	29	10
14	67	150	150	122	65	53	65	501	57	13	16	8.8
15	404	134	364	110	63	433	61	419	40	14	14	9.5
16	239	116	187	100	62	210	57	330	35	13	13	11
17	601	108	152	90	67	145	56	425	33	12	12	10
18	438	104	212	78	62	117	54	457	33	12	11	9.9
19	566	87	211	73	59	126	53	348	31	11	9.6	140
20	595	77	168	71	57	164	111	240	27	11	9.2	39
21	408	76	372	69	56	311	100	185	27	9.6	8.7	23
22	281	76	296	67	55	494	78	145	27	9.2	9.2	45
23	204	68	198	100	54	436	66	122	25	9.2	8.7	33
24	159	66	164	130	53	377	62	191	23	15	8.7	22
25	133	62	140	200	52	268	60	150	21	12	8.7	19
26	121	119	120	1140	57	319	57	112	21	9.6	9.6	16
27	115	86	110	963	53	771	54	95	22	9.6	9.2	15
28	99	73	96	703	51	509	51	87	21	11	21	14
29	87	67	89	402	---	358	48	80	19	11	15	13
30	78	75	80	251	---	265	46	71	21	11	11	13
31	70	---	94	152	---	207	---	65	---	13	14	---
TOTAL	5512	3521	4759	7589	1925	6177	2527	4740	1236	463.2	489.6	600.2
MEAN	178	117	154	245	68.8	199	84.2	153	41.2	14.9	15.8	20.0
MAX	601	524	372	1140	120	771	174	501	93	40	35	140
MIN	46	54	77	56	51	45	46	39	19	9.2	8.7	8.3
CFSM	4.06	2.67	3.52	5.59	1.57	4.54	1.92	3.49	.94	.34	.36	.46
IN.	4.68	2.99	4.04	6.45	1.63	5.25	2.15	4.03	1.05	.39	.42	.51

CAL YR 1977 TOTAL 30778.7 MEAN 84.3 MAX 784 MIN 8.2 CFSM 1.93 IN 26.14
WTR YR 1978 TOTAL 39539.0 MEAN 108 MAX 1140 MIN 8.3 CFSM 2.47 IN 33.58

WAPWALLOPEN CREEK BASIN

79

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, OCTOBER 1977 TO JULY 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
OCT 26...	1430	9813	9813	90	10.0	8.4	12.0	40	0	--	3.2	--
NOV 15...	1440	9813	9813	80	--	--	--	24	--	4.8	--	3.3
DEC 07...	1100	9813	9813	80	--	--	--	34	--	7.2	--	4.4
JAN 04...	1330	9813	9813	90	--	--	--	20	--	6.4	--	1.1
FEB 01...	1319	9813	9813	80	--	--	--	25	--	5.6	--	3.0
MAR 07...	1100	9813	9813	350	--	--	--	136	--	35	--	13
APR 06...	--	9813	9813	90	--	--	--	28	--	8.0	--	2.2
MAY 09...	1000	9813	9813	100	--	--	--	28	--	7.2	--	2.7
JUL 10...	1200	9813	9813	110	--	--	--	32	--	8.8	--	2.7
JUL 25...	1045	9813	9813	100	--	--	--	32	--	8.0	--	3.3

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 26...	8.0	16	10	10	60	--	1.1	.02	.06	.09	150
NOV 15...	--	12	14	9.0	78	16	1.2	.03	.10	.07	130
DEC 07...	--	12	8.0	11	80	--	1.3	.03	.05	.09	110
JAN 04...	--	16	8.0	12	--	--	1.5	.04	.08	.27	140
FEB 01...	--	14	10	16	54	--	1.1	.03	.09	.20	99
MAR 07...	--	72	74	19	176	--	1.5	.04	.35	.07	2090
APR 06...	--	10	6.0	13	64	--	1.0	.06	.10	.10	250
MAY 09...	--	14	12	13	70	--	1.2	.05	.11	.17	250
JUL 10...	--	18	15	13	74	--	1.7	.01	.06	.10	570
JUL 25...	--	16	15	12	74	--	1.4	.01	.07	.16	110

FISHING CREEK BASIN

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.

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

GAGE.--Water-stage recorder. Datum of gage is 543.84 ft (165.762 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--40 years, 483 ft³/s (13.68 m³/s), 23.94 in/yr (608 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)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 9	1130	7,920	2.24	Mar. 27	1500	*8,120	*8.46
Jan. 26	1730	6,070	1.72			230	2.579

Minimum discharge, 57 ft³/s (1.61 m³/s) July 30, gage height, 1.76 ft (0.536 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	624	331	1590	558	476	160	2160	336	379	102	72	306
2	1360	316	1790	513	384	156	2370	311	336	95	70	160
3	887	311	1410	418	370	140	1790	282	390	120	67	109
4	760	368	1160	363	360	140	1490	263	429	292	259	88
5	564	379	976	368	350	135	1640	352	326	190	194	79
6	538	347	903	357	340	130	1440	435	277	139	250	71
7	519	617	773	342	330	130	1500	357	250	114	407	67
8	424	1240	624	401	310	125	1410	321	390	102	538	68
9	665	1150	571	5710	300	126	1170	686	765	97	347	130
10	943	1050	429	2930	290	130	968	773	571	86	259	114
11	729	2310	395	1540	290	133	880	651	424	95	259	90
12	624	1730	368	1060	290	143	951	577	352	92	287	90
13	545	1306	407	880	280	167	825	526	700	91	220	95
14	409	1010	597	780	282	833	721	1840	637	76	178	74
15	1260	833	1760	644	254	2120	624	3140	464	77	146	74
16	1280	729	1550	532	259	1810	551	2160	373	76	126	76
17	2910	672	1310	500	246	1270	513	3050	326	120	112	72
18	2180	672	1500	450	228	992	470	3230	306	97	97	74
19	1610	551	1700	420	215	1000	483	2630	277	83	86	1360
20	1690	483	1450	400	198	1320	714	1830	241	74	79	803
21	1510	465	1770	380	190	1950	919	1380	220	71	72	513
22	1170	447	1770	350	180	3330	795	1060	268	68	70	624
23	927	412	1340	330	180	2800	707	841	211	64	66	489
24	743	401	1090	320	180	2680	644	1150	178	66	62	379
25	630	384	1740	400	178	2000	590	1080	156	64	62	321
26	545	470	1700	3600	175	2460	532	325	143	60	62	277
27	551	429	1150	3340	167	6890	482	700	146	59	70	241
28	483	384	927	1820	156	5430	435	610	133	54	60	220
29	429	357	773	1280	---	3860	401	538	117	58	67	190
30	390	384	700	833	---	3040	363	489	114	59	67	167
31	352	---	630	558	---	2440	---	429	---	65	143	---
TOTAL	28211	20532	34553	32377	7458	48040	28538	32852	9899	2896	4854	7421
MEAN	910	684	1124	1044	266	1550	951	1060	330	93.4	157	247
MAX	2910	2310	1790	5710	476	6890	2370	3230	765	292	538	1360
MIN	352	311	368	320	156	125	363	263	114	54	60	67
CFSM	3.32	2.50	4.10	3.81	.97	5.66	3.47	3.87	1.20	.34	.57	.90
IN.	3.83	2.79	4.73	4.40	1.01	6.52	3.87	4.46	1.34	.39	.66	1.01

CAL YR 1977 TOTAL 207054 MEAN 567 MAX 5900 MIN 29 CFSM 2.07 IN 28.11
WTR YR 1978 TOTAL 257931 MEAN 707 MAX 6890 MIN 54 CFSM 2.58 IN 35.02

CATAWISSA CREEK BASIN

81

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 good except for winter periods, which are fair.

AVERAGE DISCHARGE.--15 years, 2.22 ft³/s (0.063 m³/s), 17.03 in/yr (433 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)
Jan. 9	0800	54 1.53	2.68 0.817	Mar. 27	1000	34 0.96	2.39 0.728
Jan. 26	2400	55 1.56	2.69 0.820	May 14	Unknown	*58 1.64	*2.72 0.829

Minimum discharge, .24 ft³/s (0.007 m³/s) Sept. 5, gage height, 1.07 ft (0.326 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.7	5.8	3.0	4.7	1.1	6.2	2.0	3.0	.95	.66	.40
2	1.6	1.6	5.1	2.8	4.0	1.1	5.1	1.9	2.8	.90	.59	.36
3	1.3	1.5	4.9	2.5	3.5	1.1	4.5	1.9	3.4	1.5	.59	.34
4	1.1	1.7	4.5	2.2	3.2	1.0	4.5	1.9	2.8	2.2	.95	.34
5	.98	1.5	4.1	2.0	2.7	1.0	4.3	2.8	2.5	1.3	.52	.30
6	1.0	1.3	4.1	2.0	2.6	.99	3.7	2.4	2.2	1.4	.47	.32
7	.89	2.5	3.3	1.9	2.4	1.0	3.5	2.1	2.4	1.3	.85	.30
8	.80	4.3	2.8	2.3	2.2	.95	3.2	2.9	2.2	1.2	.75	.36
9	2.0	2.9	2.6	2.4	2.1	.95	2.9	3.8	3.2	1.3	.49	.32
10	1.4	6.2	2.3	1.1	2.0	1.0	2.8	3.3	2.0	1.2	.66	.32
11	1.2	8.4	2.1	8.2	1.9	1.0	2.9	2.8	1.9	1.1	1.1	.34
12	1.3	7.0	1.9	6.9	1.8	1.1	2.8	2.3	1.9	1.0	.70	.90
13	1.3	5.9	1.9	6.2	1.8	1.4	2.5	6.0	4.5	.97	.62	.40
14	2.2	5.1	3.6	5.7	1.7	5.5	2.2	24	2.6	.87	.49	.36
15	8.6	4.4	6.4	4.7	1.6	8.2	2.1	16	2.5	.96	.44	.38
16	6.3	3.8	4.4	4.2	1.6	5.7	2.1	14	2.4	1.0	.38	.44
17	8.9	3.7	4.2	3.7	1.5	4.7	2.0	12	2.2	.87	.32	.38
18	8.2	3.1	5.2	18	1.5	4.0	1.9	12	2.2	.84	.36	1.2
19	8.9	2.6	5.0	3.0	1.5	5.1	2.1	11	2.6	.80	.38	2.2
20	10	2.2	4.4	3.2	1.4	6.2	4.6	9.6	1.9	.78	.36	.90
21	8.5	2.2	8.6	2.6	1.4	11	4.2	7.9	1.9	.76	.47	.70
22	7.1	2.1	6.7	2.4	1.3	12	3.8	6.4	2.5	.72	.34	2.2
23	5.8	2.0	5.4	2.2	1.3	11	3.3	5.5	1.7	.69	.36	1.0
24	4.8	1.9	4.9	3.0	1.2	9.9	3.0	7.9	1.6	1.0	.34	.95
25	4.0	1.7	7.5	3.7	1.3	8.2	2.8	6.2	1.4	.87	.32	.90
26	3.7	2.9	6.1	18	1.2	11	2.6	5.3	1.3	.66	.36	.85
27	3.2	2.2	5.4	27	1.1	20	2.4	4.9	1.4	1.2	.38	.70
28	2.7	1.9	4.9	11	1.1	13	2.2	4.5	1.2	.75	.75	.66
29	2.3	1.8	4.3	8.2	---	10	2.1	4.0	1.1	.59	.62	.59
30	2.0	2.1	3.8	6.4	---	8.4	2.0	3.7	1.0	.59	.40	.62
31	1.8	---	3.4	5.5	---	7.1	---	3.2	---	.85	.62	---
TOTAL	115.27	92.2	139.6	207.5	55.6	174.69	94.3	194.2	66.3	31.12	16.64	20.03
MEAN	3.72	3.07	4.50	6.69	1.99	5.64	3.14	6.26	2.21	1.00	.54	.67
MAX	10	8.4	8.6	27	4.7	20	6.2	24	4.5	2.2	1.1	2.2
MIN	.80	1.3	1.9	1.9	1.1	.95	1.9	1.9	1.0	.59	.32	.30
CFSM	2.10	1.73	2.54	3.78	1.12	3.19	1.77	3.54	1.25	.57	.31	.38
IN.	2.42	1.94	2.93	4.36	1.17	3.67	1.98	4.08	1.39	.65	.35	.42

CAL YR 1977 TOTAL 962.97 MEAN 2.64 MAX 22 MIN .26 CFSM 1.49 IN 20.23
WTR YR 1978 TOTAL 1207.45 MEAN 3.31 MAX 27 MIN .30 CFSM 1.87 IN 25.36

SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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.--79 years, 15,410 ft³/s (436 m³/s), 18.65 in/yr (474 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, 116,000 ft³/s (3,280 m³/s) Mar. 23, gage height, 17.98 ft (5.480 m); minimum, 2,080 ft³/s (58.9 m³/s) Sept. 15, gage height, 2.43 ft (0.741 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38100	14500	21000	17900	37100	7750	69300	12500	9440	4650	2550	3110
2	35500	13400	37100	17700	32100	7400	69900	11500	8600	4280	3040	3480
3	38400	12500	52700	17000	28200	7420	91100	10700	8520	4220	3180	3600
4	39700	12100	49500	15300	23600	7250	80700	10000	9360	4700	3580	3280
5	38100	11600	42500	13400	20000	7170	66500	9680	9240	4410	3670	3070
6	33100	27800	35800	11900	17600	6350	72400	10700	8720	4570	4950	2830
7	28500	28600	30500	12800	14700	6160	75400	12400	8240	4960	5500	2590
8	25000	29700	26700	12900	12200	6000	72600	14500	7960	5030	17600	2480
9	22600	62500	23800	39900	10900	6300	72400	14900	10300	4440	17600	2510
10	22800	61300	22300	107000	12000	6500	61500	15800	12400	3950	14400	2560
11	27300	64900	20000	101000	12000	6600	49600	17600	12400	3730	10800	2330
12	29100	85400	17400	67600	11500	6900	42700	18000	12000	3450	9320	2370
13	24300	72500	13500	47200	11500	7400	42400	16100	12000	3290	8610	2360
14	22600	55400	14800	39100	12000	10800	43800	18000	11600	3170	7580	2150
15	32000	42000	30600	32000	11500	24200	40300	34500	10900	3080	8160	2110
16	39700	33700	83200	27000	11000	51600	36000	48400	10300	3000	6750	2120
17	80700	29800	84700	20000	10500	57900	31600	49800	9520	2910	5380	2140
18	116000	27700	67000	18000	10700	44800	27500	54900	8480	3030	4590	2250
19	106000	28500	57600	16000	10900	35500	24200	53200	7680	3540	4050	4950
20	109000	27200	54700	15000	10100	33800	22600	39500	7280	3480	3660	5420
21	101000	24300	49400	14000	9420	39100	23100	30900	7190	3520	3330	4210
22	77000	21800	47800	13000	8770	68300	28100	25400	7860	3450	3070	5040
23	55200	19900	41800	12500	8940	109000	31700	22100	7920	3090	2870	9080
24	43100	18800	36400	13500	8230	113000	27100	21000	7880	3010	2710	8520
25	36100	18000	33500	13700	8300	106000	22800	20300	7110	2900	2620	6500
26	31500	17900	38300	35600	8820	81600	19800	19200	6680	2700	2630	5370
27	28200	17800	39200	88400	8680	90000	17600	16600	6400	2550	2450	4700
28	25000	17100	31100	112000	8300	109000	16000	14200	5800	2450	2510	4200
29	21000	16400	26300	87700	---	115000	14700	12600	5280	2350	2510	3810
30	17900	16000	21600	62100	---	102000	13600	11200	5080	2270	2430	3480
31	16000	---	18800	46600	---	84800	---	10100	---	2390	2490	---
TOTAL	1360500	929100	1169600	1147800	389560	1365600	1307000	676280	262140	108570	174590	112620
MEAN	43890	30970	37730	37030	13910	44050	43570	21820	8738	3502	5632	3754
MAX	116000	85400	84700	112000	37100	115000	91100	54900	12400	5030	17600	9080
MIN	16000	11600	13500	11900	8230	6000	13600	9680	5080	2270	2430	2110
CFSM	3.91	2.76	3.36	3.30	1.24	3.93	3.88	1.95	.78	.31	.50	.34
IN.	4.51	3.08	3.88	3.81	1.29	4.53	4.33	2.24	.87	.36	.58	.37

CAL YR 1977 TOTAL 8336570 MEAN 22840 MAX 116000 MIN 2160 CFSM 2.04 IN 27.64
WTR YR 1978 TOTAL 9003360 MEAN 24670 MAX 116000 MIN 2110 CFSM 2.20 IN 29.85

SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STRE- AM- FLOW- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL (5 DAY MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L CAC03)
OCT												
13...	1040	26800	195	7.3	11.0	10.0	15	1.7	430	--	--	--
26...	1430	32200	210	7.3	10.0	10.8	--	.7	450	1860	71	36
NOV												
09...	1045	59000	175	6.9	12.5	10.2	25	2.2	3400	--	--	--
23...	0845	20200	220	7.4	6.5	12.4	--	.8	110	320	78	39
DEC												
08...	0845	27100	195	6.8	.5	13.6	16	.4	830	600	62	21
20...	1345	55400	175	7.3	2.5	13.8	9	.8	380	--	--	--
MAR												
22...	1100	61300	170	7.3	5.5	12.4	10	1.9	230	1100	53	30
APR												
04...	1200	80000	115	6.7	4.5	12.4	15	.5	250	--	--	--
19...	1015	24400	190	7.1	8.0	11.2	10	.8	K80	43	68	33
MAY												
03...	1200	10700	265	7.4	12.5	12.0	9	1.6	K16	--	--	--
17...	0900	48700	175	7.2	12.0	10.0	45	2.2	1200	K3400	54	23
31...	1300	10100	260	8.0	23.5	9.8	20	4.8	87	--	--	--
JUN												
13...	1645	12400	235	8.1	21.0	10.0	25	4.6	360	320	90	40
27...	1400	6360	320	8.6	25.0	10.2	20	4.9	K9	--	--	--
JUL												
11...	1115	3720	320	8.7	24.0	10.2	37	6.5	K4	100	130	83
25...	1400	2900	360	8.7	26.0	10.0	29	3.0	K10	--	--	--
AUG												
09...	1100	17600	220	7.6	23.5	8.6	34	3.6	1000	--	--	--
23...	0830	2680	305	9.0	24.5	9.0	11	3.2	210	500	140	91
SEP												
06...	1030	2900	330	8.5	23.0	12.0	22	4.4	K2	--	--	--
19...	1045	4240	370	7.2	22.0	9.6	27	4.4	3000	1480	140	97

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	RICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT												
13...	--	--	--	--	--	--	--	--	--	--	--	--
26...	20	5.0	5.0	13	.3	2.0	42	0	34	3.4	32	6.7
NOV												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	22	5.5	7.4	17	.4	1.6	47	0	39	3.0	37	7.4
DEC												
08...	18	4.2	7.4	20	.4	1.4	50	0	41	13	29	8.6
20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
22...	15	3.8	6.5	21	.4	1.4	28	0	23	2.2	25	8.1
APR												
04...	--	--	--	--	--	--	--	--	--	--	--	--
19...	20	4.3	5.2	14	.3	1.2	42	0	34	5.3	31	6.5
MAY												
03...	--	--	--	--	--	--	--	--	--	--	--	--
17...	15	3.9	5.3	17	.3	2.6	37	0	30	3.7	25	5.4
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
13...	25	6.7	8.6	17	.4	1.7	--	--	50	--	46	11
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
11...	35	11	11	15	.4	2.1	--	--	50	--	75	13
25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	--	--	--	--	--	--	--	--	--	--	--	--
23...	37	12	11	14	.4	2.3	--	--	51	--	81	14
SEP												
06...	--	--	--	--	--	--	--	--	--	--	--	--
19...	35	13	14	17	.5	4.3	--	--	44	--	94	18

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, SUSP. RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+N03 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORG. TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT												
13...	--	--	100	--	35	.58	.05	.36	.41	--	--	.99
26...	.0	5.2	110	97	9	.61	.07	--	--	--	.35	--
NOV												
09...	--	--	86	--	120	.60	.04	.69	.73	--	--	1.3
23...	.1	5.0	113	109	26	.68	.07	--	--	--	.44	--
DEC												
08...	.0	4.6	106	98	5	.68	.07	--	--	--	.23	--
20...	--	--	86	--	20	.68	.05	.32	.37	--	--	1.1
MAR												
22...	.1	4.2	85	78	144	.88	.13	.57	.70	.46	.24	1.6
APR												
04...	--	--	60	--	185	.56	.03	.52	.55	--	--	1.1
19...	.1	3.5	97	93	25	.68	.08	.28	.36	.14	.22	1.0
MAY												
03...	--	--	136	--	7	.52	.00	.27	.27	--	--	.79
17...	.0	3.2	87	79	436	.54	.08	1.0	1.1	.58	.52	1.6
31...	--	--	158	--	22	.27	.04	3.3	3.3	--	--	3.6
JUN												
13...	.1	.9	158	130	17	.47	.05	.74	.79	.46	.33	1.3
27...	--	--	199	--	18	.37	.06	.87	.93	--	--	1.3
JUL												
11...	.1	2.4	204	180	13	.00	.02	1.4	1.4	.20	1.2	1.4
25...	--	--	266	--	8	.00	.00	.65	.65	--	--	.65
AUG												
09...	--	--	145	--	232	.70	.06	1.2	1.3	--	--	2.0
23...	.1	1.3	181	189	12	.22	.05	.60	.65	.22	.43	.87
SEP												
06...	--	--	240	--	9	.27	.04	.78	.82	--	--	1.1
19...	.1	2.2	225	207	43	.63	.09	.90	.99	.50	.49	1.6

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PR)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)
OCT											
13...	.07	--	670	3	0	10	38	2200	15	170	0
26...	.04	.02	340	1	0	10	6	1300	4	190	0
NOV											
09...	.10	--	2000	2	2	<10	10	5000	23	280	0
23...	.04	.02	260	1	1	<10	6	1500	6	210	0
DEC											
08...	.03	.01	--	0	0	<10	7	1000	6	160	0
20...	.05	--	500	2	0	<10	7	1400	8	120	2
MAR											
22...	.10	.01	--	2	0	<10	11	4600	16	230	0
APR											
04...	.14	--	3500	2	2	10	11	6500	--	210	0
19...	.06	.02	510	1	0	10	6	1700	4	180	0
MAY											
03...	.04	--	--	--	--	--	--	--	--	--	--
17...	.41	.03	15000	2	0	20	26	19000	26	620	0
31...	.06	--	--	--	--	--	--	--	--	--	--
JUN											
13...	.08	.04	--	1	0	<10	15	2500	7	320	0
27...	.07	--	340	3	0	<10	8	1700	3	370	0
JUL											
11...	.10	.11	330	1	1	10	6	780	4	250	0
25...	.03	--	140	0	0	10	4	260	2	180	0
AUG											
09...	.27	--	960	1	1	20	14	13000	11	760	0
23...	.02	.01	120	1	1	<10	5	290	4	110	0
SEP											
06...	.06	--	260	1	2	<10	6	580	1	190	0
19...	.09	.01	580	1	0	<10	6	1500	8	360	0

SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
13...	20	6.1	--	--	0	--	3.32	2.05	--	--	--
26...	20	5.4	--	--	--	--	.383	.535	--	--	--
NOV											
09...	40	11	--	--	1	--	--	--	--	--	--
23...	10	10	--	--	--	530	1.40	.000	26	1420	66
DEC											
08...	20	7.8	8.6	.6	0	--	1.69	1.19	5	366	100
20...	20	12	--	--	--	--	.000	.000	--	--	--
MAR											
22...	30	--	4.1	1.2	2	2200	--	--	144	23800	75
APR											
04...	30	10	--	--	0	--	--	--	--	--	--
19...	20	10	--	--	--	--	1.70	.608	25	1650	87
MAY											
03...	--	8.7	--	--	1	--	6.18	.710	--	--	--
17...	80	7.0	--	--	1	8600	--	--	436	57300	97
31...	--	8.1	--	--	0	--	24.5	4.62	--	--	--
JUN											
13...	30	--	3.7	1.9	0	100000	74.4	7.13	17	569	93
27...	20	--	--	--	0	--	53.7	13.8	--	--	--
JUL											
11...	10	4.0	--	--	1	370000	99.3	.000	13	131	86
25...	10	4.7	--	--	0	--	38.5	11.2	--	--	--
AUG											
09...	60	7.6	--	--	0	--	--	--	--	--	--
23...	30	3.4	--	--	0	--	--	--	12	87	76
SEP											
06...	30	5.1	--	--	0	--	27.0	6.63	--	--	--
19...	40	8.7	--	--	0	--	--	--	43	492	100

DATE	TIME	ALUM- INUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG									
16...	1100	400	<3	<10	<10	<50	210	<10	<10

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)
OCT									
03...	1200	9813	9813	38500	150	7.4	13.0	10.0	--
25...	1030	9813	9813	35800	160	7.8	10.0	11.0	--
NOV									
17...	1030	9813	9813	29600	170	--	--	--	--
DEC									
15...	1200	9813	9813	26500	220	--	--	--	--
JAN									
24...	1430	9813	9813	13800	260	--	--	--	--
FEB									
09...	1000	9813	9813	10200	240	--	--	--	--
MAR									
15...	1400	9813	9813	22900	250	--	--	--	--
MAY									
30...	1415	9813	9813	11000	270	--	--	--	--
JUN									
29...	0900	9813	9813	5340	330	--	--	--	--
JUL									
12...	2000	9813	9813	3340	350	--	--	--	--
AUG									
16...	1100	9813	9813	6760	250	--	27.0	12.4	--
SEP									
07...	1400	9813	9813	2600	390	7.3	25.0	10.0	26

DATE	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)
OCT									
03...	50	0	19	.5	52	18	7.0	108	40
25...	66	0	18	5.0	48	24	8.0	198	22
NOV									
17...	70	--	--	--	42	34	8.0	124	--
DEC									
15...	78	--	--	--	44	42	13	136	38
JAN									
24...	98	--	--	--	50	48	13	178	22
FEB									
09...	98	--	--	--	48	50	13	122	<10
MAR									
15...	82	--	--	--	50	44	19	170	88
MAY									
30...	86	--	--	--	44	60	12	160	34
JUN									
29...	96	--	--	--	62	50	24	224	18
JUL									
12...	130	--	--	--	64	85	18	272	26
AUG									
16...	80	0	24	5.0	54	40	14	202	30
SEP									
07...	135	0	34	13	64	80	23	266	38

SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)
OCT								
03...	--	1.0	.03	.07	.10	2040	--	--
25...	--	1.0	.02	.12	.43	1260	--	<.01
NOV								
17...	--	.98	.02	.11	.11	1160	--	.00
DEC								
15...	174	1.2	.03	.23	.13	2504	--	<.01
JAN								
24...	200	1.5	.04	.29	.08	1805	--	<.01
FEB								
09...	132	1.4	.03	.24	.16	1995	--	<.01
MAR								
15...	234	1.7	.03	.31	.18	3750	--	.00
MAY								
30...	194	.66	.02	.11	.12	1560	--	<.01
JUN								
29...	--	1.7	.05	.25	.10	1250	5.0	.02
JUL								
12...	298	.46	.01	.15	.13	480	--	.02
AUG								
16...	--	.90	.01	.08	.20	1080	6.0	--
SEP								
07...	--	.72	.02	.07	.08	410	--	.03

SUSQUEHANNA RIVER BASIN

01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 23.77 0845	MAR 22.78 1100	MAY 17.78 0900	JUN 13.78 1645	JUL 11.78 1115					
TOTAL CELLS/ML	530	2200	8600	100000	370000					
DIVERSITY: DIVISION	0.7	1.0	0.8	1.2	0.4					
..CLASS	0.7	1.0	0.8	1.2	0.4					
...ORDER	0.7	1.1	1.5	1.6	0.5					
...FAMILY	0.9	1.9	2.9	2.6	0.7					
...GENUS	0.9	1.9	3.3	3.0	0.7					
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										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	1900	1
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	*	0
...MICRACTINIUM	--	-	--	-	--	-	12000	11	4900	1
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	*	0	*	0
....CHODATELLA	6	1	--	-	--	-	710	1	*	0
....DICTYOSPHAERIUM	--	-	--	-	--	-	13000	12	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	*	0	*	0
...OOCYSTIS	11	2	--	-	--	-	--	-	*	0
....QUADRIGULA	--	-	--	-	--	-	1400	1	--	-
....SELENASTRUM	--	-	--	-	58	1	--	-	*	0
....TETRAEDRON	--	-	--	-	--	-	710	1	*	0
....TREUBARIA	--	-	--	-	--	-	--	-	1900	1
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	34000#	32	2900	1
....SCENEDESMUS	--	-	--	-	--	-	7900	8	11000	3
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	*	0	2100	2	--	-
...ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	710	1	--	-
...CHLOROCOCCALES										
...OOCYSTACEAE										
...GLOEOACTINIUM	--	-	--	-	--	-	--	-	*	0
CHRYSOPHYTA										
..BACILLARTOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	17	3	27	1	1200	13	18000#	17	*	0
....MELOSTIRA	--	-	--	-	810	9	--	-	--	-
...STEPHANODISCUS	--	-	--	-	--	-	--	-	*	0
...PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	350	4	--	-	--	-
...RHOTICOSPENIA	--	-	27	1	230	3	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	11	2	--	-	400	5	*	0	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	120	1	--	-	--	-
...FRAGILARIACEAE										
....HANNAEA	--	-	--	-	230	3	--	-	--	-
...SYNEDRA	--	-	95	4	520	6	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	6	1	650#	29	170	2	*	0	--	-
...MERIDIONACEAE										
....MERIDION	--	-	41	2	--	-	*	0	--	-
...NAVICULACEAE										
....FRUSTULIA	--	-	--	-	120	1	--	-	--	-
...NAVICULA	6	1	200	9	1300	15	710	1	--	-
...NITZSCHIA										
....NITZSCHIA	11	2	27	1	1600#	18	5400	5	--	-
...SURIPELLACEAE										
....SURIPELLA	--	-	--	-	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	710	1	--	-

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

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

SUSQUEHANNA RIVER BASIN

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01540500 SUSQUEHANNA RIVER AT DANVILLE, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 23.77 0845		MAR 22.78 1100		MAY 17.78 0900		JUN 13.78 1645		JUL 11.78 1115	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCCOCCALES										
...CHROCCOCCAEAE										
....ANACYSTIS	--	-	--	-	--	-	6800	6	3800	1
...HORMOGONALES										
...OSCILLATORIAEAE										
....OSCILLATOPIA	470#	87	1100#	52	1600#	18	--	-	330000#	91
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	4800	1
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	*	0
...TRACHELOMONAS	--	-	--	-	58	1	--	-	*	0

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

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

DATE	TIME	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
DEC 08...	0845	0	0	0	0	0	0	0	<10	0	4
MAR 22...	1100	1	1	100	100	0	0	0	<10	0	5
JUN 13...	1645	0	1	0	0	0	0	0	<10	0	4

DATE	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 08...	4	0	4	3	--	350	0	9	0	160
MAR 22...	5	0	7	4	--	110	13	3	90	140
JUN 13...	4	0	9	6	2500	20	7	0	290	30

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 08...	<.5	.0	<.5	0	0	0	0	0	10	10
MAR 22...	<.5	.0	<.5	0	0	0	0	0	20	10
JUN 13...	<.5	.0	<.5	0	0	0	0	0	30	0

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CAC03)
OCT 19...	1230	9813	9813	225	8.0	7.3	11.2	84	26	5.0	15
NOV 16...	1345	9813	9813	260	8.0	6.7	10.9	114	30	9.8	22
DEC 21...	1015	9813	9813	195	3.5	6.5	13.0	86	22	7.8	15
JAN 25...	1115	9813	9813	320	1.0	7.1	11.8	154	35	16	18
MAR 16...	1030	9813	9813	220	1.0	6.7	11.4	83	22	7.6	12
APR 12...	1030	9813	9813	230	9.5	7.3	9.9	100	27	7.8	15
MAY 11...	1500	9813	9813	240	16.0	--	10.6	114	28	11	24
JUN 15...	1600	9813	9813	390	18.0	6.0	8.2	188	47	18	29
JUL 26...	1045	9813	9813	570	24.0	7.8	8.2	282	77	22	43
AUG 23...	0930	9813	9813	530	19.0	7.6	8.3	280	69	26	38
SEP 07...	1315	9813	9813	490	25.0	7.8	8.6	244	75	19	26

DATE	SULFATE DIS-SOLVED (MG/L AS S04)	CHLORINE, TOTAL RESIDUAL (MG/L)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 19...	58	--	7.0	168	4	172	1.9	<.01	.15	.03	720
NOV 16...	67	--	10	194	2	196	1.0	<.01	.14	.06	550
DEC 21...	60	--	10	144	4	148	1.2	<.01	.06	.05	270
JAN 25...	120	--	11	246	6	252	1.0	.02	.20	.07	460
MAR 16...	56	--	13	176	12	188	1.1	<.01	.16	.06	750
APR 12...	60	--	7.0	198	2	200	1.1	<.01	.11	.08	670
MAY 11...	93	--	14	210	10	220	.62	--	.06	.03	310
JUN 15...	150	.00	18	422	14	436	.78	<.01	.33	.03	300
JUL 26...	230	--	11	554	10	564	.39	.01	.03	.02	240
AUG 23...	230	--	10	522	6	528	.70	<.01	.08	.04	530
SEP 07...	230	.00	12	478	2	480	.54	<.01	.25	.04	240

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG 23...	0930	430	<1	<10	20	<10	190	20	40

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) National Geodetic Vertical Datum of 1929. 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.--65 years, 556 ft³/s (15.75 m³/s), 24.04 in/yr (611 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)
Dec. 15	0500	4,780 135	10.13 3.088	Mar. 22	0800	7,840 222	11.92 3.633
Jan. 26	0845	ice jam	*15.52 4.730	May 17	1530	4,560 129	9.98 3.042
Mar. 15	0330	*11,400 323	13.50 4.115	May 24	2200	6,150 174	11.00 3.353

Minimum discharge, 39 ft³/s (1.104 m³/s) Sept. 9, 10, gage height, 4.00 ft (1.219 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600	198	1750	340	1600	195	1310	303	435	287	182	197
2	898	190	1680	310	1300	185	1340	283	377	252	113	114
3	558	187	1240	290	1100	180	1110	265	375	377	96	96
4	440	189	1000	265	950	170	1360	255	364	368	123	114
5	359	180	832	350	830	165	2520	417	303	284	111	90
6	332	177	700	330	730	160	1960	490	266	230	100	82
7	319	243	580	315	640	155	1970	403	265	196	253	73
8	269	343	480	691	580	150	1480	363	1750	179	642	68
9	779	299	410	2360	530	145	1170	520	905	168	231	59
10	784	313	350	1280	490	140	980	502	549	162	223	60
11	548	613	335	941	450	150	859	426	407	159	226	66
12	464	475	320	780	420	160	791	390	339	140	256	77
13	386	420	310	680	390	2000	642	513	368	129	294	160
14	336	374	1680	610	370	5120	550	1700	305	126	183	93
15	314	347	4170	555	350	10400	485	3200	253	120	143	92
16	384	347	2450	500	330	6000	431	3000	225	114	124	117
17	620	1410	1710	470	310	2400	397	3880	506	172	112	97
18	636	1510	1580	450	300	1200	371	3400	525	130	100	409
19	596	1050	1640	420	290	1070	442	2290	380	111	95	373
20	708	802	1270	400	370	1580	569	1540	344	103	94	232
21	590	745	1090	380	280	3560	786	1140	297	100	85	151
22	515	766	895	360	290	7030	666	867	460	98	81	139
23	456	619	725	340	270	5110	572	701	318	97	77	117
24	394	621	642	330	250	3930	551	3630	248	100	76	101
25	355	551	1110	350	230	2620	516	3760	216	95	74	92
26	323	540	879	5700	220	2110	463	1930	210	91	72	86
27	307	481	693	6600	210	2180	422	1280	283	87	70	81
28	284	451	540	4100	200	1900	383	943	1350	162	87	79
29	253	402	460	3200	---	1960	350	742	511	134	114	75
30	229	446	410	2500	---	1760	331	607	362	108	86	70
31	213	---	375	1900	---	1430	---	509	---	139	190	---
TOTAL	14249	15289	32306	38097	14280	65315	25777	40249	13496	5018	4713	3660
MEAN	460	510	1042	1229	510	2107	859	1298	450	162	152	122
MAX	898	1510	4170	6600	1600	10400	2520	3880	1750	377	642	409
MIN	213	177	310	265	200	140	331	255	210	87	70	59
CFSM	1.46	1.62	3.31	3.90	1.62	6.69	2.73	4.12	1.43	.51	.48	.39
IN.	1.68	1.81	3.82	4.50	1.69	7.71	3.04	4.75	1.59	.59	.56	.43

CAL YR 1977 TOTAL 256044 MEAN 701 MAX 15200 MIN 80 CFSM 2.23 IN 30.24
WTR YR 1978 TOTAL 272449 MEAN 746 MAX 10400 MIN 59 CFSM 2.37 IN 32.17

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)
OCT												
05...	1430	9813	9813	354	320	7.5	17.0	8.9	92	29	4.9	16
19...	1300	9813	9813	574	240	7.3	7.5	11.5	86	26	5.0	14
NOV												
16...	1250	9813	9813	331	310	6.7	8.0	11.1	120	32	9.8	22
DEC												
21...	0930	9813	9813	1110	190	6.4	4.0	13.0	88	21	8.8	12
MAR												
16...	1000	9813	9813	6000	142	6.8	1.0	11.5	52	13	4.9	5
APR												
12...	0940	9813	9813	820	247	7.3	9.5	10.2	101	27	8.0	15
MAY												
11...	1430	9813	9813	420	250	--	15.5	10.4	106	27	9.3	22
JUN												
15...	1525	9813	9813	251	365	6.0	19.5	9.2	160	38	16	27
JUL												
26...	1130	9813	9813	90	530	7.8	24.5	7.8	272	67	25	40
AUG												
23...	0955	9813	9813	77	570	7.8	20.5	8.5	240	63	20	42
SEP												
07...	1230	9813	9813	74	525	7.9	23.5	8.6	240	63	21	30

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, TOTAL RESI- DUAL (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT											
05...	93	--	8.0	212	12	224	2.3	<.01	.07	.07	1090
19...	70	--	11	188	8	196	1.4	<.01	.14	.04	1110
NOV											
16...	80	--	13	206	2	208	.74	<.01	.16	.03	740
DEC											
21...	59	--	10	126	14	140	.98	<.01	.06	.11	2420
MAR											
16...	28	--	7.0	122	118	240	1.4	<.01	.08	.18	8240
APR											
12...	66	--	8.0	196	8	204	.87	<.01	.11	.08	1420
MAY											
11...	110	--	12	228	4	232	.60	--	.02	.05	630
JUN											
15...	220	.00	13	384	20	404	.69	<.01	.31	.04	520
JUL											
26...	--	--	19	540	8	548	.48	<.01	.03	.03	120
AUG											
23...	240	--	11	494	2	496	.68	<.01	.06	.04	220
SEP											
07...	220	.00	16	486	2	488	.72	<.01	.25	.02	140

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG									
23...	0955	280	<1	<10	10	<10	260	30	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

93

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) National Geodetic Vertical Datum of 1929. 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. 196).

AVERAGE DISCHARGE.--23 years, 647 ft³/s (18.32 m³/s), 23.90 in/yr (607 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, 4,920 ft³/s (139 m³/s) May 18, gage height, 7.80 ft (2.377 m); minimum daily, 70 ft³/s (1.98 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	242	1280	570	1100	237	1400	369	590	312	136	294
2	1300	237	1680	575	798	251	1490	337	565	315	122	189
3	800	237	1690	425	600	254	1490	214	555	327	70	155
4	546	239	1760	286	500	264	1560	218	565	335	91	126
5	320	242	1060	266	420	266	2130	286	312	350	142	130
6	350	239	1050	318	380	266	2580	310	251	300	145	125
7	372	244	1030	378	360	266	2540	315	320	245	147	107
8	411	290	532	465	461	268	2330	323	1670	205	510	94
9	446	326	454	1560	397	271	1690	334	1750	180	497	95
10	800	329	420	2490	337	274	1270	334	748	160	211	96
11	1100	520	395	1490	337	271	1010	340	696	148	251	100
12	930	762	380	942	337	286	924	346	294	137	294	102
13	760	514	420	879	310	394	776	360	381	130	284	103
14	640	536	1000	814	284	666	560	1310	502	126	264	104
15	560	595	2500	654	284	1900	570	1710	388	125	162	107
16	1100	690	2700	505	286	3420	580	2190	236	124	153	108
17	2000	776	2600	443	278	3010	560	3490	354	123	124	108
18	2200	1510	2300	443	254	2550	546	4580	830	122	125	666
19	2280	2040	2000	465	266	2010	555	4690	565	120	125	690
20	2150	1740	1500	505	268	1800	624	4300	489	118	125	382
21	1700	1120	1300	497	266	2530	806	2610	357	116	115	289
22	1200	1100	1100	411	256	3930	1030	1090	432	114	111	195
23	900	1140	940	360	232	4280	1030	741	432	112	111	156
24	666	1010	820	360	195	4310	762	1950	315	110	112	156
25	408	951	1100	414	203	4450	600	4450	280	108	104	130
26	411	618	1350	783	203	4190	566	3840	260	106	99	112
27	380	477	1200	1840	209	4110	528	1680	260	105	100	119
28	365	489	500	3080	220	3950	465	1100	360	104	99	103
29	340	493	510	2790	---	3550	404	906	510	102	100	88
30	330	510	528	1920	---	3120	411	755	370	125	108	90
31	312	---	536	1400	---	1080	---	642	---	152	168	---
TOTAL	26647	20216	36635	28328	10051	59224	31787	46120	15637	5256	5205	5319
MEAN	860	674	1182	914	359	1910	1060	1488	521	170	168	177
MAX	2280	2040	2700	3080	1100	4450	2580	4690	1750	350	510	690
MIN	312	237	380	266	195	237	404	214	236	102	70	88
MEAN#	858	605	1178	917	358	1904	1061	1564	521	169	175	170
CFSM#	2.34	1.65	3.21	2.50	.98	5.19	2.89	4.26	1.42	.46	.48	.46
IN.#	2.70	1.84	3.70	2.88	1.02	5.98	3.22	4.91	1.58	.53	.55	.51

CAL YR 1977¹ TOTAL 312255 MEAN 855 MAX 5450 MIN 60 MEAN# 855 CFSM# 2.33 IN.# 31.66
WTR YR 1978 TOTAL 290425 MEAN 796 MAX 4690 MIN 70 MEAN# 796 CFSM# 2.17 IN.# 29.42

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT									
05...	1345	9813	9813	246	300	7.1	17.0	8.6	88
19...	1330	9813	9813	266	260	7.4	9.0	11.6	98
NOV									
16...	1220	9813	9813	297	275	6.7	8.0	11.0	120
DEC									
21...	0845	9813	9813	1300	165	6.2	3.5	14.0	74
JAN									
25...	1305	9813	9813	439	260	7.0	1.0	13.3	116
FEB									
23...	1220	9813	9813	223	340	6.8	1.0	12.7	124
MAR									
16...	0850	9813	9813	3360	136	6.9	1.0	13.0	52
APR									
12...	0850	9813	9813	924	210	7.1	9.5	11.8	86
MAY									
11...	1030	9813	9813	340	285	--	12.5	9.8	132
JUN									
15...	1330	9813	9813	363	215	5.5	19.5	8.4	94
JUL									
26...	1300	9813	9813	106	330	7.2	25.0	7.4	162
AUG									
23...	1150	9813	9813	111	410	7.1	25.0	8.0	174
SEP									
07...	1000	9813	9813	108	420	7.6	23.0	8.3	210

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, TOTAL RESI- DUAL (MG/L)	CHLO- RINE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDEd (MG/L)
OCT									
05...	--	30	3.4	17	85	--	8.0	198	22
19...	--	28	7.0	15	79	--	7.0	206	6
NOV									
16...	--	33	9.3	23	81	--	11	208	4
DEC									
21...	--	18	6.8	10	48	--	8.0	--	10
JAN									
25...	--	35	7.3	14	96	--	10	210	2
FEB									
23...	0	37	7.8	15	150	--	10	260	4
MAR									
16...	--	13	4.9	10	26	--	6.0	124	68
APR									
12...	--	22	7.8	12	52	--	7.0	186	2
MAY									
11...	--	15	14	21	--	--	10	262	10
JUN									
15...	--	23	8.8	16	89	.00	7.0	246	22
JUL									
26...	--	39	16	29	140	--	13	350	10
AUG									
23...	--	46	14	20	210	--	10	346	2
SEP									
07...	--	47	22	25	190	.00	10	270	2

WEST BRANCH SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	ALPHA, TOTAL (PCI/L)	BETA, TOTAL (PCI/L)	
OCT									
05...	220	.86	<.01	.08	.03	1390	1.0	5.0	
19...	212	1.9	.00	.10	.01	620	1.0	3.0	
NOV									
16...	212	.56	<.01	.08	.02	540	<1.0	2.0	
DEC									
21...	116	.93	<.01	.05	.08	440	<1.0	3.0	
JAN									
25...	212	.81	<.01	.13	.08	110	<1.0	2.0	
FEB									
23...	264	.77	<.01	.17	.07	90	<1.0	2.0	
MAR									
16...	192	1.7	<.01	1.1	.14	4650	<1.0	3.0	
APR									
12...	188	.90	<.01	.12	.11	410	<1.0	<2.0	
MAY									
11...	272	.63	--	<.01	.06	430	<1.0	3.0	
JUN									
15...	268	.68	<.01	.17	.05	710	<1.0	2.0	
JUL									
26...	360	.72	.01	.03	.03	210	<1.0	<2.0	
AUG									
23...	348	.57	<.01	.08	.03	380	--	--	
SEP									
07...	272	.54	<.01	.26	.02	170	--	--	
	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
AUG									
23...	1150	430	<1	<10	20	<10	290	20	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

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. Altitude of gage is 1,770 ft (539 m) from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1-5 and Dec. 30 to Feb. 1 and those for winter periods, which are fair.

AVERAGE DISCHARGE.--11 years, 13.0 ft³/s (0.368 m³/s), 26.08 in/yr (662 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)
Mar. 21	2100	142 4.02	2.45 0.747	May 15	1130	178 5.04	2.58 0.786
Mar. 23	1530	119 3.37	2.36 0.719	May 18	0200	139 3.94	2.44 0.744
Apr. 1	1900	127 3.60	2.39 0.728	June 2	1600	*323 9.15	*3.00 0.914
Apr. 5	0100	152 4.30	2.49 0.759				

Minimum discharge, 1.6 ft³/s (0.045 m³/s) Sept. 9, 10, gage height, 1.42 ft (0.433 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	7.7	28	11	9.8	4.3	72	8.9	12	4.9	3.0	1.9
2	8.4	8.3	24	10	9.5	4.2	73	8.3	44	6.7	2.8	1.7
3	7.0	8.3	20	9.5	9.2	4.1	51	8.3	28	20	4.9	1.7
4	6.3	9.5	18	9.0	9.0	4.1	63	8.3	19	11	4.2	1.5
5	5.6	8.9	17	8.5	8.7	4.0	90	11	15	7.7	2.8	1.5
6	6.7	8.9	16	15	8.3	3.9	61	9.5	13	6.7	2.8	1.5
7	5.3	42	15	26	7.9	3.9	56	8.9	15	5.8	2.8	1.5
8	6.2	38	13	50	7.5	3.8	44	8.9	25	5.8	2.5	1.5
9	18	28	12	85	7.2	3.8	36	13	17	5.3	1.9	1.4
10	12	34	11	53	6.8	3.7	30	10	14	5.3	2.8	1.4
11	9.5	30	10	29	6.7	4.3	27	8.9	12	4.9	2.8	1.5
12	8.9	24	10	17	6.4	5.4	24	8.9	12	4.6	2.5	3.3
13	8.3	21	9.8	16	6.2	7.7	21	34	15	4.2	2.8	1.9
14	8.3	18	24	14	6.0	18	18	45	12	4.2	2.8	1.4
15	8.3	16	33	13	5.8	28	16	119	11	3.9	2.8	5.3
16	23	16	22	12	5.6	19	15	100	8.9	5.3	2.8	1.9
17	19	27	20	12	5.5	15	13	75	22	4.6	2.1	1.7
18	19	22	27	11	5.4	13	13	94	10	3.9	1.9	1.9
19	24	19	24	11	5.2	15	15	56	8.9	3.6	1.7	5.3
20	22	17	21	10	5.1	22	19	41	8.3	3.3	1.7	1.9
21	18	17	18	9.7	5.0	61	19	32	8.3	3.3	1.5	1.9
22	16	16	16	9.5	4.8	88	16	26	7.7	3.3	1.7	1.9
23	14	15	15	9.4	4.7	96	15	23	7.2	3.3	1.5	1.5
24	12	15	15	9.2	4.6	79	15	63	6.2	3.3	1.5	1.7
25	11	14	23	9.0	4.5	54	13	37	5.8	3.0	1.5	1.5
26	11	14	15	89	4.4	42	12	28	5.8	3.0	1.5	1.5
27	11	12	14	52	4.4	40	12	24	8.9	4.6	1.7	1.5
28	9.5	12	13	30	4.3	45	11	21	6.7	3.9	1.7	1.4
29	8.9	11	12	17	---	58	10	18	5.8	3.0	1.9	1.5
30	8.3	12	12	12	---	48	9.5	15	5.3	3.3	1.7	1.5
31	7.7	---	11	11	---	44	---	14	---	7.2	3.3	---
TOTAL	362.2	541.6	538.8	679.8	178.5	842.2	889.5	977.9	389.8	162.9	73.9	57.6
MEAN	11.7	18.1	17.4	21.9	6.38	27.2	29.7	31.5	13.0	5.25	2.38	1.92
MAX	24	42	33	89	9.8	96	90	119	44	20	4.9	5.3
MIN	5.3	7.7	9.8	8.5	4.3	3.7	9.5	8.3	5.3	3.0	1.5	1.4
CFSM	1.73	2.67	2.57	3.24	.94	4.02	4.39	4.65	1.92	.78	.35	.28
IN.	1.99	2.98	2.96	3.73	.98	4.63	4.89	5.37	2.14	.89	.41	.32

CAL YR 1977 TOTAL 4599.4 MEAN 12.6 MAX 250 MIN 1.4 CFSM 1.86 IN 25.27
WTR YR 1978 TOTAL 5694.7 MEAN 15.6 MAX 119 MIN 1.4 CFSM 2.30 IN 31.29

WEST BRANCH SUSQUEHANNA RIVER BASIN

97

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) National Geodetic Vertical Datum of 1929. 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. 196).

AVERAGE DISCHARGE.--65 years, 578 ft³/s (16.37 m³/s), 21.18 in/yr (538 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, 8,260 ft³/s (234 m³/s) Mar. 15, gage height, 10.20 ft (3.109 m); maximum gage height, 12.18 ft (3.712 m) Mar. 15; minimum, 56 ft³/s (1.59 m³/s) Sept. 10, 11, gage height, 2.79 ft (0.850 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	720	250	1580	440	2000	243	1900	343	684	213	166	173
2	1000	230	1900	410	1650	233	2230	324	582	198	139	121
3	780	225	1460	380	1350	224	1840	306	743	239	109	90
4	600	230	1260	355	1150	213	1970	288	698	334	101	88
5	450	225	1090	335	1000	207	3530	363	517	284	118	83
6	410	220	920	320	880	200	2810	450	428	220	112	73
7	385	300	790	310	780	193	2750	392	418	191	159	67
8	360	410	690	606	700	189	2140	348	1560	169	472	62
9	840	370	620	2630	640	185	1720	428	1220	159	255	60
10	960	390	550	1630	590	180	1450	489	823	152	183	58
11	800	700	500	1240	540	197	1260	428	613	156	194	58
12	620	580	470	1020	490	230	1150	387	512	143	180	62
13	520	500	580	880	470	1600	963	558	478	124	247	76
14	450	450	1500	780	440	3250	830	3040	423	121	213	85
15	410	430	3490	700	410	5710	730	5870	363	133	159	88
16	500	613	2440	650	390	2750	665	5920	316	118	159	136
17	690	1220	1900	610	370	1830	606	5330	408	183	133	106
18	780	1570	1710	580	350	1340	564	4620	494	173	136	434
19	710	1190	1920	550	335	1170	620	3550	358	124	98	743
20	760	977	1590	520	400	1730	816	2550	311	106	88	329
21	670	900	1420	500	360	2930	991	1970	316	98	80	216
22	600	872	1220	480	365	6200	769	1560	363	93	76	187
23	530	769	1040	465	335	5080	633	1060	348	93	71	152
24	480	730	949	450	310	4580	588	2980	272	101	67	130
25	435	678	1110	600	290	3380	564	3760	239	93	67	118
26	400	652	1130	6200	280	2760	512	2400	232	85	65	103
27	380	606	900	7360	265	2750	466	1790	272	83	62	96
28	355	552	672	5500	255	2640	423	1410	439	115	71	88
29	335	512	590	4100	---	2900	392	1140	348	213	93	80
30	300	529	530	3200	---	2630	363	949	251	133	88	76
31	270	---	480	2400	---	2160	---	809	---	127	133	---
TOTAL	17500	17880	37001	46201	17395	59884	36245	55812	15029	4774	4294	4238
MEAN	565	596	1194	1490	621	1932	1208	1800	501	154	139	141
MAX	1000	1570	3490	7360	2000	6200	3530	5920	1560	334	472	743
MIN	270	220	470	310	255	180	363	288	232	83	62	58
MEAN#	564	601	1182	1485	562	2009	1193	1816	486	152	135	140
CFSM#	1.52	1.62	3.19	4.00	1.51	5.42	3.22	4.89	1.31	.41	.36	.38
IN.#	1.75	1.81	3.68	4.61	1.57	6.25	3.59	5.64	1.46	.47	.42	.42

CAL YR 1977 TOTAL 268230 MEAN 735 MAX 7030 MIN 105 MEAN# 750 CFSM# 2.02 IN.# 27.44
WTR YR 1978 TOTAL 316253 MEAN 866 MAX 7360 MIN 58 MEAN# 865 CFSM# 2.33 IN.# 31.67

Adjusted for change in contents in Glendale Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--38 years, 111 ft³/s (3.144 m³/s), 21.86 in/yr (555 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)
Jan. 9	Unknown	604 17.1	2.88 0.878	May 17	0530	*1,380 39.1	*5.28 1.609
Mar. 22	0200	1,060 30.0	4.37 1.332	May 24	1115	883 25.0	3.81 1.161
Apr. 5	0445	778 22.0	3.46 1.055				

Minimum daily discharge, 13 ft³/s (0.37 m³/s) Sept. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	100	200	112	146	37	460	100	200	53	30	30
2	82	94	223	104	136	36	572	94	183	53	20	18
3	59	91	210	97	126	35	514	91	183	58	22	19
4	52	93	188	91	117	34	482	87	169	65	26	20
5	47	88	172	86	110	33	673	108	156	58	20	16
6	50	82	157	82	104	32	569	106	146	51	22	15
7	45	143	145	80	97	31	549	91	154	46	75	14
8	45	187	132	180	92	31	452	87	255	43	87	13
9	105	168	124	400	87	30	394	112	175	40	31	13
10	93	264	116	320	82	30	352	98	148	38	28	17
11	84	306	110	250	78	32	313	91	134	43	40	20
12	84	248	105	200	74	35	289	91	128	36	34	22
13	79	219	102	180	71	60	257	218	126	32	30	26
14	77	195	219	164	68	192	227	613	116	31	23	18
15	121	180	280	150	65	350	202	1300	106	34	31	23
16	264	167	255	140	63	262	190	1340	98	29	35	28
17	403	200	240	132	60	209	177	1300	152	50	22	25
18	344	180	250	126	58	179	164	994	106	38	20	66
19	367	167	240	118	57	207	175	727	92	34	19	100
20	388	160	230	113	60	277	192	552	89	31	18	74
21	344	155	220	107	58	495	205	436	106	28	17	57
22	292	151	202	103	59	922	179	348	98	27	16	45
23	239	147	185	100	53	862	164	296	83	25	16	39
24	203	143	168	97	50	853	160	676	80	24	15	32
25	179	134	200	122	47	718	152	506	73	23	15	28
26	164	136	185	272	44	613	140	439	70	24	15	26
27	153	121	170	248	41	552	128	396	89	30	21	23
28	136	118	155	222	39	533	114	348	80	24	41	21
29	125	109	140	185	---	541	106	308	63	52	34	19
30	114	123	130	166	---	506	104	272	56	35	27	18
31	107	---	120	153	---	474	---	245	---	28	55	---
TOTAL	4918	4669	5573	4900	2142	9201	8655	12470	3714	1183	905	885
MEAN	159	156	180	158	76.5	297	289	402	124	38.2	29.2	29.5
MAX	403	306	280	400	146	922	673	1340	255	65	87	100
MIN	45	82	102	80	39	30	104	87	56	23	15	13
CFSM	2.31	2.27	2.62	2.30	1.11	4.32	4.20	5.84	1.80	.56	.42	.43
IN.	2.66	2.52	3.01	2.65	1.16	4.97	4.68	6.74	2.01	.64	.49	.48

CAL YR 1977 TOTAL 46278 MEAN 127 MAX 1020 MIN 14 CFSM 1.85 IN 25.02
WTR YR 1978 TOTAL 59215 MEAN 162 MAX 1340 MIN 13 CFSM 2.36 IN 32.02

WEST BRANCH SUSQUEHANNA RIVER BASIN

99

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 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMREP)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 16...	0945	9813	9813	167	340	4.7	7.5	10.7	124	12	39	26
FEB 23...	1010	9813	9813	63	580	3.8	.0	12.2	260	25	44	45
APR 26...	1435	9813	9813	140	420	3.3	11.0	8.4	180	17	39	28
AUG 23...	1445	9813	9813	16	850	3.2	20.0	9.2	320	48	93	67

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 16...	15	120	9.0	190	18	208	.19	<.01	.10	.03	6450
FEB 23...	36	220	4.0	408	28	436	.17	<.01	.15	.07	12380
APR 26...	27	170	3.0	314	10	324	.13	<.01	.07	.09	5260
AUG 23...	37	370	5.0	676	8	684	1.4	<.01	.54	.04	8900

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 23...	1445	5880	<1	<10	30	<10	6300	210	290

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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. 196).

AVERAGE DISCHARGE.--38 years, 2,491 ft³/s (70.55 m³/s), 23.09 in/yr (586 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, 23,800 ft³/s (674 m³/s) May 15, gage height, 9.88 ft (3.011 m); minimum, 298 ft³/s (8.44 m³/s) Aug. 28, gage height, 1.12 ft (0.341 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500	1330	3640	2120	3320	860	8190	1720	2880	962	785	1250
2	4700	1280	6490	1950	2850	840	9230	1600	2500	821	668	948
3	3000	1290	6370	1800	2500	820	8500	1490	2400	962	579	688
4	2150	1290	5770	1660	2320	800	7700	1290	2560	1080	455	642
5	1750	1300	4840	1570	2090	780	10100	1490	2160	1220	401	513
6	1550	1250	4160	1530	2150	765	10700	1780	1680	1020	466	472
7	1400	2370	3770	1500	1780	750	10200	1730	1530	821	617	434
8	1300	3720	3080	1900	1670	740	9020	1570	3470	736	932	396
9	3900	3820	2590	6900	1570	730	7480	1740	5720	629	1350	350
10	4100	3590	2140	8190	1490	720	6130	2080	3840	655	1060	326
11	3700	4240	1960	6580	1410	840	5230	1960	2590	662	778	316
12	3100	4480	1890	4660	1350	1030	4620	1840	2280	585	895	331
13	2750	4000	2060	4150	1300	1320	4080	2170	1810	567	1010	391
14	2500	3340	3010	3780	1250	2180	3320	7020	1580	662	918	386
15	2350	3060	8370	3310	1200	6850	2890	21600	1590	668	807	422
16	5400	2980	9620	2630	1160	9940	2640	20600	1350	597	675	484
17	7800	3880	9290	2420	1120	9070	2450	19000	1250	743	610	450
18	8000	5190	8560	1970	1080	7080	2240	17900	1580	722	495	518
19	8400	4400	8680	1730	1050	6170	2330	15100	2100	617	472	2830
20	8700	4250	7810	1600	1080	6350	2660	12100	1530	554	428	1850
21	6600	4100	6290	1500	1130	8530	3260	9880	1330	450	396	1220
22	5000	3820	5590	1420	1070	18000	3480	6430	1400	407	386	1060
23	4100	3540	4650	1360	1040	18500	3190	4890	1270	412	355	872
24	3500	3410	4050	1300	1000	17600	3050	7100	1200	444	340	709
25	2900	3120	4360	1600	970	15400	2730	13500	970	439	331	642
26	2600	2970	4730	4130	940	13100	2510	11500	948	450	326	585
27	2250	2410	4220	6700	910	12100	2360	8380	978	428	312	495
28	2000	2210	3830	7170	880	11600	2150	5890	1010	439	331	466
29	1800	2060	2950	6920	---	11600	1970	4720	2320	461	439	444
30	1600	2060	2600	5940	---	11100	1820	3980	1350	617	417	401
31	1450	---	2350	4610	---	9830	---	3440	---	688	828	---
TOTAL	112850	90760	149720	104600	41680	205995	146230	215490	59176	20518	18862	20891
MEAN	3640	3025	4830	3374	1489	6645	4874	6951	1973	662	608	696
MAX	8700	5190	9620	8190	3320	18500	10700	21600	5720	1220	1350	2830
MIN	1300	1250	1890	1300	880	720	1820	1290	948	407	312	316
MEAN#	3638	2961	4814	3371	1429	6716	4860	7042	1958	659	611	688
CFSM#	2.49	2.03	3.29	2.31	.98	4.59	3.32	4.82	1.34	.45	.42	.47
IN.#	2.87	2.26	3.79	2.66	1.02	5.29	3.70	5.56	1.50	.52	.48	.52
CAL YR 1977 TOTAL	1136658			3114		20900	478		3129			
WTR YR 1978 TOTAL	1186772			3251		21600	312		3250			
									CFSM#	2.14	IN.#	29.03
									CFSM#	2.22	IN.#	30.17

Adjusted for change in contents in Curwensville and Glendale Reservoirs.

WEST BRANCH SUSQUEHANNA RIVER BASIN

101

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 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 17...	0845	9813	9813	3610	305	5.2	9.5	10.8	118	7	25	25
FEB 22...	0910	9813	9813	1170	440	3.9	.0	13.8	178	11	31	38
APR 26...	1000	9813	9813	2500	300	3.6	12.0	8.9	150	3	21	25
AUG 24...	1125	9813	9813	340	680	3.4	25.0	7.9	276	19	48	42

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	14	130	10	204	4	208	.47	<.01	.17	.02	3240
FEB 22...	21	190	8.0	306	10	316	.51	<.01	.16	.07	4460
APR 26...	22	140	6.0	258	10	268	.47	<.01	.10	.09	1930
AUG 24...	7.8	300	11	506	2	508	.43	.01	.12	.02	660

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 24...	1125	3530	1	10	20	<10	4250	130	180

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) National Geodetic Vertical Datum of 1929. 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.--14 years (1964-78), 8.78 ft³/s (0.249 m³/s), 22.81 in/yr (579 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)
Dec. 14	2015	*175 4.96	*4.74 1.445	Mar. 21	2345	113 3.20	4.46 1.359
Jan. 26	0600	108 3.06	4.44 1.353	Apr. 1	2245	145 4.11	4.61 1.405

Minimum discharge, 0.08 ft³/s (0.002 m³/s) Aug. 26, 27, gage height, 3.14 ft (0.957 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2.4	41	5.0	5.3	1.1	67	3.6	2.6	.75	.32	.91
2	15	2.3	53	4.4	4.7	1.1	91	3.2	2.3	.75	.22	.50
3	15	2.1	28	3.6	4.3	1.0	41	2.9	2.2	.80	1.7	.45
4	11	2.2	16	5.0	3.9	1.0	35	2.8	1.9	.82	1.3	.40
5	8.0	2.2	12	3.2	3.6	1.0	97	4.8	1.7	.72	.62	.24
6	6.5	2.1	9.6	2.8	3.3	.99	65	4.6	1.5	.65	1.0	.17
7	5.0	8.9	7.1	2.5	3.0	.98	41	4.8	1.7	.56	2.5	.17
8	4.6	22	5.5	14	2.8	.98	30	5.3	4.6	.84	1.7	.83
9	11	19	5.2	62	2.6	1.0	22	14	6.1	.74	.94	.50
10	17	16	4.5	31	2.4	1.0	17	25	5.1	.63	1.1	.55
11	15	15	4.7	17	2.2	1.1	14	20	3.7	.53	.94	.75
12	11	14	5.1	11	2.1	1.4	12	15	2.9	.44	.73	.83
13	8.0	11	6.8	7.6	2.0	2.0	9.4	23	3.0	.40	.57	.61
14	6.4	8.5	80	6.0	1.9	17	7.9	83	2.1	.40	.44	.36
15	5.8	7.2	114	5.1	1.8	37	6.7	71	1.8	.39	.50	.68
16	5.7	6.9	42	4.4	1.7	23	5.7	37	1.6	.41	.68	.61
17	6.9	12	25	4.0	1.6	15	5.1	55	1.6	.54	.40	.61
18	8.0	20	20	3.5	1.6	10	4.5	46	1.6	.37	.28	1.5
19	11	17	20	3.1	1.6	9.6	4.7	27	2.1	.26	.24	5.3
20	13	13	17	2.9	1.7	10	5.6	18	1.5	.23	.28	1.5
21	11	11	15	2.7	1.6	34	7.0	14	1.5	.24	.17	1.1
22	8.9	8.9	12	2.6	1.8	81	8.8	10	1.4	.61	.13	.90
23	7.0	8.4	9.9	2.5	1.6	68	9.3	8.7	1.2	.71	.11	.66
24	5.8	9.0	9.0	2.9	1.5	72	8.2	8.8	1.1	.75	.11	.53
25	5.1	9.5	25	4.9	1.4	41	7.5	7.3	1.1	.70	.11	.47
26	4.6	9.8	25	54	1.3	24	6.6	6.4	1.0	.79	.09	.36
27	4.1	7.8	16	33	1.2	18	5.8	5.4	1.0	.49	.08	.32
28	3.6	6.4	11	17	1.2	18	5.1	4.7	.97	.38	.28	.28
29	3.1	5.2	8.8	12	---	22	4.5	4.0	.88	.40	.36	.19
30	2.8	6.5	6.9	8.5	---	35	4.1	3.5	.80	.55	.19	.19
31	2.5	---	5.8	6.4	---	35	---	3.0	---	.36	1.9	---
TOTAL	253.4	286.3	660.9	344.6	65.7	584.25	648.5	541.8	62.55	17.21	19.99	22.47
MEAN	8.17	9.54	21.3	11.1	2.35	18.8	21.6	17.5	2.09	.56	.64	.75
MAX	17	22	114	62	5.3	81	97	83	6.1	.84	2.5	5.3
MIN	2.5	2.1	4.5	2.5	1.2	.98	4.1	2.8	.80	.23	.08	.17
CFSM	1.56	1.82	4.07	2.12	.45	3.59	4.12	3.34	.40	.11	.12	.14
IN.	1.80	2.03	4.69	2.45	.47	4.15	4.60	3.85	.44	.12	.14	.16

CAL YR 1977	TOTAL	3768.04	MEAN	10.3	MAX	114	MIN	.61	CFSM	1.97	IN	26.75
WTR YR 1978	TOTAL	3507.67	MEAN	9.61	MAX	114	MIN	.08	CFSM	1.83	IN	24.90

WEST BRANCH SUSQUEHANNA RIVER BASIN

103

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) National Geodetic Vertical Datum of 1929. 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.--65 years, 449 ft³/s (12.72 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)
Dec. 15	0130	*6,440 182	*4.90 1.494	Mar. 22	0130	5,100 144	4.25 1.295

Minimum daily discharge, 26 ft³/s (0.74 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	708	204	1790	290	353	106	2010	263	230	43	30	141
2	825	194	2410	230	290	105	3660	245	208	41	28	58
3	692	186	1720	198	230	103	2080	226	199	43	26	43
4	612	300	1110	183	191	102	1610	210	192	48	66	41
5	512	656	868	238	200	100	3110	318	174	46	46	42
6	457	422	755	196	210	99	2610	338	157	41	46	36
7	393	1060	598	174	190	99	2060	309	153	38	284	32
8	334	1720	487	427	180	98	1950	302	272	36	262	35
9	644	1350	441	2560	167	98	1510	584	351	41	113	42
10	772	1110	350	1400	155	98	1100	849	241	36	176	40
11	738	1100	320	885	147	105	943	800	166	35	201	44
12	668	947	300	744	140	115	818	700	127	34	106	38
13	550	803	571	581	134	130	710	944	166	32	66	37
14	466	668	2390	453	129	360	588	3040	138	31	54	36
15	446	573	5230	380	124	1980	488	3380	87	36	41	39
16	459	521	2730	297	120	1180	414	2170	78	32	43	44
17	606	773	1790	239	116	789	375	2500	78	38	42	39
18	680	950	1450	208	112	588	343	2320	74	36	36	90
19	712	952	1470	185	110	527	358	1620	92	30	35	627
20	780	831	1200	170	107	602	411	1130	101	29	33	288
21	735	758	1070	160	106	1630	466	941	101	30	32	179
22	635	701	896	150	105	3940	472	710	121	30	32	116
23	529	614	752	146	104	2990	463	588	87	34	30	78
24	449	633	657	144	110	3060	467	640	66	52	29	65
25	396	588	1190	255	115	2100	444	549	64	42	28	56
26	356	606	1210	1030	111	1510	407	470	54	36	27	51
27	320	544	982	1250	108	1260	375	419	53	32	27	46
28	288	487	794	917	107	1110	343	376	54	29	28	43
29	253	419	643	683	---	1300	312	333	51	28	39	42
30	229	439	498	534	---	1510	286	296	46	32	37	39
31	218	---	381	453	---	1490	---	261	---	34	67	---
TOTAL	16462	21109	37053	15760	4271	29284	31183	27831	3981	1125	2110	2507
MEAN	531	704	1195	508	153	945	1039	898	133	36.3	68.1	83.6
MAX	825	1720	5230	2560	353	3940	3660	3380	351	52	284	627
MIN	218	186	300	144	104	98	286	210	46	28	26	32
CFSM	1.95	2.59	4.39	1.87	.56	3.47	3.82	3.30	.49	.13	.25	.31
IN.	2.25	2.89	5.07	2.16	.58	4.01	4.26	3.81	.54	.15	.29	.34

CAL YR 1977	TOTAL	208397	MEAN 571	MAX 5790	MIN 37	CFSM 2.10	IN 28.50
WTR YR 1978	TOTAL	192676	MEAN 528	MAX 5230	MIN 26	CFSM 1.94	IN 26.35

WEST BRANCH SUSQUEHANNA RIVER BASIN

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 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 17...	1330	9813	9813	1870	50	6.5	9.0	11.0	22	4.8	2.4
FEB 22...	1355	9813	9813	105	67	7.1	.5	13.6	21	6.4	1.2
MAY 10...	0830	9813	9813	1940	54	7.3	7.0	9.4	30	5.6	3.9
AUG 09...	1235	9813	9813	106	75	8.4	23.0	9.5	32	8.8	2.4

DATE	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	11	10	5.0	30	2	32	.30	<.01	.17	.04	290
FEB 22...	7	8.0	4.0	64	12	76	.38	<.01	.05	.06	110
MAY 10...	10	19	6.0	66	14	80	.27	--	.02	.05	280
AUG 09...	16	16	6.0	54	2	56	.22	<.01	.08	.02	270

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 09...	1235	310	<1	10	<10	<10	20	30	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

105

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--40 years, 1,128 ft³/s (31.94 m³/s), 22.41 in/yr (569 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. 15	0600	12,000 340	8.40 2.560	May 15	0700	11,300 320	8.14 2.481
Mar. 22	0400	*13,700 388	*8.94 2.725				

Minimum discharge, 77 ft³/s (2.18 m³/s) Aug. 27, 28, gage height, 1.75 ft (0.533 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	473	3310	1060	1200	330	4520	663	691	177	135	671
2	2130	451	4790	960	1000	320	7510	618	601	166	126	288
3	1590	437	3820	846	850	312	5050	564	613	188	111	192
4	1350	448	2890	722	760	305	3980	522	577	237	231	184
5	1110	1370	2310	898	720	298	7450	755	479	199	207	163
6	941	956	1990	767	680	292	6300	870	426	169	153	132
7	860	2890	1580	646	640	288	5260	763	408	149	382	117
8	727	5250	1250	1150	620	284	4630	727	967	138	531	117
9	1360	3820	1050	6210	590	280	3710	1450	1550	132	314	120
10	1850	3050	940	4240	570	276	2920	2120	962	132	452	108
11	1580	3120	830	2930	550	305	2490	1980	736	123	452	108
12	1420	2570	760	2280	520	340	2260	1750	608	111	298	132
13	1180	2160	1220	1890	500	520	1820	2510	644	103	256	196
14	996	1770	3700	1610	490	1300	1470	7020	553	111	228	153
15	952	1500	10900	1300	470	6300	1220	10300	452	619	177	151
16	1050	1340	6660	1020	455	4280	1050	7170	388	237	157	203
17	1620	2020	4570	940	440	3120	924	7530	412	494	145	199
18	1730	2640	3830	880	430	2340	832	7060	466	309	129	325
19	1700	2510	4070	800	415	2000	872	5020	459	199	114	1920
20	1860	2190	3450	730	400	2320	1050	3640	452	155	105	986
21	1660	1970	3020	670	390	4030	1310	2910	392	137	101	602
22	1430	1820	2500	620	380	11800	1300	2160	486	126	94	486
23	1210	1550	2050	590	375	9080	1220	1720	361	137	88	400
24	1030	1560	1740	560	370	9030	1220	2440	293	358	84	314
25	905	1420	2820	680	380	6230	1170	2350	264	229	83	269
26	824	1420	3090	2000	365	4580	1060	1930	250	166	81	229
27	762	1270	2550	4000	350	3950	962	1600	274	144	78	199
28	689	1140	1970	3060	340	3590	873	1320	250	132	84	184
29	613	976	1730	2340	---	3910	789	1100	220	123	132	166
30	555	967	1510	1860	---	4210	727	933	199	173	129	152
31	509	---	1270	1490	---	4080	---	805	---	161	627	---
TOTAL	37573	55058	88170	49749	15250	90300	75949	82300	15433	6034	6284	9466
MEAN	1212	1835	2844	1605	545	2913	2532	2655	514	195	203	316
MAX	2130	5250	10900	6210	1200	11800	7510	10300	1550	619	627	1920
MIN	509	437	760	560	340	276	727	522	199	103	78	108
CFSM	1.77	2.68	4.15	2.34	.80	4.25	3.70	3.88	.75	.29	.30	.46
IN.	2.04	2.99	4.79	2.70	.83	4.90	4.12	4.47	.84	.33	.34	.51

CAL YR 1977 TOTAL 499463 MEAN 1368 MAX 14900 MIN 114 CFSM 2.00 IN 27.12
WTR YR 1978 TOTAL 531566 MEAN 1456 MAX 11800 MIN 78 CFSM 2.13 IN 28.87

WEST BRANCH SUSQUEHANNA RIVER BASIN

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 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 17...	1145	9813	9813	1970	72	5.9	9.0	10.8	30	--	7.2	2.9
FEB 22...	1115	9813	9813	380	130	5.4	.5	12.8	55	5	12	6.1
MAY 10...	1050	9813	9813	2130	72	6.6	8.5	9.0	32	--	7.2	10
AUG 09...	1025	9813	9813	320	106	6.9	22.0	8.7	44	--	10	4.4

DATE	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	6	22	3.0	46	2	48	.22	<.01	.09	.01	470
FEB 22...	1	37	5.0	88	4	92	.26	<.01	.04	.08	130
MAY 10...	5	33	6.0	82	18	100	.23	--	.02	.04	1060
AUG 09...	4	30	6.0	90	2	92	.32	<.01	.06	.02	370

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 09...	1025	680	<1	10	10	<10	290	20	30

WEST BRANCH SUSQUEHANNA RIVER BASIN

107

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) National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good except those for 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. 196).

AVERAGE DISCHARGE.--25 years, 387 ft³/s (10.96 m³/s), 21.46 in/yr (545 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, 4,270 ft³/s (121 m³/s) May 18, gage height, 3.49 ft (1.064 m); minimum, 9.5 ft³/s (0.27 m³/s) Sept. 8, gage height, -0.34 ft (-0.104 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	573	169	862	368	461	105	1630	234	198	38	34	84
2	617	155	1930	339	380	100	2770	225	192	33	26	38
3	524	141	1780	245	320	96	2400	217	174	42	23	36
4	477	100	1140	186	280	100	2090	180	144	44	32	35
5	383	674	872	284	260	110	2170	247	155	40	37	33
6	343	815	758	261	275	120	2720	213	133	37	34	28
7	294	1310	548	226	250	115	2080	198	126	34	294	26
8	250	3060	436	347	240	115	2200	201	231	34	272	25
9	469	2980	380	1870	245	115	1700	302	274	34	107	26
10	775	1740	267	2920	230	120	1300	460	211	34	137	26
11	834	1630	247	1400	190	129	1000	522	144	33	107	36
12	686	1450	257	940	185	147	900	532	161	29	92	52
13	489	1080	318	738	180	165	760	577	180	28	75	35
14	457	830	832	609	180	518	660	1840	155	31	52	29
15	426	662	3110	461	180	1850	580	1340	98	67	32	29
16	577	556	3060	343	190	1440	520	1610	89	29	32	29
17	1110	738	1700	270	190	902	480	3160	89	28	32	30
18	1360	957	1220	240	180	762	420	3890	89	29	30	38
19	1240	1020	1150	220	170	658	460	3340	101	26	31	477
20	1310	912	1050	200	160	657	520	1490	110	26	31	294
21	1140	781	923	190	150	920	660	925	84	25	30	144
22	893	629	756	180	145	2370	640	675	92	23	29	116
23	680	531	618	177	140	3100	620	535	82	23	25	84
24	530	514	580	174	130	2990	580	583	63	42	21	58
25	422	450	745	243	125	2850	520	498	60	43	19	51
26	366	448	1020	1250	120	1950	463	423	60	34	19	47
27	302	458	951	2320	115	1240	405	394	52	27	19	44
28	273	384	733	1380	110	1020	336	322	47	22	18	44
29	228	317	642	930	---	1290	302	290	61	22	18	38
30	202	313	550	732	---	1290	277	256	52	20	20	34
31	187	---	440	571	---	1460	---	215	---	36	137	---
TOTAL	18417	25804	29875	20614	5781	28804	32163	25894	3707	1013	1865	2066
MEAN	594	860	964	665	206	929	1072	835	124	32.7	60.2	68.9
MAX	1360	3060	3110	2920	461	3100	2770	3890	274	67	294	477
MIN	187	100	247	174	110	96	277	180	47	20	18	25
MEAN#	594	869	963	665	205	939	1062	836	123	33.7	59.5	68.7
CFSM#	2.42	3.55	3.93	2.71	.84	3.83	4.33	3.41	.50	.14	.24	.28
IN.#	2.79	3.96	4.53	3.12	.87	4.42	4.83	3.93	.56	.16	.28	.31

CAL YR 1977 TOTAL 207386 MEAN 568 MAX 3750 MIN 34 MEAN# 568 CFSM# 2.32 IN.# 31.46
WTR YR 1978 TOTAL 196003 MEAN 537 MAX 3890 MIN 18 MEAN# 538 CFSM# 2.20 IN.# 29.76

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

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--38 years, 227 ft³/s (6.429 m³/s), 22.68 in/yr (576 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)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 8	0800	2,500 70.8	4.80 1.463	May 14	2230	*3,590 102	*5.84 1.780
Apr. 2	0700	2,420 68.5	4.71 1.436				

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Sept. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	415	131	455	210	290	67	1150	163	129	35	25	49
2	423	123	820	188	252	66	2200	148	135	35	21	24
3	384	116	795	170	213	64	1440	131	172	34	23	22
4	349	213	618	141	177	63	1010	122	129	34	58	20
5	307	760	507	165	180	61	1080	146	112	34	35	19
6	290	856	419	139	165	60	1240	131	100	33	58	18
7	238	1240	335	123	155	59	1250	118	109	29	99	16
8	205	2370	268	194	145	58	1540	116	197	26	63	20
9	318	1720	220	1950	140	56	1220	156	229	25	48	20
10	391	1170	190	1370	135	58	904	163	199	24	51	17
11	415	1100	150	835	130	64	765	175	168	23	45	30
12	384	964	140	596	120	76	825	189	146	21	40	22
13	325	735	135	459	115	137	745	232	135	19	37	17
14	280	560	407	384	110	339	609	1870	112	24	34	15
15	297	443	910	307	108	609	471	2680	95	36	31	15
16	411	367	880	258	105	495	367	1480	85	42	28	19
17	922	378	725	221	100	415	297	1290	81	66	26	19
18	964	363	623	202	97	349	249	1220	77	34	24	28
19	874	363	569	180	94	332	264	928	75	24	23	172
20	868	349	507	165	90	342	353	700	69	21	22	72
21	800	339	471	145	87	591	499	551	72	20	20	53
22	660	304	403	135	84	1470	573	427	70	23	20	49
23	515	280	349	125	82	1490	524	346	59	25	19	41
24	407	271	314	140	79	1690	451	349	55	33	18	35
25	332	246	388	165	76	1210	374	287	52	24	17	33
26	290	255	443	700	74	910	318	249	46	22	16	29
27	252	226	439	970	72	705	274	221	45	22	16	27
28	215	207	374	745	70	614	235	199	44	22	18	24
29	184	182	320	555	---	705	205	179	41	21	28	22
30	161	187	278	427	---	868	182	161	35	29	18	20
31	143	---	245	346	---	892	---	146	---	24	79	---
TOTAL	13019	16818	13697	12710	3545	14915	21614	15273	3073	884	1060	967
MEAN	420	561	442	410	127	481	720	493	102	28.5	34.2	32.2
MAX	964	2370	910	1950	290	1690	2200	2680	229	66	99	172
MIN	143	116	135	123	70	56	182	116	35	19	16	15
CFSM	3.09	4.13	3.25	3.02	.93	3.54	5.29	3.63	.75	.21	.25	.24
IN.	3.56	4.60	3.75	3.48	.97	4.08	5.91	4.18	.84	.24	.29	.26

CAL YR 1977 TOTAL 113389 MEAN 311 MAX 2370 MIN 30 CFSM 2.29 IN 31.01
WTR YR 1978 TOTAL 117575 MEAN 322 MAX 2680 MIN 15 CFSM 2.37 IN 32.16

WEST BRANCH SUSQUEHANNA RIVER BASIN

109

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) National Geodetic Vertical Datum of 1929, 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.).

AVERAGE DISCHARGE.--24 years, 372 ft³/s (10.54 m³/s), 21.73 in/yr (552 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, 4,550 ft³/s (129 m³/s) May 18, gage height, 7.69 ft (2.344 m); minimum, 21 ft³/s (0.59 m³/s) Aug. 26, 27, 28, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	541	223	555	387	506	131	1640	265	228	63	49	123
2	670	200	1120	337	451	131	2890	251	201	61	46	81
3	660	192	1410	288	410	129	2920	226	303	62	43	55
4	581	240	1270	270	349	129	1840	201	289	64	40	39
5	504	545	865	250	315	129	1740	228	218	66	48	40
6	442	1140	712	240	280	131	2070	226	189	63	51	31
7	359	1490	526	232	250	131	2040	209	168	58	105	30
8	315	3090	428	306	225	122	2160	194	366	50	131	35
9	434	3850	350	2050	200	113	2030	236	477	50	93	34
10	660	2130	290	3350	178	111	1350	290	440	49	84	36
11	669	1670	250	1530	186	109	1170	311	362	47	88	38
12	637	1560	270	959	236	124	1080	325	280	45	81	43
13	532	1190	300	710	236	140	1040	382	251	42	58	44
14	443	868	481	623	195	333	852	1400	210	40	43	41
15	497	716	1670	502	172	1160	685	1360	165	48	47	40
16	644	561	1760	401	145	1170	530	1340	148	61	46	44
17	1560	599	1270	343	124	869	429	3110	138	91	44	44
18	1810	635	1000	313	111	673	378	4200	138	84	41	47
19	1500	640	955	280	100	562	377	3150	135	49	38	225
20	1390	603	861	250	102	596	502	1400	127	47	33	205
21	1230	552	807	232	113	820	668	884	117	44	31	109
22	1020	590	698	225	122	2260	881	673	116	41	29	102
23	773	488	561	220	126	2990	842	519	100	42	26	92
24	614	459	521	231	131	3240	718	594	90	52	24	68
25	585	426	545	260	135	2560	601	495	86	56	23	54
26	442	426	657	640	135	1550	506	446	84	50	22	56
27	393	403	724	1580	133	1260	427	397	83	45	21	54
28	336	369	583	1870	131	1030	385	361	78	44	24	52
29	292	322	553	1070	---	1140	356	321	60	43	28	49
30	263	312	505	806	---	1500	302	277	63	43	37	45
31	229	---	453	612	---	1600	---	254	---	46	148	---
TOTAL	20945	26489	22950	21367	5797	26943	33389	24525	5710	1646	1622	1969
MEAN	676	883	740	689	207	869	1113	791	190	53.1	52.3	65.6
MAX	1810	3850	1760	3350	506	3240	2920	4200	477	91	148	225
MIN	229	192	250	220	100	109	302	194	60	40	21	34
MEAN#	677	883	740	688	208	869	1113	791	190	52.8	52.5	65.1
CFSM#	2.91	3.79	3.18	2.95	.89	3.73	4.78	3.39	.82	.23	.23	.28
IN.#	3.35	4.23	3.67	3.40	.93	4.30	5.33	3.91	.91	.27	.27	.31

CAL YR 1977 TOTAL 186002 MEAN 510 MAX 3850 MIN 49 MEAN# 510 CFSM# 2.19 IN.# 29.70
WTR YR 1978 TOTAL 193352 MEAN 530 MAX 4200 MIN 21 MEAN# 530 CFSM# 2.27 IN.# 30.88

Adjusted for change in contents in Kettle Creek Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, 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) National Geodetic Vertical Datum of 1929. 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.196).

AVERAGE DISCHARGE.--71 years, 4,961 ft³/s (140.4 m³/s), 22.68 in/yr (576 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, 37,800 ft³/s (1,070 m³/s) May 15, gage height, 11.14 ft (3.395 m); minimum, 398 ft³/s (11.3 m³/s) Aug. 28, gage height, 0.01 ft (0.003 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4850	2980	7370	5280	6840	1750	17400	3520	4940	1720	1200	3070
2	6910	2720	14700	4850	5780	1740	23500	3310	4270	1350	1070	2020
3	7440	2620	15200	4270	4450	1670	22300	3070	4350	1370	1050	1430
4	6240	2650	12600	3320	3800	1660	17200	2820	4290	1650	872	1130
5	5100	3600	10300	3230	3580	1650	21500	2870	3860	1740	862	1000
6	4440	5070	8810	3620	3600	1630	23900	3660	3300	1720	758	818
7	3890	7680	7580	3290	3650	1620	21400	3460	2840	1360	948	718
8	3480	18000	6400	3670	3280	1610	19700	3230	4820	1170	2150	680
9	4310	17600	5630	16700	3200	1600	17000	3460	8650	1040	2080	630
10	7860	12600	4620	21400	3300	1680	13400	5310	7580	931	2030	560
11	8010	12300	3780	14800	3090	1830	11100	5380	5220	985	1960	516
12	7010	11600	3560	10700	3270	2090	10000	5100	4360	907	1630	539
13	5740	10000	4060	8670	3130	2430	8960	5380	3900	817	1670	683
14	5030	8280	6440	7820	3000	3980	7630	15400	3310	867	1540	728
15	5130	7190	23000	6900	2760	15900	6370	32900	3080	1590	1410	681
16	5790	6460	23400	5610	2530	18400	5650	33300	2740	1310	1270	767
17	10900	7360	18800	4940	2630	15500	5010	34000	2460	1170	1020	881
18	12800	9900	15900	4380	2490	12300	4600	35200	2610	1570	891	897
19	11600	10400	16100	3900	2250	10100	4520	29600	3030	1130	727	3760
20	12200	9920	14600	3600	2000	10500	5180	21200	3030	940	674	5280
21	11500	8840	12500	3400	1900	12700	6260	16300	2480	817	600	2930
22	9920	7830	10600	3100	1850	33400	7060	11900	2530	675	557	2590
23	8410	7030	8980	2900	1800	36200	6880	8920	2330	625	524	2090
24	7020	6760	7940	2720	1900	35800	6500	9920	2170	800	475	1670
25	5950	6340	8380	3300	2130	30400	6060	17000	1840	961	446	1380
26	5300	6050	10400	8730	2030	23800	5480	15800	1670	784	423	1240
27	4870	5620	9510	16900	1900	20400	5000	12600	1690	725	410	1080
28	4390	4940	8270	15200	1800	18800	4610	9250	1670	674	430	947
29	3910	4490	7090	12600	---	19400	4170	7590	2170	665	493	872
30	3500	4260	6350	10500	---	20100	3830	6500	2510	736	665	801
31	3190	---	5810	8660	---	19200	---	5670	---	1070	1560	---
TOTAL	206690	231090	318680	228960	83940	379840	322170	373620	103700	33869	32395	42388
MEAN	6667	7703	10280	7386	2998	12250	10740	12050	3457	1093	1045	1413
MAX	12800	18000	23400	21400	6840	36200	23900	35200	8650	1740	2150	5280
MIN	3190	2620	3560	2720	1800	1600	3830	2820	1670	625	410	516
CFSM	2.24	2.59	3.46	2.48	1.01	4.12	3.61	4.05	1.16	.37	.35	.48
IN.	2.58	2.89	3.98	2.86	1.05	4.75	4.03	4.67	1.30	.42	.41	.53
CAL YR 1977 TOTAL	2237475			6130		42000		659		2.06		27.98
WTR YR 1978 TOTAL	2357342			6458		36200		410		2.17		29.48

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 September 1977.

INSTRUMENTATION.--Water-quality monitor since October 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 973 micromhos Oct. 3, 1968; minimum, 87 micromhos Feb. 25, 1975.

pH: Maximum, 6.8 units Mar. 24, 1978; minimum, 2.2 units Sept. 23, 24, 1969.

WATER TEMPERATURES: Maximum, 31.0°C June 27-30 and July 16, 1969; minimum, on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 14.0 mg/L Feb. 14, 1975; minimum, 6.5 mg/L Aug. 3, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 656 micromhos Aug. 30; minimum, 113 micromhos May 15.

pH: Maximum, 6.8 units Mar. 24; minimum, 3.5 units July 30.

WATER TEMPERATURES: Maximum, 30.5°C July 22; minimum 0.0°C Jan. 15, 16, 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
DEC 13...	1445	4460	265	4.2	.5	.4	20	97	.44	.00
MAR 29...	1430	15400	180	4.8	6.5	.0	.0	59	.52	.00
JUN 21...	1500	1090	385	4.0	22.0	.4	20	140	.43	.00

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
DEC 13...	.44	.07	.12	.19	.00	.00	1300	1	1	0
MAR 29...	.52	.05	.00	.00	.00	.00	790	0	1	0
JUN 21...	.43	.03	.08	.11	.00	.00	15000	1	2	1

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 13...	24	16	700	8	1500	<.5	0	0	110
MAR 29...	12	5	450	1	780	<.5	0	0	60
JUN 21...	32	10	100	11	1900	<.5	0	0	100

WEST BRANCH SUSQUEHANNA RIVER BASIN

01540000 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	261	253	258	325	315	321	250	216	242	297	290	293
2	284	246	259	327	320	324	217	198	212	306	291	301
3	287	260	274	343	327	336	199	187	195	322	305	315
4	263	227	245	338	326	330	200	189	196	337	321	329
5	248	229	242	352	280	323	198	181	190	341	317	330
6	251	246	249	279	264	269	---	---	---	---	---	---
7	264	245	252	277	152	206	---	---	---	---	---	---
8	280	265	274	220	191	208	---	---	---	---	---	---
9	281	252	267	212	204	206	---	---	---	---	---	---
10	263	237	248	219	179	191	---	---	---	---	---	---
11	245	213	230	---	---	---	297	245	280	---	---	---
12	213	206	209	---	---	---	331	297	307	---	---	---
13	220	206	212	---	---	---	317	200	292	216	196	208
14	226	220	223	---	---	---	308	304	289	227	213	220
15	232	226	228	---	---	---	213	160	190	244	226	232
16	234	209	225	---	---	---	213	157	176	257	245	251
17	---	---	---	---	---	---	179	168	174	280	247	264
18	215	202	209	231	220	226	180	166	172	278	259	273
19	202	193	197	220	201	209	187	173	181	296	259	276
20	199	193	196	208	202	206	206	176	188	305	283	292
21	198	193	196	205	189	202	211	202	206	306	291	298
22	206	196	200	208	197	200	231	211	221	317	294	307
23	223	206	214	228	208	218	247	231	237	333	316	324
24	232	221	228	224	217	220	257	246	252	339	314	329
25	248	231	241	230	221	226	260	240	255	339	308	324
26	265	248	257	231	229	230	242	236	239	317	197	263
27	277	265	272	239	229	235	237	230	233	234	208	223
28	289	276	285	250	232	239	245	232	237	207	180	194
29	296	280	288	262	251	257	252	245	248	206	197	204
30	308	296	303	263	259	262	277	250	261	203	191	198
31	311	307	312	---	---	---	299	273	286	209	199	203
MONTH	316	193	243	352	152	245	331	157	229	341	180	269

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	228	210	221	387	373	379	176	156	171	---	---	---
2	254	226	240	387	378	382	165	130	144	275	272	274
3	266	255	260	398	350	380	143	130	135	282	274	277
4	283	262	275	387	367	379	157	140	149	288	280	283
5	299	279	286	394	377	385	180	150	156	297	283	286
6	314	289	298	394	373	385	157	140	152	312	297	303
7	317	282	300	388	373	382	157	140	150	324	312	319
8	284	253	268	396	380	389	158	156	157	317	306	311
9	331	269	313	398	387	391	177	150	163	311	282	296
10	314	296	306	394	377	384	186	170	177	273	262	263
11	312	299	305	387	378	382	202	181	193	263	238	254
12	324	309	315	389	370	377	210	202	206	249	243	246
13	333	319	326	380	374	378	225	210	217	250	208	237
14	331	322	327	379	296	347	235	226	230	208	166	180
15	334	321	330	289	196	237	256	236	244	183	113	155
16	338	317	332	235	202	214	268	255	260	150	134	140
17	346	338	342	215	195	204	280	268	274	151	140	147
18	356	344	350	195	180	188	---	---	---	153	141	150
19	360	352	356	192	188	191	---	---	---	167	148	155
20	371	350	362	203	183	196	289	282	287	184	167	175
21	375	359	369	206	173	190	287	277	281	198	183	191
22	395	374	386	182	153	170	278	256	267	220	196	205
23	410	362	368	190	179	185	256	240	245	252	220	238
24	377	362	369	213	177	193	239	232	235	252	242	247
25	378	363	373	206	181	196	236	229	233	242	195	221
26	381	369	375	207	192	202	239	230	236	197	186	191
27	386	373	378	214	196	205	243	238	240	203	187	193
28	389	378	385	219	212	215	248	235	243	235	200	213
29	---	---	---	215	209	213	257	245	250	253	235	242
30	---	---	---	217	174	193	260	255	257	270	252	263
31	---	---	---	175	172	173	---	---	---	287	270	279
MONTH	410	210	326	398	153	280	289	130	213	324	113	231

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	307	287	298	385	381	383	563	553	558	462	399	431
2	323	306	312	395	382	386	572	543	563	475	442	460
3	330	310	322	413	396	403	542	409	498	442	413	431
4	342	328	334	445	410	430	460	407	435	442	399	421
5	346	338	341	474	443	460	473	427	452	472	441	458
6	348	335	340	470	435	452	456	436	450	491	458	475
7	339	323	335	435	421	425	495	454	475	505	482	495
8	342	306	327	437	428	433	---	---	---	---	---	---
9	357	269	317	451	437	444	---	---	---	---	---	---
10	269	252	264	461	443	451	---	---	---	---	---	---
11	266	252	260	499	461	475	---	---	---	---	---	---
12	281	265	272	507	482	497	---	---	---	---	---	---
13	291	279	286	497	480	490	---	---	---	---	---	---
14	294	280	287	512	470	502	---	---	---	---	---	---
15	346	290	328	520	413	464	---	---	---	---	---	---
16	350	331	343	457	411	437	---	---	---	---	---	---
17	348	330	340	514	457	483	---	---	---	---	---	---
18	374	347	356	522	448	481	---	---	---	---	---	---
19	415	373	398	536	488	517	---	---	---	---	---	---
20	394	352	368	525	484	512	---	---	---	---	---	---
21	351	326	343	489	474	480	---	---	---	367	322	332
22	370	347	358	497	481	489	---	---	---	325	305	316
23	415	370	392	517	491	505	---	---	---	343	315	323
24	417	400	408	529	503	512	---	---	---	357	338	348
25	411	390	396	528	481	492	608	578	593	382	341	363
26	403	390	396	536	496	519	624	592	613	407	381	392
27	413	400	406	564	523	545	637	618	626	419	396	409
28	428	412	422	570	543	559	637	576	623	432	393	415
29	485	430	450	578	556	569	638	592	623	447	419	434
30	485	381	423	582	569	578	656	616	636	469	440	455
31	---	---	---	584	555	566	619	426	500	---	---	---
MONTH	485	252	347	584	381	482	656	407	546	505	305	409

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	5.2	5.0	5.1	4.0	3.9	4.0	5.2	4.3	4.5	4.2	4.1	4.2
2	5.0	4.6	4.9	4.0	4.0	4.0	5.8	5.2	5.6	4.2	4.2	4.2
3	4.9	4.6	4.7	4.0	3.9	3.9	6.0	5.7	5.9	4.2	4.2	4.2
4	5.3	4.9	5.2	4.0	3.9	3.9	6.2	5.9	6.1	4.4	4.2	4.2
5	5.3	5.1	5.2	4.1	3.9	4.0	6.1	5.6	5.9	4.4	4.0	4.4
6	5.1	4.9	5.0	4.2	4.1	4.2	---	---	---	---	---	---
7	5.0	4.8	4.9	5.8	4.2	4.7	---	---	---	---	---	---
8	4.8	4.6	4.7	6.0	5.4	5.9	---	---	---	---	---	---
9	4.6	4.5	4.6	6.1	6.0	6.0	---	---	---	---	---	---
10	4.6	4.5	4.6	6.1	5.7	5.9	---	---	---	---	---	---
11	5.0	4.5	4.7	---	---	---	4.6	4.3	4.4	---	---	---
12	5.2	5.0	5.1	---	---	---	4.4	4.2	4.3	---	---	---
13	5.2	5.1	5.2	---	---	---	4.4	4.1	4.2	5.3	4.9	5.0
14	5.0	4.9	5.0	---	---	---	4.1	4.1	4.1	4.9	4.7	4.8
15	4.9	4.8	4.9	---	---	---	6.3	5.2	5.7	4.7	4.7	4.7
16	4.8	4.6	4.7	---	---	---	6.3	5.3	5.7	4.7	4.6	4.6
17	5.1	4.6	4.7	---	---	---	5.6	5.4	5.4	4.6	4.4	4.5
18	5.0	4.6	4.8	5.4	4.6	5.2	5.4	5.2	5.3	4.5	4.4	4.4
19	5.0	4.8	4.9	5.6	5.4	5.5	5.2	5.1	5.2	4.5	4.0	4.4
20	5.0	4.7	4.9	5.8	5.6	5.8	5.3	5.2	5.2	4.5	4.4	4.5
21	5.0	4.8	4.9	5.7	5.3	5.5	5.2	5.1	5.2	4.5	4.4	4.5
22	4.9	4.6	4.8	5.3	4.9	5.1	5.1	4.5	4.8	4.5	4.4	4.4
23	4.6	4.5	4.5	4.9	4.5	4.7	4.7	4.4	4.5	4.4	4.4	4.4
24	4.5	4.4	4.4	4.7	4.6	4.7	4.4	4.4	4.4	4.5	4.4	4.5
25	4.4	4.2	4.3	4.7	4.6	4.7	4.8	4.3	4.4	4.5	4.4	4.5
26	4.2	4.1	4.2	4.7	4.6	4.7	4.9	4.7	4.8	5.5	4.4	4.8
27	4.1	4.1	4.1	4.7	4.6	4.7	5.0	4.6	4.8	5.9	5.0	5.6
28	4.1	4.0	4.0	4.7	4.5	4.6	4.9	4.5	4.7	5.7	5.3	5.5
29	4.1	4.0	4.0	4.5	4.4	4.4	4.6	4.5	4.5	5.7	5.6	5.7
30	4.0	4.0	4.0	4.4	4.3	4.4	4.5	4.2	4.4	5.7	5.3	5.5
31	4.0	4.0	4.0	---	---	---	4.3	4.1	4.2	5.3	5.0	5.1
MONTH	5.3	4.0	4.7	6.1	3.9	4.8	6.3	4.1	4.9	5.9	4.0	4.7

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.8	4.9	4.3	4.2	4.2	4.8	4.5	4.7	---	---	---
2	4.8	4.6	4.7	4.2	4.1	4.2	4.9	4.6	4.8	4.3	4.2	4.3
3	4.6	4.4	4.5	4.2	4.1	4.1	5.1	4.0	4.9	4.3	4.2	4.3
4	4.5	4.5	4.5	4.3	4.2	4.2	5.3	4.9	5.1	4.4	4.3	4.3
5	4.6	4.5	4.5	4.2	4.2	4.2	5.1	4.1	4.8	4.3	4.2	4.2
6	4.5	4.4	4.5	4.3	4.2	4.2	5.2	4.7	5.0	4.2	4.1	4.1
7	4.6	4.4	4.4	4.3	4.2	4.3	5.1	4.7	5.0	4.2	4.1	4.1
8	4.7	4.5	4.6	4.3	4.2	4.3	5.1	4.7	5.0	4.2	4.2	4.2
9	4.5	4.2	4.3	4.2	4.1	4.2	5.3	5.1	5.2	4.4	4.2	4.2
10	4.5	4.4	4.5	4.3	4.2	4.3	5.2	4.9	5.1	4.4	4.1	4.2
11	4.6	4.5	4.5	4.4	4.3	4.3	4.9	4.3	4.7	4.4	4.2	4.3
12	4.5	4.4	4.5	4.4	4.3	4.4	4.6	4.3	4.5	4.4	4.3	4.4
13	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.3	4.4	4.7	4.3	4.4
14	4.4	4.3	4.4	4.8	4.4	4.6	4.5	4.3	4.4	5.7	4.6	5.1
15	4.4	4.3	4.4	6.1	4.9	5.6	4.5	4.4	4.4	5.5	5.0	5.2
16	4.4	4.3	4.3	5.9	5.3	5.7	4.4	4.3	4.3	5.1	4.9	4.9
17	4.3	4.3	4.3	6.0	5.9	5.9	4.3	3.6	4.2	5.0	4.7	4.9
18	4.3	4.3	4.3	5.9	5.6	5.7	---	---	---	5.0	4.9	5.0
19	4.3	4.3	4.3	5.6	5.3	5.5	4.2	3.8	4.2	5.0	4.9	5.0
20	4.3	4.3	4.3	5.5	5.4	5.5	4.2	4.2	4.2	4.9	4.8	4.8
21	4.3	4.3	4.3	5.9	5.5	5.6	4.3	4.2	4.3	4.8	4.7	4.8
22	4.3	4.2	4.3	6.6	5.9	6.4	4.5	4.3	4.4	4.9	4.5	4.7
23	4.3	4.2	4.3	6.7	6.6	6.6	4.7	3.9	4.4	4.5	4.2	4.3
24	4.3	4.3	4.3	6.8	6.6	6.7	4.5	4.4	4.5	4.3	3.9	4.2
25	4.3	4.2	4.2	6.7	6.6	6.7	4.6	4.2	4.4	4.7	4.2	4.4
26	4.2	4.2	4.2	6.6	6.5	6.6	4.5	4.3	4.3	5.1	4.7	4.9
27	4.2	4.2	4.2	6.5	6.0	6.4	4.4	4.1	4.4	5.1	4.8	5.0
28	4.2	4.2	4.2	6.2	6.1	6.2	4.5	4.4	4.4	4.9	4.3	4.6
29	---	---	---	6.2	6.1	6.2	4.4	4.3	4.4	4.3	4.2	4.3
30	---	---	---	6.2	4.7	5.5	4.4	4.3	4.3	4.2	4.1	4.1
31	---	---	---	4.9	4.8	4.8	---	---	---	4.1	4.1	4.1
MONTH	5.0	4.2	4.4	6.8	4.1	5.2	5.3	3.6	4.6	5.7	3.9	4.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	4.1	3.9	4.1	4.3	4.2	4.3	3.6	3.6	3.6	4.0	3.8	3.9
2	4.0	4.0	4.0	4.3	4.2	4.2	3.6	3.6	3.6	3.9	3.7	3.8
3	4.1	3.9	4.0	4.2	4.0	4.1	3.8	3.6	3.7	3.9	3.8	3.9
4	4.0	3.9	4.0	4.0	3.9	4.0	3.8	3.7	3.7	4.0	3.9	3.9
5	4.1	3.9	4.0	3.9	3.7	3.8	3.8	3.7	3.8	3.9	3.9	3.9
6	4.0	3.9	4.0	3.9	3.7	3.8	3.8	3.7	3.8	3.9	3.8	3.8
7	4.0	3.9	4.0	3.9	3.9	3.9	3.7	3.7	3.7	3.8	3.8	3.8
8	4.2	3.8	4.0	3.9	3.9	3.9	3.8	3.7	3.7	---	---	---
9	4.3	3.8	4.0	3.9	3.8	3.9	---	---	---	---	---	---
10	4.8	4.2	4.6	3.9	3.8	3.8	---	---	---	---	---	---
11	4.8	4.4	4.7	3.8	3.8	3.8	---	---	---	---	---	---
12	4.4	4.2	4.3	3.8	3.7	3.8	---	---	---	---	---	---
13	4.2	4.2	4.2	3.8	3.6	3.7	---	---	---	---	---	---
14	4.2	4.1	4.2	3.7	3.6	3.6	---	---	---	---	---	---
15	4.1	3.8	4.0	3.8	3.6	3.7	---	---	---	---	---	---
16	4.0	3.9	4.0	3.8	3.7	3.7	---	---	---	---	---	---
17	3.9	3.9	3.9	3.7	3.6	3.7	---	---	---	---	---	---
18	3.9	3.9	3.9	3.7	3.6	3.7	---	---	---	---	---	---
19	3.9	3.8	3.8	3.7	3.5	3.6	---	---	---	---	---	---
20	4.0	3.8	3.9	3.6	3.6	3.6	---	---	---	---	---	---
21	4.2	4.0	4.0	3.7	3.6	3.7	---	---	---	4.5	4.3	4.4
22	4.0	3.9	3.9	3.7	3.6	3.7	---	---	---	4.5	4.4	4.5
23	3.9	3.8	3.9	3.7	3.6	3.7	---	---	---	4.6	4.4	4.5
24	3.9	3.8	3.9	3.7	3.6	3.6	---	---	---	4.5	4.3	4.4
25	3.9	3.9	3.9	3.7	3.6	3.7	3.7	3.6	3.6	4.4	4.2	4.3
26	3.9	3.8	3.9	3.7	3.6	3.7	3.7	3.6	3.6	4.3	4.1	4.2
27	3.9	3.8	3.9	3.6	3.6	3.6	3.6	3.6	3.6	4.2	4.0	4.1
28	3.9	3.8	3.8	3.6	3.6	3.6	3.7	3.6	3.6	4.1	4.0	4.0
29	3.8	3.7	3.8	3.6	3.6	3.6	3.7	3.6	3.6	4.0	3.9	3.9
30	4.2	3.8	4.0	3.6	3.5	3.6	3.6	3.6	3.6	3.9	3.8	3.9
31	---	---	---	3.6	3.6	3.6	3.9	3.6	3.8	---	---	---
MONTH	4.8	3.7	4.0	4.3	3.5	3.8	3.9	3.6	3.7	4.6	3.7	4.1

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	15.5	15.5	11.0	9.5	10.0	6.0	5.0	5.0	2.5	2.0	2.0
2	15.5	15.5	15.5	11.5	11.0	11.0	7.0	6.0	7.0	2.0	.5	1.5
3	15.5	14.0	14.5	13.0	12.5	12.5	7.0	6.0	6.5	.5	.5	.5
4	14.0	13.0	13.5	14.5	13.0	14.0	8.0	6.5	7.5	.5	.5	.5
5	14.0	12.5	13.5	15.5	14.5	15.0	7.5	6.0	7.0	.5	.5	.5
6	14.5	13.5	14.0	15.0	15.0	15.0	---	---	---	---	---	---
7	14.0	13.0	13.5	15.0	13.0	13.5	---	---	---	---	---	---
8	13.0	12.0	12.5	12.5	12.0	12.0	---	---	---	---	---	---
9	13.0	12.0	12.5	12.0	12.0	12.0	---	---	---	---	---	---
10	12.5	12.0	12.0	13.0	12.0	12.5	---	---	---	---	---	---
11	13.0	11.5	12.0	---	---	---	.5	.5	.5	---	---	---
12	12.5	11.5	12.0	---	---	---	.5	.5	.5	---	---	---
13	11.5	10.5	11.0	---	---	---	1.0	.5	.5	1.0	.5	.5
14	10.5	9.5	10.0	---	---	---	2.5	.5	1.5	.5	.5	.5
15	11.0	9.5	10.0	---	---	---	6.0	1.0	4.0	.5	.0	.5
16	10.5	10.0	10.5	---	---	---	6.0	3.5	5.0	.5	.0	.5
17	9.5	8.5	9.0	---	---	---	5.0	4.5	4.5	.5	.0	.5
18	8.5	8.0	8.0	9.0	8.5	9.0	5.0	4.5	5.0	.5	.5	.5
19	8.5	8.5	8.5	8.5	7.5	8.0	5.5	5.0	5.0	.5	.5	.5
20	9.5	9.0	9.0	7.5	7.0	7.0	5.5	5.0	5.0	.5	.5	.5
21	10.0	9.0	9.5	7.5	7.0	7.5	5.0	5.0	5.0	.5	.5	.5
22	10.0	9.5	10.0	7.5	7.0	7.5	5.0	4.0	4.5	.5	.5	.5
23	10.0	9.5	10.0	7.0	7.0	7.0	4.0	3.0	3.5	.5	.5	.5
24	10.0	9.0	9.5	7.0	7.0	7.0	3.0	3.0	3.0	.5	.5	.5
25	11.0	9.5	10.0	7.0	6.5	7.0	4.0	3.0	4.0	.5	.5	.5
26	12.0	10.5	11.0	6.5	4.5	5.5	4.0	1.0	2.5	2.0	.5	1.0
27	13.5	12.0	12.5	4.5	3.0	4.0	1.5	.5	1.0	2.0	.5	2.0
28	28.5	13.5	13.5	3.0	2.5	3.0	.5	.5	.5	1.0	1.0	1.0
29	14.0	12.5	13.0	3.0	2.5	3.0	.5	.5	.5	1.0	1.0	1.0
30	12.5	11.0	11.5	4.0	3.0	3.5	1.0	.5	.5	1.0	1.0	1.0
31	11.5	9.5	10.5	---	---	---	2.5	1.0	2.0	1.0	.5	.5
MONTH	28.5	8.0	11.5	15.5	2.5	9.0	8.0	.5	3.5	2.5	.0	1.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.5	.5	2.0	.5	1.0	8.5	7.0	7.5	---	---	---
2	.5	.5	.5	1.5	.5	.5	8.5	7.5	8.0	13.0	10.0	11.5
3	.5	.5	.5	1.0	.5	.5	7.5	5.5	6.5	15.0	11.0	13.0
4	.5	.5	.5	1.0	.5	.5	7.0	5.5	6.0	13.0	11.0	12.0
5	.5	.5	.5	1.0	.5	.5	8.0	7.0	7.5	11.0	10.0	10.5
6	.5	.5	.5	1.0	.5	.5	7.5	6.5	7.0	10.5	9.5	10.0
7	.5	.5	.5	1.5	.5	.5	9.0	6.5	8.0	13.0	10.5	11.5
8	.5	.5	.5	2.0	.5	1.0	9.5	8.5	9.0	12.0	11.5	11.5
9	.5	.5	.5	1.5	1.5	3.5	9.0	8.0	8.5	14.5	11.0	12.5
10	.5	.5	.5	5.0	2.5	3.5	9.5	8.0	8.5	13.5	12.5	13.0
11	.5	.5	.5	5.0	3.0	4.0	10.5	9.0	9.5	15.0	11.5	13.0
12	1.0	.5	.5	4.0	3.5	4.0	11.5	9.5	11.5	16.0	14.0	15.0
13	1.0	.5	.5	6.0	3.5	4.5	12.5	10.5	11.5	16.0	14.5	15.5
14	1.5	.5	1.0	5.5	3.5	4.5	11.5	10.0	11.0	14.5	12.0	12.5
15	1.5	.5	1.0	4.0	1.0	3.0	10.0	8.5	9.5	12.0	11.0	11.5
16	1.0	.5	1.0	3.0	2.5	2.5	10.0	7.5	8.5	11.0	10.5	11.0
17	2.0	1.0	1.5	3.5	3.0	3.5	11.5	8.0	10.0	11.0	11.0	11.0
18	1.5	1.0	1.5	3.5	3.0	3.0	---	---	---	12.0	10.5	11.0
19	1.0	.5	.5	4.5	3.0	4.0	10.0	9.5	10.0	13.5	11.5	12.5
20	.5	.5	.5	6.0	4.0	5.0	9.5	9.0	9.5	15.0	13.5	14.0
21	.5	.5	.5	7.0	5.5	6.0	9.0	8.0	8.5	16.5	14.5	15.5
22	.5	.5	.5	7.0	5.0	6.0	10.5	7.5	9.0	16.5	14.5	15.5
23	.5	.5	.5	7.0	6.5	6.5	11.0	8.5	10.0	16.0	15.0	15.5
24	.5	.5	.5	7.5	6.5	7.0	11.0	10.0	10.5	15.5	15.0	15.0
25	1.0	.5	1.0	7.5	7.0	7.5	12.0	9.0	11.0	15.5	14.0	14.5
26	2.0	1.0	1.5	8.0	7.5	8.0	12.5	10.5	11.5	16.5	15.0	15.5
27	2.0	.5	1.0	8.5	8.0	8.0	12.0	10.5	11.0	18.0	15.5	16.5
28	2.0	.5	1.0	8.5	8.0	8.0	14.0	11.0	13.0	19.0	16.5	18.0
29	---	---	---	8.5	8.5	8.5	14.0	11.5	13.0	20.5	18.5	19.5
30	---	---	---	8.5	6.5	8.0	14.5	12.0	13.5	22.0	19.0	20.5
31	---	---	---	7.5	6.0	7.0	---	---	---	21.5	20.0	21.0
MONTH	2.0	.5	.5	8.5	.5	4.0	14.5	5.5	9.5	22.0	9.5	14.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545500 WEST BRANCH SUSQUEHANNA RIVER AT RENOVO, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

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), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--13 years (1965-78), 78.2 ft³/s (2.215 m³/s, 22.95 in/yr (583 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)
Nov. * 8	0530	624 17.7	3.44 1.049	Apr. 2	0630	696 19.7	3.56 1.085
Mar. 23	2145	546 15.5	3.31 1.009	May 14	2400	*888 25.1	*4.04 1.231

Minimum discharge, 3.4 ft³/s (0.10 m³/s) Aug. 26, 27, gage height, 1.56 ft (0.475 m).

a Debris jam.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	59	148	80	113	25	417	75	74	19	13	34
2	127	55	213	75	101	24	655	69	69	18	8.5	19
3	115	52	211	61	91	23	488	65	69	21	19	15
4	105	95	181	53	80	23	369	61	57	23	24	13
5	95	125	155	51	74	22	407	68	51	20	11	11
6	90	138	137	49	67	22	430	61	47	16	24	9.4
7	78	339	116	49	63	21	427	55	51	15	30	8.3
8	72	592	100	76	60	20	445	53	116	14	26	9.8
9	118	466	78	391	56	20	373	68	121	14	16	8.6
10	130	361	63	316	53	20	297	69	107	13	16	8.5
11	130	343	53	233	51	21	255	67	97	12	13	9.9
12	121	295	49	179	49	24	234	69	86	11	11	9.5
13	102	241	47	144	47	31	202	81	81	10	9.7	8.5
14	95	194	102	129	45	87	169	470	69	10	7.9	6.5
15	98	157	211	102	43	157	140	755	61	11	7.3	14
16	167	136	222	78	41	131	124	470	53	9.6	7.1	11
17	291	142	202	65	39	116	107	420	49	10	6.2	9.2
18	283	132	194	55	38	105	97	380	46	8.8	5.4	15
19	267	121	181	49	36	106	97	300	44	7.8	5.1	64
20	272	115	159	43	34	117	123	235	40	7.3	4.7	32
21	269	113	151	40	33	200	148	190	41	6.9	4.4	25
22	236	106	135	37	31	439	163	156	41	6.8	4.2	27
23	191	101	119	34	30	469	158	130	33	8.9	4.0	22
24	151	100	107	55	29	522	145	176	30	15	3.8	20
25	130	94	127	92	28	418	128	169	27	8.4	3.8	18
26	113	96	124	306	27	331	114	161	27	8.2	3.5	16
27	101	87	118	340	26	287	104	144	27	7.9	3.4	14
28	89	81	105	259	25	274	95	128	26	13	8.0	14
29	79	74	98	201	---	313	87	110	23	8.5	8.2	13
30	71	75	90	158	---	354	81	97	21	8.9	5.8	12
31	64	---	87	133	---	348	---	85	---	17	83	---
TOTAL	4371	5085	4083	3933	1410	5070	7079	5437	1684	380.0	397.0	497.2
MEAN	141	170	132	127	50.4	164	236	175	56.1	12.3	12.8	16.6
MAX	291	592	222	391	113	522	655	755	121	23	83	64
MIN	64	52	47	34	25	20	81	53	21	6.8	3.4	6.5
CFSM	3.05	3.68	2.86	2.75	1.09	3.55	5.11	3.79	1.21	.27	.28	.36
IN.	3.52	4.09	3.29	3.17	1.14	4.08	5.70	4.38	1.36	.31	.32	.40
CAL YR 1977	TOTAL	33298.2	MEAN	91.2	MAX 780	MIN 9.5	CFSM 1.97	IN 26.81				
WTR YR 1978	TOTAL	39426.2	MEAN	108	MAX 755	MIN 3.4	CFSM 2.34	IN 31.75				

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 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT 19...	1130	300	36	6.7	7.5	12.2	--	K14	30	15
NOV 16...	1130	130	32	6.7	8.0	12.0	100	2	140	11
DEC 13...	1330	116	36	7.2	.0	13.8	K4	K1	K4	13
JAN 05...	1130	74	36	6.9	.0	13.8	K1	K1	55	12
FEB 15...	1200	48	38	6.8	.0	14.0	K11	K1	50	14
MAR 29...	1230	288	38	6.0	6.5	12.4	30	0	27	11
APR 26...	1130	113	39	6.6	9.0	11.6	K16	K0	K0	14
MAY 25...	1200	166	39	6.4	13.0	10.6	120	K2	K11	13
JUN 21...	1300	33	42	6.5	15.0	10.6	160	K7	84	77
JUL 19...	1300	7.7	42	6.9	19.0	10.0	K340	26	70	15
AUG 25...	1100	3.8	54	6.8	19.5	10.0	K1600	K14	1000	19
SEP 21...	1130	25	42	6.3	16.5	11.6	300	20	42	18

DATE	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)
OCT 19...	8	4.1	1.1	.2	3	.0	1.0	8	0	7
NOV 16...	2	3.2	.8	.7	11	.1	.9	11	0	9
DEC 13...	5	3.6	1.0	.8	11	.1	1.0	10	0	8
JAN 05...	7	3.6	.8	.8	11	.1	.9	7	0	6
FEB 15...	8	3.9	1.0	.9	12	.1	.8	7	0	6
MAR 29...	2	2.9	.9	.7	11	.1	.9	11	0	9
APR 26...	9	4.2	.9	.8	10	.1	1.4	6	0	5
MAY 25...	2	3.6	1.0	.7	10	.1	.9	--	--	21
JUN 21...	44	15	9.5	2.3	6	.1	1.6	--	--	33
JUL 19...	8	4.3	1.0	1.1	13	.1	1.2	--	--	7
AUG 25...	10	5.1	1.5	1.4	13	.1	1.1	--	--	9
SEP 21...	10	5.1	1.3	1.3	13	.1	1.3	--	--	8

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01545600 YOUNG WOMANS CREEK NEAR RENOVO, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)
OCT 19...	2.6	9.5	1.3	.0	4.3	22	25	.32	.01	--
NOV 16...	3.5	8.0	.3	.0	4.1	24	23	.28	.01	--
DEC 13...	1.0	7.9	1.4	.0	3.2	36	24	.34	.00	--
JAN 05...	1.4	8.0	1.3	.0	3.9	22	23	.32	.00	--
FEB 15...	1.8	8.5	1.6	.0	3.8	34	24	.45	.00	--
MAR 29...	18	8.5	.6	.0	4.3	26	24	.36	.00	.00
APR 26...	2.4	13	.3	.0	3.6	29	27	.25	.00	--
MAY 25...	--	8.8	1.7	.0	4.0	34	--	.35	.00	--
JUN 21...	--	95	3.4	.1	6.2	147	153	--	.00	--
JUL 19...	--	8.3	1.7	.0	4.3	29	26	.30	.01	--
AUG 25...	--	7.9	2.0	.0	4.5	34	29	.28	.00	--
SEP 21...	--	9.9	1.0	.0	4.4	34	29	.51	.00	.04

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
MAR 29...	1230	0	0	0	10	4	70
SEP 21...	1130	0	0	2	10	2	110

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 29...	3	10	<.5	0	1	0
SEP 21...	2	10	<.5	0	0	30

WEST BRANCH SUSQUEHANNA RIVER BASIN

01545600 YOUNG WOMANS CREEK NEAR RENOV, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)
JUN 21...	1300	.0	.00	.00	.0	.0	0	.00	.0	.00	.0	.00

DATE	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION. TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)
JUN 21...	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	WIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 21...	.0	.00	.00	.00	.00	.00	.00	0	0	.00	.00	.00

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90)	GROSS RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
JUN 21...	1300	.4	<.4	1.2	<.4	1.2	<.4	.03	.04

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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) National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair. Occasional regulation at low flow by fish hatchery and Rockview Penitentiary above station.

AVERAGE DISCHARGE.--38 years, 88.8 ft³/s (2.515 m³/s), 13.85 in/yr (352 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) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 17	0730	357 10.1	3.33 1.015	Mar. 15	0230	491 13.9	3.63 1.106
Nov. 10	2300	551 15.6	3.75 1.143	Mar. 22	0230	690 19.5	4.00 1.219
Jan. 9	1230	*765 21.7	*4.12 1.256	May 17	1030	702 19.9	4.02 1.225
Jan. 26	1530	520 14.7	3.69 1.125	May 24	0630	486 13.8	3.62 1.103

Minimum discharge, 38 ft³/s (1.08 m³/s) Aug. 1, gage height, 2.01 ft (0.613 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	114	199	161	190	89	311	130	174	91	42	66
2	77	111	196	156	188	87	300	130	179	91	50	61
3	71	110	190	147	177	87	280	125	190	114	58	62
4	69	151	182	139	166	85	290	132	164	97	61	62
5	67	133	179	138	159	83	260	130	149	93	43	60
6	69	125	172	136	159	83	270	125	142	90	54	59
7	67	290	159	134	154	82	250	120	142	88	94	59
8	66	426	147	218	149	82	240	135	154	86	95	59
9	115	370	149	593	144	82	225	130	138	81	81	59
10	109	374	135	346	140	83	210	125	131	86	82	57
11	97	462	133	283	135	84	200	120	127	83	80	57
12	91	378	129	248	131	85	190	115	125	81	77	59
13	86	322	131	238	131	88	185	140	127	79	74	60
14	84	276	144	227	129	188	177	320	116	93	73	57
15	103	250	193	203	122	417	159	540	116	97	72	75
16	156	225	190	186	120	311	153	590	112	83	71	59
17	330	222	182	181	118	243	141	648	116	83	71	57
18	276	204	269	172	112	208	130	554	104	83	70	68
19	253	174	307	160	106	259	150	436	93	81	68	78
20	293	156	282	162	104	349	190	362	75	81	67	65
21	256	151	276	149	106	417	170	309	110	78	66	63
22	225	144	234	141	101	599	160	269	114	76	66	65
23	199	133	213	137	99	527	155	245	102	76	66	62
24	182	131	202	133	97	484	150	397	99	75	65	62
25	166	129	279	150	96	405	145	307	97	73	65	61
26	159	133	246	414	94	378	145	270	101	70	63	61
27	172	122	222	426	92	391	140	248	99	73	62	60
28	147	122	219	315	90	410	140	225	97	79	65	58
29	131	118	193	262	---	411	135	204	97	76	64	58
30	121	125	177	231	---	376	130	193	95	74	64	58
31	117	---	169	210	---	339	---	182	---	84	76	---
TOTAL	4433	6181	6098	6796	3609	7812	5781	7956	3685	2595	2105	1847
MEAN	143	206	197	219	129	252	193	257	123	83.7	67.9	61.6
MAX	330	462	307	593	190	599	311	648	190	114	95	78
MIN	66	110	129	133	90	82	130	115	75	70	42	57
CFSM	1.64	2.36	2.26	2.51	1.48	2.89	2.21	2.95	1.41	.96	.78	.71
IN.	1.89	2.64	2.60	2.90	1.54	3.33	2.47	3.39	1.57	1.11	.90	.79

CAL YR 1977 TOTAL 43433 MEAN 119 MAX 462 MIN 55 CFSM 1.37 IN 18.53
WTR YR 1978 TOTAL 58898 MEAN 161 MAX 648 MIN 42 CFSM 1.85 IN 25.13

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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 17...	1440	9813	9813	334	370	7.3	7.0	--	154
NOV 29...	1245	9813	9813	116	490	--	--	--	200
DEC 28...	1215	9813	9813	213	450	--	--	--	200
JAN 23...	1220	9813	9813	129	460	--	--	--	200
FEB 27...	1115	9813	9813	88	500	--	--	--	230
MAR 30...	1500	9813	9813	374	410	--	--	--	170
JUN 06...	1545	9813	9813	144	470	--	--	--	212
JUL 20...	1315	9813	9813	68	500	--	--	--	200
AUG 02...	1045	9813	9813	50	500	8.1	17.5	11.2	252

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 17...	0	--	46	--	9.5	140	18	15	202
NOV 29...	--	56	--	16	--	182	30	27	264
DEC 28...	--	50	--	20	--	188	24	17	330
JAN 23...	--	54	--	17	--	188	20	18	306
FEB 27...	--	84	--	4.9	--	176	26	32	264
MAR 30...	--	39	--	19	--	154	20	18	336
JUN 06...	--	51	--	23	--	182	25	16	274
JUL 20...	--	52	--	19	--	178	25	20	330
AUG 02...	0	--	54	--	29	184	30	23	560

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01546500 SPRING CREEK NEAR AXEMANN, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO AUGUST 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	144	--	2.8	.04	.30	.36	3050	--
NOV 29...	38	302	3.5	.09	.22	3.1	310	--
DEC 28...	8	338	>2.0	.03	.15	.47	339	--
JAN 23...	26	332	2.8	.06	.26	.27	409	--
FEB 27...	18	282	4.4	.07	.32	.31	90	--
MAR 30...	24	360	3.0	.05	.23	.17	460	--
JUN 06...	4	278	3.0	.03	.14	.15	200	--
JUL 20...	2	332	1.1	.04	.08	.17	90	--
AUG 02...	18	--	4.8	.04	.09	.23	280	3.0

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 02...	1045	240	<3	<10	10	<50	30	30	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)
OCT 17...	1520	9813	9813	440	7.4	9.0	--	200	0
NOV 28...	1525	9813	9813	390	--	--	--	190	--
DEC 28...	1125	9813	9813	390	--	--	--	195	--
JAN 23...	1245	9813	9813	410	--	--	--	188	--
FEB 27...	1505	9813	9813	390	--	--	--	200	--
MAR 21...	1510	9813	9813	420	--	--	--	175	--
APR 28...	--	9813	9813	420	--	--	--	178	--
MAY 23...	0835	9813	9813	395	--	--	--	165	--
JUN 06...	1330	9813	9813	420	--	--	--	182	--
JUL 20...	1315	9813	9813	440	--	--	--	182	--
AUG 02...	0945	9813	9813	440	7.7	11.0	11.3	202	0
30...	1430	9813	9813	470	7.7	16.5	10.5	158	0
SEP 14...	1600	9813	9813	450	8.2	16.0	11.2	158	0

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, TOTAL (MG/L AS F)	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)
OCT 17...	--	40	--	25	172	24	13	--	160
NOV 28...	41	--	23	--	164	44	13	--	276
DEC 28...	50	--	18	--	162	26	13	--	282
JAN 23...	45	--	20	--	160	26	12	--	286
FEB 27...	49	--	20	--	158	26	14	--	198
MAR 21...	51	--	12	--	162	26	13	--	170
APR 28...	50	--	14	--	150	30	14	--	370
MAY 23...	44	--	14	--	140	26	12	--	142
JUN 06...	44	--	19	--	152	25	12	--	252
JUL 20...	49	--	15	--	158	30	13	--	316
AUG 02...	--	61	--	13	160	35	13	.6	504
30...	39	--	15	--	164	60	13	--	276
SEP 14...	--	50	--	8.5	160	40	10	--	312

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01546750 LOGAN BRANCH AT BELLEFONTE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	56	--	3.9	.03	.25	.17	1350	--	--
NOV 28...	10	286	2.8	.04	.06	.10	180	--	--
DEC 28...	6	288	3.9	.03	.10	.15	150	--	--
JAN 23...	18	304	2.8	.04	.07	.08	140	--	--
FEB 27...	18	216	3.5	.04	.11	.10	110	--	--
MAR 21...	34	204	5.2	.03	.09	.14	720	--	--
APR 28...	14	384	3.3	.04	.12	.12	160	--	--
MAY 23...	26	168	2.3	.03	.10	.02	640	--	--
JUN 06...	12	264	3.7	.02	.10	.11	140	--	--
JUL 20...	20	336	3.5	.03	.10	.04	100	--	--
AUG 02...	14	--	2.4	.03	.06	.12	50	10	4.0
SEP 30...	26	--	1.4	.05	.05	.08	60	--	--
SEP 14...	12	--	2.6	.03	.01	.09	90	<10	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PR)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 02...	0945	20	--	<3	<10	40	<50	10	10	30
SEP 14...	1600	40	<10	<3	<10	50	<50	<10	20	50

WEST BRANCH SUSQUEHANNA RIVER BASIN
01547100 SPRING CREEK AT MILESBURG, 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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery and by Rockview Penitentiary above station.

AVERAGE DISCHARGE.--11 years, 230 ft³/s (6.514 m³/s), 22.00 in/yr (559 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. 17	0645	666 18.9	4.63 1.411	Mar. 15	0345	826 23.4	5.04 1.536
Nov. 10	2400	950 26.9	5.35 1.631	Mar. 22	0300	1,240 35.1	5.97 1.820
Dec. 18	2330	662 18.7	4.62 1.408	May 17	0930	1,220 34.6	5.94 1.811
Jan. 9	0815	*1,420 40.2	*6.35 1.935	May 24	1015	866 24.5	5.14 1.567
Jan. 26	1630	990 28.0	5.45 1.661	Aug. 7	1715	1,260 35.7	6.03 1.838

Minimum discharge, 136 ft³/s (3.85 m³/s) Sept. 11, gage height, 2.64 ft (0.805 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	261	413	330	393	200	679	298	379	200	184	179
2	194	255	405	320	371	196	673	291	370	200	178	172
3	180	252	399	310	352	198	640	282	407	260	208	173
4	174	326	384	295	331	194	603	277	358	228	218	172
5	170	298	378	290	323	190	643	308	338	214	189	170
6	172	284	366	285	321	190	585	283	322	207	251	168
7	167	605	341	280	313	188	597	270	325	203	452	167
8	160	819	319	466	301	187	541	266	341	199	427	170
9	248	696	322	1120	291	187	514	295	314	199	284	166
10	245	697	295	722	286	190	494	270	295	222	250	163
11	223	849	288	593	279	193	475	261	285	199	248	164
12	213	708	281	519	274	197	470	256	282	193	233	166
13	204	614	283	478	269	206	430	294	293	191	220	167
14	203	543	307	458	269	376	404	591	274	232	210	161
15	229	492	397	414	258	775	387	900	265	226	204	197
16	319	453	409	381	253	646	371	1000	258	199	200	166
17	622	439	413	371	248	528	359	1160	266	195	196	162
18	528	405	559	357	246	460	347	1030	255	191	190	189
19	497	364	646	335	242	513	373	832	247	189	187	193
20	550	340	605	337	237	677	436	701	240	187	185	171
21	499	330	593	318	237	791	399	612	269	181	182	168
22	450	315	529	303	233	1090	380	545	266	179	181	172
23	402	303	481	293	226	1000	368	504	240	185	179	165
24	367	296	452	287	217	953	363	726	234	183	178	163
25	342	291	540	319	215	829	353	625	230	179	176	163
26	327	297	490	774	212	779	342	565	240	179	172	160
27	344	275	440	781	208	795	333	522	230	185	172	159
28	310	270	410	608	201	833	322	481	220	195	183	157
29	288	263	380	519	---	855	311	449	220	182	175	156
30	276	279	360	462	---	803	305	422	210	203	174	155
31	267	---	350	423	---	733	---	398	---	212	200	---
TOTAL	9364	12619	12835	13748	7606	15952	13497	15714	8473	6197	6686	5054
MEAN	302	421	414	443	272	515	450	507	282	200	216	168
MAX	622	849	646	1120	393	1090	679	1160	407	260	452	197
MIN	160	252	281	280	201	187	305	256	210	179	172	155
CFSM	2.13	2.97	2.92	3.12	1.92	3.63	3.17	3.57	1.99	1.41	1.52	1.18
IN.	2.45	3.31	3.36	3.60	1.99	4.18	3.54	4.12	2.22	1.62	1.75	1.32

CAL YR 1977 TOTAL 95997 MEAN 263 MAX 849 MIN 137 CFSM 1.85 IN 25.15
WTR YR 1978 TOTAL 127745 MEAN 350 MAX 1160 MIN 155 CFSM 2.47 IN 33.47

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) National Geodetic Vertical Datum of 1929. Prior to Aug. 31, 1956, nonrecording gage at site 130 ft (40 m) upstream at same datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--23 years, 394 ft³/s (11.16 m³/s), 20.23 in/yr (514 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. 17	0730	3,730 106	4.49 1.369	Mar. 15	0515	2,980 84.4	3.90 1.189
Nov. 7	1145	4,710 133	5.19 1.582	Mar. 22	0200	3,630 103	4.42 1.347
Jan. 9	0330	6,070 172	6.04 1.841	May 15	0500	*6,500 184	*6.28 1.914
Jan. 26	1300	3,080 87.2	3.98 1.213	Aug. 7	1915	5,230 148	5.52 1.682

Minimum discharge, 115 ft³/s (3.26 m³/s) Sept. 30, gage height, -0.35 ft (-0.107 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	317	1270	480	567	258	1410	370	468	234	226	198
2	448	309	1160	460	524	252	1630	355	469	234	194	172
3	301	305	926	389	480	255	1250	350	532	300	283	167
4	258	496	785	371	417	252	1110	330	456	290	330	165
5	234	512	700	396	393	237	1580	400	404	250	237	158
6	225	466	640	396	415	225	1340	410	375	220	797	153
7	213	3290	540	378	407	225	1330	370	400	200	2210	149
8	207	2790	468	1000	396	222	1100	350	540	190	1490	153
9	760	1590	480	4380	377	225	935	410	424	180	604	147
10	605	1670	448	1600	363	234	822	440	368	280	426	139
11	424	1490	389	1040	357	249	759	480	340	230	402	140
12	354	1350	378	780	347	270	705	540	357	180	435	143
13	314	1020	410	726	339	311	615	900	382	200	338	149
14	292	820	540	671	337	896	548	2420	330	362	295	138
15	360	715	740	571	321	2390	512	5440	311	392	267	197
16	1000	640	840	510	315	1730	484	4400	298	273	253	165
17	1500	665	945	479	312	1170	460	3330	324	242	234	145
18	1400	635	1170	451	306	884	444	2340	308	223	218	206
19	1450	520	1520	448	293	1040	520	1570	289	212	209	237
20	1900	488	1200	421	289	1530	768	1200	273	203	200	180
21	1500	484	1100	414	291	1990	750	944	318	197	194	160
22	1200	460	872	398	283	3210	670	785	333	189	190	162
23	960	436	750	361	279	2860	620	700	276	191	181	151
24	820	424	690	363	279	2640	580	1650	261	195	178	142
25	700	416	1010	420	279	1900	530	1330	255	189	175	140
26	600	420	790	2030	276	1530	500	1010	270	185	169	134
27	520	378	735	1870	267	1590	460	815	267	189	166	131
28	460	364	660	1150	258	1810	440	705	261	228	188	128
29	410	350	590	869	---	2020	415	615	249	202	178	126
30	370	520	560	731	---	1770	390	552	249	194	169	123
31	340	---	516	629	---	1420	---	512	---	238	218	---
TOTAL	20469	24340	23822	25182	9767	35595	23677	36023	10387	7092	11654	4698
MEAN	660	811	768	812	349	1148	789	1162	346	229	376	157
MAX	1900	3290	1520	4380	567	3210	1630	5440	540	392	2210	237
MIN	297	305	378	361	258	222	390	330	249	180	166	123
CFSM	2.49	3.06	2.90	3.06	1.32	4.33	2.98	4.39	1.31	.86	1.42	.59
IN.	2.87	3.42	3.34	3.53	1.37	5.00	3.32	5.06	1.46	1.00	1.64	.66

CAL YR 1977	TOTAL	182167	MEAN 499	MAX 4600	MIN 133	CFSM 1.88	IN 25.57
WTR YR 1978	TOTAL	232706	MEAN 638	MAX 5440	MIN 123	CFSM 2.41	IN 32.67

WEST BRANCH SUSQUEHANNA RIVER BASIN

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--Thirteen water-quality analyses for the 1978 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, 24.0°C June 28, July 20; minimum, freezing point on many days during December and January.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO ₃)	ACIDITY CO ₂ (MG/L AS CaCO ₃)
OCT									
17...	1255	9813	9813	140	7.7	7.0	11.4	60	0
NOV									
29...	1130	9813	9813	350	--	--	--	150	--
DEC									
28...	1025	9813	9813	310	--	--	--	144	--
JAN									
23...	1145	9813	9813	400	--	--	--	168	--
FEB									
27...	1015	9813	9813	390	--	--	--	178	--
MAR									
07...	1400	9813	9813	400	--	--	--	174	--
APR									
25...	--	9813	9813	270	--	--	--	104	--
28...	--	9813	9813	330	--	--	--	145	--
JUN									
06...	1240	9813	9813	400	--	--	--	175	--
JUL									
19...	1250	9813	9813	420	--	--	--	164	--
AUG									
02...	1230	9813	9813	450	8.1	18.0	10.8	172	0
14...	1425	9813	9813	--	--	--	--	152	--
SEP									
14...	1425	9813	9813	460	8.7	17.5	12.7	--	0

DATE	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT									
17...	--	19	--	3.0	42	10	8.0	104	88
NOV									
29...	36	--	15	--	130	30	19	226	26
DEC									
28...	37	--	13	--	124	18	14	240	4
JAN									
23...	28	--	26	--	146	24	17	268	22
FEB									
27...	42	--	19	--	142	24	20	230	16
MAR									
07...	46	--	15	--	150	20	19	284	4
APR									
25...	26	--	10	--	92	24	12	140	140
28...	39	--	13	--	124	20	16	346	8
JUN									
06...	44	--	17	--	144	25	14	266	2
JUL									
19...	40	--	17	--	154	25	17	258	18
AUG									
02...	--	19	--	31	156	30	17	518	30
14...	--	53	--	5.0	--	45	18	290	14
SEP									
14...	--	--	--	--	162	--	--	--	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547400 BALD EAGLE CREEK NEAR MILESBERG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTMBER 1978

DATE		SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
17...		--	1.4	.03	.12	.24	2310	--	--
NOV									
29...		252	1.9	.05	.09	.68	140	--	--
DEC									
28...		244	.88	.04	.10	.13	249	--	--
JAN									
23...		290	1.9	.04	.10	.13	150	--	--
FEB									
27...		246	3.0	.04	.13	.13	90	--	--
MAR									
07...		288	2.8	.06	.10	.09	60	--	--
APR									
25...		148	1.8	.05	.09	.12	130	--	--
28...		354	1.9	.05	.10	.12	110	--	--
JUN									
06...		268	3.3	.03	.11	.12	120	--	--
JUL									
19...		276	2.4	.02	.09	.12	240	--	--
AUG									
02...		--	4.0	.03	.07	.10	620	30	4.0
14...		--	2.6	.08	.17	--	--	--	--
SEP									
14...		--	--	--	--	.16	150	20	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PR)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG											
02...	1230	300	--	<3	10	20	<50	30	--	10	20
14...	1425	--	<10	--	--	--	--	--	<2.0	--	--
SEP											
14...	1425	20	--	<3	<10	10	<50	20	--	30	20

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547400 BALD EAGLE CREEK NEAR MILESBERG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.0	13.0	13.0	10.0	6.0	4.5	2.0	1.5	4.0	3.0	6.5	4.5
2	14.5	13.0	12.0	11.5	6.0	5.0	3.5	1.5	5.0	3.5	7.0	3.5
3	13.5	11.0	15.0	11.5	5.0	4.5	1.5	.5	5.0	3.5	5.5	4.5
4	13.0	10.0	10.0	12.0	4.5	3.5	3.0	.0	4.5	2.0	6.5	4.0
5	12.0	9.5	13.5	12.0	3.5	.5	3.0	1.0	3.5	2.0	6.0	3.0
6	13.5	11.0	12.0	11.5	3.5	3.0	5.0	3.0	4.5	3.0	8.0	3.5
7	13.5	10.0	12.0	11.0	2.0	.5	4.0	4.0	4.5	3.0	8.0	4.0
8	10.5	10.5	11.0	10.5	2.0	.0	4.0	1.0	6.0	4.5	6.5	5.5
9	11.5	10.0	11.0	10.5	3.5	1.0	1.0	.0	6.0	3.0	8.5	5.5
10	13.0	10.0	11.5	9.5	1.0	.0	.0	.0	5.5	3.0	9.0	6.0
11	14.0	10.0	9.5	8.0	1.5	.0	1.0	.0	6.0	3.0	8.5	5.5
12	13.5	10.5	8.0	6.0	1.5	.0	2.0	.0	5.5	3.5	6.5	5.5
13	12.0	9.5	6.0	5.0	3.0	1.0	3.0	1.5	6.0	4.0	8.0	3.0
14	11.5	10.0	7.0	5.0	3.0	1.5	2.0	1.0	7.0	4.0	3.0	1.0
15	13.0	10.0	8.5	5.5	3.5	1.5	2.0	1.0	7.0	3.5	3.0	2.0
16	12.0	10.0	9.5	7.0	4.5	3.5	2.0	.5	6.5	3.5	4.0	3.0
17	11.0	9.5	10.0	8.5	4.5	3.5	2.0	1.0	6.5	5.0	5.5	3.5
18	11.5	9.0	8.5	7.0	4.5	4.0	3.5	1.0	5.5	4.0	5.5	2.0
19	11.0	10.0	8.0	6.0	4.5	3.5	3.5	1.0	4.5	1.0	6.0	3.5
20	12.0	10.5	7.0	5.0	4.5	4.5	3.0	1.0	5.5	.5	6.5	3.5
21	11.0	9.0	9.0	7.0	4.5	3.5	2.0	1.0	5.5	2.0	8.0	4.5
22	13.5	9.5	9.0	6.5	3.5	3.0	3.0	.5	5.5	2.0	8.0	4.5
23	12.0	10.0	8.5	6.5	4.0	3.0	4.5	.0	6.5	3.5	8.5	5.5
24	13.0	9.5	8.0	7.0	4.0	1.5	4.5	.0	6.5	5.0	8.0	5.5
25	13.5	10.0	7.0	5.5	4.0	1.5	4.5	3.5	8.0	4.5	5.5	3.5
26	14.0	12.0	6.0	4.5	2.0	.0	4.0	.5	6.5	5.5	4.0	3.0
27	16.5	14.0	5.0	2.0	1.0	.0	1.0	.5	6.0	4.5	6.5	4.0
28	19.5	13.5	5.5	3.5	.5	.0	1.0	.0	7.0	3.5	8.0	5.0
29	14.0	11.0	5.5	3.5	2.0	.0	1.5	.0	---	---	9.0	5.5
30	13.0	9.5	5.5	4.5	3.5	1.0	2.0	.0	---	---	9.5	6.0
31	12.0	9.0	---	---	3.5	2.0	3.0	1.5	---	---	9.0	6.5
MONTH	16.5	9.0	15.0	2.0	6.0	.0	5.0	.0	8.0	.5	9.5	1.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	5.5	14.0	8.0	21.0	15.0	19.0	14.5	20.0	14.5	19.0	14.0
2	8.0	5.5	15.0	7.0	20.0	15.5	15.5	13.5	22.0	15.5	19.0	13.5
3	7.0	5.0	14.5	8.0	16.5	13.5	13.5	13.0	21.0	16.5	16.5	14.5
4	8.5	5.0	10.0	7.0	20.0	11.0	15.0	13.5	21.0	17.0	19.0	14.5
5	10.0	8.0	8.0	6.5	16.5	11.5	19.0	13.5	18.5	15.5	19.0	13.5
6	8.0	6.5	9.5	6.0	17.0	11.0	20.5	14.5	20.0	15.0	20.0	14.5
7	11.0	8.0	11.0	8.0	14.5	13.0	21.0	15.5	19.5	17.0	20.0	16.5
8	10.0	8.0	10.0	9.0	18.0	14.0	22.0	16.5	18.0	15.5	19.0	15.5
9	9.5	5.5	14.5	10.0	18.0	15.0	20.0	16.0	19.0	14.5	18.0	14.5
10	11.0	6.5	13.0	10.5	19.0	13.5	21.0	15.5	19.0	15.5	15.5	12.0
11	12.0	8.5	16.0	7.0	20.0	13.5	20.0	14.5	18.0	15.5	18.0	12.0
12	13.5	8.5	15.5	11.5	22.0	15.0	19.0	13.5	18.0	16.5	18.0	14.5
13	13.0	9.0	14.0	11.0	20.0	14.5	19.0	13.5	19.0	15.5	16.5	13.0
14	10.5	8.5	11.0	10.0	18.0	11.0	19.0	15.5	22.0	15.5	15.5	13.0
15	9.0	7.0	10.0	10.0	19.5	11.5	22.0	15.0	22.0	16.5	17.0	13.0
16	10.5	6.0	10.0	9.0	19.0	13.0	20.0	15.5	23.0	17.0	16.5	13.5
17	13.0	6.5	10.0	9.0	18.0	14.5	21.0	14.5	23.5	16.5	15.5	13.5
18	11.5	7.0	14.0	9.0	20.0	14.5	21.0	15.0	23.5	15.5	20.0	14.0
19	10.0	8.0	15.5	9.5	20.0	15.5	23.0	15.0	22.0	16.5	20.0	16.5
20	8.0	7.0	16.5	12.0	22.0	14.5	24.0	16.0	21.5	16.0	20.0	15.5
21	8.0	6.5	16.5	13.5	21.0	16.0	23.5	16.5	21.5	14.0	22.0	15.5
22	11.0	6.0	17.0	11.0	22.0	16.0	---	---	22.0	14.5	20.0	15.5
23	11.0	5.5	14.5	11.5	22.0	14.5	---	---	21.0	14.5	19.0	17.0
24	10.5	8.5	13.5	11.5	20.5	14.5	23.0	17.0	22.0	15.5	18.0	15.5
25	13.0	6.5	16.5	10.5	20.0	14.5	21.0	16.5	21.5	16.5	16.5	12.0
26	13.0	9.5	18.0	11.5	19.0	15.5	21.0	15.5	22.0	16.0	16.0	11.5
27	15.0	9.0	18.0	13.5	23.5	15.5	21.5	15.5	21.0	15.5	15.5	11.5
28	14.5	10.0	19.0	13.5	24.0	16.5	20.5	16.5	20.5	14.5	16.0	13.5
29	14.5	9.0	19.0	14.0	23.0	16.5	19.0	14.5	22.0	16.0	15.5	10.0
30	14.5	10.0	20.0	14.5	22.0	15.5	18.5	14.0	21.0	16.0	13.5	9.0
31	---	---	20.5	15.5	---	---	16.5	14.0	18.0	15.0	---	---
MONTH	15.0	5.0	20.5	6.0	24.0	11.0	24.0	13.0	23.5	14.0	22.0	9.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Foster Joseph Sayers Lake 0.4 mi (0.6 km) upstream (see p. 196).

AVERAGE DISCHARGE.--24 years, 447 ft³/s (12.66 m³/s), 17.93 in/yr (455 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, 3,860 ft³/s (109 m³/s) May 22, gage height, 7.45 ft (2.271 m); minimum, 58.2 ft³/s (1.65 m³/s) Feb. 16, gage height, 2.86 ft (0.872 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	429	1270	566	780	296	1590	541	634	284	317	295
2	384	429	1560	533	734	280	1850	457	614	284	290	258
3	384	429	1530	443	588	280	1660	377	619	284	263	248
4	283	688	1230	370	500	280	1090	347	564	284	380	248
5	236	802	1040	428	476	280	1140	349	514	296	327	248
6	236	630	843	470	461	280	1460	434	471	296	464	242
7	236	942	717	470	464	280	1460	351	497	284	1720	224
8	236	667	565	554	548	280	1180	353	700	280	2730	224
9	402	1020	471	989	460	280	981	353	677	280	1420	222
10	609	1460	624	1750	427	280	835	354	420	280	639	222
11	582	2030	516	2120	412	281	801	523	350	280	511	222
12	435	2450	463	2170	390	391	764	571	340	280	497	222
13	393	2450	478	2020	390	393	660	605	419	272	497	222
14	325	2380	569	1480	399	895	560	1390	400	263	411	222
15	390	2310	778	1050	399	1820	546	1150	331	423	315	222
16	734	2240	1160	800	360	2390	569	1300	311	444	317	239
17	1350	2180	1340	678	354	2070	538	864	311	372	319	257
18	2160	1470	1400	591	356	1430	508	1510	311	280	308	343
19	2330	868	1570	471	355	1390	489	2410	323	267	302	653
20	2030	799	1660	514	335	2100	524	3250	328	259	302	563
21	1370	1170	1630	475	320	1990	527	3500	341	252	290	276
22	1140	1160	1520	447	320	1350	520	3730	400	248	274	240
23	926	1250	1020	449	320	1010	521	3700	364	248	252	240
24	757	1310	837	394	320	1050	526	2970	298	248	244	240
25	631	1280	875	501	320	1550	525	3010	273	248	244	240
26	521	1250	887	834	320	2050	532	2200	310	248	244	230
27	521	1220	888	1530	320	2350	534	1370	357	248	237	225
28	522	1180	883	1970	320	2540	535	1010	301	249	231	225
29	459	1140	764	1920	---	2620	535	792	284	251	230	225
30	426	1100	648	1500	---	2480	538	711	284	251	231	225
31	427	---	620	915	---	2160	---	694	---	266	331	---
TOTAL	21711	38733	30356	29402	11748	37126	24498	41176	12346	8749	15137	7962
MEAN	700	1291	979	948	420	1198	817	1328	412	282	488	265
MAX	2330	2450	1660	2170	780	2620	1850	3730	700	444	2730	653
MIN	236	429	463	370	320	280	489	347	273	248	230	222
MEAN#	720	964	954	955	411	1430	920	1363	411	272	476	218
CFSM#	2.12	2.84	2.81	2.82	1.21	4.22	2.71	4.02	1.21	.80	1.40	.64
IN.#	2.44	3.17	3.24	3.25	1.26	4.87	3.02	4.63	1.35	.92	1.61	.71

CAL YR 1977 TOTAL 201249 MEAN 551 MAX 2760 MIN 161 MEAN# 551 CFSM# 1.63 IN.# 22.07
WTR YR 1978 TOTAL 278944 MEAN 764 MAX 3730 MIN 222 MEAN# 762 CFSM# 2.25 IN.# 30.47

Adjusted for change in contents in Foster Joseph Sayers Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

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 on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, Sept. 7; minimum, freezing point on several days during January and February.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

WEST BRANCH SUSQUEHANNA RIVER BASIN
01547500 BALD EAGLE CREEK AT BLANCHARD, PA--Continued

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.0	11.5	11.0	15.5	15.0	19.5	19.0	21.5	20.5	22.0	21.0
2	8.0	7.0	12.0	11.0	17.0	15.0	19.0	18.5	21.5	20.5	21.5	21.0
3	7.0	7.0	13.0	11.0	15.5	15.0	19.0	18.5	22.0	21.0	21.5	20.5
4	8.0	7.0	12.0	11.0	15.5	15.0	19.0	18.5	21.5	21.0	22.0	20.5
5	8.5	7.0	11.0	11.0	16.5	14.5	19.5	18.5	21.0	20.5	21.0	20.5
6	8.0	8.0	11.5	11.0	16.5	15.0	19.5	19.0	21.5	20.5	21.5	20.5
7	8.0	7.0	11.5	11.0	15.5	15.0	19.5	18.5	22.0	21.0	23.5	21.5
8	8.5	8.0	11.0	11.0	16.5	15.5	18.5	18.0	23.5	22.0	21.0	20.0
9	9.0	8.0	13.0	11.0	16.5	15.5	18.0	18.0	22.0	21.0	21.5	20.0
10	8.5	8.0	12.0	11.5	16.0	15.0	19.0	17.0	21.0	20.5	20.5	19.0
11	9.5	8.0	13.0	11.5	16.5	15.0	20.0	18.5	20.5	20.0	21.5	19.5
12	10.0	9.0	14.0	12.0	17.0	15.5	20.5	19.5	20.0	20.0	21.0	19.5
13	---	---	13.5	12.0	16.5	16.5	20.5	19.0	20.5	20.0	20.0	19.5
14	---	---	13.0	11.5	17.0	16.0	20.5	19.5	20.5	20.0	20.5	19.0
15	10.0	9.5	13.0	11.5	16.5	15.5	21.0	19.5	20.5	20.0	21.0	19.5
16	10.0	9.0	12.0	12.0	17.0	15.5	20.5	19.5	21.0	20.5	20.5	20.0
17	10.0	9.0	12.0	11.5	16.5	16.0	20.5	19.5	21.5	20.0	20.0	19.5
18	10.0	9.0	13.0	11.0	18.0	16.0	21.5	20.0	20.5	19.5	20.5	19.5
19	9.5	9.5	13.5	12.0	17.0	16.5	21.5	20.0	21.0	19.5	20.5	20.0
20	9.5	9.5	15.0	10.0	18.0	16.5	21.0	20.0	21.0	20.5	20.0	19.5
21	9.5	9.0	15.0	12.0	17.0	16.5	21.5	20.5	21.0	20.5	20.5	19.5
22	10.0	9.5	14.5	10.0	18.0	16.5	21.0	20.0	21.0	20.5	20.5	19.5
23	10.5	9.0	15.0	14.0	18.0	16.5	23.0	20.0	21.0	20.5	19.5	19.0
24	10.5	10.0	14.0	12.0	17.0	15.5	22.0	21.0	21.5	20.5	19.5	19.0
25	11.0	9.5	14.5	13.5	16.5	15.5	21.0	21.0	21.5	20.5	20.0	19.0
26	10.5	9.5	15.0	14.0	16.5	16.0	22.0	21.0	21.5	20.0	20.0	19.0
27	11.0	10.0	14.5	14.0	18.5	16.5	23.0	21.0	20.5	20.0	19.5	19.0
28	11.0	10.0	15.0	14.0	18.5	16.5	22.0	21.0	21.0	20.5	---	---
29	12.0	10.0	14.5	14.5	18.5	16.5	21.0	20.5	22.0	21.0	---	---
30	11.5	11.0	15.0	14.5	---	---	21.0	20.5	21.0	20.5	---	---
31	---	---	16.0	14.5	---	---	20.5	20.0	20.5	20.5	---	---
MONTH	12.0	7.0	16.0	10.0	18.5	14.5	23.0	17.0	23.5	19.5	23.5	19.0

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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.--23 years, 57.8 ft³/s (1.637 m³/s), 17.79 in/yr (452 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. 17	0430	752 21.3	3.77 1.149	Mar. 15	1100	545 15.4	3.40 1.036
Nov. 7	1600	960 27.2	4.03 1.228	Mar. 22	1800	741 21.0	3.68 1.122
Jan. 9	0100	*1,170 33.1	*4.26 1.298	May 17	0330	838 23.7	3.81 1.161
Jan. 26	0500	ice jam	3.76 1.146				

Minimum discharge, 5.4 ft³/s (0.153 m³/s) July 23, gage height, 1.88 ft (0.573 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	28	245	53	74	15	278	45	54	14	10	15
2	76	26	300	46	64	15	357	42	47	13	6.7	12
3	53	25	260	38	56	15	240	39	45	15	51	8.6
4	38	86	196	31	52	15	199	37	40	15	17	9.8
5	31	134	155	33	49	15	243	48	35	13	11	8.6
6	26	121	131	29	45	14	247	46	31	10	44	7.2
7	21	450	103	39	42	14	231	41	35	9.0	183	6.3
8	20	713	81	173	39	14	197	42	93	8.2	167	6.7
9	68	468	76	709	36	14	161	56	50	7.6	83	6.7
10	61	345	73	348	34	15	131	55	39	7.2	58	5.8
11	55	420	71	213	31	17	114	54	32	6.8	43	5.8
12	44	330	71	153	29	19	98	55	30	6.6	35	6.2
13	36	222	86	118	27	30	81	93	45	6.7	32	8.8
14	33	158	103	102	26	132	69	453	31	8.8	28	6.2
15	64	121	185	82	24	371	61	488	27	14	25	14
16	218	97	192	70	23	295	55	492	25	11	22	10
17	559	97	185	60	21	218	51	735	25	9.4	19	9.4
18	295	86	270	52	20	165	48	469	24	8.2	17	13
19	231	68	300	46	19	202	66	286	22	6.7	15	22
20	240	59	250	41	19	268	126	195	21	6.7	13	14
21	200	59	218	36	18	400	162	145	29	6.2	11	12
22	151	57	169	32	17	666	156	109	30	6.2	10	13
23	112	53	131	29	17	603	130	89	22	6.7	8.8	11
24	91	53	109	30	17	557	111	223	19	8.8	8.2	9.4
25	73	48	127	57	16	394	93	250	18	6.2	7.7	8.8
26	61	53	115	479	16	304	79	208	22	6.2	7.7	8.2
27	57	44	112	319	16	326	70	155	23	6.2	6.7	7.7
28	48	40	94	200	16	362	61	117	18	10	8.8	7.7
29	42	35	89	142	---	388	55	93	16	7.7	12	6.7
30	35	46	68	108	---	357	50	76	15	8.2	8.0	6.7
31	31	---	59	90	---	280	---	64	---	12	23	---
TOTAL	3127	4542	4624	3958	863	6500	4020	5300	963	281.3	991.6	287.3
MEAN	101	151	149	128	30.8	210	134	171	32.1	9.07	32.0	9.58
MAX	559	713	300	709	74	666	357	735	93	15	183	22
MIN	20	25	59	29	16	14	48	37	15	6.2	6.7	5.8
CFSM	2.29	3.42	3.38	2.90	.70	4.76	3.04	3.88	.73	.21	.73	.22
IN.	2.64	3.83	3.90	3.34	.73	5.48	3.39	4.47	.81	.24	.84	.24

CAL YR 1977 TOTAL 26093.5 MEAN 71.5 MAX 732 MIN 1.3 CFSM 1.62 IN 22.01
WTR YR 1978 TOTAL 35457.2 MEAN 97.1 MAX 735 MIN 5.8 CFSM 2.20 IN 29.91

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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.

PERIOD OF RECORD:--Occasional discharge measurements and annual maximum, water years 1959-69. May 1969 to current year.

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

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.

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	0345	130	3.68	2.28	0.695	Apr. 1	2215	223	6.32	2.77	0.844
Nov. 7	2115	*366	10.4	*3.32	1.012	May 17	0245	248	7.02	2.88	0.878
Jan. 9	0430	223	6.32	2.77	0.844	July 14	2100	174	4.93	2.51	0.765
Mar. 23	2000	200	5.66	2.66	0.811						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	48	23	30	8.0	138	18	27	7.6	8.3	7.0
2	16	17	55	21	27	7.8	180	17	24	7.6	7.3	5.3
3	12	16	53	19	24	7.6	117	16	24	10	11	5.3
4	12	25	49	17	22	7.5	98	15	21	9.6	13	5.1
5	10	28	44	16	20	7.4	104	19	19	8.2	9.1	4.5
6	10	26	39	15	19	7.3	92	19	17	7.3	12	4.3
7	9.6	218	34	15	18	7.2	86	16	17	6.7	21	4.1
8	9.2	287	30	31	16	7.2	70	16	32	6.4	22	4.1
9	33	161	27	154	15	7.1	59	20	21	6.4	17	3.9
10	29	134	25	99	14	7.2	49	19	18	10	16	3.7
11	24	133	23	72	13	7.3	45	18	16	8.8	18	3.7
12	23	103	21	53	13	7.8	42	18	15	7.0	16	3.9
13	20	77	20	46	12	8.4	35	45	18	6.4	13	3.9
14	19	60	33	40	11	20	31	128	14	49	12	3.4
15	24	52	67	34	11	45	27	201	14	62	11	6.3
16	60	45	60	29	10	40	24	198	12	43	10	4.5
17	82	50	55	27	10	36	22	219	12	32	8.8	4.0
18	71	44	58	25	9.6	32	21	159	12	24	8.2	5.4
19	95	37	56	21	9.5	33	25	106	11	20	7.6	5.1
20	120	34	52	19	10	36	34	79	10	16	7.3	4.5
21	97	33	51	17	9.6	60	36	62	14	14	6.7	4.3
22	74	31	45	15	10	126	35	50	14	13	6.4	4.5
23	58	29	38	14	11	159	34	43	11	12	5.8	4.1
24	47	28	35	14	10	176	33	88	10	12	5.5	3.8
25	39	26	43	17	9.3	139	29	79	9.2	10	5.3	3.8
26	34	25	38	82	8.8	107	27	70	10	9.6	5.1	3.6
27	31	23	34	76	8.5	90	24	57	10	9.5	4.9	3.4
28	28	22	33	59	8.3	82	22	48	8.8	10	6.1	3.3
29	24	20	29	48	---	90	21	41	8.2	9.2	4.7	3.1
30	22	21	27	40	---	98	19	35	8.2	8.8	4.7	3.1
31	19	---	25	34	---	97	---	30	---	9.0	11	---
TOTAL	1164.8	1823	1247	1192	389.6	1563.8	1579	1949	457.4	465.1	314.8	129.0
MEAN	37.6	60.8	40.2	38.5	13.9	50.4	52.6	62.9	15.2	15.0	10.2	4.30
MAX	120	287	67	154	30	176	180	219	32	62	22	7.0
MIN	9.2	16	20	14	8.3	7.1	19	15	8.2	6.4	4.7	3.1
CFSM	3.08	4.98	3.30	3.16	1.14	4.13	4.31	5.16	1.25	1.23	.84	.35
IN.	3.55	5.56	3.80	3.63	1.19	4.77	4.81	5.94	1.39	1.42	.96	.39
CAL YR 1977	TOTAL	9354.4	MEAN	25.6	MAX	287	MIN	2.4	CFSM	2.10	IN	28.52
WTR YR 1978	TOTAL	12274.5	MEAN	33.6	MAX	287	MIN	3.1	CFSM	2.75	IN	37.42

WEST BRANCH SUSQUEHANNA RIVER BASIN

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 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft (229 m) from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years, 292 ft³/s (8.269 m³/s), 26.07 in/yr (662 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)
Nov. 8	0145	*2,500 70.8	*9.49 2.893	Mar. 24	0215	2,370 67.1	9.36 2.853
Jan. 9	0600	1,640 46.4	8.63 2.630	May 17	0745	2,260 64.0	9.31 2.838

Minimum discharge, 35 ft³/s (0.991 m³/s), Sept. 10, 11, 14, 15, gage height, 5.59 ft (1.704 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	233	513	293	420	110	1370	240	306	73	54	77
2	269	223	686	274	372	108	1680	224	269	69	44	52
3	238	216	725	247	333	104	1270	210	256	69	49	46
4	217	297	660	226	289	102	1060	201	236	73	77	48
5	194	301	592	210	270	99	1130	236	205	72	51	44
6	181	288	524	203	260	96	1080	236	185	69	58	41
7	166	1300	446	193	240	95	1050	213	191	65	174	39
8	158	2280	381	262	230	95	908	204	367	62	199	40
9	274	1660	360	1350	220	95	777	251	268	59	102	39
10	305	1380	304	1090	210	99	665	253	219	57	94	36
11	283	1460	280	855	200	105	590	249	198	57	84	36
12	257	1220	263	678	190	113	526	249	187	56	86	37
13	229	965	286	566	181	129	447	340	204	54	74	43
14	209	777	340	507	178	232	388	1470	176	55	68	37
15	254	648	561	431	160	563	346	1970	165	112	63	47
16	456	557	609	374	156	574	313	1960	158	78	60	45
17	1070	604	612	340	152	533	286	2160	152	69	57	43
18	969	546	659	316	144	472	266	1830	149	61	53	50
19	930	491	689	276	140	477	296	1330	147	56	51	77
20	1140	456	653	269	148	574	381	990	144	52	48	59
21	1060	436	654	248	149	819	417	778	152	51	46	50
22	840	404	574	229	155	1780	428	611	162	49	45	58
23	656	364	504	205	145	2090	421	504	143	49	43	54
24	532	343	455	240	137	2260	411	895	124	56	42	50
25	449	315	490	260	130	1850	385	957	110	47	41	48
26	395	311	448	954	124	1470	356	862	115	45	41	46
27	358	281	427	1120	119	1230	329	712	120	44	39	44
28	323	263	397	889	114	1150	301	582	99	49	45	43
29	292	238	395	705	---	1250	277	485	86	46	55	41
30	268	252	342	573	---	1370	257	413	76	50	44	40
31	248	---	315	485	---	1310	---	357	---	57	82	---
TOTAL	13416	19109	15144	14868	5566	21354	18411	21972	5369	1861	2069	1410
MEAN	433	637	489	480	199	689	614	709	179	60.0	66.7	47.0
MAX	1140	2280	725	1350	420	2260	1680	2160	367	112	199	77
MIN	158	216	263	193	114	95	257	201	76	44	39	36
CFSM	2.85	4.19	3.22	3.16	1.31	4.53	4.04	4.66	1.18	.40	.44	.31
IN.	3.28	4.68	3.71	3.64	1.36	5.23	4.51	5.38	1.31	.46	.51	.35

CAL YR 1977 TOTAL 109605 MEAN 300 MAX 2680 MIN 21 CFSM 1.97 IN 26.82
WTR YR 1978 TOTAL 140549 MEAN 385 MAX 2280 MIN 36 CFSM 2.53 IN 34.40

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 September 1977.

INSTRUMENTATION.--Water-quality monitor since December 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 522 micromhos Sept. 16, 1978; minimum recorded, 74 micromhos May 15, 1978.

pH: Maximum, 7.3 units Dec. 17, 1969; minimum, 2.9 units June 29, 30, 1969.

WATER TEMPERATURES: Maximum, 29.0°C July 23, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum 29.0°C July 23; minimum, 0.0°C on many days during winter periods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)
DEC 13...	1700	190	210	4.2	1.0	.6	30	68	--	--	--
MAR 29...	1630	1040	140	4.5	8.5	.5	25	45	.00	--	--
APR 26...	1400	233	180	4.2	10.5	.4	20	57	--	1800	0
JUN 21...	1700	88	265	4.2	18.0	.1	5.0	7.7	--	--	1

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 13...	--	--	--	--	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--	--	--	--	--
APR 26...	3	1	35	13	540	10	1400	<.5	0	0	10
JUN 21...	--	1	--	--	10	--	10	<.5	0	--	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	184	136	170	202	191	196	226	176	197	210	206	208
2	---	---	---	211	203	206	176	128	146	216	209	213
3	---	---	---	218	212	215	127	116	120	231	209	218
4	---	---	---	214	201	207	126	120	123	---	---	---
5	---	---	---	203	188	196	133	128	131	250	223	232
6	---	---	---	189	184	187	153	138	149	242	229	236
7	174	163	171	---	---	---	166	155	162	248	242	245
8	180	167	175	---	---	---	181	168	176	249	234	243
9	---	---	---	---	---	---	189	176	181	232	134	158
10	---	---	---	---	---	---	205	185	193	143	131	137
11	---	---	---	---	---	---	212	198	203	149	142	145
12	---	---	---	---	---	---	219	197	209	155	156	151
13	---	---	---	---	---	---	218	202	206	162	156	159
14	142	136	139	---	---	---	222	191	204	169	161	164
15	---	---	---	---	---	---	226	182	200	176	169	172
16	---	---	---	---	---	---	181	158	166	---	---	---
17	---	---	---	---	---	---	160	152	155	191	186	189
18	---	---	---	162	149	156	168	153	159	200	188	194
19	126	97	104	---	---	---	168	160	163	207	200	203
20	115	98	105	---	---	---	165	162	163	209	206	207
21	99	94	96	---	---	---	171	162	168	219	208	215
22	107	98	102	---	---	---	176	171	172	229	218	221
23	116	105	110	---	---	---	179	172	175	264	212	237
24	127	115	119	181	171	176	184	179	181	---	---	---
25	129	118	125	178	176	177	203	184	193	---	---	---
26	---	---	---	184	176	182	196	181	186	---	---	---
27	---	---	---	190	182	184	---	---	---	132	122	125
28	---	---	---	194	184	189	---	---	---	134	123	128
29	169	160	164	200	193	197	194	189	191	146	134	140
30	181	170	175	206	198	201	198	192	196	156	146	151
31	190	181	186	---	---	---	207	198	203	164	155	160
MONTH	190	94	139	218	149	191	226	116	175	264	122	187

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	171	164	167	---	---	---	---	---	---	174	166	170
2	179	171	176	---	---	---	---	---	---	178	174	177
3	184	177	181	304	236	270	---	---	---	197	177	189
4	216	170	191	294	250	272	---	---	---	210	188	197
5	215	185	198	292	238	270	---	---	---	234	188	223
6	209	193	197	299	251	284	---	---	---	217	191	204
7	205	194	198	326	272	290	---	---	---	191	184	186
8	206	197	200	304	264	282	---	---	---	187	182	184
9	---	---	---	274	266	271	---	---	---	196	178	188
10	---	---	---	272	262	266	---	---	---	204	171	189
11	---	---	---	272	261	266	---	---	---	184	167	174
12	---	---	---	273	263	267	---	---	---	188	164	171
13	---	---	---	284	266	278	---	---	---	171	121	156
14	---	---	---	291	254	275	---	---	---	182	75	102
15	247	222	235	277	180	204	---	---	---	85	74	78
16	---	---	---	180	150	163	---	---	---	83	75	78
17	---	---	---	151	143	146	---	---	---	91	83	88
18	---	---	---	143	141	142	---	---	---	97	89	93
19	---	---	---	161	141	144	---	---	---	112	97	105
20	---	---	---	164	140	149	---	---	---	123	111	117
21	---	---	---	155	132	142	---	---	---	133	122	128
22	---	---	---	129	97	105	---	---	---	143	131	135
23	---	---	---	98	90	95	---	---	---	154	139	146
24	---	---	---	91	87	88	---	---	---	171	134	148
25	---	---	---	96	88	92	---	---	---	135	118	127
26	---	---	---	108	96	100	---	---	---	132	122	128
27	---	---	---	130	106	116	---	---	---	140	130	137
28	---	---	---	137	125	129	165	154	161	141	133	137
29	---	---	---	131	117	122	165	160	163	152	139	145
30	---	---	---	---	---	---	169	163	166	174	150	156
31	---	---	---	---	---	---	---	---	---	187	170	182
MONTH	247	164	194	326	87	194	169	154	163	234	74	150

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 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	206	184	198	449	417	431	380	334	359	433	355	379
2	226	195	212	416	323	345	386	371	377	394	360	377
3	245	227	237	323	312	316	389	289	369	410	393	401
4	249	220	239	344	318	328	397	285	366	451	410	432
5	245	220	235	324	316	320	355	339	346	454	433	440
6	258	236	250	326	318	320	364	323	351	454	437	442
7	261	236	251	330	320	325	411	209	336	485	451	464
8	294	198	238	330	326	327	307	192	221	471	450	459
9	202	194	197	341	325	333	282	243	265	471	460	463
10	232	200	221	345	335	338	296	270	276	477	471	474
11	232	208	217	375	343	359	311	287	302	477	467	472
12	211	199	207	353	316	329	333	297	311	483	460	474
13	262	190	234	346	330	336	325	303	312	514	459	485
14	247	236	241	379	295	330	339	323	331	512	477	489
15	237	227	231	492	215	292	349	337	342	509	420	455
16	251	228	238	247	240	243	361	347	353	522	441	492
17	---	---	---	259	243	250	374	355	362	507	427	460
18	---	---	---	275	258	266	381	369	374	467	418	441
19	---	---	---	290	275	281	457	380	407	454	385	411
20	---	---	---	300	286	292	449	394	405	390	375	383
21	---	---	---	310	289	302	415	400	406	390	375	381
22	---	---	---	323	286	307	443	412	427	386	313	342
23	---	---	---	332	303	321	438	424	430	358	333	346
24	---	---	---	366	299	330	444	430	437	360	354	357
25	---	---	---	378	342	355	445	427	437	383	358	368
26	---	---	---	362	352	357	449	436	440	389	383	385
27	---	---	---	366	346	361	450	441	445	397	388	392
28	---	---	---	384	348	366	444	409	427	413	395	402
29	---	---	---	386	349	372	466	413	449	418	413	415
30	456	427	441	385	349	366	453	410	440	423	415	419
31	---	---	---	391	300	348	434	340	377	---	---	---
MONTH	456	184	240	492	215	327	466	192	370	522	313	423

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.4	4.2	4.3	4.1	4.0	4.1	4.3	4.1	4.2	4.2	4.2	4.2
2	---	---	---	4.0	4.0	4.0	4.4	4.3	4.4	4.2	4.2	4.2
3	---	---	---	4.0	3.9	4.0	4.5	4.4	4.5	4.3	4.2	4.2
4	---	---	---	4.0	4.0	4.0	4.5	4.5	4.5	4.2	4.2	4.2
5	---	---	---	4.0	4.0	4.0	4.5	4.5	4.5	4.2	4.1	4.2
6	---	---	---	4.1	4.0	4.0	4.5	4.4	4.4	4.2	4.1	4.2
7	4.3	4.2	4.2	4.9	4.1	4.3	4.5	4.4	4.4	4.2	4.1	4.2
8	4.3	4.2	4.2	---	---	---	4.4	4.4	4.4	4.2	4.1	4.2
9	4.4	4.2	4.3	---	---	---	4.4	4.3	4.4	4.6	4.2	4.5
10	4.4	4.2	4.4	---	---	---	4.5	4.4	4.4	4.6	4.5	4.6
11	4.5	4.3	4.4	---	---	---	4.4	4.4	4.4	4.5	4.5	4.5
12	4.5	4.4	4.4	---	---	---	4.5	4.4	4.4	4.5	4.5	4.5
13	4.5	4.1	4.4	---	---	---	4.4	4.4	4.4	4.5	4.1	4.3
14	4.3	4.2	4.2	---	---	---	4.4	4.2	4.3	4.3	4.2	4.3
15	---	---	---	---	---	---	4.4	4.2	4.4	4.3	4.3	4.3
16	---	---	---	---	---	---	4.5	4.4	4.5	4.3	4.3	4.3
17	---	---	---	---	---	---	4.5	4.5	4.5	4.3	4.3	4.3
18	---	---	---	4.5	4.2	4.3	4.5	4.5	4.5	4.3	4.3	4.3
19	4.5	4.4	4.4	---	---	---	4.5	4.5	4.5	4.4	4.0	4.2
20	4.4	4.3	4.4	---	---	---	4.5	4.5	4.5	4.2	4.1	4.2
21	4.5	4.4	4.4	---	---	---	4.5	4.5	4.5	4.2	4.2	4.2
22	4.5	4.4	4.4	---	---	---	4.5	4.3	4.4	4.2	4.1	4.2
23	4.4	4.4	4.4	---	---	---	4.4	4.3	4.4	4.2	4.1	4.2
24	4.4	4.3	4.4	4.2	4.2	4.2	4.4	4.4	4.4	---	---	---
25	4.5	4.4	4.4	4.2	4.2	4.2	4.4	4.3	4.3	---	---	---
26	4.4	4.4	4.4	4.2	4.2	4.2	---	---	---	---	---	---
27	4.4	4.3	4.3	4.2	4.2	4.2	---	---	---	4.4	4.3	4.4
28	4.3	4.1	4.2	4.2	4.2	4.2	---	---	---	4.5	4.4	4.4
29	4.2	4.1	4.1	4.2	4.2	4.2	4.3	4.2	4.2	4.4	4.4	4.4
30	4.2	4.1	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.4	4.3	4.4
31	4.2	4.1	4.1	---	---	---	4.2	4.2	4.2	4.4	4.3	4.3
MONTH	4.5	4.1	4.3	4.9	3.9	4.1	4.5	4.1	4.4	4.6	4.0	4.3

WEST BRANCH SUSQUEHANNA RIVER BASIN
01547950 BEECH CREEK AT MONUMENT, PA--Continued
PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.4	4.3	4.3	---	---	---	---	---	---	4.2	4.1	4.1
2	4.3	4.2	4.3	---	---	---	---	---	---	4.2	4.1	4.1
3	4.4	4.3	4.4	---	---	---	---	---	---	4.1	4.1	4.1
4	4.5	4.4	4.4	---	---	---	---	---	---	4.1	4.1	4.1
5	4.4	4.4	4.4	---	---	---	---	---	---	4.1	3.8	3.9
6	4.4	4.4	4.4	---	---	---	4.4	4.4	4.4	3.9	3.8	3.9
7	4.4	4.4	4.4	---	---	---	4.4	4.4	4.4	4.0	3.9	3.9
8	4.4	4.4	4.4	---	---	---	4.4	4.3	4.4	4.0	4.0	4.0
9	---	---	---	---	---	---	4.4	4.3	4.4	4.0	3.9	4.0
10	---	---	---	4.0	3.8	4.0	4.3	4.3	4.3	4.0	4.0	4.0
11	---	---	---	4.0	4.0	4.0	4.3	4.2	4.2	4.1	4.0	4.0
12	---	---	---	4.0	4.0	4.0	4.3	4.2	4.2	4.1	4.0	4.1
13	---	---	---	4.0	3.9	4.0	4.3	4.2	4.2	4.3	4.1	4.1
14	---	---	---	4.1	4.0	4.0	4.3	4.2	4.2	4.6	4.1	4.5
15	3.9	3.7	3.8	4.4	4.3	4.4	4.2	4.2	4.2	4.6	4.5	4.5
16	3.9	3.7	3.8	4.4	4.2	4.4	4.2	4.1	4.2	4.6	4.5	4.6
17	3.9	3.7	3.8	4.5	4.4	4.4	4.2	4.1	4.2	4.6	4.4	4.5
18	---	---	---	4.5	4.4	4.4	4.1	4.1	4.1	4.5	4.5	4.5
19	---	---	---	4.4	4.4	4.4	4.2	4.1	4.1	4.5	4.4	4.5
20	---	---	---	4.5	4.4	4.4	4.2	4.1	4.2	4.4	4.3	4.4
21	---	---	---	4.5	4.4	4.4	4.3	4.2	4.2	4.3	4.2	4.3
22	---	---	---	4.5	4.4	4.5	4.3	4.3	4.3	4.3	4.2	4.3
23	---	---	---	4.5	4.4	4.4	4.3	4.3	4.3	4.2	4.2	4.2
24	---	---	---	4.5	4.4	4.4	4.3	4.2	4.3	4.2	4.1	4.2
25	---	---	---	4.5	4.4	4.4	4.3	4.2	4.3	4.4	4.3	4.4
26	---	---	---	4.4	4.4	4.4	4.2	4.2	4.2	4.4	4.3	4.3
27	---	---	---	4.4	4.3	4.4	4.2	4.2	4.2	4.3	4.2	4.3
28	---	---	---	4.4	4.3	4.4	4.2	4.2	4.2	4.3	4.2	4.3
29	---	---	---	4.4	4.4	4.4	4.2	4.2	4.2	4.3	4.2	4.2
30	---	---	---	---	---	---	4.2	4.1	4.2	4.2	4.1	4.2
31	---	---	---	---	---	---	---	---	---	4.1	4.1	4.1
MONTH	4.5	3.7	4.2	4.5	3.8	4.3	4.4	4.1	4.2	4.6	3.8	4.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	4.1	3.9	4.0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6	3.7
2	4.1	3.9	4.0	3.8	3.7	3.8	3.7	3.7	3.7	3.8	3.6	3.7
3	4.0	3.9	3.9	3.8	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.7
4	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.6	3.7	3.7	3.6	3.7
5	4.0	3.9	3.9	3.9	3.8	3.8	3.8	3.7	3.8	3.7	3.6	3.6
6	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.7	3.8	3.7	3.6	3.6
7	3.9	3.9	3.9	3.8	3.8	3.8	4.1	3.7	3.8	3.6	3.6	3.6
8	4.1	3.9	4.0	3.8	3.8	3.8	4.7	3.8	4.3	3.6	3.6	3.6
9	4.1	4.0	4.1	3.8	3.8	3.8	4.1	4.0	4.1	3.6	3.6	3.6
10	4.1	3.9	4.0	3.8	3.8	3.8	4.0	3.9	4.0	3.6	3.6	3.6
11	4.0	3.9	4.0	3.8	3.7	3.7	3.9	3.9	3.9	3.6	3.6	3.6
12	4.0	3.9	4.0	3.8	3.7	3.8	3.9	3.8	3.9	3.6	3.6	3.6
13	4.0	3.9	3.9	3.8	3.8	3.8	3.9	3.8	3.9	3.6	3.5	3.6
14	3.9	3.9	3.9	3.9	3.7	3.8	3.9	3.8	3.8	3.6	3.5	3.6
15	3.9	3.9	3.9	4.0	3.5	3.8	3.8	3.8	3.8	3.7	3.6	3.6
16	4.0	3.9	3.9	3.9	3.9	3.9	3.8	3.7	3.8	3.6	3.5	3.6
17	---	---	---	3.9	3.8	3.9	3.8	3.7	3.8	3.7	3.6	3.7
18	---	---	---	3.9	3.8	3.8	3.8	3.7	3.7	3.7	3.6	3.7
19	---	---	---	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.6	3.7
20	---	---	---	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.7
21	---	---	---	3.8	3.7	3.8	3.7	3.7	3.7	3.8	3.7	3.7
22	---	---	---	3.8	3.7	3.8	3.7	3.7	3.7	3.8	3.7	3.8
23	---	---	---	3.8	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.8
24	---	---	---	3.8	3.7	3.7	3.7	3.6	3.7	3.8	3.8	3.8
25	---	---	---	3.7	3.7	3.7	3.7	3.6	3.6	3.8	3.8	3.8
26	---	---	---	3.7	3.7	3.7	3.6	3.6	3.6	3.8	3.8	3.8
27	---	---	---	3.7	3.7	3.7	3.6	3.6	3.6	3.8	3.8	3.8
28	---	---	---	3.7	3.6	3.7	3.7	3.6	3.6	3.8	3.7	3.8
29	---	---	---	3.7	3.6	3.7	3.6	3.5	3.6	3.8	3.7	3.7
30	3.8	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.8	3.6	3.7
31	---	---	---	3.8	3.7	3.7	3.7	3.6	3.7	---	---	---
MONTH	4.1	3.7	3.9	4.0	3.5	3.8	4.7	3.5	3.8	3.8	3.5	3.7

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01547950 BEECH CREEK AT MONUMENT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

WEST BRANCH SUSQUEHANNA RIVER BASIN

01547950 BEECH CREEK AT MONUMENT, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	13.5	16.5	21.0	16.0	18.5	25.0	17.5	21.0	22.0	16.5	19.0
2	18.0	14.5	16.5	18.5	15.5	16.5	26.5	20.0	23.0	22.0	16.0	19.0
3	16.5	14.0	15.0	15.5	14.5	14.5	27.5	21.0	23.5	19.5	17.0	18.0
4	16.0	12.0	14.0	16.0	14.0	15.0	24.5	21.0	22.5	22.5	17.0	19.0
5	17.0	12.5	14.5	21.5	14.5	17.5	22.0	20.0	21.0	22.5	15.5	19.0
6	17.0	11.5	14.5	24.0	16.5	20.0	23.0	20.0	21.5	24.0	17.5	20.5
7	14.5	12.5	13.0	25.0	17.5	21.0	22.0	19.5	21.0	23.0	19.5	21.5
8	16.0	13.5	14.5	24.0	19.5	22.0	21.0	18.5	20.0	22.0	19.0	20.5
9	18.5	14.5	16.0	25.0	19.0	22.0	22.5	17.5	20.0	22.5	18.5	20.0
10	18.5	12.5	15.5	24.0	19.5	21.5	22.0	18.5	20.0	19.0	15.5	17.5
11	19.5	13.5	16.5	21.5	16.5	19.5	20.0	18.5	19.0	19.0	15.5	17.0
12	19.5	15.5	17.5	23.5	14.5	19.0	22.0	18.5	20.0	20.0	17.5	18.5
13	18.0	13.0	15.5	23.5	15.0	19.5	24.0	19.0	21.0	20.0	16.0	18.0
14	17.0	11.0	13.5	24.5	19.0	21.5	25.0	18.5	21.5	18.0	16.0	17.0
15	17.5	11.0	14.0	24.5	18.5	21.5	26.0	20.0	22.5	20.5	15.5	17.5
16	17.5	12.0	15.0	23.5	19.0	21.0	26.0	21.0	23.5	18.5	16.0	17.0
17	---	---	---	23.5	18.5	21.0	26.0	21.0	23.5	17.0	15.5	16.5
18	---	---	---	25.0	17.5	21.5	26.0	19.0	22.5	20.5	16.0	18.0
19	---	---	---	25.5	18.0	22.0	26.5	19.5	23.0	19.5	18.0	18.5
20	---	---	---	27.0	20.0	23.5	24.0	20.5	22.0	20.5	17.0	18.5
21	---	---	---	27.0	21.5	24.0	24.0	16.5	20.0	22.5	18.5	20.0
22	---	---	---	28.0	22.5	25.0	24.5	17.0	20.5	20.5	16.0	18.5
23	---	---	---	29.0	22.5	25.5	24.5	17.0	20.5	18.0	13.5	15.5
24	---	---	---	26.5	22.0	24.5	24.5	18.5	21.5	16.5	13.0	14.5
25	---	---	---	23.5	20.5	22.0	24.0	20.0	22.0	17.5	13.5	15.0
26	---	---	---	26.0	20.0	22.5	25.5	19.5	22.5	15.5	11.5	13.5
27	---	---	---	27.5	21.5	24.0	22.0	19.0	20.0	16.0	10.5	13.0
28	---	---	---	26.0	21.5	23.5	22.5	19.5	20.5	17.0	13.0	14.5
29	---	---	---	21.5	18.5	19.0	25.0	20.0	22.5	14.5	9.5	12.0
30	24.0	17.5	21.0	23.0	18.0	20.0	22.5	20.0	21.0	14.5	9.5	12.0
31	---	---	---	20.5	17.5	18.5	20.0	17.5	18.5	---	---	---
MONTH	24.0	11.0	15.5	29.0	14.0	21.0	27.5	16.5	21.5	24.0	9.5	17.5

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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) Pennsylvania Department of Transportation datum. Prior to Jan. 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Foster Joseph Sayers Lake 3 mi (4.8 km) upstream (see p.196).

AVERAGE DISCHARGE.--68 years, 804 ft³/s (22.77 m³/s), 19.56 in/yr (497 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, 5,290 ft³/s (150 m³/s) May 17, gage height, 6.03 ft (1.838 m); minimum, 236 ft³/s (6.68 m³/s) Sept. 7, gage height, 1.79 ft (0.546 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	485	586	2190	937	1430	440	4000	775	1010	352	370	396
2	775	574	3010	866	1300	408	4840	679	924	349	322	307
3	697	561	3000	720	1060	415	3790	571	904	366	359	286
4	549	958	2540	587	875	424	2720	519	824	374	504	291
5	446	1210	2020	670	812	404	3020	574	721	365	384	282
6	430	967	1730	693	820	408	3380	658	649	358	531	273
7	484	2920	1370	675	790	417	3250	544	664	341	2290	253
8	383	4710	1140	887	859	420	2620	532	1190	332	3620	256
9	724	4030	925	4040	724	414	2120	598	1020	330	1810	255
10	1050	3850	1120	4000	662	425	1760	606	657	327	823	251
11	984	4790	1170	3860	662	430	1610	750	551	332	649	251
12	775	4780	771	3580	624	555	1460	827	521	325	626	254
13	669	4340	805	3190	610	580	1230	903	650	312	595	263
14	574	3930	942	2430	617	745	1030	4180	582	316	498	256
15	710	3610	1560	1690	604	3510	952	4630	488	547	391	275
16	1450	3360	2170	1320	555	3860	927	4870	453	536	384	288
17	3720	3340	2520	1090	555	3220	854	5090	449	461	376	299
18	4050	2580	2730	982	543	2330	794	4920	445	345	357	374
19	3950	1550	3130	779	508	2540	832	4840	443	321	346	735
20	3850	1320	3150	800	480	3590	1060	5100	436	307	341	668
21	2950	1820	3060	745	495	4080	1150	4980	481	296	327	342
22	2290	1760	2790	682	461	4900	1140	4900	545	300	308	310
23	1790	1810	2010	606	485	4850	1100	4720	473	292	288	306
24	1390	1910	1530	572	485	5020	1070	4750	398	311	275	294
25	1130	1830	1620	772	484	4850	1020	4890	365	291	274	292
26	925	1790	1610	2800	479	4800	969	3920	395	284	272	277
27	875	1700	1560	3710	463	4880	921	2610	469	283	264	268
28	820	1620	1490	3820	457	4930	874	1900	392	298	268	266
29	717	1530	1310	3460	---	5090	834	1480	365	285	284	263
30	636	1490	1120	2700	---	5070	804	1260	360	294	265	261
31	610	---	1030	1750	---	4460	---	1150	---	323	426	---
TOTAL	40808	71226	57123	55413	18899	78465	52131	78726	17824	10553	18827	9392
MEAN	1316	2374	1843	1788	675	2531	1738	2540	594	340	607	313
MAX	4050	4790	3150	4040	1430	5090	4840	5100	1190	547	3620	735
MIN	383	561	771	572	457	404	794	519	360	283	264	251
MEAN#	1336	2047	1818	1795	666	2763	1841	2575	593	330	596	266
CFSM#	2.39	3.66	3.25	3.21	1.19	4.94	3.29	4.61	1.06	.59	1.07	.48
IN.#	2.76	4.08	3.75	3.70	1.24	5.70	3.67	5.31	1.18	.68	1.23	.54

CAL YR 1977 TOTAL 364138 MEAN 998 MAX 4790 MIN 189 MEAN# 998 CFSM# 1.79 IN.# 24.21
WTR YR 1978 TOTAL 509387 MEAN 1396 MAX 5100 MIN 251 MEAN# 1394 CFSM# 2.49 IN.# 33.84

Adjusted for change in contents in Foster Joseph Sayers Lake.

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548010 BALD EAGLE CREEK AT EAGLEVILLE, PA

LOCATION.--Lat 41°03'31", long 77°35'44", Centre County, Hydrologic Unit 02050204, at bridge on Legislative Route 140 3 at Eagleville, 0.95 mi (1.5 km) downstream from Foster Joseph Sayers Dam.

DRAINAGE AREA.--Not available.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT									
17...	1345	9813	9813	310	7.9	11.0	10.9	--	126
NOV									
29...	1030	9813	9813	300	--	--	--	--	126
DEC									
28...	0920	9813	9813	270	--	--	--	--	122
JAN									
23...	1105	9813	9813	340	--	--	--	--	144
FEB									
27...	0900	9813	9813	380	--	--	--	--	178
MAR									
07...	1300	9813	9813	390	--	--	--	--	168
APR									
25...	--	9813	9813	270	--	--	--	--	108
28...	--	9813	9813	250	--	--	--	--	90
JUN									
06...	0905	9813	9813	240	--	--	--	--	80
JUL									
19...	1250	9813	9813	310	--	--	--	--	120
AUG									
02...	1430	9813	9813	360	7.5	21.0	6.9	4	146
SEP									
14...	1330	9813	9813	360	8.3	22.0	9.2	--	120

DATE	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT									
17...	0	--	35	--	9.5	112	24	17	100
NOV									
29...	--	36	--	9.9	--	108	30	12	178
DEC									
28...	--	31	--	12	--	102	24	14	362
JAN									
23...	--	36	--	14	--	130	23	11	224
FEB									
27...	--	44	--	18	--	136	26	18	220
MAR									
07...	--	43	--	16	--	138	24	18	464
APR									
25...	--	30	--	8.8	--	92	24	12	148
28...	--	24	--	8.3	--	82	12	--	252
JUN									
06...	--	34	--	.5	--	82	20	9.0	154
JUL									
19...	--	36	--	7.7	--	124	15	14	206
AUG									
02...	0	--	30	--	18	124	30	14	430
SEP									
14...	0	--	37	--	7.0	122	40	14	228

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548010 BALD EAGLE CREEK AT EAGLEVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 17...	22	--	1.3	.04	.20	.11	210	--	--
NOV 29...	26	204	1.7	.04	.17	.13	290	--	--
DEC 28...	4	366	1.9	.03	.13	.14	219	--	--
JAN 23...	12	236	1.9	.03	.11	.10	150	--	--
FEB 27...	32	252	2.8	.03	.17	.27	110	--	--
MAR 07...	2	466	2.6	.05	.10	.08	1200	--	--
APR 25...	148	154	1.7	.05	.07	.05	180	--	--
28...	16	268	1.2	.03	.06	.11	210	--	--
JUN 06...	8	162	1.1	.03	.20	.12	160	--	--
JUL 19...	16	222	1.4	.07	.35	.11	140	--	--
AUG 02...	18	--	.94	.06	.47	.08	140	230	2.0
SEP 14...	12	--	1.4	.03	.01	.07	200	160	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 02...	1430	160	--	<3	<10	10	<50	230	--	20	10
SEP 14...	1330	40	<10	<3	10	20	<50	160	<2.0	50	20

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CAC03)
OCT											
05...	0730	9813	9813	70	7.5	14.0	8.9	18	6.4	.5	10
13...	0845	9813	9813	60	7.3	6.0	10.3	22	7.2	<1.0	11
NOV											
21...	1325	9813	9813	53	6.5	7.5	11.5	26	6.4	2.4	11
DEC											
27...	1350	9813	9813	46	6.4	.0	15.0	30	7.2	2.9	11
JAN											
18...	1400	9813	9813	44	7.3	.5	13.2	36	7.2	4.4	8
FEB											
28...	1140	9813	9813	67	7.5	1.0	12.6	19	7.2	.1	15
MAR											
22...	1430	9813	9813	53	7.2	6.5	11.2	14	5.6	.0	9
APR											
05...	0950	9813	9813	49	7.3	5.5	11.9	17	4.8	1.2	8
MAY											
23...	1300	9813	9813	62	7.6	12.5	10.0	36	6.4	4.9	14
JUN											
20...	0815	9813	9813	60	7.4	16.0	9.0	26	7.2	2.0	24
JUL											
13...	0805	9813	9813	74	7.1	16.5	10.6	40	8.8	4.4	23
AUG											
09...	0815	9813	9813	75	7.4	17.0	9.6	36	8.8	3.4	21
SEP											
14...	0950	9813	9813	78	7.5	15.0	10.2	32	10	1.5	20

DATE	SULFATE DIS-SOLVED (MG/L AS S04)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. SUS-PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITROGEN, NITRATE (MG/L AS N)	NITROGEN, NITRITE (MG/L AS N)	NITROGEN, AMMONIA (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
OCT											
05...	5.0	3.0	64	4	68	.26	<.01	.44	.07	320	--
13...	5.0	2.0	68	4	72	.73	<.01	.12	.01	790	--
NOV											
21...	5.0	4.0	18	2	20	.77	<.01	.06	.03	110	--
DEC											
27...	5.0	6.0	86	6	92	.83	<.01	.02	.09	170	--
JAN											
18...	4.0	6.0	40	4	44	.75	<.01	.07	.08	180	--
FEB											
28...	5.0	4.0	54	26	80	.73	<.01	<.01	.07	880	--
MAR											
22...	.0	2.0	36	28	64	.69	<.01	.06	.10	850	--
APR											
05...	4.0	2.0	24	8	32	.84	<.01	<.01	.10	540	--
MAY											
23...	11	7.0	58	2	60	.54	<.01	.07	.04	580	--
JUN											
20...	4.0	6.0	58	2	60	.50	<.01	.14	.05	390	--
JUL											
13...	5.0	8.0	54	2	56	.40	<.01	.08	.04	640	--
AUG											
09...	8.0	7.0	54	2	56	.56	<.01	.16	.03	280	50
SEP											
14...	6.0	5.0	62	2	64	.41	<.01	.13	.04	310	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PR)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
AUG									
09...	0815	250	<1	10	10	<10	50	20	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

147

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO ₂ (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT 27...	0945	9813	9813	110	6.7	7.6	40	0	--	14	--
NOV 15...	1030	9813	9813	100	--	--	40	--	12	--	2.2
DEC 08...	1130	9813	9813	110	--	--	50	--	13	--	4.4
JAN 11...	0900	9813	9813	90	--	--	35	--	8.8	--	3.5
FEB 22...	0900	9813	9813	150	--	--	46	--	14	--	2.7
MAR 21...	0731	9813	9813	130	--	--	42	--	13	--	2.2
APR 25...	--	9813	9813	110	--	--	40	--	10	--	3.8
MAY 23...	0900	9813	9813	110	--	--	45	--	12	--	3.5
JUN 29...	1120	9813	9813	170	--	--	50	--	36	--	.0

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 27...	1.5	38	10	7.0	108	--	.86	.04	.17	.15	660
NOV 15...	--	32	14	7.0	102	4	.86	.04	.12	.14	710
DEC 08...	--	32	14	8.0	84	--	.86	.05	.20	.14	340
JAN 11...	--	28	10	9.0	76	--	1.0	.04	.12	.16	1436
FEB 22...	--	46	14	13	144	--	1.0	.03	.42	.18	480
MAR 21...	--	38	12	14	92	--	1.2	.03	.21	.17	1940
APR 25...	--	32	15	10	228	--	.64	.03	.16	.10	360
MAY 23...	--	28	12	8.0	76	--	.75	.03	.16	.02	760
JUN 29...	--	46	20	16	114	--	1.4	.18	.14	.16	1000

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548403 BABB CREEK AT MORRIS, PA

LOCATION.--Lat 41°35'43", long 77°17'39", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287 at Morris, 0.4 mi (0.6 km) upstream from Wilson Creek.

DRAINAGE AREA.--53.0 mi² (137 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV											
02...	1035	56	85	5.1	9.0	.2	7.8	1	0	1	13
30...	1100	61	80	5.3	3.0	.1	6.8	2	0	2	16
DEC											
30...	1530	80	76	5.2	.0	.2	7.8	2	0	1	20
FEB											
10...	1105	47	70	5.3	.0	.1	5.6	2	0	2	16
MAR											
02...	1315	31	79	5.7	.5	.1	6.2	2	0	2	6.4
APR											
14...	0900	143	64	5.1	6.5	.2	12	1	0	1	15
MAY											
05...	1030	77	68	5.2	7.0	.1	7.0	2	0	2	22
JUN											
16...	1330	41	74	6.0	15.0	.1	4.6	3	0	3	5.1
JUL											
14...	0810	8.2	85	5.4	18.0	.2	7.6	1	0	1	6.4
AUG											
03...	1115	11	86	5.2	22.0	.1	7.2	.4	0	3	40
SEP											
08...	0800	8.4	90	6.0	16.5	.1	4.2	3	0	3	5.1
28...	1430	9.1	91	5.6	16.0	.1	3.6	1	0	1	4.8

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
02...	30	750	750	120	70	570	570	70	70	1	.15
30...	26	--	--	--	60	--	470	--	--	2	.33
DEC											
30...	23	--	--	--	90	--	400	--	--	3	.65
FEB											
10...	23	530	470	140	70	360	360	60	60	2	.25
MAR											
02...	28	--	--	--	130	--	380	--	--	3	.25
APR											
14...	19	500	460	160	60	250	250	40	30	2	.77
MAY											
05...	25	--	--	--	110	--	350	--	--	2	.42
JUN											
16...	23	--	--	--	--	--	310	--	--	9	1.0
JUL											
14...	35	2200	2000	200	200	460	460	60	60	2	.04
AUG											
03...	29	--	--	--	100	--	570	--	--	0	.00
SEP											
08...	31	--	--	--	60	--	490	--	--	3	.07
28...	32	260	60	110	60	790	490	60	50	0	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

149

01548408 WILSON CREEK ABOVE SAND RUN NEAR ANTRIM, PA

LOCATION.--Lat 41°38'51", long 77°18'26", Tioga County, Hydrologic Unit 02050205, on left bank 0.6 mi (1.0 km) upstream from Sand Run, along Route 287, and 1.5 mi (2.4 km) northwest of Antrim.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

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

WATER-QUALITY RECORDS, DECEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV											
02...	1140	7.1	140	8.0	9.5	.0	1.0	52	0	43	.8
30...	1200	9.1	140	7.8	3.0	.0	1.0	46	0	38	1.2
DEC											
29...	0830	14	116	7.5	.0	.0	1.0	32	0	26	1.6
FEB											
09...	1700	8.2	122	6.5	.0	.2	8.0	34	0	28	17
MAR											
01...	1730	4.0	152	7.7	.0	.0	1.0	52	0	42	1.7
APR											
13...	1835	24	82	7.2	10.5	.1	3.4	23	0	19	2.3
MAY											
03...	1500	5.3	102	9.8	12.5	.0	.0	37	11	30	.0
JUN											
16...	0730	4.0	134	7.7	11.0	.0	2.0	55	0	46	1.8
JUL											
13...	1230	.65	180	7.2	19.0	.1	3.6	70	0	57	7.1
AUG											
02...	1930	1.2	194	7.7	21.0	.1	4.0	78	0	65	2.5
SEP											
07...	1700	1.2	190	8.3	19.0	.0	.0	83	0	68	.7
28...	1715	1.9	193	7.9	14.0	.0	.1	78	0	64	1.6

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	TPON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
02...	16	60	40	50	10	0	0	10	10	3	.06
30...	16	--	--	--	10	--	10	--	--	1	.02
DEC											
29...	15	--	--	--	20	--	10	--	--	2	.08
FEB											
09...	15	50	30	140	30	10	10	10	0	1	.02
MAR											
01...	18	--	--	--	40	--	0	--	--	0	.00
APR											
13...	15	80	40	200	200	20	0	10	0	6	.39
MAY											
03...	14	--	--	--	90	--	0	--	--	1	.01
JUN											
16...	15	--	--	--	20	--	10	--	--	11	.12
JUL											
13...	14	70	10	190	30	10	0	10	0	E1	--
AUG											
02...	20	--	--	--	--	--	--	--	--	5	.02
SEP											
07...	17	--	--	--	--	--	--	--	--	2	.01
28...	18	60	40	60	60	10	10	10	0	1	.01

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548410 BACKSWITCH MINE DISCHARGE AT ANTRIM, PA

LOCATION.--Lat 41°38'00", long 77°17'41", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.35 mi (0.56 km) northwest of Antrim.

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

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)
APR 13...	1720	.81	670	3.0	9.5	2.9	140	0	0	0	.0
MAY 02...	1545	.29	662	2.9	9.5	2.8	140	0	0	0	.0
JUN 15...	1100	.26	688	2.9	9.0	3.2	160	0	0	0	.0
JUL 13...	1445	.09	790	2.7	12.0	3.2	160	0	0	0	.0
AUG 03...	0700	.11	839	2.8	10.0	3.9	190	0	0	0	.0
SEP 07...	1615	.10	945	3.0	10.0	4.2	210	0	0	0	.0
28...	1300	.11	934	2.7	9.0	4.0	200	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
APR 13...	210	11000	11000	2500	2500	3400	3400	400	400	E0	--
MAY 02...	--	--	--	--	--	--	--	--	--	1	.00
JUN 15...	270	--	--	--	--	--	4300	--	--	E0	--
JUL 13...	270	13000	13000	3300	3300	5400	5400	530	530	1	.00
AUG 03...	270	--	--	--	6000	--	6000	--	--	0	.00
SEP 07...	340	--	--	--	5100	--	8000	--	--	E1	--
28...	130	19000	19000	6200	6100	7300	7300	690	670	4	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548412 MITCHELL MINE DISCHARGE NO. 1 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'46", long 77°18'13", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.35 mi (0.56 km) north of Anna S mine entrance and 0.85 mi (1.4 km) west of Antrim.

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)
NOV											
02...	1515	.03	1300	2.8	10.0	6.3	320	0	0	0	.0
30...	1430	.02	1180	2.8	7.0	5.0	250	0	0	0	.0
DEC											
29...	1205	.02	1070	2.8	5.0	4.2	210	0	0	0	.0
FEB											
09...	0830	.03	1300	2.7	6.0	4.4	220	0	0	0	.0
MAR											
01...	0945	.01	1400	2.8	4.0	6.3	320	0	0	0	.0
APR											
12...	1730	.02	785	2.9	9.0	3.8	190	0	0	0	.0
MAY											
02...	1710	.02	1020	2.7	10.0	4.3	220	0	0	0	.0
JUN											
15...	1430	.03	1670	2.4	11.0	10	530	0	0	0	.0
JUL											
13...	0945	.02	2600	2.5	11.5	21	1060	0	0	0	.0
AUG											
02...	1700	.03	3200	2.6	14.0	27	1330	0	0	0	.0
SEP											
07...	1145	.02	3350	2.4	14.0	31	1540	0	0	0	.0
28...	0810	.02	3080	2.4	9.5	27	1370	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
NOV											
02...	470	24000	24000	20000	20000	10000	10000	2700	2700	E0	--
30...	470	--	--	--	11000	--	8600	--	--	E0	--
DEC											
29...	350	--	--	--	9000	--	6800	--	--	E0	--
FEB											
09...	410	17000	17000	10000	10000	8400	8400	1900	1900	E0	--
MAR											
01...	990	--	--	--	59000	--	25000	--	--	E0	--
APR											
12...	230	8900	8300	5800	5800	3400	3400	730	720	E0	--
MAY											
02...	380	--	--	--	11000	--	8300	--	--	E0	--
JUN											
15...	840	--	--	--	--	--	20000	--	--	E0	--
JUL											
13...	1500	69000	69000	110000	85000	48000	40000	11000	11000	3	.00
AUG											
02...	1800	--	--	--	76000	--	60000	--	--	0	.00
SEP											
07...	2100	--	--	--	91000	--	62000	--	--	E3	--
28...	2000	91000	91000	190000	190000	58000	54000	14000	14000	1	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548413 MITCHELL MINE DISCHARGE NO. 2 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'43", long 77°18'12", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.3 mi (0.5 km) north of Anna S mine entrance, and 0.85 mi (1.4 km) west of Antrim.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and v-notch sharp-crested weir.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.9 ft³/s (.082 m³/s) Apr. 2, minimum discharge, .08 ft³/s (.002 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	.31	.26	.34	.53	.12	1.7	.22	.34	.16	.12	.10
2	---	.28	.35	.31	.46	.11	2.7	.20	.31	.15	.12	.10
3	---	.25	.47	.28	.40	.11	2.4	.18	.29	.15	.13	.10
4	---	.25	.58	.26	.36	.11	1.6	.17	.31	.14	.13	.11
5	---	.56	.66	.24	.32	.11	1.2	.16	.32	.14	.13	.10
6	---	1.4	.60	.22	.29	.10	1.3	.15	.30	.14	.15	.10
7	---	1.4	.54	.20	.27	.10	1.4	.15	.28	.13	.17	.10
8	---	1.8	.50	.19	.26	.10	1.6	.15	.27	.13	.20	.10
9	---	2.4	.46	.36	.24	.10	1.4	.15	.31	.12	.26	.09
10	---	1.9	.41	1.1	.22	.10	1.1	.15	.36	.12	.28	.09
11	---	1.6	.37	1.2	.21	.10	.86	.16	.37	.11	.26	.09
12	---	1.7	.34	.94	.20	.10	.75	.18	.37	.11	.25	.09
13	.44	1.5	.31	.76	.19	.10	.67	.19	.35	.11	.23	.09
14	.42	1.2	.32	.62	.18	.11	.57	.34	.34	.12	.21	.09
15	.37	.93	.43	.52	.17	.14	.47	1.6	.33	.11	.20	.09
16	.36	.75	.51	.44	.16	.27	.40	1.8	.29	.11	.18	.09
17	.61	.60	.60	.38	.16	.39	.35	1.4	.29	.11	.17	.08
18	1.2	.52	.71	.33	.15	.43	.31	1.4	.29	.11	.15	.08
19	1.4	.49	.80	.30	.15	.41	.29	1.3	.29	.11	.15	.09
20	1.5	.46	.88	.27	.14	.39	.27	1.1	.27	.11	.14	.09
21	1.7	.45	.90	.24	.14	.40	.26	.96	.24	.11	.14	.10
22	1.5	.43	.86	.22	.14	.70	.28	.79	.22	.11	.14	.15
23	1.2	.38	.78	.21	.13	1.6	.29	.65	.21	.11	.13	.16
24	.94	.35	.71	.19	.13	2.3	.31	.55	.20	.11	.13	.15
25	.76	.33	.65	.19	.13	2.2	.31	.50	.20	.11	.13	.14
26	.63	.31	.60	.28	.12	1.6	.31	.48	.19	.11	.12	.13
27	.55	.30	.55	.84	.12	1.3	.29	.49	.18	.11	.12	.12
28	.48	.29	.50	1.1	.12	1.3	.27	.47	.17	.10	.12	.11
29	.43	.27	.45	.96	---	1.4	.25	.44	.17	.10	.12	.10
30	.38	.25	.42	.78	---	1.5	.24	.40	.16	.11	.11	.10
31	.34	---	.38	.64	---	1.6	---	.36	---	.11	.11	---
TOTAL	---	23.66	16.90	14.91	6.09	19.40	24.15	17.24	8.22	3.68	5.00	3.13
MEAN	---	.79	.55	.48	.22	.63	.81	.56	.27	.12	.16	.10
MAX	---	2.4	.90	1.2	.53	2.3	2.7	1.8	.37	.16	.28	.16
MIN	---	.25	.26	.19	.12	.10	.24	.15	.16	.10	.11	.08

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548413 MITCHELL MINE DISCHARGE NO. 2 NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV											
02...	1550	.25	1950	2.7	8.5	13	640	0	0	0	.0
30...	1340	.26	1550	2.6	8.0	8.2	410	0	0	0	.0
DEC											
29...	1210	.47	1510	2.8	8.0	7.8	390	0	0	0	.0
FEB											
09...	0845	.25	1700	2.7	9.0	9.0	450	0	0	0	.0
MAR											
01...	1000	.12	1970	2.6	7.5	12	600	0	0	0	.0
23...	0945	1.9	1860	2.6	8.0	--	--	--	--	--	--
APR											
03...	1640	2.3	1000	--	--	--	--	--	--	--	--
12...	1800	.75	1100	2.9	9.0	5.2	260	0	0	0	.0
MAY											
04...	1730	.20	1690	2.5	9.0	10	500	0	0	0	.0
JUN											
15...	1445	.31	2360	2.4	10.0	19	960	0	0	0	.0
JUL											
13...	0910	.10	2730	2.5	9.5	22	1090	0	0	0	.0
AUG											
02...	1600	.12	3050	--	9.5	25	1260	0	0	0	--
SEP											
07...	1140	.08	3350	2.4	10.5	31	1570	0	0	0	.0
28...	0815	.10	3450	2.4	9.0	34	1690	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
02...	960	86000	86000	62000	62000	21000	21000	6300	6300	E0	--
30...	670	--	--	--	29000	--	17000	--	--	E0	--
DEC											
29...	620	--	--	--	37000	--	16000	--	--	E0	--
FEB											
09...	720	33000	31000	44000	44000	18000	18000	4800	4800	E0	--
MAR											
01...	990	--	--	--	59000	--	25000	--	--	E0	--
23...	990	--	--	--	73000	--	28000	--	--	E0	--
APR											
03...	340	--	--	--	17000	--	7900	--	--	E0	--
12...	390	16000	16000	19000	19000	9600	9600	2300	2300	E0	--
MAY											
04...	800	--	--	--	50000	--	21000	--	--	E0	--
JUN											
15...	1400	--	--	--	130000	--	42000	--	--	E0	--
JUL											
13...	1600	73000	73000	110000	95000	55000	42000	12000	12000	0	.00
AUG											
02...	1900	--	--	--	77000	--	55000	--	--	0	.00
SEP											
07...	1800	--	--	--	94000	--	65000	--	--	2	.00
28...	2300	100000	100000	250000	250000	71000	71000	17000	17000	1	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548415 BRIDGE RUN AT MOUTH AT ANTRIM, PA.

LOCATION.--Lat 41°37'32", long 77°17'43", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287, 0.6 mi (1.0 km) south of Antrim and 2.2 mi (3.5 km) north of Morris.

DRAINAGE AREA.--1.41 mi² (3.65 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)
NOV											
03...	0820	3.2	780	3.0	10.0	2.0	100	0	0	0	.0
30...	1520	4.0	710	3.2	6.5	1.7	85	0	0	0	.0
DEC											
30...	1215	4.8	641	3.1	6.5	1.5	76	0	0	0	.0
FEB											
09...	1600	3.8	668	3.1	6.0	1.6	82	0	0	0	.0
MAR											
02...	0915	2.4	726	3.0	3.0	1.8	89	0	0	0	.0
APR											
13...	1600	8.1	650	3.1	10.0	1.9	94	0	0	0	.0
MAY											
05...	0800	3.2	650	3.2	8.0	1.7	86	0	0	0	.0
JUN											
16...	0830	2.9	632	3.2	9.0	1.7	85	0	0	0	.0
JUL											
13...	1510	1.9	810	2.9	15.0	2.2	110	0	0	0	.0
AUG											
03...	0800	1.9	830	3.0	13.0	2.2	110	0	0	0	.0
SEP											
07...	1700	1.4	850	3.0	13.5	2.4	120	0	0	0	.0
28...	1645	1.7	870	3.0	10.0	2.3	120	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
03...	290	6700	6700	6000	6000	4600	4600	290	290	E0	--
30...	280	--	--	--	4900	--	3900	--	--	E0	--
DEC											
30...	230	--	--	--	3800	--	3700	--	--	3	.04
FEB											
09...	--	--	--	--	--	--	--	--	--	2	.02
MAR											
02...	270	--	--	--	4400	--	4200	--	--	4	.03
APR											
13...	240	5900	5900	7200	5800	3000	3000	250	250	5	.11
MAY											
05...	240	--	--	--	5000	--	3500	--	--	--	--
JUN											
16...	280	--	--	--	--	--	3700	--	--	11	.09
JUL											
13...	310	7000	7000	5300	5100	4800	4800	310	310	1	.01
AUG											
03...	300	--	--	--	7100	--	4700	--	--	0	.00
SEP											
07...	340	--	--	--	7400	--	5000	--	--	13	.05
28...	360	8600	8600	7800	7600	5200	5200	320	320	4	.02

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548416 ANNA S. MINE DISCHARGE NO. 1 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'26", long 77°18'07", Tioga County, Hydrologic Unit 02050205, at main entrance to Anna S mines, 0.9 mi (1.4 km) southwest of Antrim.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and v-notch sharp-crested weir.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.0 ft³/s (0.14 m³/s) Apr. 2; minimum discharge 0.29 ft³/s (0.008 m³/s) Sept. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1.3	1.2	1.3	2.0	.65	3.8	1.0	1.4	.57	.35	.37
2	---	1.2	1.4	1.2	1.9	.62	4.5	.98	1.4	.57	.35	.37
3	---	1.2	1.6	1.2	1.8	.57	4.2	.94	1.3	.55	.36	.36
4	---	1.1	1.6	1.1	1.7	.56	3.6	.91	1.3	.51	.37	.35
5	---	1.5	1.7	1.0	1.6	.55	3.4	.88	1.2	.52	.37	.35
6	---	2.0	1.6	.99	1.5	.57	3.3	.86	1.2	.50	.38	.35
7	---	2.3	1.6	.95	1.4	.56	3.2	.83	1.2	.50	.40	.35
8	---	3.1	1.5	.92	1.4	.54	3.1	.82	1.1	.49	.43	.35
9	---	3.8	1.5	1.2	1.1	.60	2.9	.80	1.1	.47	.48	.33
10	---	3.8	1.4	1.7	1.0	.60	2.6	.80	1.1	.47	.52	.33
11	---	3.8	1.3	1.9	1.0	.59	2.3	.80	1.2	.45	.54	.33
12	---	3.8	1.3	1.9	.97	.57	2.1	.83	1.1	.45	.56	.33
13	1.2	3.5	1.2	1.8	.94	.57	1.9	.83	1.1	.45	.57	.32
14	1.2	3.1	1.2	1.7	.91	.57	1.8	1.1	.10	.43	.56	.31
15	1.2	2.8	1.3	1.6	.88	.61	1.6	2.0	.98	.43	.55	.31
16	1.2	2.5	1.6	1.5	.84	.73	1.5	2.3	.95	.42	.54	.31
17	1.5	2.2	1.7	1.4	.83	.87	1.4	2.6	.92	.41	.52	.31
18	1.9	2.0	1.8	1.3	.80	.98	1.3	3.0	.90	.41	.50	.31
19	2.4	1.9	1.9	1.2	.79	1.1	1.3	3.1	.86	.40	.50	.30
20	2.7	1.8	2.0	1.2	.77	1.1	1.2	2.9	.83	.39	.50	.29
21	2.9	1.7	2.0	1.1	.74	1.2	1.2	2.7	.81	.39	.48	.29
22	2.9	1.6	2.0	1.0	.74	1.7	1.2	2.4	.78	.38	.46	.30
23	2.7	1.6	1.9	.99	.72	2.6	1.2	2.2	.75	.37	.45	.31
24	2.4	1.5	1.9	.96	.71	3.6	1.2	2.0	.73	.37	.43	.31
25	2.2	1.4	1.8	.93	.68	3.9	1.2	1.9	.71	.39	.43	.31
26	2.0	1.4	1.8	1.1	.68	3.5	1.2	1.8	.68	.37	.41	.31
27	1.8	1.3	1.8	1.5	.65	3.3	1.1	1.7	.66	.37	.41	.31
28	1.7	1.3	1.8	1.8	.65	3.3	1.1	1.7	.64	.37	.40	.31
29	1.6	1.2	1.6	1.9	---	3.3	1.1	1.6	.62	.37	.39	.32
30	1.5	1.2	1.4	1.9	---	3.5	1.0	1.5	.60	.36	.39	.33
31	1.4	---	1.3	1.8	---	3.6	---	1.5	---	.35	.38	---
TOTAL	---	62.9	49.7	42.04	29.70	47.01	62.5	49.28	28.22	13.48	13.98	9.73
MEAN	---	2.10	1.60	1.36	1.06	1.52	2.08	1.59	.94	.43	.45	.32
MAX	---	3.8	2.0	1.9	2.0	3.9	4.5	3.1	1.4	.57	.57	.37
MIN	---	1.1	1.2	.92	.65	.54	1.0	.80	.10	.35	.35	.29

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548416 ANNA S MINE DISCHARGE NO 1 NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 03...	0925	1.1	1030	2.8	9.0	5.2	260	0	0	0	.0
DEC 01...	0845	1.3	980	2.8	8.5	4.6	230	0	0	0	.0
29...	1410	1.4	975	3.0	8.0	4.7	230	0	0	0	.0
FEB 09...	1045	1.1	998	2.8	8.0	4.6	230	0	0	0	.0
MAR 01...	1120	.65	1000	2.8	7.5	4.4	220	0	0	0	.0
23...	0920	2.6	1220	2.8	8.0	--	--	--	--	--	--
APR 03...	1655	4.5	940	--	--	--	--	--	--	--	--
13...	0905	2.0	935	2.8	9.0	4.6	230	0	0	0	.0
MAY 04...	1515	.90	910	2.8	9.0	4.0	200	0	0	0	.0
JUN 15...	1600	.97	877	2.7	10.0	4.2	210	0	0	0	.0
JUL 13...	0805	.42	930	2.9	9.0	4.1	200	0	0	0	.0
AUG 02...	1515	.35	970	2.9	10.0	4.5	230	0	0	0	.0
SEP 07...	1040	.35	1210	2.8	10.0	6.1	310	0	0	0	.0
29...	0810	.30	1280	2.8	8.0	7.1	350	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 03...	350	15000	15000	16000	16000	3400	3400	840	840	E0	--
DEC 01...	320	--	--	--	12000	--	3200	--	--	E0	--
29...	360	--	--	--	17000	--	5200	--	--	E0	--
FEB 09...	360	14000	14000	18000	18000	5300	5300	1400	1400	E0	--
MAR 01...	340	--	--	--	13000	--	4400	--	--	E0	--
23...	490	--	--	--	31000	--	11000	--	--	0	.00
APR 03...	320	--	--	--	21000	--	5300	--	--	E0	--
13...	300	13000	13000	15000	15000	4100	4100	980	980	E0	--
MAY 04...	300	--	--	--	14000	--	4000	--	--	E0	--
JUN 15...	300	--	--	--	--	--	4100	--	--	E0	--
JUL 13...	340	14000	13000	9500	9200	3700	3600	840	840	2	.00
AUG 02...	340	--	--	--	19000	--	3500	--	--	0	.00
SEP 07...	450	--	--	--	22000	--	7000	--	--	E1	--
29...	540	25000	25000	25000	25000	8500	8500	2100	2100	3	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548418 HUNTER DRIFT DISCHARGE NEAR ANTRIM, PA

LOCATION.--Lat 41°37'05", long 77°18'40", Tioga County, Hydrologic Unit 02050205, at mine entrance, 250 ft (76 m) upstream of Anna S mine road, and 1.6 mi (2.6 km) southwest of Antrim.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and v-notch sharp-crested weir.

REMARKS.--Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.1 ft³/s (0.20 m³/s) Nov. 9; minimum discharge, 0.33 ft³/s (0.009 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1.2	1.2	1.5	2.0	.58	4.7	1.0	1.5	.55	.41	.47
2	---	1.1	1.6	1.4	1.8	.57	5.8	.98	1.4	.53	.41	.49
3	---	1.1	2.0	1.3	1.7	.56	5.5	.93	1.4	.52	.42	.50
4	---	1.1	2.0	1.2	1.5	.55	4.4	.88	1.3	.51	.59	.50
5	---	2.1	1.9	1.1	1.4	.54	3.9	.87	1.3	.49	.60	.50
6	---	3.6	1.8	1.1	1.4	.52	3.8	.84	1.3	.47	.74	.50
7	---	3.7	1.7	1.0	1.3	.51	3.8	.80	1.3	.45	1.3	.50
8	---	5.8	1.7	1.0	1.2	.50	3.9	.79	1.2	.45	1.5	.50
9	---	6.7	1.6	1.9	1.2	.51	3.6	.78	1.2	.44	1.4	.49
10	---	5.6	1.5	3.3	1.1	.51	3.2	.77	1.2	.43	1.2	.47
11	---	5.3	1.4	3.1	1.0	.51	2.7	.77	1.2	.41	1.1	.47
12	---	5.3	1.4	2.7	.99	.52	2.4	.77	1.2	.42	1.0	.47
13	1.1	4.3	1.3	2.4	.96	.53	2.2	.79	1.3	.41	.94	.46
14	1.1	3.4	1.3	2.2	.91	.55	2.0	1.1	1.2	.39	.86	.45
15	1.1	2.9	1.5	1.9	.86	.86	1.8	3.6	1.2	.39	.81	.45
16	1.2	2.5	1.7	1.8	.82	1.4	1.7	4.2	1.1	.37	.76	.45
17	1.8	2.2	1.9	1.6	.79	1.5	1.5	3.8	1.1	.37	.72	.44
18	2.6	2.0	2.1	1.5	.76	1.5	1.4	4.0	1.0	.37	.67	.44
19	3.1	1.9	2.5	1.4	.74	1.5	1.3	3.9	.98	.36	.64	.55
20	3.6	1.8	2.9	1.3	.72	1.5	1.3	3.5	.92	.37	.61	.61
21	4.0	1.7	3.3	1.2	.70	1.7	1.3	3.0	.87	.37	.58	.58
22	3.7	1.6	3.2	1.2	.67	3.7	1.2	2.6	.82	.37	.56	.57
23	3.2	1.5	2.9	1.1	.65	5.5	1.2	2.3	.79	.36	.54	.57
24	2.7	1.5	2.6	1.0	.64	6.7	1.2	2.0	.75	.35	.52	.56
25	2.3	1.4	2.4	1.0	.63	5.9	1.2	1.9	.72	.35	.51	.55
26	2.0	1.4	2.2	1.4	.62	4.7	1.2	1.9	.70	.35	.49	.54
27	1.8	1.3	2.0	3.0	.60	4.1	1.2	1.9	.67	.34	.47	.52
28	1.7	1.3	1.9	3.1	.59	4.1	1.1	1.8	.64	.33	.47	.49
29	1.5	1.2	1.7	2.8	---	4.4	1.1	1.7	.62	.35	.47	.45
30	1.4	1.1	1.6	2.5	---	4.6	1.0	1.6	.59	.36	.45	.43
31	1.3	---	1.6	2.2	---	4.6	---	1.5	---	.38	.46	---
TOTAL	---	77.6	60.4	55.2	28.25	65.72	72.6	57.27	31.47	12.61	22.20	14.97
MEAN	---	2.59	1.95	1.78	1.01	2.12	2.42	1.85	1.05	.41	.72	.50
MAX	---	6.7	3.3	3.3	2.0	6.7	5.8	4.2	1.5	.55	1.5	.61
MIN	---	1.1	1.2	1.0	.59	.50	1.0	.77	.59	.33	.41	.43

WEST BRANCH SUSQUEHANNA RIVER BASIN

Q1548418 HUNTER DRIFT DISCHARGE NEAR ANTRIM, PA--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV											
03...	1020	1.2	1450	2.8	9.0	8.2	410	0	0	0	.0
DEC											
01...	1045	1.4	1120	2.7	8.5	6.3	310	0	0	0	.0
30...	0815	1.7	1270	2.7	8.0	6.6	330	0	0	0	.0
FEB											
09...	1230	1.2	1220	2.6	9.0	6.3	310	0	0	0	.0
MAR											
01...	1230	.60	1460	2.5	8.0	8.5	430	0	0	0	.0
23...	0800	5.5	1350	2.5	9.0	--	--	--	--	--	--
APR											
03...	1800	5.4	1160	2.6	8.8	--	--	--	--	--	--
13...	1145	2.2	1050	2.8	9.5	4.8	240	0	0	0	.0
MAY											
04...	0950	.78	1220	2.7	9.5	6.5	320	0	0	0	.0
JUN											
15...	1730	1.2	1150	2.5	9.5	6.5	320	0	0	0	.0
JUL											
13...	1130	.39	1700	2.6	10.0	9.7	480	0	0	0	.0
AUG											
02...	1100	.40	1660	2.6	10.0	11	550	0	0	0	.0
SEP											
07...	0925	.46	1710	2.6	11.0	11	530	0	0	0	.0
29...	0900	.47	1720	2.7	9.0	12	610	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
03...	500	23000	23000	46000	46000	3600	3600	690	690	E0	--
DEC											
01...	400	--	--	--	28000	--	3200	--	--	E0	--
30...	410	--	--	--	32000	--	3400	--	--	E0	--
FEB											
09...	420	19000	19000	35000	35000	3600	3600	640	640	E0	--
MAR											
01...	550	--	--	--	49000	--	4500	--	--	E0	--
23...	500	--	--	--	48000	--	4400	--	--	9	.13
APR											
03...	330	--	--	--	33000	--	2600	--	--	E0	--
13...	300	13000	13000	22000	22000	2500	2500	470	470	E0	--
MAY											
04...	430	--	--	--	38000	--	3800	--	--	E0	--
JUN											
15...	420	--	--	--	30000	--	3900	--	--	E0	--
JUL											
13...	610	28000	28000	54000	54000	5400	5400	1000	1000	E0	--
AUG											
02...	700	--	--	--	56000	--	6700	--	--	E0	--
SEP											
07...	810	--	--	--	59000	--	8800	--	--	E0	--
29...	820	35000	35000	78000	78000	8700	8700	1600	1600	0	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548419 ANNA S MINE DISCHARGE NO. 2 NEAR ANTRIM, PA

LOCATION.--Lat 41°37'13", long 77°18'21", Tioga County, Hydrologic Unit 02050205, at mine discharge, 0.1 mi (0.2 km) east of Anna S Road, 0.4 mi (0.6 km) northeast of Hunter Drift mine entrance, and 1.2 mi (1.9 km) southwest of Antrim.

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV											
03...	1150	.11	255	3.9	10.5	1.0	51	0	0	0	.0
DEC											
01...	1130	.12	260	3.7	7.5	1.0	51	0	0	0	.0
30...	1045	.17	250	3.4	6.0	.7	35	0	0	0	.0
FEB											
09...	1400	.09	253	3.4	6.0	.9	43	0	0	0	.0
MAR											
01...	1200	.02	250	3.4	2.5	.8	41	0	0	0	.0
APR											
13...	1345	.34	340	3.3	10.5	1.3	64	0	0	0	.0
MAY											
04...	1415	.05	290	3.4	10.0	1.1	55	0	0	0	.0
JUN											
15...	1615	.08	254	3.3	13.0	1.0	51	0	0	0	.0
JUL											
13...	0730	.02	250	3.7	12.0	1.0	52	0	0	0	.0
AUG											
02...	1500	.03	236	3.4	16.0	1.0	51	0	0	0	.0
SEP											
07...	1320	.03	212	3.7	16.5	.7	36	0	0	0	.0
28...	1045	.02	190	3.5	10.0	.6	32	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
NOV											
03...	82	2000	2000	170	170	960	960	220	210	E0	--
DEC											
01...	74	--	--	--	270	--	880	--	--	E0	--
30...	74	--	--	--	150	--	850	--	--	E0	--
FEB											
09...	81	2400	2400	180	160	930	930	210	200	E0	--
MAR											
01...	81	--	--	--	240	--	940	--	--	E0	--
APR											
13...	110	4400	4300	560	460	1000	1000	290	260	E0	--
MAY											
04...	92	--	--	--	250	--	950	--	--	E0	--
JUN											
15...	88	--	--	--	--	--	840	--	--	E0	--
JUL											
13...	75	3500	3200	270	260	890	890	230	230	0	.00
AUG											
02...	75	--	--	--	650	--	880	--	--	0	.00
SEP											
07...	65	--	--	--	370	--	880	--	--	E1	--
28...	65	1600	1500	200	200	900	900	190	190	3	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548421 BASSWOOD RUN AT MOUTH NEAR ANTRIM, PA

LOCATION.--Lat 41°36'50", long 77°17'38", Tioga County, Hydrologic Unit 02050205, 20 ft (6.0 m) east of State Route 287, 1.2 mi (1.9 km) south of Antrim, and 1.4 mi (2.2 km) north of Morris.

DRAINAGE AREA.--1.22 mi² (3.16 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)
NOV											
03...	1430	1.3	1170	3.0	11.0	5.5	280	0	0	0	.0
DEC											
01...	1235	4.8	580	3.1	5.5	2.0	100	0	0	0	.0
30...	1345	2.4	910	2.8	3.0	3.9	190	0	0	0	.0
FEB											
10...	1330	1.4	880	2.6	4.0	4.1	210	0	0	0	.0
MAR											
02...	1100	.74	1020	2.8	.5	4.7	230	0	0	0	.0
APR											
13...	1515	3.2	690	3.0	10.5	2.8	140	0	0	0	.0
MAY											
05...	0910	1.4	790	2.8	6.5	3.4	170	0	0	0	.0
JUN											
16...	0930	1.4	900	2.8	9.0	4.3	220	0	0	0	.0
JUL											
14...	0735	.46	1300	2.4	14.5	6.6	330	0	0	0	.0
AUG											
03...	0840	.48	1380	2.8	12.0	6.9	340	0	0	0	.0
SEP											
08...	0800	.59	1430	2.8	13.5	7.7	380	0	0	0	.0
28...	1600	.55	1430	2.8	11.5	7.8	390	.0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV											
03...	350	16000	16000	25000	25000	2800	2800	530	520	4	.01
DEC											
01...	140	--	--	--	7700	--	1200	--	--	19	.25
30...	260	--	--	--	17000	--	2300	--	--	4	.03
FEB											
10...	280	12000	12000	18000	18000	2500	2500	430	420	5	.02
MAR											
02...	330	--	--	--	27000	--	3000	--	--	2	.00
APR											
13...	190	8000	8000	10000	10000	1700	1700	300	290	10	.09
MAY											
05...	240	--	--	--	16000	--	2300	--	--	2	.01
JUN											
16...	310	--	--	--	--	--	2900	--	--	10	.04
JUL											
14...	440	23000	21000	26000	21000	4500	4400	760	760	0	.00
AUG											
03...	470	--	--	--	27000	--	5100	--	--	0	.00
SEP											
08...	560	--	--	--	37000	--	8000	--	--	8	.01
28...	580	28000	28000	38000	38000	6800	6800	1000	980	1	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548423 WILSON CREEK AT MORRIS, PA

LOCATION.--Lat 41°35'51", long 77°17'50", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 287, 0.3 mi (0.5 km) north of Morris, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--22.8 mi² (59.1 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 03...	1505	20	340	3.9	12.0	.8	39	0	0	0	.0
DEC 01...	1400	139	130	6.7	5.0	.1	5.0	13	0	11	4.2
30...	1500	38	246	3.9	2.0	.6	32	0	0	0	.0
FEB 09...	1530	23	262	3.7	3.0	.8	38	0	0	0	.0
MAR 02...	1200	12	311	3.8	.5	.8	38	0	0	0	.0
APR 14...	0800	51	227	3.7	6.5	.5	26	0	0	0	.0
MAY 03...	1800	17	295	3.7	13.5	.8	40	0	0	0	.0
JUN 16...	1015	16	335	3.6	12.5	.9	4.4	0	0	0	.0
JUL 13...	1530	4.4	525	3.1	25.0	1.5	76	0	0	0	.0
AUG 03...	0930	5.2	478	3.6	19.0	1.3	67	0	0	0	.0
SEP 08...	0910	5.2	580	3.4	15.0	1.0	48	0	0	0	.0
28...	1530	5.8	515	3.7	18.5	1.4	69	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 03...	120	4000	4000	1500	960	1600	1600	190	190	4	.22
DEC 01...	37	--	--	--	70	--	380	--	--	32	12
30...	85	--	--	--	1200	--	1200	--	--	5	.51
FEB 09...	93	3000	3000	1400	1300	1400	1400	200	180	8	.50
MAR 02...	120	--	--	--	1400	--	1700	--	--	4	.13
APR 14...	71	2400	2400	1800	1300	1000	1000	150	140	3	.41
MAY 03...	110	--	--	--	1700	--	1500	--	--	1	.05
JUN 16...	130	--	--	--	1800	--	2000	--	--	E4	--
JUL 13...	210	7800	7700	1200	1200	3300	3300	450	450	4	.05
AUG 03...	200	--	--	--	1400	--	3100	--	--	0	.00
SEP 08...	220	--	--	--	1700	--	5000	--	--	E5	--
28...	230	9400	9400	2100	1300	3700	3700	540	530	2	.03

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548425 UNNAMED TRIBUTARY TO PAINT RUN NEAR MORRIS, PA

LOCATION.--Lat 41°36'23", long 77°19'29", Tioga County, Hydrologic Unit 02050205, 0.4 mi (0.6 km) west of Plantation Road, 0.8 mi (1.3 km) south of Rattler mine road, and 1.9 mi (3.1 km) northwest of Morris.

DRAINAGE AREA.--not available.

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LINITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 03...	1305	.09	740	3.2	13.0	3.9	200	0	0	0	.0
DEC 01...	1000	.19	620	3.3	5.0	3.0	150	0	0	0	.0
29...	1615	.15	634	3.2	.5	3.0	150	0	0	0	.0
APR 13...	1035	.16	530	3.2	11.0	2.4	120	0	0	0	.0
MAY 04...	1300	.05	520	3.2	10.0	2.4	120	0	0	0	.0
JUN 15...	1845	.09	538	3.0	17.0	2.5	120	0	0	0	.0
JUL 13...	1035	.02	595	3.2	18.0	3.0	150	0	0	0	.0
AUG 02...	1030	.03	680	3.0	19.0	2.6	130	0	0	0	.0
SEP 07...	1435	.03	670	3.1	20.0	3.0	150	0	0	0	.0
28...	1130	.02	653	3.0	12.0	3.1	150	0	0	0	.0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 03...	290	22000	22000	2600	2600	6700	6700	590	590	E0	--
DEC 01...	240	--	--	--	2900	--	6300	--	--	E0	--
29...	240	--	--	--	4000	--	5900	--	--	1	.00
APR 13...	190	14000	14000	2100	2100	3900	3900	410	410	1	.00
MAY 04...	190	--	--	--	1300	--	4900	--	--	0	.00
JUN 15...	190	--	--	--	--	--	4400	--	--	8	.00
JUL 13...	230	15000	15000	2300	2300	5900	5900	470	470	0	.00
AUG 02...	220	--	--	--	2900	--	6400	--	--	1	.00
SEP 07...	230	--	--	--	2300	--	6000	--	--	E1	--
28...	250	18000	18000	2000	1700	6400	6400	580	560	0	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01548427 STONY FORK NEAR MOUTH NEAR BLACKWELL, PA

LOCATION.--Lat 41°34'56", long 77°20'46", Tioga County, Hydrologic Unit 02050205, 0.85 mi (1.4 km) upstream from mouth, and 2.3 mi (3.7 km) northeast of Blackwell.

DRAINAGE AREA.--37.1 mi² (96.1 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)
NOV 03...	1615	22	135	7.4	11.5	.0	2.0	27	0	22	1.7
DEC 01...	1445	260	105	7.2	4.5	.0	2.0	23	0	19	2.3
30...	1615	39	114	6.7	.0	.1	3.0	19	0	15	6.1
FEB 10...	1030	25	113	6.6	.0	.1	7.0	20	0	16	8.0
MAR 01...	1445	16	132	7.3	.0	.0	2.0	26	0	22	2.1
APR 14...	1110	66	83	7.2	7.0	.1	2.8	14	0	12	1.4
MAY 03...	1700	19	110	7.2	13.0	.1	4.0	21	0	17	2.1
JUN 16...	1430	14	113	7.3	17.0	.1	3.0	18	0	15	1.4
JUL 13...	1655	2.8	160	7.2	23.5	.1	4.0	25	0	20	2.5
AUG 03...	1300	4.3	166	7.4	22.0	.1	3.2	38	0	31	2.4
SEP 07...	1550	3.5	175	7.9	21.0	.0	1.4	35	0	29	.7
29...	0900	4.2	185	7.4	9.0	.0	2.0	40	0	33	2.5

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 03...	34	670	90	460	0	340	330	30	10	7	.42
DEC 01...	19	--	--	--	70	--	100	--	--	26	18
30...	25	--	--	--	50	--	210	--	--	12	1.3
FEB 10...	28	340	40	250	230	200	200	30	20	4	.27
MAR 01...	28	--	--	--	60	--	230	--	--	E0	--
APR 14...	20	260	40	310	50	160	160	30	10	5	.90
MAY 03...	26	--	--	--	10	--	250	--	--	2	.10
JUN 16...	36	--	--	--	--	--	300	--	--	14	.53
JUL 13...	67	2600	2600	120	90	70	70	30	30	E1	--
AUG 03...	35	--	--	--	10	--	130	--	--	0	.00
SEP 07...	45	--	--	--	60	--	130	--	--	1	.01
29...	43	290	80	80	10	370	370	30	20	0	.00

WEST BRANCH SUSQUEHANNA RIVER BASIN

01548430 BABB CREEK AT BLACKWELL, PA

LOCATION.--Lat 41°33'21", long 77°22'42", Tioga County, Hydrologic Unit 02050205, at bridge on State Route 414 at Blackwell, and 0.4 mi (0.6 km) upstream from mouth.

DRAINAGE AREA.--129 mi² (334 km²).

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

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)
NOV 04...	0815	541	115	6.4	12.5	.1	5.0	7	0	6	4.5
DEC 01...	1545	620	95	7.0	5.5	.0	2.0	14	0	11	2.2
30...	1715	160	104	5.8	.5	.1	5.0	3	0	2	7.6
FEB 10...	0830	120	108	5.6	.0	.1	6.0	3	0	2	12
MAR 01...	1600	83	121	5.9	.0	.1	4.0	3	0	3	6.0
APR 14...	1215	319	86	5.3	8.0	.2	12	1	0	1	8.0
MAY 04...	0815	89	103	5.4	6.0	.1	6.4	2	0	2	13
JUN 16...	1545	97	108	5.6	19.0	.1	4.6	2	0	2	8.0
JUL 13...	1825	20	165	4.9	24.0	.1	7.2	0	0	0	4.8
AUG 03...	1410	28	156	6.5	23.0	.1	3.8	5	0	4	2.6
SEP 07...	1430	18	180	6.2	22.5	.1	3.6	3	0	3	3.4
29...	0730	21	191	5.5	9.5	.1	6.4	2	0	2	10

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 04...	36	3000	70	2300	0	460	430	80	60	46	67
DEC 01...	21	--	--	--	50	--	200	--	--	28	47
30...	33	--	--	--	150	--	400	--	--	12	5.2
FEB 10...	38	600	60	170	160	440	410	60	60	2	.65
MAR 01...	41	--	--	--	320	--	440	--	--	3	.67
APR 14...	30	240	240	420	270	320	320	50	30	4	3.4
MAY 04...	37	--	--	--	110	--	440	--	--	2	.48
JUN 16...	38	--	--	--	--	--	440	--	--	14	3.7
JUL 13...	59	330	280	130	40	600	600	90	90	1	.05
AUG 03...	60	--	--	--	310	--	530	--	--	0	.00
SEP 07...	67	--	--	--	80	--	680	--	--	2	.10
29...	71	1100	120	50	40	810	810	140	130	5	.29

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) National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1930, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--60 years, 835 ft³/s (23.65 m³/s), 18.74 in/yr (476 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)
Nov. 5	0400	6,360 180	6.21 1.893	Mar. 15	1100	ice jam	7.43 2.265
Nov. 8	0830	9,290 263	7.25 2.210	Mar. 23	2000	9,320 264	6.70 2.042
Nov. 11	0300	6,070 172	6.09 1.856	Apr. 2	0200	9,960 282	6.83 2.082
Jan. 9	Unk.	11,600 329	7.27 2.216	Apr. 8	0900	6,340 180	5.67 1.728
Jan. 26	1430	ice jam	*9.16 2.792	May 14	2100	*14,000 396	7.87 2.399

Minimum discharge, 81 ft³/s (2.29 m³/s), Aug. 26, 27, 28, gage height, 1.90 ft (0.579 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	448	1270	620	1450	336	5720	698	695	170	220	310
2	1500	432	2370	560	1260	327	8870	646	668	160	164	184
3	1090	402	2240	520	1090	320	6030	592	1020	163	184	135
4	931	1780	1990	490	980	315	4490	537	956	193	511	121
5	790	5660	1610	620	900	309	5210	655	740	192	259	112
6	730	3840	1400	520	830	303	5070	723	589	167	442	108
7	640	4810	1150	470	770	298	5440	608	565	150	994	104
8	538	8450	920	550	720	294	6170	558	1080	142	760	126
9	942	6140	790	8500	690	288	4990	691	1280	139	457	148
10	1200	4340	700	5580	650	283	3780	780	1070	138	358	144
11	1060	5000	650	3660	615	287	3210	740	810	142	322	130
12	1020	3760	610	2670	590	292	3630	760	760	136	258	140
13	898	2870	580	2110	565	310	3260	893	780	121	322	130
14	790	2180	610	1680	545	800	2700	8250	770	113	258	121
15	964	1740	2100	1410	515	3080	2090	11100	670	530	211	121
16	1640	1430	3880	1170	500	2640	1630	6850	558	245	184	117
17	3660	1570	2890	1020	485	2030	1330	6950	498	290	158	112
18	3560	1540	3000	937	470	1610	1120	5920	473	222	140	130
19	3440	1320	2500	860	455	1490	1090	4690	449	166	126	780
20	3660	1210	2300	730	440	1770	1640	3590	442	141	117	387
21	3190	1140	2400	680	420	3180	1980	2980	395	128	108	246
22	2560	1040	1900	640	405	7750	1860	2290	500	137	100	200
23	1900	909	1550	600	395	7810	1710	1710	420	153	93	169
24	1560	865	1350	580	380	7540	1560	1910	330	139	89	144
25	1260	810	2000	871	370	5290	1370	1930	280	135	85	130
26	1050	750	1500	3880	360	4040	1200	1530	240	127	85	121
27	909	710	1230	4960	350	4180	1050	1270	217	122	82	112
28	780	592	1020	3680	343	4250	933	1120	222	151	89	104
29	660	529	890	2780	---	4680	842	1040	211	132	121	100
30	574	488	780	2160	---	4510	769	947	185	251	112	93
31	496	---	700	1760	---	4300	---	746	---	262	252	---
TOTAL	45282	66755	48880	57268	17543	74912	90744	73704	17873	5457	7661	5079
MEAN	1461	2225	1577	1847	627	2417	3025	2378	596	176	247	169
MAX	3660	8450	3880	8500	1450	7810	8870	11100	1280	530	994	780
MIN	496	402	580	470	343	283	769	537	185	113	82	93
CFSM	2.42	3.68	2.61	3.06	1.04	4.00	5.01	3.94	.99	.29	.41	.28
IN	2.79	4.11	3.01	3.53	1.08	4.61	5.59	4.54	1.10	.34	.47	.31

CAL YR 1977 TOTAL 394741 MEAN 1081 MAX 8450 MIN 78 CFSM 1.79 IN 24.31
WTR YR 1978 TOTAL 511158 MEAN 1400 MAX 11100 MIN 82 CFSM 2.32 IN 31.48

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, FEBRUARY TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
FEB 02...	1000	9813	9813	1170	80	--	--	--	35
AUG 14...	1030	9813	9813	223	110	7.3	20.0	10.1	32

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
FEB 02...	--	8.8	--	3.5	--	18	18	6.0	84
AUG 14...	0	--	14	--	<5.0	32	10	7.0	92

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 02...	4	88	.94	.02	.07	.05	120	--
AUG 14...	6	--	.56	.01	.09	.04	250	7.0

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 14...	1030	240	<3	<10	10	<50	50	10	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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).

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--38 years, 58.3 ft³/s (1.651 m³/s), 21.05 in/yr (535 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.--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)
Nov. 8	0500	1,260 35.7	4.45 1.356	May 14	1200	*1,530 43.3	4.84 1.475
Jan. 9	0415	ice jam	*4.95 1.509				

Minimum discharge, 5.7 ft³/s (0.161 m³/s), July 13, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	41	223	44	85	26	389	39	44	11	21	42
2	83	39	186	41	75	26	483	36	68	10	15	22
3	58	37	166	38	66	26	302	32	99	13	22	18
4	48	261	136	36	60	25	267	29	83	19	51	16
5	41	251	117	43	55	25	317	41	72	14	23	14
6	46	201	114	36	51	24	295	39	61	11	44	12
7	38	687	93	34	49	24	350	32	58	9.5	66	11
8	33	917	81	72	47	24	362	30	192	9.0	68	12
9	134	482	72	600	45	23	269	45	174	9.0	41	12
10	103	449	63	395	43	23	207	43	131	8.5	40	10
11	88	581	59	231	41	24	197	38	99	7.6	37	11
12	78	346	56	155	40	26	232	37	79	7.2	28	10
13	65	228	53	115	39	28	195	71	74	6.4	23	9.5
14	57	165	68	90	38	428	155	992	56	6.8	19	7.6
15	67	132	210	74	37	286	119	633	45	53	17	9.0
16	125	111	154	60	36	189	98	375	39	17	15	9.0
17	279	112	140	52	35	139	82	367	35	22	14	8.5
18	231	100	180	47	34	113	71	260	33	13	12	23
19	252	79	171	42	33	117	79	195	29	9.5	11	134
20	375	69	152	39	32	134	135	143	25	8.5	10	55
21	306	66	154	36	32	317	148	117	33	7.6	9.0	40
22	227	63	129	34	31	581	128	93	31	13	8.5	39
23	166	58	110	32	30	564	113	77	22	9.5	8.0	29
24	129	61	98	31	29	451	100	201	19	8.5	7.6	25
25	106	56	163	140	29	292	86	168	18	8.0	7.2	23
26	91	59	115	500	28	249	75	136	18	9.0	6.8	20
27	82	51	88	400	27	474	65	110	18	10	6.4	18
28	70	47	74	224	27	433	56	91	15	26	8.5	15
29	59	42	64	160	---	411	48	74	14	12	10	13
30	51	47	56	120	---	350	43	61	12	22	8.0	12
31	45	---	50	100	---	299	---	51	---	20	119	---
TOTAL	3605	5838	3595	4021	1174	6151	5466	4656	1696	410.6	776.0	679.6
MEAN	116	195	116	130	41.9	198	182	150	56.5	13.2	25.0	22.7
MAX	375	917	223	600	85	581	483	992	192	53	119	134
MIN	33	37	50	31	27	23	43	29	12	6.4	6.4	7.6
CFSM	3.08	5.17	3.08	3.45	1.11	5.25	4.83	3.98	1.50	.35	.66	.60
IN.	3.56	5.76	3.55	3.97	1.16	6.07	5.39	4.59	1.67	.41	.77	.67

CAL YR 1977	TOTAL	27780.0	MEAN	76.1	MAX 917	MIN 2.1	CFSM 2.02	IN 27.41
WTR YR 1978	TOTAL	38068.2	MEAN	104	MAX 992	MIN 6.4	CFSM 2.76	IN 37.56

WEST BRANCH SUSQUEHANNA RIVER

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)
OCT 05...	1410	9813	9813	70	--	--	--	15
NOV 22...	0915	9813	9813	50	--	--	--	24
DEC 12...	1000	9813	9813	80	--	--	--	25
FEB 02...	1145	9813	9813	50	--	--	--	25
21...	1430	9813	9813	60	--	--	--	45
23...	1015	9813	9813	60	--	--	--	32
MAR 01...	1315	9813	9813	46	--	--	--	10
APR 19...	--	9813	9813	60	--	--	--	24
MAY 09...	1130	9813	9813	60	--	--	--	24
JUN 08...	0934	9813	9813	80	--	--	--	38
AUG 14...	1230	9813	9813	80	20.5	8.0	7.9	36
SEP 11...	1300	9813	9813	80	20.0	7.0	9.0	36

DATE	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)
OCT 05...	0	--	8.0	--	.0	26	8.0	6.0	34
NOV 22...	--	8.8	--	.5	--	16	24	5.0	96
DEC 12...	--	8.0	--	1.3	--	18	10	5.0	50
FEB 02...	--	6.4	--	2.4	--	14	10	6.0	148
21...	--	6.4	--	7.9	--	16	10	7.0	548
23...	--	6.4	--	4.4	--	22	8.0	7.0	6
MAR 01...	--	3.2	--	.5	--	10	4.0	9.0	2
APR 19...	--	8.0	--	1.1	--	16	18	5.0	52
MAY 09...	--	7.2	--	1.6	--	16	10	6.0	52
JUN 08...	--	7.2	--	5.5	--	20	15	5.0	50
AUG 14...	0	--	10	--	2.5	20	15	8.0	66
SEP 11...	0	--	8.8	--	3.5	22	10	7.0	64

WEST BRANCH SUSQUEHANNA RIVER

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01549600 LITTLE PINE CREEK AT WATERVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	20	--	.74	.02	.07	.07	110	--
NOV 22...	6	102	1.0	.03	.18	.05	70	--
DEC 12...	6	56	1.0	.02	.10	.10	80	--
FEB 02...	6	154	1.0	.03	.07	.03	39	--
21...	2	550	1.1	.02	.08	.05	40	--
23...	70	76	.96	.03	.08	.09	90	--
MAR 01...	4	6	.56	<.00	.01	.09	100	--
APR 19...	8	60	.86	.02	.10	.05	100	--
MAY 09...	8	60	.76	.03	.10	.11	90	--
JUN 08...	32	82	.68	.01	.12	.10	270	--
AUG 14...	<5	--	.57	.01	.09	.04	110	5.0
SEP 11...	<5	--	.70	.01	.06	.05	140	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 14...	1230	20	<3	<10	10	<50	30	<10	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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. Datum of gage is 570.62 ft (173.925 m) National Geodetic Vertical Datum of 1929.

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.--21 years, 1,427 ft³/s (40.4 m³/s), 20.51 in/yr (521 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)
Nov. 8	1100	17,700 501	8.50 2.591	Mar. 23	2400	13,700 388	7.61 2.320
Jan. 9	1000	17,000 481	8.35 2.545	Apr. 2	0830	14,100 399	7.70 2.347
Jan. 27	Unk.	15,400 436	8.00 2.438	May 15	0900	*18,000 510	*8.57 2.612

Minimum daily discharge, 120 ft³/s (3.40 m³/s), Aug. 2, gage height, 1.74 ft (0.530 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	900	2020	1170	2700	460	9400	1140	1180	290	130	720
2	2550	878	4500	1080	2300	450	14100	1060	1630	263	120	408
3	1820	867	4250	1000	1950	440	9860	970	1750	263	130	291
4	1650	1050	3730	950	1720	430	6390	920	1440	332	148	232
5	1390	9800	3110	1370	1500	425	6900	1000	1110	332	508	148
6	1250	6750	2750	960	1360	420	7740	1120	990	263	297	170
7	1140	9190	2550	840	1250	415	7500	1000	1160	239	1770	148
8	1020	16100	1850	2100	1170	410	6900	930	2240	202	1360	148
9	1030	13700	1550	12000	1080	405	5650	990	2950	202	780	148
10	2180	9200	1400	10200	1000	400	5380	1060	2200	191	580	202
11	1760	10200	1270	5400	930	410	4680	1120	1640	202	500	214
12	1680	8300	1180	3900	880	420	5200	1170	1360	193	450	202
13	1540	6600	1100	3200	840	440	4500	1240	1300	182	408	202
14	1300	4150	1700	2800	790	1400	2950	9320	1160	170	360	159
15	1400	3350	6600	2500	750	5000	2350	15800	902	191	320	191
16	2300	2910	8500	2200	720	4880	2050	11300	780	457	290	180
17	6630	2970	4850	2000	680	3550	1850	10900	730	291	260	148
18	6270	2910	4000	1870	650	2800	1600	10800	680	362	235	318
19	6150	2520	4450	1750	630	2410	1600	10500	640	318	210	1630
20	6450	2270	3780	1570	610	2950	2080	6400	620	263	195	880
21	6060	2160	3680	1440	590	4860	3030	3780	595	240	180	600
22	4800	2010	3230	1350	570	12100	2800	3110	560	220	170	562
23	3820	1740	2670	1290	545	11900	2580	3130	1230	205	160	449
24	3030	1700	2350	1240	525	13100	2510	3170	1100	190	150	332
25	2460	1550	2750	3550	510	8000	2310	3550	560	180	140	332
26	2100	1480	3150	9000	495	6750	1930	2910	460	165	136	318
27	1820	1400	2300	10000	485	6780	1810	2500	408	148	132	318
28	1580	1250	1900	7600	470	7050	1500	2080	385	226	140	263
29	1330	1120	1660	5700	---	7680	1350	1750	378	291	170	263
30	1130	1080	1450	4500	---	7800	1250	1540	347	191	250	263
31	1010	---	1300	3500	---	6900	---	1330	---	148	362	---
TOTAL	80750	130105	91580	108030	27700	121435	129750	117590	32485	7410	11041	10439
MEAN	2605	4337	2954	3485	989	3917	4325	3793	1083	239	356	348
MAX	6630	16100	8500	12000	2700	13100	14100	15800	2950	457	1770	1630
MIN	1010	867	1100	840	470	400	1250	920	347	148	120	148
CFSM	2.76	4.59	3.13	3.69	1.05	4.15	4.58	4.02	1.15	.25	.38	.37
IN.	3.18	5.13	3.61	4.26	1.09	4.79	5.11	4.63	1.28	.29	.44	.41

CAL YR 1977 TOTAL 693071 MEAN 1899 MAX 16100 MIN 114 CFSM 2.01 IN 27.31
WTR YR 1978 TOTAL 868315 MEAN 2379 MAX 16100 MIN 120 CFSM 2.52 IN 34.22

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01549700 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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT									
05...	1500	9813	9813	1390	70	--	--	--	15
NOV									
22...	1000	9813	9813	2010	60	--	--	--	24
DEC									
12...	1100	9813	9813	1180	80	--	--	--	25
FEB									
02...	1200	9813	9813	2300	60	--	--	--	25
21...	1500	9813	9813	590	70	--	--	--	54
23...	0930	9813	9813	545	80	--	--	--	40
MAR									
01...	1345	9813	9813	460	70	--	--	--	24
MAY									
09...	1215	9813	9813	990	70	--	--	--	24
JUN									
08...	0901	9813	9813	2240	60	--	--	--	38
JUL									
06...	1300	9813	9813	263	80	--	--	--	32
AUG									
14...	1415	9813	9813	360	100	7.5	21.0	10.6	45
SEP									
11...	1100	9813	9813	214	100	7.1	20.0	9.0	40

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT									
05...	0	--	8.0	--	.0	26	8.0	5.0	142
NOV									
22...	--	8.0	--	1.1	--	16	24	6.0	24
DEC									
12...	--	6.4	--	2.4	--	24	10	5.0	80
FEB									
02...	--	6.4	--	2.4	--	14	10	6.0	54
21...	--	8.0	--	9.3	--	22	10	7.0	114
23...	--	8.0	--	5.5	--	26	8.0	6.0	2
MAR									
01...	--	6.4	--	2.2	--	14	10	8.0	12
MAY									
09...	--	8.0	--	1.1	--	18	10	5.0	60
JUN									
08...	--	7.2	--	5.5	--	22	10	5.0	36
JUL									
06...	--	9.6	--	2.2	--	26	10	6.0	34
AUG									
14...	0	--	11	--	4.5	28	15	7.0	84
SEP									
11...	0	--	8.8	--	4.5	28	10	7.0	78

WEST BRANCH SUSQUEHANNA RIVER BASIN

01549700 PINE CREEK BELOW LITTLE PINE CREEK NEAR WATERVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	22	--	.66	.01	.06	.07	120	--
NOV 22...	8	32	.98	.04	.18	.12	90	--
DEC 12...	76	156	.90	.02	.08	.21	2320	--
FEB 02...	0	54	.96	.02	.06	.05	99	--
21...	2	116	--	--	.07	.06	70	--
23...	54	56	.74	.02	.09	.08	100	--
MAR 01...	8	20	.96	.02	.06	.04	80	--
MAY 09...	4	64	.63	.03	.09	.13	90	--
JUN 08...	34	70	.62	.01	.13	.07	110	--
JUL 06...	--	--	.58	.02	.08	.04	70	--
AUG 14...	<5	--	.43	.01	.09	.05	140	5.0
SEP 11...	<5	--	.56	.01	.05	.05	90	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 06...	1300	100	<3	<10	<10	<50	20	<10	10
AUG 14...	1415	120	<3	<10	10	<50	30	<10	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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 September 1978 (discontinued).

REVISED RECORDS.--WDR PA-72: 1964(M), 1967(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,370 ft (418 m).

REMARKS.--Records good except those for winter periods, which are fair. Regulation at low flow from several ponds.

AVERAGE DISCHARGE.--18 years, 10.8 ft³/s (0.306 m³/s), 21.59 in/yr (548 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.--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)
Nov. 8	0245	227 6.43	2.82 0.860	May 14	1215	*308 8.72	2.78 0.847
Jan. 26	1215	ice jam	*3.53 1.076	Sept. 19	0245	196 5.55	2.39 0.728

Minimum discharge, 1.05 ft³/s (0.030 m³/s) Aug. 26, gage height, 0.95 ft (0.290 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.4	31	8.2	13	4.9	83	7.3	8.3	2.7	4.4	12
2	17	7.1	37	7.5	12	4.8	107	6.9	15	2.7	3.3	8.2
3	16	7.0	32	6.9	11	4.7	59	6.0	17	4.1	5.3	6.5
4	14	31	25	6.5	10	4.7	45	5.6	14	4.4	5.3	5.4
5	12	37	21	7.0	9.6	4.6	47	6.9	12	3.1	4.4	4.6
6	12	34	19	6.5	9.1	4.6	57	6.0	11	2.7	6.9	4.1
7	9.6	122	16	6.2	8.7	4.5	65	5.3	12	2.4	8.3	3.6
8	9.5	165	14	12	8.3	4.5	73	5.3	22	2.4	9.9	3.9
9	24	73	13	110	8.0	4.4	50	7.3	25	2.2	8.3	3.2
10	27	60	12	56	7.8	4.4	36	6.0	24	2.2	7.3	3.0
11	23	82	11	33	7.5	4.5	31	5.6	19	2.0	6.0	3.1
12	19	52	10	24	7.2	4.6	32	6.0	15	1.7	5.3	3.1
13	15	34	9.6	19	7.0	4.8	26	10	14	1.7	4.6	2.6
14	13	25	17	16	6.8	16	20	186	10	2.4	3.8	2.2
15	13	20	19	13	6.7	70	16	133	8.8	3.6	3.2	3.7
16	18	17	21	11	6.5	40	13	63	7.8	4.9	3.0	2.6
17	37	17	21	9.5	6.4	22	11	63	7.3	3.8	2.7	2.3
18	41	14	25	8.6	6.2	15	9.9	54	6.9	2.4	2.3	22
19	42	12	26	7.8	6.0	12	13	38	6.0	2.0	2.1	163
20	48	11	26	7.2	5.9	15	21	28	5.6	1.7	1.9	40
21	43	11	24	6.5	5.8	19	26	23	7.3	1.7	1.7	25
22	32	10	21	6.2	5.6	74	26	17	6.0	1.7	1.5	20
23	24	9.7	18	5.9	5.5	99	22	14	4.6	2.7	1.5	15
24	19	10	16	5.7	5.4	105	17	28	4.4	2.7	1.4	13
25	16	9.3	24	20	5.3	66	14	23	4.1	1.7	1.5	11
26	14	9.6	20	20	5.2	56	12	25	4.4	1.7	1.3	9.4
27	12	8.6	17	56	5.1	92	11	21	4.4	3.1	1.4	8.1
28	11	8.2	14	34	5.0	103	9.3	17	3.6	9.3	2.9	7.2
29	9.5	7.6	12	25	---	96	8.8	14	3.3	3.6	1.9	6.3
30	8.7	8.7	10	19	---	86	7.8	11	2.9	3.8	2.0	5.7
31	7.9	---	9.2	16	---	66	---	9.9	---	4.9	2.7	---
TOTAL	625.2	920.2	590.8	660.2	206.6	1114.0	968.8	852.1	305.7	92.0	142.4	359.8
MEAN	20.2	30.7	19.1	21.3	7.38	35.9	32.3	27.5	10.2	2.97	4.59	12.0
MAX	48	165	37	110	13	105	107	186	25	9.3	27	103
MIN	7.9	7.0	9.2	5.7	5.0	4.4	7.8	5.3	2.9	1.7	1.3	2.2
CFSM	2.97	4.52	2.81	3.13	1.09	5.28	4.75	4.04	1.50	.44	.68	1.77
IN.	3.42	5.03	3.23	3.61	1.13	6.09	5.30	4.66	1.67	.50	.78	1.97

CAL YR 1977 TOTAL 5290.0 MEAN 14.5 MAX 165 MIN 1.2 CFSM 2.13 IN 28.94
WTR YR 1978 TOTAL 6837.8 MEAN 18.7 MAX 186 MIN 1.3 CFSM 2.75 IN 37.40

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. Prior to June 1, 1939, non recording gage at site 150 ft (46 m) downstream at same datum.

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

AVERAGE DISCHARGE.--64 years (1914-78), 284 ft³/s (8.043 m³/s), 22.27 in/yr (566 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)
Nov. 8	0700	4,050 115	7.51 2.289	Mar. 23	1915	3,210 90.9	6.76 2.060
Nov. 11	0230	3,640 103	7.17 2.185	Mar. 27	1514	4,320 122	7.80 2.377
Jan. 9	0615	*9,060 257	*11.26 3.432	Apr. 1	2245	3,500 99.1	7.05 2.149
Jan. 26	1500	4,670 132	8.09 2.466	May 14	1845	8,380 237	10.84 3.304

Minimum discharge, 14 ft³/s (0.40 m³/s) Aug. 27, 28, gage height, 2.35 ft (0.716 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	465	216	672	190	465	100	2120	216	230	50	178	288
2	672	205	672	170	410	97	2500	191	430	40	115	148
3	475	198	545	150	360	95	1500	174	973	56	132	106
4	391	391	460	130	320	93	1260	158	660	188	396	93
5	325	460	386	140	296	92	1770	234	490	145	184	75
6	325	386	396	125	270	91	1400	257	391	148	195	59
7	292	1700	325	110	255	90	1800	209	415	115	316	52
8	253	2970	264	300	240	90	1770	184	1120	95	415	68
9	649	1600	230	5120	230	87	1260	312	936	82	257	87
10	616	1370	220	1840	220	90	992	308	660	66	227	61
11	485	2460	202	1000	210	95	924	264	505	77	242	63
12	425	1360	195	800	200	103	1080	249	435	56	205	59
13	355	822	189	620	195	120	888	272	530	44	171	50
14	316	600	210	480	190	460	720	4100	391	56	135	40
15	360	480	1400	400	181	1220	566	3020	316	164	109	50
16	430	400	820	340	188	906	475	1640	264	113	93	48
17	1080	391	560	300	167	690	405	1730	238	76	80	44
18	876	382	670	260	154	566	355	1330	223	52	66	70
19	966	296	860	230	148	556	391	1130	198	35	54	610
20	1610	257	670	200	142	649	638	858	171	29	48	288
21	1210	242	700	180	138	720	810	726	161	25	40	220
22	882	227	600	165	130	1510	632	578	216	28	32	220
23	660	205	510	155	124	2320	545	480	145	34	28	174
24	530	212	440	145	118	2120	485	840	115	31	23	148
25	440	198	1200	1680	114	1400	425	762	98	21	18	132
26	386	205	740	3150	110	1260	378	600	93	21	16	112
27	368	184	470	2150	108	3000	334	510	90	18	14	98
28	325	171	380	1200	103	2600	292	440	90	120	26	90
29	288	154	310	852	---	2230	264	373	77	66	36	77
30	257	158	260	666	---	1830	234	316	66	148	23	72
31	234	---	225	556	---	1560	---	268	---	145	510	---
TOTAL	16946	18900	15781	23840	5786	26840	27213	22729	10727	2344	4384	3702
MEAN	547	630	509	768	207	866	907	733	358	75.6	141	123
MAX	1610	2970	1400	5120	465	3000	2500	4100	1120	188	510	610
MIN	234	154	189	110	103	87	234	158	66	18	14	40
CFSM	3.16	3.64	2.94	4.44	1.20	5.01	5.24	4.24	2.07	.44	.82	.71
IN.	3.64	4.06	3.39	5.12	1.24	5.77	5.85	4.89	2.31	.50	.94	.80

CAL YR 1977 TOTAL 139165 MEAN 381 MAX 3140 MIN 14 CFSM 2.20 IN 29.92
WTR YR 1978 TOTAL 179156 MEAN 491 MAX 5120 MIN 14 CFSM 2.84 IN 38.52

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT									
06...	1510	9813	9813	346	50	--	--	--	10
NOV									
22...	1245	9813	9813	227	60	--	--	--	24
DEC									
07...	1030	9813	9813	329	60	--	--	--	34
FEB									
01...	1030	9813	9813	455	60	--	--	<4	15
22...	1245	9813	9813	181	70	--	--	--	34
23...	1445	9813	9813	184	70	--	--	--	34
MAR									
07...	1215	9813	9813	154	100	--	--	--	14
MAY									
09...	0930	9813	9813	334	60	--	--	--	24
JUN									
06...	1200	9813	9813	391	50	--	--	--	30
JUL									
07...	1230	9813	9813	117	70	--	--	--	78
AUG									
21...	1445	9813	9813	40	80	19.5	9.8	--	32

DATE	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
06...	--	0	--	7.2	--	.0	18	8.0	4.0
NOV									
22...	--	--	7.2	--	1.6	--	18	24	6.0
DEC									
07...	--	--	8.0	--	3.8	--	14	8.0	6.0
FEB									
01...	--	--	8.0	--	.0	--	12	14	6.0
22...	--	--	6.4	--	4.9	--	16	14	6.0
23...	--	--	8.0	--	3.8	--	22	10	6.0
MAR									
07...	--	--	7.2	--	.0	--	18	14	16
MAY									
09...	--	--	6.4	--	2.2	--	10	10	5.0
JUN									
06...	--	--	6.4	--	3.8	--	12	15	6.0
JUL									
07...	--	--	6.4	--	17	--	20	10	6.0
AUG									
21...	0	0	--	8.0	--	3.0	18	10	5.0

WEST BRANCH SUSQUEHANNA RIVER BASIN
01550000 LYCOMING CREEK NEAR TROUT RUN, PA--Continued
WATER-QUALITY DATA, OCTOBER 1977 TO AUGUST 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT								
06...	38	--	--	1.0	.01	.06	.05	40
NOV								
22...	14	8	22	1.2	.04	.20	.04	50
DEC								
07...	52	4	56	1.3	.02	.03	.09	60
FEB								
01...	32	16	48	1.2	.03	.05	.04	49
22...	104	0	104	1.3	.02	.06	.04	60
23...	114	2	116	1.1	.02	.07	.11	40
MAR								
07...	98	10	108	1.3	.03	.04	.03	170
MAY								
09...	80	4	84	1.0	.02	.09	.11	60
JUN								
06...	40	10	50	1.2	.01	.15	.08	20
JUL								
07...	58	4	62	1.0	.01	.05	.05	50
AUG								
21...	--	--	--	--	--	.10	.06	30

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUN									
06...	1200	--	--	<10	<10	--	20	<10	10
JUL									
07...	1230	120	<3	<10	10	<50	20	<10	<10
AUG									
21...	1445	580	<3	<10	<10	<50	<10	50	--

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01550700 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA

LOCATION.--Lat 41°13'44", long 77°01'09", Lycoming County, Hydrologic Unit 02050206, at Maynard Street Bridge in Williamsport, 0.85 mi (1.4 km) downstream from Lycoming 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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMRER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT									
13...	1540	9813	9813	140	--	--	--	--	58
NOV									
16...	1430	9813	9813	140	--	--	--	--	70
DEC									
12...	1400	9813	9813	180	--	--	--	--	72
FEB									
01...	1345	9813	9813	130	--	--	--	6	60
MAR									
20...	0945	9813	9813	160	--	--	--	--	56
APR									
19...	--	9813	9813	160	--	--	--	--	60
21...	--	9813	9813	150	--	--	--	--	55
JUN									
01...	1500	9813	9813	180	--	--	--	--	60
JUL									
12...	1300	9813	9813	320	--	--	--	--	116
AUG									
02...	1330	9813	9813	350	26.0	7.5	8.4	--	117
22...	1100	9813	9813	320	24.5	--	8.1	--	99

DATE	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
13...	--	0	--	14	--	6.0	12	46	6.0
NOV									
16...	--	--	12	--	11	--	20	38	6.0
DEC									
12...	--	--	15	--	9.3	--	18	56	10
FEB									
01...	--	--	12	--	7.7	--	14	42	7.0
MAR									
20...	--	--	13	--	6.0	--	18	40	11
APR									
19...	--	--	14	--	6.6	--	12	58	6.0
21...	--	--	12	--	6.9	--	16	45	8.0
JUN									
01...	--	--	17	--	4.4	--	14	55	6.0
JUL									
12...	--	--	29	--	11	--	28	60	8.0
AUG									
02...	--	0	--	31	--	10	30	95	12
22...	0	0	--	27	--	8.0	30	75	12

WEST BRANCH SUSQUEHANNA RIVER BASIN

01550700 WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO AUGUST 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT								
13...	124	20	--	.76	.02	.10	.07	260
NOV								
16...	2	2	0	1.0	.03	.12	.05	470
DEC								
12...	104	4	108	1.5	.04	.24	.09	340
FEB								
01...	82	20	102	1.5	<.00	.11	.03	619
MAR								
20...	124	20	144	1.1	.01	.20	.09	1800
APR								
19...	50	14	64	1.0	.02	.14	.05	140
21...	94	24	118	.98	.02	.18	.07	610
JUN								
01...	206	22	228	.85	.02	.10	.16	200
JUL								
12...	226	18	244	1.0	.02	.11	.05	100
AUG								
02...	298	--	--	1.0	.14	.24	.06	100
22...	238	12	--	1.0	.02	.18	.06	70

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL									
12...	1300	200	<3	<10	10	<50	970	40	30
AUG									
02...	1330	180	<3	<10	<10	<50	1110	30	20
22...	1100	200	<3	<10	10	<50	770	30	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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).

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) National Geodetic Vertical Datum of 1929. 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. 196) and by Little Pine Creek Reservoir (capacity, 24,900 acre-ft or 30.7 hm³) about 40 mi (60 km) upstream.

AVERAGE DISCHARGE.--83 years, 8,921 ft³/s (252.6 m³/s), 21.32 in/yr (542 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, 72,600 ft³/s (2,060 m³/s) May 15, gage height, 15.23 ft (4.642 m); minimum, 1,370 ft³/s (38.8 m³/s) Aug. 27, 28, gage height, 0.25 ft (0.076 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9590	6390	11700	10900	15800	3370	38500	7440	10000	3900	2430	4760
2	11600	6030	22200	9770	13100	3330	48700	6870	8840	3170	2630	4820
3	12600	5660	27700	8520	11400	3250	49500	6390	9350	2820	2450	3450
4	11600	6360	24900	7530	9530	3180	37700	5930	9530	2920	2700	2750
5	9560	13100	20800	6420	7990	3150	35800	5880	8460	3070	3560	2390
6	8460	15300	18100	7130	6790	3120	42300	6390	7440	3070	2750	2190
7	7580	22400	15300	7350	6500	3100	42500	6850	6650	3020	2880	1960
8	6710	53400	13000	7350	6300	3100	40000	6310	8720	2730	6790	1920
9	7210	50800	11400	27100	6600	3070	36000	6540	13600	2500	8550	1900
10	11600	38900	8290	40200	6200	3200	28600	7470	15200	2350	6290	1810
11	13500	40100	7600	36200	5800	3500	23600	8810	12100	2220	4880	1740
12	12600	35000	6930	25600	6000	3840	21600	8900	9260	2150	4490	1740
13	10800	29200	6790	20400	5700	4350	19700	8900	8660	2150	3830	1740
14	9320	23300	8960	18100	5300	6420	17100	31800	7930	2030	3660	1690
15	9080	19200	25100	14900	4900	20100	14300	70800	6740	2110	3280	1780
16	10400	16700	38800	12900	4600	35600	12400	66500	6030	2660	2940	1840
17	23700	15400	33300	10700	4700	29900	10900	63400	5440	3420	2740	1810
18	30600	17100	28900	9200	4500	24000	9770	63900	5030	2710	2440	1920
19	28200	17000	29500	8430	4200	19800	9380	54800	4960	2680	2260	4610
20	29200	16500	28200	7670	3900	21000	10400	42300	5200	2490	2050	8730
21	28600	15600	26200	7180	3650	23700	13200	32400	5420	2150	1900	7230
22	24200	14400	23100	7500	3500	51300	14200	26600	5560	2090	1790	5450
23	20000	13100	19600	6930	3600	69100	14300	20800	4910	2000	1670	4590
24	16300	12300	16400	6310	3800	71000	13400	20000	4350	1860	1590	3880
25	13600	11900	15900	5860	4050	61400	12600	26700	3900	1870	1510	3330
26	11700	11400	18800	20800	3900	49200	11500	29600	3600	1950	1470	2890
27	10600	10700	18300	45000	3650	47800	10400	24600	3440	1950	1400	2670
28	9590	9920	16600	35800	3450	47000	9500	19500	3420	1860	1400	2500
29	8580	9050	14600	28600	---	43900	8750	15500	3250	1890	1500	2290
30	7640	8580	13200	23500	---	44200	8050	13100	3250	1860	1500	2140
31	6930	---	12200	19300	---	41600	---	11400	---	1920	2260	---
TOTAL	431650	564790	582370	503150	169410	750580	664650	726380	210240	75570	91590	92520
MEAN	13920	18830	18790	16230	6050	24210	22160	23430	7008	2438	2955	3084
MAX	30600	53400	38800	45000	15800	71000	49500	70800	15200	3900	8550	8730
MIN	6710	5660	6790	5860	3450	3070	8050	5880	3250	1860	1400	1690
CFSM	2.45	3.31	3.31	2.86	1.07	4.26	3.90	4.12	1.23	.43	.52	.54
IN.	2.83	3.70	3.81	3.29	1.11	4.91	4.35	4.76	1.38	.49	.60	.61
CAL YR 1977	TOTAL	4163360	MEAN	11410	MAX	65700	MIN	1380	CFSM	2.01	IN	27.26
WTR YR 1978	TOTAL	4862900	MEAN	13320	MAX	71000	MIN	1400	CFSM	2.34	IN	31.84

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) Pennsylvania Department of Transportation datum. 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.--52 years, 760 ft³/s (21.52 m³/s), 23.36 in/yr (593 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)
Jan. 9	0930	*39,000 1,100	*11.38 3.469	Mar. 27	1700	15,500 439	8.80 2.682
Jan. 26	1245	ice jam	10.97 3.344	Apr. 2	0245	7,800 221	7.25 2.210
Mar. 23	2245	8,850 251	7.50 2.286	May 14	1945	17,700 501	9.16 2.792

Minimum discharge, 75 ft³/s (2.12 m³/s) July 26, gage height, 3.43 ft (1.045 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	519	1820	600	1050	300	4550	502	600	233	244	918
2	2240	488	2420	540	940	295	6320	469	900	221	201	439
3	1470	478	1750	500	840	290	3700	441	1300	227	172	300
4	1110	577	1430	470	750	285	2830	412	1050	398	579	251
5	880	607	1220	620	690	280	3850	509	900	354	414	213
6	823	556	1190	500	640	275	3240	728	760	286	463	182
7	845	1500	1020	450	600	270	3760	614	660	238	755	164
8	695	3040	853	694	570	265	3730	562	3000	206	1190	164
9	1530	2380	760	19500	550	260	2700	910	2750	187	629	209
10	2120	2020	700	6290	520	255	2100	1030	2300	177	446	223
11	1400	4320	650	3500	500	260	1840	861	2000	256	421	195
12	1130	2830	610	2400	480	270	2000	760	1800	238	406	195
13	938	2000	590	1900	470	280	1630	746	1700	187	346	180
14	789	1560	660	1500	455	669	1330	7550	1460	163	354	159
15	1960	1300	3240	1200	440	4610	1090	8080	986	153	286	152
16	2110	1130	2190	1000	425	3110	933	4150	787	132	244	154
17	4500	1070	1730	880	410	2040	838	5580	679	182	216	148
18	3450	1150	1880	780	400	1490	759	4010	629	221	192	157
19	3140	942	2320	670	390	1300	746	3400	589	168	164	1670
20	4400	814	1830	610	380	1500	1130	2380	533	134	151	1070
21	3730	737	1940	550	365	2220	1800	1920	524	123	126	687
22	2510	700	1750	510	355	6850	1430	1510	777	112	116	683
23	1850	643	1400	480	346	6400	1160	1200	561	109	110	543
24	1440	626	1200	460	338	6320	1010	1730	438	112	106	468
25	1190	595	2670	1600	330	3920	884	1930	384	95	104	416
26	1030	617	1400	11800	323	3060	790	1380	354	86	106	368
27	952	585	1100	8160	315	9930	715	1120	339	86	96	328
28	829	532	950	5300	305	8240	647	953	326	112	98	303
29	719	495	850	3400	---	6430	589	832	292	127	109	275
30	633	495	740	2100	---	5210	548	740	267	143	105	255
31	567	---	660	1300	---	4070	---	670	---	206	666	---
TOTAL	52000	35306	43523	80264	14177	80954	58649	57679	29645	5672	9615	11469
MEAN	1677	1177	1404	2589	506	2611	1955	1861	988	183	310	382
MAX	4500	4320	3240	19500	1050	9930	6320	8080	3000	398	1190	1670
MIN	567	478	390	450	305	255	548	412	267	86	96	148
CFSM	3.79	2.66	3.17	5.84	1.14	5.89	4.41	4.20	2.23	.41	.70	.86
IN.	4.37	2.96	3.65	6.74	1.19	6.80	4.92	4.84	2.49	.48	.81	.96
CAL YR 1977	TOTAL	340913	MEAN	934	MAX	10700	MIN	63	CFSM	2.11	IN	28.63
WTR YR 1978	TOTAL	478953	MEAN	1312	MAX	19500	MIN	86	CFSM	2.96	IN	40.22

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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT									
06...	1415	9813	9813	852	45	--	--	--	10
NOV									
21...	1100	9813	9813	736	60	--	--	--	14
FEB									
02...	1415	9813	9813	940	50	--	--	--	15
22...	0915	9813	9813	355	60	--	--	--	34
MAR									
20...	1300	9813	9813	1490	60	--	--	--	24
MAY									
04...	1215	9813	9813	414	50	--	--	--	24
JUN									
01...	1345	9813	9813	600	50	--	--	--	10
AUG									
02...	1130	9813	9813	201	60	7.9	22.5	8.9	32
21...	1315	9813	9813	119	--	--	22.5	9.4	28

DATE	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
06...	--	0	--	5.6	.0	--	20	8.0	4.0
NOV									
21...	--	--	6.4	--	--	.0	14	10	5.0
FEB									
02...	--	--	5.6	--	--	.2	12	10	5.0
22...	--	--	7.2	--	--	4.4	18	10	6.0
MAR									
20...	--	--	6.4	--	--	2.2	18	6.0	7.0
MAY									
04...	--	--	8.8	--	--	.5	16	4.0	5.0
JUN									
01...	--	--	4.8	--	--	.0	16	10	4.0
AUG									
02...	--	0	--	9.6	2.0	--	20	15	6.0
21...	0	0	--	5.6	3.5	--	22	10	5.0

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT								
06...	<10	<10	--	.76	.02	.05	.05	20
NOV								
21...	56	0	56	.86	.02	.10	.09	10
FEB								
02...	28	12	40	1.1	.02	.06	.05	49
22...	110	4	114	1.2	.03	.06	.03	30
MAR								
20...	40	6	46	1.1	.02	.14	.06	50
MAY								
04...	20	12	32	.72	.02	.11	.04	30
JUN								
01...	48	18	66	.63	.02	.05	.08	70
AUG								
02...	112	--	--	.76	.12	.12	.04	30
21...	52	<5	--	.53	.01	.07	.17	10

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG									
02...	1130	100	<3	<10	10	<50	<10	10	<10
21...	1315	340	<3	<10	<10	<50	<10	20	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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.--38 years, 48.3 ft³/s (1.368 m³/s), 27.57 in/yr (700 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)
Jan. 9	0130	*2,650 75.0	*6.29 1.917	Mar. 27	1015	1,190 33.7	4.57 1.393
Jan. 26	1030	1,230 34.8	4.83 1.472	May 14	1300	1,700 48.1	5.18 1.579

Minimum discharge, 6.6 ft³/s (0.187 m³/s), July 25, 26, 27, 28, 29, gage height, 1.30 ft (0.396 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	34	197	33	82	14	262	25	30	11	10	22
2	174	33	135	30	73	14	276	23	27	10	8.1	12
3	117	37	104	28	66	14	170	21	38	14	36	9.9
4	93	49	85	26	60	13	172	19	31	20	47	9.3
5	77	43	74	29	55	13	219	47	24	13	15	8.6
6	82	40	71	28	50	12	182	36	20	11	106	8.0
7	72	125	57	27	47	12	219	30	22	9.6	66	7.8
8	53	176	49	115	44	12	195	30	148	9.0	51	15
9	176	123	45	1060	41	11	145	97	143	8.8	33	22
10	150	155	41	230	38	11	114	86	74	14	26	11
11	111	242	37	160	36	11	116	68	55	15	22	11
12	93	144	35	115	34	11	127	59	45	9.3	19	9.9
13	71	107	40	92	32	12	98	68	178	8.6	17	9.0
14	65	86	146	74	30	146	76	916	91	8.0	14	8.3
15	230	72	186	64	28	192	61	396	68	8.0	12	8.8
16	186	62	133	56	27	124	52	290	55	13	11	8.6
17	272	67	102	51	25	89	45	308	48	14	11	8.6
18	197	68	150	45	24	81	39	231	42	8.8	9.6	11
19	186	55	127	39	22	66	48	170	36	7.8	9.0	162
20	287	49	100	36	21	65	75	122	30	7.6	8.8	57
21	202	47	139	33	20	165	98	102	35	7.4	8.3	45
22	142	45	100	30	19	290	75	76	37	7.2	8.0	51
23	109	42	77	28	19	304	65	64	25	7.2	7.6	36
24	90	40	67	46	18	249	59	104	20	7.2	7.6	30
25	77	39	257	86	17	170	51	80	17	6.6	8.8	26
26	67	47	164	706	17	219	45	62	16	6.6	8.3	22
27	61	39	110	279	16	666	39	55	16	6.6	7.4	19
28	52	36	72	197	15	392	35	48	15	7.4	7.8	18
29	46	33	56	150	---	304	31	45	13	6.6	8.3	16
30	42	40	46	115	---	231	28	46	13	15	7.4	15
31	36	---	39	94	---	190	---	36	---	11	56	---
TOTAL	3749	2175	3041	4102	976	4103	3217	3760	1412	309.3	667.0	697.8
MEAN	121	72.5	98.1	132	34.9	132	107	121	47.1	9.98	21.5	23.3
MAX	287	242	257	1060	82	666	276	916	178	20	106	162
MIN	36	33	35	26	15	11	28	19	13	6.6	7.4	7.8
CFSM	5.08	3.05	4.12	5.55	1.47	5.55	4.50	5.08	1.98	.42	.90	.98
IN.	5.86	3.40	4.75	6.41	1.53	6.41	5.03	5.88	2.21	.48	1.04	1.09
CAL YR 1977	TOTAL	22632.5	MEAN	62.0	MAX	500	MIN	4.4	CFSM	2.61	IN	35.37
WTR YR 1978	TOTAL	28209.1	MEAN	77.3	MAX	1060	MIN	6.6	CFSM	3.25	IN	44.09

WEST BRANCH SUSQUEHANNA RIVER BASIN

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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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT									
06...	1300	9813	9813	60	--	--	--	--	25
NOV									
21...	1215	9813	9813	70	--	--	--	--	24
DEC									
08...	1100	9813	9813	70	--	--	--	--	40
FEB									
02...	1330	9813	9813	60	--	--	--	8	25
22...	0820	9813	9813	80	--	--	--	--	32
MAR									
02...	1230	9813	9813	80	--	--	--	--	24
APR									
21...	--	9813	9813	70	--	--	--	--	30
MAY									
04...	1050	9813	9813	70	--	--	--	--	28
JUN									
01...	1100	9813	9813	--	--	--	--	--	28
AUG									
02...	1015	9813	9813	90	22.0	7.9	9.4	--	42
21...	1030	9813	9813	<7	18.0	--	9.7	--	40

DATE	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT									
06...	--	0	--	11	--	.0	26	8.0	5.0
NOV									
21...	--	--	8.0	--	1.1	--	20	10	5.0
DEC									
08...	--	--	8.0	--	5.5	--	18	10	6.0
FEB									
02...	--	--	9.6	--	.2	--	14	10	6.0
22...	--	--	8.0	--	3.3	--	24	14	7.0
MAR									
02...	--	--	8.8	--	.5	--	20	8.0	7.0
APR									
21...	--	--	7.2	--	3.3	--	18	12	7.0
MAY									
04...	--	--	8.0	--	2.2	--	20	4.0	7.0
JUN									
01...	--	--	8.8	--	1.6	--	22	10	6.0
AUG									
02...	--	0	--	14	--	1.5	30	10	8.0
21...	0	0	--	12	--	2.5	28	10	25

WEST BRANCH SUSQUEHANNA RIVER BASIN
01552800 MUNCY CREEK AT HUGHESVILLE, PA--Continued
WATER-QUALITY DATA, OCTOBER 1977 TO AUGUST 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 06...	4	<10	--	1.0	.01	.07	.06	30
NOV 21...	66	0	66	.90	.01	.10	.09	30
DEC 08...	42	6	48	.98	.03	.04	.05	60
FEB 02...	38	4	42	1.2	.02	.06	.12	39
22...	112	4	116	1.3	.02	.07	.05	50
MAR 02...	60	4	64	1.2	.03	.05	.04	60
APR 21...	20	16	36	1.1	.03	.14	.07	50
MAY 04...	42	14	56	.99	.03	.09	.01	50
JUN 01...	82	2	84	.84	.02	.06	.07	50
AUG 02...	126	--	--	.96	.02	.20	.08	50
21...	86	6	--	.60	.01	.07	.07	<10

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG									
02...	1015	<20	<3	<10	20	<50	<10	<10	<10
21...	1030	<20	<3	<10	<10	<50	<10	<10	<10

WEST BRANCH SUSQUEHANNA RIVER BASIN

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01553130 SAND SPRING RUN NEAR WHITE DEER, PA

LOCATION.--Lat 41°03'31", long 77°04'37", Union County, Hydrologic Unit 02050206, on right bank 12 ft (3.7 m) downstream from bridge on White Deer Creek Road, 500 ft (150 m) upstream from mouth, and 11.3 mi (18.2 km) west of White Deer.

DRAINAGE AREA.--4.93 mi² (12.77 km²).

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

REVISED RECORDS.--WDR PA-72: 1970(M), 1971(P).

GAGE.--Water-stage recorder. Datum of gage is 1,037.16 ft (316.126 m) National Geodetic Vertical Datum of 1929. Prior to May 15, 1968 nonrecording gage at bridge 20 ft (6 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years, 9.11 ft³/s (0.258 m³/s), 25.12 in/yr (638 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft³/s (28.3 m³/s) June 22, 1972, gage height, 5.68 ft (1.731 m), from rating curve extended above 200 ft³/s (5.7 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.84 ft³/s (0.024 m³/s) Sept. 25, 1970; minimum gage height, 2.57 ft (0.783 m) Sept. 9, 10, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 55 ft³/s (1.56 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. 7	0700	158 4.47	3.98 1.213	May 14	1000	*246 6.96	*4.19 1.277
Nov. 10	1700	92 2.61	3.75 1.143	May 17	0030	115 3.26	3.84 1.170
Jan. 9	0200	148 4.19	3.95 1.204	May 24	0800	68 1.93	3.64 1.109
Jan. 26	0800	97 2.75	3.77 1.149	Aug. 6	1830	57 1.61	3.58 1.091
Apr. 1	2200	76 2.15	3.68 1.122				

Minimum discharge, 1.6 ft³/s (0.045 m³/s) Sept. 5, 6, 7, 8, gage height, 2.71 ft (0.826 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	8.8	22	12	14	4.4	55	8.4	13	2.9	3.2	2.2
2	5.0	8.8	16	11	13	4.4	66	8.1	12	2.9	2.5	1.9
3	4.2	8.8	16	11	12	4.2	49	7.8	12	3.6	3.3	1.8
4	3.8	20	15	10	11	4.2	43	7.5	11	4.4	4.0	1.8
5	3.6	13	14	9.2	10	4.2	40	9.2	9.6	3.3	2.7	1.7
6	4.0	14	13	9.2	10	4.0	40	8.4	8.4	2.9	9.0	1.6
7	3.8	114	12	8.8	9.6	4.0	39	7.2	8.1	2.6	7.2	1.6
8	3.6	104	11	29	8.8	4.0	36	7.2	8.1	4.1	6.0	1.8
9	7.9	66	11	88	8.4	4.0	31	8.8	7.5	3.4	4.6	1.8
10	5.8	66	10	39	8.1	4.2	27	7.8	6.6	3.0	4.2	1.7
11	5.0	66	9.6	27	7.8	4.4	24	7.2	6.0	2.7	4.2	1.7
12	5.2	49	9.2	22	7.2	4.6	21	6.9	5.8	2.6	3.8	2.6
13	5.0	39	8.8	20	7.2	5.8	19	25	6.6	2.5	3.3	2.1
14	5.2	31	13	18	6.9	15	16	153	5.5	2.5	3.2	1.7
15	8.1	26	14	16	6.6	16	14	99	5.0	2.5	2.9	2.9
16	11	24	12	14	6.3	14	13	82	4.8	3.9	2.7	2.1
17	23	20	11	13	6.0	12	12	92	4.6	4.2	2.6	2.0
18	16	18	20	12	6.0	11	11	70	4.6	2.7	2.5	2.5
19	21	16	19	11	5.8	13	14	55	4.4	2.3	2.5	5.7
20	27	14	19	10	6.0	14	16	43	4.2	2.3	2.5	2.6
21	24	13	20	9.6	6.3	23	13	34	6.2	2.6	2.3	2.7
22	20	12	18	8.8	5.5	41	13	28	5.5	3.0	2.2	3.0
23	18	12	16	8.4	5.2	47	12	24	4.2	2.5	2.2	2.3
24	15	10	14	8.1	5.0	52	12	46	3.8	2.6	2.2	2.2
25	13	10	19	12	4.8	41	11	36	3.4	2.3	2.1	2.1
26	12	10	16	62	4.8	39	10	30	3.6	2.2	2.0	2.0
27	12	9.2	16	34	4.6	54	10	25	3.4	2.2	2.0	2.0
28	11	8.4	16	24	4.6	57	9.6	22	3.3	2.1	2.1	2.0
29	10	8.1	14	20	---	57	9.2	19	3.0	2.2	2.0	1.9
30	9.2	9.2	14	18	---	57	8.8	16	3.0	2.2	1.9	1.9
31	8.8	---	13	16	---	49	---	14	---	4.1	2.9	---
TOTAL	326.4	828.3	451.6	611.1	211.5	668.4	694.6	1007.5	187.2	89.3	100.8	65.9
MEAN	10.5	27.6	14.6	19.7	7.55	21.6	23.2	32.5	6.24	2.88	3.25	2.20
MAX	27	114	22	88	14	57	66	153	13	4.4	9.0	5.7
MIN	3.6	8.1	8.8	8.1	4.6	4.0	8.8	6.9	3.0	2.1	1.9	1.6
CFSM	2.13	5.60	2.96	4.00	1.53	4.38	4.71	6.59	1.27	.58	.66	.45
IN.	2.46	6.25	3.41	4.61	1.60	5.04	5.24	7.60	1.41	.67	.76	.50

CAL YR 1977	TOTAL	3640.3	MEAN	9.97	MAX	114	MIN	1.3	CFSM	2.02	IN	27.46
WTR YR 1978	TOTAL	5242.6	MEAN	14.4	MAX	153	MIN	1.6	CFSM	2.92	IN	39.55

WEST BRANCH SUSQUEHANNA RIVER BASIN

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) National Geodetic Vertical Datum of 1929. 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 are fair. Flow regulated by Glendale, Curwensville, Kettle Creek, Foster Joseph Sayers Lakes, First Fork Sinnemahoning Creek Reservoir (see p.196) and Little Pine Creek Reservoir (capacity 24,900 acre-ft or 30.7 hm³) about 75 mi (120 km) upstream.

AVERAGE DISCHARGE.--39 years (1939-to current year), 10,800 ft³/s (305.9 m³/s), 21.42 in/yr (544 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 Watsonstown, (backwater from Susquehanna River).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 82,000 ft³/s (2,320 m³/s) Mar. 24, gage height, 15.70 ft (4.785 m), (backwater from Susquehanna River); minimum, 1,660 ft³/s (47.0 m³/s) Aug. 28, gage height, 1.47 ft (0.448 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13100	8740	15600	14900	21300	4400	46200	9640	13200	4960	2870	3680
2	15100	8060	26700	13500	18100	4300	54500	8920	11700	3950	3190	5540
3	16500	7630	31900	11800	15500	4200	57400	8330	12000	3660	2950	4800
4	15600	7730	30900	9480	13500	4200	45600	7680	13100	3930	3740	3480
5	13400	11700	26800	9380	11400	4100	42300	7590	11600	4030	5120	2830
6	11500	17200	24200	8910	9340	4100	47700	8070	10200	4010	4420	2500
7	10500	24300	20000	9610	8420	4100	49100	8840	8940	3900	6440	2270
8	9120	58700	17100	10000	8200	4100	46900	8350	10600	3540	8690	2000
9	9110	61500	15000	37000	8100	4100	43000	8610	18100	3900	10400	2590
10	13800	47800	11500	55000	7800	4200	37000	9640	19700	3070	8340	2590
11	16900	50900	10300	47000	7600	4650	30400	11100	16900	2990	7110	2590
12	16500	43600	9100	36000	7400	4880	27400	11400	13100	2830	6510	2580
13	12900	36600	8560	29000	6900	5330	25300	11200	12400	3080	5830	2610
14	12200	31300	10700	24100	6600	7330	22400	30600	11300	2990	5170	2600
15	12500	25000	23200	20800	6400	23400	19200	85900	9260	3030	4910	2590
16	14700	22200	43200	17800	6100	43700	16300	80400	8050	3040	4350	2590
17	29200	20400	35100	15300	5800	38300	14500	76600	7210	4160	3910	2600
18	33700	20800	34100	13000	5500	31900	12900	75000	6610	4430	3430	2300
19	30200	21700	37200	11800	5200	26500	12200	67400	6310	3200	2990	6150
20	30700	20800	35400	10000	4900	28400	13000	53000	6370	2990	2650	9260
21	31300	19800	35300	9300	4700	32500	16500	41600	6510	2370	2470	10800
22	29000	18700	32000	8700	4600	53900	18100	33800	7550	2600	2370	8100
23	27000	17000	27100	8300	4500	77300	18200	26900	6630	2610	2140	6480
24	22400	15900	23200	8000	4700	80500	17400	26200	5810	2610	2580	5380
25	18800	15300	21800	7700	4900	72100	16200	31100	5150	2630	2560	4610
26	16100	15000	25300	24900	4900	59600	14900	35000	4740	2640	2530	3850
27	14800	14300	24800	58900	4800	63100	13500	30400	4450	2640	2510	3390
28	13100	13000	20900	40800	4600	64400	12300	25000	4480	2590	2480	3080
29	11700	11500	19600	36400	---	52500	11300	20500	4250	2590	2490	2770
30	10500	10900	17600	30500	---	51200	10400	17400	4040	2590	2490	2530
31	9540	---	16300	25200	---	49100	---	15100	---	2580	2540	---
TOTAL	541470	698060	730460	663080	221760	912390	812100	891270	280260	100140	130180	119140
MEAN	17470	23270	23560	21390	7920	29430	27070	28750	9342	3230	4199	3971
MAX	33700	61500	43200	58900	21300	80500	57400	85900	19700	4960	10400	10800
MIN	9110	7630	8560	7700	4500	4100	10400	7590	4040	2370	2140	2000
CFSM	2.65	3.40	3.44	3.12	1.16	4.30	3.95	4.20	1.36	.47	.61	.58
IN.	2.94	3.79	3.97	3.60	1.20	4.96	4.41	4.84	1.52	.54	.71	.65

CAL YR 1977 TOTAL 5216350 MEAN 14290 MAX 79800 MIN 2300 CFSM 2.09 IN 28.34
WTR YR 1978 TOTAL 6100310 MEAN 16710 MAX 85900 MIN 2000 CFSM 2.44 IN 33.14

WEST BRANCH SUSQUEHANNA RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT											
27...	0930	15000	160	6.8	10.5	--	250	1940	52	35	13
NOV											
22...	1330	18800	165	7.1	6.5	--	90	175	58	43	15
DEC											
07...	1100	20000	135	6.9	1.0	13.2	520	320	46	32	12
MAR											
23...	1030	77600	130	6.7	5.5	12.6	70	640	38	31	9.7
APR											
20...	1100	12500	160	6.8	9.5	11.0	29	150	58	42	15
MAY											
16...	1100	81200	100	6.5	11.0	10.2	170	600	40	23	10
JUN											
13...	1115	11600	180	7.2	20.0	8.6	110	600	66	53	17
JUL											
12...	1300	2590	300	7.9	24.0	10.2	K10	K11	130	83	32
AUG											
22...	1030	2370	270	8.1	22.5	10.0	30	60	120	79	33
SEP											
20...	1130	8880	225	7.1	19.5	--	K2200	K3940	81	57	21

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LINITY (MG/L AS CAC03)	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
27...	4.7	2.9	.2	11	1.3	21	0	17	5.3	37	4.4
NOV											
22...	5.0	3.6	.2	12	1.4	18	0	15	2.3	43	3.5
DEC											
07...	3.9	3.0	.2	12	1.2	17	0	14	3.4	36	5.6
MAR											
23...	3.3	2.8	.2	13	1.2	8	0	7	2.6	30	3.5
APR											
20...	5.0	3.2	.2	10	1.2	20	0	16	5.1	45	4.0
MAY											
16...	3.6	2.2	.2	10	1.3	21	0	17	11	31	2.5
JUN											
13...	5.6	4.1	.2	12	1.5	--	--	13	--	49	5.0
JUL											
12...	11	5.0	.2	8	3.0	--	--	42	--	70	8.4
AUG											
22...	10	6.0	.2	9	1.7	--	--	45	--	66	8.9
SEP											
20...	6.9	5.4	.3	12	2.2	--	--	24	--	57	7.6

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)
OCT 27...	.0	5.4	96	79	.49	.05	--	--	--	.37	--
NOV 22...	.1	5.9	82	86	.53	.05	--	--	--	.20	--
DEC 07...	.0	5.2	81	76	.57	.04	--	--	--	.08	--
MAR 23...	.1	4.3	59	59	.57	.05	.70	.75	.61	.14	1.3
APR 20...	.1	4.6	96	88	.63	.07	.25	.32	.11	.21	.95
MAY 16...	.0	4.5	68	65	.38	.02	.66	.68	.57	.11	1.1
JUN 13...	.1	4.2	116	95	.59	.06	.21	.27	.05	.22	.86
JUL 12...	.1	3.9	209	159	.19	.02	.57	.59	.24	.35	.78
AUG 22...	.1	2.1	170	155	.96	.04	.41	.45	.05	.40	1.4
SEP 20...	.1	3.5	138	118	.78	.08	.57	.65	.44	.21	1.4

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 27...	.02	.00	11	--	--	--	--	8	324	100
NOV 22...	.02	.01	11	--	--	--	--	24	1220	96
DEC 07...	.02	.00	--	7.5	.4	--	--	12	648	90
MAR 23...	.13	.01	--	2.1	.9	--	--	264	55300	64
APR 20...	.03	.01	9.5	--	--	.000	.000	15	506	69
MAY 16...	.09	.00	10	--	--	--	--	131	28700	65
JUN 13...	.02	.00	--	2.1	.5	--	--	57	1790	96
JUL 12...	.03	.01	5.3	--	--	--	--	9	63	76
AUG 22...	.04	.07	1.8	--	--	--	--	8	51	100
SEP 20...	.09	.01	4.2	--	--	--	--	71	1700	94

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 16...	1400	480	<3	<10	<10	<50	190	10	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 07...	<.5	0	0	0	0	0	0	30	0	30
MAR 23...	<.5	0	0	0	0	0	0	60	40	20
JUN 13...	<.5	0	0	0	0	0	0	20	10	10

WEST BRANCH SUSQUEHANNA RIVER BASIN

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ATRA- ZINE, TOTAL (UG/L)	ATRA- ZINE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	P,P' DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 22...	1330	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3
MAR 23...	1030	--	--	ND	--	--	ND	ND	--	ND	--
MAY 16...	1100	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 22...	1030	ND	--	ND	--	--	--	ND	--	ND	--

DATE	DDE, TOTAL (UG/L)	P,P' DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	P,P' DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 22...	ND	1.3	ND	.6	ND	ND	ND	5.0	ND	ND
MAR 23...	ND	--	ND	--	--	ND	ND	--	ND	--
MAY 16...	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 22...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 23...	--	ND	ND	--	ND	--	ND	--	--	ND
MAY 16...	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 22...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L)	SIMA- ZINE IN BOTTOM MATERI- AL (UG/ KG DRY SOLIDS)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 23...	ND	--	--	ND	--	ND	--	ND	--	ND
MAY 16...	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 22...	ND	--	ND	--	ND	--	ND	--	--	--

DATE	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 23...	--	ND	ND	--	--	ND	--	ND	--	ND
MAY 16...	ND	--	ND	--	--	--	--	--	--	--
AUG 22...	ND	--	ND	--	--	--	--	--	--	--

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JUNE 1978

DATE TIME	NOV 22,77 1330	MAR 23,78 1030	MAY 16,78 1100	JUN 13,78 1115	JUN 22,78 0000					
TOTAL CELLS/ML	1000	720	6300	380	7800					
DIVERSITY: DIVISION	0.8	0.1	0.7	0.0	1.0					
..CLASS	0.8	0.1	0.7	0.0	1.0					
..ORDER	1.0	0.1	0.8	0.0	1.8					
...FAMILY	1.3	2.7	1.1	1.8	2.1					
....GENUS	1.4	2.7	1.1	2.1	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										
....HYDRODICTYACEAE										
.....PEDIASTRUM	--	-	--	-	--	-	--	-	230	3
....OOCYSTACEAE										
.....ANKISTRODESMUS	17	2	--	-	--	-	--	-	320	4
....CHLORELLA	--	-	--	-	--	-	--	-	*	0
....OOCYSTIS	--	-	--	-	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	--	-	--	-	110	1
....SCENEDESMACEAE										
.....SCENEDESMUS	--	-	--	-	--	-	--	-	1200#	15
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	38	1	--	-	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
....COSCINODISCACEAE										
.....CYCLOTELLA	--	-	--	-	170	3	--	-	*	0
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	17	2	--	-	--	-	--	-	--	-
....RHOICOSPHEA	--	-	14	2	38	1	22	6	--	-
....CYMBELLACEAE										
.....CYMBELLA	--	-	55	8	110	2	130#	35	72	1
....DIATOMACEAE										
.....DIATOMA	--	-	27	4	*	0	--	-	--	-
....EUNOTIACEAE										
.....EUNOTIA	--	-	120#	17	76	1	--	-	--	-
....FRAGILARIACEAE										
.....HANNAEA	--	-	--	-	95	1	45	12	*	0
....SYNEDRA	33	3	120#	17	57	1	67#	18	--	-
....GOMPHONEMACEAE										
.....GOMPHONEMA	--	-	68	9	*	0	--	-	--	-
....MERIDIONACEAE										
.....MERIDION	--	-	55	8	38	1	--	-	--	-
....NAVICULACEAE										
.....FRUSTULIA	17	2	--	-	--	-	--	-	--	-
....NAVICULA	83	8	250#	34	170	3	110#	29	72	1
....NITZSCHIA										
.....NITZSCHIA	50	5	--	-	57	1	--	-	--	-
..CHRYSOPHYCEAE										
...CHRYSOMONADALES										
....OCHROMONADACEAE										
.....DINOBYRON	--	-	--	-	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCOCCALES										
....CHROCOCCOCCAEAE										
.....ANACYSTIS	33	3	--	-	--	-	--	-	--	-
....MORMOGONALES										
....OSCILLATORIACEAE										
.....LYNGBYA	--	-	--	-	5400#	85	--	-	--	-
....OSCILLATORIA	790#	76	--	-	--	-	--	-	3000#	38
...CHROCOCCOCCALES										
....CHROCOCCOCCAEAE										
.....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	2700#	34
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	--	-	--	-	--	-	--	-	43	1
....TRACHELOMONAS	--	-	14	2	57	1	--	-	57	1

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

01553500 WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG, PA--Continued

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)	ACIDITY CO2 (MG/L AS CaCO3)
OCT										
05...	1330	9813	9813	13000	170	7.7	13.0	10.0	58	0
27...	1400	9813	9813	14300	140	7.6	13.5	10.0	50	0
NOV										
16...	1030	9813	9813	22000	140	--	--	--	32	--
DEC										
28...	1515	9813	9813	21600	150	--	--	--	66	--
JAN										
26...	1515	9813	9813	29900	150	--	--	--	46	--
FEB										
08...	1430	9813	9813	9460	190	--	--	--	74	--
MAR										
09...	1400	9813	9813	4280	250	--	--	--	96	--
MAY										
23...	1415	9813	9813	26100	150	--	--	--	63	--
JUN										
27...	1200	9813	9813	4410	250	--	--	--	90	--
JUL										
11...	1000	9813	9813	2990	310	--	--	--	110	--
AUG										
16...	1400	9813	9813	4250	270	--	--	13.4	92	0

DATE	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)
OCT									
05...	--	16	--	4.5	26	40	7.0	158	28
27...	--	14	--	4.0	22	32	6.0	210	<10
NOV									
16...	9.6	--	2.2	--	22	34	7.0	88	8
DEC									
28...	18	--	5.5	--	22	38	8.0	128	14
JAN									
26...	13	--	3.3	--	28	20	17	--	436
FEB									
08...	16	--	9.3	--	30	38	8.0	34	12
MAR									
09...	24	--	9.3	--	32	62	13	176	4
MAY									
23...	12	--	8.5	--	16	44	6.0	50	26
JUN									
27...	21	--	9.9	--	40	60	9.0	192	10
JUL									
11...	28	--	10	--	26	70	10	210	16
AUG									
16...	--	26	--	7.0	28	65	11	208	18

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS Fe)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	PHENOLS (DIRECT PHOTOMETRIC) (UG/L)
OCT									
05...	--	.90	.02	.10	.08	540	--	<10	--
27...	--	.98	.03	.13	.10	460	--	--	<10
NOV									
16...	96	1.1	.03	.12	.07	550	--	1	--
DEC									
28...	142	1.5	.04	.13	.08	728	--	<10	--
JAN									
26...	234	1.5	.45	.22	.24	8181	--	<10	--
FEB									
08...	46	1.1	.02	.17	.06	259	--	<10	--
MAR									
09...	180	1.3	.02	.24	.48	100	--	3	--
MAY									
23...	76	.97	.02	.11	1.6	1000	--	<2	--
JUN									
27...	202	1.4	.02	.09	.34	200	--	35	--
JUL									
11...	226	1.1	.02	.07	.03	110	--	24	--
AUG									
16...	--	1.1	.01	.09	.10	100	4.0	--	<10

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 September 30 (discontinued). 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 good, except for winter months, which are fair.

AVERAGE DISCHARGE.--18 years, 12.3 ft³/s (0.348 m³/s), 17.62 in/yr (448 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 600 ft³/s (17.0 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. 16	2245	328 9.29	5.52 1.682	Mar. 21	1600	391 11.1	5.94 1.811
Dec. 1	0400	440 12.5	6.20 1.890	Mar. 27	1030	663 18.8	7.21 2.198
Jan. 9	0300	*958 27.1	*8.07 2.460	May 14	1245	378 10.7	5.85 1.783
Jan. 26	1015	930 26.3	8.00 2.438	May 18	2130	402 11.4	6.01 1.832
Mar. 14	1700	430 12.2	6.15 1.875				

No flow August 22, 23, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	4.2	114	6.6	13	4.6	15	4.9	4.5	.35	.12	1.1
2	8.1	4.0	42	6.1	10	4.3	12	4.6	3.7	.30	.10	.51
3	5.9	3.9	25	4.8	8.7	4.1	10	4.3	5.1	.90	.14	.38
4	4.8	4.6	18	3.9	8.0	4.0	13	4.2	4.5	3.0	.95	.32
5	4.0	4.2	15	3.6	7.3	4.0	19	6.6	3.5	1.5	.29	.23
6	6.1	3.9	13	3.5	6.9	4.5	14	6.6	2.5	.60	1.8	.20
7	5.0	4.5	10	4.3	6.6	4.6	21	5.4	2.4	.23	2.7	.20
8	4.1	4.2	8.0	3.0	6.2	4.2	15	5.2	5.9	.20	1.6	.29
9	8.7	27	7.4	361	6.0	3.9	13	13	7.0	.32	.80	.44
10	7.7	67	6.4	50	5.9	4.0	11	9.4	2.6	.29	.55	.35
11	6.3	83	5.6	25	5.7	4.5	11	8.5	1.9	.26	.55	.47
12	5.7	36	5.2	17	5.5	5.2	11	7.6	1.6	.23	.51	.76
13	4.9	22	6.1	14	5.4	8.0	8.7	7.0	8.0	.17	.38	.47
14	7.9	15	37	12	5.9	161	7.6	125	3.3	.20	.29	.23
15	69	13	90	10	5.4	295	6.8	76	2.2	.71	.20	.55
16	80	11	44	8.2	5.2	156	6.4	73	1.7	.35	.20	.51
17	189	11	27	7.4	4.9	73	6.1	97	1.6	.29	.20	.51
18	71	9.6	102	7.1	4.8	39	5.7	123	1.6	.26	.14	.55
19	39	7.4	65	6.8	4.6	70	8.5	99	1.5	.20	.10	25
20	31	6.4	41	6.4	4.5	98	19	37	1.5	.17	.06	4.0
21	19	6.8	157	6.0	4.5	178	20	22	1.4	.14	.01	3.0
22	15	6.6	56	5.8	4.5	164	15	15	2.5	.29	.00	26
23	11	6.1	28	5.6	4.4	104	12	12	1.9	.26	.00	6.1
24	8.9	6.3	19	7.0	4.4	66	10	50	1.6	.14	.00	3.7
25	7.7	6.4	50	15	4.3	34	8.7	30	1.3	.10	.00	2.7
26	7.2	15	27	468	4.8	112	7.6	18	1.0	.01	.32	2.1
27	8.2	9.9	20	164	4.3	282	6.8	13	1.1	.02	.23	1.7
28	6.5	8.7	13	73	4.5	78	6.1	9.9	.70	.14	.20	1.5
29	5.6	7.6	11	33	---	39	5.7	8.0	.55	.06	.41	1.3
30	5.0	15	8.9	21	---	25	5.4	6.6	.45	.08	.23	1.2
31	4.5	---	7.6	16	---	18	---	5.7	---	.10	2.1	---
TOTAL	664.9	508.6	1079.2	1402.1	166.2	2051.9	331.1	907.5	79.10	11.87	15.18	86.37
MEAN	21.4	17.0	34.8	45.2	5.94	66.2	11.0	29.3	2.64	.38	.49	2.88
MAX	189	83	157	468	13	295	21	125	8.0	3.0	2.7	26
MIN	4.0	3.9	5.2	3.5	4.3	3.9	5.4	4.2	.45	.01	.00	.20
CFSM	2.26	1.79	3.67	4.77	.63	6.98	1.16	3.09	.28	.04	.05	.30
IN.	2.61	2.00	4.23	5.50	.65	8.05	1.30	3.56	.31	.05	.06	.34

CAL YR 1977 TOTAL 5237.14 MEAN 14.3 MAX 227 MIN .00 CFSM 1.51 IN 20.55
WTR YR 1978 TOTAL 7304.02 MEAN 20.0 MAX 468 MIN .00 CFSM 2.11 IN 28.66

01553700 CHILLISQUAKE CREEK NEAR WASHINGTONVILLE, PA

LOCATION.--Lat 41°03'40", long 76°40'50", Montour County, Hydrologic Unit 02050206, at bridge on State Route 54, 0.3 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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMRER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
03...	1400	9813	9813	330	15.5	7.2	11.0	137	0	--	44
25...	1500	9813	9813	290	12.0	7.2	10.0	112	0	--	34
NOV											
17...	1400	9813	9813	310	--	--	--	120	--	18	--
21...	1330	9813	9813	390	--	--	--	156	--	44	--
JAN											
24...	1050	9813	9813	340	--	--	--	128	--	41	--
FEB											
21...	1415	9813	9813	430	--	--	--	170	--	58	--
MAR											
15...	1000	9813	9813	120	--	--	--	42	--	12	--
APR											
13...	--	9813	9813	300	--	--	--	96	--	35	--
MAY											
04...	0845	9813	9813	410	--	--	--	152	--	53	--
JUN											
29...	0915	9813	9813	500	--	--	--	96	--	71	--
JUL											
17...	1230	9813	9813	500	--	--	--	200	--	68	--
AUG											
15...	1130	9813	9813	500	25.0	7.0	7.5	208	0	--	79
SEP											
07...	1000	9813	9813	700	24.0	7.5	10.0	365	0	--	87

DATE	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	ALKALINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT											
03...	--	6.8	50	110	12	242	14	--	1.4	.02	.08
25...	--	6.5	38	84	12	306	12	--	1.2	.03	.34
NOV											
17...	20	--	34	86	10	224	--	--	1.9	.03	.34
21...	12	--	48	110	12	280	2	282	1.7	.03	.38
JAN											
24...	6.6	--	30	96	11	236	18	254	2.4	.06	.20
FEB											
21...	6.6	--	52	130	12	292	6	298	2.2	.04	1.5
MAR											
15...	2.7	--	26	24	11	152	7	350	2.2	.04	.41
APR											
13...	2.2	--	28	100	10	186	10	196	1.7	.03	.42
MAY											
04...	4.9	--	54	120	11	256	18	274	1.8	.05	.61
JUN											
29...	.0	--	46	90	14	392	10	--	1.4	.07	.13
JUL											
17...	7.7	--	40	150	15	406	42	448	1.9	.04	.18
AUG											
15...	--	2.5	58	200	16	514	16	--	1.8	.18	.64
SEP											
07...	--	37	32	300	20	538	70	--	1.5	.11	.66

WEST BRANCH SUSQUEHANNA RIVER BASIN

195

01553700 CHILLISQUAKE CREEK NEAR WASHINGTONVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
03...	.05	--	--	--	--	390	--	--	--	--	--
25...	2.5	--	--	--	--	770	--	--	--	--	--
NOV											
17...	.04	--	--	--	--	220	--	--	--	--	--
21...	.07	120	--	--	--	220	--	--	--	--	--
JAN											
24...	.04	--	--	--	--	429	--	--	--	--	--
FEB											
21...	.07	<20	--	--	--	310	--	--	--	--	--
MAR											
15...	.18	--	--	--	--	8600	--	--	--	--	--
APR											
13...	.06	--	--	--	--	350	--	--	--	--	--
MAY											
04...	.07	80	--	--	--	260	--	--	--	--	--
JUN											
29...	.15	--	--	--	--	870	--	--	--	--	5.0
JUL											
17...	.12	--	--	--	--	1950	--	--	--	--	--
AUG											
15...	.10	460	<3	<10	10	440	<50	100	20	20	5.0
SEP											
07...	.01	--	--	--	--	250	--	--	--	--	--

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 National Geodetic Vertical Datum of 1929 (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, 21,400 acre-ft (26.4 hm³) May 18 (elevation, 1,174.09 ft or 357.863 m); minimum, 4,160 acre-ft (5.13 hm³) Dec. 28 (elevation, 1,153.67 ft or 351.639 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 National Geodetic Vertical Datum of 1929.
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, 27,840 acre-ft (34.3 hm³) May 17 (elevation, 1,428.59 ft or 435.434 m); minimum, 20,950 acre-ft (25.8 hm³) Mar. 14 (elevation, 1,423.96 ft or 434.023 m).
- 01543900 FIRST FORK SINNEMAHONING 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 National Geodetic Vertical Datum of 1929.
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, 11,180 acre-ft (13.8 hm³) May 16 (elevation, 951.73 ft or 290.087 m); minimum, 1,540 acre-ft (1.90 hm³) Oct. 13 (elevation, 915.81 ft or 279.139 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 National Geodetic Vertical Datum of 1929 (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, 11,200 acre-ft (13.8 hm³) May 16 (elevation, 870.02 ft or 265.182 m); minimum, 1,260 acre-ft (1.55 hm³) Nov. 10 (elevation, 837.50 ft or 255.270 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 National Geodetic Vertical Datum of 1929 (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, 610.0 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, 53,600 acre-ft (66.1 hm³) May 19 (elevation, 641.87 ft or 195.642 m); minimum, 6,090 acre-ft (7.51 hm³) Dec. 23 (elevation 609.65 ft or 185.821 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 1977 TO SEPTEMBER 1978

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)	Elevation ^{SC} (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01541180 Curwensville Lake						
Sept. 30	1,162.05	9,580	--			
Oct. 31	1,161.93	9,490	- 1.5			
Nov. 30	1,155.91	5,380	-69.1			
Dec. 31	1,155.42	5,110	- 4.4			
CAL YR 1977	--	--	+ 0.2			
Jan. 31	1,155.74	5,280	+ 2.8			
Feb. 28	1,155.66	5,240	- 0.7			
Mar. 31	1,154.97	4,850	- 6.3			
Apr. 30	1,155.09	4,920	+ 1.2			
May 31	1,162.02	9,560	+75.5			
June 30	1,162.00	9,540	- 0.3			
July 31	1,161.90	9,460	- 1.3			
Aug. 31	1,162.45	9,910	+ 7.3			
Sept. 30	1,161.93	9,490	- 7.1			
WTR YR 1978	--	--	- 0.1			
01541340 Glendale Lake						
Sept. 30	1,427.44	26,000	--			
Oct. 31	1,427.40	25,940	- 1.0			
Nov. 30	1,427.58	26,230	+ 4.9			
Dec. 31	1,427.12	25,490	-12.0			
CAL YR 1977	--	--	+14.6			
Jan. 31	1,426.91	25,160	- 5.4			
Feb. 28	1,424.62	21,870	-59.2			
Mar. 31	1,427.82	26,610	+77.1			
Apr. 30	1,427.26	25,720	-15.0			
May 31	1,427.86	26,680	+15.6			
June 30	1,427.32	25,810	-14.6			
July 31	1,427.25	25,700	- 1.8			
Aug. 31	1,427.10	25,460	- 3.9			
Sept. 30	1,427.08	25,430	- .5			
WTR YR 1978	--	--	- .8			
01543900 F F Sinnemahoning Cr Reservoir						
Sept. 30				916.06	1,570	--
Oct. 31				916.14	1,570	0
Nov. 30				920.72	2,090	+ 8.7
Dec. 31				920.27	2,030	- 1.0
CAL YR 1977	--	--		--	--	- 0.08
Jan. 31				920.40	2,050	+ .3
Feb. 28				920.10	2,010	- .7
Mar. 31				924.30	2,610	+ 9.8
Apr. 30				920.37	2,040	- 9.6
May 31				920.61	2,070	+ .5
June 30				920.26	2,030	- .7
July 31				920.72	2,090	+ 1.0
Aug. 31				920.40	2,050	- .7
Sept. 30				920.32	2,040	- .2
WTR YR 1978	--	--		--	--	+ .6
01544800 Kettle Creek						
Sept. 30	840.92	1,730	--			
Oct. 31	841.16	1,770	+ .7			
Nov. 30	841.15	1,760	- .2			
Dec. 31	841.10	1,760	0			
CAL YR 1977	--	--	+ .1			
Jan. 31	840.96	1,730	- .5			
Feb. 28	841.27	1,780	+ .9			
Mar. 31	841.30	1,790	+ .2			
Apr. 30	841.16	1,770	- .3			
May 31	841.20	1,770	0			
June 30	841.07	1,750	- .3			
July 31	840.92	1,730	- .3			
Aug. 31	840.98	1,740	+ .2			
Sept. 30	840.80	1,710	- .5			
WTR YR 1978	--	--	- .03			
01547480 Foster Joseph Sayers Lake						
Sept. 30				628.34	26,040	--
Oct. 31				629.10	27,270	+ 20.0
Nov. 30				612.28	7,840	-327
Dec. 31				610.01	6,310	- 24.9
CAL YR 1977	--	--		--	--	+ .01
Jan. 31				610.64	6,720	+ 6.7
Feb. 28				609.86	6,210	- 9.2
Mar. 31				624.55	20,490	+232
Apr. 30				628.71	26,640	+103
May 31				629.99	28,780	+ 34.8
June 30				629.95	28,720	- 1.0
July 31				629.60	28,120	- 9.8
Aug. 31				629.18	27,410	- 11.5
Sept. 30				627.40	24,600	- 47.2
WTR YR 1978	--	--		--	--	- 2.0

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) National Geodetic Vertical Datum of 1929. 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.--41 years, 26,680 ft³/s (755.6 m³/s), 19.80 in/yr (503 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 620,000 ft³/s (17,600 m³/s) June 24, 1972, gage height, 55.80 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, 203,000 ft³/s (5,750 m³/s) Mar. 24, gage height, 21.31 ft (6.495 m); minimum, 3,960 ft³/s (112 m³/s) Sept. 15, gage height, 6.17 ft (1.881 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53800	25200	36600	34000	59000	13700	117000	23600	24100	9830	5420	7130
2	50000	23300	59200	32700	51400	13100	120000	22100	21900	8810	6210	10300
3	53600	21300	84300	29800	44900	12900	148000	20600	21400	8540	6540	9260
4	55400	21200	82000	25000	38200	12400	131000	19200	23300	9150	7330	7490
5	52500	23900	70800	24600	32900	11300	109000	18600	22300	9030	8870	6440
6	46700	37000	60800	22400	29400	11600	117000	19600	20000	8920	9090	5790
7	40700	55700	52600	23500	26400	11000	125000	22200	18300	9430	12800	5290
8	36300	82300	45400	23700	22000	11400	119000	24000	18600	9310	23600	4900
9	33000	114000	40500	77600	21000	11900	116000	25100	27700	8110	30200	4770
10	36600	114000	35100	168000	21000	11900	100000	26700	33200	7280	24800	4860
11	42100	112000	31200	152000	22000	12200	81700	29700	30600	6830	19300	4690
12	47400	126000	28900	100000	21000	12500	71300	31100	26800	6440	16600	4520
13	43100	115000	24200	76400	22000	13300	67900	29200	25500	6020	14800	4600
14	36800	89200	26100	64100	23000	18300	66800	41900	21800	5880	13300	7180
15	38700	71200	42600	54500	22000	46700	60800	117000	22300	6930	13300	5200
16	50600	57700	117000	46600	21000	91600	53800	131000	19700	6060	11600	5120
17	79900	51000	128000	40400	19100	99000	47700	130000	18400	7540	9830	4280
18	140000	49100	106000	35800	18700	80300	42200	135000	16600	6980	8330	4360
19	149000	49400	98100	32400	18700	65000	38100	126000	15300	6830	7280	7900
20	139000	48600	91800	29600	17600	63900	36900	98100	14900	6930	6590	16400
21	145000	44700	87200	25900	16000	71800	40300	76100	14900	6400	5790	16400
22	121000	41300	84000	24000	14500	115000	45600	62000	16400	6210	5380	14300
23	92700	37600	71300	23400	13700	195000	51300	52300	15800	5790	5030	15600
24	72000	35400	61300	23100	15200	208000	46000	49800	14800	5330	4730	16000
25	58500	34100	56200	23900	14700	190000	40600	54200	13300	5290	4520	12600
26	50200	33500	63100	53500	15400	148000	36100	57400	12400	5070	4400	10600
27	45400	32800	65000	146000	15000	155000	32800	50800	11900	4940	4200	9200
28	41000	31500	54300	159000	14700	182000	29900	42400	11100	4900	4120	8110
29	36200	29600	46900	126000	---	176000	27800	35400	10400	4690	4240	7330
30	31300	28500	40600	93600	---	159000	25600	30500	9600	4440	4240	6690
31	27200	---	37000	73400	---	138000	---	26900	---	4650	4440	---
TOTAL	1945700	1636100	1928100	1864900	670500	2361800	2145200	1628500	573300	212560	306880	247310
MEAN	62760	54540	62200	60160	23950	76190	71510	52530	19110	6857	9899	8244
MAX	149000	126000	128000	168000	59000	208000	148000	135000	33200	9830	30200	16400
MIN	27200	21200	24200	22400	13700	11000	25600	18600	9600	4440	4120	4280
CFSM	3.43	2.98	3.40	3.29	1.31	4.16	3.91	2.87	1.04	.38	.54	.45
IN.	3.96	3.33	3.92	3.79	1.36	4.80	4.36	3.31	1.17	.43	.62	.50
CAL YR 1977	TOTAL	13658390	MEAN	37420	MAX	171000	MIN	4270	CFSM	2.05	IN	27.76
WTR YR 1978	TOTAL	15520850	MEAN	42520	MAX	208000	MIN	4120	CFSM	2.32	IN	31.55

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 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-WF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUSP., TOTAL, RESIDUE AT 110 DEG. C (MG/L)
OCT											
12...	1045	48100	190	7.5	12.0	10.4	20	1.9	3500	114	30
27...	1100	45700	185	7.2	10.5	11.0	5	.6	540	121	12
NOV											
08...	1045	80700	130	7.1	13.0	10.4	25	1.9	5100	67	170
23...	1100	37400	180	7.1	6.5	12.4	8	.9	580	95	21
DEC											
08...	1230	44400	170	6.8	.5	13.8	8	.3	500	104	18
21...	1030	85900	160	7.2	3.5	13.6	8	.6	440	82	24
MAR											
23...	1330	199000	145	7.5	5.0	12.2	35	2.3	400	61	541
APR											
04...	1030	134000	120	7.0	5.0	12.6	15	.8	180	63	186
20...	0940	36300	190	6.8	8.5	10.8	10	.8	90	109	27
MAY											
03...	1000	20300	220	7.4	13.0	12.0	9	1.0	52	122	6
17...	1230	133000	140	6.6	11.5	10.0	30	--	1400	74	193
31...	1500	26500	215	7.9	24.0	11.4	15	3.4	106	124	18
JUN											
14...	0845	25400	200	7.8	18.0	9.2	10	2.8	540	165	201
28...	1030	11400	290	8.2	25.0	9.8	15	2.7	24	182	9
JUL											
12...	1045	6440	320	8.8	24.5	10.0	31	5.2	80	240	8
26...	1015	4980	340	8.7	25.0	9.6	26	3.2	K7	246	8
AUG											
08...	1000	20900	310	7.9	24.5	9.4	28	5.4	150	220	26
23...	1230	5200	310	8.8	25.0	8.8	43	2.6	340	191	13
SEP											
07...	1030	5340	310	8.8	24.0	12.4	20	4.2	20	237	16
20...	1000	16200	270	6.9	20.0	8.8	29	2.6	2530	170	8

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)
OCT											
12...	.61	.04	.28	.32	.93	.06	650	2	0	--	10
27...	.59	.06	.25	.31	.90	.04	340	0	3	--	10
NOV											
08...	.47	.03	.85	.88	1.4	.15	3400	1	2	--	10
23...	.64	.07	.21	.28	.92	.04	360	1	0	--	10
DEC											
08...	.65	.07	.27	.34	.99	.03	310	0	0	--	<10
21...	.71	.05	.28	.33	1.0	.05	600	3	0	--	20
MAR											
23...	.66	.09	1.0	1.1	1.8	.31	7200	2	0	--	<10
APR											
04...	.52	.04	.49	.53	1.1	.14	3700	2	2	--	<10
20...	.69	.08	.27	.35	1.0	.05	480	1	0	--	10
MAY											
03...	.54	.01	.27	.28	.82	.02	--	--	--	--	--
17...	.48	.04	.64	.68	1.2	.18	7300	1	0	--	10
31...	.37	.03	.44	.47	.84	.03	--	--	--	0	--
JUN											
14...	.51	.06	.50	.56	1.1	.05	410	3	0	--	<10
28...	.48	.07	.60	.67	1.2	.04	100	2	0	--	20
JUL											
12...	.23	.02	.98	1.0	1.2	.07	170	0	0	--	10
26...	.24	.01	.45	.46	.70	.04	90	1	0	--	10
AUG											
08...	.44	.01	.90	.91	1.4	.07	260	0	1	--	10
23...	.30	.08	.43	.51	.81	.04	90	1	2	--	<10
SEP											
07...	.29	.05	.85	.90	1.2	.06	260	1	2	--	<10
20...	.88	.09	.85	.94	1.8	.13	1000	1	0	--	10

SUSQUEHANNA RIVER BASIN

01554000 SUSQUEHANNA RIVER AT SUNBURY, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)
OCT										
12...	39	1700	14	270	0	30	6.5	0	.086	.000
27...	4	1200	8	220	0	30	5.0	1	1.32	.000
NOV										
08...	11	6000	19	610	0	70	10	0	--	--
23...	7	1300	1	280	0	20	9.8	0	1.70	.608
DEC										
08...	6	1000	0	200	0	30	24	0	--	--
21...	7	1400	8	210	1	20	10	--	.853	.231
MAR										
23...	21	18000	26	740	0	80	10	0	--	--
APR										
04...	11	7000	6	270	1	50	10	0	1.02	.000
20...	6	1500	7	230	0	20	4.5	3	.379	.681
MAY										
03...	--	--	--	--	--	--	8.5	0	.000	.000
17...	21	10000	18	470	0	50	9.7	0	--	--
31...	--	--	--	--	--	--	10	0	12.2	.000
JUN										
14...	7	1200	4	310	0	20	10	0	33.6	3.99
28...	8	600	3	270	0	20	--	0	18.0	2.29
JUL										
12...	5	290	3	180	0	10	3.8	1	33.0	1.24
26...	3	60	23	30	0	0	3.9	0	25.2	7.26
AUG										
08...	4	1400	1	330	0	30	10	0	30.5	3.16
23...	2	490	6	140	0	10	3.9	0	19.5	3.13
SEP										
07...	3	760	3	220	0	10	4.4	0	32.0	7.12
20...	5	3100	8	570	0	40	5.7	0	13.3	.648

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
AUG								
17...	1400	9813	9813	9650	270	--	25.0	--
SEP								
20...	1400	9813	9813	16500	300	7.7	19.5	8.4

DATE	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)
AUG									
17...	92	0	26	6.5	38	5.0	12	186	18
SEP									
20...	93	0	29	5.5	42	65	15	230	58

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS (UG/L)	PHENOLS (DIRECT PHOTO- METRIC) (UG/L)
AUG								
17...	.74	.02	.06	.06	320	5.0	--	12
SEP								
20...	1.1	.03	.11	.19	2140	--	45	--

SHAMOKIN CREEK BASIN

201

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) National Geodetic Vertical Datum of 1929. 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.--38 years, 86.5 ft³/s (2.45 m³/s), 21.67 in/yr (550 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.--Maximum daily discharge, 465 ft³/s (13.2 m³/s) Jan. 26; maximum gage height, 4.02 ft (1.225 m) July 15; minimum, 23 ft³/s (0.651 m³/s) Sept. 23; gage height, 2.11 ft (0.643 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	97	209	147	194	80	262	99	150	86	67	52
2	61	94	147	138	179	76	237	99	144	84	61	51
3	54	92	147	129	162	76	220	97	162	121	64	50
4	52	94	144	124	153	74	213	97	144	101	78	50
5	50	88	147	121	144	72	201	106	132	89	59	50
6	54	86	147	116	141	71	186	99	127	84	57	48
7	49	141	132	113	135	69	179	97	127	81	62	48
8	49	106	124	135	129	69	166	97	124	79	71	52
9	88	97	121	322	124	68	156	104	167	77	63	48
10	59	144	113	183	121	70	153	94	127	76	63	49
11	54	179	108	172	119	74	150	90	121	74	172	47
12	54	150	106	159	113	85	144	88	116	72	92	57
13	53	147	104	153	111	120	138	101	191	72	77	47
14	76	138	162	147	108	170	129	276	127	70	71	45
15	186	132	159	138	106	240	129	237	120	194	68	49
16	156	127	141	135	104	210	124	258	115	95	66	54
17	249	132	138	141	101	190	124	285	113	94	63	45
18	197	121	186	138	101	180	119	290	120	83	61	56
19	190	113	179	132	99	220	121	271	126	78	61	92
20	225	106	162	132	94	270	141	249	109	81	59	51
21	194	106	241	127	94	300	127	232	110	77	58	48
22	183	101	205	119	90	310	121	213	143	77	58	74
23	162	99	197	116	90	290	113	194	109	79	57	51
24	150	97	190	111	88	270	113	267	104	81	55	50
25	138	97	228	138	88	240	111	213	101	80	69	48
26	135	121	194	465	84	300	108	190	99	77	58	47
27	127	97	186	337	82	400	106	186	98	77	59	47
28	116	92	179	294	80	360	104	179	94	77	68	45
29	111	92	172	267	---	340	104	176	91	69	55	44
30	106	106	162	237	---	313	101	166	89	67	53	45
31	99	---	153	213	---	285	---	159	---	82	65	---
TOTAL	3536	3392	4983	5399	3234	5892	4400	5309	3700	2634	2090	1540
MEAN	114	113	161	174	116	190	147	171	123	85.0	67.4	51.3
MAX	249	179	241	465	194	400	262	290	191	194	172	92
MIN	49	86	104	111	80	68	101	88	89	67	53	44
CFSM	2.10	2.09	2.97	3.21	2.14	3.51	2.71	3.16	2.27	1.57	1.24	.95
IN.	2.43	2.33	3.42	3.71	2.22	4.04	3.02	3.64	2.54	1.81	1.43	1.06
CAL YR 1977 TOTAL	34794											
WTR YR 1978 TOTAL	46109											
MEAN				95.3								
MAX				299								
MIN				36								
CFSM				1.76								
IN				23.88								
MEAN				126								
MAX				465								
MIN				44								
CFSM				2.33								
IN				31.65								

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, MAY TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMRER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	HARD- NESS (MG/L AS CAC03)	ACIDITY MINERAL (METHYL ORANGE) (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
MAY 22...	1230	9813	9813	229	600	--	430	--	--	49	--	84
AUG 22...	1440	9813	9813	56	900	4.1	342	0	86	--	64	--

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
MAY 22...	--	4	300	8.0	552	20	572	.66	.01	.71	.10	19080
AUG 22...	46	2	400	8.0	768	42	--	.45	.03	2.1	.23	22250

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) National Geodetic Vertical Datum of 1912. 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.--49 years, 431 ft³/s (12.21 m³/s), 19.45 in/yr (494 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 6,800 ft³/s (193 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. 17	1130	3,190 90.3	5.98 1.823	Feb. 14	---	5,120 145	"ice jam"
Oct. 20	0900	3,840 109	6.43 1.960	Mar. 22	0330	4,330 123	6.83 2.082
Nov. 8	0430	*7,550 214	*8.81 2.685	Mar. 27	1630	3,910 111	6.53 1.990
Jan. 9	---	6,520 185	ice jam	May 14	1200	6,060 172	7.95 2.423
Jan. 26	---	3,830 108	ice jam	May 24	1730	3,470 98.3	6.19 1.887
Feb. 11	---	3,590 102	ice jam				

Minimum discharge, 100 ft³/s (2.83 m³/s) Sept. 28, 29, 30, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	540	1230	683	863	25	2200	435	780	180	204	231
2	348	512	1210	637	785	25	2430	414	695	177	175	170
3	292	495	1110	564	695	24	2100	393	751	250	160	148
4	252	1100	1020	52	599	24	1920	381	678	330	620	141
5	225	1140	934	48	564	24	2030	507	579	231	353	134
6	225	1000	876	47	54	23	1780	511	511	201	301	128
7	225	4130	773	45	52	23	1820	439	475	183	488	121
8	208	6520	671	70	51	23	1580	414	488	175	550	121
9	308	4070	648	5380	497	22	1430	507	461	175	422	121
10	503	3310	550	2560	497	22	1290	488	405	177	353	117
11	399	4460	512	1820	47	22	1180	444	373	312	365	114
12	359	3140	469	1480	45	22	1170	431	357	199	323	114
13	331	2360	531	1240	42	22	998	728	401	177	297	117
14	311	1860	554	1130	40	40	882	5550	334	167	270	112
15	410	1550	921	965	38	1980	797	5180	304	247	247	123
16	559	1320	973	768	37	1690	728	4820	287	273	231	145
17	2640	1180	915	74	36	1180	673	5590	283	564	216	128
18	2270	1080	1730	70	38	932	625	4470	287	315	201	123
19	1990	902	1990	65	35	1050	711	3360	270	250	193	165
20	3500	785	1690	62	33	1740	845	2480	253	213	185	162
21	2690	719	1780	57	31	2210	845	1970	273	201	175	139
22	1990	659	1480	53	29	3860	728	1580	341	188	170	148
23	1580	605	1190	50	28	3550	673	1330	266	180	162	139
24	1300	579	1040	46	27	3500	646	2680	234	183	155	123
25	1130	545	1370	584	27	2800	615	2550	219	172	153	114
26	1000	569	1250	2510	27	2420	579	1930	219	167	148	110
27	1000	508	1090	2810	26	3270	545	1580	219	162	145	104
28	850	469	1060	1810	26	3370	511	1340	213	175	145	104
29	725	445	967	1380	---	3090	479	1160	196	167	153	100
30	643	465	817	1130	---	2840	457	1020	190	167	145	100
31	584	---	743	965	---	2410	---	888	---	180	207	---
TOTAL	29136	47017	32094	29155	5269	42233	33267	55570	11342	6738	7912	3916
MEAN	940	1567	1035	940	188	1362	1109	1793	378	217	255	131
MAX	3500	6520	1990	5380	863	3860	2430	5590	780	564	620	231
MIN	208	445	469	45	26	22	457	381	190	162	145	100
CFSM	3.12	5.21	3.44	3.12	.63	4.53	3.68	5.96	1.26	.72	.85	.44
IN.	3.60	5.81	3.97	3.60	.65	5.22	4.11	6.87	1.40	.83	.98	.48

CAL YR 1977 TOTAL 232797 MEAN 638 MAX 6520 MIN 83 CFSM 2.12 IN 28.77
WTR YR 1978 TOTAL 303649 MEAN 832 MAX 6520 MIN 22 CFSM 2.76 IN 37.53

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) National Geodetic Vertical Datum of 1929. 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.--49 years, 224 ft³/s (6.344 m³/s), 18.78 in/yr (477 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 5,100 ft³/s (144 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)
Dec. 21	1945	2,820 79.9	6.52 1.987	Mar. 14	2115	4,050 115	7.84 2.390
Jan. 9	1630	3,940 112	7.73 2.356	Mar. 27	1630	3,860 109	7.65 2.332
Jan. 26	1630	*6,770 192	*10.23 3.118	May 15	0030	3,040	86.1 6.78 2.066

Minimum discharge, 26 ft³/s (0.736 m³/s) Sept. 15, 30, gage height, 1.45 ft (0.442 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	124	1430	311	410	84	610	149	238	57	75	88
2	130	119	1110	280	360	83	497	141	215	54	51	66
3	130	115	770	260	300	82	416	134	225	95	40	52
4	110	133	600	234	260	81	399	126	206	154	90	48
5	99	147	511	230	240	80	391	152	179	105	75	43
6	97	122	560	210	220	79	334	152	162	80	51	39
7	96	222	456	203	240	78	334	131	152	69	119	36
8	95	423	386	231	250	78	297	121	173	62	399	35
9	120	371	350	2950	220	78	272	162	206	57	212	40
10	270	368	304	1660	190	78	258	165	171	60	146	39
11	220	1030	265	1110	170	78	254	134	141	54	212	31
12	180	761	254	861	150	78	254	126	129	49	770	32
13	150	532	315	545	150	80	225	131	234	42	354	30
14	120	407	323	492	140	1840	206	1770	200	39	282	30
15	280	341	861	425	130	2370	188	2330	157	191	206	28
16	620	295	750	330	125	1370	176	1460	136	146	165	35
17	1630	272	644	311	120	810	168	1880	126	97	136	45
18	1130	265	861	300	115	605	160	1650	121	78	112	36
19	680	216	1150	308	115	735	171	1300	112	62	97	46
20	589	190	937	218	115	1040	272	953	101	54	86	86
21	496	180	1910	220	110	1030	286	740	97	48	75	49
22	407	177	1790	210	100	1160	244	570	136	42	66	77
23	330	166	1060	200	97	976	228	474	114	39	60	95
24	275	161	775	600	99	931	218	516	92	39	57	62
25	237	154	745	1650	110	792	212	580	84	40	52	51
26	216	258	632	4680	94	993	200	429	80	40	73	43
27	213	285	575	2420	89	3230	191	378	82	39	73	39
28	185	265	520	1080	86	2290	176	346	77	38	80	35
29	164	240	440	750	---	1340	165	315	66	35	119	31
30	147	249	380	575	---	959	157	297	67	34	71	28
31	133	---	338	502	---	750	---	261	---	51	78	---
TOTAL	9679	8588	22002	24356	4805	24258	7959	18073	4279	2050	4482	1395
MEAN	312	286	710	786	172	783	265	583	143	66.1	145	46.5
MAX	1630	1030	1910	4680	410	3230	610	2330	238	191	770	95
MIN	95	115	254	200	86	78	157	121	66	34	40	28
CFSM	1.93	1.77	4.38	4.85	1.06	4.83	1.64	3.60	.88	.41	.90	.29
IN.	2.22	1.97	5.05	5.59	1.10	5.57	1.83	4.15	.98	.47	1.03	.32

CAL YR 1977	TOTAL	104034	MEAN 285	MAX 4090	MIN 20	CFSM 1.76	IN 23.89
WTR YR 1978	TOTAL	131926	MEAN 361	MAX 4680	MIN 28	CFSM 2.23	IN 30.29

MAHANTANGO CREEK BASIN

205

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)
NOV 17...	1430	9813	9813	334	140	7.0	10.0	11.4	58	--	16
MAY 23...	1230	9813	9813	474	140	--	--	--	55	--	11
SEP 25...	1315	9813	9813	51	210	--	18.0	10.2	60	0	19

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	4.4	14	34	8.0	199	3.0	.02	.09	.08	530
MAY 23...	7.4	16	36	9.0	100	3.8	.03	.03	.02	870
SEP 25...	3.0	28	40	13	71	2.1	.02	.07	.06	190

DATE	TIME	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
SEP 25...	1315	<10	<10	20	10	20

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 25...	1245	9813	9813	290	10.0	7.1	10.8	--	97
NOV 29...	1400	9813	9813	330	--	--	--	--	102
DEC 29...	1100	9813	9813	--	.5	6.7	14.0	--	--
JAN 24...	1310	9813	9813	370	--	--	--	--	120
FEB 15...	1330	9813	9813	350	--	--	--	--	120
MAR 23...	--	9813	9813	170	--	--	--	--	54
APR 12...	--	9813	9813	230	--	--	--	--	80
MAY 09...	--	9813	9813	310	--	--	--	--	86
JUN 06...	1330	9813	9813	330	--	--	--	--	115
JUL 13...	1445	9813	9813	410	--	--	--	--	138
AUG 07...	1500	9813	9813	360	--	--	--	6.5	128
SEP 07...	1130	9813	9813	500	19.5	6.8	6.8	--	170

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 25...	0	--	27	--	7.3	56	48	20	336
NOV 29...	--	25	--	10	--	34	64	39	240
DEC 29...	--	--	--	--	--	--	--	--	--
JAN 24...	--	32	--	11	--	66	60	31	290
FEB 15...	--	28	--	13	--	52	58	32	108
MAR 23...	--	15	--	4.4	--	24	34	14	116
APR 12...	--	22	--	6.6	--	28	50	16	108
MAY 09...	--	25	--	6.6	--	42	55	22	204
JUN 06...	--	33	--	8.5	--	52	65	22	238
JUL 13...	--	40	--	10	--	70	75	29	288
AUG 07...	0	--	41	--	6.5	80	40	32	294
SEP 07...	0	52	--	9.5	--	108	60	60	344

JUNIATA RIVER BASIN

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01555860 BEAVERDAM BRANCH JUNIATA RIVER AT HOLLIDAYSBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	
OCT 25...	14	--	1.5	.11	.83	1.2	480	--	
NOV 29...	22	262	1.7	.04	.24	.53	1050	--	
DEC 29...	--	--	--	--	--	--	--	--	
JAN 24...	22	312	2.4	.05	2.1	.76	569	--	
FEB 15...	22	130	1.6	.04	1.6	6.0	810	--	
MAR 23...	34	150	1.9	.02	.24	.13	2090	--	
APR 12...	12	120	1.5	.08	.39	.50	950	--	
MAY 09...	32	236	1.7	.03	7.4	.20	1640	--	
JUN 06...	18	256	1.8	.08	.69	.46	180	--	
JUL 13...	26	314	2.6	.18	.62	.65	660	--	
AUG 07...	66	--	2.6	.48	.80	.69	1600	7.0	
SEP 07...	74	--	2.1	.50	3.5	1.4	270	--	
DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 07...	1500	1360	<3	<10	<10	<50	260	40	60

JUNIATA RIVER BASIN

01550000 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) Penn Central Railroad datum. Prior to Aug. 14, 1928, nonrecording gage at same site and datum.

REMARKS.--Records go to 1. Regulation at low flow by mill above station.

AVERAGE DISCHARGE.--62 years, 393 ft³/s (11.13 m³/s), 18.34 in/yr (466 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, 0.97 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)
Mar. 15	0615	4,140 117	9.56 2.914	May 15	2130	*4,400 125	*9.85 3.002

Minimum discharge, 51 ft³/s (1.44 m³/s) Sept. 10, 11, gage height, 2.15 ft (0.655 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	168	986	400	500	207	1230	306	414	148	124	107
2	212	166	1110	370	462	177	1720	286	510	159	100	83
3	147	167	840	320	414	199	1350	270	842	644	105	70
4	122	188	707	280	338	192	1280	262	535	520	148	77
5	110	205	621	310	326	175	2120	403	417	329	107	70
6	108	193	572	286	342	175	1770	369	361	255	115	67
7	113	555	488	272	280	175	1760	305	332	223	159	65
8	166	1420	393	613	326	185	1360	288	452	199	180	65
9	422	1033	410	2370	304	175	1120	435	431	167	150	58
10	417	817	290	1100	292	197	939	434	320	177	120	56
11	290	800	286	777	289	276	823	372	278	187	110	58
12	248	597	256	621	275	394	760	364	255	152	120	65
13	214	513	324	582	261	542	639	491	255	142	110	104
14	191	446	411	545	266	1760	560	1760	231	138	105	76
15	230	398	1030	465	244	3580	506	3460	210	140	100	138
16	576	365	955	397	239	2060	465	3740	199	128	90	100
17	1000	419	833	377	236	1300	431	2800	377	142	80	85
18	606	469	1210	377	233	975	401	2200	313	119	78	89
19	506	393	1410	342	212	1210	522	1700	236	112	76	194
20	495	364	1110	295	197	1800	588	1400	220	109	74	132
21	399	356	1030	329	223	1910	599	1200	250	107	73	96
22	346	349	829	286	199	3200	555	1000	310	107	72	107
23	301	321	658	223	194	2630	529	800	220	102	70	105
24	264	313	599	244	210	2360	514	1000	192	202	68	85
25	243	300	885	391	199	1800	475	1240	175	104	67	80
26	278	321	734	1900	210	1700	441	951	177	100	66	76
27	281	274	640	1510	199	1920	409	790	215	100	67	73
28	240	260	570	1000	187	2070	374	677	283	138	70	71
29	210	254	530	781	---	2070	347	586	182	100	70	66
30	191	269	490	644	---	1720	327	520	164	94	80	66
31	178	---	440	556	---	1370	---	465	---	136	117	---
TOTAL	9268	12700	21638	18963	7657	38506	24914	30874	9356	5500	3071	2584
MEAN	299	423	698	612	273	1242	830	996	312	177	99.1	86.1
MAX	1000	1420	1410	2370	500	3580	2120	3740	842	644	180	194
MIN	108	166	256	223	187	175	327	262	164	94	66	56
CFSM	1.03	1.45	2.40	2.10	.94	4.27	2.85	3.42	1.07	.61	.34	.30
IN.	1.18	1.62	2.77	2.42	.98	4.92	3.18	3.95	1.20	.70	.39	.33

CAL YR 1977 TOTAL 152317 MEAN 417 MAX 5400 MIN 59 CFSM 1.43 IN 19.47
WTR YR 1978 TOTAL 185031 MEAN 507 MAX 3740 MIN 56 CFSM 1.74 IN 23.65

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CaCO3)
OCT 25...	1215	9813	9813	350	7.4	10.0	11.4	--	115
NOV 30...	1130	9813	9813	420	--	--	--	--	126
DEC 29...	1345	9813	9813	--	7.1	1.0	14.6	--	--
JAN 24...	1430	9813	9813	400	--	--	--	--	138
FEB 28...	1115	9813	9813	450	--	--	--	--	138
MAR 23...	1335	9813	9813	180	--	--	--	--	62
APR 12...	--	9813	9813	270	--	--	--	--	94
MAY 02...	--	9813	9813	350	--	--	--	--	118
JUN 06...	1430	9813	9813	370	--	--	--	--	127
JUL 13...	1445	9813	9813	420	--	--	--	--	147
AUG 07...	1400	9813	9813	500	7.8	27.0	7.4	--	151
SEP 07...	1020	9813	9813	500	7.5	20.0	8.8	20	165

DATE	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)
OCT 25...	0	--	31	--	9.3	92	40	25	286
NOV 30...	--	32	--	12	--	84	62	39	212
DEC 29...	--	--	--	--	--	--	--	--	--
JAN 24...	--	36	--	12	--	100	50	29	282
FEB 28...	--	38	--	11	--	106	54	42	242
MAR 23...	--	15	--	6.6	--	42	24	10	110
APR 12...	--	24	--	9.3	--	62	36	15	112
MAY 02...	--	31	--	11	--	94	44	21	204
JUN 06...	--	35	--	10	--	102	40	18	230
JUL 13...	--	36	--	15	--	120	50	27	276
AUG 07...	0	--	45	--	10	132	50	42	366
SEP 07...	--	46	--	12	--	148	45	39	350

JUNIATA RIVER BASIN

01556010 FRANKSTOWN BRANCH JUNIATA RIVER NEAR WILLIAMSBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 25...	14	--	2.2	.05	.10	.27	380	--	--
NOV 30...	32	222	1.5	.04	.15	.27	590	--	--
DEC 29...	--	--	--	--	--	--	--	--	--
JAN 24...	14	296	2.6	.05	.59	.28	249	--	--
FEB 28...	4	246	2.2	.04	.41	.27	240	--	--
MAR 23...	56	162	2.0	.02	.17	.12	2100	--	--
APR 12...	14	126	1.9	.03	.21	.12	480	--	--
MAY 02...	4	208	1.9	.04	.12	.12	240	--	--
JUN 06...	20	250	2.5	.05	.19	.23	220	--	--
JUL 13...	26	302	2.6	.03	.15	.37	480	--	--
AUG 07...	94	--	2.6	.07	.18	.39	1520	200	7.0
SEP 07...	36	--	3.0	.02	.05	.32	470	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
FEB 28...	1115	360	--	--	--	--	--	--	--
AUG 07...	1400	1980	<3	<10	<10	<50	200	30	40

JUNIATA RIVER BASIN

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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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 25...	1355	9813	9813	150	10.0	7.1	11.1	58
NOV 30...	0900	9813	9813	370	--	--	--	82
DEC 29...	1000	9813	9813	--	.0	6.9	14.6	--
FEB 28...	0900	9813	9813	340	--	--	--	98
MAR 23...	1120	9813	9813	120	--	--	--	36
APR 12...	--	9813	9813	150	--	--	--	48
MAY 02...	--	9813	9813	220	--	--	--	60
JUN 06...	1100	9813	9813	240	--	--	--	66
JUL 13...	1445	9813	9813	300	--	--	--	88
AUG 07...	1230	9813	9813	360	22.0	7.5	8.3	99
SEP 07...	1300	9813	9813	490	24.0	7.5	9.8	116

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 25...	0	--	18	--	3.0	42	20	11	258
NOV 30...	--	20	--	8.2	--	48	36	52	174
DEC 29...	--	--	--	--	--	--	--	--	--
FEB 28...	--	27	--	8.2	--	66	38	39	204
MAR 23...	--	10	--	2.7	--	28	18	9.0	70
APR 12...	--	14	--	3.8	--	32	18	11	92
MAY 02...	--	18	--	3.8	--	52	30	16	124
JUN 06...	--	22	--	2.7	--	54	30	17	150
JUL 13...	--	25	--	6.6	--	64	40	21	156
AUG 07...	0	--	29	--	7.0	72	30	35	258
SEP 07...	0	36	--	6.0	--	92	45	47	290

JUNIATA RIVER BASIN

01556480 LITTLE JUNIATA RIVER AT TIPTON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 25...	10	--	.94	.05	.20	.31	210	--
NOV 30...	12	180	1.5	.09	.56	.43	250	--
DEC 29...	--	--	--	--	--	--	--	--
FEB 28...	4	208	1.5	.05	2.3	.70	330	--
MAR 23...	28	98	.92	.02	.17	.12	810	--
APR 12...	12	104	.90	.03	.22	.15	250	--
MAY 02...	4	128	1.4	.08	.59	.60	240	--
JUN 06...	12	162	1.3	.28	.22	.40	100	--
JUL 13...	18	174	2.4	.19	.43	.51	220	--
AUG 07...	38	--	3.1	.41	.59	.61	860	5.0
SEP 07...	<5	--	3.2	.10	.10	1.6	210	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 07...	1230	380	<3	<10	<10	<50	140	30	10

JUNIATA RIVER BASIN

213

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).

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) National Geodetic Vertical Datum of 1929. 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.--34 years, 76.7 ft³/s (2.172 m³/s), 23.62 in/yr (600 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. 17	0630	950 26.9	3.32 1.012	Mar. 14	1630	1,310 37.1	3.62 1.103
Jan. 9	0145	1,170 33.1	3.43 1.045	May 14	2315	*2,190 62.0	*4.60 1.402

Minimum discharge, 6.5 ft³/s (0.18 m³/s) Sept. 10, gage height, 0.26 ft (0.079 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	51	210	70	92	49	373	61	73	15	20	11
2	71	42	207	65	82	48	454	59	76	16	14	8.7
3	50	47	179	63	82	48	365	55	79	61	22	8.4
4	43	50	146	60	81	47	402	54	65	46	32	8.7
5	38	51	132	57	79	46	539	82	55	27	16	8.1
6	38	47	112	54	76	46	477	73	50	21	14	7.6
7	35	165	101	50	74	46	398	65	58	17	26	7.1
8	55	288	90	247	72	46	334	68	85	16	33	7.1
9	357	237	80	743	70	46	273	137	61	15	17	7.1
10	194	265	72	315	67	46	221	116	47	19	19	6.5
11	132	258	65	250	66	70	192	105	42	15	22	6.7
12	99	204	60	180	64	150	162	94	39	14	40	7.6
13	81	165	66	140	62	276	137	294	39	13	21	7.6
14	71	134	78	116	61	645	113	944	30	71	16	6.9
15	191	112	185	105	59	496	99	1740	28	30	13	27
16	345	103	170	105	57	334	89	1020	26	23	12	12
17	726	134	151	98	54	224	81	814	51	21	11	8.4
18	362	112	233	95	53	167	78	632	33	16	10	20
19	284	99	262	93	53	246	101	423	27	14	9.7	52
20	284	92	210	90	52	315	113	294	24	13	9.5	22
21	240	99	188	88	52	428	107	221	43	12	9.2	16
22	191	89	146	86	51	712	105	167	42	11	8.9	13
23	151	81	123	84	50	737	99	137	25	11	8.7	11
24	121	78	104	82	50	694	99	555	21	12	8.4	10
25	97	75	149	80	54	505	92	338	19	10	8.7	9.7
26	90	72	136	768	52	402	85	237	22	10	8.1	9.2
27	87	66	130	700	50	373	81	181	32	14	7.9	8.9
28	74	62	110	473	50	402	75	145	26	51	9.2	8.9
29	66	58	95	349	---	445	69	116	19	16	9.7	8.4
30	59	57	86	210	---	398	67	97	18	14	8.7	8.1
31	54	---	80	130	---	334	---	85	---	26	15	---
TOTAL	4767	3400	4156	6046	1765	8821	5880	9409	1255	670	479.7	353.7
MEAN	154	113	134	195	63.0	285	196	304	41.8	21.6	15.5	11.8
MAX	726	288	262	768	92	737	539	1740	85	71	40	52
MIN	35	47	60	50	50	46	67	54	18	10	7.9	6.5
CFSM	3.49	2.56	3.04	4.42	1.43	6.46	4.44	6.89	.95	.49	.35	.27
IN.	4.02	2.87	3.51	5.10	1.49	7.44	4.96	7.94	1.06	.57	.40	.30

CAL YR 1977	TOTAL	29719.0	MEAN	81.4	MAX	752	MIN	10	CFSM	1.85	IN	25.07
WTR YR 1978	TOTAL	47002.4	MEAN	129	MAX	1740	MIN	6.5	CFSM	2.93	IN	39.65

JUNIATA RIVER BASIN

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--40 years, 373 ft³/s (10.56 m³/s), 23.02 in/yr (585 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)
Jan. 9	0400	3,350 94.9	5.81 1.771	May 24	0730	4,170 118	6.43 1.960
May 15	0700	*6,650 188	*8.08 2.463				

Minimum daily discharge, 86 ft³/s (2.44 m³/s) Sept. 11, minimum gage height 1.80 ft (0.549 m), Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	255	851	390	442	174	1410	302	491	189	157	122
2	390	237	889	367	401	160	1880	283	454	186	132	101
3	264	233	784	318	367	168	1560	269	504	491	142	97
4	226	237	697	274	307	165	1420	259	425	425	168	103
5	203	237	634	307	288	154	2470	407	362	293	132	95
6	200	222	587	283	307	157	2020	351	323	241	132	95
7	149	516	510	274	278	157	1830	302	329	218	152	93
8	200	992	431	725	283	157	1500	298	473	203	196	91
9	1250	913	425	2320	259	154	1230	504	448	196	142	89
10	859	936	345	1180	246	174	1020	454	329	211	154	87
11	614	984	323	843	241	222	913	436	298	193	142	89
12	491	806	293	676	230	283	798	413	283	171	160	95
13	413	704	323	607	226	345	690	740	278	165	147	101
14	356	607	419	561	226	1230	594	2140	255	340	127	91
15	607	542	813	479	211	2250	523	5730	233	207	120	157
16	1000	491	776	419	203	1580	479	3910	222	171	118	116
17	2380	607	718	396	200	1080	436	3070	312	177	113	103
18	1430	561	1030	379	200	821	413	2630	264	160	109	154
19	1150	473	1220	334	186	1000	510	1950	218	149	107	269
20	1180	442	1020	323	174	1310	555	1480	207	142	103	142
21	1000	454	960	312	186	1550	535	1180	288	139	101	125
22	843	431	776	274	174	2560	497	936	323	139	101	118
23	690	390	648	237	174	2510	479	784	214	134	99	113
24	581	379	581	237	180	2470	479	2660	189	132	97	107
25	497	356	784	334	177	1970	454	1850	177	130	99	107
26	448	379	676	1400	180	1710	425	1310	180	127	95	105
27	436	323	607	1200	171	1670	396	1020	419	127	95	105
28	379	302	542	843	163	1760	367	851	401	259	99	103
29	334	288	504	676	---	1830	340	718	237	144	103	101
30	298	307	460	574	---	1690	323	628	211	132	99	101
31	274	---	425	491	---	1450	---	548	---	165	130	---
TOTAL	19522	14604	20051	18033	6680	32911	26546	38413	9347	6156	3871	3375
MEAN	630	487	647	582	239	1062	885	1239	312	199	125	113
MAX	2380	992	1220	2320	442	2560	2470	5730	504	491	196	269
MIN	189	222	293	237	163	154	323	259	177	127	95	87
CFSM	2.86	2.21	2.94	2.65	1.09	4.83	4.02	5.63	1.42	.91	.57	.51
IN.	3.30	2.47	3.39	3.05	1.13	5.56	4.49	6.50	1.58	1.04	.65	.57

CAL YR 1977	TOTAL	166927	MEAN 457	MAX 3910	MIN 91	CFSM 2.08	IN 28.23
WTR YR 1978	TOTAL	199509	MEAN 547	MAX 5730	MIN 87	CFSM 2.49	IN 33.73

JUNIATA RIVER BASIN

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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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT 12...	1440	9813	9813	479	180	7.4	9.5	9.3	70
NOV 30...	1030	9813	9813	298	240	--	--	--	88
DEC 14...	1145	9813	9813	334	200	--	--	--	88
JAN 24...	1300	9813	9813	200	240	--	--	--	100
FEB 28...	1015	9813	9813	149	290	--	--	--	106
MAR 07...	1105	9813	9813	147	300	--	--	--	110
JUN 06...	1020	9813	9813	323	230	--	--	--	98
JUL 13...	1445	9813	9813	160	270	--	--	--	110
AUG 07...	0930	9813	9813	144	320	7.7	17.5	9.4	106
SEP 07...	1345	9813	9813	93	320	7.7	19.0	11.2	138

DATE	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 12...	0	--	20	--	5.0	58	18	8.0	38
NOV 30...	--	22	--	8.8	--	64	32	17	102
DEC 14...	--	21	--	9.3	--	66	18	13	126
JAN 24...	--	27	--	8.8	--	78	24	11	156
FEB 28...	--	28	--	9.3	--	82	28	21	144
MAR 07...	--	30	--	9.3	--	86	20	23	153
JUN 06...	--	26	--	8.8	--	78	25	9.0	152
JUL 13...	--	32	--	8.2	--	100	25	12	176
AUG 07...	0	--	31	--	7.0	102	20	16	242
SEP 07...	0	35	--	12	--	116	25	14	164

JUNIATA RIVER BASIN

01558000 LITTLE JUNIATA RIVER AT SPRUCE CREEK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARRON, ORGANIC TOTAL (MG/L AS C)
OCT 12...	<10	--	1.2	.03	.07	.09	280	--
NOV 30...	2	104	1.5	.04	.22	.16	100	--
DEC 14...	12	138	1.5	.06	.13	.16	230	--
JAN 24...	14	170	1.8	.03	.19	.18	140	--
FEB 28...	4	148	1.6	.04	.44	.22	120	--
MAR 07...	1	154	1.5	.05	.34	.21	140	--
JUN 06...	14	166	1.5	.04	.10	.15	140	--
JUL 13...	18	194	1.8	.02	.09	.29	230	--
AUG 07...	14	--	2.0	.05	.18	--	450	2.0
SEP 07...	54	--	1.8	.03	.05	.23	170	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 07...	0930	380	<3	<10	10	<50	50	50	<10

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--37 years, 1,082 ft³/s (30.64 m³/s), 18.01 in/yr (457 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. 17	1045	5,760 163	5.89 1.795	Mar. 29	0300	5,990 170	6.02 1.835
Jan. 9	1130	8,160 231	7.14 2.176	Apr. 5	1230	6,080 172	6.07 1.850
Jan. 26	1915	6,830 193	6.47 1.972	May 15	1100	*13,700 388	*9.85 3.002
Mar. 15	1000	9,220 261	7.64 2.329	May 24	1030	6,810 193	6.46 1.969
Mar. 22	1230	8,410 238	7.26 2.213				

Minimum discharge, 275 ft³/s (7.79 m³/s) Sept. 30, gage height, 1.26 ft (0.384 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	690	2170	1180	1600	618	3520	918	1370	675	544	455
2	890	661	2730	1120	1500	577	4370	882	1240	654	443	362
3	632	647	2230	997	1300	598	3830	842	1930	1410	443	335
4	531	690	1960	881	1100	584	3540	810	1630	1740	598	340
5	480	749	1730	906	1000	564	5330	972	1260	1130	492	335
6	467	697	1630	922	1100	551	4730	1180	1100	939	455	314
7	474	1220	1420	873	1000	557	4750	980	1010	834	531	308
8	499	3100	1100	1530	980	551	3800	906	1190	779	618	303
9	2090	2770	1000	6600	940	544	3180	1270	1480	741	499	293
10	2090	2390	950	3600	880	577	2710	1290	1080	734	467	289
11	1280	2830	900	2570	898	697	2390	1170	939	668	557	284
12	1020	2090	860	2060	834	890	2190	1120	873	625	577	298
13	873	1780	964	1780	810	1070	1870	1380	857	551	661	335
14	787	1540	1030	1630	802	3510	1630	5420	818	865	524	324
15	1120	1370	2170	1420	764	8350	1460	12600	756	712	461	390
16	1810	1250	2410	1220	741	5610	1340	10900	719	584	467	443
17	4890	1300	2130	1150	726	3700	1250	8260	795	571	419	346
18	2990	1410	2960	1100	726	2780	1170	7250	1020	537	390	351
19	2230	1190	4080	1050	682	2920	1370	5810	764	499	373	632
20	2470	1090	3240	989	632	4660	1640	4340	712	480	362	518
21	1960	1080	2840	960	654	4940	1620	3410	690	518	351	373
22	1640	1060	2510	900	654	7850	1480	2710	972	467	346	346
23	1390	981	1990	826	612	7250	1380	2230	764	449	340	351
24	1200	947	1760	795	661	6790	1350	4340	654	437	335	329
25	1060	914	2180	1040	632	5370	1290	5060	612	531	335	308
26	1030	955	2150	4570	639	4650	1210	3420	612	437	329	298
27	1100	873	1760	4600	612	5230	1150	2740	955	431	324	293
28	972	810	1590	2950	584	5470	1080	2300	972	605	329	289
29	849	787	1460	2500	---	5580	1010	1970	682	499	390	284
30	779	802	1380	2100	---	4790	969	1730	726	437	335	280
31	726	---	1270	1800	---	4050	---	1530	---	461	384	---
TOTAL	40834	38673	58554	56619	24063	101878	68609	99740	29182	21000	13679	10406
MEAN	1317	1289	1889	1826	859	3286	2287	3217	973	677	441	347
MAX	4890	3100	4080	6600	1600	8350	5330	12600	1930	1740	661	632
MIN	467	647	860	795	584	544	969	810	612	431	324	280
CFSM	1.61	1.58	2.32	2.24	1.05	4.03	2.80	3.94	1.19	.83	.54	.43
IN.	1.86	1.76	2.67	2.58	1.10	4.64	3.13	4.55	1.33	.96	.62	.47

CAL YR 1977 TOTAL 441872 MEAN 1211 MAX 13700 MIN 245 CFSM 1.48 IN 20.14
WTR YR 1978 TOTAL 563237 MEAN 1543 MAX 12600 MIN 280 CFSM 1.89 IN 25.68

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, FEBRUARY TO AUGUST 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
FEB 22...	1150	9813	9813	538	340	--	--	--	100
AUG 09...	1230	9813	9813	461	380	8.1	22.0	9.4	126

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
FEB 22...	--	33	--	4.4	--	110	30	21	342
AUG 09...	0	--	36	--	9.0	124	25	19	254

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB 22...	4	346	1.9	.03	.11	.13	150	--
AUG 09...	26	--	2.0	.03	.10	.21	900	6.0

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 09...	1230	540	<3	<10	10	<50	80	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 September 30 (discontinued).

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.--17 years, 5.50 ft³/s (0.156 m³/s), 14.15 in/yr (359 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) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Jan. 26	0645	*204 5.78	*2.29 0.698	Mar. 21	1645	78.1 2.21	1.47 0.448
Mar. 14	2030	90.3 2.56	1.57 0.478	May 16	0345	80.5 2.28	1.49 0.454

Minimum discharge, 0.30 ft³/s (0.008 m³/s) Sept. 29 and 30; minimum gage height, 0.31 ft (0.094 m) Oct. 1, 4, 5, 6, 7, 8, Sept. 29 and 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.80	28	4.8	8.0	1.5	19	3.3	4.3	1.4	2.6	1.4
2	1.6	1.2	17	4.4	7.0	1.5	16	2.8	4.3	8.6	1.2	.64
3	.64	2.1	16	4.0	6.4	1.4	18	2.6	6.1	32	.80	.50
4	.50	4.6	14	3.7	5.8	1.4	16	3.1	3.6	9.6	.80	.64
5	.39	4.0	13	3.5	5.3	1.4	19	8.2	2.8	3.6	.80	.50
6	.50	6.9	10	3.3	5.0	1.4	19	4.3	2.3	1.8	2.6	.39
7	.50	29	8.0	3.2	4.5	1.4	22	3.3	2.6	1.0	2.8	.39
8	.64	30	6.6	7.3	4.0	1.4	18	4.0	2.6	.80	2.3	.39
9	3.3	16	4.5	17	3.6	1.4	17	6.5	1.8	.64	.64	.39
10	1.4	16	3.3	16	3.3	1.8	15	5.3	1.4	.64	1.8	.30
11	.80	12	2.8	9.6	3.1	2.6	14	5.3	1.4	.64	1.0	.30
12	.64	8.6	3.1	8.4	2.8	3.3	11	5.3	1.4	.50	.80	.39
13	.64	6.9	3.6	6.8	2.6	6.9	9.1	23	1.4	.50	.80	.50
14	.50	5.7	5.3	5.8	2.4	35	7.3	34	1.4	.50	.64	.39
15	.50	5.0	15	5.3	2.2	58	6.5	48	1.2	.39	.64	.50
16	2.6	4.3	13	4.6	2.1	37	5.3	66	1.2	.39	.64	.50
17	1.8	4.6	14	4.1	2.0	28	5.0	57	3.6	.39	.50	.39
18	1.2	4.0	23	3.9	1.9	22	5.7	41	1.4	.39	.50	.39
19	1.2	3.1	19	3.6	1.8	38	8.6	32	1.4	.39	.39	.80
20	1.2	2.6	17	3.3	1.8	44	8.2	23	1.4	.39	.39	.50
21	1.0	2.6	16	3.1	1.8	59	6.5	19	2.6	.50	.39	.50
22	.80	2.3	13	2.9	1.8	53	5.7	15	1.4	.64	.39	.50
23	.80	2.6	10	2.8	1.7	44	5.3	13	1.4	.80	.39	.50
24	.64	2.3	9.3	2.7	1.7	37	6.1	18	1.4	3.3	.39	.39
25	.64	2.2	8.4	48	1.6	29	5.3	11	1.2	2.6	.39	.39
26	2.1	2.1	7.8	71	1.6	42	5.0	9.1	1.2	1.8	.39	.39
27	3.6	2.0	7.3	20	1.6	41	4.6	8.2	1.8	2.8	.39	.39
28	1.8	2.0	6.7	16	1.6	39	4.3	7.3	1.6	3.1	.39	.39
29	1.4	2.0	6.2	13	---	35	4.0	6.9	1.6	1.0	.39	.30
30	1.2	5.7	5.7	10	---	30	3.6	6.1	1.4	1.0	.39	.30
31	1.0	---	5.1	8.8	---	24	---	5.3	---	5.7	6.5	---
TOTAL	36.73	193.20	331.7	320.9	89.0	722.4	310.1	496.9	63.2	87.80	33.04	14.25
MEAN	1.18	6.44	10.7	10.4	3.18	23.3	10.3	16.0	2.11	2.83	1.07	.48
MAX	3.6	30	28	71	8.0	59	22	66	6.1	32	6.5	1.4
MIN	.39	.80	2.8	2.7	1.6	1.4	3.6	2.6	1.2	.39	.39	.30
CFSM	.22	1.22	2.03	1.97	.60	4.41	1.95	3.03	.40	.54	.20	.09
IN.	.26	1.36	2.34	2.26	.63	5.09	2.18	3.50	.45	.62	.23	.10

CAL YR 1977 TOTAL 2224.22 MEAN 6.09 MAX 76 MIN .16 CFSM 1.15 IN 15.67
WTR YR 1978 TOTAL 2699.22 MEAN 7.40 MAX 71 MIN .30 CFSM 1.40 IN 19.01

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those for periods of no gage-height record, Jan. 10-31, Feb. 19 to Mar. 14, July 21-31, and winter periods, which are fair.

AVERAGE DISCHARGE.--39 years, 226 ft³/s (6.400 m³/s), 17.84 in/yr (453 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)
Jan. 26	1100	*3,880 110	*9.08 2.768	Mar. 22	0730	2,490 70.5	7.10 2.164
Mar. 15	0430	3,080 87.2	8.07 2.460	May 16	1230	3,270 92.6	8.32 2.536

Minimum discharge, 21 ft³/s (0.595 m³/s) Sept. 12, gage height, 1.19 ft (0.363 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	30	1320	185	350	86	762	121	137	60	62	50
2	79	32	1110	168	320	80	1080	111	143	101	52	37
3	55	35	792	137	280	88	817	101	193	891	46	34
4	42	46	584	140	220	84	707	96	162	625	72	33
5	37	50	458	151	210	77	1100	210	121	368	50	32
6	39	53	394	129	200	78	1100	216	108	252	81	30
7	40	532	301	121	180	80	1040	174	106	188	246	29
8	40	1670	261	390	160	81	860	160	118	157	182	28
9	404	1060	227	1620	150	77	666	261	106	135	81	25
10	370	766	168	1170	140	90	493	295	86	146	88	24
11	228	670	182	640	130	103	409	288	77	157	91	23
12	171	520	162	300	120	157	343	252	70	98	79	22
13	163	413	171	260	110	332	276	435	67	86	79	24
14	114	321	210	240	103	1400	227	1540	67	84	60	25
15	100	270	604	220	98	2670	190	1990	60	77	52	26
16	200	224	629	190	88	1460	176	2940	58	65	46	30
17	328	227	572	180	79	869	157	1960	501	65	42	40
18	289	255	1000	170	74	612	137	1720	207	58	38	36
19	264	221	1100	160	73	975	241	1460	891	50	37	54
20	244	218	847	140	69	1380	279	944	111	46	36	48
21	212	218	686	150	70	1470	361	649	108	43	33	36
22	189	199	513	130	68	2310	413	458	276	40	32	41
23	163	188	379	100	70	1860	368	357	148	39	30	41
24	140	176	336	120	76	1580	314	641	116	200	29	34
25	83	160	584	180	80	1170	270	720	96	45	29	36
26	46	174	428	1300	74	1350	232	584	88	44	28	29
27	96	151	390	1000	75	1530	204	439	93	42	28	26
28	62	146	318	660	82	1480	174	339	121	68	29	26
29	46	137	285	520	---	1450	151	270	79	43	32	24
30	39	168	246	430	---	1260	137	221	67	40	32	23
31	33	---	207	380	---	922	---	185	---	67	70	---
TOTAL	4355	9330	15464	11681	3749	27161	13684	20137	4581	4380	1892	966
MEAN	140	311	499	377	134	876	456	650	153	141	61.0	32.2
MAX	404	1670	1320	1620	350	2670	1100	2940	891	891	246	54
MIN	33	30	162	100	68	77	137	96	58	39	28	22
CFSM	.41	1.81	2.90	2.19	.78	5.09	2.65	3.78	.89	.82	.36	.19
IN.	.94	2.02	3.34	2.53	.81	5.87	2.96	4.36	.99	.95	.41	.21

CAL YR 1977 TOTAL 101258 MEAN 277 MAX 8400 MIN 15 CFSM 1.61 IN 21.90
WTR YR 1978 TOTAL 117380 MEAN 322 MAX 2940 MIN 22 CFSM 1.87 IN 25.39

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) National Geodetic Vertical Datum of 1929. 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, except those for winter periods, which are fair.

AVERAGE DISCHARGE.--67 years, 908 ft³/s (25.7 m³/s), 16.31 in/yr (414 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)
Jan. 26	1930	12,100 343	10.04 3.060	Mar. 26	2245	8,000 227	7.80 2.377
Mar. 14	1945	*21,500 609	*13.40 4.084	May 16	2115	11,900 337	9.97 3.039
Mar. 22	0930	8,020 227	7.81 2.380				

Minimum discharge, 111 ft³/s (3.14 m³/s) Sept. 30, gage height 1.23 ft (0.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	301	2580	640	1400	900	2900	607	804	318	349	626
2	180	284	4320	540	1350	900	2800	565	706	330	387	388
3	188	279	3260	490	1300	890	2720	532	722	1090	344	257
4	215	307	2450	450	1250	890	2600	505	804	4430	615	220
5	171	406	1900	485	1250	880	2870	628	706	2520	487	194
6	156	492	1530	666	1200	880	3060	1080	578	1600	429	179
7	149	771	1390	650	1200	880	3240	898	538	1060	452	168
8	149	3750	1220	682	1150	870	2850	746	525	812	712	156
9	257	4130	1070	2810	1150	860	2450	855	532	738	670	149
10	674	2750	650	2200	1100	860	2020	1100	492	621	487	144
11	628	2700	374	1700	1100	870	1680	1110	433	846	434	133
12	439	2070	459	1500	1100	906	1620	1040	393	730	448	131
13	336	1590	578	1300	1050	1040	1260	1150	380	519	396	135
14	279	1410	714	1000	1050	8120	1090	5850	374	453	365	136
15	279	1040	1310	910	1050	10700	1010	7590	367	446	335	157
16	393	889	2330	880	1050	6020	863	11300	312	446	305	155
17	986	804	2170	840	1050	3940	771	9900	492	433	268	163
18	950	915	2470	800	1000	3010	730	7410	995	393	244	165
19	698	771	4360	760	1000	4440	846	5950	614	336	228	231
20	592	658	3680	730	990	5760	1190	4320	446	290	211	180
21	519	628	3030	710	980	6230	1290	3200	406	262	201	188
22	453	658	2520	690	970	7610	1160	2400	977	257	191	202
23	393	635	1790	670	960	6230	1160	1820	933	273	180	163
24	349	551	1610	660	940	5110	1140	1920	578	257	175	152
25	312	532	1700	1000	930	4150	1030	2630	466	426	173	155
26	295	532	1300	7950	920	5850	898	2010	406	479	167	138
27	393	545	1100	7180	910	6930	838	1580	380	419	167	128
28	505	492	980	4490	910	6340	771	1360	413	400	167	121
29	439	472	840	3060	---	5500	706	1290	485	342	168	115
30	367	492	740	2000	---	4490	650	1030	380	267	168	111
31	330	---	760	1500	---	3560	---	906	---	342	242	---
TOTAL	12258	31854	55185	49943	30310	115616	48213	83282	16637	22135	10165	5540
MEAN	395	1062	1780	1611	1083	3730	1607	2687	555	714	328	185
MAX	986	4130	4360	7950	1400	10700	3240	11300	995	4430	712	626
MIN	149	279	374	450	910	860	650	505	312	257	167	111
CFSM	.52	1.41	2.35	2.13	1.43	4.93	2.13	3.55	.73	.94	.43	.25
IN.	.60	1.57	2.72	2.46	1.49	5.69	2.37	4.10	.82	1.09	.50	.27

CAL YR 1977 TOTAL 350735 MEAN 961 MAX 10500 MIN 93 CFSM 1.27 IN 17.26
WTR YR 1978 TOTAL 481138 MEAN 1318 MAX 11300 MIN 111 CFSM 1.74 IN 23.68

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT 25...	1015	9813	9813	312	250	7.4	9.0	11.6	94
DEC 29...	1230	9813	9813	1350	--	7.0	.0	14.4	--
JAN 30...	1430	9813	9813	2340	160	--	--	--	64
MAR 23...	1430	9813	9813	5990	120	--	--	--	40
JUN 22...	1005	9813	9813	1370	260	--	--	--	104
JUL 20...	1315	9813	9813	290	--	--	--	--	111
AUG 09...	1030	9813	9813	762	310	8.0	23.0	8.7	113
SEP 20...	1100	9813	9813	142	340	8.8	20.0	8.2	135

DATE	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 25...	0	--	30	--	4.5	80	30	11	312
DEC 29...	--	--	--	--	--	--	--	--	--
JAN 30...	--	16	--	6.6	--	38	18	12	42
MAR 23...	--	11	--	3.3	--	30	12	8.0	34
JUN 22...	--	28	--	8.8	--	76	40	12	220
JUL 20...	--	29	--	10	--	90	25	11	208
AUG 09...	0	--	36	--	6.0	102	20	12	210
SEP 20...	0	39	--	9.5	--	118	45	12	268

JUNIATA RIVER BASIN

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01562000 RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	
OCT 25...	20	--	1.5	.03	.06	.08	260	--	
DEC 29...	--	--	--	--	--	--	--	--	
JAN 30...	18	60	.02	1.8	.11	.09	399	--	
MAR 23...	90	124	1.8	.03	.17	.10	3650	--	
JUN 22...	220	440	2.2	.08	.06	.31	7400	--	
JUL 20...	12	220	1.7	.03	.10	.06	310	--	
AUG 09...	50	--	1.6	.02	.07	.08	1120	6.0	
SEP 20...	38	--	2.3	.04	.08	.08	930	--	
DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 09...	1030	1040	<3	<10	20	<50	70	120	10

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 National Geodetic Vertical Datum of 1929 (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, 577,500 acre-ft (712 hm³) May 18, 1978 (elevation, 793.42 ft or 241.834 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, 577,500 acre-ft (712 hm³) May 18 (elevation, 793.42 ft or 241.834 m); minimum, 456,480 acre-ft (563 hm³) Dec. 11 (elevation, 779.01 ft or 237.442 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01563100 Raystown Lake			
Sept. 30	784.79	503,520	--
Oct. 31	785.78	512,090	+139
Nov. 30	779.56	460,770	-862
Dec. 31	779.66	461,550	+ 12.7
CAL YR 1977	--	--	- 19.4
Jan. 31	786.02	514,170	+856
Feb. 28	785.38	508,610	-100
Mar. 31	786.20	515,700	+115
Apr. 30	786.61	519,180	+ 58.5
May 31	786.26	516,210	- 48.3
June 30	786.31	516,640	+ 7.2
July 31	786.13	515,100	- 25.0
Aug. 31	786.53	518,500	+ 55.3
Sept. 30	784.57	501,640	-283
WTR YR 1978	--	--	- 2.6

JUNIATA RIVER BASIN

225

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).

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) Corps of Engineers datum.
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. 224).

AVERAGE DISCHARGE.--32 years, 1,133 ft³/s (32.09 m³/s), 16.03 in/yr (407 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 previous site and datum, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,200 ft³/s (374 m³/s) May 18, gage height, 13.71 ft (4.179 m); minimum discharge, 238 ft³/s (6.74 m³/s) Aug. 26-28, gage height 3.37 ft (1.027 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	1240	1690	1590	688	552	3960	778	1150	454	449	474
2	282	2340	3970	1420	1280	552	3410	778	1010	454	449	474
3	282	2340	3980	926	1410	552	3110	772	1010	1270	449	474
4	282	2340	3960	647	1410	558	3110	624	1010	4890	711	474
5	282	2330	3960	647	1400	558	3120	569	1010	3440	873	474
6	282	2320	2690	647	1400	558	3120	1160	1010	1670	1080	474
7	282	2310	1570	647	1400	547	3610	1410	847	1190	1200	474
8	282	3270	1160	803	1260	552	3990	1410	670	666	1080	474
9	282	3980	1180	1540	913	552	3410	1410	670	558	772	474
10	282	4440	1170	2810	558	552	2810	939	670	558	772	474
11	282	5210	585	3180	558	552	1590	766	670	771	693	469
12	282	5500	286	2720	558	552	906	1220	596	873	574	469
13	282	5370	324	1980	558	558	1280	1420	563	670	574	420
14	282	4900	324	1680	558	1620	1430	5890	526	547	574	324
15	282	2410	1000	1500	880	6150	1430	3680	459	552	574	303
16	290	1360	1940	1220	1040	9830	1430	1540	459	552	515	282
17	618	1330	2320	1070	1030	10400	1080	5930	624	552	479	282
18	993	1320	2350	1070	1020	7980	913	11300	873	547	479	286
19	993	1060	2390	1070	1030	4440	913	12700	711	515	479	282
20	1000	886	2420	1070	1030	3910	1240	12200	542	449	479	282
21	993	886	2940	880	1030	5540	1430	11700	469	449	479	282
22	635	886	4000	542	717	8750	1430	9340	729	449	420	282
23	464	886	3960	425	552	10500	1430	3670	1030	449	382	282
24	464	854	3160	425	552	8270	1430	3150	769	449	324	282
25	464	828	2400	429	552	6420	1430	3140	653	449	286	282
26	464	828	2400	459	552	5780	1420	2040	531	449	258	282
27	464	664	2400	449	552	6950	1320	1410	464	449	246	282
28	464	624	2390	449	552	7630	1410	1410	454	449	368	282
29	464	694	2370	454	---	7610	1410	1410	454	449	474	282
30	464	694	2350	454	---	6950	966	1410	454	449	474	282
31	464	---	2020	459	---	4580	---	1410	---	449	474	---
TOTAL	13928	64100	69659	33662	25040	130505	59538	106586	21087	26117	17440	10959
MEAN	449	2137	2247	1086	894	4210	1985	3438	703	842	563	365
MAX	1000	5500	4000	3180	1410	10500	3990	12700	1150	4890	1200	474
MIN	282	624	286	425	552	547	906	569	454	449	246	282
MEAN#	588	1275	2260	1942	794	4325	2044	3390	710	817	618	82
CFSM#	0.61	1.33	2.35	2.02	0.83	4.51	2.13	3.53	0.74	0.85	0.64	0.08
IN.#	0.70	1.48	2.71	2.33	0.86	5.20	2.38	4.07	0.83	0.98	0.74	0.09

CAL YR 1977 TOTAL 428966 MEAN 1175 MAX 8400 MIN 274 MEAN# 1156 CFSM# 1.20 IN.# 16.35
 WTR YR 1978 TOTAL 578621 MEAN 1585 MAX 12700 MIN 246 MEAN# 1583 CFSM# 1.65 IN.# 22.38

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated since October 1972 by Raystown Lake 12 mi (19 km) upstream (see p. 224).

AVERAGE DISCHARGE.--41 years, 2,476 ft³/s (70.12 m³/s), 16.56 in/yr (421 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, 27,600 ft³/s (782 m³/s) May 15, gage height, 15.44 ft (4.706 m); minimum, 592 ft³/s (16.8 m³/s) Sept. 30, gage height, 2.55 ft (0.777 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	1940	4360	3190	2640	1410	8150	2080	3080	1370	1250	1090
2	1540	3300	7670	2990	3050	1370	8340	2020	2700	1350	1130	987
3	1240	3270	6930	2420	3100	1390	7520	1970	3700	2630	1130	941
4	1050	3430	6510	1840	2860	1390	7220	1830	3370	6990	1880	933
5	972	3590	6170	1930	2710	1320	8880	2140	2780	5360	1730	933
6	948	3430	5050	2000	2820	1320	8480	2640	2550	3100	1790	903
7	948	4160	3590	1930	2730	1320	8900	2790	2370	2450	2020	896
8	933	7570	2750	2730	2650	1330	8420	2700	2320	1800	2050	888
9	2590	7780	2810	9740	2330	1320	7310	3170	2740	1540	1540	881
10	3420	7540	2500	7390	1800	1360	6170	3030	2230	1500	1460	859
11	2170	9550	2010	6280	1810	1540	4900	2520	2020	1640	1540	859
12	1770	8500	1440	5270	1770	1820	3760	2700	1890	1750	1480	874
13	1550	7800	1690	4430	1720	2110	3600	3410	1820	1550	1450	881
14	1400	7090	1800	3880	1710	5700	3560	13200	1730	1740	1350	738
15	1900	4560	3510	3460	1900	16500	3360	23200	1540	1840	1220	753
16	2810	3190	4960	2950	2100	16900	3210	16200	1480	1480	1270	867
17	7590	3130	5050	2750	2090	14900	2900	15500	1610	1660	1070	738
18	5400	3260	6300	2630	2070	11600	2530	19900	2260	1410	1020	716
19	4040	2800	8030	2590	2020	8280	2730	19800	1880	1300	1000	1110
20	4500	2420	6740	2480	1950	9590	3380	17400	1600	1170	987	987
21	3850	2380	6700	2380	1970	11400	3730	15700	1510	1270	964	790
22	3140	2360	7350	1950	1730	17500	3500	13500	1930	1150	911	716
23	2530	2270	6580	1570	1420	19300	3330	6750	2100	1130	837	702
24	2250	2210	5670	1520	1490	16300	3270	9050	1800	1110	798	681
25	2050	2140	5190	2020	1460	12700	3210	9420	1550	1190	709	653
26	1980	2200	5320	7310	1460	11200	3090	6610	1480	1080	688	632
27	2230	1990	4710	7610	1430	13200	2920	4860	1900	1080	653	632
28	2010	1780	4490	4710	1390	14600	2900	4330	1880	1280	724	625
29	1810	1840	4260	3680	---	14700	2810	3960	1600	1220	964	612
30	1670	1850	4180	3110	---	12900	2470	3660	1520	1090	926	605
31	1580	---	3810	2720	---	9650	---	3420	---	1130	987	---
TOTAL	72871	119330	148130	111460	58180	255920	144550	239460	62940	56360	37528	24482
MEAN	2351	3978	4778	3595	2078	8255	4818	7725	2098	1818	1211	816
MAX	7590	9550	8030	9740	3100	19300	8900	23200	3700	6990	2050	1110
MIN	933	1780	1440	1520	1390	1320	2470	1830	1480	1080	653	605
MEAN#	2490	3116	4791	4451	1978	8370	4876	7677	2105	1793	1266	533
CFSM#	1.23	1.53	2.36	2.19	0.97	4.12	2.40	3.78	1.04	0.88	0.62	0.26
IN.#	1.42	1.71	2.72	2.52	1.01	4.75	2.68	4.36	1.16	1.02	0.72	0.29

CAL YR 1977 TOTAL 1013025 MEAN 2775 MAX 23100 MIN 629 MEAN# 2756 CFSM# 1.36 IN.# 18.43
WTR YR 1978 TOTAL 1331211 MEAN 3647 MAX 23200 MIN 605 MEAN# 3645 CFSM# 1.80 IN.# 24.38

Adjusted for change in contents in Raystown Lake.

JUNIATA RIVER BASIN

227

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 of 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) National Geodetic Vertical Datum, unadjusted.

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

AVERAGE DISCHARGE.--40 years, 246 ft³/s (6.967 m³/s), 16.30 in/yr (414 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)
Dec. 1	1330	2,210 62.6	7.96 2.426	Mar. 22	0400	2,190 62.0	7.94 2.420
Dec. 19	0130	2,890 81.8	8.71 2.655	Mar. 26	2130	3,690 105	9.50 2.896
Jan. 9	1230	2,380 67.4	8.15 2.484	May 16	1300	4,280 121	10.03 3.057
Jan. 26	2130	*6,300 178	*11.59 3.533	Aug. 4	0500	2,120 60.0	7.85 2.393
Mar. 15	0900	5,880 167	11.29 3.441				

Minimum discharge recorded, 10 ft³/s (0.28 m³/s) Sept. 12, gage height, 2.30 ft (0.701 m); but may have been less during a period of no gage-height record, Sept. 24-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	98	1380	220	350	125	590	137	161	38	51	125
2	35	87	1110	180	310	120	499	129	144	34	44	44
3	43	84	690	160	280	120	432	120	152	214	152	28
4	29	137	495	140	240	115	450	117	148	409	840	24
5	23	360	399	150	230	115	521	223	127	214	236	21
6	22	258	359	170	220	110	467	238	112	143	132	19
7	22	322	283	160	210	110	528	183	101	104	94	17
8	24	870	220	193	200	110	471	175	112	88	88	15
9	72	758	200	1070	200	110	429	268	114	88	77	14
10	208	626	170	555	190	110	386	263	94	96	49	13
11	108	1220	150	534	180	130	357	233	80	77	42	12
12	68	666	145	480	180	193	345	221	70	62	144	13
13	48	446	160	400	175	294	291	426	84	48	110	14
14	37	330	170	340	170	1400	250	2970	87	42	64	14
15	100	270	443	300	165	4040	216	3340	67	87	47	14
16	263	231	576	270	160	2150	198	4010	59	68	44	17
17	1440	210	503	230	155	1110	185	2850	77	94	33	22
18	614	210	1340	220	150	780	175	1950	144	75	26	54
19	313	169	2180	200	150	902	207	1280	82	52	22	70
20	268	144	1180	190	145	1530	283	863	61	41	20	83
21	210	134	971	190	140	1610	260	634	74	35	17	35
22	165	128	765	180	140	1930	226	474	119	31	16	27
23	130	127	551	175	135	1450	205	382	120	29	15	26
24	109	132	447	170	135	1100	196	422	73	27	15	25
25	93	120	594	160	130	804	190	450	56	34	14	26
26	87	137	597	250	130	1930	181	308	48	34	14	25
27	183	135	486	3500	130	2920	175	260	51	33	13	24
28	186	115	430	1280	125	2150	165	233	61	34	14	24
29	152	112	370	786	---	1280	152	212	60	32	14	23
30	130	131	310	500	---	887	144	194	44	26	13	22
31	114	---	270	410	---	702	---	177	---	49	32	---
TOTAL	5323	8767	17944	13763	5125	30437	9174	23742	2782	2438	2492	890
MEAN	172	292	579	444	183	982	306	766	92.7	78.6	80.4	29.7
MAX	1440	1220	2180	3500	350	4040	590	4010	161	409	840	125
MIN	22	84	145	140	125	110	144	117	44	26	13	12
CFSM	.84	1.42	2.82	2.17	.89	4.79	1.49	3.74	.45	.38	.39	.15
IN.	.97	1.59	3.26	2.50	.93	5.52	1.66	4.31	.50	.44	.45	.16
CAL YR 1977	TOTAL	79738.6	MEAN 218	MAX 2180	MIN 7.0	CFSM 1.06	IN 14.47					
WTR YR 1978	TOTAL	122877.0	MEAN 337	MAX 4040	MIN 12	CFSM 1.64	IN 22.30					

JUNIATA RIVER BASIN

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 05...	1235	9813	9813	310	12.5	7.8	9.2	130
NOV 29...	1430	9813	9813	330	--	--	--	144
DEC 12...	1425	9813	9813	320	--	--	--	142
JAN 17...	1110	9813	9813	290	--	--	--	112
FEB 27...	1330	9813	9813	290	--	--	--	138
MAR 07...	1515	9813	9813	310	--	--	--	142
APR 11...	--	9813	9813	220	--	--	--	82
MAY 03...	--	9813	9813	250	--	--	--	120
JUL 06...	1330	9813	9813	340	--	--	--	103
AUG 10...	1015	9813	9813	250	16.0	8.1	10.4	103
SEP 07...	1325	9813	9813	360	20.0	9.0	11.4	145

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT 05...	0	--	42	--	6.5	124	10	9.0	194
NOV 29...	--	24	--	23	--	118	20	13	202
DEC 12...	--	42	--	9.9	--	124	14	9.0	184
JAN 17...	--	35	--	6.6	--	102	14	46	168
FEB 27...	--	40	--	10	--	114	14	10	310
MAR 07...	--	17	--	26	--	124	14	11	260
APR 11...	--	26	--	4.4	--	80	6.0	8.0	157
MAY 03...	--	34	--	9.3	--	98	18	8.0	215
JUL 06...	--	44	--	.0	--	128	20	10	192
AUG 10...	0	--	33	--	5.5	94	10	7.0	142
SEP 07...	--	48	--	6.0	--	136	25	9.0	244

JUNIATA RIVER BASIN

229

01565510 KISHACOQUILLAS CREEK AT LEWISTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS RESIDUE AT 105 DEG. C. SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	38	--	1.5	.02	.06	.17	830	--
NOV 29...	34	236	2.8	.03	.09	.53	120	--
DEC 12...	8	192	.48	.03	.09	.31	170	--
JAN 17...	18	186	2.8	.13	.44	.75	210	--
FEB 27...	20	330	3.0	.02	.15	.13	100	--
MAR 07...	0	260	2.2	.04	.08	.25	70	--
APR 11...	18	166	2.6	.02	.20	.13	290	--
MAY 03...	13	228	2.2	.03	.11	.14	130	--
JUL 06...	20	212	4.1	.04	.10	.19	610	--
AUG 10...	14	--	2.2	.02	.07	.11	510	2.0
SEP 07...	8	--	2.6	.03	.09	.22	160	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 10...	1015	360	<3	<10	<10	<50	20	30	<10

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) National Geodetic Vertical Datum of 1929. 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. 224).

AVERAGE DISCHARGE.--79 years, 4,299 ft³/s (121.7 m³/s), 17.41 in/yr (442 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, 54,500 ft³/s (1,543 m³/s) May 15, gage height, 17.41 ft (5.307 m); minimum, 957 ft³/s (27.1 m³/s) Sept. 30, gage height, 3.42 ft (1.042 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	2520	6470	6130	5390	2340	15600	3770	5140	2820	2050	1600
2	1640	2450	12000	5330	5330	2270	13300	3370	4660	2720	2030	1600
3	1780	4020	13800	4940	5720	2230	12800	3200	4210	2860	2050	1680
4	1930	5580	11700	4470	5390	2200	11600	3100	5000	6830	4360	1540
5	1560	6470	10600	3690	4720	2180	11600	3190	4880	10300	6390	1480
6	1410	6130	9900	3640	4550	2200	13000	3490	4050	7370	4020	1430
7	1350	9590	8170	3620	4610	2160	12800	3790	3670	4750	4360	1390
8	1280	17600	6070	3840	4610	2100	12900	3920	3670	3790	4200	1330
9	1470	17700	4940	17900	4610	2100	12000	4050	3560	3460	3790	1290
10	3060	15600	4770	19300	4130	2120	10500	4610	3670	3140	3250	1280
11	4800	20700	4420	12400	3400	2180	9060	4750	3510	3390	2870	1280
12	3250	18600	3820	11100	3300	2450	7810	4050	3280	3080	2940	1280
13	2540	14900	3350	9150	3200	3080	6100	4390	3210	3030	2870	1310
14	2180	12700	3270	7840	3000	5530	5530	25600	3190	2940	2630	1290
15	2340	11100	4200	7210	3000	28700	5270	48000	3120	6770	2570	1290
16	2750	7990	6740	6240	2960	31400	4880	45000	2950	4740	2270	1240
17	9900	6070	8750	5360	3220	24600	4630	34600	2880	5360	2230	1220
18	15500	5780	11200	4830	3200	19200	4610	31700	2880	4420	2050	1350
19	9560	5610	17300	4630	3150	17100	4390	31500	2980	3470	1930	1580
20	8390	4910	17400	4530	3000	18900	4530	27200	3020	2980	1860	1540
21	7960	4280	16500	4260	3000	20900	4720	23400	2880	2660	1820	1740
22	6590	4100	15900	4200	3050	25500	4990	20600	2880	2470	1760	1520
23	5330	3950	13200	3790	2980	30500	4630	16400	2880	2340	1740	1280
24	4340	3790	11400	3250	2660	28800	4630	11600	2910	2160	1700	1160
25	3790	3670	10400	3220	2520	25700	4610	16400	2910	2100	1640	1130
26	3440	3720	10600	11400	2470	21000	4610	13800	2790	2100	1560	1110
27	3350	3770	9400	24300	2450	25100	4580	10200	2860	2080	1450	1090
28	3490	3620	8330	17300	2430	31500	4360	7900	3020	1970	1290	1080
29	3350	3220	7990	10900	---	27000	4340	6890	3020	1970	1220	1030
30	2960	3320	7060	8270	---	23700	4200	6130	3020	2120	1280	975
31	2700	---	6620	6830	---	20000	---	5580	---	2030	1540	---
TOTAL	125690	233460	286270	243870	102050	454740	228580	432180	102700	112220	77720	40115
MEAN	4055	7782	9235	7867	3645	14670	7619	13940	3423	3620	2507	1337
MAX	15500	20700	17400	24300	5720	31500	15600	48000	5140	10300	6390	1740
MIN	1280	2450	3270	3220	2430	2100	4200	3100	2790	1970	1220	975
MEAN#	4194	6920	9248	8723	3545	14785	7678	13892	3430	3595	2562	1054
CFSM#	1.25	2.06	2.76	2.60	1.06	4.41	2.29	4.14	1.02	1.07	0.76	0.31
IN.#	1.44	2.30	3.18	3.00	1.10	5.08	2.56	4.77	1.14	1.23	0.88	0.35

CAL YR 1977 TOTAL 1683191 MEAN 4611 MAX 29200 MIN 645 MEAN# 4592 CFSM# 1.37 IN.# 18.59
WTR YR 1978 TOTAL 2439595 MEAN 6684 MAX 48000 MIN 975 MEAN# 6681 CFSM# 1.99 IN.# 27.05

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.--Twelve 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, 115 micromhos May 15, 16, 1978.

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.--

SPECIFIC CONDUCTANCE: Maximum daily, 319 micromhos Sept. 28; minimum daily, 115 micromhos May 15, 16.

WATER TEMPERATURES: Maximum daily, 27.0°C Jul. 23, 24; minimum daily, 0.5°C Dec. 14, 30, Jan. 3, 5.

SEDIMENT CONCENTRATIONS: Maximum daily, 319 mg/L May 14; minimum daily, 1 mg/L on several days during March April, and May.

SEDIMENT LOADS: Maximum daily, 27,900 tons (25,300 tonnes) May 15; minimum daily, 5.8 tons (5.3 tonnes) Feb. 8-12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	BICAR- BONATE (MG/L AS HCO3)	CAR- BONATE (MG/L AS CO3)	ALKA- LITY (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 20...	1345	8510	190	7.3	10.0	--	--	--	--	--	--	--
DEC 14...	1030	3190	235	7.2	.5	--	73	0	60	7.4	23	8.1
MAR 20...	1150	16800	148	7.1	4.0	--	47	0	39	6.0	19	5.3
APR 14...	1000	5840	205	8.3	11.0	--	--	--	--	--	--	--
MAY 19...	1230	31900	160	7.2	12.0	13	--	--	--	--	--	--
JUL 14...	0945	2880	265	8.1	23.5	--	--	--	--	--	--	--
SEP 15...	1100	1290	195	8.7	19.0	--	--	--	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 20...	--	1.3	.01	1.3	.02	1.1	1.1	2.4	.09	.04	--
DEC 14...	144	1.4	.01	1.4	.00	.25	.25	1.7	.03	.01	--
MAR 20...	91	1.1	.01	1.1	.17	.59	.76	1.9	.13	.05	3.0
APR 14...	--	.84	.01	.85	.01	.14	.15	1.0	.02	.01	--
MAY 19...	--	.99	.01	1.0	.01	.25	.26	1.3	.04	.02	--
JUL 14...	--	1.1	.01	1.1	.02	.32	.34	1.4	.08	.05	--
SEP 15...	--	.52	.01	.53	.08	.44	.52	1.1	.07	.02	--

JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTERRER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT									
31...	1030	9813	9813	2700	240	8.2	10.0	11.2	92
NOV									
16...	0900	9813	9813	8720	180	7.8	7.0	12.1	94
DEC									
13...	1345	9813	9813	3260	220	7.8	.0	14.7	94
JAN									
19...	0930	9813	9813	4450	210	8.0	.5	.0	86
FEB									
14...	1245	9813	9813	3070	210	8.5	.5	--	97
MAR									
13...	1045	9813	9813	2950	250	--	--	--	92
APR									
18...	0910	9813	9813	4610	180	9.3	9.5	13.4	80
MAY									
01...	1450	9813	9813	3790	--	9.5	13.0	13.4	--
JUN									
15...	1000	9813	9813	3120	250	9.2	21.5	11.7	88
JUL									
31...	1030	9813	9813	2020	250	8.2	21.0	8.4	102
AUG									
14...	1140	9813	9813	2590	230	8.7	25.5	9.6	89
SEP									
14...	0910	9813	9813	1290	290	9.0	18.0	9.8	95

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, DIS- TOTAL RESI- DUAL (MG/L)	CHLO- RIDE, DIS- TOTAL SOLVED (MG/L AS CL)
OCT									
31...	--	41	--	.0	--	82	20	.00	11
NOV									
16...	--	18	--	13	--	56	24	.00	8.0
DEC									
13...	--	26	--	7.7	--	70	30	.00	12
JAN									
19...	--	22	--	8.2	--	66	24	.00	10
FEB									
14...	--	20	--	12	--	78	18	.00	13
MAR									
13...	--	28	--	5.5	--	82	26	--	18
APR									
18...	--	29	--	1.6	--	66	24	--	11
MAY									
01...	--	--	--	--	--	--	--	--	--
JUN									
15...	--	28	--	4.4	--	80	35	--	12
JUL									
31...	0	30	--	6.5	--	80	20	--	11
AUG									
14...	0	--	30	--	4.0	82	25	.00	11
SEP									
14...	0	38	--	<.5	--	100	45	--	16

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	PHENOLS (UG/L)
OCT 31...	158	8	166	1.5	.03	.18	.14	523	<1
NOV 16...	114	2	--	1.5	.22	.10	.07	130	<1
DEC 13...	150	2	--	1.9	.04	.09	.06	90	<1
JAN 19...	210	0	210	1.8	.03	.10	.24	79	<10
FEB 14...	124	<10	134	1.8	.02	.16	.08	0	<10
MAR 13...	158	4	162	1.4	.03	.15	.05	80	6
APR 18...	122	--	--	1.3	.02	.14	.11	100	2
MAY 01...	--	--	--	--	--	--	--	--	--
JUN 15...	178	--	--	1.1	.03	.16	.10	180	--
JUL 31...	194	--	--	1.6	.22	.10	.70	360	--
AUG 14...	184	--	--	1.3	--	--	8.0	370	--
SEP 14...	222	--	--	.86	.22	.14	.50	560	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 31...	1030	<10	<10	10	<50	<10	<10

JUNIATA RIVER BASIN

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01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	232	212	216	---	238	168	186	199	239	256	299
2	241	238	170	220	---	240	171	189	205	239	261	281
3	251	238	178	227	---	240	174	190	209	234	254	275
4	250	208	169	---	---	---	165	198	213	188	232	277
5	254	179	169	243	---	---	169	197	215	196	193	282
6	276	188	173	249	---	244	176	182	209	172	149	266
7	282	183	---	247	---	247	169	191	214	173	176	270
8	279	142	---	250	---	247	167	194	220	190	163	276
9	270	161	---	201	---	249	174	189	223	203	200	271
10	259	161	---	---	---	247	177	182	226	205	209	264
11	247	151	---	---	---	250	180	177	232	200	214	265
12	227	153	---	---	---	249	184	177	225	233	229	266
13	235	162	243	---	---	249	187	176	220	243	215	264
14	221	169	242	---	---	250	196	120	227	246	227	274
15	222	174	259	---	---	198	187	115	229	207	240	272
16	216	179	233	---	---	147	181	115	239	184	240	273
17	217	185	221	---	247	153	183	120	236	214	265	272
18	179	191	202	---	238	168	187	126	242	178	261	273
19	165	194	178	---	241	175	190	135	244	209	246	283
20	177	198	170	---	246	179	194	150	244	217	240	289
21	183	203	180	---	250	174	190	156	237	230	243	285
22	185	210	184	---	---	166	186	159	239	234	255	282
23	185	212	198	---	254	161	163	165	231	242	259	296
24	190	214	208	---	256	156	177	169	233	247	261	306
25	200	209	207	---	251	156	178	165	243	251	263	289
26	207	207	---	230	261	158	177	165	233	254	267	295
27	213	210	---	125	235	156	175	167	230	259	263	318
28	220	211	---	132	237	150	166	179	211	257	279	319
29	220	215	---	---	---	159	181	184	224	264	280	309
30	221	216	211	---	---	164	183	189	252	264	300	299
31	220	---	213	---	---	166	---	195	---	258	295	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	10.0	3.0	1.0	---	2.5	6.5	12.0	21.0	24.0	21.5	22.5
2	17.5	12.0	4.0	1.0	---	2.5	8.0	12.0	21.0	23.0	22.0	22.0
3	15.5	13.0	4.5	.5	---	1.0	6.5	12.0	21.0	19.5	24.0	22.0
4	14.0	14.5	5.0	---	---	---	6.0	13.0	19.5	17.0	24.5	22.0
5	13.0	14.0	4.5	.5	---	---	7.0	11.0	19.5	17.0	23.0	20.5
6	14.0	13.5	3.5	1.5	---	2.0	7.5	10.5	19.0	19.0	22.5	22.0
7	13.0	13.5	---	1.5	---	2.5	8.0	11.5	19.5	20.5	23.0	24.0
8	13.0	13.0	---	3.0	---	1.5	8.5	12.5	20.0	23.0	23.0	24.0
9	13.5	12.5	---	2.5	---	3.0	7.5	12.0	20.5	24.0	23.0	23.0
10	12.0	13.0	---	---	---	2.5	8.0	13.0	20.5	24.5	24.0	21.0
11	12.0	10.5	---	---	---	3.0	9.5	12.5	21.0	22.5	24.0	20.5
12	12.0	9.0	---	---	---	5.0	10.5	15.0	22.0	22.0	23.5	22.0
13	11.0	7.0	1.0	---	---	3.5	12.0	16.5	22.0	22.5	23.5	21.0
14	11.0	6.5	.5	---	---	5.0	11.0	13.5	18.5	23.0	24.0	20.0
15	10.0	6.5	2.0	---	---	3.5	10.5	13.0	19.0	22.5	25.0	19.0
16	11.0	8.0	1.5	---	---	3.0	9.5	12.5	20.5	21.5	25.5	20.0
17	8.5	9.0	2.0	---	2.0	2.5	9.0	12.0	20.0	21.5	26.5	21.0
18	7.0	8.0	3.5	---	1.5	3.0	9.5	12.0	19.5	21.0	25.0	22.0
19	8.0	6.5	3.5	---	1.5	4.0	10.5	12.5	22.5	22.5	25.0	23.0
20	9.0	6.0	4.0	---	1.0	4.0	10.5	13.5	22.5	23.5	25.5	21.5
21	9.0	7.0	4.5	---	1.0	5.0	9.5	14.5	24.0	24.5	22.5	21.5
22	9.5	7.5	3.5	---	---	5.5	9.0	13.0	23.5	26.0	22.5	23.5
23	10.5	7.0	3.0	---	1.0	6.5	9.5	13.0	23.0	27.0	22.5	20.0
24	10.5	7.5	3.0	---	1.0	6.5	11.0	14.0	23.0	27.0	24.0	18.5
25	10.0	5.5	4.5	---	2.0	5.5	9.5	14.0	23.0	25.0	25.0	18.5
26	11.5	4.5	---	2.0	3.0	4.0	11.5	15.0	23.0	23.0	25.0	17.0
27	13.0	3.0	---	1.0	3.0	3.5	11.0	17.0	23.0	24.0	24.5	16.0
28	14.0	2.5	---	---	3.0	4.5	11.0	18.5	24.0	24.0	24.0	17.5
29	12.5	2.0	---	---	---	6.5	12.0	19.0	24.0	23.0	24.5	15.5
30	11.5	3.0	.5	---	---	6.0	14.0	19.0	25.0	23.0	25.0	16.0
31	10.0	---	1.0	---	---	6.0	---	20.5	---	22.0	24.0	---

JUNIATA RIVER BASIN

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	1700	23	106	2520	11	75	6470	22	441
2	1640	19	84	2450	14	93	12000	47	1540
3	1780	19	91	4020	22	239	13800	28	1040
4	1930	20	104	5580	45	678	11700	19	600
5	1560	15	63	6470	48	839	10600	16	458
6	1410	14	53	6130	24	397	9900	8	214
7	1350	11	40	9590	54	1730	8170	6	132
8	1280	6	21	17600	106	4960	6070	5	82
9	1470	6	24	17700	70	3350	4940	5	67
10	3060	31	316	15600	59	2520	4770	10	129
11	4800	65	871	20700	74	4150	4420	8	95
12	3250	43	377	18600	43	2160	3820	5	52
13	2540	23	158	14900	20	805	3350	4	36
14	2180	14	82	12700	12	411	3270	6	53
15	2340	13	82	11100	10	300	4200	3	34
16	2750	21	156	7990	12	259	6740	14	255
17	9900	156	5220	6070	9	148	8750	12	283
18	15500	128	5410	5780	9	140	11200	21	708
19	9560	65	1680	5610	6	91	17300	44	2060
20	8390	38	861	4910	5	66	17400	42	1970
21	7960	32	688	4280	4	46	16500	25	1110
22	6590	25	445	4100	4	44	15900	17	730
23	5330	20	288	3950	4	43	13200	10	356
24	4340	16	187	3790	3	31	11400	6	185
25	3790	17	174	3670	2	20	10400	8	225
26	3440	15	139	3720	7	70	10600	6	172
27	3350	17	154	3770	6	61	9400	6	152
28	3490	25	236	3620	3	29	8330	4	90
29	3350	15	136	3220	2	17	7990	6	129
30	2960	10	80	3320	5	45	7060	6	114
31	2700	10	73	---	---	---	6620	4	71
TOTAL	125690	---	18399	233460	---	23817	286270	---	13583
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	6130	10	166	5390	10	146	2340	5	32
2	5330	8	115	5330	7	101	2270	3	18
3	4940	6	80	5720	5	77	2230	3	18
4	4470	5	60	5390	4	58	2200	2	12
5	3690	4	40	4720	4	51	2180	2	12
6	3640	3	29	4550	6	74	2200	2	12
7	3620	2	20	4610	5	62	2160	1	5.8
8	3840	10	104	4610	7	87	2100	2	11
9	17900	108	5310	4610	4	50	2100	4	23
10	19300	115	5990	4130	3	33	2120	3	17
11	12400	50	1670	3400	3	28	2180	2	12
12	11100	30	899	3300	4	36	2450	3	20
13	9150	22	544	3200	4	35	3080	3	25
14	7840	18	381	3000	3	24	5530	15	224
15	7210	13	253	3000	5	40	28700	202	15700
16	6240	10	168	2960	3	24	31400	192	16300
17	5360	9	130	3220	4	35	24600	69	4580
18	4830	9	117	3200	4	35	19200	32	1660
19	4630	7	88	3150	3	26	17100	33	1520
20	4530	5	61	3000	5	40	18900	110	5500
21	4260	4	46	3000	4	32	20900	68	3840
22	4200	4	45	3050	4	33	25500	75	5160
23	3790	3	31	2980	7	56	30500	88	7250
24	3250	5	44	2660	4	29	28800	51	3970
25	3220	8	70	2520	3	20	25700	38	2640
26	11400	56	2400	2470	3	20	21000	24	1360
27	24300	162	10600	2450	2	13	25100	56	3800
28	17300	50	2340	2430	3	20	31500	84	7140
29	10900	35	1030	---	---	---	27000	42	3060
30	8270	28	625	---	---	---	23700	37	2370
31	6830	14	258	---	---	---	20000	27	1460
TOTAL	243870	---	33714	102050	---	1285	454740	---	87751.8

01567000 JUNIATA RIVER AT NEWPORT, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	15600	22	927	3770	4	41	5140	24	333
2	13300	30	1080	3370	2	18	4660	22	277
3	12800	23	795	3200	2	17	4210	21	239
4	11600	20	626	3100	1	8.4	5000	28	378
5	11600	15	470	3190	2	17	4880	27	356
6	13000	31	1090	3490	3	28	4050	24	262
7	12800	37	1280	3790	6	61	3670	16	159
8	12900	30	1040	3920	6	64	3670	15	149
9	12000	24	778	4050	9	98	3560	13	123
10	10500	16	454	4610	16	199	3670	16	159
11	9060	15	367	4750	18	231	3510	13	123
12	7810	16	337	4050	11	120	3280	10	89
13	6100	13	214	4390	23	308	3210	11	95
14	5530	10	149	25600	319	22200	3190	14	121
15	5270	4	57	48000	215	27900	3120	10	84
16	4880	2	26	45000	150	18200	2950	13	104
17	4630	2	25	34600	80	7470	2880	8	62
18	4610	1	12	31700	56	4790	2880	8	62
19	4390	1	12	31500	41	3490	2980	13	105
20	4530	1	12	27200	36	2640	3020	12	98
21	4720	3	38	23400	34	2150	2880	20	156
22	4990	2	27	20600	34	1890	2880	12	93
23	4630	1	13	16400	34	1510	2880	14	109
24	4630	1	13	11600	35	1100	2910	15	118
25	4610	3	37	16400	67	2970	2910	14	110
26	4610	1	12	13800	59	2200	2790	13	98
27	4580	1	12	10200	35	964	2860	28	216
28	4360	2	24	7900	34	725	3020	66	538
29	4340	3	35	6890	32	595	3020	44	359
30	4200	4	45	6130	28	463	3020	30	245
31	---	---	---	5580	26	392	---	---	---
TOTAL	228580	---	10007	432180	---	102859.4	102700	---	5422
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	2820	31	236	2050	13	72	1600	23	99
2	2720	23	169	2030	14	77	1600	22	95
3	2860	20	154	2050	14	77	1680	23	104
4	6830	93	1890	4360	96	1320	1540	18	75
5	10300	119	3350	6390	143	2600	1480	16	64
6	7370	55	1090	4020	105	1140	1430	16	62
7	4750	42	539	4360	115	1420	1390	15	56
8	3790	35	358	4200	118	1340	1330	13	47
9	3460	32	299	3790	40	409	1290	14	49
10	3140	40	339	3250	36	316	1280	12	41
11	3390	90	824	2870	29	225	1280	13	45
12	3080	53	441	2940	27	214	1280	15	52
13	3030	35	286	2870	28	217	1310	16	57
14	2940	32	254	2630	26	185	1290	15	52
15	6770	321	6790	2570	22	153	1290	15	52
16	4740	210	2690	2270	18	110	1240	14	47
17	5360	213	3280	2230	17	102	1220	16	53
18	4420	140	1670	2050	14	77	1350	17	62
19	3470	70	656	1930	14	73	1580	24	102
20	2980	47	378	1860	14	70	1540	26	108
21	2660	43	309	1820	14	69	1740	28	132
22	2470	48	320	1760	15	71	1520	22	96
23	2340	40	253	1740	16	75	1280	18	62
24	2160	30	175	1700	17	78	1160	18	56
25	2100	25	142	1640	16	71	1130	16	49
26	2100	24	136	1560	16	67	1110	16	48
27	2080	20	112	1450	19	74	1090	15	44
28	1970	21	112	1290	16	56	1080	14	41
29	1970	20	106	1220	15	49	1030	12	33
30	2120	19	109	1280	18	62	975	12	32
31	2030	13	71	1540	22	91	---	---	---
TOTAL	112220	---	27538	77720	---	10960	40115	---	1909
YEAR	2439595		337245.2						

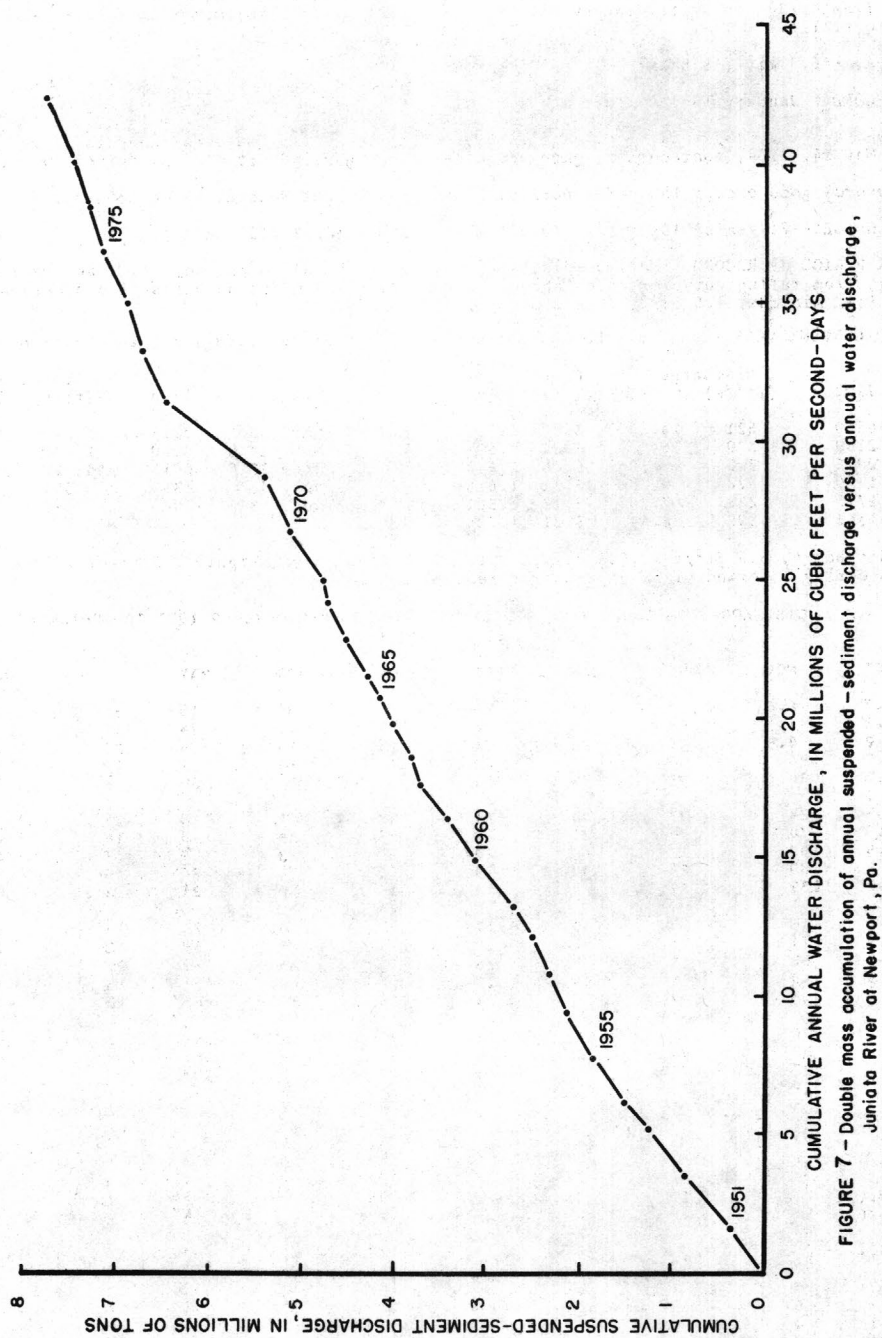


FIGURE 7--Double mass accumulation of annual suspended - sediment discharge versus annual water discharge, Juniata River at Newport, Pa.

Table 3.--Suspended sediment concentration-duration table, Juniata River at Newport

Period	Mean daily concentration, in milligrams per liter, that was equaled or exceeded for indicated percentage of time														
	1	2	5	10	20	30	40	50	60	70	80	90	95	99	
1978	220	183	105	61	35	26	20	16	14	10	5	3	2	1	
1952-78	248	172	90	50	27	19	13	10	7	5	4	3	2	1	

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) National Geodetic Vertical Datum of 1929. 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 periods of no gage-height record, which are fair.

AVERAGE DISCHARGE.--24 years, 18.4 ft³/s (0.521 m³/s), 16.66 in/yr (423 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)
Nov. 7	0530	521 14.8	5.62 1.713	May 13	2115	1,370 38.8	7.15 2.179
Nov. 10	2200	379 10.7	5.22 1.591	May 14	2100	1,530 43.3	7.32 2.231
Jan. 26	0945	265 7.50	5.08 1.548	June 27	0015	*6,700 190	*10.03 3.057
Mar. 15	1730	328 9.29	5.31 1.618	July 3	1300	304	8.61 5.23 1.594
Mar. 19	1715	275 7.79	5.12 1.561	Aug. 3	2045	446	12.6 5.64 1.719
Mar. 27	1345	298 8.44	5.21 1.588				

Minimum discharge, 3.5 ft³/s (0.099 m³/s), Oct. 1, 4, 5, 6, gage height, 2.37 ft (0.722 m); but could have been less during a period of no gage-height record Oct. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	6.8	110	27	28	12	50	15	21	27	19	7.6
2	4.2	7.1	63	25	26	12	41	14	19	27	18	6.9
3	4.2	8.5	48	22	24	12	39	14	25	170	59	6.9
4	3.7	84	38	20	22	12	40	14	21	111	44	6.9
5	3.5	30	35	19	21	11	41	25	8.2	66	18	6.2
6	4.5	24	32	19	21	11	37	18	16	49	24	6.0
7	3.9	270	26	21	21	11	39	16	16	41	20	5.8
8	3.9	193	22	60	20	11	33	19	17	48	18	6.0
9	10	83	22	160	19	11	31	26	15	39	15	5.8
10	6.3	139	19	80	18	13	30	21	13	33	14	5.6
11	4.9	148	17	60	17	15	30	20	13	30	17	5.8
12	4.5	74	16	39	17	18	27	19	12	27	20	6.0
13	4.3	52	16	35	16	29	25	252	21	26	15	6.0
14	4.5	40	26	34	16	125	23	457	13	30	13	5.8
15	17	35	49	29	15	231	21	466	12	27	12	6.2
16	26	30	41	26	15	131	20	252	11	26	11	5.8
17	83	32	37	25	15	83	19	167	15	25	9.8	6.7
18	23	27	148	25	15	62	19	132	13	22	9.5	7.2
19	20	22	121	22	15	124	25	94	11	21	9.2	6.2
20	25	20	85	23	14	132	26	72	10	20	8.7	5.8
21	16	19	130	21	14	144	22	57	11	19	8.2	5.8
22	13	18	87	20	13	148	20	47	11	19	7.9	6.2
23	11	18	62	18	13	122	19	41	9.7	18	7.6	5.6
24	9.7	17	50	18	13	96	19	56	8.8	18	7.6	5.6
25	8.8	17	82	37	13	70	18	40	8.5	24	7.4	5.4
26	9.4	25	129	191	13	128	18	33	16	19	7.2	5.2
27	11	21	44	118	13	219	17	29	161	19	7.4	5.2
28	9.1	18	38	66	12	142	16	28	58	19	7.6	5.4
29	8.2	16	33	46	---	99	16	26	37	17	7.2	5.2
30	7.6	24	30	37	---	72	15	24	31	17	6.9	5.4
31	7.1	---	28	32	---	58	---	22	---	27	9.8	---
TOTAL	371.0	1518.4	1684	1375	479	2364	796	2516	654.2	1081	459.0	180.2
MEAN	12.0	50.6	54.3	44.4	17.1	76.3	26.5	81.2	21.8	34.9	14.8	6.01
MAX	83	270	148	191	28	231	50	466	161	170	59	7.6
MIN	3.5	6.8	16	18	12	11	15	14	8.2	17	6.9	5.2
CFSM	.80	3.37	3.62	2.96	1.14	5.09	1.77	5.41	1.45	2.33	.99	.40
IN.	.92	3.77	4.18	3.41	1.19	5.86	1.97	6.24	1.62	2.68	1.14	.45

CAL YR 1977 TOTAL 7770.1 MEAN 21.3 MAX 270 MIN 3.1 CFSM 1.42 IN 19.27
WTR YR 1978 TOTAL 13477.8 MEAN 36.9 MAX 466 MIN 3.5 CFSM 2.46 IN 33.42

SHERMAN CREEK BASIN

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 54 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).

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 Shermans Dale".

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) National Geodetic Vertical Datum of 1929. Prior to Jan. 29, 1950, nonrecording gage at same site and datum.

REMARKS --Records good, except those for periods of no gage-height record, Nov. 7-10, Dec. 24 to Jan. 19, Jan. 31 to Feb. 24, Mar. 5-9, 11-20, April 7 to May 14 and for winter periods, which are fair. Some regulation at low flow by mills above station.

AVERAGE DISCHARGE.--49 years, 287 ft³/s (8.128 m³/s), 19.49 in/yr (495 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)
Nov. 8	Unknown	3,760 106	6.84 2.085	Mar. 15	Unknown	3,680 104	6.63 2.021
Nov. 11	0330	3,620 103	6.71 2.045	Mar. 27	1530	4,340 123	7.22 2.201
Jan. 10	Unknown	7,110 201	9.45 2.880	May 15	Unknown	*8,360 237	*10.14 3.091
Jan. 26	1800	4,050 115	6.97 2.124	Aug. 4	0400	7,800 221	9.78 2.981

Minimum discharge, 24 ft³/s (0.680 m³/s) Oct. 1; minimum gage height, 0.80 ft (0.244 m) Oct. 1, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	64	1600	340	510	150	953	190	252	111	153	124
2	41	63	1060	320	430	150	822	190	223	98	78	93
3	42	66	754	290	360	145	716	190	261	811	239	80
4	35	786	595	290	300	140	726	190	252	1100	3590	77
5	30	667	517	270	260	140	737	240	199	480	681	76
6	30	392	500	290	250	140	612	280	178	291	519	70
7	30	310	396	700	240	135	580	240	168	205	701	67
8	26	3000	301	2500	240	135	530	230	178	168	1080	66
9	73	1800	304	2600	230	135	490	300	178	258	565	59
10	130	930	203	1300	220	140	450	400	146	160	422	62
11	67	2650	203	900	220	160	420	320	132	132	326	67
12	50	1200	186	700	210	190	400	270	124	117	302	63
13	41	845	245	620	200	350	370	1800	239	107	252	64
14	42	652	294	530	200	1500	340	7200	168	105	208	62
15	64	544	717	480	190	3700	310	7010	126	130	178	64
16	95	465	717	430	190	3900	290	4160	115	109	158	60
17	692	424	585	380	185	2000	280	2930	120	144	141	63
18	366	424	1690	350	180	1500	260	2210	130	109	124	77
19	104	325	1820	310	180	1500	310	1570	118	91	115	79
20	270	274	1220	270	175	1800	360	1180	104	85	109	91
21	178	236	1860	346	170	1940	340	947	104	82	102	71
22	122	226	1350	318	170	2620	310	758	117	77	97	64
23	99	214	856	254	165	2160	280	641	102	76	93	70
24	84	214	760	234	165	1950	260	686	88	74	88	64
25	75	194	660	434	165	1420	250	701	85	109	86	66
26	73	301	580	2900	160	2130	230	493	85	117	82	57
27	105	239	510	2370	160	3900	220	418	398	90	82	56
28	111	203	460	1290	155	2870	210	379	410	82	91	54
29	84	191	420	906	---	1800	200	345	153	76	85	53
30	73	236	400	721	---	1360	200	312	144	73	79	47
31	67	---	370	590	---	1110	---	281	---	122	111	---
TOTAL	3419	18135	22133	24223	6280	41270	12456	37061	5097	5789	10957	2066
MEAN	110	605	714	781	224	1331	415	1196	170	187	353	68.9
MAX	692	3000	1860	2900	510	3900	953	7200	410	1100	3590	124
MIN	26	63	186	234	155	135	200	190	85	73	79	47
CFSM	.65	3.03	3.57	3.91	1.12	6.66	2.08	5.98	.85	.94	1.77	.35
IN.	.64	3.37	4.12	4.51	1.17	7.68	2.32	6.89	.95	1.08	2.04	.38

CAL YR 1977 TOTAL 109584 MEAN 300 MAX 3000 MIN 23 CFSM 1.50 IN 20.38
 WTR YR 1978 TOTAL 188886 MEAN 517 MAX 7200 MIN 26 CFSM 2.59 IN 35.13

CLARK CREEK BASIN

241

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 National Geodetic Vertical Datum of 1929 (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, 19,030 acre-ft (23.5 hm³) Mar. 27 (elevation, 645.00 ft or 196.596 m); minimum, 17,210 acre-ft (21.2 hm³) Aug. 2 (elevation, 641.83 ft or 195.630 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

Date	Elevation (feet)	Contents (acre- feet)	Change in contents (equivalent in cfs)
01568400 DeHart Reservoir			
Sept. 30	637.17	14,460	--
Oct. 31	640.42	16,390	+ 31.4
Nov. 30	643.92	18,430	+ 34.3
Dec. 31	644.25	18,610	+ 2.9
CAL YR 1977	--	--	+ 0.2
Jan. 31	644.50	18,750	+ 2.3
Feb. 28	644.00	18,480	- 4.9
Mar. 31	644.58	18,800	+ 5.2
Apr. 30	644.00	18,480	- 5.4
May 31	644.08	18,520	+ .6
June 30	643.42	18,140	- 6.4
July 31	642.00	17,310	- 13.5
Aug. 31	643.25	18,040	+ 11.9
Sept. 30	642.33	17,500	- 9.1
WTR YR 1978	--	--	+ 4.2

CLARK CREEK BASIN

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) National Geodetic Vertical Datum of 1929. 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.241). Diversion from reservoir to city of Harrisburg.

AVERAGE DISCHARGE.--40 years (1937-39, 1940-78), 40.1 ft³/s (1.136 m³/s), 24.20 in/yr (615 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, 656 ft³/s (18.6 m³/s) May 15, gage height, 4.14 ft (1.262 m); minimum discharge, 5.0 ft³/s (0.14 m³/s) Oct. 1, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.0	67	43	48	6.2	106	14	19	6.7	6.7	7.3
2	6.0	7.0	92	41	41	6.2	89	12	16	7.0	6.7	7.3
3	6.2	7.0	88	34	36	6.2	72	11	15	7.5	7.8	7.3
4	6.2	7.8	78	28	31	6.2	64	14	14	7.5	8.4	7.3
5	6.2	7.3	78	24	28	6.2	58	16	11	7.0	7.0	7.3
6	6.2	7.3	81	21	33	6.2	51	18	9.4	7.0	7.0	7.3
7	6.4	8.8	66	21	35	6.2	49	16	9.7	7.0	13	7.3
8	6.4	9.4	52	48	28	6.2	43	19	12	7.0	10	7.3
9	9.8	8.4	45	383	21	6.2	36	36	12	7.0	8.4	7.3
10	7.5	9.1	38	249	18	6.2	32	34	9.7	7.3	7.8	7.3
11	7.2	9.7	32	152	17	6.4	30	28	8.8	7.0	7.8	7.3
12	7.2	8.4	29	109	16	6.4	28	25	7.8	7.0	7.5	7.3
13	7.2	8.1	26	89	14	14	24	34	8.1	7.0	7.5	7.3
14	7.2	8.1	32	85	15	9.7	21	387	7.3	7.0	7.5	7.3
15	9.8	7.8	54	66	13	12	18	592	7.0	7.0	7.3	7.3
16	8.8	7.8	55	51	11	42	18	421	7.0	7.0	7.3	7.3
17	12	7.8	51	49	10	61	16	358	7.3	7.0	7.3	7.3
18	9.1	7.4	78	52	9.4	60	17	275	7.0	7.0	7.3	7.3
19	8.4	7.2	107	34	9.4	59	24	198	6.7	7.0	7.3	7.5
20	8.8	6.9	102	46	8.1	69	40	148	6.7	7.0	7.3	7.3
21	8.1	6.8	225	40	8.1	86	41	115	7.0	7.0	7.3	7.3
22	7.8	6.7	233	30	7.3	140	34	86	7.0	7.0	7.3	7.3
23	7.5	6.7	158	24	6.7	165	30	68	6.7	7.0	7.3	7.3
24	7.5	6.6	121	21	6.4	193	28	71	7.0	8.1	7.3	7.3
25	7.5	6.7	117	30	6.4	160	26	72	6.7	7.3	7.0	7.3
26	7.5	7.5	106	186	6.2	198	30	55	6.7	6.7	7.0	7.3
27	7.5	7.0	84	205	6.2	490	19	44	7.0	6.7	7.3	7.3
28	7.3	6.7	71	129	6.2	380	17	36	7.0	6.7	7.5	7.3
29	7.3	6.7	61	95	---	252	15	33	7.0	6.7	7.3	7.5
30	7.3	8.4	53	72	---	177	15	34	7.0	6.7	7.3	7.5
31	7.0	---	47	58	---	133	---	22	---	7.0	13	---
TOTAL	234.3	228.1	2527	2515	495.4	2775.5	1091	3292	270.6	217.9	242.5	219.6
MEAN	7.56	7.60	81.5	81.1	17.7	89.5	36.4	106	9.02	7.03	7.82	7.32
MAX	12	9.7	233	383	48	490	106	592	19	8.1	13	7.5
MIN	5.4	6.6	26	21	6.2	6.2	15	11	6.7	6.7	6.7	7.3
(#)	19.3	18.7	18.9	19.6	19.6	20.1	19.2	20.1	21.0	21.2	22.1	21.2
MEAN#	58.3	60.6	103	103	32.4	115	50.2	127	23.6	14.7	41.8	19.4
CFSM#	2.59	2.69	4.58	4.58	1.44	5.11	2.23	5.64	1.05	0.65	1.86	0.86
IN.#	2.99	3.00	5.28	5.28	1.50	5.89	2.49	6.50	1.17	0.75	2.14	0.96

CAL YR 1977 TOTAL 9325.6 MEAN 25.5 MAX 564 MIN 4.6 MEAN# 46.1 CFSM# 2.05 IN.# 27.80
WTR YR 1978 TOTAL 14108.9 MEAN 38.7 MAX 592 MIN 5.4 MEAN# 62.9 CFSM# 2.80 IN.# 37.98

/ 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

243

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).

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 good, except for periods of no gage-height record and winter periods, which are 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) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 10	0045	191 5.41	5.24 1.597	Jan. 26	1615	261 7.39	5.68 1.731
Oct. 15	1715	148 4.19	4.89 1.490	Mar. 15	0500	119 3.37	4.61 1.405
Nov. 8	0015	130 3.68	4.72 1.439	Mar. 24	0330	133 3.77	4.75 1.448
Nov. 11	1130	123 3.48	4.65 1.417	Mar. 27	1500	261 7.39	5.68 1.731
Dec. 1	1630	158 4.47	4.98 1.518	May 14	1545	308 8.72	5.92 1.804
Dec. 21	1745	265 7.50	5.70 1.737	Aug. 8	0745	300 8.50	5.88 1.792
Dec. 25	2400	115 3.26	4.57 1.393	Aug. 29	0845	258 7.31	5.66 1.725
Jan. 9	0900	*485 13.7	*6.60 2.012	Sept. 1	0230	120 3.40	4.62 1.408

Minimum discharge, 5.4 ft³/s (0.153 m³/s) July 24, 25, gage height, 2.46 ft (0.750 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	16	105	39	40	11	74	15	22	7.7	29	67
2	49	16	95	36	36	10	66	14	20	7.9	20	40
3	31	16	67	32	32	10	56	13	20	23	16	28
4	17	36	55	28	31	10	52	13	20	55	71	24
5	12	40	49	25	29	9.8	52	24	17	25	50	20
6	12	26	56	24	27	9.6	47	28	15	14	27	16
7	12	64	47	24	25	9.3	48	21	15	10	81	14
8	10	95	36	50	24	9.1	43	19	18	9.1	197	13
9	58	66	32	298	23	8.9	36	54	18	8.4	102	13
10	112	53	28	167	21	9.1	32	47	15	9.1	75	12
11	48	89	26	111	20	9.7	30	28	13	12	56	11
12	32	66	24	82	19	11	30	23	12	9.1	130	11
13	24	49	23	66	18	14	27	24	17	8.2	70	13
14	24	41	28	59	17	41	25	210	15	7.9	50	10
15	95	36	62	51	16	105	23	207	12	16	38	13
16	80	32	68	45	16	80	21	152	11	11	50	14
17	84	30	49	41	15	55	20	155	11	9.7	35	17
18	88	27	58	44	15	40	20	135	11	8.2	26	14
19	62	24	82	37	14	38	30	103	10	7.3	21	16
20	55	22	67	33	14	53	53	83	9.5	6.9	18	14
21	61	22	163	31	14	68	51	68	9.7	5.8	16	12
22	40	22	151	29	13	111	34	56	12	5.6	15	11
23	33	23	98	28	13	113	26	48	9.5	5.5	14	11
24	28	23	79	27	13	124	23	53	8.9	5.6	13	9.5
25	25	23	86	39	12	96	21	66	8.6	4.2	12	8.8
26	25	41	97	197	12	106	20	48	8.6	32	15	8.8
27	29	38	70	203	12	235	19	37	9.7	14	13	8.4
28	26	25	59	123	11	165	17	32	8.9	15	84	8.0
29	22	22	51	75	---	129	16	29	8.0	11	141	7.5
30	19	24	46	56	---	104	15	27	8.2	9.1	63	7.2
31	18	---	26	46	---	85	---	25	---	20	56	---
TOTAL	1240	1107	1983	2146	552	1879.5	1027	1857	393.6	431.1	1604	472.2
MEAN	40.0	36.9	64.0	69.2	19.7	60.6	34.2	59.9	13.1	13.9	51.7	15.7
MAX	112	95	163	298	40	235	74	210	22	55	197	67
MIN	10	16	23	24	11	8.9	15	13	8.0	5.5	12	7.2
CFSM	3.48	3.21	5.57	6.02	1.71	5.27	2.97	5.21	1.14	1.21	4.50	1.37
IN.	4.01	3.58	6.41	6.94	1.79	6.08	3.32	6.01	1.27	1.39	5.19	1.53

CAL YR 1977 TOTAL 10574.7 MEAN 29.0 MAX 294 MIN 3.2 CFSM 2.52 IN 34.20
WTR YR 1978 TOTAL 14692.4 MEAN 40.3 MAX 298 MIN 5.5 CFSM 3.50 IN 47.52

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 (2.68 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)
Nov. 8	Unknown	125 3.54	4.40 1.341	May 14	0145	204 5.78	4.78 1.457
Dec. 1	0345	115 3.26	4.35 1.326	May 24	1630	129 3.65	4.47 1.362
Jan. 10	Unknown	*256 7.25	*4.92 1.500	June 3	0245	121 3.43	4.38 1.335
Jan. 26	Unknown	196 5.55	4.71 1.436	June 13	0800	112 3.17	4.33 1.320
Mar. 14	1445	235 6.66	4.85 1.478	Aug. 4	0315	127 3.60	4.41 1.344
Mar. 19	2300	162 4.59	4.58 1.396	Aug. 8	0015	140 3.96	4.47 1.362
Mar. 27	1000	244 6.91	4.88 1.487	Aug. 31	1130	129 3.65	4.42 1.347

Minimum daily discharge, 32 ft³/s (0.91 m³/s) Oct. 1, 2; minimum gage height, 3.60 ft (1.097 m), Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	32	77	66	64	42	112	59	73	67	51	48
2	32	34	56	65	59	43	104	58	73	56	46	43
3	33	33	51	66	60	44	103	58	84	57	49	40
4	34	38	48	65	61	44	101	59	73	63	74	39
5	35	35	53	63	57	42	97	71	71	69	54	39
6	38	35	50	61	42	43	96	61	69	63	52	38
7	41	42	47	59	42	41	92	58	73	65	68	37
8	42	78	46	89	57	38	88	60	70	67	85	37
9	48	72	47	150	63	38	84	64	67	58	61	36
10	45	66	46	110	63	42	83	59	66	56	57	35
11	42	72	46	93	60	37	81	58	64	56	55	35
12	38	60	48	86	54	47	80	58	63	54	53	40
13	35	46	49	83	57	49	78	70	74	53	49	39
14	37	44	52	79	53	123	77	137	64	53	48	37
15	37	41	52	76	51	144	74	150	63	59	47	41
16	34	40	52	74	56	131	74	144	61	51	45	37
17	36	38	53	72	53	113	73	127	63	51	44	35
18	36	35	74	70	48	110	73	119	59	49	43	36
19	36	34	81	68	47	119	74	108	59	48	42	42
20	38	33	84	67	49	131	76	101	59	48	41	41
21	38	33	108	65	54	131	66	92	65	47	41	38
22	35	34	120	64	53	125	65	88	63	47	40	36
23	33	34	100	62	46	112	65	84	63	45	40	36
24	33	33	91	60	42	103	62	103	63	46	40	36
25	32	33	83	94	41	97	64	92	64	57	39	35
26	33	38	78	170	42	157	62	88	65	48	38	35
27	32	36	76	130	38	207	61	83	65	47	37	35
28	32	33	71	110	41	162	60	80	65	47	38	34
29	33	33	70	95	---	135	60	77	60	45	38	34
30	33	38	69	81	---	121	58	76	63	44	36	33
31	33	---	66	74	---	115	---	77	---	55	77	---
TOTAL	1116	1253	2044	2567	1453	2886	2343	2619	1984	1671	1528	1127
MEAN	36.0	41.8	65.9	82.8	51.9	93.1	78.1	84.5	66.1	53.9	49.3	37.6
MAX	48	78	120	170	64	207	112	150	84	69	85	48
MIN	32	32	46	59	38	37	58	58	59	44	36	33
CFSM	1.67	1.94	3.05	3.83	2.40	4.31	3.62	3.91	3.06	2.50	2.28	1.74
IN.	1.92	2.16	3.52	4.42	2.50	4.97	4.03	4.51	3.42	2.88	2.63	1.94

CAL YR 1977 TOTAL 15843 MEAN 43.4 MAX 148 MIN 26 CFSM 2.01 IN 27.28
WTR YR 1978 TOTAL 22591 MEAN 61.9 MAX 207 MIN 32 CFSM 2.87 IN 38.90

CONODOGUINET CREEK BASIN

245

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHGS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN- DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)
OCT									
27...	1115	9813	9813	360	6.7	13.0	10.1	130	0
NOV									
16...	0930	9813	9813	290	7.7	7.0	11.8	104	--
DEC									
14...	1000	9813	9813	350	7.7	1.0	13.9	152	--
JAN									
10...	0845	9813	9813	200	--	.5	--	79	--
FEB									
16...	1000	9813	9813	400	7.6	1.0	14.0	168	--
MAR									
13...	1300	9813	9813	360	--	--	--	146	--
APR									
18...	1045	9813	9813	330	8.9	12.0	14.0	150	--
28...	--	9813	9813	360	--	--	--	145	--
MAY									
01...	1330	9813	9813	--	8.8	13.5	14.4	--	--
30...	1345	9813	9813	400	--	--	--	154	--
JUL									
31...	1145	9813	9813	480	8.0	19.0	7.4	200	0
SEP									
14...	1050	9813	9813	500	8.0	16.0	8.8	230	0

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, TOTAL RESI- DUAL (MG/L)	CHLO- RINE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)
OCT									
27...	--	42	--	6.5	124	24	--	19	220
NOV									
16...	35	--	4.4	--	88	18	--	14	188
DEC									
14...	44	--	11	--	120	18	.00	17	232
JAN									
10...	20	--	7.9	--	48	14	.00	12	166
FEB									
16...	52	--	10	--	140	24	--	20	170
MAR									
13...	45	--	8.8	--	118	15	--	30	238
APR									
18...	29	--	--	--	126	15	--	18	106
28...	51	--	4.7	--	134	18	--	16	214
MAY									
01...	--	--	--	--	--	--	--	--	--
30...	52	--	6.6	--	134	10	--	15	226
JUL									
31...	68	--	7.0	--	176	20	--	12	304
SEP									
14...	75	--	10	--	184	40	--	26	336

CONODOGUINET CREEK BASIN

01569900 CONODOGUINET CREEK NEAR NEW KINGSTON, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
CCT 27...	12	--	3.5	.05	.25	.24	510	--
NOV 16...	8	--	3.3	.04	.15	.12	350	--
DEC 14...	2	234	4.1	.04	.21	.14	180	--
JAN 10...	42	208	3.3	.04	.24	.20	2903	--
FEB 16...	--	--	3.5	.04	.20	.16	170	--
MAR 13...	4	242	3.5	.05	.22	.12	410	--
APR 18...	--	--	3.3	.04	.15	.13	130	--
APR 28...	12	226	3.2	.05	.15	.13	110	--
MAY 01...	--	--	--	--	--	--	--	--
MAY 30...	--	--	2.6	.04	.19	.13	130	--
JUL 31...	--	--	4.1	.07	.26	.13	470	1
SEP 14...	--	340	3.7	.94	.78	.20	110	--

DATE	TIME	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 31...	1145	<10	10	<50	1	<10	60

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) National Geodetic Vertical Datum of 1929. 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. Since June 1969 the Riverton Consolidated Water Co. diverts water, equivalent to a mean discharge of about 6.0 ft³/s (0.17 m³/s), at a point just upstream from gage for municipal water supply.

AVERAGE DISCHARGE.--46 years (1911-17, 1929-58, 1967 to current year), 594 ft³/s (16.82 m³/s), 17.16 in/yr (436 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)
Dec. 2	0015	4,030 114	6.29 1.917	Mar. 20	1230	4,750 135	6.84 2.085
Jan. 10	0200	6,440 182	7.98 2.432	Mar. 27	1915	6,330 179	7.91 2.411
Jan. 27	0215	5,520 156	7.39 2.252	May 16	0145	*6,630 188	*8.10 2.469
Mar. 15	2245	6,470 183	8.00 2.438				

Minimum discharge, 137 ft³/s (3.88 m³/s), Sept. 30, minimum gage height, 1.23 ft (0.375 m), Oct. 6, 8, and Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	209	2430	685	1010	330	1520	391	553	259	250	626
2	224	200	3100	643	913	320	1320	379	515	250	229	340
3	225	193	1790	580	812	320	1160	371	515	420	229	256
4	199	263	1320	484	717	320	1120	363	486	1050	703	226
5	171	926	1080	470	590	310	1130	448	452	716	526	209
6	161	764	1200	475	580	313	1030	564	420	448	379	195
7	164	647	1050	484	560	309	1030	490	407	351	407	185
8	160	3520	779	585	540	305	956	438	411	312	1580	178
9	199	2370	683	4290	520	302	843	603	407	336	1020	173
10	484	1540	597	4340	500	305	785	798	379	291	592	168
11	443	2560	482	2180	490	336	766	626	351	269	438	165
12	322	1980	450	1480	480	421	740	542	340	247	379	156
13	259	1310	430	1300	460	704	691	510	375	235	395	180
14	226	975	480	1120	450	2020	637	2640	383	232	359	173
15	339	780	931	980	440	5520	592	5570	340	288	302	180
16	414	626	1350	811	430	5740	553	6280	315	308	275	180
17	867	563	1190	777	420	2960	531	5200	312	281	262	188
18	1260	514	1610	718	410	2220	510	3930	329	272	235	198
19	781	444	3610	685	400	2210	558	2960	333	244	218	206
20	705	394	2920	602	390	4230	703	2170	312	226	206	215
21	532	367	2920	550	380	3790	685	1720	312	215	198	190
22	408	360	3470	520	370	3860	592	1400	315	209	190	183
23	343	363	2220	480	360	3130	531	1170	322	204	185	178
24	298	385	1640	440	360	2430	505	1180	281	195	180	175
25	268	371	1400	640	350	1950	486	1330	269	226	178	168
26	251	546	1300	3290	340	2450	462	1010	266	229	175	158
27	259	612	1050	4880	340	5740	452	824	285	215	173	151
28	290	518	1050	2830	330	4730	434	734	322	212	175	146
29	272	478	869	1910	---	2900	416	667	291	201	180	141
30	241	504	826	1460	---	2080	403	614	272	195	170	139
31	214	---	740	1170	---	1750	---	564	---	218	291	---
TOTAL	11198	25282	44767	41859	13942	64305	22141	46486	10870	9354	11079	6026
MEAN	361	843	1444	1350	498	2074	738	1500	362	302	357	201
MAX	1260	3520	3470	4880	1010	5740	1520	6280	553	1050	1580	626
MIN	160	193	430	440	330	302	403	363	266	195	170	139
CFSM	.77	1.79	3.07	2.87	1.06	4.41	1.57	3.19	.77	.64	.76	.43
IN.	.89	2.00	3.54	3.31	1.10	5.09	1.75	3.68	.86	.74	.88	.48

CAL YR 1977 TOTAL 206462 MEAN 566 MAX 4580 MIN 104 CFSM 1.20 IN 16.34
WTR YR 1978 TOTAL 307309 MEAN 842 MAX 6280 MIN 139 CFSM 1.79 IN 24.32

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY C02 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT 27...	1205	9813	9813	380	7.7	14.0	11.2	130	--	--	46	--
NOV 16...	0800	9813	9813	290	8.0	6.0	12.2	106	--	38	--	2.7
DEC 21...	1245	9813	9813	250	7.3	5.0	11.0	92	--	27	--	6.6
JAN 09...	0945	9813	9813	240	--	--	--	100	--	32	--	5.5
FEB 16...	1500	9813	9813	430	--	--	--	174	--	59	--	7.1
MAR 23...	1030	9813	9813	220	--	--	--	82	--	27	--	3.8
MAY 30...	1500	9813	9813	400	--	--	--	152	--	52	--	5.5
JUN 22...	1507	9813	9813	470	--	--	--	198	--	48	--	21
AUG 16...	1512	9813	9813	400	8.6	29.0	11.9	144	0	--	50	--
22...	1000	9813	9813	450	8.3	20.0	9.0	156	0	60	--	1.5
SEP 13...	1538	9813	9813	490	8.5	23.0	11.5	160	0	56	--	5.0

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 27...	3.5	126	26	24	240	<10	--	3.7	.04	.14	.25	620
NOV 16...	--	90	20	14	176	14	--	3.3	.03	.13	.14	470
DEC 21...	--	64	5.0	17	178	--	--	3.3	.04	.14	.22	3591
JAN 09...	--	88	18	17	162	--	--	2.6	.06	.33	.50	16460
FEB 16...	--	148	24	23	194	--	--	3.9	.04	.17	.14	110
MAR 23...	--	68	14	12	110	78	188	2.6	.03	.28	.16	3150
MAY 30...	--	140	15	17	240	--	--	2.8	.02	.17	.12	280
JUN 22...	--	160	25	21	288	--	--	4.4	.04	.11	.21	150
AUG 16...	4.5	140	35	22	290	--	--	2.4	.32	.10	.17	--
22...	--	166	30	18	308	--	--	3.1	.60	.10	.26	70
SEP 13...	--	172	40	25	302	--	--	3.4	.38	--	.17	390

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 22...	1000	<10	<3	<10	10	<50	<10	<2.0	20	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) National Geodetic Vertical Datum of 1929. 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.--88 years, 34,510 ft³/s (977.3 m³/s), 19.45 in/yr (494 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)
Jan. 10	1900	205,000 5,806	12.82 3.908	Mar. 28	1000	240,000 6,797	14.24 4.340
Jan. 28	0100	207,000 5,862	12.91 3.935	May 16	0300	211,000 5,976	13.07 3.984
Mar. 24	1100	*252,000 7,137	*14.71 4.484				

Minimum discharge. 6,660 ft³/s (189 m³/s) Aug. 29, Sept. 13, 16, gage height, 3.31 ft (1.009 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59700	30000	42100	42800	71900	18000	149000	30200	33700	13500	8650	8050
2	49700	28300	63000	40900	60600	17000	134000	27700	30700	13500	8710	9400
3	50100	27300	91300	38600	54200	17000	156000	26300	28500	14300	9390	13000
4	53400	27100	104000	34200	47600	16000	162000	24800	29000	19100	15800	12200
5	52300	30900	92900	30900	40000	14000	133000	24500	30400	22700	17600	10300
6	49200	34100	80700	29300	33000	14000	127000	24700	27900	20400	16500	9080
7	43700	52800	70000	28300	27000	15000	143000	25900	25500	16600	16200	8320
8	39200	92300	54500	30100	23000	15000	138000	28300	23900	15300	25500	7740
9	36300	133000	48600	66600	30000	15000	134000	30500	25000	14600	33900	7210
10	36300	153000	43200	185000	30000	15000	122000	32200	33900	13200	34300	6970
11	42700	152000	37700	189000	27000	16000	99500	33700	36300	13500	28400	6890
12	47000	160000	34600	140000	27000	16700	82900	35600	32900	11800	24500	6970
13	47200	157000	32600	102000	30000	18000	73600	35800	30600	10800	21900	6940
14	41900	122000	29500	79100	30000	23100	71300	57700	30200	10300	19500	6790
15	39000	92400	35500	65500	30000	61200	67400	155000	25200	12900	17800	8720
16	47000	72300	97600	56300	29000	120000	60400	205000	25400	16200	17200	8020
17	63700	59500	151000	50500	28000	140000	54200	194000	23300	13200	15600	7710
18	135000	54500	141000	44600	27000	118000	49100	187000	21900	15000	13600	6850
19	178000	53300	143000	40300	25000	92800	45000	183000	20500	13100	12000	7490
20	164000	53100	133000	37000	23000	92400	43300	152000	19800	11600	10600	9530
21	167000	50100	129000	35400	21000	97100	44200	117000	19000	11200	9690	18500
22	155000	46600	131000	33100	19000	129000	47700	93200	19100	10300	8950	18500
23	123000	43400	104000	31000	17000	213000	53000	77200	20800	9880	8260	16400
24	83900	40600	81400	30100	18000	249000	53400	63200	19800	9140	7890	17500
25	65800	38900	70600	37400	19000	235000	48100	73000	18700	9150	7400	17400
26	55900	38600	64000	51900	20000	201000	43800	73200	17100	8750	7080	14400
27	49900	38300	58000	168000	20000	197000	40000	67200	17600	8500	6890	12600
28	46200	37200	54000	200000	19000	236000	37100	56200	17300	8220	7060	11200
29	42300	35400	50000	167000	---	225000	34300	48000	15800	7940	6910	10100
30	37600	33900	47000	123000	---	202000	32400	41900	14600	7750	7050	9300
31	33300	---	44000	91500	---	179000	---	37300	---	8280	7660	---
TOTAL	2135300	1987900	2348800	2299400	846300	3017300	2478700	2261300	734400	390710	452490	314080
MEAN	68800	66260	75770	74170	30230	97330	82620	72950	24480	12600	14600	10470
MAX	178000	160000	151000	200000	71900	249000	162000	205000	36300	22700	34300	18500
MIN	33300	27100	29500	28300	17000	14000	32400	24500	14600	7750	6890	6790
CFSM	2.86	2.75	3.14	3.08	1.25	4.04	3.43	3.03	1.02	.52	.61	.43
IN.	3.30	3.07	3.63	3.55	1.31	4.66	3.83	3.49	1.13	.60	.70	.48

CAL YR 1977 TOTAL 16509150 MEAN 45230 MAX 209000 MIN 4820 CFSM 1.88 IN 25.48
WTR YR 1978 TOTAL 19266680 MEAN 52790 MAX 249000 MIN 6790 CFSM 2.19 IN 29.74

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. On Dec. 9, 28, 1977 and Feb. 1, 1978 there were quality data collected that show very high recorded maximum values on all parameters compared to normal yearly maximums at this location. The duration of these events lasted from approximately three to ten hours and we have every reason to believe the data is valid. Since there is no way to determine the quantity of water affected by these events the data was not used in determining the yearly maximum values.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 517 micromhos Mar. 4, 1978; minimum, 77 micromhos Sept. 27, 1975.

pH: Maximum, 10.4 Aug. 27, 1975; minimum, 6.1 May 17, 1978.

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.--

SPECIFIC CONDUCTANCE: Maximum, 517 micromhos Mar. 4; minimum, 80 micromhos May 16.

pH: Maximum, 9.3 Sept. 11, 12; minimum, 6.1 May 17.

WATER TEMPERATURES: Maximum, 29.5°C Aug. 19; minimum, freezing point on many days during February and March.

SEDIMENT CONCENTRATIONS: Maximum daily, 340 mg/L Mar. 24; minimum daily, 3 mg/L Mar. 4, 9, 11.

SEDIMENT DISCHARGES: Maximum daily, 229,000 tons (208,000 tonnes) Mar. 24; minimum daily, 104 tons (94 tonnes) Sept. 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO3)
OCT											
12...	1430	49600	230	7.5	13.5	10.4	10	1.4	165	--	--
25...	1415	64600	185	7.4	10.5	11.0	--	.7	320	440	64
NOV											
08...	1415	94100	185	7.3	13.0	10.0	40	2.4	3200	--	--
21...	1400	49900	220	7.4	7.0	12.4	--	1.2	330	940	79
DEC											
06...	1400	74300	180	7.2	3.5	13.4	11	.8	380	800	59
19...	1330	134000	165	7.2	3.0	13.8	11	1.3	630	--	--
MAR											
24...	1100	252000	140	7.1	5.0	13.2	25	2.3	300	1840	44
APR											
05...	0930	134000	115	7.0	6.0	12.4	10	.8	K120	--	--
18...	1000	49500	188	7.6	10.0	11.0	10	1.1	K7	K14	71
MAY											
02...	1030	27600	220	7.5	13.0	11.2	8	1.4	<1	--	--
15...	1430	181000	140	7.2	13.5	10.0	30	4.6	600	940	54
JUN											
01...	1000	34000	240	7.8	24.0	8.8	15	3.2	K44	--	--
12...	1100	33000	210	7.8	22.5	10.0	15	3.4	70	90	100
29...	0930	16100	295	8.3	25.0	9.4	15	3.4	26	--	--
JUL											
13...	0930	11000	335	8.2	23.0	8.6	19	3.5	K7	23	140
24...	1345	8980	330	8.9	29.0	10.0	26	.2	K5	--	--
AUG											
08...	1330	27000	265	8.2	25.0	10.0	34	3.8	160	--	--
24...	0930	8150	300	8.4	24.5	9.2	17	2.4	20	K2300	140
SEP											
05...	1400	10100	300	9.0	25.0	10.8	23	5.0	K5	--	--
18...	1400	6790	355	8.3	24.0	9.6	25	3.0	K9	50	150

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE (MG/L AS HC03)	CAR- BONATE (MG/L AS C03)	ALKA- LITY (MG/L AS CAC03)
OCT										
12...	--	--	--	--	--	--	--	--	--	--
25...	31	18	4.7	1.0	3	.1	1.5	41	0	34
NOV										
08...	--	--	--	--	--	--	--	--	--	--
21...	44	22	5.9	5.2	12	.3	1.8	43	0	35
DEC										
06...	34	17	4.1	4.2	13	.2	1.4	31	0	25
19...	--	--	--	--	--	--	--	--	--	--
MAR										
24...	25	12	3.3	3.8	15	.3	1.7	23	0	19
APR										
05...	--	--	--	--	--	--	--	--	--	--
18...	36	20	5.0	4.5	12	.2	1.2	42	0	34
MAY										
02...	--	--	--	--	--	--	--	--	--	--
15...	21	15	4.0	3.7	13	.2	1.9	40	0	33
JUN										
01...	--	--	--	--	--	--	--	--	--	--
12...	50	28	7.4	5.9	11	.3	1.6	--	--	50
29...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	74	39	11	8.5	11	.3	2.2	--	--	69
24...	--	--	--	--	--	--	--	--	--	--
AUG										
08...	--	--	--	--	--	--	--	--	--	--
24...	77	38	11	9.0	12	.3	2.1	--	--	63
SEP										
05...	--	--	--	--	--	--	--	--	--	--
18...	72	39	12	11	14	.4	2.5	--	--	75
DATE	CARBON DIOXIDE DIS- SOLVED (MG/L AS C02)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, SUSP. TOTAL, RESIDUE AT 110 DEG. C (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
12...	--	--	--	--	--	108	--	33	.88	.05
25...	2.6	29	5.1	.0	5.3	108	85	19	.75	.03
NOV										
08...	--	--	--	--	--	99	--	186	.89	.03
21...	2.7	38	6.3	.1	5.5	114	106	37	.97	.05
DEC										
06...	3.1	27	7.1	.0	5.0	96	81	16	.95	.04
19...	--	--	--	--	--	77	--	60	1.1	.07
MAR										
24...	2.9	21	4.6	.1	4.4	61	62	348	.84	.07
APR										
05...	--	--	--	--	--	67	--	94	.77	.03
18...	1.7	34	6.7	.1	3.3	101	96	14	.79	.04
MAY										
02...	--	--	--	--	--	124	--	5	.84	.01
15...	4.0	26	6.0	.0	4.1	87	80	203	.98	.10
JUN										
01...	--	--	--	--	--	148	--	20	1.0	.01
12...	--	49	8.3	.1	1.8	152	132	40	.76	.04
29...	--	--	--	--	--	185	--	27	.90	.05
JUL										
13...	--	61	12	.1	3.3	223	179	19	1.0	.00
24...	--	--	--	--	--	230	--	--	.66	.01
AUG										
08...	--	--	--	--	--	179	--	114	1.0	.04
24...	--	68	12	.1	1.5	188	180	12	.43	.05
SEP										
05...	--	--	--	--	--	226	--	12	.72	.04
18...	--	68	15	.1	1.5	214	194	13	.67	.08

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT										
12...	.33	.38	1.3	.10	570	1	0	<10	9	1600
25...	--	--	--	.04	530	0	2	10	6	1300
NOV										
08...	1.1	1.1	2.0	.21	3100	0	2	<10	15	7000
21...	--	--	--	.20	310	1	1	<10	5	1100
DEC										
06...	--	--	--	.03	--	0	0	<10	17	1100
19...	.55	.62	1.7	.08	1400	2	0	<10	10	990
MAR										
24...	.93	1.0	1.8	.23	--	2	1	<10	21	1300
APR										
05...	.35	.38	1.2	.10	2600	2	2	10	10	3800
18...	.36	.40	1.2	.06	530	1	0	10	3	1300
MAY										
02...	.26	.27	1.1	.02	160	--	0	20	9	400
15...	1.0	1.1	2.1	.23	5700	1	0	20	16	7100
JUN										
01...	.35	.36	1.4	.07	480	1	2	<10	7	990
12...	.49	.53	1.3	.05	--	1	0	<10	9	--
29...	.68	.73	1.6	.07	330	--	0	<10	6	970
JUL										
13...	.99	.99	2.0	.08	240	0	1	10	7	330
24...	.56	.57	1.2	.05	110	1	6	10	7	280
AUG										
08...	1.2	1.2	2.2	.15	--	0	1	30	8	3200
24...	.41	.46	.89	.03	80	1	4	<10	4	1100
SEP										
05...	.71	.75	1.5	.07	180	1	2	10	6	340
18...	.77	.85	1.5	.05	150	0	1	10	4	220

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	OIL AND GREASE (MG/L)	CHLORO- PHYLL A PHYTO- PLANK- TON, UNCORR. (UG/L)	CHLORO- PHYLL B PHYTO- PLANK- TON, UNCORR. (UG/L)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
12...	8	220	30	9.5	0	2.56	1.96	33	4420	--
25...	13	170	20	9.0	--	1.31	.366	19	3310	100
NOV										
08...	17	380	60	9.9	0	--	--	186	47300	--
21...	11	210	30	9.2	--	5.10	1.97	37	4990	68
DEC										
06...	3	160	30	9.5	0	--	--	16	3210	100
19...	7	190	20	8.5	--	1.87	.000	60	21700	--
MAR										
24...	28	550	70	--	0	--	--	348	237000	89
APR										
05...	5	200	30	11	0	1.40	.000	94	34000	--
18...	4	180	20	9.7	--	1.32	.073	14	1870	100
MAY										
02...	0	100	20	4.9	1	.000	.000	5	373	--
15...	16	480	60	8.3	0	--	--	203	99200	87
JUN										
01...	15	210	30	6.0	0	21.0	11.2	20	1840	--
12...	6	280	20	--	0	16.0	.997	40	3560	77
29...	4	200	20	--	1	18.7	4.74	27	1170	--
JUL										
13...	6	110	10	2.8	1	17.3	.777	19	564	92
24...	1	110	10	3.7	1	17.9	3.67	--	--	--
AUG										
08...	7	530	40	4.0	0	7.56	.000	114	8310	--
24...	6	90	40	4.5	0	--	--	12	264	90
SEP										
05...	1	120	30	6.0	0	19.8	6.49	12	327	--
18...	3	120	10	8.1	0	--	--	13	238	100

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	AROCOR TOT. IN BOT MAT 1254 PCB SERIES (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ATRA- ZINE, TOTAL (UG/L)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL (UG/L)
MAR 24...	1100	ND	--	ND	--	ND	ND	ND	--	ND	--	ND
MAY 15...	1430	ND	9	ND	ND	.43	ND	ND	ND	ND	ND	ND
AUG 24...	0930	ND	--	ND	--	--	--	ND	--	ND	--	ND

DATE	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL (UG/L)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN TOTAL (UG/L)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL (UG/L)
MAR 24...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 15...	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	ND
AUG 24...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL (UG/L)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)
MAR 24...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 24...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOX- APHENE, TOTAL (UG/L)	TOX- APHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAR 24...	ND	--	ND	--	ND	--	ND	--	ND	ND	ND
MAY 15...	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--
AUG 24...	ND	--	ND	--	ND	--	ND	--	--	--	--

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 21,77 1400	MAR 24,78 1100	MAY 15,78 1430	JUN 12,78 1100	JUL 13,78 0930
TOTAL CELLS/ML	490	1500	12000	120000	49000
DIVERSITY: DIVISION	1.4	0.6	1.0	0.8	0.8
..CLASS	1.4	0.6	1.0	0.8	0.8
..ORDER	1.6	1.0	1.2	1.2	1.3
...FAMILY	2.0	2.8	2.6	2.1	1.5
....GENUS	2.0	2.8	3.1	2.6	1.9

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										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	400	1
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	*	0
...MICRACTINIUM	--	-	--	-	--	-	1400	1	300	1
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	1800	2	760	2
...CHLORELLA	--	-	--	-	--	-	--	-	*	0
...CHODATELLA	--	-	--	-	--	-	710	1	--	-
...DICTYOSPHAERIUM	--	-	--	-	--	-	30000#	26	400	1
...KIRCHNERIELLA	--	-	--	-	--	-	*	0	*	0
...OOCYSTIS	--	-	--	-	--	-	--	-	250	1
...SELENASTRUM	--	-	--	-	--	-	--	-	1100	2
...TREUBARIA	--	-	--	-	--	-	--	-	400	1
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	34000#	29	1800	4
...SCENEDESMUS	42	9	--	-	*	0	15000	13	4500	9
...TETRASTRUM	--	-	--	-	--	-	--	-	400	1
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	14	1	--	-	1800	2	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIVUM	--	-	--	-	--	-	1400	1	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	470	4	24000#	20	300	1
....MELOSIRA	37	8	120	8	*	0	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	67	1	--	-	--	-
...COCCONEIS	11	2	14	1	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	81	5	1200	10	710	1	--	-
...EPITHEMIA	--	-	27	2	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	11	2	14	1	67	1	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	2500	2	--	-
...FRAGILARIA	--	-	--	-	--	-	--	-	*	0
...HANNAEA	--	-	--	-	400	3	--	-	--	-
...SYNEDRA	26	5	120	8	880	7	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	580#	38	610	5	--	-	--	-
...MERIDIONACEAE										
....MERIDION	--	-	95	6	130	1	--	-	--	-
...NAVICULACEAE										
....NAVICULA	37	8	270#	18	1800	14	710	1	--	-
...NITZSCHACEAE										
....NITZSCHIA	--	-	27	2	1300	10	2900	2	*	0
...SURIARELLACEAE										
....SURIARELLA	5	1	--	-	270	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROCOCCOCCALES										
...CHROCOCCOCCAEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	3800	8
...HORMOGONALES										
...NOSTOCACEAE										
....CYLINDROSPERMUM	310#	63	140	9	--	-	--	-	--	-
...OSCILLATORIA										
....LYNGBYA	--	-	--	-	2000#	16	--	-	--	-
...OSCILLATORIA	--	-	--	-	3200#	26	--	-	33000#	68
...CHROCOCCOCCALES										
...CHROCOCCOCCAEAE										
....GOMPHOSPHERIA	--	-	--	-	--	-	--	-	810	2

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

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

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1977 TO JULY 1978

DATE TIME	NOV 21,77 1400		MAR 24,78 1100		MAY 15,78 1430		JUN 12,78 1100		JUL 13,78 0930	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	5	1	14	1	--	-	--	-	--	-
.....TRACHELOMONAS	--	-	14	1	67	1	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
..DINOPHYCEAE										
...PERIDINIALES										
....PERIDINIACEAE										
.....PERIDINIUM	5	1	--	-	--	-	--	-	--	-

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
DEC 06...	1400	0	0	0	0	0	0	0	<10	0
MAR 24...	1100	1	1	100	100	0	1	0	<10	0
JUN 12...	1100	0	1	0	0	0	0	0	<10	0

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 06...	3	3	0	13	4	120	3	0	30	130
MAR 24...	12	12	0	18	3	30	28	0	460	90
JUN 12...	4	4	0	4	5	30	6	0	190	90

DATE	TIME	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 06...		<.5	.0	<.5	0	0	0	0	0	10	20
MAR 24...		<.5	.0	<.5	0	0	0	0	0	70	0
JUN 12...		<.5	.0	<.5	0	0	0	0	0	10	10

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS- SOLVED, METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
MAY 18...	1030	<.5	9.7	3.3	9.5	3.1	9.0	.09	.01		

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	133	130	132	180	173	176	179	169	174	174	156	159
2	142	133	138	185	180	183	172	160	169	161	157	159
3	148	143	146	187	182	185	159	147	151	171	161	165
4	148	144	146	186	181	183	148	140	144	183	171	177
5	156	148	152	186	178	180	144	127	135	200	184	189
6	156	151	154	180	175	177	127	124	125	207	183	193
7	154	152	153	179	160	171	128	124	126	196	190	194
8	156	153	154	168	118	137	140	128	134	193	188	190
9	161	156	158	116	90	98	1070	139	187	191	137	170
10	169	161	165	105	92	98	156	145	149	165	88	123
11	169	147	161	105	99	101	169	155	161	125	105	109
12	160	143	150	107	102	104	182	175	177	114	106	110
13	168	161	165	114	107	111	186	174	179	116	112	114
14	169	162	167	116	114	115	176	174	175	126	116	121
15	161	157	159	121	116	118	175	173	174	133	126	130
16	165	157	161	128	120	124	194	169	180	144	133	139
17	161	141	153	136	129	133	176	132	145	151	143	147
18	142	122	135	144	136	140	130	121	123	182	150	157
19	121	114	116	146	144	146	127	121	124	168	158	162
20	115	109	111	155	146	150	129	125	126	174	168	171
21	115	106	111	159	156	158	134	129	131	182	174	177
22	108	103	105	161	156	159	139	134	137	180	174	176
23	119	109	115	157	155	156	143	137	140	183	176	180
24	129	119	125	159	157	158	148	142	144	187	175	181
25	140	129	134	160	157	159	154	148	151	202	187	196
26	147	139	143	159	157	157	158	154	156	289	170	207
27	154	146	151	166	159	163	153	144	147	194	114	158
28	160	155	157	169	165	167	1000	144	186	160	117	132
29	165	160	163	180	168	171	157	153	155	131	118	124
30	173	165	168	177	171	174	159	155	157	123	116	119
31	173	169	171	---	---	---	158	154	155	128	119	123
MONTH	173	103	146	187	90	148	1070	121	152	289	88	157

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	727	130	178	337	319	328	112	110	111	159	154	156
2	145	137	141	340	327	334	114	112	113	163	159	161
3	152	145	149	459	333	344	112	100	108	166	163	164
4	162	151	156	517	333	354	103	97	99	169	166	167
5	169	158	163	347	278	317	103	99	101	172	168	169
6	182	169	174	295	266	282	107	104	105	173	171	172
7	189	177	184	299	271	288	115	107	111	175	173	174
8	193	175	184	371	299	346	115	108	111	177	172	174
9	225	171	205	371	353	362	111	108	109	181	172	177
10	246	218	231	368	353	359	113	111	112	181	179	180
11	258	226	244	358	320	344	115	112	114	181	172	177
12	274	247	263	318	271	297	122	114	118	173	170	172
13	261	253	256	268	248	254	127	122	124	173	168	170
14	260	252	255	254	230	242	135	128	132	167	119	149
15	254	247	251	229	173	196	136	133	134	124	89	108
16	255	246	251	173	160	168	135	134	134	86	80	82
17	263	249	254	174	149	159	138	134	136	95	86	92
18	305	265	276	152	145	149	143	139	141	92	90	91
19	301	280	287	147	144	145	149	143	146	95	89	92
20	297	286	293	147	142	145	154	150	152	96	93	95
21	292	270	277	141	135	137	160	155	158	102	95	98
22	281	270	277	138	130	136	161	151	157	112	102	108
23	292	264	281	128	108	121	157	149	152	121	112	117
24	281	271	277	107	97	102	158	156	157	125	120	123
25	288	271	279	98	96	97	158	150	154	127	123	125
26	303	290	296	101	97	98	150	146	149	127	122	125
27	311	296	306	109	98	104	148	146	147	144	122	133
28	326	312	320	108	97	103	149	147	147	147	133	140
29	---	---	---	107	100	104	151	148	150	136	134	135
30	---	---	---	111	106	108	154	150	152	135	133	134
31	---	---	---	110	108	109	---	---	---	138	134	136
MONTH	727	130	240	517	96	214	161	97	131	181	80	139

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	147	139	142	239	227	231	---	---	---	---	---	---
2	157	147	149	242	238	240	---	---	---	---	---	---
3	157	151	154	240	231	236	---	---	---	---	---	---
4	163	158	160	234	212	224	---	---	---	---	---	---
5	165	148	158	212	187	197	---	---	---	---	---	---
6	157	151	156	194	177	185	---	---	---	---	---	---
7	167	156	160	206	179	194	---	---	---	---	---	---
8	170	167	169	248	207	228	---	---	---	---	---	---
9	---	---	---	256	249	253	---	---	---	---	---	---
10	---	---	---	256	252	255	271	242	257	---	---	---
11	---	---	---	---	---	---	242	211	222	293	279	284
12	---	---	---	---	---	---	210	200	203	284	275	279
13	---	---	---	249	239	246	209	203	206	284	273	277
14	---	---	---	250	245	247	225	210	219	295	284	293
15	---	---	---	254	247	252	225	218	223	297	288	294
16	---	---	---	253	148	192	228	218	223	303	292	297
17	---	---	---	211	167	192	248	229	239	298	285	290
18	---	---	---	229	201	213	261	248	255	292	277	288
19	---	---	---	239	206	222	261	254	258	282	267	276
20	---	---	---	230	206	218	255	244	250	282	274	278
21	---	---	---	---	---	---	246	243	245	305	285	294
22	---	---	---	---	---	---	258	247	253	283	268	282
23	203	198	200	---	---	---	266	259	264	271	266	268
24	208	202	206	---	---	---	281	266	275	260	242	253
25	215	205	209	---	---	---	293	281	287	267	237	248
26	223	197	219	---	---	---	298	289	293	272	247	263
27	---	---	---	---	---	---	297	293	295	248	233	238
28	236	210	214	---	---	---	300	295	298	234	228	231
29	223	215	220	---	---	---	303	294	298	230	227	228
30	230	224	228	---	---	---	304	300	303	231	228	229
31	---	---	---	---	---	---	301	287	270	---	---	---
MONTH	236	139	183	256	148	224	304	200	256	305	208	267

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.2	7.1	7.1	7.4	7.2	7.3	7.3	7.2	7.3	7.0	7.0	7.0
2	7.3	7.2	7.2	7.4	7.4	7.4	7.3	7.2	7.3	7.1	7.0	7.1
3	7.3	7.3	7.3	7.4	7.3	7.4	7.2	7.1	7.1	7.2	7.1	7.1
4	7.3	7.3	7.3	7.4	7.3	7.3	7.2	7.1	7.1	7.2	7.1	7.2
5	7.4	7.3	7.3	7.3	7.2	7.3	7.1	7.1	7.1	7.2	7.1	7.2
6	7.3	7.3	7.3	7.3	7.2	7.3	7.1	7.1	7.1	7.3	7.1	7.2
7	7.4	7.3	7.4	7.3	7.0	7.1	7.1	7.1	7.1	7.2	7.2	7.2
8	7.4	7.3	7.3	7.3	6.8	7.1	7.4	7.1	7.1	7.2	7.2	7.2
9	7.4	7.3	7.4	6.8	6.6	6.7	10.6	7.2	7.5	7.3	7.2	7.3
10	7.4	7.4	7.4	6.9	6.6	6.8	7.7	7.1	7.2	7.2	6.7	7.0
11	7.4	7.2	7.3	6.9	6.9	6.9	7.3	7.1	7.2	7.0	6.8	6.9
12	7.3	7.2	7.2	7.0	6.9	6.9	7.3	7.2	7.3	7.0	6.8	6.9
13	7.3	7.3	7.3	7.1	7.0	7.1	7.3	7.2	7.2	6.8	6.8	6.8
14	7.4	7.3	7.4	7.1	7.0	7.1	7.2	7.2	7.2	6.9	6.8	6.9
15	7.4	7.3	7.4	7.1	7.1	7.1	7.3	7.2	7.2	7.0	6.9	7.0
16	7.4	7.3	7.3	7.1	7.1	7.1	7.3	7.0	7.2	7.0	7.0	7.0
17	7.4	7.2	7.3	7.2	7.1	7.1	7.2	7.1	7.2	7.0	7.0	7.0
18	7.2	7.1	7.1	7.3	7.2	7.2	7.1	6.9	7.0	7.0	6.9	7.0
19	7.1	7.0	7.0	7.3	7.2	7.2	7.0	6.9	6.9	7.0	7.0	7.0
20	7.1	7.0	7.0	7.2	7.2	7.2	6.9	6.8	6.9	7.1	7.0	7.0
21	7.1	6.9	7.0	7.2	7.2	7.2	6.9	6.9	6.9	7.1	7.0	7.0
22	7.0	7.0	7.0	7.2	7.1	7.2	7.0	6.9	7.0	7.2	7.1	7.2
23	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.0	7.0	7.3	7.2	7.3
24	7.1	7.1	7.1	7.2	7.1	7.1	7.0	7.0	7.0	7.3	7.2	7.2
25	7.2	7.2	7.2	7.2	7.2	7.2	7.1	7.0	7.1	7.3	7.2	7.2
26	7.2	7.2	7.2	7.3	7.2	7.2	7.1	7.1	7.1	7.4	7.2	7.3
27	7.4	7.2	7.3	7.3	7.3	7.3	7.1	7.0	7.1	7.4	6.9	7.2
28	7.3	7.3	7.3	7.3	7.3	7.3	11.9	7.1	7.7	7.0	6.8	6.9
29	7.4	7.3	7.3	7.3	7.3	7.3	7.1	7.0	7.1	7.0	6.9	7.0
30	7.6	7.3	7.4	7.3	7.3	7.3	7.1	7.0	7.1	6.9	6.8	6.8
31	7.4	7.2	7.3	---	---	---	7.1	7.1	7.1	6.9	6.8	6.8
MONTH	7.6	6.9	7.2	7.4	6.6	7.2	11.9	6.8	7.1	7.4	6.7	7.1

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	10.9	6.9	7.4	7.4	7.3	7.3	6.9	6.8	6.8	8.1	7.4	7.8
2	7.0	6.9	7.0	7.3	7.2	7.3	6.9	6.9	6.9	8.6	7.5	8.1
3	7.1	7.0	7.0	7.3	7.3	7.3	6.9	6.8	6.8	8.9	7.8	8.4
4	7.1	7.0	7.0	7.4	7.3	7.3	7.0	6.9	7.0	8.9	8.2	8.6
5	7.3	7.0	7.1	7.7	7.3	7.5	6.9	6.9	6.9	8.7	7.7	8.2
6	7.1	7.1	7.1	7.7	7.6	7.7	7.0	6.9	6.9	8.7	7.5	8.1
7	7.5	7.0	7.2	7.7	7.6	7.7	7.0	6.9	7.0	8.7	7.6	8.2
8	7.7	7.4	7.6	7.6	7.3	7.4	7.0	7.0	7.0	8.4	7.6	8.0
9	7.5	7.2	7.3	7.3	7.3	7.3	7.1	7.0	7.0	8.5	7.4	7.9
10	7.3	7.3	7.3	7.4	7.3	7.4	7.1	7.0	7.0	8.6	7.8	8.2
11	7.4	7.3	7.3	7.5	7.3	7.4	7.1	7.0	7.1	8.6	7.8	8.2
12	7.3	7.2	7.3	7.7	7.5	7.6	7.1	7.0	7.1	8.6	7.9	8.3
13	7.4	7.3	7.4	7.7	7.5	7.6	7.2	7.1	7.1	8.3	7.3	7.7
14	7.5	7.4	7.4	7.6	7.4	7.5	7.3	7.2	7.2	7.3	7.0	7.1
15	7.5	7.4	7.4	7.6	7.1	7.3	7.3	7.3	7.3	7.1	6.2	6.8
16	7.5	7.4	7.4	7.1	6.9	7.0	7.3	6.9	7.2	6.6	6.4	6.5
17	7.5	7.4	7.4	6.9	6.8	6.9	7.3	7.2	7.3	6.4	6.1	6.2
18	7.4	7.4	7.4	6.9	6.8	6.8	7.4	7.3	7.3	6.3	6.3	6.3
19	7.4	7.3	7.4	6.9	6.8	6.8	7.3	7.2	7.3	6.3	6.2	6.3
20	7.4	7.3	7.4	6.9	6.8	6.8	7.3	7.2	7.2	6.4	6.3	6.4
21	7.5	7.4	7.5	6.9	6.9	6.9	7.3	7.3	7.3	6.6	6.4	6.4
22	7.5	7.5	7.5	6.9	6.9	6.9	7.3	7.2	7.3	6.7	6.6	6.6
23	7.5	7.5	7.5	6.9	6.7	6.8	7.3	7.2	7.2	6.7	6.7	6.7
24	7.5	7.5	7.5	6.7	6.7	6.7	7.4	7.3	7.3	6.8	6.7	6.7
25	7.5	7.5	7.5	6.7	6.7	6.7	7.4	7.3	7.3	6.9	6.8	6.9
26	7.5	7.5	7.5	6.7	6.6	6.7	7.3	7.2	7.3	6.9	6.8	6.9
27	7.5	7.5	7.5	6.7	6.6	6.6	7.4	7.1	7.3	6.8	6.5	6.6
28	7.5	7.5	7.5	6.7	6.6	6.6	7.6	7.2	7.4	6.7	6.5	6.6
29	---	---	---	6.8	6.7	6.8	7.7	7.2	7.5	6.8	6.7	6.7
30	---	---	---	6.8	6.8	6.8	8.0	7.3	7.6	6.9	6.7	6.8
31	---	---	---	6.8	6.8	6.8	---	---	---	6.9	6.8	6.8
MONTH	10.9	6.9	7.4	7.7	6.6	7.1	8.0	6.8	7.2	8.9	6.1	7.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.0	6.8	6.9	8.8	7.6	8.3	---	---	---	---	---	---
2	7.0	6.8	6.9	8.3	7.6	7.9	---	---	---	---	---	---
3	7.0	6.8	6.9	7.6	7.3	7.4	---	---	---	---	---	---
4	7.2	6.8	7.0	7.7	7.2	7.4	---	---	---	---	---	---
5	7.3	6.9	7.1	7.5	7.3	7.4	---	---	---	---	---	---
6	7.5	6.9	7.2	7.4	7.3	7.3	---	---	---	---	---	---
7	7.3	7.0	7.1	8.2	7.3	7.6	---	---	---	---	---	---
8	8.0	6.9	7.3	8.6	7.5	8.1	---	---	---	---	---	---
9	---	---	---	8.8	7.6	8.3	---	---	---	---	---	---
10	---	---	---	9.0	7.9	8.6	8.4	7.3	7.8	---	---	---
11	---	---	---	---	---	---	7.8	7.3	7.6	9.3	8.7	9.1
12	---	---	---	---	---	---	7.8	7.2	7.4	9.3	8.6	9.0
13	---	---	---	8.8	8.1	8.5	8.4	7.2	7.7	8.9	7.9	8.5
14	---	---	---	8.7	8.0	8.4	8.7	7.4	8.1	9.0	8.5	8.7
15	---	---	---	8.7	7.8	8.3	8.8	7.8	8.4	8.7	7.9	8.4
16	---	---	---	8.6	7.1	7.4	8.8	8.0	8.5	8.8	7.7	8.4
17	---	---	---	7.9	7.1	7.4	9.0	8.2	8.6	8.7	8.2	8.5
18	---	---	---	8.1	7.4	7.6	8.9	8.4	8.7	8.8	7.7	8.3
19	---	---	---	8.6	7.6	8.1	8.9	8.3	8.6	8.4	7.5	8.0
20	---	---	---	9.0	7.7	8.3	8.7	7.8	8.3	8.6	7.5	8.0
21	---	---	---	---	---	---	8.5	8.0	8.3	8.5	7.7	8.1
22	---	---	---	---	---	---	8.4	7.9	8.2	7.6	7.1	7.2
23	8.4	7.2	7.9	---	---	---	8.2	7.7	8.0	7.6	7.1	7.3
24	7.9	7.1	7.5	---	---	---	8.5	7.5	8.0	7.4	7.1	7.2
25	8.2	7.1	7.6	---	---	---	8.6	7.7	8.2	8.4	7.0	7.6
26	7.9	7.0	7.4	---	---	---	8.8	8.1	8.5	8.8	7.4	8.2
27	---	---	---	---	---	---	8.6	8.1	8.4	9.0	7.8	8.5
28	8.4	7.2	7.8	---	---	---	8.7	8.0	8.3	9.1	8.3	8.7
29	8.6	7.4	8.1	---	---	---	8.8	7.9	8.4	9.0	8.6	8.8
30	8.6	7.4	8.1	---	---	---	8.9	8.1	8.5	8.8	8.4	8.7
31	---	---	---	---	---	---	8.9	7.9	8.4	---	---	---
MONTH	8.6	6.8	7.4	9.0	7.1	7.9	9.0	7.2	8.2	9.3	7.0	8.3

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1.5	.5	.5	.5	.5	.5	8.0	6.0	7.0	14.0	12.5	13.0
2	.5	.0	.0	.5	.5	.5	8.0	7.5	7.5	14.5	11.5	13.0
3	.5	.0	.0	.5	.5	.5	7.5	6.0	7.0	15.5	13.0	14.5
4	.0	.0	.0	.5	.5	.5	6.0	5.5	6.0	14.0	12.0	13.0
5	.0	.0	.0	.5	.0	.0	6.5	5.5	6.0	12.0	11.5	11.5
6	.0	.0	.0	.5	.0	.5	6.0	6.0	6.0	12.0	11.0	11.5
7	.0	.0	.0	.5	.5	.5	7.5	6.0	7.0	14.0	11.5	13.0
8	.5	.0	.0	.5	.5	.5	8.5	7.0	8.0	13.5	12.5	13.0
9	.5	.0	.0	.5	.5	.5	8.5	7.5	8.0	14.0	12.0	13.0
10	.5	.0	.5	.5	.5	.5	9.0	8.0	8.5	14.0	13.0	13.5
11	.5	.0	.5	.5	.5	1.0	8.5	8.0	8.5	15.5	13.0	14.5
12	.5	.0	.5	3.5	1.0	2.0	10.0	8.0	9.0	16.5	15.0	15.5
13	.5	.0	.5	6.0	4.0	5.0	11.0	9.5	10.0	15.5	15.0	15.5
14	.5	.5	.5	6.0	5.0	5.5	10.5	10.0	10.0	15.5	14.0	14.5
15	.5	.0	.5	5.5	4.0	4.5	10.5	9.5	10.0	14.0	12.5	13.5
16	.5	.5	.5	3.5	2.5	3.0	10.5	9.0	9.5	12.5	11.5	12.0
17	.5	.5	.5	2.0	1.5	2.0	10.5	9.0	10.0	11.5	11.5	11.5
18	.5	.5	.5	3.0	1.5	2.5	10.5	9.5	10.0	12.0	11.5	11.5
19	.5	.5	.5	4.0	2.5	3.5	10.0	9.5	9.5	13.5	11.5	12.5
20	.5	.0	.5	5.0	3.5	4.5	10.0	9.5	9.5	15.0	13.0	14.0
21	.5	.0	.5	6.0	4.5	5.5	9.5	9.0	9.0	16.5	15.0	15.5
22	.5	.0	.5	6.5	5.5	6.0	10.5	8.5	9.5	17.0	15.5	16.5
23	.5	.0	.5	6.5	5.5	6.0	11.0	9.5	10.5	17.0	16.5	17.0
24	.5	.5	.5	5.5	5.0	5.0	11.0	10.0	10.5	17.0	16.0	16.0
25	.5	.5	.5	5.0	4.5	5.0	11.5	9.5	10.5	17.5	16.0	17.5
26	.5	.5	.5	4.5	4.0	4.5	11.5	11.0	11.5	18.0	17.0	17.5
27	.5	.0	.5	4.5	4.0	4.0	13.0	11.0	12.0	18.5	17.5	18.0
28	.5	.5	.5	5.0	4.0	4.5	13.5	11.5	12.5	19.5	18.5	19.0
29	---	---	---	5.5	4.5	5.0	15.0	12.5	13.5	21.0	19.5	20.5
30	---	---	---	6.0	5.0	5.5	15.5	13.5	14.5	22.5	20.0	21.5
31	---	---	---	6.5	5.5	6.0	---	---	---	23.0	21.5	22.0
MONTH	1.5	.0	.5	6.5	.0	3.0	15.5	5.5	9.5	23.0	11.0	15.0

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.1	9.0	9.1	11.3	11.1	11.2	13.2	13.0	13.1	14.7	14.6	14.6
2	9.4	9.3	9.3	11.1	10.7	10.9	---	---	---	14.7	14.5	14.6
3	9.9	9.4	9.7	10.7	10.4	10.5	---	---	---	---	---	---
4	10.1	10.0	10.1	10.4	10.1	10.3	---	---	---	---	---	---
5	10.2	10.0	10.1	10.2	9.9	10.0	---	---	---	15.0	14.8	14.9
6	10.2	10.0	10.1	10.0	9.8	9.9	---	---	---	14.8	14.6	14.7
7	10.2	10.1	10.2	9.9	9.7	9.8	---	---	---	14.6	14.5	14.5
8	10.4	10.1	10.2	9.8	9.5	9.7	---	---	---	14.5	13.8	14.3
9	10.4	10.2	10.2	9.9	9.6	9.8	17.0	14.4	14.5	13.8	13.0	13.4
10	10.3	10.1	10.2	9.9	9.8	9.9	17.5	14.8	15.0	14.3	13.9	14.2
11	10.4	10.2	10.3	---	---	---	15.0	13.7	14.3	14.5	14.3	14.4
12	10.3	10.1	10.2	---	---	---	13.8	13.5	13.6	14.5	14.1	14.3
13	10.4	10.2	10.3	---	---	---	13.5	13.3	13.4	14.1	14.1	14.1
14	10.6	10.3	10.4	---	---	---	14.5	13.2	14.0	14.3	14.1	14.2
15	10.7	10.4	10.6	---	---	---	14.3	14.2	14.2	14.5	14.3	14.4
16	10.6	10.3	10.4	---	---	---	14.2	13.8	14.1	14.6	14.5	14.6
17	10.9	10.6	10.8	---	---	---	13.8	12.7	13.2	14.6	14.5	14.6
18	11.2	11.0	11.1	11.7	11.5	11.6	13.1	12.6	12.9	14.5	14.1	14.4
19	11.4	11.2	11.3	11.9	11.7	11.8	13.3	13.2	13.2	14.6	14.5	14.5
20	11.6	11.5	11.6	12.0	11.8	11.9	13.3	13.2	13.6	14.5	14.4	14.4
21	11.6	11.4	11.5	11.9	11.8	11.9	13.2	13.1	13.2	14.5	14.3	14.3
22	11.4	11.3	11.4	11.9	11.8	11.9	13.7	12.9	13.3	14.6	14.4	14.5
23	11.5	11.4	11.4	12.0	11.9	12.0	13.8	13.7	13.7	14.7	14.5	14.6
24	11.4	11.3	11.4	11.9	11.9	11.9	13.9	13.7	13.8	14.6	14.5	14.5
25	11.5	11.4	11.4	12.2	12.0	12.0	13.8	13.6	13.6	14.5	14.1	14.2
26	11.3	11.2	11.3	12.5	12.1	12.2	14.1	13.7	14.0	14.0	13.1	13.5
27	11.3	10.9	11.1	13.1	12.6	12.9	14.6	14.1	14.4	14.0	13.5	13.8
28	10.9	10.7	10.8	13.2	13.0	13.1	17.7	13.6	15.2	14.0	13.8	13.9
29	10.9	10.7	10.8	13.5	13.3	13.4	14.8	14.7	14.8	14.2	14.0	14.2
30	10.9	10.7	10.8	13.5	13.2	13.4	14.8	14.7	14.7	14.4	14.3	14.4
31	11.2	10.8	11.1	---	---	---	14.7	14.6	14.7	15.8	14.4	14.7
MONTH	11.6	9.0	10.6	13.5	9.5	11.4	17.7	12.6	13.9	15.8	13.0	14.3

SUSQUEHANNA RIVER BASIN

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01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	17.4	14.5	15.4	13.7	13.5	13.6	12.2	11.9	12.1	10.9	10.3	10.6
2	14.7	14.6	14.6	13.6	13.5	13.5	12.0	11.9	12.0	11.2	10.5	10.9
3	---	---	---	13.5	13.4	13.5	12.3	12.0	12.2	11.3	10.5	10.9
4	---	---	---	13.5	13.3	13.4	12.4	12.3	12.4	11.1	10.4	10.7
5	---	---	---	14.0	13.3	13.7	12.5	12.4	12.4	11.3	10.6	10.9
6	---	---	---	14.2	13.9	14.1	12.4	12.3	12.4	11.8	10.9	11.3
7	---	---	---	14.0	13.6	13.8	12.3	11.9	12.1	11.7	11.1	11.4
8	---	---	---	13.7	13.1	13.3	12.0	11.9	11.9	11.1	10.8	11.0
9	---	---	---	13.4	13.2	13.3	12.0	11.8	11.9	11.5	10.8	11.1
10	---	---	---	13.2	12.6	12.9	11.8	11.7	11.8	11.4	10.8	11.1
11	---	---	---	12.7	12.1	12.4	11.7	11.6	11.7	11.5	10.9	11.2
12	---	---	---	13.0	12.2	12.5	11.7	11.4	11.6	11.2	10.7	10.9
13	---	---	---	13.6	13.0	13.2	11.3	11.1	11.2	---	---	---
14	---	---	---	13.2	12.7	13.0	11.3	11.1	11.2	---	---	---
15	---	---	---	12.9	12.6	12.7	11.3	11.2	11.2	---	---	---
16	---	---	---	13.3	12.6	13.0	11.5	11.2	11.4	---	---	---
17	14.0	13.9	14.0	13.4	13.1	13.3	11.5	11.3	11.4	---	---	---
18	13.9	13.8	13.9	13.3	13.1	13.2	11.5	11.2	11.3	---	---	---
19	14.0	13.8	13.9	13.1	12.9	13.0	11.2	11.1	11.2	---	---	---
20	14.0	13.8	13.9	13.0	12.7	12.9	11.2	11.1	11.1	---	---	---
21	14.1	14.0	14.1	12.7	12.3	12.6	11.3	11.1	11.2	---	---	---
22	14.3	14.2	14.2	12.3	12.1	12.2	11.5	11.2	11.4	---	---	---
23	14.5	14.2	14.4	12.3	12.2	12.3	11.4	11.1	11.3	---	---	---
24	14.2	13.9	14.0	12.4	12.3	12.4	11.1	10.9	11.0	---	---	---
25	13.9	13.7	13.8	12.5	12.4	12.5	11.3	11.0	11.1	---	---	---
26	13.7	13.5	13.6	12.7	12.5	12.6	11.3	11.0	11.1	9.4	9.2	9.3
27	13.9	13.6	13.8	12.7	12.7	12.7	11.3	11.0	11.1	9.4	9.2	9.3
28	13.9	13.6	13.7	12.7	12.5	12.6	11.0	10.8	10.9	9.2	8.9	9.1
29	---	---	---	12.5	12.4	12.5	10.9	10.5	10.7	9.2	8.8	9.0
30	---	---	---	12.5	12.3	12.4	10.8	10.2	10.5	9.0	8.8	8.9
31	---	---	---	12.4	12.2	12.3	---	---	---	8.7	8.5	8.6
MONTH	17.4	13.5	14.1	14.2	12.1	13.0	12.5	10.2	11.5	11.8	8.5	10.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.7	8.4	8.6	9.2	8.3	8.8	---	---	---	---	---	---
2	8.6	8.2	8.4	8.9	8.2	8.6	---	---	---	---	---	---
3	8.6	8.1	8.3	9.1	8.5	8.8	---	---	---	---	---	---
4	8.9	8.3	8.6	9.0	8.6	8.8	---	---	---	---	---	---
5	8.9	8.4	8.7	8.5	8.3	8.4	---	---	---	---	---	---
6	9.1	8.4	8.8	8.4	8.1	8.3	---	---	---	---	---	---
7	8.9	8.3	8.6	8.7	8.0	8.3	---	---	---	---	---	---
8	9.0	8.2	8.5	8.8	7.9	8.3	---	---	---	---	---	---
9	---	---	---	8.6	7.7	8.2	---	---	---	---	---	---
10	---	---	---	8.6	7.4	8.1	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	8.7	7.4	8.1	---	---	---	---	---	---
14	---	---	---	8.6	7.2	7.9	---	---	---	---	---	---
15	---	---	---	8.6	7.4	8.0	---	---	---	11.1	8.9	9.9
16	---	---	---	8.0	7.2	7.5	---	---	---	11.0	8.8	9.9
17	---	---	---	8.4	7.5	7.9	---	---	---	10.7	8.6	9.6
18	---	---	---	8.4	7.6	8.0	---	---	---	11.0	8.3	9.4
19	---	---	---	8.9	7.5	8.2	---	---	---	9.7	8.0	8.8
20	---	---	---	9.0	7.3	8.1	---	---	---	10.4	8.0	9.1
21	---	---	---	---	---	---	---	---	---	10.4	8.5	9.3
22	---	---	---	---	---	---	---	---	---	8.8	8.2	8.5
23	9.4	8.7	9.1	---	---	---	---	---	---	9.7	8.8	9.2
24	9.3	8.7	9.1	---	---	---	---	---	---	9.8	9.1	9.4
25	9.3	8.7	9.0	---	---	---	---	---	---	10.7	9.0	9.8
26	9.3	8.6	9.0	---	---	---	8.9	6.5	7.7	11.4	9.2	10.3
27	---	---	---	---	---	---	8.3	6.5	7.5	11.8	9.4	10.6
28	9.3	8.6	9.0	---	---	---	9.0	6.6	7.7	11.1	9.3	10.3
29	9.5	8.6	9.0	---	---	---	9.1	6.7	7.9	11.3	9.5	10.4
30	9.2	8.4	8.9	---	---	---	9.4	6.4	7.8	11.0	9.6	10.4
31	---	---	---	---	---	---	9.4	5.9	7.7	---	---	---
MONTH	9.5	8.1	8.8	9.2	7.2	8.2	9.4	5.9	7.7	11.8	8.0	9.7

SUSQUEHANNA RIVER BASIN

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	59700	65	10500	30000	11	891	42100	18	2050
2	49700	45	6040	28300	9	688	63000	64	10900
3	50100	55	7440	27300	11	811	91300	94	23200
4	53400	60	8650	27100	16	1170	104000	49	13700
5	52300	51	7200	30900	23	1920	92900	26	6520
6	49200	41	5450	34100	27	2490	80700	17	3700
7	43700	31	3660	52800	148	23500	70000	15	2840
8	39200	26	2750	92300	162	40400	54500	14	2060
9	36300	23	2250	133000	105	37700	48600	12	1570
10	36300	30	2940	153000	93	38400	43200	11	1280
11	42700	42	4840	152000	125	51300	37700	9	916
12	47000	63	7990	160000	160	69100	34600	9	841
13	47200	48	6120	157000	130	55100	32600	8	704
14	41900	35	3960	122000	68	22400	29500	12	956
15	39000	23	2420	92400	28	6990	35500	15	1450
16	47000	33	4190	72300	19	3710	87600	70	19400
17	63700	59	10800	59500	18	2890	151000	90	36700
18	135000	139	52500	54500	18	2650	141000	75	28600
19	178000	179	86000	53300	18	2590	143000	65	25100
20	164000	114	50500	53100	17	2440	133000	53	19000
21	167000	77	34700	50100	15	2030	129000	58	20200
22	155000	55	23000	46600	14	1760	131000	71	25100
23	123000	50	16000	43400	13	1520	104000	32	8960
24	83900	44	9970	40600	13	1430	81400	27	5930
25	65800	38	6750	38900	12	1260	70600	21	4000
26	55900	32	4830	38600	12	1250	64000	28	4840
27	49900	26	3500	38300	13	1340	58000	25	3920
28	46200	22	2740	37200	11	1100	54000	19	2770
29	42300	19	2170	35400	9	860	50000	16	2160
30	37600	16	1620	33900	9	824	47000	12	1520
31	33300	13	1170	---	---	---	44000	11	1310
TOTAL	2135300	---	392650	1987900	---	380514	2348800	---	282197
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	42800	10	1160	71900	33	6410	18000	4	194
2	40900	10	1100	60600	28	4580	17000	4	184
3	38600	8	834	54200	23	3370	17000	4	184
4	34200	9	831	47600	20	2570	16000	3	130
5	30900	8	667	40000	18	1940	14000	5	189
6	29300	7	554	33000	15	1340	14000	5	189
7	28300	8	611	27000	12	875	15000	4	162
8	30100	10	813	23000	10	621	15000	5	202
9	66600	25	4500	30000	12	972	15000	3	121
10	185000	230	115000	30000	12	972	15000	4	162
11	189000	205	105000	27000	11	802	16000	3	130
12	140000	80	30200	27000	11	802	16700	7	316
13	102000	60	16500	30000	10	810	18000	12	583
14	79100	35	7470	30000	10	810	23100	24	1500
15	65500	25	4420	30000	10	810	61200	74	12200
16	56300	18	2740	29000	9	705	120000	181	58600
17	50500	15	2050	28000	9	680	140000	173	65400
18	44600	12	1450	27000	8	583	118000	117	37300
19	40300	10	1090	25000	8	540	92800	98	24600
20	37000	9	899	23000	8	497	92400	94	23500
21	35400	8	765	21000	7	397	97100	82	21500
22	33100	7	626	19000	7	359	129000	114	40400
23	31000	5	418	17000	6	275	213000	235	139000
24	30100	5	406	18000	6	292	249000	340	229000
25	37400	10	1010	19000	6	308	235000	223	141000
26	51900	15	2100	20000	5	270	201000	128	69500
27	168000	175	79400	20000	5	270	197000	106	57600
28	200000	145	78300	19000	5	256	236000	175	111000
29	167000	90	40600	---	---	---	225000	111	67400
30	123000	75	24900	---	---	---	202000	92	50200
31	91500	45	11100	---	---	---	179000	75	36200
TOTAL	2299400	---	537514	846300	---	33116	3017300	---	1188646

01570500 SUSQUEHANNA RIVER AT HARRISBURG, PA.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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									
1	149000	55	22100	30200	6	489	33700	19	1730
2	134000	35	12700	27700	4	299	30700	18	1490
3	156000	40	16800	26300	4	284	28500	16	1230
4	162000	45	19700	24800	4	268	29000	24	1880
5	133000	35	12600	24500	4	265	30400	32	2630
6	127000	30	10300	24700	6	400	27900	29	2180
7	143000	45	17400	25900	7	490	25500	27	1860
8	138000	40	14900	28300	8	611	23900	26	1680
9	134000	38	13700	30500	9	741	25000	40	2700
10	122000	34	11200	32200	10	869	33900	85	7780
11	99500	29	7790	33700	12	1090	36300	75	7350
12	82900	25	5600	35600	14	1350	32900	43	3820
13	73600	22	4370	35800	15	1450	30600	32	2640
14	71300	19	3660	57700	34	5300	30200	24	1960
15	67400	16	2910	155000	130	54400	25200	26	1770
16	60400	14	2280	205000	143	79200	25400	34	2330
17	54200	13	1900	194000	137	71800	23300	31	1950
18	49100	12	1590	187000	159	80300	21900	29	1710
19	45000	10	1220	183000	76	37600	20500	27	1490
20	43300	10	1170	152000	66	27100	19800	23	1230
21	44200	25	2980	117000	64	20200	19000	19	975
22	47700	30	3860	93200	63	15900	19100	20	1030
23	53000	35	5010	77200	52	10800	20800	24	1350
24	53400	23	3320	63200	41	7000	19800	21	1120
25	48100	18	2340	73000	66	13000	18700	19	959
26	43800	14	1660	73200	54	10700	17100	22	1020
27	40000	10	1080	67200	41	7440	17600	29	1380
28	37100	9	902	56200	37	5610	17300	26	1210
29	34300	8	741	48000	33	4280	15800	23	981
30	32400	7	612	41900	29	3280	14600	19	749
31	---	---	---	37300	24	2420	---	---	---
TOTAL	2478700	---	206395	2261300	---	464936	734400	---	62184
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									
1	13500	17	620	8650	17	397	8050	10	217
2	13500	20	729	8710	15	353	9400	13	330
3	14300	22	849	9390	16	406	13000	19	667
4	19100	41	2110	15800	60	2560	12200	15	494
5	22700	80	4900	17600	46	2190	10300	12	334
6	20400	52	2860	16500	34	1510	9080	10	245
7	16600	38	1700	16200	48	2100	8320	9	202
8	15300	32	1320	25500	37	2550	7740	7	146
9	14600	29	1140	33900	119	11200	7210	6	117
10	13200	28	998	34300	92	8520	6970	5	94
11	13500	33	1200	28400	55	4220	6890	5	93
12	11800	26	828	24500	44	2910	6970	6	113
13	10800	19	554	21900	40	2370	6940	5	94
14	10300	14	389	19500	35	1840	6790	4	73
15	12900	35	1220	17800	22	1060	8720	17	400
16	16200	45	1970	17200	25	1160	8020	16	346
17	13200	41	1460	15600	21	885	7710	15	312
18	15000	50	2030	13600	18	661	6850	12	222
19	13100	35	1240	12000	16	518	7490	14	283
20	11600	22	689	10600	15	429	9530	33	849
21	11200	19	575	9690	15	392	18500	24	1200
22	10300	18	501	8950	14	338	18500	20	999
23	9880	17	453	8260	13	290	16400	17	753
24	9140	16	395	7890	12	256	17500	18	850
25	9150	15	371	7400	11	220	17400	15	705
26	8750	15	354	7080	10	191	14400	13	505
27	8500	14	321	6890	10	186	12600	12	408
28	8220	14	311	7060	11	210	11200	10	302
29	7940	15	322	6910	12	224	10100	10	273
30	7750	15	314	7050	10	190	9300	9	226
31	8280	17	380	7660	9	186	---	---	---
TOTAL	390710	---	33103	452490	---	50522	314080	---	11852
YEAR	19266680		3643629						

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) National Geodetic Vertical Datum of 1929. March 1909 to December 1919, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good, except those for periods of no gage-height record, Mar. 30 to May 2, July 6-13, 20-26, Aug. 7-24, Aug. 31-Sept 2, and Sept. 11-26, which are fair. 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.--34 years (1909-1919, 1954-1978), 291 ft³/s (8.241 m³/s), 18.30 in/yr (465 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)	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)
Dec. 1	0645	1,910	54.1	5.57	1.698	Mar. 15	0030	1,560	44.2	4.93	1.503
Dec. 21	1345	1,670	47.3	5.13	1.564	Mar. 21	2300	2,050	58.1	5.81	1.771
Jan. 9	2100	1,840	52.1	5.44	1.658	Mar. 27	1815	*3,110	88.1	*7.53	2.295
Jan. 26	1615	2,620	74.2	6.76	2.060	May 15	2330	2,550	72.2	6.66	2.030

Minimum discharge, 110 ft³/s (3.12 m³/s) Oct. 4, 5, 6, 7, 8, gage height, 1.12 ft (0.341 m).

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	128	1230	412	491	261	740	240	383	208	272	270
2	128	130	672	399	474	250	620	240	350	198	235	195
3	123	130	477	374	438	252	560	240	350	474	211	182
4	117	174	421	338	408	247	550	230	350	543	216	180
5	112	247	441	346	383	236	520	371	329	341	255	172
6	119	177	540	353	380	236	500	368	317	320	230	169
7	117	255	415	350	370	233	470	317	317	320	250	167
8	115	464	343	434	360	236	430	314	341	280	800	167
9	154	402	332	1590	350	230	410	405	317	350	500	162
10	172	326	300	1060	350	236	390	371	291	280	420	164
11	142	519	280	687	350	240	370	332	272	230	370	165
12	123	383	255	645	344	200	360	323	261	210	320	170
13	117	308	263	557	340	326	350	340	286	203	290	170
14	133	274	274	550	344	722	330	1190	274	208	250	175
15	224	255	365	491	326	1420	320	2100	247	359	230	180
16	174	210	314	434	311	1250	310	2170	235	308	210	185
17	185	200	288	438	311	881	300	1630	238	255	200	190
18	200	236	649	461	311	746	280	1250	255	238	190	200
19	167	211	802	421	305	802	340	962	238	214	180	210
20	182	195	627	389	280	1180	410	782	227	205	170	215
21	172	195	1200	380	294	1460	380	668	230	200	160	205
22	150	195	941	370	280	1800	350	579	252	190	160	190
23	140	249	691	350	277	1450	310	522	235	190	160	185
24	135	261	597	340	277	1330	290	630	219	180	160	180
25	130	227	580	474	274	1120	280	638	214	240	157	170
26	135	346	540	1990	274	1730	270	494	227	216	157	157
27	152	286	500	1560	266	2830	270	447	350	208	162	154
28	157	241	470	941	261	2230	260	425	346	200	185	152
29	142	233	400	734	---	1470	250	408	238	190	167	147
30	140	266	380	616	---	1080	250	393	224	182	159	145
31	133	---	425	536	---	880	---	383	---	219	390	---
TOTAL	4518	7723	16012	19010	9431	27640	11470	19762	8413	7939	7816	5373
MEAN	146	257	517	613	337	892	382	637	280	256	252	179
MAX	224	519	1230	1990	491	2830	740	2170	383	543	800	270
MIN	112	128	255	338	261	230	250	230	214	180	157	145
CFSM	.68	1.19	2.39	2.84	1.56	4.13	1.77	2.95	1.30	1.19	1.17	.83
IN.	.78	1.33	2.76	3.27	1.62	4.76	1.98	3.40	1.45	1.37	1.35	.93

CAL YR 1977 TOTAL 98938 MEAN 271 MAX 1230 MIN 100 CFSM 1.26 IN 17.04
WTR YR 1978 TOTAL 145107 MEAN 398 MAX 2830 MIN 112 CFSM 1.84 IN 24.99

YELLOW BREECHES CREEK BASIN

265

01571505 YELLOW BREECHES CREEK AT NEW CUMBERLAND, PA

LOCATION.--Lat 40°13'27", long 76°51'38", Cumberland County, Hydrologic Unit 02050305, at bridge on Bridge Street in New Cumberland, and 0.1 mi (0.2 km) upstream from mouth.

DRAINAGE AREA.--219 mi² (567 km²) approximately.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT 04...	1300	9813	9813	310	9.0	6.9	9.9	127	0	--	30	--
NOV 02...	1300	9813	9813	320	11.0	8.3	11.5	134	--	35	--	12
DEC 28...	1530	9813	9813	220	.0	7.5	16.0	94	--	24	--	9.3
JAN 30....	1500	9813	9813	210	1.0	7.3	13.4	90	--	24	--	7.7
FEB 27...	1430	9813	9813	280	4.0	8.7	13.4	122	--	32	--	11
MAR 22...	1500	9813	9813	150	8.0	7.3	11.2	52	--	17	--	2.2
APR 24...	1545	9813	9813	270	14.0	8.5	10.2	118	--	32	--	10
MAY 31...	0830	9813	9813	290	17.0	2.5	8.7	104	--	33	--	5.5
JUN 21...	0900	9813	9813	320	20.0	8.5	8.8	130	--	26	--	17
JUL 27...	1113	9813	9813	--	22.0	8.1	8.3	--	--	--	--	--
AUG 16...	1438	9813	9813	290	26.0	8.1	9.7	103	0	--	290	--
SEP 13...	1454	9813	9813	320	20.0	8.4	10.7	120	0	41	--	4.0

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 04...	13	116	10	12	190	44	2.8	.03	.09	.10	1350
NOV 02...	--	118	17	10	104	16	1.7	.03	.07	.06	450
DEC 28...	--	76	10	10	194	--	1.7	.03	.10	.91	170
JAN 30...	--	74	14	14	100	--	4.1	.02	.11	.07	658
FEB 27...	--	104	10	17	20	--	2.4	.03	.15	.05	100
MAR 22...	--	50	6.0	11	152	--	1.7	.04	.15	.19	4300
APR 24...	--	96	18	14	156	--	2.1	.03	.15	.06	120
MAY 31...	--	96	10	12	198	--	2.1	.02	.12	.13	7#0
JUN 21...	--	116	35	13	236	--	2.1	.03	.10	<.10	360
JUL 27...	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	8.0	--	15	13	238	--	1.8	.02	.07	.07	880
SEP 13...	--	124	35	13	180	--	2.6	.30	.11	.70	520

SWATARA CREEK BASIN

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).

WATER-DISCHARGE RECORDS

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) National Geodetic Vertical Datum of 1929. 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.--59 years, 574 ft³/s (16.26 m³/s), 23.13 in/yr (588 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)
Dec. 1	1500	6,550 185	8.49 2.588	Mar. 15	0300	6,820 193	8.70 2.652
Dec. 21	2030	6,920 196	8.78 2.676	Mar. 27	1330	10,600 300	11.38 3.469
Jan. 9	1600	8,430 239	9.90 3.018	May 15	0330	6,760 191	8.65 2.636
Jan. 26	2130	*12,600 357	*12.47 3.801				

Minimum discharge, 112 ft³/s (3.17 m³/s) July 1, 2, gage height, 0.29 ft (0.088 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	255	5190	736	878	190	1470	328	494	118	505	780
2	735	246	2900	683	800	190	1230	313	434	113	308	503
3	410	248	1910	561	685	180	1050	301	416	270	242	402
4	289	442	1500	524	541	180	1010	287	438	518	610	346
5	232	436	1400	518	480	180	986	372	364	255	448	293
6	207	331	1960	489	460	170	830	416	328	177	369	257
7	209	1180	1330	469	440	170	889	348	316	150	2670	233
8	181	1700	1020	947	420	170	745	320	425	138	3060	214
9	892	1260	958	7220	400	170	632	809	394	131	1470	229
10	1560	1060	756	3350	380	180	584	642	372	228	918	195
11	784	2010	678	2020	370	221	558	503	287	232	773	180
12	555	1470	602	1520	350	360	553	447	250	136	1830	177
13	422	1150	632	1220	340	824	494	443	290	122	875	219
14	426	926	880	1160	320	2570	452	3480	294	118	668	180
15	2650	791	2190	929	310	4990	416	5450	225	872	522	179
16	1620	689	1580	800	300	2950	394	3430	201	472	673	206
17	2450	663	1310	740	280	1720	377	3900	196	303	457	226
18	2080	705	2230	905	270	1470	364	3300	201	218	352	183
19	1430	537	3170	773	270	1690	528	2480	196	179	296	201
20	1170	463	2270	500	260	2240	1020	1830	174	159	260	235
21	882	439	5070	480	260	2130	873	1460	167	145	227	179
22	707	454	4330	460	250	2510	673	1170	219	136	206	170
23	591	519	2450	440	240	2190	584	986	196	128	191	188
24	502	523	1840	430	230	2210	533	1310	157	125	180	159
25	442	460	2060	700	220	1750	498	1570	146	318	173	146
26	414	1160	1720	8930	210	3480	438	992	136	321	207	139
27	476	929	1330	6690	200	10000	416	826	148	183	185	132
28	405	773	1140	2310	200	6550	385	736	144	162	882	129
29	341	690	1020	1620	---	3290	368	657	129	143	1980	126
30	303	812	939	1270	---	2260	352	589	140	132	797	121
31	275	---	806	1040	---	1760	---	528	---	245	800	---
TOTAL	23884	23321	57171	50434	10364	58945	19702	40223	7877	6947	23134	6927
MEAN	770	777	1844	1627	370	1901	657	1298	263	224	746	231
MAX	2650	2010	5190	8930	878	10000	1470	5450	494	872	3060	780
MIN	181	246	602	430	200	170	352	287	129	113	173	121
CFSM	2.29	2.31	5.47	4.83	1.10	5.64	1.95	3.85	.78	.67	2.21	.69
IN.	2.64	2.57	6.31	5.57	1.14	6.51	2.17	4.44	.87	.77	2.55	.76

CAL YR 1977 TOTAL 249888 MEAN 685 MAX 8720 MIN 72 CFSM 2.03 IN 27.58
WTR YR 1978 TOTAL 328929 MEAN 901 MAX 10000 MIN 113 CFSM 2.67 IN 36.31

SWATARA CREEK BASIN

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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, 697 mg/L July 15, 1978; 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, 697 mg/L July 15; minimum daily, 1 mg/L May 2-4, 7.

SEDIMENT LOAD: Maximum daily, 14,500 tons (13,150 tonnes) Jan. 26; minimum daily, 0.77 ton (0.70 tonne) May 4.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	10.0	5.0	2.0		---	9.0	13.0	22.0	---	19.0	20.0
2	17.0	11.0	6.0	---		---	9.5	13.0	22.0	20.0	20.0	21.0
3	14.5	13.0	5.0	---		---	6.0	15.0	21.0	17.5	23.0	20.0
4	13.5	16.0	6.0	---		---	5.5	12.5	19.0	16.5	23.0	19.0
5	14.0	17.0	3.0	---		---	9.0	10.0	19.5	19.5	22.0	20.0
6	13.0	14.0	4.0	1.0		---	8.5	9.0	20.0	23.0	22.0	22.0
7	12.0	13.5	2.0	2.5		---	9.0	12.0	19.0	23.0	21.5	24.0
8	11.0	12.0	.5	3.0		---	11.0	12.0	19.0	26.0	20.0	20.0
9	13.5	13.0	1.5	---		1.0	11.0	13.0	21.0	26.0	20.0	20.0
10	12.0	13.5	.0	---		1.5	10.0	13.5	21.0	27.0	22.0	18.0
11	11.0	10.0	---	---		2.0	11.5	15.0	24.0	23.0	21.0	19.0
12	12.0	7.5	---	---		3.0	12.0	16.0	23.0	23.5	21.0	21.0
13	11.0	6.0	---	---		2.5	11.0	15.5	21.0	24.0	22.0	20.0
14	10.5	5.5	2.0	---		2.5	13.0	14.0	20.0	22.0	23.5	18.0
15	10.0	6.0	3.0	---		2.0	---	12.0	19.5	21.5	23.0	17.0
16	10.5	8.0	3.5	---		2.0	12.0	10.5	19.0	21.0	22.0	19.0
17	8.5	10.5	4.0	---		3.0	11.0	11.0	19.0	23.0	24.0	19.0
18	7.5	8.0	3.5	---		3.0	11.5	11.5	19.5	23.5	23.0	21.0
19	9.0	6.0	3.5	---		5.0	10.0	13.0	25.0	24.5	24.0	21.0
20	10.0	7.0	4.0	---		4.0	10.0	16.5	25.5	27.0	25.0	20.0
21	13.0	6.5	4.0	---		6.0	9.0	18.5	24.0	25.0	23.0	20.0
22	---	7.5	3.5	---		6.0	10.0	16.5	24.0	28.0	24.0	20.5
23	---	7.0	3.0	---		7.0	12.0	16.5	22.5	31.0	22.0	---
24	11.0	7.0	4.0	---		7.5	12.0	14.0	21.0	29.0	23.0	18.0
25	11.0	6.0	5.5	---		4.5	12.0	15.0	---	21.5	24.0	18.5
26	12.0	6.0	---	---		3.0	12.0	18.0	23.0	22.0	25.0	17.0
27	14.0	2.5	---	---		4.0	12.0	19.0	26.0	25.5	21.0	16.0
28	16.0	3.0	---	---		6.0	13.0	19.0	26.0	27.0	20.5	16.0
29	13.0	3.0	---	---		8.0	14.0	20.5	27.0	23.0	22.0	14.0
30	12.0	3.0	1.0	---		6.5	15.5	21.5	26.0	23.5	21.0	14.0
31	9.5	---	3.0	---		8.0	---	22.0	---	20.0	20.0	---

SWATARA CREEK BASIN

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	164	121	128		---	129	136	137	---	183	139
2	186	171	111	---		---	131	136	142	210	159	137
3	172	173	116	---		---	132	143	148	189	174	135
4	178	174	148	---		---	139	144	152	173	186	139
5	182	159	122	---		---	142	148	145	159	152	139
6	185	156	143	141		---	143	141	149	176	167	147
7	194	165	134	143		---	147	139	158	186	126	157
8	196	123	130	145		---	148	142	160	198	95	159
9	175	127	133	---		189	149	151	156	202	114	164
10	123	133	135	---		185	147	121	175	202	128	164
11	139	134	---	---		205	149	127	150	196	137	164
12	151	123	---	---		246	153	129	157	205	106	165
13	156	125	---	---		220	149	131	164	218	128	162
14	160	128	141	---		162	154	140	164	222	134	160
15	155	134	118	---		103	---	95	165	157	142	162
16	125	136	119	---		99	152	107	173	148	125	173
17	147	141	121	---		124	153	103	178	172	137	165
18	118	143	132	---		136	153	102	182	181	141	160
19	130	141	126	---		138	162	107	174	193	152	166
20	137	143	126	---		110	162	111	174	195	156	174
21	143	144	132	---		114	143	113	181	203	159	165
22	---	149	108	---		105	142	115	192	207	161	168
23	---	152	116	---		105	138	119	194	211	172	---
24	148	153	119	---		111	138	126	190	211	173	171
25	153	130	123	---		111	139	117	198	161	177	166
26	161	165	---	---		133	143	122	193	179	175	170
27	162	129	---	---		97	153	127	199	173	181	175
28	156	133	---	---		104	155	126	200	196	167	183
29	160	138	---	---		117	153	126	201	203	97	185
30	162	143	122	---		120	135	129	---	208	113	188
31	164	---	128	---		126	---	133	---	198	128	---

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	244	60	40	255	6	4.1	5190	295	4580
2	735	156	331	246	10	6.6	2900	96	752
3	410	72	80	248	12	8.0	1910	44	227
4	289	33	26	442	34	41	1500	31	126
5	232	30	19	436	22	26	1400	39	170
6	207	27	15	331	9	8.0	1960	86	485
7	209	25	14	1180	115	556	1330	21	75
8	181	18	8.8	1700	80	367	1020	16	44
9	892	213	998	1260	46	156	958	13	34
10	1560	201	988	1060	39	112	756	8	16
11	784	69	146	2010	153	913	678	7	13
12	555	45	67	1470	40	159	602	6	9.8
13	422	25	28	1150	26	81	632	8	14
14	426	41	65	926	15	38	880	45	107
15	2650	309	2400	791	16	34	2190	160	946
16	1620	95	416	689	20	37	1580	60	256
17	2450	125	885	663	24	43	1310	34	120
18	2080	92	517	705	37	70	2230	95	572
19	1430	64	247	537	13	19	3170	93	796
20	1170	62	196	463	12	15	2270	50	306
21	882	40	95	439	8	9.5	5070	239	3650
22	707	32	61	454	10	12	4330	98	1150
23	591	24	38	519	43	60	2450	58	384
24	502	16	22	523	30	42	1840	36	179
25	442	13	16	460	12	15	2060	48	267
26	414	24	27	1160	80	279	1720	35	163
27	476	27	35	929	22	55	1330	25	90
28	405	18	20	773	16	33	1140	28	86
29	341	10	9.2	690	11	20	1020	32	88
30	303	8	6.5	812	19	42	939	27	68
31	275	7	5.2	---	---	---	806	20	44
TOTAL	23884	---	7821.7	23321	---	3261.2	57171	---	15817.8

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	736	15	30	878	28	66	190	5	2.6
2	683	12	22	800	24	52	190	4	2.1
3	561	12	18	685	19	35	180	5	2.4
4	524	11	16	541	16	23	180	5	2.4
5	518	13	18	480	14	18	180	6	2.9
6	489	10	13	460	14	17	170	6	2.8
7	469	11	14	440	13	15	170	6	2.8
8	947	95	243	420	12	14	170	7	3.2
9	7220	300	5850	400	12	13	170	8	3.7
10	3350	185	1670	380	11	11	180	8	3.9
11	2020	90	491	370	11	11	221	18	11
12	1520	60	246	350	10	9.5	360	48	47
13	1220	45	148	340	10	9.2	824	197	542
14	1160	35	110	320	10	8.6	2570	496	3860
15	929	30	75	310	9	7.5	4990	376	5490
16	800	25	54	300	9	7.3	2950	165	1310
17	740	23	46	280	8	6.0	1720	61	283
18	905	33	81	270	9	6.6	1470	47	187
19	773	29	61	270	8	5.8	1690	90	411
20	500	21	28	260	8	5.6	2240	160	968
21	480	17	22	260	7	4.9	2130	115	661
22	460	15	19	250	7	4.7	2510	133	901
23	440	13	15	240	6	3.9	2190	76	449
24	430	12	14	230	6	3.7	2210	85	507
25	700	40	76	220	6	3.6	1750	42	198
26	8938	600	14500	210	6	3.4	3480	272	4020
27	6690	275	4970	200	5	2.7	10000	375	9900
28	2310	120	748	200	5	2.7	6550	153	2710
29	1620	65	284	---	---	---	3290	84	746
30	1270	42	144	---	---	---	2260	49	299
31	1040	36	101	---	---	---	1760	33	157
TOTAL	50434	---	30127	10364	---	370.7	58945	---	33685.8

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	1470	24	95	328	2	1.8	494	10	13
2	1230	22	73	313	1	.85	434	6	7.9
3	1050	16	45	301	1	.81	416	10	11
4	1010	15	41	287	1	.77	438	12	14
5	986	17	45	372	5	5.0	364	11	11
6	830	16	36	416	3	3.4	328	13	12
7	889	20	48	348	1	.94	316	11	9.4
8	745	14	28	320	2	1.7	425	16	18
9	632	10	17	809	41	98	394	21	22
10	584	8	13	642	13	23	372	28	28
11	558	7	11	503	4	5.4	287	11	8.5
12	553	9	13	447	3	3.6	250	9	6.1
13	494	8	11	443	5	6.0	290	13	10
14	452	7	8.5	3480	304	3360	294	12	9.5
15	416	6	6.7	5450	150	2210	225	9	5.5
16	394	5	5.3	3430	100	926	201	7	3.8
17	377	3	3.1	3900	105	1110	196	7	3.7
18	364	2	2.0	3300	60	535	201	8	4.3
19	528	17	24	2480	54	362	196	8	4.2
20	1020	37	102	1830	48	237	174	7	3.3
21	873	19	45	1460	43	170	167	7	3.2
22	673	6	11	1170	30	95	219	16	9.5
23	584	5	7.9	986	26	69	196	15	7.9
24	533	6	8.6	1310	73	308	157	10	4.2
25	498	6	8.1	1570	67	284	146	9	3.5
26	438	5	5.9	992	20	54	136	9	3.3
27	416	4	4.5	826	16	36	148	8	3.2
28	385	3	3.1	736	14	28	144	9	3.5
29	368	3	3.0	657	11	20	129	10	3.5
30	352	2	1.9	589	8	13	140	12	4.5
31	---	---	---	528	9	13	---	---	---
TOTAL	19702	---	726.6	40223	---	9981.27	7877	---	250.6

SWATARA CREEK BASIN

01573000 SWATARA CREEK AT HARPER TAVERN, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	118	8	2.5	505	72	102	780	43	91
2	113	7	2.1	308	31	26	503	27	37
3	270	62	51	242	28	22	402	24	26
4	518	63	88	610	103	175	346	15	14
5	255	18	12	448	57	69	293	11	8.7
6	177	12	5.7	369	67	116	257	9	6.2
7	150	11	4.5	2670	520	4260	233	8	5.0
8	138	10	3.7	3060	328	3010	214	8	4.6
9	131	9	3.2	1470	95	377	229	7	4.3
10	228	90	55	918	70	174	195	6	3.2
11	232	140	88	773	87	222	180	6	2.9
12	136	37	14	1830	300	1680	177	4	1.9
13	122	17	5.6	875	55	130	219	8	4.7
14	118	19	6.1	668	38	69	180	7	3.4
15	872	697	2120	522	46	74	179	9	4.3
16	472	224	316	673	93	189	206	9	5.0
17	303	65	53	457	23	28	226	15	9.2
18	218	35	21	352	15	14	183	8	4.0
19	179	27	13	296	14	11	201	12	6.5
20	159	22	9.4	260	10	7.0	235	14	8.9
21	145	20	7.8	227	8	4.9	179	9	4.3
22	136	13	4.8	206	9	5.0	170	8	3.7
23	128	10	3.5	191	9	4.6	188	10	5.1
24	125	8	2.7	180	8	3.9	159	5	2.1
25	318	177	204	173	10	4.7	146	5	2.0
26	321	65	56	207	12	6.7	139	4	1.5
27	183	19	9.4	185	9	4.5	132	4	1.4
28	162	17	7.4	882	127	310	129	4	1.4
29	143	16	6.2	1980	223	1440	126	5	1.7
30	132	16	5.7	797	43	93	121	4	1.3
31	245	42	33	800	49	114	---	---	---
TOTAL	6947	---	3214.3	23134	---	12746.3	6927	---	275.3
YEAR	328929		118278.57						

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
OCT 10...	0700	1640	12.0	228	1010	44	62	78
DEC 01...	0930	6000	5.0	549	8890	45	60	74
MAR 15...	1630	3780	3.0	239	2440	41	52	64
MAR 27...	1300	10600	6.0	350	10000	43	55	64
AUG 04...	1230	731	23.0	120	237	61	71	82

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 10...	87	93	95	97	98	99	100
DEC 01...	82	87	93	97	99	100	--
MAR 15...	73	79	89	95	98	99	100
MAR 27...	71	77	86	94	98	100	--
AUG 04...	90	98	99	100	--	--	--

SWATARA CREEK BASIN

271

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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--15 years, 8.24 ft³/s (0.233 m³/s), 14.22 in/yr (361 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.--Peak discharges above base of 80 ft³/s (2.3 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)
Jan. 26	0730	*944 26.7	*7.68 2.341	Mar. 26	2130	88 2.49	4.99 1.521
Mar. 14	1645	179 5.07	5.67 1.728				

Minimum discharge, 3.9 ft³/s (0.11 m³/s) Sept. 26, 27; minimum gage height, 3.53 ft (1.076 m), Sept. 12, 15, 17, 18, 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.8	19	11	18	11	19	11	10	8.2	6.3	6.9
2	4.0	4.8	11	10	17	10	17	11	10	8.2	6.1	6.5
3	3.9	4.8	10	9.4	16	10	17	11	10	11	5.9	6.4
4	3.9	5.5	9.6	9.2	15	10	17	11	11	11	6.1	6.2
5	3.9	5.1	11	9.2	15	10	16	11	9.8	8.7	6.5	6.0
6	3.9	5.0	13	9.3	14	10	15	11	9.4	8.2	7.1	6.1
7	3.7	8.2	11	9.4	12	10	16	11	9.6	8.0	11	6.2
8	3.7	7.0	9.8	13	14	10	15	11	9.8	8.0	8.9	6.3
9	6.9	6.2	9.6	27	14	10	14	12	9.4	7.8	7.6	6.1
10	6.7	6.1	8.9	12	13	10	14	11	9.1	10	8.7	5.9
11	5.0	7.2	8.7	12	13	10	13	11	9.1	8.2	8.7	5.6
12	4.5	6.1	8.4	11	13	11	13	10	8.9	7.4	8.7	5.6
13	4.4	5.9	8.4	11	12	18	13	10	9.4	7.1	8.0	5.8
14	4.7	5.8	11	12	13	72	13	19	8.9	7.1	7.4	5.6
15	12	5.6	12	11	12	48	12	20	8.7	7.4	6.9	5.8
16	6.7	5.7	9.8	10	12	26	12	17	8.4	8.7	7.4	5.8
17	7.2	5.7	9.4	9.6	12	21	12	16	8.4	8.2	7.1	5.6
18	6.4	5.6	31	13	12	20	12	14	8.7	7.4	6.7	5.6
19	6.2	5.3	17	10	12	36	13	13	8.4	7.1	5.8	7.4
20	6.1	5.2	15	8.4	12	28	14	13	8.4	6.9	7.3	4.7
21	5.9	5.3	49	10	12	29	12	12	8.4	6.9	6.9	4.4
22	5.7	5.3	23	9.1	12	27	12	11	8.7	6.7	6.7	4.4
23	5.6	6.0	18	8.9	11	24	12	11	8.2	6.7	6.4	4.2
24	5.5	5.8	16	8.4	11	24	12	15	8.2	6.5	6.6	4.2
25	5.4	5.5	17	14	11	19	11	13	8.2	6.7	6.8	4.2
26	5.4	7.8	14	199	11	44	11	11	8.2	6.5	6.9	4.0
27	5.5	6.0	13	40	11	54	11	11	8.7	6.3	7.0	4.0
28	5.3	5.9	12	27	11	31	11	11	8.4	6.5	9.0	4.3
29	5.2	5.9	12	24	---	25	11	11	8.2	6.3	6.7	4.2
30	5.0	6.3	12	20	---	21	11	11	8.4	6.3	6.5	4.1
31	4.8	---	11	19	---	20	---	10	---	6.7	6.9	---
TOTAL	167.9	175.4	440.6	606.9	361	709	401	381	269.0	236.7	224.6	162.1
MEAN	5.42	5.85	14.2	19.6	12.9	22.9	13.4	12.3	8.97	7.64	7.25	5.40
MAX	12	8.2	49	199	18	72	19	20	11	11	11	7.4
MIN	3.7	4.8	8.4	8.4	11	10	11	10	8.2	6.3	5.8	4.0
CFSM	.69	.74	1.80	2.49	1.64	2.91	1.70	1.56	1.14	.97	.92	.69
IN.	.79	.83	2.08	2.87	1.71	3.35	1.90	1.80	1.27	1.12	1.06	.77

CAL YR 1977 TOTAL 2965.5 MEAN 8.12 MAX 49 MIN 3.7 CFSM 1.03 IN 14.02
WTR YR 1978 TOTAL 4135.2 MEAN 11.3 MAX 199 MIN 3.7 CFSM 1.44 IN 19.54

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 good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,380 ft³/s (67.4 m³/s) Jan. 26, 1978, gage height, 10.00 ft (3.048 m) on basis of rating curve extended above 1,900 ft³/s (53.8 m³/s); minimum, 56 ft³/s (1.59 m³/s) Aug. 25, 27, Sept. 5-18, and 21-30; minimum gage-height 3.50 ft (1.067 m) Sept. 10, 11.

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)
Dec. 18	1700	472 13.4	5.75 1.753	Mar. 14	2000	1,380 39.1	8.11 2.472
Dec. 21	1530	684 19.4	6.48 1.975	Mar. 27	0045	1,060 30.0	7.35 2.240
Jan. 26	1400	*2,380 67.4	*10.00 3.048	May 15	0345	399 11.3	5.31 1.618

Minimum discharge, 56 ft³/s (1.59 m³/s) Aug. 25, 27, Sept. 5-18, 21-30; minimum gage height, 3.50 ft (1.067 m), Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	72	257	142	221	104	274	113	137	103	82	80
2	80	72	162	137	205	103	243	112	133	101	79	77
3	73	74	142	129	191	104	234	115	134	191	80	71
4	69	88	129	123	183	103	224	117	140	159	84	69
5	67	77	164	122	176	98	214	129	130	119	90	63
6	69	76	171	129	168	96	201	124	124	109	110	65
7	64	114	137	132	164	97	203	119	133	106	190	66
8	66	93	129	162	159	93	184	119	130	106	140	68
9	26	82	126	200	156	92	173	141	124	159	110	65
10	86	85	116	193	151	96	170	119	119	102	96	59
11	77	106	110	169	147	100	167	116	115	91	106	63
12	71	89	107	159	144	113	164	111	112	92	99	62
13	70	85	106	152	141	156	156	113	130	93	88	59
14	82	81	154	162	140	487	148	249	113	99	88	60
15	193	78	155	145	137	686	144	314	112	110	83	78
16	116	77	126	134	134	387	138	268	107	120	83	65
17	126	80	122	134	129	257	137	264	113	105	80	60
18	110	79	294	162	130	236	136	237	108	97	77	75
19	101	75	262	139	130	312	167	212	108	94	75	136
20	98	74	221	131	124	332	173	195	106	91	72	74
21	89	69	526	132	126	297	148	178	113	88	75	71
22	92	71	400	123	122	289	145	165	116	87	69	68
23	86	88	294	117	119	249	130	162	108	85	66	60
24	81	79	255	116	119	249	130	228	107	86	69	57
25	75	78	257	185	119	215	130	193	99	87	69	60
26	82	110	209	1420	117	442	124	170	101	84	74	60
27	81	86	185	730	116	947	123	161	112	83	77	59
28	77	85	173	440	113	586	119	154	112	84	157	59
29	77	86	162	312	---	432	117	153	104	81	85	57
30	75	94	162	274	---	345	115	144	104	85	75	57
31	72	---	152	249	---	301	---	141	---	86	91	---
TOTAL	2713	2503	5965	7054	4081	8406	4931	5136	3504	3183	2819	2023
MEAN	87.5	83.4	192	228	146	271	164	166	117	103	90.9	67.4
MAX	193	114	526	1420	221	947	274	314	140	191	190	136
MIN	64	69	106	116	113	92	115	111	99	81	66	57
CFSM	1.18	1.12	2.59	3.07	1.97	3.65	2.21	2.24	1.58	1.39	1.23	.91
IN.	1.36	1.25	2.99	3.54	2.05	4.21	2.47	2.57	1.76	1.60	1.41	1.01

CAL YR 1977 TOTAL 42665 MEAN 117 MAX 526 MIN 64 CFSM 1.58 IN 21.39
WTR YR 1978 TOTAL 52318 MEAN 143 MAX 1420 MIN 57 CFSM 1.93 IN 26.23

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)
OCT 27...	1455	9813	9813	500	16.0	7.5	8.4	276	0	--	75	--
NOV 02...	1200	9813	9813	600	12.0	8.0	7.8	25	--	54	--	32
17...	1555	9813	9813	500	8.0	7.0	8.0	94	--	60	--	.0
DEC 06...	0750	9813	9813	400	6.5	7.4	9.4	190	--	60	--	10
JAN 09...	1510	9813	9813	370	4.0	7.3	9.1	138	--	43	--	8.2
FEB 10...	0745	9813	9813	450	--	--	--	264	--	71	--	23
27...	1130	9813	9813	500	--	--	--	270	--	71	--	25
MAR 22...	1030	9813	9813	480	--	--	--	182	--	39	--	23
APR 26...	1300	9813	9813	500	12.0	8.5	11.7	270	--	71	--	25
JUN 08...	1030	9813	9813	400	--	--	--	202	--	62	--	12
21...	0845	9813	9813	600	--	--	--	212	--	73	--	7.7
JUL 25...	1015	9813	9813	500	--	--	--	308	--	52	--	48
AUG 21...	1400	9813	9813	500	19.0	8.5	8.7	318	0	78	--	30
30...	1600	9813	9813	--	20.0	--	7.0	265	0	60	--	28
SEP 17...	1420	9813	9813	500	15.0	7.1	8.5	220	0	74	--	8.5

DATE	MAGNESIUM, DISSOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE (MG/L AS N)	NITROGEN, NITRITE (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 27...	22	182	60	24	404	30	6.6	.33	.75	.54	1680	--
NOV 02...	--	178	74	22	426	24	.02	.00	.56	.50	880	--
17...	--	178	20	24	215	--	6.2	.26	.72	.62	1600	--
DEC 06...	--	138	58	30	118	--	3.9	.14	.92	.50	4050	--
JAN 09...	--	106	37	26	220	--	3.3	.09	.65	.61	14210	--
FEB 10...	--	188	53	28	300	--	6.3	.11	.95	.32	2	--
27...	--	184	56	26	226	--	6.1	.17	2.2	.43	960	--
MAR 22...	--	144	52	21	138	--	4.6	.08	.50	.26	3250	--
APR 26...	--	178	56	23	384	--	.6	.28	.43	.43	600	--
JUN 08...	--	162	50	21	364	--	5.3	.33	.55	.36	1780	--
21...	--	180	55	26	358	--	5.1	.35	.62	.40	510	.04
JUL 25...	--	168	50	23	450	--	6.3	.28	.20	.77	1210	--
AUG 21...	--	182	50	23	394	--	7.2	.14	.13	.32	440	--
30...	--	184	45	25	448	--	5.8	.30	.37	.56	1640	--
SEP 17...	--	182	55	25	420	--	6.5	.26	.34	.67	810	--

DATE	TIME	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
DEC 06...	0750	--	60	160	1	110
JUN 21...	0845	--	--	40	--	--
AUG 21...	1400	<10	20	10	20	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 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1 to Jan. 5, April 2-5, May 8 to Aug. 28, and Sept. 10-18, 26-30; and those for winter periods, which are poor.

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)
Dec. 1	---	Unknown	Unknown	Jan. 27	0800	*13,400 379	*9.19 2.801
Dec. 21	---	9,870 280	7.50 2.286	Mar. 27	---	11,340 321	8.21 2.502
Jan. 9	2200	8,190 232	6.66 2.030	May 15	Unknown	7,220 204	6.15 1.875

Minimum observed discharge, 219 ft³/s (6.20 m³/s), Sept. 25, gage height, 1.72 ft (0.524 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	370	7000	990	1260	280	2000	482	700	170	700	1000
2	1000	350	4500	900	1090	280	1680	460	630	160	500	700
3	600	350	2700	800	964	270	1460	440	590	350	360	570
4	420	620	2200	750	885	260	1420	400	600	720	840	500
5	390	580	2000	720	654	260	1360	537	520	400	660	420
6	300	470	2700	700	630	260	1280	618	480	250	520	380
7	280	1500	1900	654	520	250	1260	526	460	210	3500	350
8	260	2100	1500	948	490	250	1060	470	580	200	4300	330
9	860	1800	1300	6840	470	250	913	1100	560	190	2500	340
10	1900	1500	1100	5060	450	277	846	880	500	320	1300	290
11	1200	2500	980	2700	430	317	794	700	410	300	1000	280
12	860	2000	860	1900	420	493	794	640	370	200	2500	270
13	670	1700	940	1620	400	968	716	630	400	180	1500	330
14	610	1400	1200	1540	390	2540	654	4000	410	170	1000	280
15	3200	1200	3000	1290	370	6970	595	7600	350	1200	780	290
16	1900	980	2200	992	360	4790	571	5000	330	700	950	310
17	3000	960	1900	1010	350	2500	549	5500	300	420	700	350
18	2500	1000	3000	1380	340	2000	549	4400	340	300	530	280
19	2000	800	4500	1000	330	2300	742	3500	320	250	480	310
20	1500	680	3300	820	320	3000	1390	2500	310	220	370	360
21	1300	620	7000	740	310	2900	1380	1900	340	200	330	300
22	1000	640	6000	680	310	3400	1120	1600	350	190	300	260
23	840	700	3500	650	300	3000	978	1400	270	180	270	310
24	720	730	2700	600	300	3300	794	1900	230	180	260	270
25	650	660	2800	794	290	2300	755	2200	200	450	250	220
26	590	1600	2300	6200	290	4610	690	1400	190	400	290	210
27	690	1300	1900	12100	290	10400	690	1200	210	300	260	200
28	580	1100	1600	4080	280	8220	678	1000	190	240	1000	200
29	500	1000	1400	2490	---	4220	703	940	190	200	2200	190
30	480	1500	1300	1910	---	3000	618	840	180	190	1000	180
31	390	---	1100	1540	---	2380	---	760	---	350	970	---
TOTAL	31540	32710	80380	64398	13493	76245	29039	55523	11510	9790	32120	10280
MEAN	1017	1090	2593	2077	482	2460	968	1791	384	316	1036	343
MAX	3200	2500	7000	12100	1260	10400	2000	7600	700	1200	4300	1000
MIN	260	350	860	600	280	250	549	400	180	160	250	180
CFSM	2.11	2.26	5.37	4.30	1.00	5.09	2.00	3.71	.80	.65	2.15	.71
IN.	2.43	2.52	6.19	4.96	1.04	5.87	2.24	4.28	.89	.75	2.47	.79

CAL YR 1977 TOTAL 331595 MEAN 908 MAX 8690 MIN 86 CFSM 1.88 IN 25.54
WTR YR 1978 TOTAL 447028 MEAN 1225 MAX 12100 MIN 160 CFSM 2.54 IN 34.43

SWATARA CREEK BASIN

275

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, OCTOBER 1977 TO AUGUST 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)
OCT								
27...	1325	9813	9813	260	14.0	7.7	9.5	88
NOV								
02...	1000	9813	9813	300	11.0	7.7	10.5	110
DEC								
06...	1245	9813	9813	230	4.0	8.0	11.2	80
JAN								
09...	1215	9813	9813	160	2.5	7.4	9.6	54
FEB								
27...	--	9813	9813	330	--	--	--	134
MAR								
22...	0915	9813	9813	170	--	--	--	60
APR								
26...	1440	9813	9813	270	13.0	9.0	12.8	102
JUN								
08...	0830	9813	9813	310	--	--	--	118
21...	1015	9813	9813	380	--	--	--	144
JUL								
19...	1200	9813	9813	--	24.0	--	7.8	--
AUG								
03...	1410	9813	9813	310	22.0	7.3	7.8	102
16...	1438	9813	9813	290	26.0	8.1	9.7	103
29...	1100	9813	9813	220	22.0	6.5	7.6	75

DATE	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)
OCT									
27...	0	--	29	--	4.0	62	30	15	144
NOV									
02...	--	32	--	7.7	--	70	38	14	210
DEC									
06...	--	17	--	9.9	--	40	34	4.0	102
JAN									
09...	--	16	--	3.8	--	44	14	29	132
FEB									
27...	--	37	--	11	--	88	34	21	154
MAR									
22...	--	17	--	4.4	--	46	26	12	98
APR									
26...	--	29	--	7.7	--	68	30	15	220
JUN									
08...	--	36	--	7.1	--	84	30	16	244
21...	--	42	--	10	--	104	35	18	258
JUL									
19...	--	--	--	--	--	--	--	--	--
AUG									
03...	0	33	--	4.5	--	78	25	15	194
16...	0	--	29	--	8.0	--	15	13	238
29...	0	24	--	4.0	--	56	20	12	146

SWATARA CREEK BASIN

01573610 SWATARA CREEK AT MIDDLETOWN, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO AUGUST 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT								
27...	24	2.8	.07	.20	.26	720	130	--
NOV								
02...	20	2.6	.07	.11	.18	620	--	--
DEC								
06...	--	3.3	.05	.19	.20	2430	190	.02
JAN								
09...	--	2.4	.07	.41	.67	25690	930	<.02
FEB								
27...	--	3.5	.08	.55	.16	220	--	--
MAR								
22...	--	2.4	.04	.25	.16	3200	150	<.01
APR								
26...	--	2.5	.06	.13	.40	130	--	--
JUN								
08...	--	2.9	.10	.23	.17	620	--	--
21...	--	2.5	.07	.11	.15	130	--	--
JUL								
10...	--	--	--	--	--	--	--	--
AUG								
03...	--	2.9	.08	.19	.20	960	--	--
16...	--	1.8	.22	.76	.70	880	--	--
29...	--	1.6	.46	.12	.29	5400	--	--

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of no gage-height record Jan. 18-31, which are fair. Occasional regulation by Conewago Lake, capacity, 3,570 acre-ft (4.40 hm³) since October 1959.

AVERAGE DISCHARGE.--50 years, 588 ft³/s (16.65 m³/s), 15.66 in/yr (398 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)
Jan. 9	1600	12,500 354	12.75 3.886	Jan. 26	Unknown	*20,700 586	*16.50 5.029

Minimum discharge, 39 ft³/s (1.10 m³/s) Sept. 30, gage height, 2.44 ft (0.744 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	250	4860	630	1100	330	1300	190	335	139	250	241
2	104	300	1930	592	1000	298	1150	234	312	128	350	281
3	91	360	1200	435	900	281	1050	224	281	499	200	183
4	85	430	945	380	840	303	1000	217	281	1920	140	125
5	78	550	1790	424	790	285	991	257	281	758	170	98
6	72	450	2320	517	770	269	835	380	238	418	180	84
7	72	400	1430	488	750	273	828	340	220	277	160	72
8	66	1400	1100	624	740	281	785	294	217	213	120	66
9	116	1000	1000	3060	720	269	637	441	234	345	86	60
10	217	800	900	3430	690	265	573	617	217	307	140	55
11	288	1400	780	2030	680	281	548	396	204	207	220	90
12	207	900	700	2420	670	407	542	316	171	165	350	54
13	155	700	840	2100	660	1200	511	285	183	139	200	110
14	146	580	1500	1820	640	3300	441	1620	204	130	120	74
15	828	500	1200	1610	620	8400	380	6060	189	325	120	53
16	666	350	1100	1200	590	3500	350	4920	147	523	100	64
17	404	400	1100	1010	570	1600	340	3560	136	335	90	79
18	417	600	11000	1580	550	1000	350	2360	139	128	78	78
19	354	446	7000	2070	530	1600	579	1920	180	125	110	76
20	328	341	3500	1000	490	2400	945	1380	180	128	97	76
21	270	310	10000	740	440	1800	650	1070	170	125	88	73
22	230	317	4000	640	400	1600	499	835	171	130	110	62
23	210	842	2500	480	360	1300	424	696	207	130	85	70
24	250	936	1450	700	410	1200	385	723	165	130	78	80
25	250	665	1660	3500	370	1000	360	821	122	290	75	72
26	230	1420	1610	14000	340	2500	335	643	108	130	72	53
27	300	891	915	6800	320	11000	316	517	171	180	82	45
28	350	608	765	7200	321	4500	250	464	261	250	800	44
29	260	568	637	5000	---	2900	230	435	186	230	400	42
30	280	1140	676	2000	---	2100	210	391	177	220	234	39
31	300	---	716	1200	---	1400	---	360	---	190	180	---
TOTAL	7747	19854	71724	75280	17271	57842	17794	32966	6087	9214	5485	2599
MEAN	250	662	2314	2428	617	1866	593	1063	203	297	177	86.6
MAX	828	1420	11000	14000	1100	11000	1300	6060	335	1920	800	281
MIN	66	250	637	380	320	265	210	190	108	125	72	39
CFSM	.49	1.30	4.54	4.76	1.21	3.66	1.16	2.08	.40	.58	.35	.17
IN.	.57	1.45	5.23	5.49	1.26	4.22	1.30	2.40	.44	.67	.40	.19

CAL YR 1977	TOTAL	215885	MEAN 591	MAX 11000	MIN 17	CFSM 1.16	IN 15.75
WTR YR 1978	TOTAL	323863	MEAN 887	MAX 14000	MIN 39	CFSM 1.74	IN 23.62

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
04...	1400	9813	9813	224	290	7.0	10.0	9.5	97	0	--	34
18...	1345	9813	9813	430	240	7.1	9.0	11.1	77	0	--	20
NOV												
29...	1400	9813	9813	566	220	7.5	2.0	13.0	94	--	22	--
DEC												
28...	1430	9813	9813	744	190	7.2	.0	14.8	80	--	19	--
JAN												
30...	0800	9813	9813	2050	150	6.8	.0	14.5	64	--	16	--
FEB												
21...	1430	9813	9813	440	220	7.0	1.0	14.4	86	--	21	--
MAR												
22...	1400	9813	9813	1600	120	--	--	--	40	--	15	--
APR												
24...	1515	9813	9813	385	180	9.2	15.0	11.2	45	--	19	--
MAY												
24...	1200	9813	9813	696	190	7.0	17.0	8.6	86	--	16	--
JUN												
21...	1000	9813	9813	150	260	--	--	--	88	--	26	--
JUL												
27...	1155	9813	9813	180	--	8.6	26.0	9.3	--	--	--	--
AUG												
02...	0945	9813	9813	186	270	7.8	21.5	--	88	0	31	--
16...	1400	9813	9813	172	250	7.8	30.0	8.5	161	0	--	29
SEP												
13...	1407	9813	9813	110	250	7.8	22.5	8.2	100	0	28	--

DATE	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT												
04...	--	3.3	92	24	19	172	40	1.4	.03	.09	.33	1590
18...	--	6.8	64	18	50	180	52	2.4	.07	.77	.30	--
NOV												
29...	10	--	54	32	15	194	--	2.6	.05	.13	.70	590
DEC												
28...	8.8	--	46	24	11	194	--	2.4	.04	.12	.58	589
JAN												
30...	6.6	--	38	18	12	114	--	.22	.03	.19	.09	619
FEB												
21...	8.8	--	56	14	15	170	--	3.0	.04	.18	.10	80
MAR												
22...	.5	--	32	6.0	10	124	--	1.9	.06	.25	.25	7200
APR												
24...	.5	--	52	24	15	148	--	1.5	.05	.17	.10	120
MAY												
24...	12	--	2	20	11	160	--	3.2	.03	.14	.12	290
JUN												
21...	6.0	--	78	40	14	182	--	1.1	.03	.10	.10	400
JUL												
27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
02...	2.5	--	82	25	15	316	--	.70	.02	.10	.22	1600
16...	--	23	72	15	17	216	--	1.0	.02	.10	.22	1480
SEP												
13...	7.0	--	86	40	18	174	--	.95	.34	.80	.23	1570

DATE	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG								
02...	0945	<3	<10	<10	<50	<2.0	10	10

CODORUS CREEK BASIN

279

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) National Geodetic Vertical Datum of 1929. 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 periods of no gage-height record, Oct. 7-26, Dec. 30 to Jan. 11, Jan. 19 to Feb. 9, Feb. 14 to Mar. 1, and Mar. 26 to May 9, 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. 284).

COOPERATION.--Records of change in lake contents and daily diversion furnished by P.H. Glatfelter Company.

AVERAGE DISCHARGE.--47 years (1929-64, 1966-78), 78.9 ft³/s (2.234 m³/s), 14.19 in/yr (360 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, 3,050 ft³/s (86.4 m³/s) Jan. 26, gage height, 9.28 ft (2.829 m); minimum, 9.4 ft³/s (0.27 m³/s) Nov. 18, gage height, 1.83 ft (0.558 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	42	45	282	66	189	51	241	67	78	64	62	74	
2	41	43	101	62	167	51	267	68	67	66	59	59	
3	43	42	75	63	174	50	223	52	70	196	54	56	
4	45	64	62	43	145	53	237	51	69	86	56	56	
5	43	45	108	50	130	54	215	76	66	59	58	54	
6	44	42	117	53	142	51	174	70	60	65	61	55	
7	46	74	72	53	129	49	152	65	60	65	77	53	
8	52	83	53	58	154	49	138	65	62	63	64	55	
9	53	51	54	382	142	49	127	66	70	70	61	56	
10	41	49	43	97	141	49	124	84	55	63	62	53	
11	44	60	38	91	136	49	99	68	52	64	62	53	
12	45	37	38	110	135	50	112	64	51	62	78	53	
13	44	38	42	80	133	155	81	69	78	61	64	59	
14	46	36	69	66	137	722	84	199	65	58	62	50	
15	141	37	124	78	131	681	70	420	56	65	60	49	
16	56	35	65	158	127	279	69	397	54	56	55	48	
17	53	39	55	152	128	185	65	323	60	44	54	47	
18	37	41	597	150	127	194	66	254	58	60	51	52	
19	53	35	400	143	112	417	82	212	56	57	54	53	
20	61	36	240	62	97	351	178	179	53	57	54	54	
21	43	40	649	84	80	338	116	160	66	56	57	53	
22	47	35	294	70	59	315	90	138	73	52	57	52	
23	45	96	180	51	44	266	82	129	63	50	57	51	
24	44	51	151	52	114	239	80	130	60	58	55	49	
25	43	41	171	434	63	211	80	119	58	69	56	50	
26	44	81	115	1190	65	944	76	94	60	68	55	44	
27	54	47	91	379	53	935	77	89	64	65	58	44	
28	45	41	81	250	52	451	75	88	76	58	209	44	
29	39	41	72	312	---	344	66	86	64	56	57	45	
30	43	53	72	185	---	281	66	83	78	56	57	52	
31	40	---	69	178	---	251	---	83	---	61	73	---	
TOTAL	1517	1458	4580	5202	3306	8164	3612	4048	1902	2030	1999	1573	
MEAN	48.9	48.6	148	168	118	263	120	131	63.4	65.5	64.5	52.4	
MAX	141	96	649	1190	189	944	267	420	78	196	209	74	
MIN	37	35	38	43	44	49	65	51	51	44	51	44	
MEAN#	37.0	66.2	217	238	79.8	298	120	131	45.6	35.2	36.9	---	
CFSM#	0.49	0.88	2.87	3.15	1.06	3.95	1.59	1.74	0.60	0.47	0.49	---	
IN.#	0.56	0.98	3.31	3.63	1.10	4.55	1.77	2.01	0.67	0.54	0.56	---	
CAL YR 1977	TOTAL	25281	MEAN	69.3	MAX	907	MIN 21	MEAN#	74.0	CFSM#	0.98	IN.#	13.30
WTR YR 1978	TOTAL	39391	MEAN	108	MAX	1190	MIN 35	MEAN#	109	CFSM#	1.44	IN.#	19.62

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) National Geodetic Vertical Datum of 1929. 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.--51 years, 135 ft³/s (3.823 m³/s), 15.67 in/yr (398 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 1,800 ft³/s (51.0 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, 10,700 ft³/s (303 m³/s) Jan. 26, gage height, 12.07 ft (3.679 m), from rating curve extended as explained above; minimum discharge, 4.7 ft³/s (0.13 m³/s) Sept. 26, 27, minimum gage height, 0.59 ft (0.180 m) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8:4	14	457	148	264	81	349	88	117	37	78	59
2	16	15	192	146	233	76	296	83	114	40	57	28
3	12	16	122	125	207	80	241	83	114	365	34	20
4	6:0	43	119	120	182	79	258	81	134	156	29	22
5	7:0	24	189	106	188	76	261	127	102	89	41	15
6	9:4	22	222	100	178	72	184	89	98	61	39	10
7	9:7	66	130	112	180	65	221	78	91	59	34	12
8	11	111	103	146	165	67	178	83	100	44	25	13
9	47	78	102	666	181	65	173	112	127	57	20	13
10	25	87	89	199	159	69	164	98	74	52	18	13
11	8:0	141	56	206	147	79	158	76	70	35	33	16
12	14	98	71	155	145	123	170	70	61	44	76	10
13	10	69	93	115	140	279	150	70	76	35	24	20
14	23	42	100	308	124	1580	147	258	63	35	25	11
15	258	15	201	197	112	1700	145	651	52	65	20	10
16	49	16	92	164	115	745	145	562	49	57	17	13
17	52	15	95	166	105	365	142	470	56	52	15	15
18	28	27	1300	419	104	278	140	377	65	43	7.6	11
19	14	14	777	247	101	492	170	311	52	109	20	10
20	15	16	458	240	99	479	210	234	43	114	15	8.4
21	10	15	1330	207	97	422	180	224	63	98	10	9.5
22	6:2	17	707	178	94	414	160	205	132	96	13	9.5
23	11	86	448	147	91	341	140	170	49	124	13	15
24	16	56	350	183	87	286	130	196	41	181	10	14
25	8:7	43	354	733	87	251	120	173	44	172	13	13
26	12	90	266	5090	89	1320	115	170	41	47	6.5	8.4
27	25	54	216	1810	85	2390	110	147	52	30	13	9.5
28	20	49	192	1490	76	1200	105	147	74	59	93	14
29	8:9	43	170	475	---	656	100	139	32	32	14	9.5
30	19	52	163	363	---	483	95	129	43	26	13	20
31	18	---	147	296	---	397	---	117	---	34	22	---
TOTAL	777:3	1434	9311	15057	3835	15010	5157	5818	2229	2448	848.1	451.8
MEAN	25:1	47.8	300	486	137	484	172	188	74.3	79.0	27.4	15.1
MAX	258	141	1330	5090	264	2390	349	651	134	365	93	59
MIN	6:0	14	56	100	76	65	95	70	32	26	6.5	8.4
(/)	27.3	28.8	28.9	29.5	30.4	28.8	29.5	29.1	32.0	30.6	32.0	30.2
MEAN#	86.2	76.6	329	516	167	513	202	217	106	110	59.4	41.4
CFSM#	0.74	0.65	2.81	4.41	1.43	4.38	1.73	1.85	0.91	0.94	0.51	0.35
IN.#	0.85	0.72	3.24	5.08	1.49	5.05	1.93	2.13	1.02	1.08	0.59	.39

CAL YR 1977 TOTAL 34173.8 MEAN 93.6 MAX 1850 MIN 4.7 MEAN# 123 CFSM# 1.05 IN.# 14.25
WTR YR 1978 TOTAL 62376.2 MEAN 171 MAX 5090 MIN 6.0 MEAN# 203 CFSM# 1.74 IN.# 23.58

(/) 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

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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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)
NOV 21...	1400	9813	9813	16	170	7.3	7.0	11.8	--
DEC 28...	1200	9813	9813	187	160	7.0	.0	14.5	--
JAN 30...	1100	9813	9813	341	140	6.7	.0	14.4	--
FEB 21...	1100	9813	9813	110	140	--	.0	--	--
22...	1300	9813	9813	98	410	--	--	--	--
MAR 16...	1030	9813	9813	506	140	--	--	--	12
APR 24...	1230	9813	9813	130	--	8.0	14.0	10.4	--
MAY 31...	1400	9813	9813	124	160	7.1	22.0	8.8	--
JUN 21...	1230	9813	9813	74	160	--	--	--	10
JUL 27...	1328	9813	9813	29	--	7.5	25.0	7.5	--
AUG 16...	1300	9813	9813	21	170	7.8	28.0	8.4	--
SEP 13...	1220	9813	9813	30	170	7.6	20.0	9.0	20

DATE	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 21...	--	64	--	14	--	7.7	--	48	14
DEC 28...	--	66	--	13	--	8.8	--	38	14
JAN 30...	.9	55	--	11	--	7.4	--	30	8.0
FEB 21...	--	70	--	10	--	12	--	30	4.0
22...	--	188	--	44	--	21	--	132	40
MAR 16...	--	40	--	10	--	3.8	--	26	14
APR 24...	--	--	--	--	--	--	--	--	--
MAY 31...	--	50	--	14	--	3.8	--	36	10
JUN 21...	--	58	--	14	--	6.0	--	40	30
JUL 27...	--	--	--	--	--	--	--	--	--
AUG 16...	--	202	0	--	18	--	39	48	10
SEP 13...	--	51	0	18	--	1.5	--	48	25

CODORUS CREEK BASIN

01575000 SOUTH BRANCH CODORUS CREEK NEAR YORK, PA--Continued

WATER-QUALITY DATA, NOVEMBER 1977 TO SEPTEMBER 1978

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	PHENOLS (UG/L)
NOV 21...	13	114	2.8	.02	.11	.18	430	--
DEC 28...	13	142	5.0	.03	.22	.18	489	--
JAN 30...	14	0	4.1	.02	.19	.18	2324	--
FEB 21...	13	158	4.6	.02	.20	.14	370	--
22...	18	232	7.0	.05	.15	.13	270	--
MAR 16...	12	40	3.5	.02	.25	.19	6900	2
APR 24...	--	--	--	--	--	--	--	--
MAY 31...	13	126	3.6	.04	.14	.11	640	--
JUN 21...	14	146	3.0	.05	.07	.10	1060	--
JUL 27...	--	--	--	--	--	--	--	--
AUG 16...	16	182	2.4	.30	.06	.13	890	--
SEP 13...	140	136	1.9	.58	1.4	.13	620	--

CODORUS CREEK BASIN

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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) Corps of Engineers datum. Prior to Sept. 30, 1932, nonrecording gage at site 1.6 mi (2.6 km) downstream at different datum.

REMARKS.--Records good, except those for winter periods, 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. 284 and by three reservoirs (combined capacity, 21,385 mil gal (80.94 hm³)).

AVERAGE DISCHARGE.--38 years, 246 ft³/s (6.967 m³/s), 15.05 in/yr (382 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, (9,210 ft³/s (261 m³/s) Jan. 26, gage height, 13.99 ft (4.264 m); minimum, 53 ft³/s (1.50 m³/s) Sept. 27, gage height, 1.90 ft (0.579 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	65	683	253	604	163	758	175	200	125	152	140
2	72	77	324	228	539	159	666	166	184	125	136	100
3	66	87	217	187	480	159	560	158	186	598	107	93
4	61	118	199	194	435	159	582	154	207	311	102	92
5	61	87	411	172	415	146	567	224	175	175	112	82
6	65	82	333	177	428	143	452	186	171	148	115	76
7	65	144	214	182	401	137	462	171	158	146	128	78
8	66	206	170	190	418	139	402	173	175	128	108	78
9	116	142	165	1200	388	137	371	224	202	146	98	79
10	105	135	135	350	351	150	361	212	160	132	97	78
11	58	204	110	345	357	170	334	177	144	119	121	81
12	68	139	116	280	357	250	340	158	134	123	182	75
13	64	116	139	250	354	480	278	160	164	112	107	93
14	91	101	274	442	354	1850	256	409	154	112	107	73
15	519	75	298	307	324	2880	236	1080	132	144	100	76
16	118	61	165	242	307	1750	231	1070	125	128	93	76
17	118	62	179	245	301	767	224	913	132	114	90	73
18	101	83	2110	660	301	582	219	720	144	115	78	76
19	87	58	1160	422	292	908	294	586	130	112	92	79
20	82	58	922	363	265	1150	358	462	117	110	87	78
21	75	59	2110	333	250	932	314	422	136	98	84	79
22	59	65	1070	277	212	913	259	374	233	92	87	76
23	59	189	743	228	194	750	238	311	134	102	90	82
24	74	133	604	233	236	661	228	340	123	93	85	78
25	63	101	624	882	214	575	219	311	125	138	85	78
26	66	184	428	4900	187	1750	219	280	130	134	81	69
27	93	123	354	2720	172	3790	200	241	138	110	89	66
28	93	105	310	2800	156	2450	200	238	173	130	361	73
29	71	96	286	1060	---	1410	182	231	121	102	98	66
30	80	119	271	743	---	1030	184	221	140	98	82	82
31	83	---	250	620	---	852	---	207	---	108	110	---
TOTAL	2863	3274	15374	21485	9292	27392	10194	10754	4647	4428	3464	2425
MEAN	92.4	109	496	693	332	884	340	347	155	143	112	80.8
MAX	519	206	2110	4900	604	3790	758	1080	233	598	361	140
MIN	58	58	110	172	156	137	182	154	117	92	78	66
(f)	27.3	28.8	28.9	29.5	30.4	28.8	29.5	29.1	32.0	30.6	32.0	30.2
MEAN#	142	156	595	795	323	951	367	377	166	143	116	49.6
CFSM#	0.64	0.70	2.68	3.58	1.45	4.28	1.65	1.70	0.75	0.64	0.52	0.22
IN.#	0.74	0.78	3.09	4.13	1.51	4.93	1.84	1.96	0.84	0.74	0.60	0.24

CAL YR 1977 TOTAL 70923 MEAN 194 MAX 2430 MIN 37 MEAN# 228 CFSM# 1.03 IN.# 13.95
WTR YR 1978 TOTAL 115592 MEAN 317 MAX 4900 MIN 58 MEAN# 350 CFSM# 1.58 IN.# 21.42

(f) 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 York Water Co., P.H.Glatfelter and Corps of Engineers.
(#) Adjusted for diversion and change in reservoir contents.

CODORUS CREEK BASIN

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 National Geodetic Vertical Datum of 1929.

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 3,380 acre-ft (4.17 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, 37,960 acre-ft (46.8 hm³) Nov. 3, 1977 (elevation, 614.6 ft or 187.330 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 47,680 acre-ft (58.8 hm³) Mar. 17 to June 8 (elevation, 623.00 ft or 189.89 m); minimum, 37,960 acre-ft (46.8 hm³) Nov. 3 (elevation, 614.6 ft or 187.330 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 National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 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, 5,800 acre-ft (7.15 hm³) Jan. 27 (elevation, 410.00 ft or 124.968 m); minimum, 10 acre-ft (12,300 m³) Oct. 14 (elevation, 371.76 ft or 113.312 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

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	615.4	38,790	--	371.83	8.8	--
Oct. 31	614.7	38,060	-11.9	372.03	10.2	+ .02
Nov. 30	615.7	39,110	+17.6	372.48	13.7	+ .06
Dec. 31	619.7	43,380	+64.9	374.73	40.0	+ .4
CAL YR 1977	--	--	+ 4.7	--	--	-0.1
Jan. 31	623.0	47,680	+69.9	382.00	210	+2.8
Feb. 28	621.4	45,560	-38.2	380.59	168	- .8
Mar. 31	623.0	47,680	+34.5	384.46	332	+2.7
Apr. 30	623.0	47,680	0	380.63	169	-2.7
May 31	623.0	47,680	0	381.70	201	+ .5
June 30	622.2	46,620	-17.8	372.42	13.3	-3.2
July 31	620.8	44,760	-30.3	372.55	14.4	+0.02
Aug. 31	619.4	43,060	-27.6	372.77	16.3	+ .03
Sept. 30	616.2	39,640	-57.5	372.42	13.3	- .05
WTR YR 1978	--	--	+ 1.2	--	--	+ .01

CHICKIES CREEK BASIN

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01575990 CHICKIES CREEK AT MARIETTA, PA

LOCATION.--Lat 40°03'19", long 76°31'33", Lancaster County, Hydrologic Unit 02050306, at bridge on State Route 441, 0.2 mi (0.3 km) upstream from mouth, and 0.8 mi (1.3 km) southeast of Marietta.

DRAINAGE AREA.--126 mi² (326 km²) approximately.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS (MG/L AS CaCO3)	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)
OCT 19...	1345	9813	9813	390	9.5	--	10.8	140	0	--	45	--
NOV 29...	1200	9813	9813	390	3.0	8.0	13.0	164	--	48	--	11
DEC 14...	1345	9813	9813	430	4.0	7.5	12.2	180	--	46	--	17
JAN 18...	1045	9813	9813	340	1.0	8.0	13.5	130	--	36	--	11
FEB 22...	1400	9813	9813	450	--	--	--	180	--	51	--	14
MAR 22...	0845	9813	9813	300	--	--	--	100	--	33	--	4.4
APR 25...	1130	9813	9813	420	12.0	8.5	12.4	148	--	47	--	8.2
MAY 25...	1400	9813	9813	320	--	--	--	120	--	32	--	11
JUL 31...	1430	9813	9813	450	19.0	8.3	8.3	180	0	54	--	11
SEP 20...	1330	9813	9813	295	19.0	7.6	--	86	0	--	30	--

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE (MG/L AS N)	NITROGEN, NITRITE (MG/L AS N)	NITROGEN, AMMONIA (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 19...	7.0	110	24	27	34	52	--	5.2	.06	.22	.28	1480
NOV 29...	--	112	32	22	272	--	--	5.9	.07	.21	.40	480
DEC 14...	--	124	28	24	268	6	274	9.9	.07	.29	.14	500
JAN 18...	--	90	24	23	7636	142	7778	.05	--	.22	.29	5038
FEB 22...	--	134	28	33	278	--	--	9.2	.09	.30	.18	200
MAR 22...	--	78	20	18	168	94	262	4.8	.07	.47	.24	4550
APR 25...	--	120	24	14	286	--	--	6.7	.08	.14	.03	180
MAY 25...	--	82	15	18	210	--	--	4.7	.08	.22	.25	2290
JUL 31...	--	144	20	26	366	--	--	7.0	.07	.16	.15	920
SEP 20...	3.0	82	20	20	278	--	--	3.6	.11	.22	.68	7100

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PR)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JUL 31...	1430	520	<3	10	10	<50	50	20

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) National Geodetic Vertical Datum of 1929.

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.

AVERAGE DISCHARGE.--47 years, 37,050 ft³/s (1,049 m³/s), 19.36 in/yr (492 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, 277,000 ft³/s (7,840 m³/s) Mar. 28, gage height, 48.25 ft (14.707 m); maximum gage height, 55.67 ft (16.968 m) Jan. 27 (ice jam); minimum, 5,760 ft³/s (163 m³/s) Sept. 14, gage height, 32.92 ft (10.034 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71700	32700	52300	50400	102000	20500	165000	32000	37200	14000	9410	9840
2	58800	29900	74800	47400	84000	19800	144000	29600	33300	13200	9750	9270
3	54900	27900	98500	42400	72400	18500	159000	27500	30600	15800	9500	11200
4	58600	27800	115000	38100	63200	17100	175000	25900	29500	20600	11300	13200
5	59500	29600	106000	30000	53800	16300	147000	25400	31500	23100	17700	11900
6	56800	33400	96500	33000	48300	15000	134000	25500	30100	23200	18600	10300
7	50700	47000	81800	34000	34300	15900	149000	25900	27200	19400	16800	9140
8	44300	90300	68100	40000	29000	16800	147000	28100	25500	16500	24500	8560
9	40400	135000	59400	70000	32000	16200	142000	31300	24300	15200	30800	7790
10	39100	158000	49800	184000	31700	16400	134000	33500	30700	14600	39700	7450
11	43700	156000	41000	208000	28800	17400	113000	34900	38100	14100	33600	7670
12	49800	164000	33000	188000	30700	18700	95100	36600	35300	13300	29900	7520
13	53500	165000	31000	127000	32200	20000	83500	37800	32400	11400	26000	7670
14	49000	139000	37000	101000	31700	27200	79200	49100	31000	10800	22300	7300
15	46700	111000	51000	76000	32500	60600	76000	142000	28800	10600	19600	7260
16	49400	89400	81100	62000	31400	137000	68800	223000	25500	16300	18600	9090
17	66500	73000	161000	57000	29700	156000	61700	219000	24100	16900	17600	7870
18	134000	64700	157000	52000	29500	136000	55600	206000	22800	14800	15300	8040
19	182000	61500	163000	46000	26700	112000	51100	200000	21400	14800	13200	7920
20	172000	60400	150000	41000	25400	112000	49500	173000	20200	12600	11900	8260
21	169000	58200	150000	38000	23800	115000	49000	135000	19400	11500	10900	13000
22	164000	53900	155000	36000	21900	139000	51700	109000	19200	11000	9320	18600
23	133000	50800	125000	34000	19900	207000	56700	91000	19900	10300	8960	17000
24	101000	47500	101000	33000	18800	269000	60600	76000	20300	9940	8470	15900
25	80700	43900	88300	52000	20700	259000	54700	80200	19100	9790	8040	17700
26	67900	44000	82000	94000	22500	234000	49200	83800	17900	9940	7450	15800
27	59400	44300	76000	180000	22000	240000	44300	78900	19800	9410	7480	13200
28	53900	42000	70000	220000	21200	270000	40400	67000	19200	9180	9700	11400
29	48900	39900	64000	180000	---	253000	36900	56700	17200	8380	9500	10300
30	43400	37900	64300	150000	---	224000	34500	48400	15300	8430	9650	9270
31	37400	---	56500	129000	---	197000	---	42100	---	8640	8430	---
TOTAL	2340000	2158000	2739400	2673300	1020100	3376400	2707500	2474200	766800	417710	493960	319420
MEAN	75400	71930	88370	86240	36430	108900	90250	79810	25560	13470	15930	10650
MAX	182000	165000	163000	220000	102000	270000	175000	223000	38100	23200	39700	18600
MIN	37400	27800	31000	30000	18800	15000	34500	25400	15300	8380	7450	7260
CFSM	2.90	2.77	3.40	3.32	1.40	4.19	3.47	3.07	.98	.52	.61	.41
IN.	3.35	3.09	3.92	3.83	1.46	4.83	3.88	3.54	1.10	.60	.71	.46

CAL YR 1977 TOTAL 18133040 MEAN 49680 MAX 221000 MIN 5660 CFSM 1.91 IN 25.95
WTR YR 1978 TOTAL 21486790 MEAN 58870 MAX 270000 MIN 7260 CFSM 2.27 IN 30.75

SUSQUEHANNA RIVER BASIN

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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, MARCH TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	
MAR 22...	1000	9813	9813	155000	170	--	7.5	11.8	--	
JUN 12...	1430	9813	9813	34400	220	--	--	--	--	
SEP 25...	1430	9813	9813	18000	330	8.7	21.0	8.9	24	
DATE		OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CaCO3)	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS Cl)	SOLIDS, RESIDUE AT 105 DEG. C, DISSOLVED (MG/L)
MAR 22...	--	--	56	--	14	5.5	34	26	22	124
JUN 12...	4.6	--	70	--	24	2.7	40	60	10	110
SEP 25...	--	--	102	0	28	8.0	46	60	14	204
DATE		SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS Fe)	ALPHA, TOTAL (PCI/L)	BETA, TOTAL (PCI/L)
MAR 22...	80	--	204	1.7	.07	.54	.14	3300	1.0	5.0
JUN 12...	--	--	--	.86	.01	.09	.09	960	--	--
SEP 25...	32	--	--	1.2	.02	.05	.13	820	--	--
DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	
MAR 22...	1000	1860	<3	10	10	<50	180	<10	20	

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 1502. 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) National Geodetic Vertical Datum of 1929. Prior to May 1, 1933, at site 600 ft (183 m) upstream at different datum, excluding small tributary.

REMARKS.--Records good. Regulation at low flow by waterworks and mill above station. Diversion above station for municipal supply of City of Lancaster.

AVERAGE DISCHARGE.--48 years, (1928-31, 1933-78), 400 ft³/s (11.33 m³/s), 16.77 in/yr (426 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 11,000 ft³/s (312 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)
Dec. 1	1100	3,380 95.7	7.39 2.252	Jan. 26	1630	*25,300 716	*18.14 5.529
Dec. 19	0115	6,090 172	9.65 2.941	Mar. 15	0100	6,820 193	10.19 3.106
Dec. 21	1915	3,600 102	7.59 2.313	Mar. 27	0830	9,060 257	11.74 3.578
Jan. 9	1615	5,740 163	9.38 2.859	June 27	0230	4,640 131	8.50 2.591

Minimum discharge, 82 ft³/s (2.32 m³/s) Sept. 6, gage height, 2.98 ft (0.908 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	180	2080	731	767	350	1130	355	466	244	330	502
2	160	208	1060	702	731	320	1030	350	442	226	268	272
3	163	187	843	645	666	325	929	335	454	989	226	233
4	167	219	753	578	605	316	937	335	611	1050	215	222
5	151	233	760	591	552	289	929	397	478	508	248	177
6	129	205	1140	572	565	298	843	402	419	386	355	187
7	118	478	787	572	478	289	879	365	386	335	430	154
8	127	625	639	605	659	298	808	355	419	311	330	163
9	330	408	639	3410	632	284	716	625	391	307	264	163
10	559	355	552	1160	585	284	673	508	350	284	219	157
11	272	1080	533	937	565	316	639	391	330	442	215	154
12	140	527	490	857	546	466	645	355	316	298	268	154
13	140	419	490	815	515	966	578	345	355	268	508	157
14	191	375	540	1350	527	1500	540	1090	350	252	320	144
15	1110	340	1340	997	484	3540	515	1600	293	521	236	144
16	533	320	774	808	460	1800	502	1220	276	430	205	154
17	687	340	645	787	466	1110	484	1370	272	702	191	144
18	496	801	2570	1130	448	997	466	1190	284	340	180	147
19	370	397	3240	966	430	1100	508	1070	293	289	163	402
20	360	340	1510	780	391	1400	753	893	264	289	160	244
21	293	330	2530	794	402	1230	680	794	280	289	157	184
22	268	345	1920	760	375	1320	552	716	386	264	151	167
23	244	767	1370	687	365	1090	496	652	280	226	147	163
24	236	598	1220	652	365	1050	484	864	248	222	144	154
25	236	454	1350	1340	375	922	454	1090	240	280	144	154
26	212	1300	1140	13400	370	2010	424	716	293	268	138	147
27	244	709	915	4080	350	7010	413	618	1370	222	335	151
28	243	559	850	1420	335	2790	397	585	355	248	900	141
29	226	521	787	1130	---	1710	380	559	289	233	391	135
30	208	625	767	966	---	1390	365	540	236	201	248	127
31	198	---	745	850	---	1230	---	496	---	240	236	---
TOTAL	9025	14245	34979	45072	14009	38000	19149	21181	11426	11164	8322	5597
MEAN	291	475	1128	1454	500	1226	638	683	381	360	268	187
MAX	1110	1300	3240	13400	767	7010	1130	1600	1370	1050	900	502
MIN	118	180	490	572	335	284	365	335	236	201	138	127
4	4.7	4.5	6.1	7.2	8.1	6.7	8.3	7.6	8.6	10.3	11.6	9.0
5	296	480	1134	1461	508	1233	646	691	390	370	280	196
6	0.91	1.48	3.50	4.51	1.57	3.81	1.99	2.13	1.20	1.14	0.86	0.60
7	1.05	1.65	4.04	5.20	1.64	4.39	2.22	2.46	1.34	1.31	0.99	0.67

CAL YR 1977 TOTAL 164154 MEAN 450 MAX 4020 MIN 97 MEAN# 458 CFSM# 1.41 IN.# 19.20
WTR YR 1978 TOTAL 232169 MEAN 636 MAX 13400 MIN 118 MEAN# 644 CFSM# 1.99 IN.# 26.98

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 were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)
OCT 19...	1010	9813	9813	370	390	8.2	9.0	11.2	--
NOV 15...	0915	9813	9813	340	450	8.2	5.0	12.2	--
DEC 14...	0940	9813	9813	673	440	8.2	3.5	12.7	--
JAN 18...	1430	9813	9813	1320	430	7.5	3.0	13.2	--
FEB 22...	0900	9813	9813	375	450	--	--	--	--
MAR 23...	1505	9813	9813	1060	350	--	--	--	--
APR 24...	0940	9813	9813	546	430	8.4	13.0	10.4	--
MAY 25...	0930	9813	9813	1130	320	7.3	14.0	9.5	--
JUN 12...	1000	9813	9813	325	500	--	--	--	1.8
JUL 25...	0945	9813	9813	268	500	7.5	23.5	7.3	--
AUG 03...	0940	9813	9813	222	490	7.6	21.0	7.9	--
SEP 25...	1045	9813	9813	150	500	8.2	18.0	8.6	--

DATE	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 19...	150	0	--	42	--	12	124	30	21
NOV 15...	184	--	53	--	13	--	140	38	20
DEC 14...	200	--	58	--	14	--	142	36	20
JAN 18...	168	--	46	--	14	--	122	28	23
FEB 22...	184	--	51	--	15	--	136	28	25
MAR 23...	128	--	38	--	8.8	--	94	24	18
APR 24...	175	--	51	--	12	--	134	40	23
MAY 25...	123	--	32	--	11	--	82	25	17
JUN 12...	190	--	52	--	15	--	148	66	20
JUL 25...	202	--	54	--	18	--	158	35	21
AUG 03...	180	--	53	--	11	--	146	35	20
SEP 25...	200	0	--	64	--	10	162	40	22

CONESTOGA RIVER BASIN

01576500 CONESTOGA RIVER AT LANCASTER, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 19...	168	136	--	4.6	.07	.20	.24	2060
NOV 15...	298	26	--	5.2	.08	.30	.20	880
DEC 14...	304	12	316	7.4	.05	.24	.14	760
JAN 18...	3644	64	3708	.04	--	.22	.18	2224
FEB 22...	268	--	--	7.0	.05	.19	.57	200
MAR 23...	202	30	232	5.0	.06	.30	.14	1030
APR 24...	278	--	--	5.4	.08	.19	.10	140
MAY 25...	204	--	--	3.8	.07	.26	.31	2850
JUN 12...	280	--	--	4.8	.08	.17	.19	1120
JUL 25...	414	--	--	6.8	.09	.11	.25	680
AUG 03...	312	--	--	5.7	.09	.13	.26	1700
SEP 25...	338	--	--	6.0	.10	.18	.34	1240

DATE	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 25...	0945	<3	10	<10	<50	10	10

CONESTOGA RIVER BASIN

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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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	PH (UNITS)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY C02 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
OCT 19...	1110	9813	9813	450	10.0	8.0	10.8	200	0	--	53	--
NOV 15...	1045	9813	9813	500	6.0	8.0	12.0	200	--	45	--	23
DEC 14...	1100	9813	9813	450	6.0	7.9	11.4	200	--	48	--	22
JAN 24...	0915	9813	9813	490	.5	7.8	15.4	200	--	76	--	2.2
FEB 22...	1030	9813	9813	490	--	--	--	188	--	44	--	21
MAR 23...	1345	9813	9813	450	--	--	--	178	--	40	--	21
APR 24...	1030	9813	9813	450	12.0	8.2	10.4	255	--	43	--	40
MAY 25...	1030	9813	9813	480	--	--	--	178	--	10	--	41
JUN 12...	1130	9813	9813	480	--	--	--	182	--	41	--	21
JUL 25...	1040	9813	9813	600	--	--	--	220	--	44	--	30
AUG 03...	1050	9813	9813	600	20.0	7.2	7.6	212	0	44	--	25
SEP 25...	1120	9813	9813	500	17.0	8.4	8.3	222	0	--	47	--

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 19...	17	190	28	32	266	126	--	4.9	.30	.63	1.3	1340
NOV 15...	--	176	36	30	382	26	--	7.4	.19	.99	.57	1310
DEC 14...	--	176	35	27	346	28	374	6.3	.15	.87	.74	1130
JAN 24...	--	170	24	21	398	12	410	9.2	.07	1.1	.59	1686
FEB 22...	--	172	34	22	288	--	--	7.4	.09	.19	2.0	1350
MAR 23...	--	146	24	21	240	44	284	6.6	.13	.34	.34	780
APR 24...	--	164	30	18	306	--	--	7.0	.17	.63	.53	150
MAY 25...	--	150	30	24	288	--	--	5.5	.29	2.7	.85	730
JUN 12...	--	162	35	18	248	--	--	4.1	.57	.62	.96	790
JUL 25...	--	170	30	47	456	--	--	10	.66	.59	1.4	1000
AUG 03...	--	182	25	47	418	--	--	7.9	.57	.38	1.8	910
SEP 25...	26	186	25	22	304	--	--	6.8	.19	.28	1.0	1730

DATE	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 25...	1040	<3	10	<10	<50	<2.0	<10	20

CONESTOGA RIVER BASIN

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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE (DEG C)	PH (UNITS)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)
OCT 19..	1250	9813	9813	420	10.0	8.0	10.8	--	--
NOV 15..	1230	9813	9813	450	6.0	8.3	12.2	--	--
DEC 14..	1250	9813	9813	450	3.5	7.5	12.0	--	--
JAN 18..	1245	9813	9813	500	2.0	7.6	13.7	--	--
FEB 22..	1200	9813	9813	500	.0	--	--	--	--
MAR 22..	1200	9813	9813	390	--	--	--	--	--
APR 24..	1330	9813	9813	490	14.0	8.3	--	--	--
MAY 25..	1145	9813	9813	420	--	--	--	--	--
JUN 12..	1230	9813	9813	400	--	--	--	4.0	--
JUL 31..	1340	9813	9813	500	22.5	8.4	7.9	--	--
AUG 03..	1230	9813	9813	500	22.5	7.4	8.2	--	--
SEP 25..	1330	9813	9813	500	20.0	8.4	8.3	--	28

DATE	HARD-NESS (MG/L AS CAC03)	ACIDITY C02 (MG/L AS CAC03)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	ALKA-LINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 19..	152	0	--	45	--	10	126	30	27
NOV 15..	196	--	53	--	17	--	150	40	28
DEC 14..	200	--	60	--	13	--	156	39	27
JAN 18..	184	--	54	--	13	--	136	30	66
FEB 22..	98	--	24	--	10	--	160	28	37
MAR 22..	144	--	45	--	8.2	--	14	30	17
APR 24..	200	--	54	--	17	--	140	42	30
MAY 25..	158	--	44	--	12	--	108	30	21
JUN 12..	216	--	60	--	18	--	156	50	29
JUL 31..	218	0	614	--	155	--	168	40	37
AUG 03..	184	0	60	--	8.5	--	162	35	29
SEP 25..	210	0	65	--	11	--	178	45	43

CONESTOGA RIVER BASIN

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01576600 CONESTOGA RIVER NEAR MILLERSVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 19...	204	162	--	4.6	.11	.71	.52	3300
NOV 15...	196	--	--	4.6	.10	.88	.51	790
DEC 14...	334	12	346	8.1	.07	.78	.35	740
JAN 18...	916	42	958	.06	--	.49	.35	1805
FEB 22...	300	--	--	7.7	.10	.88	.40	170
MAR 22...	244	84	328	4.8	.05	.47	.33	3650
APR 24...	312	--	--	6.2	.11	.40	.26	120
MAY 25...	266	--	--	5.1	.13	.30	.37	2140
JUN 12...	308	--	--	5.2	.24	.30	.40	950
JUL 31...	390	--	--	6.5	.10	.17	.40	1100
AUG 03...	378	--	--	5.5	.16	.29	.44	1580
SEP 25...	394	44	--	6.2	.18	.31	.74	1540

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 31...	1340	880	<3	<10	<10	<50	30	20

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 July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0345	33	360	5.4	5.0	.03	.02	5.4	5.0	.02	.01	.38
NOV												
10...	1415	41	340	4.9	4.8	.09	.05	5.0	4.8	.08	.08	.52
10...	2230	56	329	4.6	4.4	.05	.04	4.6	4.4	.28	.21	1.8
11...	0020	103	322	4.7	4.6	.04	.04	4.7	4.6	.13	.07	1.2
11...	0315	130	301	4.0	3.8	.05	.04	4.0	3.8	.48	.23	2.3
11...	0515	105	290	3.5	3.5	.06	.05	3.6	3.5	.58	.33	2.7
11...	0725	80	267	3.0	3.0	.06	.05	3.1	3.0	.74	.41	3.3
11...	1155	59	247	3.1	3.1	.06	.04	3.2	3.1	.45	.25	2.1
12...	1430	44	327	4.8	4.8	.02	.02	4.8	4.8	.10	.04	1.2
DEC												
20...	2315	106	320	6.1	5.5	.02	.01	6.1	5.5	.10	.08	.34
21...	1020	280	285	5.3	4.7	.03	.02	5.3	4.7	.29	.25	.91
21...	1200	410	261	4.5	4.1	.04	.02	4.5	4.1	.43	.39	2.2
21...	1400	415	209	3.4	3.0	.05	.02	3.4	3.0	.44	.38	2.1
21...	1630	298	196	3.2	2.8	.04	.02	3.2	2.8	.42	.32	1.8
22...	0140	133	256	4.6	4.2	.02	.01	4.6	4.2	.20	.14	.80
JAN												
12...	0930	86	331	6.3	6.3	.02	.01	6.3	6.3	.05	.05	.05
FEB												
23...	1030	88	342	6.1	6.1	.01	.01	6.1	6.1	.02	.02	.00
MAR												
14...	0615	200	236	2.8	2.8	.04	.04	2.8	2.8	3.2	2.6	4.4
14...	1200	490	219	2.8	2.8	.04	.04	2.8	2.8	2.8	2.3	4.5
14...	1350	1100	187	1.9	1.9	.05	.04	1.9	1.9	3.0	2.4	7.0
14...	1600	1630	168	--	--	--	--	--	--	--	--	--
14...	1730	1800	163	1.5	.81	.10	.03	1.6	.84	2.6	1.8	8.4
14...	1905	1700	146	.90	.90	.08	.02	.98	.92	2.0	1.5	9.0
14...	2200	1080	133	1.3	1.3	.05	.02	1.3	1.3	1.5	1.0	4.6
15...	1140	180	238	3.8	3.6	.03	.02	3.8	3.6	1.1	.92	1.2
APR												
13...	0905	85	321	5.4	5.2	.03	.03	5.4	5.2	.03	.02	.39
JUN												
02...	1930	64	303	4.9	4.9	.05	.05	4.9	4.9	.09	.05	.21
07...	1545	73	309	5.2	5.2	.05	.05	5.2	5.2	.10	.10	.51
21...	1600	72	321	4.9	4.9	.08	.08	5.0	5.0	.17	.14	.75
21...	2000	86	293	4.6	4.4	.08	.07	4.7	4.5	.25	.19	2.1
22...	0035	137	300	4.8	4.8	.08	.08	4.9	4.9	.21	.10	1.2
22...	0140	130	292	4.5	4.4	.09	.09	4.6	4.5	.26	.20	1.2
22...	0345	120	280	4.1	4.0	.12	.11	4.2	4.1	.45	.33	1.8
22...	1115	7	261	4.1	4.0	.08	.08	4.2	4.1	.30	.22	1.4
JUL												
19...	1400	53	354	5.4	5.5	.05	.05	5.5	5.5	.06	.01	.33

PEQUEA CREEK BASIN

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01576763 PEQUEA CREEK AT NEW MILLTOWN, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT												
26...	.12	.40	.13	5.8	.11	.04	.04	.03	2.8	.7	E35	--
NOV												
10...	.33	.60	.41	5.6	.14	.07	.06	.05	7.6	1.3	36	4.0
10...	.38	2.1	.59	6.7	.62	.26	.28	.21	5.2	1.8	130	20
11...	.62	1.3	.69	6.0	.42	.15	.14	.11	7.6	4.0	237	66
11...	1.1	2.8	1.3	6.8	.87	.36	.39	.27	44	3.4	281	99
11...	.87	3.3	1.2	6.9	1.2	.44	.51	.37	10	2.5	224	64
11...	.99	4.0	1.4	7.1	1.3	.49	.57	.39	14	3.9	223	48
11...	.95	2.5	1.2	5.7	.79	.33	.38	.28	9.0	2.8	E220	--
12...	1.2	1.3	1.2	6.1	.12	.06	.07	.05	3.4	.7	18	2.1
DEC												
20...	.26	.44	.34	6.5	.13	.06	.08	.05	2.0	.8	52	15
21...	.21	1.2	.46	6.5	.29	.11	.14	.10	3.5	3.2	307	232
21...	.71	2.6	1.1	7.1	.68	.20	.22	.18	11	5.8	403	446
21...	.72	2.5	1.1	5.9	.80	.26	.32	.25	5.0	6.5	436	489
21...	.41	2.2	.73	5.4	.73	.25	.32	.25	2.2	5.8	304	245
22...	.38	1.0	.52	5.6	.27	.09	.16	.09	6.6	--	120	43
JAN												
12...	.02	.10	.07	6.4	.07	.03	.03	.02	2.1	.3	36	8.4
FEB												
23...	.00	.02	.02	6.1	.05	.02	.01	.01	1.6	.5	32	7.6
MAR												
14...	1.9	7.6	4.5	10	.96	.63	.61	.51	18	--	236	127
14...	1.4	7.3	3.7	10	1.2	.59	.60	.51	15	--	1040	1380
14...	1.7	10	4.1	12	2.7	.64	.64	.54	13	--	2520	7480
14...	--	--	--	--	--	--	--	--	13	16	4380	19300
14...	1.5	11	3.3	13	4.8	.71	.77	.59	14	42	3370	16400
14...	1.2	11	2.7	12	3.3	.50	.60	.42	19	40	2360	10800
14...	1.2	6.1	2.2	7.4	1.6	.34	.39	.25	20	18	1090	3180
15...	.68	2.3	1.6	6.1	.45	.19	.20	.17	7.0	--	222	108
APR												
13...	.27	.42	.29	5.8	.02	.02	.01	.01	2.0	.4	23	5.3
JUN												
02...	.04	.30	.09	5.2	.07	.03	--	.03	8.6	--	35	6.0
07...	.34	.61	.44	5.8	.12	.04	--	.02	1.7	1.4	52	10
21...	.49	.92	.63	5.9	.24	.06	.06	.05	3.0	2.0	116	23
21...	.91	2.3	1.1	7.0	.91	.14	.19	.13	7.2	5.5	481	112
22...	.37	1.4	.47	6.3	.31	.09	.09	.06	3.8	2.4	174	64
22...	1.1	1.5	1.3	6.1	.31	.11	.11	.09	5.4	2.6	150	53
22...	.97	2.2	1.3	6.4	.59	.16	.18	.12	--	--	223	72
22...	.64	1.7	.86	5.9	.39	.13	.13	.10	3.2	2.5	132	28
JUL												
19...	.25	.39	.26	5.9	.07	.03	.03	.02	1.4	.8	26	3.7

PEQUEA CREEK BASIN

01576763 PEQUEA CREEK AT NEW MILLTOWN, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	0930	.0	1.3	11	4400	4400	400	15	--	0	.0
JUL 19...	1400	.0	1.2	8.5	2600	2600	530	11	3.4	0	--

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	15	.0	4.7	18	.0	1.8	.0	.0	.0	.2
JUL 19...	.0	3	.0	1.7	.7	.0	.6	--	.0	.0	.0

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	.0	.0	.0	.0	--	.0	0	.0	0
JUL 19...	.0	.0	.0	.0	.0	.0	.0	0	.0	0

DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	13	--	60	80	95	99	100	100
JUL 19...	0	.0	13	42	--	--	--	--	--	100

PEQUEA CREEK BASIN

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01576763 PEQUEA CREEK AT NEW MILLTOWN, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV									
11...	0315	.0	.00	.00	.0	.00	.00	.00	.00
DEC									
21...	1400	.0	.00	.00	.0	.00	.00	.00	.00
JAN									
12...	0930	.0	.00	.00	.0	.00	.00	.00	.00
MAR									
14...	0615	.0	.00	.00	.0	.00	.00	.00	.00
14...	1730	.0	.00	.00	.1	.00	.00	.00	.00
JUN									
21...	1600	.0	.00	.00	.0	.00	.00	.00	.00
22...	0140	.0	.00	.00	.0	.00	.00	.00	.00

DATE	DI- ELDRIN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV									
11...	.01	.00	.00	.00	.00	.00	.00	.00	.00
DEC									
21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN									
12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR									
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
14...	.03	.00	.00	.00	.00	.01	.00	.00	.00
JUN									
21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
22...	.00	.00	.00	.00	.00	.00	.00	.00	.06

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV								
11...	.00	.00	.00	0	.00	.00	.00	.00
DEC								
21...	.00	.00	.00	0	.00	.00	.00	.00
JAN								
12...	.00	.00	.00	0	.00	.00	.00	.00
MAR								
14...	.00	.00	--	0	.00	.00	.00	.00
14...	.00	.00	--	0	.00	.00	.00	.00
JUN								
21...	.00	.00	.00	0	.00	.01	.00	.00
22...	.00	.00	.00	0	.00	.03	.01	.00

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV						
11...	0315	.00	.0	.0	.0	.0
DEC						
21...	1400	.00	.0	.0	.0	.0
JAN						
12...	0930	.00	.0	.0	.0	.0
MAR						
14...	0615	.00	.0	.0	.2	.0
14...	1730	.00	.0	.0	.6	.0
JUN						
02...	1930	.10	.0	.1	.0	.0
21...	1600	.20	.0	.0	.0	.0
22...	0140	.60	.6	.0	.0	.0

PEQUEA CREEK BASIN

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 July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0500	.95	390	8.0	7.5	.03	.03	8.0	7.5	.02	.02	.18
NOV												
10...	1445	1.6	401	7.9	7.9	.06	.06	8.0	8.0	.04	.01	.38
10...	1950	9.0	399	4.5	4.3	.09	.05	4.6	4.3	.25	.10	5.5
10...	2015	14	362	3.9	3.7	.11	.08	4.0	3.8	.39	.22	4.4
10...	2050	37	390	3.5	3.4	.10	.09	3.6	3.5	1.6	.91	8.4
10...	2115	40	311	1.7	1.7	.13	.07	1.8	1.8	1.9	1.2	15
10...	2201	22	244	1.7	1.5	.09	.05	1.8	1.5	1.1	.79	11
10...	2300	11	247	2.0	1.9	.10	.05	2.1	1.9	.96	.59	7.5
11...	0400	3.2	421	4.8	4.7	.08	.05	4.9	4.7	.46	.31	2.0
DEC												
20...	2230	4.5	351	9.1	8.5	.04	.03	9.1	8.5	.56	.46	.14
21...	0630	16	462	6.0	5.5	.05	.03	6.0	5.5	.84	.74	1.6
21...	0720	36	311	3.6	3.3	.07	.03	3.7	3.3	.90	.81	3.6
21...	0805	30	232	2.4	2.4	.08	.02	2.5	2.4	.67	.55	1.9
21...	1105	17	275	3.6	3.2	.05	.02	3.6	3.2	.47	.39	1.3
21...	1610	6.1	490	7.7	7.0	.03	.02	7.7	7.0	.25	.20	.59
JAN												
12...	1130	3.1	388	10	10	.01	.01	10	10	.05	.05	.21
FEB												
23...	1315	2.1	410	9.6	9.5	.02	.01	9.6	9.5	.01	.01	.05
MAR												
14...	0600	12	327	4.1	4.1	.06	.04	4.2	4.1	2.6	2.2	1.7
14...	1220	88	171	1.0	.97	.09	.03	1.1	1.0	2.1	1.8	8.9
14...	1325	150	165	.82	.82	.13	.03	.95	.85	2.0	1.4	12
14...	1355	215	180	.76	.75	.10	.02	.86	.77	1.9	1.3	12
14...	1405	300	213	.39	--	.21	--	.60	--	2.1	--	23
14...	1420	312	231	.67	.67	.37	.03	1.0	.70	2.3	1.2	26
14...	1500	230	161	.67	.67	.19	.03	.86	.70	2.4	1.3	12
14...	1625	62	160	1.1	1.1	.16	.03	1.3	1.1	2.3	1.5	7.7
14...	1835	21	226	2.3	2.3	.05	.03	2.3	2.3	2.0	1.4	2.9
14...	2115	12	317	4.1	4.1	.04	.03	4.1	4.1	1.7	1.3	2.0
APR												
13...	1240	2.9	364	5.6	5.5	.01	.01	5.6	5.5	.02	.02	.27
JUN												
02...	2000	2.3	385	8.7	8.7	.20	.06	8.9	8.8	.04	.03	.48
07...	1430	2.5	439	9.0	9.0	.04	.04	9.0	9.0	.04	.04	.08
21...	1220	2.2	403	8.6	8.6	.06	.06	8.7	8.7	.04	.01	.15
21...	1330	30	394	6.7	6.7	.19	.10	6.9	6.9	.46	.22	11
21...	1350	39	372	8.8	8.8	.33	.19	9.1	9.0	2.4	1.8	12
21...	1520	7.2	342	7.4	7.4	.20	.15	7.6	7.5	1.8	1.6	--
21...	1750	2.8	426	7.4	7.4	.20	.19	7.6	7.6	.99	.69	3.1
21...	1825	22	256	4.3	4.3	.17	.13	4.5	4.4	.69	.54	9.0
21...	1850	137	210	2.4	2.4	.20	.10	2.6	2.5	1.1	.74	17
21...	1905	122	190	2.1	2.1	.25	.08	2.3	2.2	.88	.62	12
21...	1925	76	202	2.0	2.0	.19	.09	2.2	2.1	1.0	.78	--
21...	2030	20	173	2.3	2.3	.21	.08	2.5	2.4	.74	.50	7.5
21...	2200	10	239	3.2	3.2	.19	.09	3.4	3.3	.66	.44	5.9
22...	1100	3.1	512	9.4	9.3	.05	.05	9.4	9.3	.10	.05	.23
JUL												
19...	1230	1.8	424	8.6	8.6	.04	.04	8.6	8.6	.04	.04	.35

PEQUEA CREEK BASIN

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01576768 UNNAMED TRIBUTARY TO PEQUEA CREEK AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN: BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	1130	.0	2.5	.1	4200	4200	600	16	--	0	.0
JUL 19...	1230	.2	1.2	25	2900	2900	520	11	2.1	0	.0

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	13	7.8	15	10	.0	1.9	.0	.0	.0	.0
JUL 19...	.0	4	.0	8.7	5.5	.0	.8	.0	.0	.0	.0

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.1	.0	.0	.0	.0	--	.0	0	.0	0
JUL 19...	.4	.0	.0	.0	.0	.0	.0	0	.0	0

DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	16	--	62	76	96	98	99	100
JUL 19...	0	.0	9	37	--	--	--	--	--	100

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV 10...	2115	.00	.0	.0	.0	.0
DEC 21...	1105	.00	.0	.0	.0	.0
JAN 12...	1130	.00	.0	.0	.0	.0
MAR 14...	0600	.00	.0	.0	.0	.0
MAR 14...	1420	.00	.0	.0	.0	.0
JUN 02...	2000	.30	.0	.0	.0	.0
JUN 21...	1750	9.3	.0	.0	.0	.0
JUN 21...	1905	11	.0	.2	.0	.0

PEQUEA CREEK BASIN

01576768 UNNAMED TRIBUTARY TO PEQUEA CREEK AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT												
26...	.18	.20	.20	8.2	.09	.04	.04	.03	1.6	.6	96	.25
NOV												
10...	.38	.42	.39	8.4	.12	.09	.10	.09	6.0	1.2	140	.60
10...	.79	5.7	.89	10	2.0	.32	.39	.28	27	18	970	24
10...	.66	4.8	.88	8.8	2.6	.30	.39	.26	37	26	1320	50
10...	1.5	10	2.4	14	3.6	.96	1.1	.86	12	26	1980	198
10...	2.8	17	4.0	19	5.9	1.3	1.6	1.1	24	21	2210	239
10...	1.3	12	2.1	14	4.3	.96	1.4	.94	14	21	1400	83
10...	1.6	8.5	2.2	11	3.1	.98	1.3	.92	15	13	831	25
11...	1.1	2.5	1.4	7.4	.97	.62	.64	.50	24	5.4	166	1.4
DEC												
20...	.14	.70	.60	9.8	.15	.12	.14	.12	3.4	--	E40	--
21...	.56	2.4	1.3	8.4	.61	.26	.30	.24	7.4	2.8	272	12
21...	.59	4.5	1.4	8.2	1.7	.38	.52	.38	13	9.8	1080	105
21...	.55	2.6	1.1	5.1	1.2	.39	.60	.39	9.6	15	924	75
21...	.46	1.8	.85	5.4	.77	.40	.49	.40	4.1	3.0	226	10
21...	.41	.84	.61	8.5	.33	.23	.28	.23	5.9	.9	44	.72
JAN												
12...	.21	.26	.26	10	.05	.05	.03	.03	2.6	.1	58	.49
FEB												
23...	.05	.06	.06	9.7	.03	.02	.01	.00	1.4	.3	80	.45
MAR												
14...	1.6	4.3	3.8	8.5	.84	.70	.76	.67	15	1.6	86	2.8
14...	.80	11	2.6	12	4.1	.42	.58	.38	12	--	7020	1670
14...	1.0	14	2.4	15	5.3	.39	.66	.29	17	43	9630	3900
14...	.80	14	2.1	15	4.6	.35	.61	.26	20	42	11000	6390
14...	--	25	--	26	8.5	--	.97	--	--	49	20800	16800
14...	1.2	28	2.4	29	8.6	.32	.76	.22	--	45	26700	22500
14...	1.3	14	2.6	15	5.0	.53	.84	.42	19	42	9300	5780
14...	.10	10	1.6	11	2.9	.69	.83	.56	25	13	3270	547
14...	1.3	4.9	2.7	7.2	1.2	.58	.58	.45	18	9.0	537	30
14...	1.3	3.7	2.6	7.8	.64	.43	.41	.34	14	3.6	138	4.5
APR												
13...	.26	.28	.28	5.9	.01	.00	.00	.00	1.0	.6	40	.31
JUN												
02...	.27	.52	.30	9.4	.08	.04	.04	.03	3.9	.6	52	.32
07...	.06	.12	.10	9.1	.08	.06	.04	.04	2.7	--	26	.18
21...	.13	.19	.14	8.9	.23	.04	.05	.04	1.0	--	33	.20
21...	1.3	11	1.5	18	7.4	.19	.19	.13	9.0	42	8200	664
21...	1.9	14	3.7	23	15	.39	.31	.28	13	46	14700	1550
21...	2.0	--	3.6	--	4.8	1.0	1.1	1.0	17	--	1700	33
21...	2.1	4.1	2.8	12	1.4	.65	.67	.59	12	5.0	373	2.8
21...	1.4	9.7	1.9	14	4.6	.27	.44	.24	9.6	39	16600	986
21...	1.4	18	2.1	21	9.2	.24	.48	.16	14	31	24000	8880
21...	1.3	13	1.9	15	15	.30	.71	.23	9.2	39	15200	5010
21...	1.8	--	2.6	--	12	.65	.84	.57	12	46	4100	841
21...	1.7	8.2	2.2	11	4.5	.76	1.1	.69	12	23	3480	188
21...	1.7	6.6	2.1	10	3.4	.72	1.1	.67	12	8.5	1240	33
22...	.05	.33	.10	9.7	.15	.11	.09	.09	4.4	.5	39	.33
JUL												
19...	.28	.39	.32	9.0	.05	.03	.03	.03	.8	.4	63	.31

PEQUEA CREEK BASIN

301

01576768 UNNAMED TRIBUTARY TO PEQUEA CREEK AT STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV									
10...	2115	.0	.00	.00	.0	.00	.00	.02	.00
DEC									
21...	1105	.0	.00	.00	.0	.00	.01	.00	.00
JAN									
12...	1130	.0	.00	.00	.0	.00	.00	.00	.00
MAR									
14...	0600	.0	.00	.00	.1	.00	.00	.07	.00
14...	1420	.0	.00	.00	.0	.00	.00	.00	.00
JUN									
21...	1750	.0	.00	.00	.0	.00	.01	.02	.00
21...	1905	.0	.00	.00	.1	.01	.07	.12	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV									
10...	.02	.00	.00	.00	.00	.00	.00	.00	.00
DEC									
21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN									
12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR									
14...	.06	.00	.00	.00	.00	.01	.00	.00	.00
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUN									
21...	.00	.00	.00	.00	.00	.00	.01	.00	.00
21...	.03	.00	.00	.00	.00	.03	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV								
10...	.00	.00	.00	0	.00	.00	.00	.00
DEC								
21...	.00	.00	.00	0	.00	.00	.00	.00
JAN								
12...	.00	.00	.03	0	.00	--	--	--
MAR								
14...	.00	.00	.00	0	.00	.00	.00	.00
14...	.00	.00	.00	0	.00	.00	.00	.00
JUN								
21...	.00	.00	.00	0	.00	.33	.00	.00
21...	.00	.00	.00	0	.00	.09	.01	.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 mi (189 km²).

PERIOD OF RECORD.--February 1977 to July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0415	50	419	6.1	5.9	.03	.03	6.1	5.9	.01	.01	.61
NOV												
10...	1515	64	413	5.6	5.5	.05	.05	5.6	5.5	.07	.07	.66
10...	2100	112	364	4.8	4.7	.06	.06	4.9	4.8	.28	.12	2.5
10...	2205	150	488	4.9	4.7	.07	.06	5.0	4.8	.46	.34	6.4
11...	0135	137	380	4.4	4.2	.07	.06	4.5	4.3	.55	.28	3.9
11...	0410	156	373	4.6	4.5	.07	.06	4.7	4.6	.46	.26	3.6
11...	0615	166	389	4.8	4.7	.07	.07	4.9	4.8	.49	.26	3.0
11...	0815	165	363	4.3	4.2	.07	.07	4.4	4.3	.57	.42	3.2
11...	1225	122	363	4.5	4.5	.06	.06	4.6	4.6	.45	.17	2.3
12...	1500	72	403	5.1	5.2	.05	.04	5.2	5.2	.25	.18	1.6
DEC												
20...	2345	175	420	6.9	6.9	.03	.02	6.9	6.9	.16	.16	.71
21...	1050	339	365	6.4	5.7	.05	.02	6.4	5.7	.44	.38	1.7
21...	1440	450	350	5.9	5.1	.05	.02	5.9	5.1	.50	.47	1.8
21...	1840	495	312	5.1	4.7	.05	.02	5.1	4.7	.43	.40	1.8
22...	0030	255	299	4.5	4.3	.04	.02	4.5	4.3	.40	.34	1.8
22...	0820	198	327	6.3	5.6	.03	.02	6.3	5.6	.25	.20	.95
JAN												
12...	1250	132	424	8.0	7.8	.05	.01	8.0	7.8	.07	.07	.67
FEB												
23...	1155	98	416	7.4	7.4	.02	.01	7.4	7.4	.02	.02	.00
MAR												
14...	0630	390	251	2.6	2.6	.06	.05	2.7	2.6	4.2	3.4	5.8
14...	1245	770	247	2.5	2.5	.05	.04	2.5	2.5	3.3	2.7	6.4
14...	1500	1720	220	1.6	1.6	.12	.04	1.7	1.6	2.9	2.2	12
14...	1650	2200	197	1.4	1.4	.06	.04	1.5	1.4	2.8	2.2	8.2
14...	1800	2500	--	1.3	1.3	.09	.03	1.4	1.3	2.8	2.3	9.2
14...	1945	2800	179	1.1	1.1	.09	.03	1.1	1.1	2.9	2.1	12
14...	2230	3070	161	.93	.93	.09	.04	1.0	.97	2.5	1.9	11
15...	0100	2800	149	1.1	1.1	.06	.02	1.2	1.1	2.1	1.7	8.9
15...	0550	570	189	2.3	2.3	.06	.02	2.4	2.3	1.5	1.4	5.1
15...	1215	320	260	3.8	3.8	.04	.03	3.8	3.8	1.2	1.1	2.5
APR												
13...	1025	161	393	6.4	6.4	.03	.03	6.4	6.4	.00	.00	.44
JUN												
02...	2100	115	382	6.2	6.1	.09	.09	6.3	6.2	.10	.06	.54
07...	1500	113	383	6.3	6.2	.07	.07	6.4	6.3	.08	.07	.68
21...	1745	115	367	6.6	6.6	.13	.11	6.7	6.7	.36	.25	2.2
21...	1925	237	327	5.7	5.6	.13	.11	5.8	5.7	.31	.04	1.8
21...	2030	320	244	3.8	3.7	.21	.10	4.0	3.8	.61	.50	1.7
21...	2200	320	291	4.6	4.4	.19	.13	4.8	4.5	.59	.47	8.3
22...	0005	273	302	4.5	4.5	.16	.13	4.7	4.6	.52	.38	7.9
22...	0510	170	293	4.2	4.0	.15	.12	4.3	4.1	.48	.34	3.6
22...	1150	121	349	5.3	5.2	.12	.11	5.4	5.3	.23	.15	1.3
JUL												
19...	1115	86	429	6.7	6.5	.04	.04	6.7	6.5	.04	.04	.31

PEQUEA CREEK BASIN

303

01576769 PEQUEA CREEK NEAR STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH. TOTAL (MG/L AS P)	PHOS- PHORUS, ORTH. DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT												
26...	.30	.62	.31	6.7	.16	.05	.05	.04	3.0	.7	51	6.9
NOV												
10...	.18	.73	.25	6.3	.17	.10	.09	.08	9.2	1.4	44	7.6
10...	.76	2.8	.88	7.7	1.3	.28	.30	.23	5.0	4.3	447	135
10...	.55	6.9	.89	12	1.9	.44	.56	.41	16	10	665	269
11...	1.2	4.4	1.5	8.9	1.7	.58	.67	.50	8.2	15	566	209
11...	.94	4.1	1.2	8.8	1.6	.57	.67	.52	10	5.1	284	120
11...	.94	3.5	1.2	8.4	1.3	.46	.52	.39	9.2	8.4	380	170
11...	.88	3.8	1.3	8.2	1.4	.69	.58	.48	27	8.4	365	163
11...	1.3	2.7	1.5	7.3	.88	.39	.42	.32	11	6.1	202	67
12...	1.0	1.8	1.2	7.0	.40	.19	.20	.16	5.8	2.1	82	16
DEC												
20...	E.30	.87	E.46	7.8	.21	.07	.09	.07	6.6	.9	103	49
21...	.39	2.1	.77	8.5	.65	.22	.29	.22	11	--	331	299
21...	.15	2.3	.62	8.2	.86	.25	.30	.25	4.0	4.6	463	563
21...	.43	2.2	.83	7.3	.80	.22	.26	.22	6.0	5.1	462	617
22...	.42	2.2	.76	6.7	.70	.23	.30	.23	13	3.6	272	187
22...	.58	1.2	.78	7.5	.36	.15	.19	.15	8.1	2.0	123	66
JAN												
12...	.00	.74	.07	8.7	.22	.04	.05	.03	1.4	1.5	202	72
FEB												
23...	.00	.02	.02	7.4	.03	.02	.01	.01	2.0	.3	12	3.2
MAR												
14...	3.2	10	6.6	13	1.5	.76	.78	.68	33	20	517	544
14...	2.0	9.7	4.7	12	1.7	.71	.72	.70	25	20	1800	3740
14...	1.5	15	3.7	17	4.7	.60	.80	.56	24	46	8400	39000
14...	1.6	11	3.8	13	3.3	.67	.77	.63	17	46	3680	21900
14...	1.5	12	3.8	13	4.5	.70	.86	.69	--	--	--	--
14...	2.0	15	4.1	16	4.2	.68	.84	.61	23	40	3280	24800
14...	1.4	13	3.3	14	4.2	.58	.82	.52	38	42	2760	22900
15...	1.3	11	3.0	12	2.9	.48	.66	.44	19	20	1860	14100
15...	.70	6.6	2.1	9.0	1.3	.33	.37	.33	20	--	840	1290
15...	.60	3.7	1.7	7.5	.79	.25	.28	.24	8.4	7.3	489	422
APR												
13...	.41	.44	.41	6.8	.04	.02	.01	.01	4.6	.3	18	7.8
JUN												
02...	.17	.64	.23	6.9	.16	.05	.05	.04	2.3	1.2	66	20
07...	.25	.76	.32	7.2	.17	.05	.05	.04	2.6	--	92	28
21...	.61	2.6	.86	9.3	1.7	.29	.31	.26	7.6	--	1160	360
21...	.96	2.1	1.0	7.9	2.6	.22	.27	.16	13	17	3100	1980
21...	1.3	2.3	1.8	6.3	4.2	.29	.55	.25	11	37	9010	7790
21...	1.5	8.9	2.0	14	4.7	.46	.60	.42	9.0	22	4410	3810
22...	2.1	8.4	2.5	13	3.2	.45	.54	.42	9.0	16	1950	1440
22...	1.6	4.1	1.9	8.4	1.9	.39	.50	.35	15	9.0	850	390
22...	.46	1.5	.61	6.9	.65	.21	.21	.16	7.1	2.0	236	77
JUL												
19...	.14	.35	.18	7.1	.08	.04	.04	.04	1.1	--	29	6.7

PEQUEA CREEK BASIN

01076769 PEQUEA CREEK NEAR STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	1250	.0	1.4	6.5	5100	5100	620	16	--	0	.0
JUL 19...	1115	.1	1.7	60	4300	4300	980	20	2.1	0	.0

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	10	1.3	5.9	2.8	.0	2.1	.0	.0	.0	.3
JUL 19...	.0	11	.0	1.6	1.9	.0	1.4	.0	.0	.0	.0

DATE	HEPTA- CHLOR- EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	.0	.0	.0	.0	--	.0	0	.0	0
JUL 19...	.0	.0	.0	.0	.0	.0	.0	0	.0	0

DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	21	--	72	81	92	98	99	100
JUL 19...	0	.0	24	75	--	--	--	--	--	100

PEQUEA CREEK BASIN

305

01576769 PEQUEA CREEK NEAR STRASBURG, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV									
11...	0815	.0	.00	.00	.0	.00	.00	.00	.00
DEC									
21...	1440	.0	.00	.00	.0	.00	.00	.00	.00
JAN									
12...	1250	.0	.00	.00	.0	.00	.00	.00	.00
MAR									
14...	0630	.0	.00	.00	.0	.00	.00	.00	.00
14...	2230	.0	.00	.00	.1	.00	.00	.01	.00
JUN									
21...	1745	.0	.00	.00	.0	.00	.00	.01	.00
21...	2200	.0	.00	.00	.1	.01	.00	.03	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV									
11...	.06	.00	.00	.00	.00	.00	.00	.00	.00
DEC									
21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN									
12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR									
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
14...	.02	.00	.00	.00	.00	.00	.00	.00	.00
JUN									
21...	.01	.00	.00	.00	.00	.00	.00	.00	.00
21...	.00	.00	.00	.00	.00	.02	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV								
11...	.00	.00	.00	0	.00	.00	.00	.00
DEC								
21...	.00	.00	.00	0	.00	.00	.00	.00
JAN								
12...	.00	.00	.00	0	.00	.00	.00	.00
MAR								
12...	.00	.00	.00	0	.00	.00	.00	.00
14...	.00	.00	.00	0	.00	--	--	--
JUN								
21...	.00	.00	.00	0	.00	.24	.00	.00
21...	.00	.00	.00	0	.00	--	--	--

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV						
11...	0815	.00	.0	.0	.0	.0
DEC						
21...	1440	.00	.0	.0	.0	.0
JAN						
12...	1250	.00	.0	.0	.0	.0
MAR						
14...	0630	.00	.0	.0	.3	.0
14...	2230	.00	.0	.0	.6	.0
JUN						
02...	2100	.20	.0	.0	.0	.0
21...	1745	11	.0	.1	.0	.0
21...	2200	13	.0	.0	.0	.0

PEQUEA CREEK BASIN

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 July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0530	.31	316	5.0	4.7	.01	.01	5.0	4.7	.02	.01	.24
NOV												
10...	1530	.47	348	5.0	5.0	.01	.01	5.0	5.0	.02	.02	.03
10...	1735	1.7	307	4.4	4.1	.04	.03	4.4	4.1	.09	.00	1.5
10...	2000	3.3	263	3.3	3.2	.04	.03	3.3	3.2	.12	.01	3.9
10...	2015	12	196	1.6	1.7	.05	.03	1.7	1.7	.32	.13	19
10...	2033	14	160	1.4	1.4	.10	.05	1.5	1.4	.74	.42	14
10...	2107	4.6	165	1.6	1.6	.09	.05	1.7	1.6	.60	.23	9.0
10...	2215	2.6	194	2.2	2.2	.08	.04	2.3	2.2	.54	.33	3.8
11...	0105	1.3	267	3.6	3.6	.04	.03	3.6	3.6	.23	.15	1.5
11...	0900	.73	333	5.0	5.0	.02	.02	5.0	5.0	.04	.01	.67
DEC												
20...	2345	1.2	274	5.7	5.4	.01	.01	5.7	5.4	.07	.04	.51
21...	0600	3.1	237	4.6	4.4	.03	.01	4.6	4.4	.14	.14	.82
21...	0700	10	150	2.2	2.2	.06	.02	2.3	2.2	.31	.29	2.7
21...	0755	7.4	139	2.2	2.1	.05	.02	2.2	2.1	.35	.26	1.8
21...	0945	7.4	140	2.3	2.2	.04	.02	2.3	2.2	.33	.24	1.3
21...	1315	2.5	252	4.4	4.1	.02	.01	4.4	4.1	.18	.12	.65
JAN												
12...	1520	1.3	234	6.3	6.2	.01	.01	6.3	6.2	.02	.02	.48
FEB												
23...	1525	.99	226	5.7	5.6	.01	.00	5.7	5.6	.01	.01	.10
MAR												
14...	0730	3.3	173	3.5	3.4	.03	.02	3.5	3.4	1.0	.84	1.0
14...	1315	20	98	1.0	.98	.07	.02	1.1	1.0	1.1	.88	2.5
14...	1400	58	99	.97	.97	.07	.02	1.0	.99	1.1	.91	8.0
14...	1415	138	144	.73	.73	.17	.02	.90	.75	1.2	.79	3.3
14...	1430	100	--	.84	.84	.13	.02	.97	.86	1.1	.82	2.9
14...	1515	41	91	.94	.94	.07	.01	1.0	.95	1.0	.97	1.7
14...	1950	6.4	123	1.9	1.9	.03	.01	1.9	1.9	.89	.64	1.4
15...	0720	2.0	186	4.2	4.2	.02	.01	4.2	4.2	.48	.44	.32
APR												
13...	1255	1.1	225	8.9	8.8	.03	.02	8.9	8.8	.01	.01	.20
JUN												
02...	2200	.71	252	5.6	5.2	.01	.01	5.6	5.2	.02	.02	.10
07...	1315	.86	252	5.9	5.9	.01	.01	5.9	5.9	.02	.02	.24
21...	1430	.95	236	4.8	4.8	.06	.04	4.9	4.8	.26	.13	2.0
21...	1745	.65	246	5.4	5.3	.02	.02	5.4	5.3	.02	.02	.43
21...	1830	1.8	205	4.4	4.3	.03	.02	4.4	4.3	.07	.07	1.4
21...	1845	16	196	4.0	3.8	.13	.06	4.1	3.9	.40	.40	16
21...	1855	14	201	3.4	3.1	.22	.07	3.6	3.2	.51	.36	16
21...	1915	4.5	188	3.6	3.3	.19	.07	3.8	3.4	.53	.43	11
21...	2015	3.8	188	4.8	4.6	.11	.06	4.9	4.7	.78	.74	4.1
21...	2245	1.0	232	5.3	5.3	.07	.05	5.4	5.3	.41	.39	1.5
22...	1045	.71	258	6.0	6.0	.02	.01	6.0	6.0	.04	.01	.06
JUL												
19...	1015	.56	270	5.4	5.5	.01	.01	5.4	5.5	.03	.03	.04

PEQUEA CREEK BASIN

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01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV 10...	2033	.0	.00	.00	.0	.00	.00	.00	.00
DEC 21...	0945	.0	.00	.00	.0	.00	.00	.00	.00
JAN 12...	1520	.0	.00	.00	.0	.00	.00	.00	.00
MAR 14...	0730	.0	.00	.00	.0	.00	.00	.00	.00
14...	1420	.0	.00	.00	.0	.00	.00	.01	.00
JUN 21...	1430	.0	.00	.00	.0	.00	.00	.00	.00
21...	1855	.0	.00	.00	.1	.01	.01	.02	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV 10...	.08	.00	.00	.00	.00	.00	.00	.00	.00
DEC 21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR 14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
14...	.01	.00	.00	.00	.00	.01	.00	.00	.00
JUN 21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
21...	.00	.00	.00	.00	.00	.01	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 10...	.00	.00	.00	0	.00	.00	.00	.00
DEC 21...	.00	.00	.00	0	.00	.00	.00	.00
JAN 12...	--	.00	.00	0	--	--	--	--
MAR 14...	.00	.00	.00	0	.00	.00	.00	.00
14...	.00	.00	.00	0	.00	.00	.00	.00
JUN 21...	.00	.00	.00	0	.00	--	--	--
21...	.00	.00	.00	0	.00	.04	.00	.00

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV 10...	2033	.10	.0	.0	.0	.0
DEC 21...	0945	.40	.0	.0	.0	.0
JAN 12...	1520	.00	.0	.0	.0	.0
MAR 14...	0730	.00	.0	--	.0	.0
14...	1420	.00	.0	--	.5	.0
JUN 02...	2200	.40	.0	.0	.0	.0
21...	1430	1.5	.0	--	.0	.0
21...	1855	14	.0	.9	.0	.0

01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- TOTAL (MG/L AS P)	PHOS- PHORUS, ORTH- DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT												
26...	.15	.26	.16	5.3	.02	.01	.00	.00	2.4	.5	33	.03
NOV												
10...	.00	.05	.02	5.1	.02	.01	.01	.01	9.0	.5	6	.01
10...	.42	1.6	.42	6.0	.47	.08	.07	.03	16	6.6	201	.92
10...	1.2	4.0	1.2	7.3	1.1	.11	.10	.05	16	12	949	8.5
10...	1.1	1.9	1.2	21	4.0	.13	.16	.08	34	35	5830	189
10...	2.1	1.5	2.5	17	3.9	.47	.62	.34	17	34	3830	145
10...	1.5	9.6	1.7	11	2.6	.61	.68	.49	19	13	1380	32
10...	1.8	4.3	2.1	6.6	1.5	.57	.66	.46	27	10	395	2.8
11...	.65	1.7	.80	5.3	.43	.18	.22	.15	17	3.8	87	.31
11...	.67	.71	.68	5.7	.08	.05	.03	.03	2.8	.4	11	.02
DEC												
20...	.51	.58	.55	6.3	.05	.03	.03	.01	2.6	2.5	13	.04
21...	.44	.96	.58	5.6	.25	.08	.08	.06	5.3	3.2	207	1.7
21...	.44	3.0	.73	5.3	.76	.19	.24	.18	6.1	--	1580	45
21...	1.8	2.1	2.1	4.3	.74	.21	.28	.20	7.4	4.7	495	9.9
21...	.46	1.6	.70	3.9	.56	.23	.29	.23	15	3.2	480	9.6
21...	.44	.83	.56	5.2	.22	.10	.11	.09	31	1.5	66	.45
JAN												
12...	.13	.50	.15	6.8	.02	.01	.01	.01	4.0	.1	13	.05
FEB												
23...	.00	.11	.01	5.8	.02	.01	.01	.01	1.0	.1	4	.01
MAR												
14...	.76	2.0	1.6	5.5	.17	.11	.09	.04	23	1.8	74	.66
14...	.62	3.6	1.5	4.7	2.2	.06	.13	.00	18	42	5780	453
14...	.49	9.1	1.4	10	2.6	.05	.13	.00	15	44	7670	1200
14...	.51	4.5	1.3	5.4	4.5	.03	.34	.00	38	46	13400	4990
14...	.58	4.0	1.4	5.0	3.3	.04	.26	.00	16	44	--	--
14...	.53	2.7	1.5	3.7	1.8	.05	.19	.03	24	21	4710	521
14...	.86	2.3	1.5	4.2	.31	.11	.06	.00	14	3.9	298	5.1
15...	.05	.80	.49	5.0	.07	.03	.03	.01	4.8	.8	39	.21
APR												
13...	.19	.21	.20	9.1	.01	.01	.00	.00	2.2	.3	8	.02
JUN												
02...	.00	.12	.02	5.7	.02	.01	.01	.01	2.4	.6	6	.01
07...	.09	.26	.11	6.2	.03	.01	.02	.01	2.6	.4	10	.02
21...	1.6	2.3	1.7	7.2	.41	.05	.05	.00	15	--	257	.66
21...	.43	.45	.45	5.9	.05	.02	.03	.01	11	4.5	22	.04
21...	.59	1.5	.66	5.9	.33	.03	.02	.01	15	4.2	386	1.9
21...	.49	1.6	.89	20	6.9	.12	.18	.10	11	34	14000	605
21...	.94	17	1.3	21	15	.05	.34	.01	24	46	20200	764
21...	2.0	12	2.4	16	7.1	.05	.26	.02	14	39	9580	220
21...	1.5	4.9	2.2	9.8	2.0	.20	.26	.17	13	12	1790	18
21...	.57	1.9	.96	7.3	.44	.11	.12	.09	12	3.0	296	.80
22...	.00	.10	.01	5.9	.06	.02	.02	.02	1.8	.5	39	.07
JUL												
19...	.04	.02	.07	5.5	.01	.00	.00	.00	1.8	--	4	.01

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,NO2+NO3 TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT- TOM MA- TERIAL (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN											
12...	1520	.0	1.2	5.8	1700	1700	370	6.1	--	0	.0
JUL											
19...	1015	.0	1.7	12	1300	1300	320	5.0	.4	0	.0

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN											
12...	.0	0	.0	1.1	.0	.0	.0	.0	.0	.0	.0
JUL											
19...	.0	1	.0	.2	.0	.0	.2	.0	.0	.0	.0

PEQUEA CREEK BASIN

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01576775 UNNAMED TRIBUTARY TO BIG BEAVER CREEK AT NEW PROVIDENCE, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN. 12...	.0	.0	.0	.0	.0	--	.0	0	.0	0
JUL 19...	.0	.0	.0	.0	.0	.0	.0	0	.0	0
DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	3	--	14	20	57	79	93	100
JUL 19...	0	.0	4	15	--	--	--	--	--	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 July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0520	16	262	3.3	3.3	.02	.02	3.3	3.3	.01	.01	.48
NOV												
10...	1545	1a	290	3.2	3.2	.05	.05	3.2	3.2	.04	.02	.41
10...	2040	49	268	2.6	2.6	.04	.03	2.6	2.6	.05	.01	.85
10...	2130	131	246	2.4	2.3	.05	.03	2.4	2.3	.20	.09	3.5
10...	2220	505	231	2.2	1.9	.08	.08	2.2	2.0	.70	.60	12
10...	2305	440	216	1.8	1.4	.08	.07	1.9	1.5	.48	.48	12
10...	2338	320	180	1.4	1.1	.08	.04	1.5	1.1	.45	.45	11
11...	0035	215	173	1.3	1.2	.08	.04	1.4	1.2	.44	.38	6.4
11...	0230	9a	173	1.3	1.2	.07	.03	1.4	1.2	.40	.28	4.2
11...	0530	50	201	1.5	1.5	.06	.03	1.6	1.5	.40	.15	2.8
11...	1050	32	214	2.0	1.9	.05	.03	2.0	1.9	.25	.13	1.4
DEC												
20...	2400	51	241	3.6	3.4	.04	.02	3.6	3.4	.37	.35	.40
21...	0805	305	188	2.2	2.1	.04	.02	2.2	2.1	.51	.45	1.4
21...	0925	460	160	1.9	1.6	.05	.02	1.9	1.6	.39	.39	3.1
21...	1300	270	131	1.5	1.4	.04	.01	1.5	1.4	.35	.32	1.4
21...	1725	92	163	2.1	2.0	.03	.02	2.1	2.0	.28	.24	.82
JAN												
12...	1440	34	223	4.7	4.5	.04	.01	4.7	4.5	.20	.20	.20
FEB												
23...	1415	38	241	4.3	4.2	.02	.01	4.3	4.2	.35	.35	.25
MAR												
14...	0900	97	173	2.2	2.2	.04	.04	2.2	2.2	1.6	1.5	.70
14...	1145	245	166	1.9	1.9	.03	.03	1.9	1.9	1.7	1.5	2.4
14...	1410	730	141	1.1	1.1	.05	.03	1.1	1.1	--	1.5	--
14...	1530	1500	142	.86	.86	.10	.02	.96	.88	1.6	1.3	10
14...	1600	1650	167	.85	.85	.11	.02	.96	.87	1.3	1.1	3.6
14...	1630	1560	148	.84	.84	.12	.02	.96	.86	1.3	1.1	9.7
14...	1730	1000	127	.84	.84	.08	.02	.92	.86	1.3	.98	6.3
14...	2030	410	114	1.1	.98	.05	.02	1.1	1.0	1.1	.78	2.6
15...	0030	185	132	1.4	1.4	.04	.02	1.4	1.4	1.0	1.0	1.9
15...	0735	86	172	2.3	2.3	.03	.02	2.3	2.3	.79	.65	1.1
APR												
13...	1115	35	232	4.0	3.9	.04	.04	4.0	3.9	.03	.03	.24
JUN												
02...	2230	20	238	3.3	3.3	.06	.06	3.4	3.4	.09	.05	.29
07...	1345	22	245	3.8	3.8	.10	.10	3.9	3.9	.04	.04	.42
21...	1700	56	227	3.2	3.2	.11	.10	3.3	3.3	.17	.15	1.4
21...	2014	450	236	3.2	3.2	.18	.14	3.4	3.3	.70	.66	8.5
21...	2100	680	181	2.8	2.8	.20	.13	3.0	2.9	.86	.84	15
21...	2215	290	185	3.0	2.8	.20	.10	3.2	2.9	.75	.70	9.2
21...	2330	155	173	2.9	2.8	.18	.09	3.1	2.9	.67	.61	6.5
22...	0615	40	198	2.7	2.7	.13	.10	2.8	2.8	.46	.41	2.0
JUL												
18...	1410	20	266	3.6	.65	.05	.05	3.6	.70	.05	.00	.41

PEQUEA CREEK BASIN

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01576777 BIG BEAVER CREEK AT REFTON, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOM. TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHOM. DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT												
26...	.17	.49	.18	3.8	.17	.13	.14	.12	2.6	.6	11	.48
NOV												
10...	.20	.45	.22	3.7	.14	.12	.12	.11	10	.6	9	.44
10...	.85	.90	.86	3.5	.24	.14	.14	.12	6.4	2.0	101	12
10...	.81	3.7	.90	6.1	1.5	.28	.33	.25	6.6	14	874	309
10...	1.3	13	1.9	15	4.7	.51	.53	.43	22	24	3740	5100
10...	2.2	12	2.7	14	3.8	.24	.28	.15	24	27	2660	3160
10...	1.1	11	1.5	13	3.3	.26	.36	.20	25	--	1900	1640
11...	1.2	6.8	1.6	8.2	2.6	.32	.43	.27	12	17	1350	784
11...	1.8	4.6	2.1	6.0	1.9	.41	.48	.32	11	13	580	153
11...	1.4	3.2	1.5	4.8	1.3	.40	.49	.34	9.4	6.8	277	37
11...	.97	1.6	1.1	3.6	.58	.25	.33	.23	23	6.2	118	10
DEC												
20...	.27	.77	.62	4.4	.16	.08	.10	.08	14	1.0	48	6.6
21...	.54	1.9	.99	4.1	.54	.23	.29	.23	20	5.2	1020	840
21...	.40	3.5	.79	5.4	.95	.21	.25	.20	15	9.9	1290	1600
21...	.41	1.7	.73	3.2	.58	.25	.29	.24	9.2	4.6	451	329
21...	.40	1.1	.64	3.2	.35	.19	.23	.18	7.0	--	125	31
JAN												
12...	.00	.40	.20	5.1	.12	.06	.06	.06	1.6	.2	51	4.7
FEB												
23...	.25	.60	.60	4.9	.13	.09	.02	.02	2.0	.4	27	2.8
MAR												
14...	.70	2.3	2.2	4.5	.44	.30	.28	.26	16	3.9	164	43
14...	1.1	4.1	2.6	6.0	.80	.37	.34	.30	13	7.2	841	556
14...	.50	10	2.0	11	2.5	.28	.29	.24	16	42	5550	10900
14...	.80	12	2.1	13	4.1	.26	.42	.19	36	45	9050	36700
14...	.70	4.9	1.8	5.9	3.9	.14	.31	.08	50	48	10100	45000
14...	.60	11	1.7	12	4.1	.12	.33	.08	7.7	42	7470	31500
14...	1.5	7.6	2.5	8.5	2.3	.16	.29	.10	16	42	--	--
14...	.92	3.7	1.7	4.8	1.2	.18	.20	.07	16	11	1560	1730
15...	.80	2.9	1.8	4.3	.56	.18	.17	.17	15	7.8	458	229
15...	.75	1.9	1.4	4.2	.24	.12	.11	.06	13	3.3	112	26
APR												
13...	.21	.26	.24	4.3	.06	.05	.04	.04	2.7	.3	9	.85
JUN												
02...	.29	.38	.34	3.7	.07	.06	.07	.06	2.7	.4	12	.65
07...	.39	.46	.43	4.4	.13	.08	.07	.06	1.9	--	17	1.0
21...	.95	1.6	1.1	4.9	.42	.12	.13	.10	13	5.5	217	33
21...	1.3	9.2	2.0	13	3.9	.10	.20	.06	16	34	5720	6950
21...	1.4	16	2.2	19	6.8	.09	.21	.05	15	20	10300	18900
21...	1.2	9.9	1.9	13	4.1	.12	.37	.08	13	28	5820	4560
21...	1.3	7.2	1.9	10	3.0	.19	.35	.14	13	19	2820	1180
22...	1.3	2.5	1.7	5.3	.68	.19	.25	.16	11	4.0	332	36
JUL												
18...	.27	.46	.27	4.1	.12	.10	.10	.09	1.3	.5	19	1.0

PEQUEA CREEK BASIN

01576777 BIG BEAVER CREEK AT REFTON, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	1440	.0	1.2	4.9	2300	2300	380	11	--	8	.0
JUL 18...	1410	.2	2.3	24	1300	1300	290	3.6	.8	0	.0

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	13	.0	1.7	1.4	.0	.0	.0	.0	.0	.0
JUL 18...	.0	0	.0	.3	.0	.0	.0	.0	.0	.0	.0

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOT. IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOT. IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	.0	.0	.0	.0	--	.0	0	.0	0
JUL 18...	.0	.0	.0	.0	.0	.0	.0	0	.0	0

DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	5	--	22	22	35	94	100	--
JUL 18...	0	.0	3	10	--	--	--	--	--	100

PEQUEA CREEK BASIN

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01576777 BIG BEAVER CREEK AT REFTON, PA--Continued

WATER-QUALITY DATA, OCTOBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV									
10...	2338	.0	.00	.00	.0	.01	.03	.00	.00
JAN									
12...	1440	.0	.00	.00	.0	.00	.00	.00	.00
MAR									
14...	0900	.0	.00	.00	.0	.00	.00	.00	.00
14...	1630	.0	.00	.00	.1	.00	.00	.01	.00

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV									
10...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN									
12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR									
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
14...	.01	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV								
10...	.00	.00	.00	0	.00	.00	.00	.00
JAN								
12...	.00	.00	.00	0	.00	.00	.00	.00
MAR								
14...	.00	.00	.00	0	.00	.00	.00	.00
14...	.00	.00	.00	0	.00	.00	.00	.00

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV						
10...	2338	.00	.0	.0	.0	.0
JAN						
12...	1440	.00	.0	.0	.0	.0
MAR						
14...	0900	.20	.0	.0	.0	.0
14...	1630	.00	.0	.0	.0	.0
JUN						
02...	2230	.30	.0	.4	.0	.0
21...	1700	2.5	.0	1.3	.0	.0
21...	2100	24	.0	.0	.0	.0

PEQUEA CREEK BASIN

01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA

LOCATION.--Lat 39°54'28", long 76°19'06", Lancaster County, Hydrologic Unit 02050306, 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 July 1978 (discontinued).

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT												
26...	0600	.78	129	5.7	5.5	.00	.00	5.7	5.5	.01	.00	.20
NOV												
10...	1600	1.7	148	6.8	6.7	.01	.01	6.8	6.7	.00	.00	.49
10...	1945	4.3	124	5.4	5.1	.01	.01	5.4	5.1	.00	.00	.70
10...	2015	9.0	115	4.9	4.6	.01	.01	4.9	4.6	.00	.00	3.5
10...	2030	10	112	---	---	---	---	---	---	---	---	---
10...	2045	9.0	112	4.4	4.1	.01	.01	4.4	4.1	.00	.00	1.8
10...	2130	6.7	103	3.6	3.4	.01	.01	3.6	3.4	.00	.00	1.2
10...	2300	4.6	107	3.4	3.3	.01	.01	3.4	3.3	.00	.00	.61
11...	0930	2.7	126	5.3	4.9	.01	.01	5.3	4.9	.00	.00	.64
DEC												
20...	2325	11	116	5.9	5.4	.00	.00	5.9	5.4	.00	.00	.28
21...	0645	16	109	5.1	4.6	.00	.00	5.1	4.6	.01	.00	.56
21...	0800	24	104	4.5	4.0	.00	.00	4.5	4.0	.02	.00	.68
21...	0930	18	105	4.6	4.2	.00	.00	4.6	4.2	.01	.00	.69
21...	1130	20	107	4.9	4.5	.00	.00	4.9	4.5	.01	.01	.50
21...	1740	15	117	5.9	5.5	.00	.00	5.9	5.5	.00	.00	.31
JAN												
12...	1630	5.1	122	5.9	5.8	.00	.00	5.9	5.8	.00	.00	.70
FEB												
23...	1130	1.9	101	8.3	4.6	.00	.00	8.3	4.6	.00	.00	.00
MAR												
14...	0805	2.8	114	4.8	4.8	.06	.00	4.9	4.8	.17	.13	.23
14...	1400	11	98	2.9	2.8	.02	.01	2.9	2.8	.55	.45	2.5
14...	1430	44	88	2.2	2.2	.04	.01	2.2	2.2	.65	.60	6.4
14...	1445	145	98	1.7	1.7	.05	.01	1.7	1.7	.70	.52	8.5
14...	1515	89	87	1.5	1.5	.08	.01	1.5	1.5	.67	.48	3.9
14...	1715	11	104	2.1	2.1	.03	.01	2.1	2.1	.49	.34	1.4
15...	0015	6.9	100	3.9	3.9	.01	.00	3.9	3.9	.13	.13	.28
APR												
13...	0945	3.0	97	4.6	4.5	.00	.00	4.6	4.5	.01	.01	.06
JUN												
02...	2215	2.0	102	4.7	4.7	.00	.00	4.7	4.7	.00	.00	.52
07...	1530	2.0	97	4.5	4.5	.00	.00	4.5	4.5	.00	.00	.28
21...	1745	1.8	94	3.0	3.0	.01	.01	3.0	3.0	.02	.02	.50
21...	1900	94	85	3.8	3.4	.02	.01	3.8	3.4	.10	.08	5.5
21...	1915	30	87	4.2	4.1	.04	.01	4.2	4.1	.10	.09	3.9
21...	2015	11	86	2.7	2.6	.02	.01	2.7	2.6	.06	.06	1.6
21...	2145	7.4	84	2.5	2.5	.02	.01	2.5	2.5	.03	.03	1.1
22...	0945	2.0	98	4.4	4.4	.00	.00	4.4	4.4	.01	.01	.10
JUL												
18...	1220	1.3	120	5.8	5.7	.01	.01	5.8	5.7	.00	.00	.19

PEQUEA CREEK BASIN

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01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT												
26...	.20	.21	.20	5.9	.01	.01	.00	.00	12	.3	3	.01
NOV												
10...	.00	.49	.00	7.3	.07	.02	.00	.00	4.0	--	10	.05
10...	.18	.70	.18	6.1	.05	.02	.00	.00	13	2.1	71	.82
10...	.31	3.5	.31	8.4	.30	.02	.00	.00	6.6	--	395	9.6
10...	--	--	--	--	--	--	--	--	14	5.1	398	11
10...	.38	1.8	.38	6.2	.20	.02	.00	.00	13	2.1	194	4.7
10...	.41	1.2	.41	4.8	.13	.01	.01	.01	7.4	2.4	102	1.8
10...	.35	.61	.35	4.0	.04	.02	.00	.00	14	1.8	33	.41
11...	.15	.64	.15	5.9	.02	.02	.00	.00	3.8	.8	4	.03
DEC												
20...	.22	.28	.22	6.2	.02	.00	.01	.00	8.0	.6	18	.53
21...	.06	.57	.06	5.7	.06	.01	.00	.00	3.6	2.1	102	4.4
21...	.31	.70	.31	5.2	.10	.02	.01	.01	5.9	--	123	8.0
21...	.17	.70	.17	5.3	.07	.01	.01	.01	4.6	2.2	108	5.2
21...	.24	.51	.25	5.4	.05	.02	.01	.01	16	1.3	52	2.8
21...	.30	.31	.30	6.2	.03	.01	.00	.00	3.5	.7	47	1.9
JAN												
12...	.19	.70	.19	6.6	.00	.00	.00	.00	1.4	.1	8	.11
FEB												
23...	.00	.00	.00	8.3	.01	.00	.00	.00	.9	.3	8	.04
MAR												
14...	.06	.40	.19	5.3	.04	.01	.04	.01	9.8	--	4	.03
14...	.19	3.0	.64	5.9	.41	.07	.05	.05	4.9	10	807	24
14...	.60	7.0	1.2	9.2	1.5	.12	.10	.09	15	44	3060	364
14...	.15	9.2	.67	11	1.9	.09	.15	.05	17	44	3510	1370
14...	.03	4.6	.51	6.1	1.2	.10	.16	.08	6.8	22	1650	396
14...	.11	1.9	.45	4.0	.36	.07	.11	.05	26	6.0	803	24
15...	.08	.41	.21	4.3	.04	.03	.02	.02	4.1	.8	33	.61
APR												
13...	.06	.07	.07	4.7	.01	.00	.00	.00	1.2	.3	15	.12
JUN												
02...	.52	.52	.52	5.2	.01	.01	.01	.01	1.2	--	7	.04
07...	.07	.28	.07	4.8	.04	.04	.00	.00	1.9	1.0	8	.04
21...	.38	.52	.40	3.5	.07	.01	.01	.01	11	2.2	39	.19
21...	.72	5.6	.80	9.4	1.0	.08	.07	.05	6.4	16	1550	393
21...	.89	4.0	.98	8.2	1.4	.08	.12	.07	9.5	21	1640	133
21...	.59	1.7	.65	4.4	.33	.08	.07	.05	15	6.5	224	6.7
21...	.33	1.1	.36	3.6	.22	.02	.03	.01	8.8	1.8	147	2.9
22...	.00	.10	.01	4.5	.02	.01	.01	.01	1.8	--	17	.09
JUL												
18...	.19	.19	.19	6.0	.06	--	.00	.00	.4	.4	10	.04

01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	1630	.0	.5	7.4	3800	3800	340	18	0	.0	.0
JUL 18...	1220	--	--	--	--	--	--	--	4	.0	.0

DATE	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	12	1.8	6.2	4.7	.0	.0	.0	.0	.0	.0
JUL 18...	6	.8	3.2	11	.0	.9	.0	.0	.0	.0

DATE	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN 12...	.0	.0	.0	.0	.0	--	.0	0	.0	0
JUL 18...	.0	.0	.0	.0	.0	.0	.0	0	.0	0

DATE	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	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
JAN 12...	0	.0	5	--	32	44	70	93	99	100
JUL 18...	0	.0	5	20	--	--	--	--	--	100

PEQUEA CREEK BASIN

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01576786 UNNAMED TRIBUTARY TO PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, SEPTEMBER 1977 TO JULY 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)
NOV 10...	2045	.0	.00	.00	.0	.00	.00	.00	.00
DEC 21...	0800	.0	.00	.00	.0	.00	.00	.00	.00
JAN 12...	1630	.0	.00	.00	.0	.00	.00	.00	.00
MAR 14...	0805	.0	.00	.00	.0	.00	.00	.00	.00
14...	1445	.0	.00	.00	.1	.00	.00	.03	.00
JUN 21...	1915	.0	.00	.00	.0	.01	.02	.02	.00

DATE	DI- ELDRIN, TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV 10...	.00	.00	.00	.00	.00	.00	.00	.00	.00
DEC 21...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR 14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
14...	.02	.00	.00	.00	.00	.01	.00	.00	.00
JUN 21...	.01	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 10...	.00	.00	.00	0	.00	.00	.00	.00
DEC 21...	.00	.00	.00	0	.00	.00	.00	.00
JAN 12...	--	.00	.00	0	--	--	--	--
MAR 14...	.00	.00	.00	0	.00	.00	.00	.00
14...	.00	.00	.00	0	.00	.00	.00	.00
JUN 21...	.00	.00	.00	0	.00	.00	.00	.00

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
NOV 10...	2045	.00	.0	.0	.0	.0
DEC 21...	0800	.10	.0	.0	.0	.0
JAN 12...	1630	.00	.0	.0	.0	.0
MAR 14...	0805	.20	.0	.0	.0	.0
14...	1445	.00	.0	.0	.0	.0
JUN 02...	2215	.20	.0	.0	.0	.0
21...	1915	13	.0	9.8	.0	.0

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).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 228.50 ft (69.65 m), by barometer.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s (354 m³/s) Jan. 26, 1978, gage height, 16.44 ft (5.011 m); minimum, 63.0 ft³/s (1.78 m³/s) Aug. 31, 1977, gage height, 1.70 ft (0.518 m); minimum daily, 68 ft³/s (1.93 m³/s) July 29, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 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)
Dec. 18	1800	3,390 96.0	7.08 2.158	May 15	0100	2,040 57.8	5.77 1.759
Jan. 9	1100	3,400 96.3	7.09 2.161	June 27	1000	3,390 96.0	7.08 2.158
Jan. 26	1030	*12,500 354	*16.44 5.011	July 3	1830	2,510 71.1	6.25 1.905
Mar. 14	2030	5,030 142	8.53 2.600	Aug. 11	2230	1,700 48.1	5.40 1.646
Mar. 26	2300	5,140 146	8.63 2.630				

Minimum discharge, 70 ft³/s (1.98 m³/s) Oct. 8, gage height, 1.75 ft (0.533 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	93	516	233	356	207	405	205	206	173	176	199
2	82	93	258	228	346	202	370	200	200	169	160	142
3	79	96	211	217	327	205	346	198	239	985	145	126
4	74	137	195	202	314	194	363	202	270	744	141	121
5	73	108	203	205	300	194	366	220	213	267	147	115
6	76	108	234	205	297	192	327	211	202	233	141	112
7	77	240	190	207	255	184	333	202	195	215	130	108
8	73	181	175	230	349	186	308	198	206	204	132	108
9	137	159	179	1810	330	188	291	237	204	198	126	108
10	136	159	173	334	314	190	285	247	189	191	124	106
11	93	353	170	377	300	213	280	204	182	189	313	105
12	94	173	170	348	285	362	272	195	176	178	615	106
13	81	149	168	277	272	745	264	195	186	173	150	158
14	96	138	184	803	249	2280	257	380	176	169	167	108
15	417	132	253	349	240	2030	252	846	167	180	138	105
16	170	128	186	282	237	723	242	465	162	173	135	108
17	157	130	173	289	235	448	240	391	165	176	136	106
18	142	153	1560	785	235	373	237	333	167	167	123	101
19	128	132	1100	418	231	574	259	320	162	162	119	185
20	120	124	415	317	220	562	313	285	154	158	115	151
21	110	122	812	305	220	402	254	267	251	154	110	112
22	165	126	495	291	215	432	240	249	409	151	108	106
23	103	219	353	291	209	366	228	240	178	151	108	105
24	100	183	317	284	220	336	226	262	162	145	106	99
25	98	154	285	880	215	305	222	259	158	186	106	99
26	163	444	259	8590	222	1960	217	233	154	174	110	97
27	122	209	242	1920	215	2700	215	224	2120	151	116	94
28	112	177	240	602	209	773	215	222	330	162	496	94
29	100	170	235	487	---	658	211	220	208	145	224	96
30	96	181	235	432	---	484	209	215	191	139	128	96
31	94	---	235	391	---	424	---	211	---	145	138	---
TOTAL	3520	4971	10421	22589	7417	19096	8247	8336	7982	6807	5183	3476
MEAN	114	166	336	729	265	616	275	269	266	220	167	116
MAX	417	444	1560	8590	356	2700	405	846	2120	985	615	199
MIN	73	93	168	202	209	184	209	195	154	139	106	94
CFSM	.77	1.12	2.27	4.93	1.79	4.16	1.86	1.82	1.80	1.49	1.13	.78
IN.	.88	1.25	2.62	5.68	1.86	4.80	2.07	2.10	2.01	1.71	1.30	.87

WTR YR 1978 TOTAL 108045 MEAN 296 MAX 8590 MIN 73 CFSM 2.00 IN 27.16

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY RECORDS

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 June 2, Dec. 18, 1977; minimum daily, 0.00 mg/L Apr. 8, 1978.
KJELDAHL NITROGEN DISCHARGES: Maximum daily, 80 tons (73 tonnes) Mar. 14, 1978; minimum daily, 0.00 ton (0.00 tonne) Apr. 8, 1978.
NITRITE PLUS NITRATE CONCENTRATIONS: Maximum daily, 7.6 mg/L Jan. 4-6, 1978; minimum daily, 1.0 mg/L Jan. 26, 1978.
NITRITE PLUS NITRATE DISCHARGES: Maximum daily, 24 tons (22 tonnes) Jan. 26, 1978; minimum daily, 0.77 ton (0.70 tonne) Jul. 29, 1977.
PHOSPHORUS CONCENTRATIONS: Maximum daily, 5.8 mg/L Jun. 2, 1977; minimum daily, 0.01 mg/L on several days during April and May 1978.
PHOSPHORUS DISCHARGES: Maximum daily, 43 tons (39 tonnes) Jan. 26, 1978; minimum daily, 0.01 ton (0.01 tonne) on many days during March, April and May 1978.
DISSOLVED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 30 mg/L Apr. 5, 1977; minimum daily, 0.2 mg/L Jan. 31, 1978.
DISSOLVED ORGANIC CARBON DISCHARGES: Maximum daily, 170 tons (154 tonnes) Jan. 26, Mar. 14, 1978; minimum daily, 0.20 ton (18 tonne) Jan. 31, Feb. 1, 1978.
SUSPENDED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 84 mg/L Jun. 2, 1977; minimum daily, 0.0 mg/L Feb. 24, 25, 1978.
SUSPENDED ORGANIC CARBON DISCHARGES: Maximum daily, 444 tons (403 tonnes) Jan. 26, 1978; minimum daily, 0.00 ton (0.00 tonne) Jan. 31-Feb. 3, 1978.
SEDIMENT CONCENTRATIONS: Maximum daily, 6630 mg/L Jun. 2, 1977; minimum daily, 9 mg/L May 7, 1978.
SEDIMENT DISCHARGES: Maximum daily, 67,900 tons (61,600 tonnes) Jan. 26, 1978; minimum daily, 3.3 tons (3.0 tonnes) Sept. 18, 1978.

EXTREMES FOR CURRENT YEAR.--

KJELDAHL NITROGEN CONCENTRATIONS: Maximum daily, 14 mg/L Dec. 18; minimum daily, 0.00 mg/L Apr. 8.
KJELDAHL NITROGEN DISCHARGES: Maximum daily, 80 tons (73 tonnes) Mar. 14; minimum daily, 0.00 ton (0.00 tonne) Apr. 8.
NITRITE PLUS NITRATE CONCENTRATIONS: Maximum daily, 7.6 mg/L Jan. 4-6; minimum daily, 1.0 mg/L Jan. 26.
NITRITE PLUS NITRATE DISCHARGES: Maximum daily, 24 tons (22 tonnes) Jan. 26; minimum daily, 0.97 ton (0.88 tonne) Oct. 4.
PHOSPHORUS CONCENTRATIONS: Maximum daily, 5.2 mg/L June 27; minimum daily, 0.01 mg/L on several days during April and May.
PHOSPHORUS DISCHARGES: Maximum daily, 43 tons (39 tonnes) Jan. 26; minimum daily, 0.01 ton (0.01 tonne) on many days during March, April, and May.
DISSOLVED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 28 mg/L Mar. 14; minimum daily, 0.2 mg/L Jan. 31.
DISSOLVED ORGANIC CARBON DISCHARGES: Maximum daily, 170 tons (154 tonnes) Jan. 26, Mar. 14; minimum daily, 0.20 tons (.18 tonnes) Jan. 31, Feb. 1.
SUSPENDED ORGANIC CARBON CONCENTRATIONS: Maximum daily, 33 mg/L Mar. 14; minimum daily, 0.0 mg/L Feb. 24, 25.
SUSPENDED ORGANIC CARBON DISCHARGES: Maximum daily, 444 tons (403 tonnes) Jan. 26; minimum daily, 0.00 ton (0.00 tonne) Jan. 31-Feb. 3.
SEDIMENT CONCENTRATIONS: Maximum daily, 6,190 mg/L June 27; minimum daily, 9 mg/L May 7.
SEDIMENT DISCHARGES: Maximum daily, 67,900 tons (61,600 tonnes) Jan. 26; minimum daily, 3.3 tons (3.0 tonnes) Sept. 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT											
26...	0610	96	416	5.5	5.4	.02	.02	5.5	5.4	.02	.02
NOV											
10...	1610	132	380	4.5	4.4	.04	.04	4.5	4.4	.04	.00
10...	2230	270	--	3.6	3.4	.04	.03	3.6	3.4	.12	.01
11...	0001	291	--	3.9	3.8	.05	.04	3.9	3.8	.11	.00
11...	0201	622	--	3.7	3.6	.07	.05	3.8	3.6	.39	.28
11...	0405	671	--	3.7	3.5	.05	.05	3.7	3.5	.25	.18
11...	0605	493	--	3.2	3.0	.07	.06	3.3	3.1	.49	.31
11...	1020	303	--	3.0	3.0	.07	.05	3.1	3.0	.43	.22
12...	1735	157	356	4.7	4.6	.05	.04	4.7	4.6	.23	.15
DEC											
18...	1650	3200	174	1.8	1.7	.10	.02	1.9	1.7	.66	.54
18...	2005	2980	159	1.9	1.1	.09	.02	2.0	1.1	.66	.61
21...	0600	496	344	5.9	5.4	.03	.02	5.9	5.4	.24	.22
21...	0915	834	311	5.2	4.5	.04	.02	5.2	4.5	.27	.26
21...	1301	1310	277	4.5	3.7	.05	.02	4.5	3.7	.35	.35
21...	1430	1280	258	4.0	3.4	.05	.02	4.0	3.4	.40	.37
21...	1801	894	256	3.8	3.4	.04	.02	3.8	3.4	.42	.35
21...	2345	796	314	5.2	4.8	.04	.02	5.2	4.8	.35	.33
22...	0905	488	300	5.2	4.6	.04	.02	5.2	4.6	.31	.27
JAN											
12...	1730	302	402	7.4	7.0	.05	.01	7.4	7.0	.28	.13
FEB											
23...	1101	217	379	6.8	6.6	.02	.02	6.8	6.6	.10	.09
MAR											
14...	0730	940	253	2.6	2.6	.05	.05	2.6	2.6	3.9	3.1
14...	1600	3230	194	1.8	1.8	.04	.04	1.8	1.8	2.7	1.9
14...	1930	4830	162	1.2	1.2	.09	.03	1.3	1.2	2.3	1.5
14...	2200	4660	159	1.2	1.2	.05	.02	1.2	1.2	2.3	1.5
14...	2400	--	--	1.4	1.4	.05	.03	1.4	1.4	2.5	1.7
15...	0415	3270	169	1.3	1.3	.10	.03	1.4	1.3	2.8	1.9
15...	0910	2720	133	1.3	1.3	.04	.02	1.3	1.3	2.4	1.6
15...	1300	940	173	1.9	1.9	.05	.02	1.9	1.9	1.7	1.3
APR											
13...	0900	267	360	6.0	5.8	.03	.03	6.0	5.8	.01	.01
JUN											
03...	0320	195	339	5.7	5.5	.09	.08	5.8	5.6	.05	.05
07...	1600	193	357	5.8	5.8	.09	.08	5.9	5.9	.06	.06
21...	1510	193	326	5.9	5.9	.05	.05	5.9	5.9	.10	.06
21...	1720	272	353	5.5	5.5	.06	.06	5.6	5.6	.05	.05
21...	2005	496	316	5.0	4.9	.08	.07	5.1	5.0	.15	.15
21...	2355	1020	309	6.1	6.0	.16	.11	6.3	6.1	.22	.22
22...	0215	946	254	5.0	4.7	.23	.14	5.2	4.8	.46	.46
22...	0505	552	245	4.6	4.3	.23	.13	4.8	4.4	.47	.42
22...	0925	323	252	5.0	4.9	.19	.12	5.2	5.0	.48	.23
22...	1330	262	--	4.4	4.3	.15	.12	4.5	4.4	.37	.29
JUL											
18...	1050	167	404	6.2	6.1	.04	.04	6.2	6.1	.01	.00

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
OCT										
26...	.57	.38	.59	.40	.11	.06	.06	.05	28	7.3
NOV										
10...	.61	.47	.65	.47	.19	.10	.10	.08	47	17
10...	2.4	.61	2.5	.62	.70	.17	.19	.14	410	299
11...	1.8	.80	1.9	.80	.62	.16	.18	.13	374	294
11...	5.9	.92	6.3	1.2	1.8	.26	.31	.21	1130	1900
11...	7.0	.74	7.2	.92	2.2	.26	.31	.23	1540	2790
11...	11	1.3	11	1.6	2.1	.30	.35	.25	1060	1410
11...	4.2	2.0	4.6	2.2	1.4	.37	.43	.30	525	430
12...	E1.2	.80	E1.4	.95	.45	.24	.28	.22	57	24
DEC										
18...	15	.96	16	1.5	4.4	.13	.29	.05	6920	59800
18...	11	.59	12	1.2	4.2	.18	.32	.13	4810	38700
21...	1.2	.40	1.4	.62	.32	.10	.11	.09	288	386
21...	1.5	.35	1.8	.61	.52	.14	.19	.13	853	1920
21...	2.3	.41	2.6	.76	.97	.17	.23	.17	1270	4490
21...	3.6	.31	4.0	.68	.93	.20	.25	.19	1870	6460
21...	1.3	.44	1.7	.79	.59	.22	.27	.21	731	1760
21...	1.6	.49	1.9	.82	.61	.19	.22	.19	504	1080
22...	1.4	.38	1.7	.65	.51	.15	.17	.14	274	361
JAN										
12...	.00	.00	.28	.13	.16	.05	.05	.04	121	99
FEB										
23...	.20	.00	.30	.09	.04	.03	.00	.00	18	11
MAR										
14...	7.1	1.8	11	4.9	1.9	.51	.52	.40	1280	3250
14...	10	1.4	13	3.3	3.2	.37	.38	.30	4910	42800
14...	21	1.2	23	2.7	4.3	.27	.37	.16	7010	91400
14...	11	1.3	13	2.8	3.8	.32	.38	.21	4100	51600
14...	11	1.3	13	3.0	3.4	.38	.43	.29	--	--
15...	14	1.3	17	3.2	4.1	.40	.53	.31	4480	39600
15...	9.6	1.3	12	2.9	3.2	.38	.46	.30	2450	18000
15...	5.8	.80	7.5	2.1	2.0	.32	.34	.25	1450	3680
APR										
13...	.36	.09	.36	.10	.04	.01	.01	.00	16	12
JUN										
03...	.40	.32	.45	.37	.06	.05	.05	.04	31	16
07...	E.54	.47	E.70	.53	.13	.06	.06	.05	37	19
21...	1.8	.37	1.9	.43	.73	.13	.13	.11	594	310
21...	1.1	.02	1.2	.07	.35	.08	.08	.07	309	227
21...	2.6	.48	2.8	.63	1.4	.13	.15	.11	1110	1490
21...	4.8	.74	5.0	.96	2.5	.17	.25	.15	2190	6030
22...	8.6	.94	9.1	1.4	3.8	.20	.19	.12	3350	8560
22...	6.7	.98	7.2	1.4	3.5	.16	.31	.15	2570	3830
22...	3.8	1.2	4.3	1.4	2.3	.23	.37	.16	1400	1220
22...	2.3	.81	2.7	1.1	.75	.22	.29	.19	--	--
JUL										
18...	.39	.30	.40	.30	.09	--	.05	.00	19	8.6

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)
NOV 11...	0201	.0	.00	.00	.0	.0	.0	.0	.00	.0	.00
DEC 18...	1655	--	--	.10	.0	.0	.0	.0	--	--	--
21...	1430	.0	.00	--	--	--	--	--	.00	.0	.00
JAN 12...	1730	.0	.00	.00	.0	.0	.0	.0	.01	.0	.00
MAR 14...	0730	.0	.00	.00	.0	.0	.3	.0	.00	.0	.00
14...	2200	.0	.00	.00	.0	.0	.0	.0	.00	.1	.00
JUN 01...	1120	.0	.00	.30	.0	.8	.0	.0	.00	.0	.00
02...	1100	.0	.00	.30	.0	.3	.0	.0	.00	.0	.00
03...	0320	.0	.00	.30	.0	.4	.0	.0	.00	.0	.00
03...	1001	.0	.00	6.8	.7	4.1	.0	.0	.00	.0	.00
03...	1901	.0	.00	.40	.0	.2	.0	.0	.00	.0	.00
04...	1500	.0	.00	2.7	.0	.5	.0	.0	.00	.0	.00
05...	1245	.0	.00	1.6	.0	.3	.0	.0	.00	.0	.00
06...	0920	.0	.00	.80	.0	.4	.0	.0	.00	.0	.00
07...	1600	.0	.00	.30	.0	.3	.0	.0	.00	.0	.00
21...	2005	.0	.00	5.1	.0	1.4	.0	.0	.00	.0	.00
21...	2350	--	--	10	.0	.9	.0	.0	--	--	--
21...	2355	.0	.00	--	--	--	--	--	.00	.1	.00
22...	0505	.0	.00	12	.0	.5	.0	.0	.00	.2	.00
22...	0925	.0	.00	11	.0	.0	.0	.0	.00	.1	.00
22...	1330	.0	.00	5.9	.0	.0	.0	.0	.00	.1	.00
27...	1429	--	--	8.4	.0	.3	.0	.0	--	--	--
JUL 03...	1900	--	--	2.3	.0	.2	.0	.0	--	--	--

[illegible]

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE		MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	TOTAL TRI- THION TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV											
11...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
DEC											
18...		--	--	--	--	--	--	--	--	--	--
21...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
JAN											
12...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
MAR											
14...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
14...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
JUN											
01...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
02...		.00	.00	.00	.00	.00	.00	0	.05	.00	.00
03...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00
03...		.00	.00	.00	.00	.00	.00	0	.07	.00	.00
03...		.00	.00	.00	.00	.00	.00	0	.11	.00	.02
04...		.00	.00	.00	.00	.00	.00	0	.08	.00	.01
05...		.00	.00	.00	.00	.00	.00	0	.04	.00	.00
06...		.00	.00	.00	.00	.00	.00	0	.03	.00	.00
07...		.00	.00	.00	.00	.00	.00	0	.01	.00	.00
21...		.00	.00	.00	.00	.00	.00	0	.06	.00	.03
21...		--	--	--	--	--	--	--	--	--	--
21...		.00	.00	.00	.00	.00	.00	0	.12	.04	.00
22...		.00	.00	.00	.00	.00	.00	0	.33	.00	.00
22...		.00	.00	.00	.00	.00	.00	0	.46	.00	.00
22...		.00	.00	.00	.00	.00	.00	0	.36	.00	.00
27...		--	--	--	--	--	--	--	--	--	--
JUL											
03...		--	--	--	--	--	--	--	--	--	--

DATE	TIME	NITRO- GEN, NITRITE TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INOR- GANIC, TOT IN BOT MAT (G/KG AS C)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN												
12...	1730	.0	3.4	7.6	4900	4900	570	13	--	0	.0	.0
JUL												
18...	1050	.1	1.4	36	2300	2300	0	6.2	1.0	0	.0	.0

DATE		CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)
JAN												
12...	24		1.7	.4.8	2.5	.0	1.7	.0	.0	.0	.0	.0
JUL												
18...	11		1.1	2.4	1.8	.0	1.2	.0	.0	.0	.0	.0

DATE		LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JAN												
12...	.0	.0	.0	.0	--	.0	0	.0	0	0	0	.0
JUL												
18...	.0	.0	.0	.0	.0	.0	0	.0	0	0	0	.0

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM
DEC											
18...	1645	26	35	52	66	72	85	91	94	98	100
18...	1900	26	37	49	62	67	78	86	88	93	100
18...	2005	26	38	52	65	72	81	86	89	93	97
JAN											
12...	1730	14	--	--	--	--	--	--	--	--	--
26...	1230	20	32	48	68	78	91	99	100	--	--
JUN											
22...	0215	42	61	80	93	96	99	100	--	--	--
DATE	TIME	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM		
JAN											
12...	1730	14	--	63	83	98	99	100	--		
JUL											
18...	1050	6	31	--	--	--	--	--	100		

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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)
OCTOBER												
1	.58	.13	4.8	1.1	.23	.05	2.8	.60	.90	.20	60	13
2	.55	.12	4.8	1.1	.21	.05	2.7	.60	.80	.20	53	12
3	.53	.11	4.8	1.0	.19	.04	2.7	.60	.80	.20	45	9.6
4	.52	.10	4.8	.97	.17	.03	2.6	.50	.70	.10	40	8.0
5	.57	.11	5.1	1.0	.16	.03	2.3	.50	.70	.10	45	8.9
6	.55	.11	5.2	1.1	.16	.03	2.3	.50	.70	.10	50	10
7	.50	.10	5.2	1.1	.15	.03	2.6	.50	.60	.10	37	7.7
8	.45	.09	5.2	1.0	.14	.03	2.9	.60	.50	.10	31	6.1
9	.90	.34	4.8	1.7	.36	.14	3.8	1.4	1.5	.60	148	55
10	1.3	.46	4.2	1.5	.44	.16	6.5	2.4	1.6	.60	86	32
11	1.2	.30	4.4	1.1	.40	.10	10	2.6	1.0	.30	43	11
12	1.1	.25	4.4	1.0	.37	.08	14	3.2	.90	.20	28	6.4
13	.65	.14	4.7	1.0	.24	.05	12	2.7	.90	.20	29	6.3
14	.39	.10	4.8	1.2	.16	.04	9.4	2.4	1.1	.30	40	10
15	2.8	3.2	3.6	4.1	1.3	1.5	10	12	8.2	9.3	698	785
16	1.9	.87	3.8	1.7	.78	.36	8.9	4.1	3.2	1.5	138	63
17	1.2	.49	4.2	1.8	.52	.22	7.8	3.3	2.0	.90	70	30
18	.90	.35	4.8	1.8	.34	.13	6.6	2.5	1.2	.50	51	20
19	.55	.19	5.3	1.8	.24	.08	7.0	2.4	1.0	.40	33	11
20	.40	.13	5.4	1.8	.18	.06	7.0	2.3	.80	.20	36	12
21	.44	.13	5.5	1.6	.16	.05	4.8	1.4	.50	.10	22	6.5
22	.38	.11	5.5	1.6	.14	.04	3.6	1.0	.40	.10	25	7.1
23	.30	.08	5.5	1.5	.13	.04	2.6	.70	.30	.10	24	6.7
24	.18	.05	5.4	1.5	.12	.03	2.7	.70	.30	.10	25	6.8
25	.09	.02	5.4	1.4	.11	.03	3.0	.80	.30	.10	27	7.1
26	.13	.04	5.4	1.5	.10	.03	3.1	.90	.60	.20	30	8.3
27	.23	.08	5.3	1.7	.10	.03	3.3	1.1	.60	.20	34	11
28	.40	.12	5.1	1.5	.12	.04	3.7	1.1	.50	.10	30	9.1
29	.56	.15	4.9	1.3	.13	.04	4.1	1.1	.40	.10	23	6.2
30	.50	.13	5.0	1.3	.12	.03	3.5	.90	.20	.10	21	5.4
31	.42	.11	5.1	1.3	.11	.03	2.7	.70	.10	.00	18	4.6
TOTAL	---	8.71	---	45.07	---	3.60	---	56.10	---	17.20	---	1195.8
NOVEMBER												
1	.42	.10	5.1	1.3	.10	.02	2.6	.70	.10	.00	18	4.5
2	.42	.10	5.1	1.3	.10	.02	2.5	.60	.10	.00	32	8.0
3	.43	.11	5.1	1.3	.10	.03	2.5	.70	.10	.00	30	7.8
4	.67	.25	4.5	1.7	.21	.08	4.7	1.8	1.0	.40	44	16
5	.65	.19	4.3	1.2	.19	.06	4.5	1.3	1.2	.40	28	8.2
6	.51	.15	4.3	1.2	.19	.06	4.3	1.2	2.1	.60	36	10
7	1.5	.98	3.6	2.3	.50	.32	7.6	4.9	2.9	1.9	172	111
8	1.2	.61	4.1	2.0	.40	.20	7.6	3.7	3.4	1.7	80	39
9	1.0	.43	4.4	1.9	.26	.11	5.3	2.3	1.2	.50	72	31
10	1.6	.67	4.3	1.8	.58	.25	13	5.7	3.5	1.5	209	90
11	5.1	4.9	3.6	3.4	1.6	1.5	9.4	8.9	9.9	9.4	850	810
12	2.0	.93	4.4	2.1	.75	.35	7.5	3.5	4.5	2.1	105	49
13	1.0	.40	4.7	1.9	.35	.14	4.5	1.8	2.2	.90	48	19
14	.60	.22	5.0	1.9	.18	.07	2.8	1.0	1.2	.50	25	9.3
15	.20	.07	5.8	2.1	.11	.04	1.6	.60	.30	.10	20	7.1
16	.25	.09	6.0	2.1	.13	.04	1.3	.50	.60	.20	40	14
17	.45	.16	6.0	2.1	.14	.05	1.4	.50	1.0	.40	43	15
18	.42	.17	5.6	2.3	.17	.07	2.5	1.0	1.5	.60	45	19
19	.36	.13	5.6	2.0	.16	.06	1.5	.50	1.3	.50	37	13
20	.35	.12	5.6	1.9	.14	.05	1.0	.30	.80	.30	25	8.4
21	.25	.08	5.7	1.9	.12	.04	1.0	.30	.40	.10	25	8.2
22	.30	.10	5.8	2.0	.11	.04	2.0	.70	.20	.10	28	9.5
23	1.4	.80	5.1	3.0	.30	.18	10	6.1	2.5	1.5	122	73
24	1.2	.60	5.1	2.5	.34	.16	8.6	4.2	1.8	.90	101	50
25	.90	.37	5.2	2.2	.22	.09	8.7	3.6	1.1	.50	63	26
26	3.0	3.6	3.9	4.7	1.2	1.4	10	12	9.0	11	557	669
27	1.6	.92	4.5	2.5	.56	.32	14	7.9	4.5	2.5	169	95
28	.80	.38	5.1	2.4	.30	.14	10	4.8	3.4	1.6	110	53
29	.50	.23	5.6	2.6	.17	.08	6.0	2.8	1.9	.90	80	37
30	.31	.15	6.0	2.9	.13	.06	7.5	3.6	1.2	.60	64	31
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	18.01	---	64.5	---	6.03	---	87.50	---	41.70	---	2341.0

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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)
DECEMBER												
1	2.9	4.0	4.1	5.7	1.1	1.6	10	15	9.0	12	595	829
2	1.3	.93	4.6	3.2	.57	.40	13	9.1	3.6	2.5	191	133
3	.50	.28	5.4	3.1	.28	.16	15	8.4	2.2	1.2	105	60
4	.20	.10	6.1	3.2	.17	.09	12	6.3	.60	.30	43	23
5	.26	.14	6.5	3.5	.15	.08	9.9	5.4	.80	.40	38	21
6	.75	.48	6.1	3.9	.18	.11	11	6.7	1.4	.90	66	42
7	.75	.38	6.0	3.1	.15	.08	9.3	4.8	1.8	.90	33	17
8	.55	.26	6.5	3.1	.13	.06	6.4	3.0	1.1	.50	20	9.4
9	.35	.17	7.0	3.4	.11	.05	9.0	4.4	.60	.30	20	9.7
10	.40	.19	7.0	3.3	.10	.05	9.2	4.3	.50	.20	20	9.3
11	.42	.19	7.0	3.2	.10	.05	7.2	3.3	.50	.20	20	9.2
12	.45	.21	7.0	3.2	.10	.05	5.2	2.4	.50	.20	20	9.2
13	.49	.22	6.8	3.1	.10	.05	3.2	1.4	.50	.20	20	9.1
14	.56	.28	6.2	3.1	.14	.07	1.8	.90	.90	.50	34	17
15	1.3	.88	5.5	3.8	.26	.18	3.7	2.6	1.6	1.1	110	75
16	1.7	.85	6.0	3.0	.23	.12	2.0	1.0	.60	.30	55	28
17	1.8	.85	6.0	2.8	.22	.10	2.0	.90	.50	.20	30	14
18	14	58	2.8	12	4.6	19	7.5	32	25	110	5140	21700
19	8.8	26	3.9	12	3.5	11	6.3	19	26	78	2350	7020
20	2.7	3.1	5.7	6.4	.53	.59	7.4	8.3	3.7	4.2	292	327
21	2.2	4.9	4.7	10	.65	1.4	11	23	6.1	14	849	1860
22	1.7	2.3	5.2	7.0	.52	.70	3.7	5.0	3.0	4.0	280	375
23	1.2	1.1	5.7	5.4	.41	.39	2.6	2.5	2.4	2.3	105	100
24	.90	.77	6.3	5.4	.34	.29	2.5	2.1	2.0	1.7	45	38
25	.65	.50	6.6	5.1	.28	.22	2.4	1.8	1.6	1.2	35	27
26	.48	.34	6.9	4.8	.22	.15	2.3	1.6	1.2	.80	30	21
27	.33	.21	7.4	4.8	.16	.10	2.3	1.5	.80	.50	28	18
28	.30	.19	7.4	4.8	.14	.09	2.2	1.4	.70	.50	26	17
29	.29	.18	7.4	4.7	.13	.08	2.1	1.3	.60	.40	24	15
30	.29	.18	7.4	4.7	.13	.08	2.0	1.3	.60	.40	22	14
31	.29	.18	7.4	4.7	.13	.08	1.9	1.2	.50	.30	20	13
TOTAL	---	108.36	---	149.5	---	37.47	---	181.90	---	240.20	---	32859.9
JANUARY												
1	.27	.17	7.4	4.6	.11	.07	1.8	1.1	.50	.30	21	13
2	.23	.14	7.4	4.6	.09	.06	1.8	1.1	.50	.30	21	13
3	.10	.06	7.4	4.3	.09	.05	1.7	1.0	.30	.20	22	13
4	.07	.04	7.6	4.1	.07	.04	1.7	.90	.20	.10	23	12
5	.07	.04	7.6	4.2	.07	.04	1.6	.90	.10	.10	24	13
6	.07	.04	7.6	4.2	.06	.03	2.1	1.2	.10	.10	32	18
7	.03	.02	7.5	4.2	.08	.04	6.4	3.6	.20	.10	41	23
8	.45	.28	7.2	4.5	.07	.05	7.6	4.7	.70	.40	82	51
9	12	58	2.8	12	4.7	23	9.4	46	26	130	4670	22800
10	4.1	3.6	4.4	3.9	1.3	1.2	9.6	8.7	33	30	916	826
11	1.4	1.4	7.1	7.3	.22	.22	7.7	7.8	22	23	247	252
12	.48	.45	7.4	7.0	.16	.15	3.4	3.2	5.1	4.8	109	102
13	.15	.11	7.3	5.5	.16	.12	1.7	1.3	.90	.60	110	82
14	1.3	2.9	4.1	8.8	.38	.83	8.8	19	7.0	15	603	1310
15	1.3	1.3	4.4	4.2	.34	.32	2.7	2.6	2.2	2.0	146	138
16	1.0	.76	7.0	5.3	.15	.11	2.2	1.7	.10	.10	68	52
17	.65	.50	7.2	5.6	.12	.09	1.5	1.1	.70	.60	62	49
18	1.6	3.4	4.7	10	.46	.97	3.9	8.3	5.1	11	576	1220
19	1.4	1.6	4.7	5.3	.29	.33	2.3	2.6	1.2	1.4	155	175
20	.78	.67	5.8	5.0	.10	.09	2.9	2.5	.30	.20	207	177
21	.50	.41	6.8	5.6	.12	.10	1.8	1.5	.40	.30	250	206
22	.49	.38	7.2	5.7	.17	.13	1.1	.90	.20	.20	198	156
23	.46	.36	7.2	5.7	.16	.13	1.0	.80	.40	.30	130	102
24	.43	.33	7.2	5.6	.10	.08	1.0	.80	1.1	.80	78	59
25	2.9	6.9	4.1	9.7	.75	1.8	4.1	9.8	7.6	18	1900	4510
26	6.6	150	1.0	24	1.9	43	7.4	170	19	440	2930	67900
27	3.7	19	2.8	14	1.1	5.9	6.5	34	11	56	1470	7650
28	2.9	4.7	4.3	7.0	.44	.72	2.5	4.1	4.4	7.2	312	507
29	1.8	2.4	5.2	6.8	.22	.29	1.4	1.8	2.8	3.7	240	316
30	.80	.93	5.9	6.9	.17	.20	.30	.40	1.1	1.3	150	175
31	.25	.26	6.8	7.2	.08	.08	.20	.20	.40	.40	47	50
TOTAL	---	261.15	---	212.8	---	80.24	---	343.60	---	748.50	---	108970

PEQUEA CREEK BASIN

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01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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)
FEBRUARY												
1	.19	.18	7.0	6.7	.06	.06	.30	.20	.30	.30	45	43
2	.29	.27	7.1	6.6	.07	.07	.30	.30	.30	.20	43	40
3	.36	.32	7.3	6.4	.07	.06	.40	.30	.20	.20	40	35
4	.37	.31	7.4	6.3	.07	.06	.40	.30	.10	.10	36	30
5	.33	.27	7.4	6.0	.06	.05	.40	.30	.10	.10	33	27
6	.27	.22	7.3	5.8	.06	.05	.40	.30	.10	.10	33	26
7	.21	.14	7.2	5.0	.06	.04	.40	.30	.20	.10	32	22
8	.15	.14	7.1	6.7	.06	.06	.50	.40	.20	.20	31	29
9	.16	.14	7.2	6.4	.06	.05	1.7	1.5	.30	.30	31	28
10	.35	.30	6.9	5.8	.10	.08	3.2	2.7	.40	.30	50	42
11	.35	.28	6.9	5.6	.10	.08	2.2	1.8	.40	.30	48	39
12	.28	.22	6.8	5.2	.08	.06	2.5	1.9	.50	.40	37	28
13	.19	.14	6.9	5.1	.06	.04	2.8	2.1	.60	.40	25	18
14	.07	.05	6.8	4.6	.05	.03	3.1	2.1	.60	.40	27	18
15	.11	.07	6.8	4.4	.04	.03	2.8	1.8	.70	.40	29	19
16	.24	.15	6.9	4.4	.03	.02	2.2	1.4	.60	.40	29	19
17	.25	.16	7.1	4.5	.04	.03	2.0	1.3	.40	.20	27	17
18	.26	.16	7.3	4.6	.05	.03	1.7	1.1	.10	.10	26	16
19	.28	.17	7.4	4.6	.04	.02	1.6	1.0	.10	.00	23	14
20	.28	.17	7.3	4.3	.04	.02	1.4	.80	.20	.10	17	10
21	.29	.17	7.4	4.4	.04	.02	1.1	.60	.50	.30	15	8.9
22	.30	.17	7.4	4.3	.05	.03	1.3	.80	.40	.30	18	10
23	.30	.17	6.9	3.9	.04	.02	2.0	1.1	.10	.00	15	8.5
24	.32	.19	6.7	4.0	.04	.02	2.8	1.7	.00	.00	13	7.7
25	.36	.21	6.8	4.0	.06	.03	3.8	2.2	.00	.00	16	9.3
26	.39	.23	7.0	4.2	.07	.04	4.8	2.9	.10	.00	18	11
27	.40	.23	7.0	4.1	.06	.03	5.6	3.2	.10	.10	16	9.3
28	.42	.24	7.0	4.0	.05	.03	6.3	3.6	.40	.20	13	7.3
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	5.47	---	141.9	---	1.16	---	38.00	---	5.50	---	592.0
MARCH												
1	.43	.24	7.0	3.9	.05	.03	6.5	3.4	.70	.40	11	6.2
2	.30	.16	6.9	3.8	.04	.02	4.0	2.2	.50	.30	11	6.0
3	.23	.13	6.8	3.8	.04	.02	2.0	1.1	.30	.20	10	5.5
4	.53	.28	6.7	3.6	.04	.02	1.6	.90	.30	.20	11	5.9
5	.83	.43	6.7	3.5	.03	.02	1.4	.70	.30	.20	12	6.3
6	.50	.26	6.7	3.5	.03	.02	1.5	.80	.40	.20	14	7.3
7	.15	.07	6.8	3.4	.03	.01	1.6	.80	.50	.20	16	8.0
8	.18	.09	6.9	3.5	.03	.02	1.7	.80	.50	.30	14	7.0
9	.24	.12	6.8	3.4	.03	.02	2.0	1.0	.80	.40	12	6.1
10	.16	.08	6.7	3.4	.03	.02	2.7	1.4	2.0	1.0	13	6.7
11	.95	.55	6.6	3.8	.08	.05	4.5	2.6	1.3	.80	15	8.6
12	3.4	3.3	5.4	5.3	.44	.43	15	15	9.3	9.1	144	140
13	12	23	3.7	7.5	1.2	2.5	19	38	8.7	18	948	1910
14	13	80	1.6	10	3.3	20	28	170	33	200	4370	26900
15	11	59	1.8	9.6	2.8	15	20	110	29	160	2980	16300
16	2.6	5.1	3.6	7.1	.52	1.0	13	25	4.8	9.4	406	793
17	1.5	1.8	5.0	6.0	.25	.30	5.4	6.5	1.8	2.1	119	145
18	1.2	1.2	5.6	5.7	.20	.20	3.5	3.5	1.7	1.7	85	86
19	3.2	5.0	5.3	8.2	.66	1.0	2.5	3.9	8.9	14	837	1300
20	3.7	5.6	4.3	6.5	1.1	1.7	3.9	5.8	8.1	12	905	1370
21	1.1	1.2	5.6	6.1	.30	.33	3.2	3.5	2.2	2.4	135	147
22	.75	.87	5.6	6.5	.18	.21	3.0	3.5	1.5	1.8	96	112
23	.70	.69	5.7	5.6	.15	.15	2.3	2.3	1.2	1.2	85	84
24	.65	.59	5.8	5.3	.12	.11	1.8	1.6	1.0	.90	74	67
25	1.0	.82	5.9	4.9	.11	.09	1.8	1.5	.70	.60	54	44
26	10	55	3.1	16	3.4	18	5.5	29	29	150	3980	21100
27	6.5	47	2.5	18	2.5	18	5.4	40	18	130	2180	16000
28	3.6	7.5	4.7	9.7	.46	.96	5.1	11	3.6	7.4	466	973
29	.31	.55	6.0	11	.12	.21	2.0	3.6	1.2	2.2	153	272
30	.13	.17	6.2	8.1	.10	.13	2.1	2.8	.70	.90	78	102
31	.13	.15	6.2	7.1	.09	.10	2.1	2.4	.60	.70	55	63
TOTAL	---	300.95	---	203.8	---	80.67	---	494.60	---	728.60	---	87981.6

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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												
1	.10	.11	6.3	6.9	.08	.09	1.6	1.8	.50	.60	47	51
2	.11	.11	6.3	6.3	.07	.07	1.2	1.2	.50	.50	39	39
3	.13	.12	6.3	5.9	.06	.06	2.5	2.3	.40	.40	57	53
4	.11	.11	6.3	6.2	.06	.06	3.0	2.9	.40	.40	57	56
5	.07	.07	6.2	6.1	.06	.06	3.0	3.0	.30	.30	47	46
6	.04	.04	6.2	5.5	.06	.05	3.0	2.6	.30	.30	37	33
7	.02	.02	6.1	5.5	.05	.04	3.1	2.8	.30	.30	28	25
8	.00	.00	6.1	5.1	.05	.04	3.1	2.6	.30	.20	19	16
9	.05	.05	6.0	4.7	.04	.03	2.5	2.0	.30	.30	17	13
10	.15	.12	5.9	4.5	.03	.02	2.0	1.5	.40	.30	14	11
11	.26	.20	6.1	4.6	.02	.02	3.0	2.3	.50	.40	21	16
12	.35	.26	6.1	4.5	.02	.01	3.4	2.5	.60	.50	21	15
13	.34	.24	6.0	4.3	.03	.02	2.6	1.8	.70	.50	16	11
14	.25	.17	5.9	4.1	.02	.01	2.5	1.7	.60	.40	14	9.7
15	.19	.13	5.8	4.0	.01	.01	2.5	1.7	.60	.40	13	8.8
16	.22	.14	5.9	3.9	.01	.01	1.6	1.1	.60	.40	12	7.8
17	.23	.15	6.0	3.9	.01	.01	1.0	.70	.60	.40	10	6.5
18	.11	.07	6.1	3.9	.01	.01	16	11	.60	.40	11	7.0
19	.31	.22	6.0	4.2	.02	.01	19	13	.70	.50	16	11
20	.37	.31	5.7	4.8	.07	.06	21	18	.90	.80	39	33
21	.39	.27	5.7	3.9	.04	.03	21	15	.80	.60	22	15
22	.32	.21	5.6	3.6	.03	.02	21	14	.60	.40	13	8.4
23	.28	.17	5.7	3.5	.04	.02	21	13	.40	.30	33	20
24	.26	.16	5.9	3.6	.03	.02	22	14	.40	.30	41	25
25	.24	.15	5.8	3.5	.02	.01	23	14	.50	.30	34	20
26	.24	.14	5.8	3.4	.02	.01	22	13	.60	.40	25	15
27	.26	.15	5.8	3.4	.02	.01	21	12	.70	.40	13	7.6
28	.28	.16	5.8	3.4	.02	.01	11	6.2	.50	.30	10	5.8
29	.28	.16	5.8	3.3	.02	.01	4.8	2.7	.30	.20	12	6.8
30	.27	.15	5.7	3.2	.02	.01	4.0	2.3	.50	.30	13	7.3
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	4.36	---	133.7	---	0.84	---	182.70	---	11.80	---	599.7
MAY												
1	.24	.13	5.7	3.2	.01	.01	3.1	1.7	.70	.40	13	7.2
2	.24	.13	5.6	3.0	.01	.01	3.1	1.7	.70	.40	12	6.5
3	.33	.18	5.6	3.0	.01	.01	5.9	3.2	.50	.30	10	5.4
4	.42	.23	5.8	3.2	.02	.01	7.5	4.1	.40	.20	11	6.0
5	.45	.27	5.6	3.3	.06	.04	3.0	1.8	.40	.20	14	8.3
6	.36	.21	5.8	3.3	.10	.06	2.3	1.3	.60	.40	10	5.7
7	.36	.20	5.9	3.2	.05	.03	2.5	1.4	.70	.40	9	4.9
8	.45	.24	5.6	3.0	.03	.02	2.4	1.3	.70	.40	12	6.4
9	.63	.40	5.3	3.4	.06	.04	2.6	1.6	1.2	.80	28	18
10	.94	.62	5.1	3.4	.13	.08	4.0	2.6	1.8	1.2	34	22
11	.67	.37	5.1	2.8	.06	.04	5.8	3.2	1.2	.70	20	11
12	.71	.37	5.1	2.7	.07	.04	4.4	2.3	1.6	.80	10	5.3
13	.38	.20	5.3	2.8	.06	.03	5.2	2.7	1.2	.60	14	7.4
14	1.3	1.4	4.9	5.0	.36	.37	4.5	4.6	4.5	4.6	343	351
15	6.9	16	3.6	8.3	2.3	5.2	11	25	19	43	1850	4230
16	1.5	1.9	4.7	5.9	.35	.43	4.9	6.2	3.4	4.3	131	165
17	1.1	1.2	5.0	5.3	.23	.24	5.3	5.6	2.5	2.6	82	87
18	.86	.77	5.4	4.9	.12	.11	3.8	3.4	1.8	1.6	47	42
19	.50	.43	5.7	4.9	.12	.10	2.8	2.4	1.2	1.0	54	47
20	.50	.38	5.5	4.2	.13	.10	2.6	2.0	1.1	.80	43	33
21	.63	.45	5.6	4.0	.13	.09	2.9	2.1	1.2	.90	45	32
22	.58	.39	5.9	4.0	.12	.08	2.4	1.6	.80	.50	42	28
23	.42	.27	5.9	3.8	.11	.07	1.9	1.2	.80	.50	41	27
24	.52	.37	5.8	4.1	.12	.08	1.9	1.3	.80	.60	55	39
25	.73	.51	5.8	4.1	.13	.09	2.1	1.5	.70	.50	44	31
26	.70	.44	5.7	3.6	.15	.09	3.2	2.0	.70	.40	57	36
27	.58	.35	5.8	3.5	.12	.07	3.4	2.1	1.0	.60	24	14
28	.48	.29	5.9	3.5	.10	.06	3.4	2.0	.90	.50	31	19
29	.44	.26	5.9	3.5	.10	.06	2.1	1.2	.90	.50	28	17
30	.43	.25	5.9	3.4	.12	.07	2.8	1.6	1.0	.60	20	12
31	.27	.15	5.9	3.4	.11	.06	2.6	1.5	1.1	.60	24	14
TOTAL	---	29.36	---	119.7	---	7.79	---	96.2	---	70.90	---	5338.1

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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												
1	.40	.22	5.8	3.2	.10	.06	7.9	4.4	2.0	1.1	34	19
2	.13	.07	5.8	3.1	.09	.05	4.0	2.2	1.1	.60	32	17
3	1.2	.77	5.6	3.6	.52	.33	5.5	3.5	2.2	1.4	206	133
4	1.6	1.2	5.3	3.9	.31	.22	6.1	4.4	1.9	1.4	124	90
5	.90	.52	5.4	3.1	.20	.12	7.1	4.1	2.0	1.2	79	45
6	.68	.37	5.4	3.0	.17	.09	3.2	1.8	1.2	.60	53	29
7	.68	.36	5.8	3.0	.15	.08	4.8	2.5	.80	.40	37	20
8	.52	.29	5.8	3.2	.13	.07	5.6	3.1	1.5	.80	50	28
9	.48	.26	5.7	3.1	.13	.07	4.2	2.3	1.4	.80	74	41
10	.61	.31	5.7	2.9	.14	.07	3.8	1.9	1.4	.70	67	34
11	.64	.31	5.6	2.8	.14	.07	3.1	1.5	1.5	.70	72	35
12	.36	.17	5.8	2.8	.13	.06	3.7	1.8	1.4	.70	70	33
13	.36	.18	5.7	2.9	.13	.07	4.2	2.1	1.7	.80	73	37
14	.37	.18	5.6	2.7	.13	.06	3.2	1.5	1.4	.70	75	36
15	.36	.16	5.6	2.5	.13	.06	3.2	1.4	1.3	.60	76	34
16	.35	.15	5.6	2.4	.13	.06	3.2	1.4	1.3	.60	48	21
17	.34	.15	5.6	2.5	.14	.06	3.2	1.4	1.3	.60	37	16
18	.33	.15	5.6	2.5	.14	.06	3.2	1.4	1.3	.60	41	18
19	.32	.14	5.6	2.4	.15	.07	3.2	1.4	1.3	.60	40	18
20	.30	.12	5.6	2.3	.15	.06	3.2	1.3	1.3	.50	35	15
21	1.8	1.2	5.5	3.7	.89	.60	6.2	4.2	7.2	4.9	480	325
22	5.6	6.2	5.0	5.5	2.5	2.7	11	12	17	19	2030	2240
23	1.4	.65	5.1	2.4	.56	.27	10	4.9	2.4	1.1	155	74
24	1.1	.48	5.5	2.4	.48	.21	7.7	3.4	2.2	1.0	102	45
25	.82	.35	6.2	2.6	.21	.09	7.0	3.0	1.3	.60	80	34
26	.61	.25	6.3	2.6	.19	.08	4.3	1.8	.90	.40	64	27
27	8.5	48	2.6	15	5.2	30	10	58	31	180	6190	35400
28	11	9.7	3.6	3.2	3.3	3.0	9.7	8.7	11	9.5	1300	1160
29	2.0	1.1	5.7	3.2	.58	.33	6.2	3.5	2.0	1.1	197	111
30	.82	.42	6.3	3.2	.41	.21	2.8	1.4	1.6	.80	129	66
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	74.43	---	101.7	---	39.28	---	146.3	---	233.80	---	40201
JULY												
1	.78	.36	6.6	3.1	.39	.18	4.5	2.1	1.1	.50	108	50
2	.46	.21	6.6	3.0	.39	.18	1.8	.80	1.1	.50	82	37
3	4.1	11	3.7	9.8	2.5	6.6	6.0	16	12	31	2470	6580
4	2.9	5.7	2.9	5.8	2.3	4.5	7.3	15	11	23	1210	2440
5	.60	.43	4.9	3.5	.19	.14	3.3	2.4	1.8	1.3	130	94
6	.44	.28	6.4	4.0	.17	.11	2.6	1.6	1.2	.80	73	46
7	.35	.20	6.7	3.9	.14	.08	3.7	2.2	.90	.50	56	32
8	.28	.15	6.7	3.7	.12	.07	5.3	2.9	.80	.40	53	29
9	.29	.16	6.6	3.5	.11	.06	5.6	3.0	.60	.30	45	24
10	.30	.15	6.5	3.4	.10	.05	5.0	2.6	.60	.30	38	20
11	.27	.14	6.4	3.3	.09	.05	5.8	3.0	.60	.30	32	16
12	.21	.10	6.3	3.0	.08	.04	3.0	1.4	.70	.30	27	13
13	.22	.10	6.2	2.9	.08	.04	1.4	.60	.80	.40	24	11
14	.32	.15	6.4	2.9	.08	.04	1.1	.50	.50	.20	22	10
15	.32	.16	6.3	3.1	.09	.04	1.2	.60	.60	.30	22	11
16	.30	.14	6.2	2.9	.10	.05	1.5	.70	.90	.40	23	11
17	.35	.17	6.0	2.8	.08	.04	1.5	.70	.90	.40	23	11
18	.40	.18	6.2	2.8	.08	.04	2.1	1.0	.50	.20	18	8.1
19	.35	.15	6.0	2.6	.08	.04	2.7	1.2	.50	.20	18	7.9
20	.27	.12	5.9	2.5	.08	.03	3.8	1.6	.50	.20	17	7.2
21	.31	.13	5.8	2.4	.08	.03	4.8	2.0	.50	.20	17	7.1
22	.42	.17	5.8	2.4	.08	.03	4.8	2.0	.60	.20	18	7.3
23	.63	.26	5.8	2.4	.09	.04	4.4	1.8	.70	.30	18	7.3
24	.67	.26	5.8	2.3	.09	.04	3.9	1.5	.80	.30	18	7.0
25	.89	.45	5.5	2.7	.15	.07	3.7	1.9	1.3	.60	63	32
26	.78	.37	5.1	2.4	.23	.11	3.7	1.8	1.5	.70	60	28
27	.65	.26	5.5	2.2	.47	.19	3.9	1.6	.90	.40	40	16
28	.64	.28	5.5	2.4	.27	.12	3.8	1.7	1.2	.50	48	21
29	.50	.20	5.6	2.2	.30	.12	3.3	1.3	.90	.40	45	17
30	.32	.12	5.6	2.1	.34	.13	2.6	1.0	1.0	.40	43	16
31	.33	.13	5.5	2.2	.29	.11	3.1	1.2	1.0	.40	47	18
TOTAL	---	22.68	---	98.2	---	13.37	---	77.70	---	65.90	---	9634.9

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL KJELDAHL NITROGEN (N)		TOTAL NITRITE PLUS NITRATE (N)		TOTAL PHOS- PHORUS (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												
1	.68	.32	5.5	2.6	.23	.11	3.4	1.6	1.8	.80	81	38
2	.63	.27	5.4	2.3	.20	.09	3.2	1.4	1.1	.50	78	34
3	.35	.14	5.4	2.1	.17	.07	6.4	2.5	1.0	.40	51	20
4	.22	.08	5.5	2.1	.15	.06	6.5	2.5	1.0	.40	50	19
5	.37	.15	5.5	2.2	.15	.06	4.4	1.8	1.0	.40	64	25
6	.45	.17	5.5	2.1	.15	.06	3.9	1.5	1.0	.40	52	20
7	.34	.12	5.5	1.9	.15	.05	3.3	1.2	1.0	.40	46	16
8	.40	.14	5.5	2.0	.15	.05	2.8	1.0	1.0	.40	37	13
9	.42	.14	5.6	1.9	.14	.05	2.8	1.0	1.0	.30	38	13
10	.48	.16	5.7	1.9	.13	.04	2.9	1.0	1.0	.30	37	12
11	6.4	5.4	5.3	4.4	2.8	2.4	6.6	5.6	15	13	2420	2040
12	5.6	9.4	3.2	5.3	3.8	6.3	13	21	9.0	15	2970	4930
13	1.2	.50	3.9	1.6	.54	.22	3.8	1.5	1.3	.50	145	59
14	.96	.43	5.5	2.5	.42	.19	3.5	1.6	1.4	.60	177	80
15	.83	.31	5.6	2.1	.25	.09	2.9	1.1	.60	.20	57	21
16	.68	.25	5.7	2.1	.18	.07	2.9	1.1	.80	.30	73	27
17	.51	.19	5.8	2.1	.16	.06	3.3	1.2	.80	.30	66	24
18	.61	.20	5.8	1.9	.19	.06	5.3	1.8	.60	.20	40	13
19	.58	.19	5.8	1.9	.17	.05	4.5	1.4	.60	.20	39	12
20	.47	.15	5.8	1.8	.13	.04	3.8	1.2	.60	.20	37	12
21	.48	.14	5.6	1.7	.12	.04	3.2	1.0	.60	.20	28	8.3
22	.46	.13	5.7	1.7	.12	.04	2.9	.80	.60	.20	33	9.6
23	.36	.10	5.8	1.7	.11	.03	3.1	.90	.60	.20	30	8.8
24	.16	.05	5.7	1.6	.11	.03	3.4	1.0	.60	.20	25	7.2
25	.12	.03	5.7	1.6	.11	.03	3.0	.90	.60	.20	25	7.2
26	.10	.03	5.7	1.7	.11	.03	2.5	.70	.80	.20	30	8.9
27	.31	.10	5.6	1.8	.15	.05	2.4	.80	1.3	.40	75	23
28	2.7	3.6	4.4	5.9	.87	1.2	5.8	7.7	7.5	10	549	735
29	1.6	.96	2.6	1.6	.67	.40	7.0	4.2	4.2	2.5	149	90
30	1.0	.35	3.2	1.1	.42	.15	5.3	1.8	1.5	.50	66	23
31	.84	.31	4.8	1.8	.33	.12	4.0	1.5	1.4	.50	47	18
TOTAL	---	24.51	---	69.0	---	12.24	---	74.30	---	49.90	---	8367.0
SEPTEMBER												
1	.78	.42	5.6	3.0	.31	.16	3.5	1.9	1.9	1.0	76	41
2	.85	.33	5.2	2.0	.37	.14	3.4	1.3	1.5	.60	60	23
3	.75	.26	4.9	1.7	.30	.10	4.7	1.6	1.3	.40	43	15
4	.59	.19	5.2	1.7	.20	.07	3.3	1.1	1.1	.40	39	13
5	.47	.15	5.6	1.7	.15	.05	3.7	1.2	1.0	.30	35	11
6	.37	.11	5.9	1.8	.14	.04	2.0	.60	1.0	.30	31	9.4
7	.34	.10	5.9	1.7	.14	.04	2.0	.60	1.0	.30	26	7.6
8	.40	.12	5.6	1.6	.14	.04	2.1	.60	1.0	.30	27	7.9
9	.38	.11	5.6	1.6	.13	.04	2.1	.60	.90	.30	27	7.9
10	.27	.08	5.7	1.6	.12	.03	1.7	.50	.80	.20	22	6.3
11	.32	.09	5.7	1.6	.12	.03	1.6	.40	.80	.20	25	7.1
12	.28	.08	5.7	1.6	.13	.04	1.7	.50	.80	.20	28	8.0
13	.66	.28	5.0	2.2	.24	.10	2.9	1.2	1.6	.70	71	30
14	.63	.18	5.0	1.5	.17	.05	2.6	.80	.90	.30	26	7.6
15	.32	.09	5.3	1.5	.13	.04	1.7	.50	.80	.20	17	4.8
16	.21	.06	5.4	1.6	.12	.04	1.8	.50	1.0	.30	16	4.7
17	.24	.07	5.4	1.6	.11	.03	1.9	.50	1.0	.30	14	4.0
18	.30	.08	5.3	1.4	.11	.03	1.6	.40	.80	.20	12	3.3
19	.49	.24	5.3	2.7	.20	.10	2.1	1.0	3.2	1.6	80	40
20	.64	.26	5.1	2.1	.29	.12	3.0	1.2	2.1	.90	73	30
21	1.1	.33	4.6	1.4	.35	.11	4.3	1.3	1.2	.40	32	9.7
22	.91	.26	5.0	1.4	.27	.08	4.0	1.1	.60	.20	38	11
23	.57	.16	5.5	1.6	.18	.05	3.1	.90	.60	.20	34	9.6
24	.24	.06	6.2	1.7	.15	.04	1.7	.40	.50	.10	27	7.2
25	.23	.06	6.2	1.7	.14	.04	1.6	.40	.50	.10	26	7.0
26	.24	.06	5.9	1.6	.14	.04	1.6	.40	.50	.10	25	6.6
27	.23	.06	5.9	1.5	.14	.04	1.6	.40	.70	.20	24	6.1
28	.27	.07	5.8	1.5	.14	.04	1.7	.40	.80	.20	23	5.8
29	.30	.08	5.8	1.5	.12	.03	1.6	.40	.80	.20	19	4.9
30	.28	.07	5.8	1.5	.11	.03	1.6	.40	.70	.20	16	4.2
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	4.51	---	51.6	---	1.79	---	23.10	---	10.90	---	353.7

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL ATRAZINE		TOTAL PROMETONE		TOTAL 2,4-D		TOTAL 2,4,5-T		TOTAL CHLORDANE		TOTAL DDD	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
MAY												
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	.10	108	.10	108	.02	22	.00	.00	.00	.00	.00	.00
4	.10	110	.10	110	.02	24	.00	.00	.00	.00	.00	.00
5	.10	118	.10	118	.05	56	.00	.00	.00	.00	.00	.00
6	.17	194	.10	114	.06	70	.00	.00	.00	.00	.00	.00
7	.11	120	.10	108	.04	44	.00	.00	.00	.00	.00	.00
8	.10	108	.10	108	.01	5.4	.00	.00	.00	.00	.00	.00
9	.20	260	.30	400	.02	32	.00	.00	.00	.00	.00	.00
10	2.9	3800	.30	440	.29	380	.00	.00	.00	.00	.00	.00
11	.25	280	.10	110	.03	32	.00	.00	.00	.00	.00	.00
12	.28	300	.10	94	.03	28	.00	.00	.00	.00	.00	.00
13	.15	158	.10	32	.01	9.4	.00	.00	.00	.00	.00	.00
14	1.3	2800	.60	1200	.15	300	.01	22	.10	100	.01	2.0
15	1.6	7400	.30	1320	.25	1120	.01	44	.10	178	.00	.00
16	1.8	4600	.30	660	.12	300	.00	.00	.00	.00	.00	.00
17	1.6	3400	.20	420	.09	200	.00	.00	.00	.00	.00	.00
18	.75	1340	.20	340	.03	54	.00	.00	.00	.00	.00	.00
19	.42	720	.10	190	.04	70	.00	.00	.00	.00	.00	.00
20	.30	460	.10	154	.08	118	.00	.00	.00	.00	.00	.00
21	.20	280	.20	240	.04	64	.00	.00	.00	.00	.00	.00
22	.01	9.4	.10	6.8	.02	26	.00	.00	.00	.00	.00	.00
23	.25	320	.10	12	.01	5.2	.00	.00	.00	.00	.00	.00
24	.72	1020	.10	142	.02	26	.00	.00	.00	.00	.00	.00
25	.34	480	.20	260	.01	2.8	.00	.00	.00	.00	.00	.00
26	.30	380	.10	138	.00	.00	.00	.00	.00	.00	.00	.00
27	.21	260	.10	120	.01	6.0	.00	.00	.00	.00	.00	.00
28	.27	320	.10	120	.00	.00	.00	.00	.00	.00	.00	.00
29	.14	166	.10	130	.01	13	.00	.00	.00	.00	.00	.00
30	.17	198	.20	240	.01	14	.00	.00	.00	.00	.00	.00
31	.12	136	.40	520	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	---	29845.4	---	7434.8	---	3021.80	---	66.00	---	278.00	---	2.00

DAY	TOTAL DDE		TOTAL DDT		TOTAL DIAZANON		TOTAL DIELDRIN		TOTAL HEPTACHLOR		TOTAL LINDANE	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
MAY												
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.01	10	.00	.00	.01	10	.00	.00	.01	4.0
15	.00	.00	.01	20	.00	.00	.01	60	.00	.00	.01	.80
16	.00	.00	.00	.00	.00	.00	.01	2.0	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	---	0.00	---	30.00	---	0.00	---	72.00	---	0.00	---	4.80

PEQUEA CREEK BASIN

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL PROPA- ZINE		TOTAL PCB		TOTAL SILVEX	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
MAY						
1	---	---	---	---	---	---
2	---	---	---	---	---	---
3	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.40	.00	.00
10	.00	.00	.01	19	.00	.00
11	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.10	106
14	.00	.00	.03	68	.00	.00
15	.10	8.0	.05	240	.00	.00
16	.00	.00	.02	46	.00	.00
17	.00	.00	.01	4.0	.00	.00
18	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00
25	.00	.00	.01	4.0	.00	.00
26	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00
TOTAL	---	8.00	---	381.40	---	106.00

DAY	TOTAL ATRAZINE		TOTAL PROMETONE		TOTAL 2,4-D		TOTAL 2,4,5-T		TOTAL CHLORDANE		TOTAL DDD	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
JUNE												
1	.25	280	.70	780	.01	2.2	.00	.00	.00	.00	.00	.00
2	.27	300	.30	340	.03	32	.00	.00	.00	.00	.00	.00
3	2.7	3600	1.6	2000	.22	280	.00	.00	.10	.40	.00	.00
4	2.0	2800	.40	540	.07	100	.00	.00	.00	.00	.00	.00
5	1.7	1960	.30	380	.05	52	.00	.00	.00	.00	.00	.00
6	.75	820	.40	420	.03	32	.00	.00	.00	.00	.00	.00
7	.45	480	.30	320	.02	16	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
21	4.5	6000	.60	880	.05	70	.01	10	.10	20	.00	.00
22	7.8	17200	.20	440	.23	500	.01	14	.20	340	.00	.00
TOTAL	---	33440	---	6100	---	1084.2	---	24.00	---	360.40	---	0.00

PEQUEA CREEK BASIN

333

01576787 PEQUEA CREEK AT MARTIC FORGE, PA--Continued

DAY	TOTAL DDE		TOTAL DDT		TOTAL DIAZANON		TOTAL DIELDRIN		TOTAL HEPTACHLOR		TOTAL LINDANE	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
JUNE												
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	.40	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.01	2.0	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---	---	---	---	---	---	---
.	---	---	---	---	---	---	---	---	---	---	---	---
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.01	4.0	.01	24	.01	30	.01	13	.01	.00	.00	.00
TOTAL	---	4.00	---	24.40	---	32.00	---	13.00	---	0.00	---	0.00

DAY	TOTAL PROPA- ZINE		TOTAL PCB		TOTAL SILVEX	
	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)	MEAN CONCEN- TRATION (UG/L)	LOADS (LBS/DAY)
JUNE						
1	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	13	.00	.00
4	.00	.00	.01	8.0	.00	.00
5	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00
.	---	---	---	---	---	---
.	---	---	---	---	---	---
21	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00
TOTAL	---	0.00	---	21.00	---	0.00

PEQUEA CREEK BASIN

01576789 PEQUEA CREEK AT PEQUEA, PA

LOCATION.--Lat 39°53'39", long 76°21'34", Lancaster County, Hydrologic Unit 02050306, at footbridge in Pequea Recreational Area, 0.7 mi (1.1 km) southwest of Pequea, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--Not available.

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

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT								
27...	1015	9813	9813	410	8.3	13.5	9.0	170
NOV								
15...	1330	9813	9813	440	8.4	6.0	13.1	186
DEC								
14...	1215	9813	9813	410	8.0	3.0	12.8	184
JAN								
18...	1330	9813	9813	280	7.9	2.0	13.4	102
MAR								
22...	1300	9813	9813	360	--	--	--	140
APR								
24...	1130	9813	9813	380	--	14.0	10.8	170
MAY								
25...	1230	9813	9813	390	--	--	--	158
JUL								
31...	1235	9813	9813	400	8.6	20.5	8.6	161
SEP								
25...	1230	9813	9813	430	8.7	18.0	9.7	156

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)
OCT									
27...	0	--	43	--	16	148	20	16	318
NOV									
15...	--	49	--	17	--	146	28	17	284
DEC									
14...	--	47	--	18	--	136	180	15	258
JAN									
18...	--	28	--	8.2	--	76	14	20	320
MAR									
22...	--	41	--	9.9	--	110	24	18	80
APR									
24...	--	42	--	17	--	122	30	17	244
MAY									
25...	--	39	--	16	--	116	25	15	252
JUL									
31...	0	43	--	13	--	132	20	14	306
SEP									
25...	0	--	43	--	12	142	20	15	260

PEQUEA CREEK BASIN

335

01576789 PEQUEA CREEK AT PEQUEA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
OCT 27...	34	--	4.8	.04	.10	.16	1070	--
NOV 15...	6	--	4.6	.06	.15	.17	740	--
DEC 14...	16	274	7.0	.05	.13	.12	560	30
JAN 18...	112	432	.04	4.4	.38	.51	10170	--
MAR 22...	78	316	4.1	.06	.47	.23	3200	--
APR 24...	--	--	6.1	.05	.33	.07	100	--
MAY 25...	--	--	5.8	.07	.15	.21	1030	--
JUL 31...	--	--	5.7	.03	.10	.12	860	--
SEP 25...	--	--	5.6	.04	.07	.13	780	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PR)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
DEC 14...	1215	320	1	<10	<10	14	30	20	5
JUL 31...	1235	540	<3	10	<10	<50	--	<10	20

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) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those for periods of no gage-height record Oct. 6, Jan. 6-11, Jan. 14 to Mar. 3, July 18-30, which are fair.

AVERAGE DISCHARGE.--16 years, 7.86 ft³/s (0.223 m³/s), 17.85 in/yr (453 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,740 ft³/s (191 m³/s), probably occurred Jan. 26, 1978, gage height, 10.2 ft (3.109 m) from floodmark, from rating curve extended above 620 ft³/s (17.6 m³/s) on basis of slope-area measurement at gage height 7.7 ft (2.347 m); 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)
Dec. 18	1315	526 14.9	5.59 1.704	Mar. 26	1830	611 17.3	5.62 1.713
Jan. 26	Unknown	*6,740 191	*10.2 3.109	May 14	2000	496 14.0	5.36 1.634
Mar. 13	1500	680 19.3	5.76 1.756	July 3	1230	349 9.88	4.96 1.512
Mar. 19	1530	277 7.84	4.72 1.439				

Minimum discharge, 3.6 ft³/s (0.102 m³/s) Sept. 6-12, 23-30, minimum gage height, 2.50 ft (0.762 m) Mar. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	5.4	45	16	16	7.6	13	7.9	7.4	5.5	5.7	5.4
2	3.3	5.4	9.9	16	14	7.5	11	7.7	7.2	5.5	5.4	5.0
3	2.9	7.6	7.0	15	11	7.4	11	7.7	13	93	5.2	5.0
4	2.9	18	5.9	14	9.7	7.2	12	8.4	11	17	5.2	4.9
5	3.1	5.4	11	14	8.2	7.0	13	9.1	8.9	8.9	5.4	4.9
	3.0	5.0	8.8	14	7.6	6.8	11	8.4	7.4	7.2	5.2	4.7
	2.9	33	5.9	15	7.0	7.0	12	8.1	8.4	6.3	5.2	4.7
	2.9	11	5.0	30	8.8	7.0	10	8.4	9.4	5.9	5.0	4.7
9	23	7.6	5.4	77	8.8	7.2	9.7	22	7.9	5.7	5.0	4.7
10	4.4	25	4.4	15	8.8	7.4	9.7	23	6.8	5.7	5.2	4.6
11	3.6	28	3.9	8.2	8.7	8.9	9.7	19	6.3	5.7	7.9	4.7
12	3.3	9.9	3.9	7.5	8.7	15	9.7	18	6.3	5.5	5.5	6.1
13	3.3	7.6	4.4	7.0	8.6	42	9.4	19	6.8	5.5	5.2	14
14	21	5.9	23	23	8.6	152	9.1	93	5.9	5.5	5.0	5.0
15	47	5.4	14	13	8.5	63	9.1	57	5.7	5.7	5.0	5.0
16	8.8	5.4	7.0	6.8	8.4	17	9.4	44	5.7	5.5	5.0	4.9
17	12	8.2	5.9	6.8	8.3	13	9.4	29	5.7	5.5	5.0	4.9
18	5.9	7.0	143	20	8.3	12	9.4	25	5.7	5.5	4.9	4.9
19	5.9	5.4	53	12	8.3	54	12	18	5.7	5.5	4.9	5.7
20	5.4	5.0	30	6.7	8.3	25	14	15	5.5	5.6	4.9	4.9
21	5.4	5.0	62	6.8	8.2	24	8.6	13	22	5.6	4.7	4.9
22	5.0	6.4	27	6.6	8.2	19	9.1	10	9.4	5.4	4.7	4.9
23	5.0	29	25	6.0	8.2	14	8.6	10	5.9	5.2	4.7	4.7
24	5.4	9.9	23	5.5	8.1	12	8.6	13	5.7	5.4	4.7	4.7
25	5.4	11	30	50	8.0	11	8.4	10	5.5	5.7	4.7	4.7
26	5.9	43	21	350	7.8	179	8.4	9.4	5.5	5.5	4.7	4.7
27	7.6	9.9	19	120	7.8	64	8.1	8.9	24	5.0	5.0	4.7
28	6.4	8.2	18	40	7.7	21	8.1	8.9	8.4	5.4	27	10
29	5.9	8.8	16	30	---	17	7.9	8.4	5.7	5.2	5.0	3.6
30	5.9	11	16	25	---	15	7.9	7.9	5.7	5.0	5.0	3.6
31	5.4	---	18	19	---	13	---	7.9	---	5.3	5.0	---
TOTAL	231.2	353.4	671.4	995.9	248.6	863.0	297.3	555.1	244.5	274.9	181.0	159.2
MEAN	7.46	11.8	21.7	32.1	8.88	27.8	9.91	17.9	8.15	8.87	5.84	5.31
MAX	47	43	143	350	16	179	14	93	24	93	27	14
MIN	2.9	5.0	3.9	5.5	7.0	6.8	7.9	7.7	5.5	5.0	4.7	3.6
CFSM	1.25	1.97	3.63	5.37	1.49	4.65	1.66	2.99	1.36	1.48	.98	.89
IN.	1.44	2.20	4.18	6.19	1.55	5.37	1.85	3.45	1.52	1.71	1.13	.99

CAL YR 1977 TOTAL 2873.2 MEAN 7.87 MAX 143 MIN 2.9 CFSM 1.32 IN 17.87
WTR YR 1978 TOTAL 5075.5 MEAN 13.9 MAX 350 MIN 2.9 CFSM 2.32 IN 31.57

POTOMAC RIVER BASIN

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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) City of Cumberland datum.

REMARKS.--Records good except those for winter periods and period of no gage-height record, May 17 to June 26, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 31.9 ft³/s (0.903 m³/s), 14.34 in/yr (364 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)	
Mar. 14	2130	539	15.3	3.00	0.914	May 14	0545	547	15.5	3.01	0.917
Mar. 19	1600	476	13.5	2.91	0.887	May 16	1400	*678	19.2	3.18	0.969
Mar. 26	1800	412	11.7	2.82	0.860						

Minimum discharge, 4.6 ft³/s (0.13 m³/s) Oct. 1, 5, 6, 7, 8, gage height 1.16 ft (0.354 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	8.4	143	29	34	12	90	25	29	12	11	21
2	11	8.9	62	27	30	12	76	23	25	27	8.6	13
3	6.6	10	52	24	27	12	84	22	28	204	8.1	11
4	5.2	18	48	20	25	11	83	23	26	76	8.5	10
5	4.8	17	44	23	23	11	81	51	21	42	8.1	8.5
6	5.1	22	43	23	23	11	85	36	19	31	8.7	8.1
7	5.0	63	34	22	22	11	88	29	18	25	13	7.4
8	6.7	131	30	37	21	11	69	29	21	22	12	7.1
9	31	62	27	84	20	11	63	42	19	20	8.1	6.8
10	14	57	26	58	19	12	59	36	16	25	8.1	6.5
11	8.9	51	25	44	19	19	56	33	15	23	9.6	6.2
12	7.1	38	24	37	18	27	49	32	14	17	8.8	6.8
13	6.2	32	25	30	18	50	44	63	13	15	8.5	8.9
14	6.0	28	27	27	16	256	39	361	13	16	8.1	7.1
15	5.7	26	61	23	14	363	36	230	12	14	7.4	10
16	17	24	51	19	13	172	34	476	11	25	7.8	7.8
17	19	23	46	18	13	114	32	399	11	18	6.8	7.1
18	10	23	110	17	13	88	41	280	12	13	6.2	6.5
19	8.6	19	98	17	12	225	55	200	11	12	5.9	15
20	7.6	18	71	16	11	215	51	140	10	11	5.4	8.7
21	7.1	17	66	15	11	220	42	105	11	10	5.4	7.4
22	6.5	16	53	14	11	250	39	80	11	10	5.1	7.1
23	6.1	18	44	12	12	198	36	68	10	9.8	5.1	7.1
24	5.8	16	44	15	13	158	35	80	9.0	11	5.1	6.5
25	5.6	16	74	30	13	130	33	78	8.5	11	6.5	6.5
26	16	18	48	120	13	262	32	70	10	11	6.8	5.9
27	33	15	40	110	13	271	30	62	19	9.4	7.4	5.6
28	15	14	38	80	12	236	29	54	33	8.7	11	5.6
29	11	15	34	65	---	182	27	45	15	7.8	7.4	5.4
30	9.7	21	32	50	---	141	26	39	20	8.5	9.1	5.1
31	8.9	---	30	40	---	115	---	34	---	14	131	---
TOTAL	317.2	845.3	1550	1146	489	3806	1544	3245	490.5	759.2	368.6	245.7
MEAN	10.2	28.2	50.0	37.0	17.5	123	51.5	105	16.4	24.5	11.9	8.19
MAX	33	131	143	120	34	363	90	476	33	204	131	21
MIN	4.8	8.4	24	12	11	11	26	22	8.5	7.8	5.1	5.1
CFSM	.34	.93	1.66	1.23	.58	4.07	1.71	3.48	.54	.81	.39	.27
IN.	.39	1.04	1.91	1.41	.60	4.69	1.90	4.00	.60	.94	.45	.30

CAL YR 1977	TOTAL	10645.1	MEAN 29.2	MAX 394	MIN 3.4	CFSM .97	IN 13.11
WTR YR 1978	TOTAL	14806.5	MEAN 40.6	MAX 476	MIN 4.8	CFSM 1.34	IN 18.24

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) National Geodetic Vertical Datum of 1929. 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 periods of no gage-height record Jan. 26-30 and May 26 to June 27 and winter periods, which are fair.

AVERAGE DISCHARGE.--13 years, 12.6 ft³/s (0.357 m³/s), 15.99 in/yr (406 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)
Jan. 26	Unknown	*858 24.3	*7.76 2.365	May 15	1400	189 5.35	4.82 1.469
Mar. 14	2030	164 4.64	4.67 1.423				

Minimum discharge, .07 ft³/s (0.002 m³/s) Oct. 1; minimum gage-height, 2.68 ft (0.817 m) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	3.2	36	12	24	7.0	30	7.7	7.7	2.5	3.8	6.4
2	.22	2.9	42	11	22	7.0	24	7.2	7.0	5.6	3.3	3.6
3	.41	2.9	33	12	21	6.5	21	6.4	7.5	8.7	5.4	2.9
4	.19	4.6	25	22	20	6.2	19	6.8	7.0	7.7	30	2.5
5	.09	10	21	23	19	5.9	19	12	6.3	14	9.0	1.8
6	.09	11	19	13	14	5.5	18	9.7	5.6	11	6.0	1.5
7	.14	23	15	8.7	17	5.2	18	8.2	5.0	8.2	4.8	1.4
8	.14	43	13	8.7	16	4.9	16	8.7	5.4	7.2	3.9	1.1
9	2.7	36	11	27	15	4.9	16	15	5.4	6.0	3.4	1.0
10	4.5	27	10	23	15	4.8	16	15	4.6	4.9	3.2	.70
11	2.7	32	9.4	20	14	6.2	16	14	3.9	4.5	3.7	.61
12	1.8	28	8.8	19	13	8.7	14	13	3.4	3.9	3.7	.70
13	1.1	20	8.5	18	12	27	13	34	4.1	3.5	3.2	.90
14	1.0	14	8.0	18	12	130	11	90	3.8	3.1	2.7	.70
15	2.0	11	13	17	11	172	9.7	150	3.1	5.4	2.5	1.6
16	4.6	9.2	21	17	11	107	9.2	145	2.7	4.0	2.1	1.1
17	23	8.2	22	17	10	56	8.7	113	5.6	5.7	3.5	.90
18	23	6.8	34	16	10	62	8.7	91	8.3	4.5	1.6	1.0
19	14	5.6	53	16	9.6	52	15	63	5.0	3.3	1.5	1.1
20	9.7	4.9	44	16	9.1	70	16	44	3.3	2.6	1.4	.80
21	6.4	4.5	37	15	8.9	75	15	34	5.0	2.2	.98	.80
22	4.9	4.2	32	15	8.5	79	15	25	6.7	1.9	.87	.90
23	4.0	4.5	25	15	8.0	65	14	21	6.6	1.8	.87	.80
24	3.4	4.5	22	15	7.7	55	13	22	4.5	1.6	.78	.61
25	2.9	4.2	24	92	7.4	44	12	20	3.4	1.9	.78	.53
26	2.7	4.9	27	180	7.2	95	11	17	2.7	2.0	.98	.35
27	4.6	4.5	26	150	7.1	118	10	15	3.2	2.0	.69	.26
28	4.6	4.2	21	100	7.0	95	9.7	12	3.7	1.9	.98	.22
29	4.2	4.2	18	44	---	65	8.7	11	4.1	1.8	.87	.16
30	4.0	5.6	15	28	---	48	8.2	9.7	2.9	1.6	.53	.08
31	3.6	---	13	26	---	37	---	8.3	---	2.8	19	---
TOTAL	136.76	348.6	706.7	1014.4	360.5	1524.8	434.9	1048.7	147.5	137.8	126.03	37.02
MEAN	4.41	11.6	22.8	32.7	12.9	49.2	14.5	33.8	4.92	4.45	4.07	1.23
MAX	23	43	53	180	24	172	30	150	8.3	14	30	6.4
MIN	.08	2.9	8.0	8.7	7.0	4.8	8.2	6.4	2.7	1.6	.53	.08
CFSM	.41	1.08	2.13	3.06	1.21	4.60	1.36	3.16	.46	.42	.38	.12
IN.	.48	1.21	2.46	3.53	1.25	5.30	1.51	3.65	.51	.48	.44	.13

CAL YR 1977 TOTAL 3683.40 MEAN 10.1 MAX 106 MIN .01 CFSM .94 IN 12.80
WTR YR 1978 TOTAL 6023.71 MEAN 16.5 MAX 180 MIN .08 CFSM 1.54 IN 20.94

POTOMAC RIVER BASIN

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01614090 CONOCOCHEAQUE 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) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--18 years, 7.19 ft³/s (0.204 m³/s), 19.33 in/yr (491 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.--Peak discharges above base of 70 ft³/s (1.98 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)
Jan. 9	0345	99 2.80	2.70 0.823	May 14	1315	*100 2.83	*2.71 0.826
Mar. 26	1830	81 2.29	2.54 0.774	May 16	1730	96 2.72	2.67 0.814

Minimum daily discharge, 0.92 ft³/s (0.026 m³/s) Sept. 30. No flow June 19, 20 and part of June 15 and 16; diversion due to bridge construction upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.6	30	10	13	4.1	25	4.9	9.4	2.7	4.9	2.0
2	1.4	1.7	20	9.5	12	4.1	21	4.7	7.5	3.0	2.8	1.6
3	1.2	2.3	18	9.2	12	4.1	18	4.7	7.5	28	2.4	1.5
4	1.1	12	16	8.7	10	3.8	18	4.5	7.2	12	2.9	1.5
5	.99	4.1	16	8.4	9.7	3.6	16	5.4	6.5	6.8	2.3	1.5
6	1.2	5.1	16	8.2	9.3	3.4	15	7.5	5.9	5.1	2.2	1.5
7	1.1	30	13	7.8	9.0	3.3	15	5.4	6.5	4.3	12	1.4
8	1.1	37	11	17	8.7	3.0	12	4.7	6.5	3.9	7.2	1.4
9	2.6	18	10	53	8.4	3.0	11	7.5	5.6	3.7	2.6	1.4
10	1.9	23	9.5	25	8.0	2.9	10	6.5	4.9	3.6	2.1	1.4
11	1.4	23	9.0	21	7.5	3.3	10	5.1	4.7	3.3	2.0	1.6
12	1.2	17	8.6	18	7.3	4.3	9.7	4.9	5.1	3.0	2.1	1.6
13	1.1	15	8.6	17	6.8	5.1	9.0	5.1	4.7	2.9	3.6	1.5
14	1.2	12	13	16	6.4	16	7.9	47	4.0	2.9	2.6	1.5
15	4.1	11	13	14	6.0	22	7.5	65	3.5	2.9	2.1	1.4
16	2.8	10	9.7	13	5.7	20	7.2	86	2.8	2.9	1.9	1.3
17	5.9	10	9.4	12	5.6	17	6.8	78	3.7	2.8	1.8	1.3
18	2.5	9.0	21	11	5.5	14	6.8	58	3.8	2.6	1.7	1.4
19	1.9	7.5	17	11	5.3	17	9.7	43	3.4	2.5	1.7	1.5
20	2.0	6.8	16	10	5.2	19	9.7	33	3.1	2.4	1.5	1.8
21	1.6	7.2	25	9.5	5.0	22	7.2	28	4.3	2.3	1.5	1.6
22	1.6	6.8	19	8.8	4.7	41	6.5	23	5.6	2.2	1.5	1.4
23	1.5	10	17	8.4	4.9	44	6.2	20	3.1	2.2	1.5	1.2
24	1.5	7.5	16	8.0	4.9	50	5.9	19	3.0	2.1	1.4	1.2
25	1.3	7.2	20	19	4.7	38	5.6	17	2.8	3.0	1.4	1.2
26	1.6	10	16	47	4.5	54	5.4	15	2.8	2.7	1.4	1.2
27	5.1	7.2	15	26	4.3	70	5.4	13	3.6	2.4	1.5	1.2
28	2.3	6.8	13	21	4.3	59	5.1	12	4.7	2.5	1.6	1.2
29	1.9	6.8	12	18	---	47	5.1	11	3.7	2.1	1.5	.94
30	1.7	8.6	12	16	---	35	4.9	10	3.3	2.1	1.4	.92
31	1.6	---	11	15	---	29	---	9.7	---	3.0	3.4	---
TOTAL	59.69	334.2	460.8	496.5	198.7	662.0	302.6	658.6	143.2	127.9	80.5	42.16
MEAN	1.93	11.1	14.9	16.0	7.10	21.4	10.1	21.2	4.77	4.13	2.60	1.41
MAX	5.9	37	30	53	13	70	25	86	9.4	28	12	2.0
MIN	.99	1.6	8.6	7.8	4.3	2.9	4.9	4.5	2.8	2.1	1.4	.92
CFSM	.38	2.20	2.95	3.17	1.41	4.24	2.00	4.20	.95	.82	.52	.28
IN.	.44	2.46	3.39	3.66	1.46	4.88	2.23	4.85	1.05	.94	.59	.31

CAL YR	TOTAL	MEAN	MAX	MIN	CFSM	IN
YR 1977	2248.01	6.16	38	.38	1.22	16.56
YR 1978	3566.85	9.77	86	.92	1.94	26.27

CONOCOCHAGUE 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 Sept. 30, 1978 (discontinued).

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 poor, no gage height record Oct. 1-17, Dec. 25 to Jan. 27, June 7-27.

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. 1	0800	1,280 36.2	7.84 2.390	Mar. 19	2200	1,600 45.3	8.57 2.612
Dec. 18	1630	695 19.7	6.29 1.917	Mar. 26	2000	1,260 35.7	7.73 2.356
Dec. 21	1700	613 17.4	6.04 1.841	May 15	Unknown	*2,220 62.9	*9.95 3.033
Jan. 9	0800	1,470 41.6	8.31 2.533	Aug. 8	2400	1,610 45.6	8.62 2.627
Jan. 26	Unknown	1,770 50.1	8.98 2.737	Aug. 12	0700	504 14.3	5.69 1.734
Mar. 15	2100	1,430 40.5	8.21 2.502				

Minimum discharge, 4.8 ft³/s (0.14 m³/s) May 15, gage height, 3.20 ft (0.975 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	12	891	84	101	15	182	26	46	12	13	78
2	7.4	11	337	78	83	15	153	24	47	17	9.7	46
3	5.8	12	205	70	68	14	133	23	42	246	9.4	35
4	5.3	139	149	62	62	14	127	23	42	168	15	27
5	4.9	337	137	60	51	14	124	34	39	96	288	21
6	6.0	572	137	58	44	14	118	36	25	70	54	17
7	5.8	679	100	240	41	14	118	81	23	49	347	14
8	5.7	516	86	450	38	13	101	84	22	40	489	13
9	14	149	73	600	35	13	84	71	21	32	139	13
10	12	159	63	180	33	13	76	63	20	24	89	11
11	10	278	74	130	31	23	70	57	19	22	71	11
12	9.3	165	57	100	29	45	62	56	17	13	249	11
13	8.2	118	34	80	27	139	56	263	19	12	122	12
14	8.0	96	71	66	25	559	49	895	20	13	114	11
15	25	76	159	57	23	1300	45	1200	17	16	107	13
16	18	60	151	52	22	805	42	954	19	15	76	12
17	150	53	133	48	21	436	39	767	23	32	57	13
18	86	45	462	42	20	355	36	594	21	18	46	14
19	53	34	486	39	20	798	52	385	20	15	40	18
20	43	29	331	37	19	943	53	268	18	13	39	14
21	30	29	480	36	18	827	46	200	25	12	32	12
22	24	27	369	34	18	715	40	153	28	12	23	14
23	19	52	227	33	17	453	39	127	25	12	21	10
24	16	50	170	33	17	350	38	131	21	11	18	8.6
25	14	50	218	56	16	270	33	118	19	11	16	8.2
26	14	89	150	1200	16	760	33	98	17	11	14	7.7
27	21	81	130	459	16	924	33	74	18	11	12	8.2
28	17	70	110	305	15	534	30	66	23	12	12	9.0
29	14	65	100	198	---	350	28	60	15	10	11	8.6
30	13	105	95	145	---	263	27	57	15	9.7	10	9.0
31	12	---	87	125	---	216	---	52	---	11	124	---
TOTAL	678.6	4158	6272	5157	926	11204	2067	7040	726	1045.7	2667.1	499.3
MEAN	21.9	139	202	166	33.1	361	68.9	227	24.2	33.7	86.0	16.6
MAX	150	679	891	1200	101	1300	182	1200	47	246	489	78
MIN	4.9	11	34	33	15	13	27	23	15	9.7	9.4	7.7
CFSM	.35	2.21	3.21	2.64	.53	5.73	1.09	3.60	.38	.54	1.37	.26
IN.	.40	2.46	3.70	3.05	.55	6.62	1.22	4.16	.43	.62	1.57	.29
CAL YR 1977	TOTAL	26351.0	MEAN	72.2	MAX	1100	MIN	3.8	CFSM	1.15	IN	15.56
WTR YR 1978	TOTAL	42440.7	MEAN	116	MAX	1300	MIN	4.9	CFSM	1.84	IN	25.06

CONOCOCHIEAGUE CREEK BASIN

341

01614175 CONOCOCHIEAGUE 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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 18...	1040	9813	9813	290	7.7	7.0	10.9	3.2	110
NOV 14...	1130	9813	9813	260	7.8	5.0	12.3	1.6	118
DEC 12...	1130	9813	9813	330	--	.0	14.2	--	150
JAN 12...	1030	9813	9813	250	6.9	1.0	15.8	.7	110
FEB 15...	1110	9813	9813	350	7.7	1.5	13.7	.8	150
MAR 06...	1130	9813	9813	380	--	--	--	1.3	160
APR 11...	1020	9813	9813	310	8.5	14.0	11.8	--	116
MAY 04...	1015	9813	9813	250	--	--	--	--	140
JUL 13...	1230	9813	9813	440	8.5	19.0	10.0	.8	143
AUG 24...	1300	9813	9813	430	9.2	23.0	11.0	.3	190
SEP 13...	1115	9813	9813	470	8.5	18.0	8.8	--	220

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, TOTAL RESI- DUAL (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 18...	0	--	35	--	5.5	94	14	.00	17
NOV 14...	--	32	--	10	--	94	22	.00	12
DEC 12...	--	44	--	10	--	128	20	.00	13
JAN 12...	--	32	--	8.2	--	92	18	.00	11
FEB 15...	--	44	--	10	--	126	10	.00	13
MAR 06...	--	48	--	11	--	138	26	--	20
APR 11...	--	39	--	4.9	--	106	26	.00	12
MAY 04...	--	43	--	8.8	--	130	8.0	--	13
JUL 13...	--	52	--	3.5	--	154	25	--	14
AUG 24...	--	--	--	--	--	162	20	--	12
SEP 13...	0	67	--	13	--	170	30	.00	18

CONOCOCHEAQUE CREEK BASIN

01614175 CONOCOCHEAQUE CREEK AT WORLEYTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 18...	126	66	192	2.6	.05	.19	.20	.15	2360
NOV 14...	188	2	190	.20	.05	.11	.08	.03	440
DEC 12...	214	4	218	3.0	.03	.16	.15	.05	190
JAN 12...	179	13	192	3.5	.02	.15	.18	.06	559
FEB 15...	262	18	280	3.3	.04	.11	.10	.06	210
MAR 06...	146	0	146	3.5	.04	.13	.23	.08	80
APR 11...	192	--	--	3.3	.02	.20	.19	--	100
MAY 04...	212	--	--	2.5	.05	.11	.07	--	160
JUL 13...	258	20	278	.30	.03	.10	.35	.10	270
AUG 24...	286	--	294	3.1	.36	.10	.25	.15	120
SEP 13...	280	--	--	2.9	.09	1.3	.29	--	150

ANTIETAM CREEK BASIN

343

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	HARD- NESS (MG/L AS CAC03)
OCT 18...	1200	9813	9813	300	7.9	7.5	11.8	2.8	100
NOV 14...	1300	9813	9813	210	7.8	6.0	12.4	1.6	90
DEC 12...	1310	9813	9813	260	8.1	1.0	15.2	--	110
JAN 12...	1130	9813	9813	170	7.7	.5	14.8	1.1	80
FEB 15...	1245	9813	9813	270	8.2	3.0	16.6	2.2	104
MAR 06...	1300	9813	9813	290	--	--	--	--	120
APR 11...	1300	9813	9813	210	9.3	14.0	14.0	--	72
MAY 04...	1130	9813	9813	330	--	--	--	--	92
JUN 07...	1150	9813	9813	280	--	--	--	.4	102
JUL 13...	1000	9813	9813	330	7.7	15.0	9.7	2.4	200
AUG 24...	1115	9813	9813	920	7.6	19.0	9.6	2.9	154
SEP 13...	1300	9813	9813	370	7.9	16.0	9.7	--	110

DATE	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RINE, TOTAL RESI- DUAL (MG/L)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 18...	0	--	30	--	6.5	102	10	.00	21
NOV 14...	--	24	--	8.2	--	76	18	.00	12
DEC 12...	--	29	--	9.9	--	104	8.0	.00	11
JAN 12...	--	20	--	8.2	--	66	8.0	.00	10
FEB 15...	--	28	--	9.3	--	90	8.0	.00	16
MAR 06...	--	29	--	12	--	100	14	--	18
APR 11...	--	25	--	2.2	--	78	10	.00	10
MAY 04...	--	29	--	4.9	--	98	8.0	--	13
JUN 07...	--	28	--	8.2	--	92	15	--	16
JUL 13...	--	34	--	31	--	114	15	--	15
AUG 24...	--	--	--	--	--	154	15	--	20
SEP 13...	0	34	--	6.0	--	124	30	.00	63

ANTIETAM CREEK BASIN

01618950 EAST BRANCH ANTIETAM CREEK NEAR WAYNESBORO, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS: FE)
OCT 18...	182	10	192	1.9	.06	.94	1.0	.72	330
NOV 14...	116	6	122	1.8	.05	.87	.37	.29	410
DEC 12...	180	6	186	1.9	.03	.90	.40	.31	120
JAN 12...	132	40	172	2.2	.03	.31	1.4	.17	1416
FEB 15...	174	12	186	2.2	.04	.72	.35	.31	140
MAR 06...	78	0	78	2.6	.04	.94	.40	.32	60
APR 11...	128	--	--	1.9	.02	.55	.25	--	80
MAY 04...	182	--	--	1.1	.04	.78	.49	--	140
JUN 07...	180	20	200	3.6	.05	.50	.48	.30	120
JUL 13...	222	30	252	2.8	.05	.71	.42	.34	550
AUG 24...	274	--	280	3.6	--	2.5	1.3	.72	270
SEP 13...	228	--	--	1.1	.35	22	.62	--	380

MONOCACY RIVER BASIN

345

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 2.5 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, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	AGENCY ANALYZING SAMPLE (CODE NUMBER)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIO-CHEMICAL, 5 DAY (MG/L)	HARDNESS (MG/L AS CaCO3)
OCT 18...	1415	9813	9813	430	7.3	9.0	9.2	4.0	130
NOV 14...	1430	9813	9813	340	7.6	5.0	12.6	2.7	132
DEC 12...	1430	9813	9813	500	7.7	.0	12.8	--	158
JAN 12...	1330	9813	9813	350	7.6	.0	14.2	6.3	120
FEB 15...	1400	9813	9813	700	--	--	--	12	168
MAR 06...	1420	9813	9813	700	--	--	--	--	240
APR 11...	1445	9813	9813	460	7.9	14.0	11.2	--	120
MAY 04...	1400	9813	9813	500	--	--	--	--	162
JUN 06...	0900	9813	9813	--	--	--	--	9.6	174
JUL 18...	0915	9813	9813	500	--	--	--	--	124
18...	0945	9813	9813	--	7.3	21.0	4.3	--	--
AUG 24...	0900	9813	9813	800	7.4	21.0	3.2	14	202
SEP 13...	1445	9813	9813	800	7.5	21.0	4.5	--	148

DATE	ACIDITY CO2 (MG/L AS CaCO3)	CALCIUM TOTAL RECOVERABLE (MG/L AS Ca)	CALCIUM DISSOLVED (MG/L AS Ca)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS Mg)	MAGNESIUM, DISSOLVED (MG/L AS Mg)	ALKALINITY (MG/L AS CaCO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORINE, TOTAL RESIDUAL (MG/L)	CHLORIDE, DISSOLVED (MG/L AS Cl)
OCT 18...	0	--	37	--	9.5	96	46	.00	33
NOV 14...	--	32	--	13	--	74	54	.00	24
DEC 12...	--	39	--	16	--	108	66	.00	41
JAN 12...	--	32	--	11	--	78	53	.00	28
FEB 15...	--	42	--	17	--	124	58	.00	120
MAR 06...	--	49	--	31	--	130	68	--	110
APR 11...	--	38	--	6.6	--	100	56	--	37
MAY 04...	--	46	--	12	--	146	72	--	66
JUN 06...	--	--	--	--	--	142	60	--	52
JUL 18...	--	37	--	8.2	--	118	60	--	12
18...	--	--	--	--	--	--	--	5.0	--
AUG 24...	--	--	--	--	--	220	--	--	78
SEP 13...	0	40	--	11	--	212	120	.00	74

MONOCACY CREEK BASIN

01638890 ROCK CREEK NEAR GETTYSBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 18...	278	18	296	3.0	.37	1.8	1.4	1.1	420
NOV 14...	268	4	272	2.9	.10	1.2	.52	.41	260
DEC 12...	354	6	360	2.2	.11	2.6	2.6	1.2	290
JAN 12...	126	30	156	16	.10	1.9	1.5	.59	758
FEB 15...	434	<10	444	1.8	.13	9.0	1.9	1.5	280
MAR 06...	354	6	360	1.7	.09	5.5	2.9	4.0	250
APR 11...	284	--	--	1.4	.16	3.1	1.5	--	240
MAY 04...	400	--	--	1.6	.28	7.6	2.4	--	580
JUN 06...	410	10	420	2.1	.26	4.8	2.4	<.01	600
JUL 18...	324	38	362	.72	.10	1.2	1.9	1.4	440
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 24...	536	14	550	1.4	.34	24	5.8	5.0	560
SEP 13...	472	--	--	1.3	.42	12	5.6	--	510

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 1978

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	1970-78	11-02-77 7-11-78	129 45
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	1970-78	11-02-77 7-11-78	19 .89
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	1970-78	11-02-77 7-11-78	26 9.1
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 1976-78	5-03-78	73
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 Cordner Pond tributary.	29.3	1970-74 1976-78	5-03-78	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 1976-78	5-03-78	17
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 1976-78	5-02-78	8.5
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 1976-78	5-02-78	1.6

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1978--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 1976-78	5-02-78	23
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 1976-78	5-01-78	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	1970-78	5-04-78	126
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 1970-78	5-04-78	140
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	1970-78	5-03-78	93
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	1968-78	5-03-78	4.8
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	1970-78	11-01-77 7-12-78	4.1 .57
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	1976-78	11-02-77 7-19-78	34 3.2
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	1970-78	11-02-77 7-19-78	153 44
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	1970-78	11-02-77 7-19-78	33 6.3
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	1970-78	11-02-77 7-12-78	44 12
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 1970-78	11-01-77 7-12-78	.53 .13
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 1970-78	11-01-77 7-12-78	3.1 .84
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	1970-78	11-03-77 7-10-78	123 30

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1978--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	1970-78	11-01-77 7-10-78	79 23
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	1970-78	11-02-77 7-11-78	206 87
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	1970-78	11-01-77 7-10-78	91 35
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	1970-78	11-01-77 7-10-78	169 65
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 1970-78	5-05-78	209
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 1970-78	5-04-78	84
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	1970-78	5-04-78	41
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 1970-78	5-03-78	59
01559756	Shawnee Branch at Schellsburg, Pa.	Lat 40°02'17", long 78°39'16", Bedford County, at covered bridge, 0.4 mile upstream from mouth and 0.9 mile southwest of Schellsburg.	18.6	1968-78	5-03-78	12
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	1970-78	8-24-78	8.7
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 1970-78	5-01-78	43
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	1970-78	8-22-78	.15
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	1970-78	5-05-78 8-22-78	28 4.7

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1978--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	1970-78	8-21-78	14
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	1970-78	5-02-78	7.9
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	1968-78	8-22-78	.21
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 1978	9-07-78	59
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 1978	9-07-78	22
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	1970-78	5-04-78	4.8
*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	1970-78	5-04-78	3.8
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	1970-78	5-04-78	22
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	1970-78	8-24-78	.02
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	1968-78	8-24-78	1.9
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	1970-78	5-05-78	25

* Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at low-flow partial-record stations during water year 1978--Continued

Station No.	Station	Location	Drainage area (sq mi)	Period of record	Measurements Discharge Date (cfs)
		POTOMAC RIVER BASIN--Continued			
		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	1961-78	5-16-78 92

*Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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							
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 ^a 1969-78	1-09-78	5.34	a
Towanda Creek basin							
01532200	South Branch Towanda Creek at New Albany, Pa.	Lat 41°35'25", long 76°26'00", Bradford County, at culvert 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	1963-78	1-26-78	6.50	1,020
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	1963-78	3-15-78	6.15	466
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	1960-78	3-26-78	8.60	655
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	1962-78	Unknown	2.60	193
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 Germaina and 4.6 miles above mouth.	2.40	1964-78	--	<1.96	<45
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	1975-78	5-15-78	14.52	42,900

^a Operated as a continuous-record station.

a Not determined.

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							
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	1963-78	11-08-77 5-04-78	6.24 6.24	47 47
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	1961-78 discontinued	5-14-78	2.32	284
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 NGVD of 1929.	18.2	1961-78	5-14-78	e5.55	1,580
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 NGVD of 1929.	1.54	1959-78 discontinued	1-09-78	2.80	56
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	1962-78	5-15-78	c4.28	b160
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 NGVD of 1929.	93.7	1946-62 [#] 1963-78	5-15-78	c6.52	b1,710
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 NGVD of 1929.	1.68	1958-62 [#] 1963-78	5-15-78	c2.49	b273
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	1960-78 discontinued	1-26-78	7.96	412
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	1962-78	5-14-78	7.04	377
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	1964-78	1-26-78	5.37	290
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 1974-78	1-26-78	5.08	581

Operated as a continuous-record station.

b Approximately.

c Outside highwater mark.

d Using auxiliary gage.

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	Date	Annual maximum 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 NGVD of 1929.	8.63	1962-78	12-01-77	5.82	768
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	1964-78	12-01-77	5.60	640
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	1963-78	1-26-78	7.81	1,140
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 NGVD of 1929.	10.2	1961-78	3-21-78	8.13	b273
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 NGVD of 1929.	12.4	1961-78	1-09-78	8.38	1,290

* Also low-flow partial-record station.

b Approximately.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1978

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN						
Chemung River basin						
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# 1973-77	4-20-78 5-25-78 6-28-78 7-25-78 8-24-78 9-27-78	149 153 20 7.4 8.0 8.8
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.	-	1973-77	10-27-77 4-11-78 5-25-78 6-28-78 7-25-78 8-24-78 9-28-78	74 214 113 10 7.3 4.6 6.8
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	1975-77	10-27-77 5-25-78 6-28-78 7-25-78 9-28-78	8.5 13 1.2 1.3 1.2
West Branch Susquehanna River basin						
West Branch Susq. River	Susquehanna River	Lat 40°40'10", long 78°47'29", Cambria County, at 22nd Street Bridge in Barnesboro.	25.8	--	7-20-77	2,400
West Branch Susq. River	Susquehanna River	Lat 40°43'34", long 78°48'20", Indiana County, at Highway Bridge SH580 in Cherry Tree, 200 ft downstream from Cush Cushion Creek.	58.8	-	7-20-77	6,000
Brubaker Run	Clearfield Creek	Lat 40°37'20", long 78°30'12", Cambria County, at culvert on State Highway 53, at Dean, 0.1 mi upstream from mouth.	3.82	-	7-20-77	1,370
North Witmer Run	Clearfield Creek	Lat 40°46'12", long 78°32'59", Clearfield County, at mouth at Irvona.	30.8	-	7-20-77	10,000
Anderson Creek	West Branch Susquehanna River	Lat 40°58'31", long 78°31'50", Clearfield County, at bridge on Meadow Street in Curwensville and 0.7 mi upstream from mouth.	76.5	1975-76	5-2-78 7-19-78 9-07-78	84 14.8 16.8
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.	-	1975-77	5-02-78 6-15-78 9-06-78	5.6 7.4 .66
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 1975-77	3-21-78 6-13-78 9-14-78	1,510 396 87
Mosquito Creek	West Branch Susquehanna River	Lat 40°07'03", long 78°06'35", Clearfield County, at mouth, at Karthaus	71.2	1940-77	11-21-77 2-07-78 3-21-78 3-23-78	239 132 311 910
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	1975-77	10-11-77 12-15-77 8-02-78	746 4,770 83

Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--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						
*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 1974-77	11-02-77 4-07-78 7-19-78	153 1,600 20
Babb Creek	Pine Creek	Lat 41°35'43", long 77°17'39", Tioga County, at bridge on State Route 287 at Morris, 0.4 mi upstream from Wilson Creek	53.0	-	11-02-77 11-30-77 2-10-78 3-02-78 4-14-78 5-05-78 6-16-78 7-14-78 8-02-78 9-08-78 9-28-78	56 61 47 31 143 77 41 8.2 11 8.4 9.1
Wilson Creek	Babb Creek	Lat 41°38'51", long 77°18'26", Tioga County, on left bank, 0.6 mi upstream from Sand Run, along State Route 287, and 1.5 mi northwest of Antrim	12.6	-	11-02-77 11-30-77 12-29-77 2-09-78 3-01-78 4-13-78 5-03-78 6-16-78	7.1 9.1 14.2 8.2 4.0 24 5.3 4.0
Backswitch Mine Dis- charge	Wilson Creek	Lat 41°38'00", long 77°17'41", Tioga County, at mine discharge, 0.35 mi northwest of Antrim.	--	-	4-13-78 5-02-78 6-15-78 7-13-78 8-03-78 9-07-78 9-28-78	.81 .29 .26 .09 .11 .10 .11
Mitchell Mine No. 1 Discharge	Wilson Creek	Lat 41°37'46", long 77°18'13", Tioga County, 0.85 mi west of Antrim, 0.35 mi north of Anna S mine entrance and 0.05 mi north of Mitchell Mine No. 2 discharge.	--	-	11-02-77 11-30-77 12-29-77 2-09-78 3-01-78 4-12-78 5-02-78 6-16-78 7-13-78 8-02-78 9-28-78	.03 .02 .02 .03 .01 .02 .02 .03 .03 .03 .02
Bridge Run	Wilson Creek	Lat 41°37'32", long 77°17'43", Tioga County, at bridge on State Route 287, 0.6 mi south of Antrim and 2.2 mi north of Morris.	1.41	-	11-03-77 11-30-77 12-30-77 2-09-78 3-02-78 4-13-78 5-05-78 6-16-78 7-13-78 8-03-78 9-07-78 9-28-78	3.2 4.0 4.8 3.8 2.4 8.1 3.2 2.9 1.9 1.9 1.4 1.7
Anna S Mine No. 2 Dis- charge	Basswood Run	Lat 41°37'13", long 77°18'21", Tioga County, 1.25 mi southwest of Antrim, 0.4 mi northeast of Hunter Drift and 0.1 mi east of Anna S road.	--	-	11-03-77 12-01-77 3-01-78 4-13-78	.06 .12 .02 .34
Basswood Run	Wilson Creek	Lat 41°36'50", long 77°17'38", Tioga County, 1.2 mi south of Antrim, 20 ft east of State Route 287, and 1.4 mi north of Morris.	1.22	-	11-03-77 12-01-77 12-30-77 2-10-78 3-02-78 4-13-78 5-05-78 6-16-78 7-14-78 8-03-78 9-08-78 9-28-78	1.3 4.9 2.4 1.4 .74 3.2 1.4 1.4 .46 .48 .59 .55

* 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 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
West Branch Susquehanna River basin						
Wilson Creek	Babb Creek	Lat 41°35'51", long 77°17'50", Tioga County, at bridge on State Route 287, 0.3 mi north of Morris and 0.5 mi upstream from mouth of Wilson Creek	23.8	-	11-03-77 12-01-77 12-30-77 2-09-78 3-02-78 4-14-78 5-03-78 6-16-78 7-13-78 8-03-78 9-08-78 9-28-78	20 139 38 23 22 51 17 16 4.4 5.2 5.2 5.8
Unnamed Tributary	Paint Run	Lat 41°36'23", long 77°19'29", Tioga County, 1.9 mi northwest of Morris, 0.8 mi south of Rattler Mine Road, and 0.4 mi west of Plantation Road.	--	-	11-03-77 12-01-77 12-29-77 4-13-78 5-04-78 6-15-78 7-13-78 8-02-78 9-07-78 9-28-78	.09 .19 .15 .16 .05 .09 .02 .03 .03 .02
Stony Fork	Babb Creek	Lat 41°34'56", long 77°20'46", Tioga County, 2.3 mi northeast of Black- well and 0.85 mi upstream from mouth of Stony Fork.	37.1	-	11-03-77 12-01-77 2-10-78 3-01-78 4-03-78 4-14-78 6-16-78 7-13-78 8-03-78 9-07-78 9-29-78	22 260 25 16 19 66 14 2.8 4.3 3.5 4.2
Babb Creek	Pine Creek	Lat 41°33'21", long 77°22'42", Tioga County, at bridge on State Route 414 at Blackwell and 0.4 mi upstream from mouth of Babb Creek.	129	-	11-04-77 12-30-77 2-10-78 3-01-78 4-14-78 5-04-78 6-16-78 7-13-78 9-07-78 9-29-78	541 273 85 83 319 89 97 20 18 22
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	1977	5-17-78 7-11-78	1,680 256
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.	-	1969-77	12-20-77	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.	-	1977	5-17-78	86
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 1977	5-02-78	a65

a base flow.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
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	1970-77	8-25-78	13
South Branch Conewago Creek	Conewago Creek	Lat 39°44'08", long 76°57'36", York County, at Sheppard-Meyers Reservoirs, 4.7 miles south of Hanover, Pa.	--	1970-77	8-25-78	3.3
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.	--	1970-77	8-23-78	51
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	1977	12-14-77 12-21-77 1-12-78 2-23-78 3-14-78 3-14-78 4-13-78 7-19-78	74 104 86 88 902 1,500 85 53
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 up- stream from mouth.	1.62	1977	11-07-77 11-10-77 11-10-77 12-14-77 12-21-77 12-21-77 1-12-78 2-25-78 3-14-78 3-14-78 3-14-78 4-13-78 4-17-78 5-16-78 6-02-78 6-21-78 7-19-78 8-30-78	2.2 29 10 3.3 4.9 37 3.1 2.1 12 62 86 6.6 2.6 5.9 2.3 29 1.8 1.4
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	1977	11-07-77 12-21-77 1-12-78 2-23-78 3-14-78 3-14-78 4-13-78 5-16-78 7-19-78	136 168 132 98 2,380 3,160 161 189 86
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	1977	10-26-77 11-10-77 11-10-77 11-10-77 12-14-77 12-21-77 12-21-77 1-12-78 2-23-78 3-14-78 3-14-78 3-14-78 4-13-78 5-16-78 6-02-78 6-21-78 6-21-78 6-21-78 7-19-78 8-30-78	.34 .60 1.6 13 1.7 1.8 8.6 1.3 .99 4.3 14 53 1.1 1.7 .71 15 18 9.4 .56 .37

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Discharge measurements made at miscellaneous sites during water year 1978--Continued

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
SUSQUEHANNA RIVER BASIN--Continued						
Big Beaver Creek	Pequea Creek	Pequea Creek basin	20.4	1977	12-14-77	68
		Lat 39°56'28", long 76°14'28",			12-21-77	353
		Lancaster County, at bridge on			1-12-78	34
		Legislative Route 36091, 1 mi south-			2-23-78	38
		west of Refton, and 1.2 mi upstream from			3-14-78	105
		mouth.			3-14-78	303
					3-14-78	1,340
					4-13-78	35
					5-15-78	69
					6-21-78	127
					7-18-78	20
					8-30-78	15
Unnamed Tributary	Pequea Creek	Lat 39°54'28", long 76°19'06",	1.56	1977	11-10-77	5.2
		Lancaster County, at bridge on			11-10-77	3.8
		State Highway 324 at Martic Forge			11-11-77	2.6
		0.6 mi upstream from mouth.			11-22-77	1.3
					12-14-77	2.8
					12-21-77	16
					1-12-78	5.1
					2-23-78	1.9
					3-14-78	3.1
					3-14-78	9.6
					3-14-78	41
					4-13-78	3.0
					5-15-78	8.0
					6-02-78	2.0
					6-21-78	4.4
					6-21-78	14
					6-21-78	1.9
					7-18-78	1.3
					8-30-78	.62
Octoraro Creek basin						
Octoraro Creek	Susquehanna River	Lat 39°47'49", long 76°02'35", Chester, County, at Octoraro Reservoir, 3.4 miles west of Oxford, Pa.	-	1970-77	6-15-78	118

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
CHEMUNG RIVER BASIN										
01518600 - CROOKED CREEK AT TIoga, PA (LAT 41 54 38 LONG 077 08 16)										
NOV , 1977										
15...	0945	9813	9813	150	--	--	60	--	17	4.4
FEB , 1978										
22...	1040	9813	9813	160	--	--	66	--	18	5.5
MAY										
22...	1545	9813	9813	140	--	--	60	--	16	4.9
AUG										
23...	1500	9813	9813	330	30.0	10.0	99	0	34	3.5
01531210 - CHEMUNG RIVER AT ATHENS, PA. (LAT 41 56 56 LONG 076 31 03)										
NOV , 1977										
15...	1230	9813	9813	210	--	--	80	--	22	6.6
FEB , 1978										
21...	1005	9813	9813	310	--	--	116	--	33	8.8
MAY										
22...	1059	9813	9813	210	--	--	84	--	22	7.7
SUSQUEHANNA RIVER BASIN										
01533205 - SUSQUEHANNA RIVER AT LACEYVILLE, PA (LAT 41 38 34 LONG 076 09 40)										
NOV , 1977										
17...	1020	9813	9813	170	--	--	70	--	20	5.5
FEB , 1978										
14...	1145	9813	9813	200	--	--	92	--	26	7.1
AUG										
03...	1010	9813	9813	300	20.0	8.2	96	0	28	6.5
TUNKHANNOCK CREEK BASIN										
01533992 - SOUTH BR TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA (LAT 41 33 48 LONG 075 52 30)										
NOV , 1977										
17...	1145	9813	9813	140	--	--	42	--	15	1.1
FEB , 1978										
14...	1420	9813	9813	150	--	--	66	--	20	4.4
MAY										
18...	1105	9813	9813	120	--	--	35	--	8.8	3.5
JUL										
18...	0955	9813	9813	200	--	--	57	--	20	1.3
BOWMAN CREEK BASIN										
01534055 - BOWMAN CREEK NEAR TUNKHANNOCK, PA (LAT 41 30 53 LONG 075 57 41)										
NOV , 1977										
17...	1310	9813	9813	60	--	--	14	--	7.2	.0
FEB , 1978										
14...	1000	9813	9813	50	--	--	25	--	7.2	1.9
MAY										
18...	1015	9813	9813	50	--	--	10	--	4.8	.0
JUL										
18...	0955	9813	9813	90	--	--	32	--	6.4	4.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
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CHEMUNG RIVER BASIN--CONTINUED

01518600 - CROOKED CREEK AT TIoga, PA (LAT 41 54 38 LONG 077 08 16)

NOV , 1977										
15...	40	20	8.0	120	0	1.1	.03	.08	.05	220
FEB , 1978										
22...	48	20	9.0	170	--	1.0	.02	.07	.06	140
MAY										
22...	38	15	9.0	118	--	.90	.02	.12	.04	1250
AUG										
23...	88	30	24	194	--	.74	.02	.10	.12	660

01531210 - CHEMUNG RIVER AT ATHENS, PA. (LAT 41 56 56 LONG 076 31 03)

NOV , 1977										
15...	56	26	12	110	26	1.2	.03	.09	.06	890
FEB , 1978										
21...	86	26	22	264	--	1.5	.03	.22	.07	150
MAY										
22...	56	15	12	102	--	.84	.02	.15	1.0	760

SUSQUEHANNA RIVER BASIN--CONTINUED

01533205 - SUSQUEHANNA RIVER AT LACEYVILLE, PA (LAT 41 38 34 LONG 076 09 40)

NOV , 1977										
17...	52	26	8.0	99	--	1.0	.02	.14	.08	340
FEB , 1978										
14...	72	14	13	96	--	1.4	.02	.29	.10	110
AUG										
03...	88	20	21	186	--	.04	.02	.01	.12	420

TUNKHANNOCK CREEK BASIN--CONTINUED

01533992 - SOUTH BR TUNKHANNOCK CREEK NEAR TUNKHANNOCK, PA (LAT 41 33 48 LONG 075 52 30)

NOV , 1977										
17...	28	24	12	106	--	.92	.02	.07	.09	160
FEB , 1978										
14...	50	10	11	116	--	1.3	.02	.21	.05	50
MAY										
18...	24	20	13	80	--	.76	.03	.14	.08	330
JUL										
18...	52	10	20	136	--	.50	.01	.09	.08	160

BOWMAN CREEK BASIN--CONTINUED

01534055 - BOWMAN CREEK NEAR TUNKHANNOCK, PA (LAT 41 30 53 LONG 075 57 41)

NOV , 1977										
17...	16	18	4.0	60	--	.70	.01	.06	.06	<10
FEB , 1978										
14...	20	8.0	6.0	28	--	.90	.01	.10	.05	20
MAY										
18...	12	12	6.0	82	--	.66	.03	.14	.10	730
JUL										
18...	28	15	6.0	80	--	1.0	.02	.07	.07	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
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SUSQUEHANNA RIVER BASIN

01534090 - SUSQUEHANNA R AT FALLS, PA. (LAT 41 27 42 LONG 075 51 15)

NOV , 1977									
17...	1115	9813	9813	160	68	17	6.6	48	24
FEB , 1978									
14...	1305	9813	9813	200	88	24	7.1	66	14
MAY									
18...	1120	9813	9813	150	45	14	2.4	36	20
JUL									
18...	0955	9813	9813	250	88	28	4.4	80	15

LACKAWANNA RIVER BASIN

01534850 - LEGETTS CREEK AT SCRANTON, PA (LAT 41 26 41 LONG 075 38 40)

NOV , 1977									
14...	1345	9813	9813	220	64	15	7.1	34	24
FEB , 1978									
09...	1300	9813	9813	340	72	25	2.2	36	26
MAY									
24...	1200	9813	9813	275	66	8.0	12	1	15
JUL									
26...	1140	9813	9813	600	109	32	7.9	70	35

01535060 - ROARING BROOK AT SCRANTON, PA (LAT 41 24 11 LONG 075 39 52)

NOV , 1977									
14...	1400	9813	9813	80	40	9.6	4.4	18	14
FEB , 1978									
09...	1359	9813	9813	100	35	8.0	4.1	18	14
MAY									
24...	1350	9813	9813	95	45	8.0	6.8	0	25
JUL									
26...	1200	9813	9813	300	72	20	5.5	36	35

01536103 - LACKAWANNA RIVER AT PITTSBURGH, PA. (LAT 41 20 38 LONG 075 47 13)

NOV , 1977									
14...	1450	9813	9813	340	138	24	21	18	120
FEB , 1978									
02...	1000	9813	9813	460	195	34	29	26	170
MAY									
08...	--	9813	9813	490	160	35	19	22	160
JUL									
18...	0955	9813	9813	1000	492	89	73	20	420

SOLOMON CREEK BASIN

01537510 - SOLOMON CREEK AT BUTTWOOD, PA (LAT 41 13 28 LONG 075 56 59)

NOV , 1977									
17...	1445	9813	9813	1800	1000	152	171	36	830
FEB , 1978									
01...	0831	9813	9813	160	68	12	10	8	55
MAY									
08...	0900	9813	9813	170	45	11	4.6	10	40
JUL									
25...	0905	9813	9813	260	86	21	8.8	12	60

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
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SUSQUEHANNA RIVER BASIN--CONTINUED

01534090 - SUSQUEHANNA R AT FALLS, PA. (LAT 41 27 42 LONG 075 51 15)

NOV , 1977								
17...	8.0	98	--	1.0	.03	.12	.06	400
FEB , 1978								
14...	13	76	--	1.4	.02	.24	.05	180
MAY								
18...	13	90	--	.84	.01	.19	.12	3750
JUL								
18...	21	184	--	.36	.01	.09	.08	320

LACKAWANNA RIVER BASIN--CONTINUED

01534850 - LEGETTS CREEK AT SCRANTON, PA (LAT 41 26 41 LONG 075 38 40)

NOV , 1977								
14...	32	146	2	1.4	.06	.48	.66	190
FEB , 1978								
09...	61	152	--	.02	.08	.24	1.5	110
MAY								
24...	43	152	--	1.3	.08	.50	.45	630
JUL								
26...	130	344	--	2.8	.07	.11	3.2	350

01535060 - ROARING BROOK AT SCRANTON, PA (LAT 41 24 11 LONG 075 39 52)

NOV , 1977								
14...	9.0	28	4	.68	.02	.06	.07	240
FEB , 1978								
09...	13	26	--	.84	.02	.07	.19	190
MAY								
24...	13	72	--	.75	.03	.12	.10	730
JUL								
26...	34	136	--	.50	.01	.06	.12	390

01536103 - LACKAWANNA RIVER AT PITTSBURGH, PA. (LAT 41 20 38 LONG 075 47 13)

NOV , 1977								
14...	11	234	2	.86	.03	.29	.28	4950
FEB , 1978								
02...	18	--	--	1.0	.03	.42	.14	7183
MAY								
08...	18	382	--	1.0	.03	.39	.27	5000
JUL								
18...	26	896	--	1.7	.03	.60	.27	9600

SOLOMON CREEK BASIN--CONTINUED

01537510 - SOLOMON CREEK AT BUTTOWOOD, PA (LAT 41 13 28 LONG 075 56 59)

NOV , 1977								
17...	22	1210	--	.64	.02	2.9	.17	--
FEB , 1978								
01...	13	112	--	.74	.01	.14	.04	419
MAY								
08...	19	116	--	.72	.02	.31	.08	190
JUL								
25...	18	198	--	.84	.02	.07	.12	120

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
HARVEY CREEK BASIN											
01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)											
NOV , 1977											
17...	1425	9813	9813	100	--	--	46	--	6.4	--	8.2
FEB , 1978											
01...	1400	9813	9813	80	--	--	15	--	7.2	--	.0
MAY											
09...	1548	9813	9813	90	--	--	24	--	7.2	--	1.6
JUL											
25...	1425	9813	9813	90	--	--	28	--	8.0	--	2.2
NESCOPECK CREEK BASIN											
01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)											
NOV , 1977											
28...	1410	9813	9813	130	--	--	14	--	5.6	--	.0
FEB , 1978											
01...	1145	9813	9813	190	--	--	40	--	4.8	--	7.7
MAY											
09...	1145	9813	9813	200	--	--	30	--	5.6	--	4.4
JUL											
25...	1105	9813	9813	230	--	--	47	--	7.2	--	7.9
01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)											
NOV , 1977											
28...	1345	9813	9813	280	--	--	118	--	13	--	23
FEB , 1978											
01...	1200	9813	9813	280	--	--	105	--	12	--	20
MAY											
09...	1100	9813	9813	320	--	--	98	--	12	--	18
JUL											
25...	1045	9813	9813	500	--	--	184	--	23	--	34
FISHING CREEK BASIN											
01540000 - FISHING CREEK AT BLOOMSBURG, PA. (LAT 41 00 10 LONG 076 27 50)											
NOV , 1977											
22...	1145	9813	9813	70	--	--	40	--	7.2	--	6.0
FEB , 1978											
16...	1530	9813	9813	90	--	--	46	--	8.0	--	7.1
MAY											
11...	1415	9813	9813	70	--	--	24	--	7.2	--	1.6
AUG											
15...	1015	9813	9813	80	19.0	9.6	32	0	--	8.0	--
CATAWISSA CREEK BASIN											
01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)											
NOV , 1977											
22...	1030	9813	9813	120	--	--	64	--	7.2	--	12
FEB , 1978											
16...	1400	9813	9813	130	--	--	60	--	6.4	--	12
MAY											
25...	1030	9813	9813	80	--	--	24	--	6.4	--	2.2
AUG											
22...	1400	9813	9813	230	24.0	10.0	74	32	--	13	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
HARVEY CREEK BASIN--CONTINUED											
01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)											
NOV , 1977											
17...	--	18	20	10	98	--	--	1.0	.02	.09	.08
FEB , 1978											
01...	--	18	10	11	68	--	--	.82	.02	.08	.04
MAY											
09...	--	16	12	11	84	--	--	.74	.02	.14	.09
JUL											
25...	--	20	10	10	72	--	--	.64	.01	.07	.10
NESCOPECK CREEK BASIN--CONTINUED											
01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)											
NOV , 1977											
28...	--	10	34	13	98	--	--	1.0	.03	2.0	.34
FEB , 1978											
01...	--	8	38	13	24	--	--	.94	.02	.68	.48
MAY											
09...	--	24	32	19	104	--	--	.78	.06	2.5	1.2
JUL											
25...	--	10	40	17	182	--	--	2.5	.13	2.7	.55
01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)											
NOV , 1977											
28...	--	4	100	11	344	--	--	1.3	.05	.54	.12
FEB , 1978											
01...	--	4	100	16	16	--	--	1.1	.02	.30	.11
MAY											
09...	--	6	98	12	206	--	--	.86	.02	.63	.19
JUL											
25...	--	4	180	13	474	--	--	1.3	.01	.48	.10
FISHING CREEK BASIN--CONTINUED											
01540000 - FISHING CREEK AT BLOOMSBURG, PA. (LAT 41 00 10 LONG 076 27 50)											
NOV , 1977											
22...	--	20	10	6.0	102	0	102	1.5	.02	.11	.05
FEB , 1978											
16...	--	22	18	10	72	18	90	1.8	.03	.10	.11
MAY											
11...	--	16	6.0	8.0	58	4	62	1.1	.03	.11	.50
AUG											
15...	3.0	22	10	7.0	64	6	--	1.1	.01	.09	.05
CATAWISSA CREEK BASIN--CONTINUED											
01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)											
NOV , 1977											
22...	--	4	36	7.0	122	14	136	1.1	.01	.12	.05
FEB , 1978											
16...	--	6	40	8.0	46	20	66	1.1	.03	.08	.08
MAY											
25...	--	6	25	7.0	68	24	92	1.0	.02	.08	.08
AUG											
22...	11	2	60	8.0	218	20	--	.84	.01	.07	.06

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INIM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
------	--	---	--	---	---	---	---	---	---	---

HARVEY CREEK BASIN--CONTINUED

01537650 - HARVEY CREEK AT WEST NANTICOKE, PA (LAT 41 13 16 LONG 076 00 56)

NOV , 1977	--	--	--	--	330	--	--	--	--	--
17...	--	--	--	--	99	--	--	--	--	--
FEB , 1978	--	--	--	--	350	--	--	--	--	--
01...	--	--	--	--	70	--	--	--	--	--
MAY	--	--	--	--		--	--	--	--	--
09...	--	--	--	--		--	--	--	--	--
JUL	--	--	--	--		--	--	--	--	--
25...	--	--	--	--		--	--	--	--	--

NESCOPECK CREEK BASIN--CONTINUED

01538590 - BLACK CREEK NEAR NESCOPECK, PA (LAT 41 00 27 LONG 076 10 00)

NOV , 1977	--	--	--	--	890	--	--	--	--	--
28...	--	--	--	--	798	--	--	--	--	--
FEB , 1978	--	--	--	--	5350	--	--	--	--	--
01...	--	--	--	--	1080	--	--	--	--	--
MAY	--	--	--	--		--	--	--	--	--
09...	--	--	--	--		--	--	--	--	--
JUL	--	--	--	--		--	--	--	--	--
25...	--	--	--	--		--	--	--	--	--

01538600 - NESCOPECK CREEK AT NESCOPECK, PA. (LAT 41 02 49 LONG 076 13 17)

NOV , 1977	--	--	--	--	840	--	--	--	--	--
28...	--	--	--	--	1027	--	--	--	--	--
FEB , 1978	--	--	--	--	1650	--	--	--	--	--
01...	--	--	--	--	590	--	--	--	--	--
MAY	--	--	--	--		--	--	--	--	--
09...	--	--	--	--		--	--	--	--	--
JUL	--	--	--	--		--	--	--	--	--
25...	--	--	--	--		--	--	--	--	--

FISHING CREEK BASIN--CONTINUED

01540000 - FISHING CREEK AT BLOOMSBURG, PA. (LAT 41 00 10 LONG 076 27 50)

NOV , 1977	--	--	--	--	50	--	--	--	--	--
22...	--	--	--	--	160	--	--	--	--	--
FEB , 1978	--	--	--	--	150	--	--	--	--	--
16...	--	--	--	--		--	--	--	--	--
MAY	--	--	--	--		--	--	--	--	--
11...	60	<3	<10	<10	70	<50	<10	<10	<10	4.0
AUG										
15...										

CATAWISSA CREEK BASIN--CONTINUED

01540348 - CATAWISSA CREEK AT CATAWISSA, PA. (LAT 40 56 50 LONG 076 27 21)

NOV , 1977	--	--	--	--	170	--	--	--	--	--
22...	--	--	--	--	120	--	--	--	--	--
FEB , 1978	--	--	--	--	420	--	--	--	--	--
16...	--	--	--	--	90	--	--	--	--	--
MAY	--	--	--	--		--	--	--	--	--
25...	--	--	--	--		--	--	--	--	--
AUG	--	--	--	--		--	--	--	--	--
22...	--	--	--	--		--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
WEST BRANCH SUSQUEHANNA RIVER BASIN											
01541248 - ANDERSON CREEK AT CURWENSVILLE, PA. (LAT 40 58 31 LONG 078 31 50)											
NOV , 1977											
16...	1130	9813	9813	120	8.0	10.7	38	9	--	7.2	--
FEB , 1978											
23...	1155	9813	9813	--	1.0	13.0	56	16	--	10	--
MAY											
10...	1500	9813	9813	--	11.0	9.5	46	10	--	8.8	--
AUG											
23...	1120	9813	9813	--	21.0	8.6	--	17	--	--	--
01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)											
NOV , 1977											
16...	1100	9813	9813	240	7.0	11.1	116	4	--	25	--
FEB , 1978											
23...	1115	9813	9813	310	.5	12.4	158	8	--	35	--
MAY											
23...	1645	9813	9813	320	15.0	9.2	130	32	--	26	--
AUG											
23...	1315	9813	9813	500	24.0	8.1	248	29	--	59	--
01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)											
NOV , 1977											
16...	0850	9813	9813	490	8.0	10.5	136	75	--	24	--
FEB , 1978											
23...	0905	9813	9813	--	.5	12.8	214	72	--	31	--
MAY											
23...	0900	9813	9813	580	12.0	8.8	--	84	--	--	--
AUG											
24...	0930	9813	9813	--	16.0	9.6	--	166	--	--	--
01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)											
NOV , 1977											
28...	1100	9813	9813	500	--	--	200	--	44	--	24
FEB , 1978											
16...	1445	9813	9813	700	--	--	330	--	54	--	53
MAY											
03...	0001	9813	9813	600	--	--	200	--	48	--	22
AUG											
30...	1315	9813	9813	1300	23.5	--	--	18	--	--	--
01542790 - BENNETT BR SINNEMAHONING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)											
NOV , 1977											
17...	1230	9813	9813	160	9.0	10.7	44	5	--	9.6	--
FEB , 1978											
22...	1315	9813	9813	--	.5	13.0	69	15	--	15	--
MAY											
10...	0920	9813	9813	--	8.0	9.0	43	5	--	8.8	--
AUG											
09...	1115	9813	9813	--	23.5	8.2	82	29	--	19	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	HACH- CO-10, F 3- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CACO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C. DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED											
01541248 - ANDERSON CREEK AT CURWENSVILLE, PA. (LAT 40 58 31 LONG 078 31 50)											
NOV , 1977											
16...	4.9	1	23	7.0	54	2	56	.30	<.01	.08	.01
FEB , 1978											
23...	7.3	2	50	8.0	--	--	--	--	--	--	--
MAY											
10...	5.9	1	45	14	--	--	--	.39	--	.02	.07
AUG											
23...	--	0	110	7.0	--	--	--	.31	<.01	.06	--
01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)											
NOV , 1977											
16...	13	3	92	9.0	178	2	180	.44	<.01	.10	.01
FEB , 1978											
23...	17	1	180	4.0	260	16	276	.52	<.01	.13	.08
MAY											
23...	16	--	160	16	252	4	256	.60	<.01	.10	.06
AUG											
23...	25	5	240	5.0	456	2	458	.40	<.01	.24	.03
01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)											
NOV , 1977											
16...	19	--	180	52	302	2	304	.42	<.01	.12	.02
FEB , 1978											
23...	34	--	220	18	--	--	--	--	--	--	--
MAY											
23...	--	--	270	--	--	--	--	.20	<.01	.08	--
AUG											
24...	--	--	390	--	--	--	--	--	--	--	--
01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)											
NOV , 1977											
28...	--	0	200	9.0	408	20	428	.84	.02	.26	.06
FEB , 1978											
16...	--	0	400	10	250	44	294	.70	.02	.21	.11
MAY											
03...	--	0	250	9.0	514	22	536	.70	.03	.19	.16
AUG											
30...	--	56	490	--	946	16	--	.53	.01	--	.10
01542790 - BENNETT BR SINNEMAHONING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)											
NOV , 1977											
17...	4.9	2	32	5.0	74	2	76	.15	<.01	.10	.01
FEB , 1978											
22...	7.6	--	60	5.0	--	--	--	.20	<.01	.05	--
MAY											
10...	5.1	2	43	5.0	--	--	--	.17	--	.04	.03
AUG											
09...	8.3	--	92	9.0	218	2	220	.26	<.01	.38	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
------	--	---	--	---	---	---	---	---	---	---

WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED

01541248 - ANDERSON CREEK AT CURWENSVILLE, PA. (LAT 40 58 31 LONG 078 31 50)

NOV , 1977										
16...	--	--	--	--	610	--	--	--	--	--
FEB , 1978										
23...	--	--	--	--	370	--	1390	--	--	--
MAY										
10...	--	--	--	--	300	--	910	--	--	--
AUG										
23...	2710	<1	<10	20	300	<10	2300	70	150	--

01541510 - CLEARFIELD CREEK AT MOUNT HOPE, PA. (LAT 40 59 09 LONG 078 24 22)

NOV , 1977										
16...	--	--	--	--	2300	--	--	--	--	--
FEB , 1978										
23...	--	--	--	--	1860	--	--	--	--	--
MAY										
23...	--	--	--	--	3550	--	1720	--	--	--
AUG										
23...	2140	<1	<10	30	240	<10	3100	120	130	--

01541800 - ALDER RUN NR KYLERTOWN, PA. (LAT 41 00 50 LONG 078 11 59)

NOV , 1977										
16...	--	--	--	--	3040	--	--	--	--	--
FEB , 1978										
23...	--	--	--	--	2700	--	--	--	--	--
MAY										
23...	--	--	--	--	2570	--	5000	--	--	--
AUG										
24...	14260	1	<10	20	7950	<10	13150	350	620	--

01542310 - MOSHANNON CR NR MOSHANNON, PA. (LAT 41 02 12 LONG 078 03 28)

NOV , 1977										
28...	--	--	--	--	11650	--	2960	--	--	--
FEB , 1978										
16...	--	--	--	--	20500	--	3550	--	--	--
MAY										
03...	--	--	--	--	7950	--	--	--	--	--
AUG										
30...	--	--	--	--	2730	--	--	--	--	--

01542790 - BENNETT BR SINNEMAHOING CR AT DRIFTWOOD, PA. (LAT 41 20 02 LONG 078 08 10)

NOV , 1977										
17...	--	--	--	--	1140	--	470	--	--	--
FEB , 1978										
22...	--	--	--	--	320	--	800	--	--	--
MAY										
10...	--	--	--	--	2480	--	360	--	--	--
AUG										
09...	2330	<1	10	<10	200	<10	1500	70	80	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
WEST BRANCH SUSQUEHANNA RIVER BASIN											
01543400 - DRIFTWOOD BR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)											
NOV , 1977											
17...	1250	9813	9813	55	9.0	10.8	22	--	--	4.8	--
FEB , 1978											
22...	1240	9813	9813	73	.5	13.5	22	--	--	6.4	--
MAY											
10...	1155	9813	9813	55	9.0	8.8	22	--	--	5.6	--
AUG											
09...	1115	9813	9813	74	22.0	8.9	40	--	--	8.0	--
01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)											
NOV , 1977											
17...	1100	9813	9813	45	8.0	11.3	24	--	--	5.2	--
FEB , 1978											
22...	1020	9813	9813	59	.0	13.8	17	--	--	5.6	--
MAY											
10...	1020	9813	9813	49	8.5	9.2	26	--	--	5.6	--
AUG											
09...	0930	9813	9813	64	20.0	9.2	28	--	--	6.4	--
01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)											
NOV , 1977											
15...	1030	9813	9813	50	--	--	24	--	5.6	--	2.7
MAR , 1978											
22...	1130	9813	9813	70	--	--	24	--	6.4	--	2.2
APR											
25...	0001	9813	9813	160	--	--	56	--	13	--	6.6
AUG											
01...	1130	9813	9813	600	25.0	7.6	28	0	--	8.0	--
01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)											
NOV , 1977											
16...	1050	9813	9813	140	--	--	30	--	9.6	--	21
FEB , 1978											
09...	1030	9813	9813	180	--	--	84	--	12	--	14
MAY											
02...	0001	9813	9813	180	--	--	62	--	11	--	9.3
01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)											
NOV , 1977											
21...	1045	9813	9813	220	--	--	100	--	27	--	8.8
30...	1000	9813	9813	240	--	--	104	--	28	--	8.8
FEB , 1978											
09...	1130	9813	9813	210	--	--	98	--	28	--	7.1
MAY											
02...	0001	9813	9813	220	--	--	84	--	17	--	12
AUG											
01...	1415	9813	9813	290	16.5	11.2	114	0	--	36	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED											
01543400 - DRIFTWOOD BR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)											
NOV , 1977											
17...	2.4	12	10	3.0	22	2	24	.29	<.01	.07	.02
FEB , 1978											
22...	1.5	7	10	4.0	86	6	92	.35	<.01	.02	.04
MAY											
10...	2.0	9	20	4.0	52	12	64	.26	--	.04	.05
AUG											
09...	4.8	10	14	5.0	54	6	60	.28	<.01	.06	.02
01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)											
NOV , 1977											
17...	2.7	10	8.0	4.0	30	2	32	.46	<.01	.08	.01
FEB , 1978											
22...	.7	6	6.0	4.0	34	6	40	.45	<.01	.03	.07
MAY											
10...	2.9	11	18	9.0	64	8	72	.40	--	.05	.03
AUG											
09...	2.9	17	9.0	6.0	44	4	48	.29	<.01	.19	.03
01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)											
NOV , 1977											
15...	--	12	14	4.0	86	6	--	.90	.02	.06	.06
MAR , 1978											
22...	--	16	30	5.0	114	12	126	.74	.02	.13	.06
APR											
25...	--	8	60	6.0	330	330	340	.86	.02	.10	.05
AUG											
01...	2.0	22	10	4.0	48	12	--	.48	.02	.12	.06
01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)											
NOV , 1977											
16...	--	2	50	4.0	88	0	88	.74	.03	.07	.05
FEB , 1978											
09...	--	4	65	5.0	104	<10	114	.62	.01	.08	.21
MAY											
02...	--	4	62	5.0	126	2	128	.63	.01	.09	.04
01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)											
NOV , 1977											
21...	--	82	20	7.0	136	14	150	.01	.01	.10	.10
30...	--	88	24	8.0	118	2	120	1.9	.02	.09	.05
FEB , 1978											
09...	--	86	14	8.0	130	<10	140	1.7	.01	.06	.09
MAY											
02...	--	84	15	9.0	104	6	110	1.7	.02	.09	.06
AUG											
01...	6.0	112	15	8.0	--	6	--	.20	.03	.08	.04

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
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WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED

01543400 - DRIFTWOOD BR SINNEMAHONING CR AT DRIFTWOOD, PA (LAT 41 20 17 LONG 078 08 09)

NOV , 1977										
17...	--	--	--	--	160	--	--	--	--	--
FEB , 1978										
22...	--	--	--	--	60	--	--	--	--	--
MAY										
10...	--	--	--	--	320	--	--	--	--	--
AUG										
09...	24	<1	10	10	320	<10	40	20	20	--

01544100 - FIRST FORK SINNEMAHONING CR AT SINNEMAHONING, PA (LAT 41 19 12 LONG 078 04 51)

NOV , 1977										
17...	--	--	--	--	70	--	--	--	--	--
FEB , 1978										
22...	--	--	--	--	110	--	--	--	--	--
MAY										
10...	--	--	--	--	160	--	--	--	--	--
AUG										
09...	330	<1	10	<10	450	<10	70	20	20	--

01545010 - KETTLE CREEK NEAR WESTPORT, PA. (LAT 41 19 10 LONG 077 52 25)

NOV , 1977										
15...	--	--	--	--	80	--	--	--	--	--
MAR , 1978										
22...	--	--	--	--	450	--	--	--	--	--
APR										
25...	--	--	--	--	710	--	--	--	--	--
AUG										
01...	40	<3	<10	<10	320	<50	60	10	<10	6.0

01547980 - BEECH CR AT BEECH CREEK, PA. (LAT 41 04 29 LONG 077 35 32)

NOV , 1977										
16...	--	--	--	--	360	--	--	--	--	--
FEB , 1978										
09...	--	--	--	--	738	--	--	--	--	--
MAY										
02...	--	--	--	--	380	--	--	--	--	--

01548075 - FISHING CR NR CEDAR SPRINGS, PA. (LAT 41 04 31 LONG 077 28 40)

NOV , 1977										
21...	--	--	--	--	80	--	--	--	--	--
30...	--	--	--	--	50	--	--	--	--	--
FEB , 1978										
09...	--	--	--	--	79	--	--	--	--	--
MAY										
02...	--	--	--	--	100	--	--	--	--	--
AUG										
01...	180	<3	<10	<10	140	<50	20	<10	<10	3.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY C02 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
WEST BRANCH SUSQUEHANNA RIVER BASIN											
01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA. (LAT 41 27 22 LONG 076 41 24)											
NOV , 1977											
16...	0855	9813	9813	50	--	--	20	--	6.4	--	1.1
FEB , 1978											
21...	1040	9813	9813	60	--	--	46	--	6.4	--	8.2
MAY											
23...	1130	9813	9813	46	--	--	24	--	4.0	--	3.8
01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)											
NOV , 1977											
16...	1400	9813	9813	36	--	--	46	--	3.2	--	10
FEB , 1978											
02...	1430	9813	9813	39	--	--	15	--	6.4	--	.0
MAY											
25...	1430	9813	9813	43	--	--	20	--	2.4	--	3.8
AUG											
15...	1300	9813	9813	49	21.0	9.4	20	0	--	5.6	--
01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)											
NOV , 1977											
16...	1145	9813	9813	140	--	--	82	--	11	--	14
FEB , 1978											
02...	1330	9813	9813	150	--	--	70	--	16	--	7.7
MAY											
23...	1330	9813	9813	150	--	--	65	--	16	--	6.8
AUG											
15...	1400	9813	9813	240	23.0	10.4	102	0	--	27	--
PENNS CREEK BASIN											
01555100 - PENNS CREEK AT SELINS GROVE, PA (LAT 40 48 50 LONG 076 51 20)											
NOV , 1977											
16...	0930	9813	9813	170	--	--	86	--	25	--	6.0
MAY , 1978											
24...	1100	9813	9813	130	--	--	72	--	16	--	8.2
24...	1345	9813	9813	160	--	--	80	--	16	--	11
AUG											
17...	1130	9813	9813	220	23.0	9.2	80	0	--	31	--
MIDDLE CREEK BASIN											
01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)											
NOV , 1977											
16...	1030	9813	9813	130	--	--	60	--	13	--	7.1
FEB , 1978											
01...	1300	9813	9813	130	--	--	58	--	14	--	6.0
MAY											
18...	1030	9813	9813	100	--	--	45	--	12	--	4.1
AUG											
17...	0930	9813	9813	160	20.5	7.9	61	0	--	19	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED											
01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA. (LAT 41 27 22 LONG 076 41 24)											
NOV , 1977											
16...	--	12	8.0	5.0	44	0	--	.86	.02	.09	.03
FEB , 1978											
21...	--	16	8.0	6.0	96	--	--	1.2	.03	.09	.07
MAY											
23...	--	6	12	5.0	38	--	--	.76	.02	.08	.05
01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)											
NOV , 1977											
16...	--	12	4.0	5.0	34	6	40	.44	.02	.07	.06
FEB , 1978											
02...	--	12	5.0	6.0	12	12	24	.74	.03	.08	.04
MAY											
25...	--	10	5.0	6.0	34	4	38	.48	.01	.09	.08
AUG											
15...	1.5	20	5.0	4.0	60	8	--	.38	.01	.07	.05
01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)											
NOV , 1977											
16...	--	48	8.0	6.0	104	2	106	1.5	.02	.09	.07
FEB , 1978											
02...	--	54	10	6.0	124	14	138	1.8	.03	.10	.05
MAY											
23...	--	48	12	8.0	80	16	96	1.5	.03	.10	.08
AUG											
15...	8.5	86	15	7.0	148	10	--	1.7	.02	.07	.10
PENNS CREEK BASIN--CONTINUED											
01555100 - PENNS CREEK AT SELINGROVE, PA (LAT 40 48 50 LONG 076 51 20)											
NOV , 1977											
16...	--	64	18	6.0	178	4	182	1.8	.04	.06	.06
MAY , 1978											
24...	--	2	10	7.0	108	112	220	1.6	.04	.22	.23
24...	--	1	40	8.0	116	46	162	1.2	.03	.15	.12
AUG											
17...	.5	90	10	6.0	124	14	--	.71	.01	.08	.15
MIDDLE CREEK BASIN--CONTINUED											
01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)											
NOV , 1977											
16...	--	42	14	6.0	112	6	118	1.6	.03	.08	.07
FEB , 1978											
01...	--	44	10	7.0	62	24	86	1.6	.03	.09	.05
MAY											
18...	--	30	20	5.0	84	14	98	1.3	.03	.16	.11
AUG											
17...	3.5	60	10	6.0	106	10	--	.84	.02	.09	.12

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
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WEST BRANCH SUSQUEHANNA RIVER BASIN--CONTINUED

01551835 - LOYALSOCK CREEK AT FORKSVILLE, PA (LAT 41 27 22 LONG 076 41 24)

NOV , 1977										
16...	--	--	--	--	20	--	--	--	--	--
FEB , 1978										
21...	--	--	--	--	50	--	--	--	--	--
MAY										
23...	--	--	--	--	110	--	--	--	--	--

01553150 - WHITE DEER CR AT WHITE DEER, PA. (LAT 41 04 29 LONG 076 52 21)

NOV , 1977										
16...	--	--	--	--	120	--	--	--	--	--
FEB , 1978										
02...	--	--	--	--	519	--	--	--	--	--
MAY										
25...	--	--	--	--	120	--	--	--	--	--
AUG										
15...	160	<3	<10	<10	100	<50	<10	<10	<10	4.0

01553480 - BUFFALO CREEK AT LEWISBURG, PA. (LAT 40 58 19 LONG 076 53 30)

NOV , 1977										
16...	--	--	--	--	180	--	--	--	--	--
FEB , 1978										
02...	--	--	--	--	150	--	--	--	--	--
MAY										
23...	--	--	--	--	220	--	--	--	--	--
AUG										
15...	480	<3	10	<10	350	--	20	40	10	6.0

PENNS CREEK BASIN--CONTINUED

01555100 - PENNS CREEK AT SELINGROVE, PA (LAT 40 48 50 LONG 076 51 20)

NOV , 1977										
16...	--	--	--	--	210	--	--	--	--	--
MAY , 1978										
24...	--	--	--	--	5100	--	--	--	--	--
24...	--	--	--	--	830	--	--	--	--	--
AUG										
17...	300	<3	<10	<10	320	<50	20	<10	<10	--

MIDDLE CREEK BASIN--CONTINUED

01555205 - MIDDLE CR AT MIDDLEBURG, PA. (LAT 40 47 19 LONG 077 00 42)

NOV , 1977										
16...	--	--	--	--	250	--	--	--	--	--
FEB , 1978										
01...	--	--	--	--	180	--	--	--	--	--
MAY										
18...	--	--	--	--	620	--	--	--	--	--
AUG										
17...	220	<3	<10	<10	270	<50	20	<10	<10	5.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY CO2 (MG/L AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
MIDDLE CREEK BASIN											
01555210 - MIDDLE CREEK NEAR SELINSGROVE, PA (LAT 40 46 29 LONG 076 52 11)											
NOV , 1977											
16...	1050	9813	9813	130	--	--	54	--	14	--	4.9
FEB , 1978											
01...	1030	9813	9813	130	--	--	58	--	16	--	4.9
MAY											
18...	1330	9813	9813	100	--	--	40	--	12	--	2.2
AUG											
17...	1030	9813	9813	160	24.0	9.0	61	0	--	18	--
MAHONING CREEK BASIN											
01555251 - MAHANOHY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)											
NOV , 1977											
16...	1330	9813	9813	500	--	--	332	--	48	--	57
MAY , 1978											
22...	1045	9813	9813	500	--	--	280	--	43	--	47
WICONISCO CREEK BASIN											
01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)											
NOV , 1977											
17...	1230	9813	9813	120	11.0	11.4	54	--	19	--	1.6
FEB , 1978											
14...	1030	9813	9813	160	.0	--	80	--	16	--	11
14...	1130	9813	9813	160	.0	--	75	--	11	--	12
MAY											
23...	1400	9813	9813	140	--	--	55	--	11	--	7.4
SEP											
25...	1200	9813	9813	220	17.5	10.0	60	0	17	--	4.0
JUNIATA RIVER BASIN											
01559920 - BOBS CR AT REYNOLDSDALE, PA. (LAT 40 08 50 LONG 078 33 21)											
NOV , 1977											
28...	1040	9813	9813	120	--	--	50	--	12	--	4.9
FEB , 1978											
08...	1030	9813	9813	150	--	--	70	--	19	--	6.0
MAY											
11...	0830	9813	9813	110	--	--	45	--	11	--	4.6
01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)											
NOV , 1977											
28...	1120	9813	9813	160	--	--	80	--	17	--	9.9
FEB , 1978											
08...	1115	9813	9813	190	--	--	80	--	22	--	6.6
MAY											
11...	0930	9813	9813	125	--	--	50	--	13	--	4.4
01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)											
FEB , 1978											
15...	1430	9813	9813	160	--	--	64	--	13	--	8.2
22...	1020	9813	9813	150	--	--	74	--	16	--	8.8
MAY											
02...	0001	9813	9813	180	--	--	56	--	14	--	5.5
AUG											
09...	1430	9813	9813	150	21.0	9.3	57	0	--	17	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
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MIDDLE CREEK BASIN--CONTINUED

01555210 - MIDDLE CREEK NEAR SELINGSGROVE, PA (LAT 40 46 29 LONG 076 52 11)

NOV , 1977											
16...	--	40	14	6.0	80	6	86	1.6	.03	.08	.08
FEB , 1978											
01...	--	40	10	7.0	156	6	162	17	.02	.10	.05
MAY											
18...	--	30	20	4.0	78	20	98	1.3	.03	.18	.11
AUG											
17...	4.0	60	10	6.0	100	8	--	.84	.02	.09	.14

MAHONING CREEK BASIN--CONTINUED

01555251 - MAHANOY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)

NOV , 1977											
16...	--	10	310	10	466	18	484	1.5	.02	.25	.09
MAY , 1978											
22...	--	12	240	12	402	28	430	1.4	.02	.28	.10

WICONISCO CREEK BASIN--CONTINUED

01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)

NOV , 1977											
17...	--	16	34	8.0	201	--	--	2.2	.02	.13	.07
FEB , 1978											
14...	--	20	44	8.0	122	--	--	2.2	.02	.14	.03
14...	--	26	42	8.0	42	--	--	1.5	.02	1.5	.04
MAY											
23...	--	16	42	<1.0	96	--	--	.10	.00	.01	.02
SEP											
25...	--	26	45	14	184	--	--	1.7	.03	.07	.11

JUNIATA CREEK BASIN--CONTINUED

01559920 - BOBS CR AT REYNOLDSDALE, PA. (LAT 40 08 50 LONG 078 33 21)

NOV , 1977											
28...	--	36	18	6.0	82	6	88	1.8	.02	.14	.08
FEB , 1978											
08...	--	48	14	7.0	58	8	70	1.8	.02	.09	.04
MAY											
11...	--	28	12	7.0	76	8	84	1.7	.02	.12	.27

01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)

NOV , 1977											
28...	--	48	20	7.0	126	6	132	1.5	.02	.15	.09
FEB , 1978											
08...	--	60	14	7.0	78	4	82	1.5	.02	.12	.05
MAY											
11...	--	36	15	6.0	94	2	96	1.1	.02	.11	.53

01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)

FEB , 1978											
15...	--	38	14	15	10	<10	20	1.6	.02	.13	2.2
22...	--	44	<4.0	15	110	4	114	1.1	.03	.10	.08
MAY											
02...	--	40	12	10	82	8	90	.66	.02	.09	.08
AUG											
09...	4.0	56	10	8.0	124	16	--	.80	.02	.08	.08

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INIM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
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MIDDLE CREEK BASIN--CONTINUED

01555210 - MIDDLE CREEK NEAR SELINS GROVE, PA (LAT 40 46 29 LONG 076 52 11)

NOV , 1977										
16...	--	--	--	--	240	--	--	--	--	--
FEB , 1978										
01...	--	--	--	--	190	--	--	--	--	--
MAY										
18...	--	--	--	--	460	--	--	--	--	--
AUG										
17...	380	<3	<10	<10	480	<50	60	<10	<10	4.0

MAHONING CREEK BASIN--CONTINUED

01555251 - MAHANOHY CR NR HERNDON, PA. (LAT 40 43 28 LONG 076 48 57)

NOV , 1977										
16...	--	--	--	--	4200	--	2950	--	--	--
MAY , 1978										
22...	--	--	--	--	4750	--	2370	--	--	--

WICONISCO CREEK BASIN--CONTINUED

01555600 - WICONISCO CREEK AT MILLERSBURG, PA (LAT 40 32 14 LONG 076 57 39)

NOV , 1977										
17...	--	--	--	--	530	--	--	--	--	--
FEB , 1978										
14...	--	--	--	--	0	--	--	--	--	--
14...	--	--	--	--	0	--	--	--	--	--
MAY										
23...	--	--	--	--	880	--	--	--	--	--
SEP										
25...	--	--	<10	<10	270	--	30	<10	20	--

JUNIATA CREEK BASIN--CONTINUED

01559920 - BOBS CR AT REYNOLDS DALE, PA. (LAT 40 08 50 LONG 078 33 21)

NOV , 1977										
28...	--	--	--	--	80	--	--	--	--	--
FEB , 1978										
08...	--	--	--	--	160	--	--	--	--	--
MAY										
11...	--	--	--	--	240	--	--	--	--	--

01560510 - DUNNING CREEK NEAR BEDFORD, PA (LAT 40 01 26 LONG 078 28 39)

NOV , 1977										
28...	--	--	--	--	200	--	--	--	--	--
FEB , 1978										
08...	--	--	--	--	170	--	--	--	--	--
MAY										
11...	--	--	--	--	130	--	--	--	--	--

01564515 - AUGHWICK CR AT AUGHWICK MILLS, PA. (LAT 40 20 05 LONG 077 51 36)

FEB , 1978										
15...	--	--	--	--	220	--	--	--	--	--
22...	--	--	--	--	130	--	--	--	--	--
MAY										
02...	--	--	--	--	160	--	--	--	--	--
AUG										
09...	240	--	<10	<10	470	<50	20	20	<10	5.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

379

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	ACIDITY C02 AS CAC03)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
JUNIATA RIVER BASIN											
01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)											
NOV , 1977											
21...	1210	9813	9813	140	--	--	66	--	19	--	4.9
FEB , 1978											
01...	1315	9813	9813	220	--	--	100	--	31	--	6.0
APR											
28...	0001	9813	9813	110	--	--	45	--	16	--	1.4
AUG											
10...	1315	9813	9813	110	15.5	10.0	53	0	--	17	--
01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)											
NOV , 1977											
21...	1130	9813	9813	280	--	--	128	--	30	--	14
FEB , 1978											
01...	1335	9813	9813	220	--	--	98	--	27	--	8.2
APR											
28...	0001	9813	9813	220	--	--	90	--	28	--	5.5
AUG											
10...	1230	9813	9813	190	15.5	10.4	83	0	--	26	--
01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)											
NOV , 1977											
21...	1100	9813	9813	290	--	--	130	--	28	--	16
FEB , 1978											
01...	1350	9813	9813	110	--	--	51	--	25	--	.0
APR											
28...	0001	9813	9813	240	--	--	92	--	27	--	6.6
AUG											
10...	1045	9813	9813	220	15.0	9.8	93	0	--	28	--
01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)											
NOV , 1977											
21...	0850	9813	9813	160	--	--	74	--	19	--	7.1
FEB , 1978											
02...	1100	9813	9813	150	--	--	64	--	19	--	4.4
APR											
28...	0001	9813	9813	180	--	--	65	--	22	--	2.5
AUG											
10...	0930	9813	9813	160	17.0	8.5	67	0	--	22	--
01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)											
NOV , 1977											
21...	0945	9813	9813	160	--	--	76	--	19	--	7.7
FEB , 1978											
08...	1040	9813	9813	150	--	--	64	--	18	--	4.9
MAY											
04...	1100	9813	9813	140	--	--	50	--	19	--	.5
AUG											
10...	0830	9813	9813	190	19.0	8.3	82	0	--	27	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINEITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
JUNIATA RIVER BASIN--CONTINUED											
01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)											
NOV , 1977											
21...	--	54	10	5.0	94	2	96	1.3	.02	.12	.07
FEB , 1978											
01...	--	88	10	9.0	108	40	148	3.0	.02	.06	.29
APR											
28...	--	46	10	6.0	28	32	32	.92	.02	.11	.07
AUG											
10...	3.0	48	5.0	4.0	84	8	--	.90	.02	.07	.11
01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)											
NOV , 1977											
21...	--	108	14	8.0	172	10	182	2.6	.02	.14	.07
FEB , 1978											
01...	--	84	14	8.0	110	22	132	2.8	.03	.06	.13
APR											
28...	--	84	12	8.0	136	144	144	2.4	.03	.12	.10
AUG											
10...	5.0	76	10	6.0	128	16	--	1.7	.02	.07	.11
01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)											
NOV , 1977											
21...	--	110	14	8.0	172	2	174	2.6	.01	.14	.15
FEB , 1978											
01...	--	40	8.0	6.0	40	20	60	1.2	.03	.07	.11
APR											
28...	--	90	12	8.0	566	--	--	2.4	.01	.12	.10
AUG											
10...	6.0	84	10	7.0	144	18	--	2.2	.02	.08	.12
01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)											
NOV , 1977											
21...	--	56	18	6.0	104	2	106	1.4	.01	.16	.04
FEB , 1978											
02...	--	52	18	6.0	122	8	130	1.3	.02	.09	.06
APR											
28...	--	64	12	6.0	154	160	160	.92	.02	.11	.08
AUG											
10...	3.0	60	10	6.0	122	8	--	1.3	.01	.07	.07
01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)											
NOV , 1977											
21...	--	58	14	6.0	112	2	114	1.4	.01	.12	.05
FEB , 1978											
08...	--	58	8.0	6.0	92	8	100	1.3	.02	.08	.03
MAY											
04...	--	58	4.0	5.0	38	16	54	.95	.03	.10	.04
AUG											
10...	3.5	76	10	6.0	146	8	--	1.1	.01	.09	.18

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHROM- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
------	--	---	---	---	---	---	---	---	---	---

JUNIATA RIVER BASIN--CONTINUED

01564995 - HONEY CR AT REEDSVILLE, PA. (LAT 40 39 44 LONG 077 35 40)

NOV , 1977										
21...	--	--	--	--	100	--	--	--	--	--
FEB , 1978										
01...	--	--	--	--	59	--	--	--	--	--
APR										
28...	--	--	--	--	180	--	--	--	--	--
AUG										
10...	300	<3	<10	<10	330	<50	10	<10	<10	3.0

01565000 - KISHACOQUILLAS CREEK AT REEDSVILLE, PA. (LAT 40 39 17 LONG 077 35 00)

NOV , 1977										
21...	--	--	--	--	140	--	--	--	--	--
FEB , 1978										
01...	--	--	--	--	110	--	--	--	--	--
APR										
28...	--	--	--	--	170	--	--	--	--	--
AUG										
10...	260	<3	<10	<10	360	<50	<10	<10	<10	4.0

01565300 - KISHACOQUILLAS CREEK AT BURNHAM, PA. (LAT 40 37 52 LONG 077 34 01)

NOV , 1977										
21...	--	--	--	--	230	--	--	--	--	--
FEB , 1978										
01...	--	--	--	--	120	--	--	--	--	--
APR										
28...	--	--	--	--	210	--	--	--	--	--
AUG										
10...	360	<3	20	10	450	<50	10	<10	<10	6.0

01565515 - JACKS CR AT LEWISTOWN, PA. (LAT 40 35 07 LONG 077 33 27)

NOV , 1977										
21...	--	--	--	--	110	--	--	--	--	--
FEB , 1978										
02...	--	--	--	--	170	--	--	--	--	--
APR										
28...	--	--	--	--	160	--	--	--	--	--
AUG										
10...	380	<3	<10	10	390	<50	10	10	10	6.0

01566010 - TUSCARORA CR AT PORT ROYAL, PA. (LAT 40 31 41 LONG 077 23 32)

NOV , 1977										
21...	--	--	--	--	150	--	--	--	--	--
FEB , 1978										
08...	--	--	--	--	89	--	--	--	--	--
MAY										
04...	--	--	--	--	180	--	--	--	--	--
AUG										
10...	100	<3	<10	<10	330	<50	10	20	<10	7.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	TIME	AGENCY COL- LECTING SAMPLE (CODE NUMBER)	AGENCY ANA- LYZING SAMPLE (CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	ACIDITY CO2 (MG/L AS CACO3)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)
JUNIATA RIVER BASIN											
01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)											
NOV , 1977											
17...	0945	9813	9813	160	9.0	11.5	66	--	30	--	2.7
FEB , 1978											
14...	1300	9813	9813	140	.0	--	67	--	16	--	7.4
MAY											
23...	1030	9813	9813	110	--	--	52	--	14	--	4.4
AUG											
14...	1025	9813	9813	110	19.5	9.3	57	0	--	14	--
SHERMAN CREEK BASIN											
01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)											
NOV , 1977											
17...	1030	9813	9813	140	9.0	10.9	66	--	41	--	10
FEB , 1978											
14...	1400	9813	9813	--	.0	--	67	--	20	--	4.6
MAY											
23...	0930	9813	9813	115	--	--	55	--	15	--	4.6
AUG											
14...	1045	9813	9813	140	21.5	9.2	78	0	--	19	--
CONODOGUINET CREEK BASIN											
01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)											
NOV , 1977											
16...	1330	9813	9813	490	10.0	10.6	288	--	19	--	66
FEB , 1978											
16...	1330	9813	9813	440	--	--	172	--	59	--	6.6
MAY											
30...	1200	9813	9813	360	--	--	140	--	46	--	6.6
AUG											
14...	1430	9813	9813	450	19.0	10.0	164	0	--	64	--
YELLOW BREECHES CREEK BASIN											
01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)											
NOV , 1977											
16...	1130	9813	9813	90	6.0	12.5	20	--	7.2	--	.5
FEB , 1978											
16...	1130	9813	9813	90	--	--	40	--	8.0	--	5.5
MAY											
30...	0930	9813	9813	80	--	--	28	--	7.2	--	2.7
AUG											
14...	1320	9813	9813	100	22.0	8.9	40	0	--	10	--
SWATARA CREEK BASIN											
01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)											
NOV , 1977											
28...	1320	9813	9813	200	--	--	90	--	14	--	14
FEB , 1978											
28...	1015	9813	9813	270	--	--	114	--	17	--	19
MAY											
30...	0840	9813	9813	230	--	--	78	--	12	--	12
AUG											
22...	1210	9813	9813	320	16.0	9.0	94	1	19	--	11

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	ALKA- LINEITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
------	--	--	---	---	---	--	--	--	--	--	---

JUNIATA RIVER BASIN--CONTINUED

01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)

NOV , 1977											
17...	--	48	24	10	172	--	--	2.2	.02	.12	.06
FEB , 1978											
14...	--	50	8.0	13	30	--	--	1.6	.02	.23	.05
MAY											
23...	--	40	12	7.0	76	--	--	1.3	.02	.10	.03
AUG											
14...	5.5	38	10	8.0	102	--	--	1.2	.02	.11	.06

SHERMAN CREEK BASIN--CONTINUED

01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)

NOV , 1977											
17...	--	48	20	5.0	145	--	--	1.7	.01	.09	.06
FEB , 1978											
14...	--	52	8.0	6.0	24	--	--	--	--	.14	--
MAY											
23...	--	40	12	6.0	78	--	--	1.4	.02	.10	.01
AUG											
14...	7.5	56	15	6.0	132	--	--	1.3	.01	.09	.06

CONODOGUINET CREEK BASIN--CONTINUED

01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)

NOV , 1977											
16...	--	190	20	17	298	4	--	4.4	.14	.42	.44
FEB , 1978											
16...	--	164	24	18	158	--	--	4.1	.08	.74	.38
MAY											
30...	--	126	10	13	194	--	--	3.0	.04	.18	.21
AUG											
14...	1.0	178	15	17	326	--	--	4.4	.16	.15	.43

YELLOW BREECHES CREEK BASIN--CONTINUED

01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)

NOV , 1977											
16...	--	20	10	6.0	116	2	--	.90	.02	.16	.09
FEB , 1978											
16...	--	24	20	7.0	16	--	--	.90	.03	.14	.10
MAY											
30...	--	24	10	6.0	62	--	--	.84	.04	.19	.09
AUG											
14...	3.5	32	15	6.0	90	--	--	.69	.03	--	.12

SWATARA CREEK BASIN--CONTINUED

01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)

NOV , 1977											
28...	--	6	70	12	118	--	--	.86	.03	.36	.08
FEB , 1978											
28...	--	8	100	12	180	--	--	.60	.02	.17	.08
MAY											
30...	--	6	70	10	240	--	--	.35	.01	.15	.05
AUG											
22...	--	4	60	12	268	--	--	.53	.01	.14	.08

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, TOTAL RECOV- ERABLE (MG/L AS C)
------	--	---	--	---	---	---	---	---	---	--

JUNIATA RIVER BASIN--CONTINUED

01567350 - LITTLE JUNIATA CREEK AT DUNCANNON, PA. (LAT 40 23 20 LONG 077 01 56)

NOV , 1977										
17...	--	--	--	--	240	--	--	--	--	--
FEB , 1978										
14...	--	--	--	--	0	--	--	--	--	--
MAY										
23...	--	--	--	--	210	--	--	--	--	--
AUG										
14...	--	--	--	--	320	--	--	--	--	--

SHERMAN CREEK BASIN--CONTINUED

01568200 - SHERMAN CREEK NEAR DUNCANNON, PA (LAT 40 22 49 LONG 077 04 56)

NOV , 1977										
17...	--	--	--	--	220	--	--	--	--	--
FEB , 1978										
14...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	--	--	--	--	420	--	--	--	--	--
AUG										
14...	--	--	--	--	350	--	--	--	--	--

CONODOGUINET CREEK BASIN--CONTINUED

01569320 - MIDDLE SPRING CREEK NEAR SHIPPENSBURG, PA. (LAT 40 05 07 LONG 077 32 35)

NOV , 1977										
16...	--	--	--	--	220	--	--	--	--	--
FEB , 1978										
16...	--	--	--	--	150	--	--	--	--	--
MAY										
30...	--	--	--	--	430	--	--	--	--	--
AUG										
14...	--	--	--	--	70	--	--	--	--	--

YELLOW BREECHES CREEK BASIN--CONTINUED

01571197 - MOUNTAIN CREEK AT MOUNT HOLLY SPRINGS, PA. (LAT 40 08 41 LONG 077 10 43)

NOV , 1977										
16...	--	--	--	--	150	--	--	--	--	--
FEB , 1978										
16...	--	--	--	--	130	--	--	--	--	--
MAY										
30...	--	--	--	--	350	--	--	--	--	--
AUG										
14...	--	--	--	--	600	--	--	--	--	--

SWATARA CREEK BASIN--CONTINUED

01571824 - SWATARA CREEK AT RAVINE, PA (LAT 40 34 30 LONG 076 24 10)

NOV , 1977										
28...	--	--	--	--	1710	--	--	--	--	--
FEB , 1978										
28...	--	--	--	--	2430	--	--	--	--	--
MAY										
30...	--	--	--	--	1180	--	--	--	--	--
AUG										
22...	--	--	<10	10	2050	--	1500	90	150	--

ADAMS COUNTY

385

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.00	11.80	11.43	12.23	11.83	12.03	11.64	12.14	12.35	11.82	12.43	12.76
10	12.66	11.42	11.88	11.51	11.94	11.94	11.79	11.86	12.50	11.58	11.90	12.96
15	12.39	11.59	11.48	11.93	12.09	10.31	12.08	10.76	12.63	12.10	12.25	13.06
20	12.16	11.64	11.11	11.56	12.00	10.75	11.55	11.34	12.52	12.30	12.70	13.09
25	12.37	11.32	11.32	---	12.02	11.24	12.02	11.65	---	12.57	12.85	---
EOM	12.35	11.28	12.02	11.35	11.94	11.46	12.26	12.13	12.82	12.51	12.74	13.26
WTR YR 1978	HIGH	9.88	JAN 27	LOW	13.28	SEP 29						

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, 0.38 ft (0.12 m) above land-surface datum, May 20, 1978; lowest, 41.42 ft (12.625 m) below land-surface datum, Feb. 12, 13, 1966.

WATER LEVEL, IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-23.46	-21.64	-11.58	-9.82	-9.51	-13.16	-3.39	-7.03	-4.14	-7.62	-13.89	-19.16
10	-23.46	-15.97	-11.72	-10.09	-9.80	-13.56	-2.04	-7.65	-5.95	-7.88	-14.75	-19.88
15	-22.54	-13.96	-12.04	-10.28	-10.56	-10.88	-3.66	-4.44	-7.54	-9.06	-15.66	-20.58
20	-20.87	-14.50	-9.00	-11.00	-11.21	-7.06	-4.73	.38	-8.62	-10.39	-16.62	-21.33
25	-21.36	-14.67	-7.66	---	-11.97	-5.22	-4.90	-0.68	-9.08	-11.50	-17.38	---
EOM	-21.50	-14.97	-8.48	-9.56	-12.45	-2.91	-5.77	-2.12	-10.10	-12.72	-18.34	-22.55
WTR YR 1978	MAX	.38	MAY 20	MIN	-23.60	OCT 7 AND OTHERS						

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, 10.45 ft (3.19 m) below land-surface datum, Mar. 21, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.03	12.56	11.10	12.24	11.59	11.94	---	12.12	11.88	12.46	14.19	14.54
10	13.49	11.53	11.77	11.71	11.64	11.78	---	12.02	12.24	12.63	14.18	14.85
15	13.00	11.46	11.48	11.81	11.98	10.84	---	11.30	12.80	12.94	13.75	14.93
20	12.40	11.65	11.00	11.90	11.94	10.79	---	10.56	12.49	13.44	13.96	14.45
25	12.47	11.44	11.06	11.88	11.96	10.85	11.49	10.82	12.62	13.76	14.21	14.54
EOM	12.55	11.74	11.69	11.44	11.96	10.69	11.77	11.70	13.05	13.93	14.57	14.79
WTR YR 1978	HIGH	10.45	MAR 21	LOW	15.03	SEP 14						

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, 1.53 ft (0.47 m) below land-surface datum, Jan. 28, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.96	7.19	6.78	6.01	4.24	8.05	3.43	8.16	5.99	9.22	10.32	10.45
10	9.14	6.46	7.02	3.38	5.35	8.25	3.85	8.39	6.24	9.56	10.14	10.55
15	9.13	5.09	6.22	4.30	6.31	4.39	5.16	6.95	6.87	9.83	10.21	10.64
20	3.17	6.03	3.02	---	6.85	2.21	6.09	3.36	7.82	10.06	10.38	10.48
25	4.36	6.97	2.72	5.77	7.48	2.50	6.83	4.05	8.36	10.29	10.56	10.46
EOM	6.11	7.49	4.51	2.56	7.72	2.60	7.61	5.90	8.88	10.43	10.67	10.57
WTR YR 1978	HIGH	1.53	JAN 28	LOW	10.70	AUG 30						

CAMERON COUNTY

387

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.08	23.06	22.63	22.92	23.13	23.34	22.70	23.09	23.08	23.76	23.92	23.49
10	22.99	22.52	22.97	22.69	22.91	23.23	22.61	23.21	23.20	23.80	23.42	23.65
15	22.85	22.65	22.65	22.79	23.07	23.10	22.95	22.75	23.39	23.97	23.43	23.58
20	22.85	22.80	22.53	22.90	23.09	23.13	22.60	22.76	23.40	23.90	23.67	23.45
25	22.98	22.62	22.35	22.86	23.12	22.91	23.00	22.75	23.44	23.86	23.57	23.44
EOM	23.10	23.07	22.84	22.83	23.28	22.68	22.99	22.84	23.60	23.80	23.63	23.51

WTR YR 1978 HIGH 22.35 DEC 25 LOW 24.02 JUL 22 AND OTHERS

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, 51.91 ft (15.82 m) below land-surface datum, Sept. 8, 1978, and others; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	63.32	63.87	64.18	64.36	63.87	63.61	62.68	61.13	58.14	---	52.70	51.94
10	63.42	63.90	64.28	64.30	63.78	63.61	62.46	60.87	57.66	---	52.47	51.94
15	63.50	63.94	64.30	64.22	63.72	63.56	62.19	60.55	57.10	---	52.33	51.94
20	63.59	64.03	64.31	64.18	63.69	63.48	61.90	59.86	56.50	---	52.19	51.94
25	63.67	64.05	64.29	---	63.63	63.27	61.69	59.36	55.90	53.20	52.06	52.01
EOM	63.79	64.15	64.34	63.94	63.64	62.96	61.40	58.67	---	52.91	51.99	52.06

WTR YR 1978 HIGH 51.91 SEP 8 AND OTHERS LOW 64.36 JAN 4 AND OTHERS

CLEARFIELD COUNTY

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 1977 TO SEPTEMBER 1978
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	19.87	---	---	---	---	---	---	---	---	20.01	---
10	---	---	19.16	---	---	---	---	---	18.39	---	---	---
15	19.34	---	---	---	---	---	18.40	---	---	19.81	---	---
20	---	---	---	---	---	---	---	17.01	---	---	---	---
25	---	---	---	---	19.89	17.40	---	---	---	---	---	---
EOM	---	---	18.77	---	---	---	---	---	---	---	---	19.62
WTR YR 1978	HIGH	17.01 MAY 20	LOW	20.05 JUL 29								

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.06	47.61	46.52	---	---	48.83	---	47.15	---	---	---	---
10	49.56	47.04	---	---	---	49.20	---	47.51	---	---	---	---
15	49.04	46.55	---	---	---	49.37	---	47.31	---	---	---	---
20	48.42	46.41	46.97	---	---	49.22	45.84	46.75	47.66	49.89	---	---
25	47.92	46.28	---	47.57	48.45	48.46	46.26	46.38	48.13	---	---	---
EOM	47.60	46.64	---	47.55	48.66	47.47	46.60	46.29	---	---	---	50.72
WTR YR 1978	HIGH	45.84 APR 20	LOW	51.25 SEP 21								

COLUMBIA COUNTY

389

410033076264901. Local number, Co 45.

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, 76.1 ft (23.2 m) below land-surface datum, Dec. 22, 1977; lowest, 88.78 ft (27.060 m) below land-surface datum, Oct. 20, 1972 and others.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.13	83.78	82.39		82.92	84.11	---	---	82.35	84.11	84.30	---
10	84.01	83.15	83.06		83.15	83.80	---	---	82.89	84.30	84.30	---
15	82.47	82.70	81.98		83.69	80.64	---	---	83.04	84.53	---	---
20	82.75	83.00	78.30		83.74	82.13	81.43	81.13	83.40	84.86	84.82	84.84
25	83.04	83.01	---		84.03	---	82.61	81.45	83.85	84.94	85.04	84.37
EOM	83.52	83.09	---		84.07	---	---	81.97	84.26	84.60	---	84.90

WTR YR 1978 HIGH 76.10 DEC 22 LOW 85.14 AUG 26 AND OTHERS

CUMBERLAND COUNTY

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.86	26.14	17.86	13.71	13.00	---	11.25	14.97	13.94	19.03	21.89	22.43
10	27.87	23.14	17.19	13.30	13.42	---	11.94	15.38	15.04	---	22.02	22.93
15	27.80	21.35	16.76	13.22	14.09	16.00	12.87	13.72	16.19	---	20.91	23.41
20	27.30	21.00	15.70	13.37	14.55	14.04	13.28	10.86	---	---	20.76	23.90
25	26.94	20.72	13.81	---	15.10	11.43	---	11.81	---	---	21.14	24.30
EOM	26.73	20.41	13.33	12.86	15.35	10.01	14.37	12.93	18.77	21.42	21.93	24.70

WTR YR 1978 HIGH 9.92 MAR 29 LOW 27.88 OCT 8 AND OTHERS

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.39	4.79	4.09	4.70	4.45	4.96	4.11	4.78	4.94	4.69	3.96	5.01
10	4.99	4.03	4.35	4.07	4.62	4.91	4.24	4.19	5.13	5.12	4.29	5.24
15	4.54	4.21	4.05	4.43	4.78	3.52	4.54	3.34	5.28	5.25	4.59	5.31
20	4.40	4.45	3.78	4.47	4.83	3.70	4.25	3.80	5.40	4.80	5.05	4.44
25	4.65	4.32	3.96	4.58	4.91	3.91	4.34	3.88	---	5.10	5.21	---
EOM	4.90	4.23	4.42	4.19	4.88	3.87	4.65	4.61	5.40	5.01	5.12	5.07

WTR YR 1978 HIGH 3.19 MAR 27 LOW 5.46 OCT 1 AND OTHERS

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, 10.22 ft (3.12 m) below land-surface datum, Mar. 22, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.20	37.97	27.77	---	25.25	45.58	21.03	42.55	35.93	30.48	47.50	45.76
10	38.08	33.79	30.81	---	31.84	45.62	25.73	37.51	41.61	42.22	44.62	47.28
15	47.47	---	33.14	---	37.58	---	31.94	27.67	44.71	46.19	45.86	47.51
20	44.46	---	25.18	---	42.00	14.10	34.00	14.90	45.52	46.70	47.40	47.66
25	47.79	43.49	20.41	35.12	44.45	13.58	39.36	20.91	45.71	47.92	48.30	48.13
EOM	48.09	38.07	---	20.38	44.21	13.92	43.86	28.62	46.34	48.18	47.60	48.63

WTR YR 1978 HIGH 10.22 MAR 28 LOW 48.66 AUG 30

FRANKLIN COUNTY

391

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.48	33.41	29.61	25.87	23.56	29.60	22.02	28.84	27.56	---	31.04	32.46
10	32.57	33.75	29.66	25.96	25.95	29.64	24.26	29.02	28.68	---	31.78	32.91
15	34.59	32.48	28.61	23.29	27.37	22.28	26.15	27.86	29.05	31.60	32.51	32.98
20	34.64	32.93	25.95	25.78	28.67	20.09	27.35	24.10	29.48	30.08	32.98	32.26
25	35.49	31.81	25.68	27.97	29.35	19.65	28.13	25.07	---	30.55	32.81	33.02
EOM	35.16	31.36	24.73	22.17	28.37	19.33	28.70	26.01	---	31.93	32.66	33.69
WTR YR 1978	HIGH	17.47	MAR 28	LOW	35.49	OCT 24	AND OTHERS					

FULTON COUNTY

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-1.99	.05	.87	.03	.05	-0.88	1.04	-0.05	.06	.79	-1.21	-1.84
10	-1.67	1.07	-0.04	.72	-0.33	-0.82	---	.61	-0.40	.10	-1.28	-2.04
15	-1.42	.61	.89	.19	---	1.18	---	1.45	-0.73	-0.47	-1.47	-2.12
20	-0.30	.04	1.45	.38	---	1.26	---	1.45	-0.63	-1.00	-1.70	-2.03
25	-0.77	-0.10	1.20	---	-0.63	1.26	.40	1.44	-0.05	-1.14	-1.82	---
EOM	-0.50	-0.35	.60	.60	-0.68	1.26	.12	.70	-0.58	-1.36	-1.98	-2.27
WTR YR 1978	MAX	2.00	MAR 21	AND OTHERS	MIN	-2.27	SEP 30					

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.88	54.20	53.57	54.07	53.79	54.61	53.17	54.29	53.94	54.47	53.91	54.89
10	54.62	53.34	54.19	53.73	53.68	54.56	53.23	54.17	54.28	54.53	53.69	55.10
15	54.57	53.45	53.96	53.75	54.03	53.69	53.82	53.00	54.51	54.59	53.77	55.03
20	53.82	54.00	53.16	53.87	54.28	53.10	53.82	52.49	54.60	54.54	54.41	55.01
25	54.11	54.12	53.26	---	54.33	52.84	54.13	53.10	54.55	54.69	54.56	---
EOM	54.25	54.10	53.68	53.34	54.46	52.62	54.17	53.66	54.64	54.70	54.81	55.13
WTR YR 1978	HIGH	52.24	MAY 17	LOW	55.14	SEP 14						

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, 11.20 ft (3.41 m) below land-surface datum, May 15, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.07	12.60	12.64	13.38	---	13.52	12.66	13.13	13.20	12.57	12.64	---
10	13.38	12.25	13.35	12.44	13.27	13.47	12.79	12.95	13.41	13.15	13.22	---
15	13.56	12.97	13.09	13.08	13.37	12.01	13.08	11.20	13.53	13.31	13.55	---
20	12.78	13.23	12.29	13.17	13.39	12.12	13.01	12.30	14.03	13.65	14.14	---
25	13.45	13.33	12.74	---	13.46	12.32	13.10	12.73	14.04	14.05	---	14.75
EOM	13.56	13.37	13.13	---	13.44	12.48	13.10	13.08	13.71	14.11	---	14.90
WTR YR 1978	HIGH	11.20	MAY 15	LOW	14.90	SEP 29 AND OTHERS						

LANCASTER COUNTY

393

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, 16.92 ft (5.16 m) below land-surface datum, Mar. 28, 1978;

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.33	33.34	32.19	29.35	26.68	32.71	23.33	32.44	31.85	29.34	32.75	32.93
10	33.24	33.29	32.29	28.63	28.86	32.78	25.76	32.63	32.45	30.06	32.72	32.96
15	32.84	33.24	32.55	28.77	30.71	30.63	27.96	31.70	32.66	31.26	32.80	33.00
20	33.28	33.28	27.73	28.40	31.87	27.22	29.35	28.75	32.80	32.08	32.85	33.02
25	33.33	33.16	23.75	29.35	32.50	26.95	30.76	29.43	---	32.50	32.95	33.03
EOM	33.34	33.01	26.97	24.18	32.60	20.35	31.81	30.99	31.91	32.63	32.80	33.06

WTR YR 1978 HIGH 16.92 MAR 28 LOW 33.34 OCT 7 AND OTHERS

LUZERNE COUNTY

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.19	52.02	51.09	---	51.02	53.64	49.49	52.31	52.09	54.49	55.09	55.15
10	51.38	51.76	51.42	---	51.73	53.75	51.00	52.30	52.71	54.65	54.68	54.81
15	51.37	50.96	51.45	---	52.36	53.50	51.02	51.40	53.09	54.78	55.00	54.78
20	49.98	51.39	50.58	---	52.82	51.97	51.59	49.64	53.57	54.82	55.31	53.84
25	50.58	51.95	50.06	51.71	53.14	50.60	51.57	50.45	---	54.82	55.38	52.75
EOM	51.50	52.22	---	50.32	53.34	48.80	52.25	51.46	54.37	55.18	55.34	53.25

WTR YR 1978 HIGH 48.78 MAR 30 LOW 55.96 SEP 2

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.75	88.21	84.74	87.09	87.24	90.11	85.50	88.06	87.20	89.04	89.39	88.16
10	86.24	83.53	86.40	84.03	88.09	90.12	85.24	88.11	85.43	89.39	87.80	88.83
15	86.49	84.45	86.61	85.86	88.89	87.34	86.72	83.82	86.02	89.85	88.28	89.24
20	85.03	86.47	84.05	87.06	89.32	85.51	87.12	84.10	87.08	90.10	88.85	86.70
25	86.36	86.99	84.95	87.88	89.67	83.29	86.34	85.81	---	90.42	89.24	---
EOM	87.76	87.61	85.70	86.14	89.92	83.61	87.24	86.96	88.60	90.48	---	87.00

WTR YR 1978 HIGH 82.42 MAR 28 LOW 90.50 JUL 28 AND OTHERS

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 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	18.91	DEC 5	19.96	FEB 6	19.00	APR 3	14.93	JUN 6	17.97	AUG 7	16.94
10	17.91	12	19.93	13	19.97	11	16.95	19	20.99	15	19.94
18	9.95	19	14.93	14	19.00	17	17.99	26	20.93	21	19.99
24	14.97	27	19.93	20	20.96	24	15.96	JUL 3	20.93	28	21.90
31	13.00	JAN 3	18.91	27	20.69	MAY 1	19.92	10	20.95	SEP 5	16.99
NOV 8	7.00	9	9.00	MAR 6	20.69	10	19.96	20	15.95	11	23.40
14	13.95	16	17.10	13	20.40	15	13.04	24	15.96	18	22.96
21	17.88	23	18.45	20	15.91	22	13.99	31	19.91	30	22.96
28	18.95	30	13.90	27	12.87	30	15.98				

WTR YR 1978 HIGH 7.00 NOV 8 LOW 23.40 SEP 11

PERRY COUNTY

395

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, 9.48 ft (2.89 m) below land-surface datum, May 17, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.88	13.22	11.54	12.04	11.49	12.21	11.45	11.48	11.48	10.65	11.09	12.08
10	13.54	11.99	---	11.09	11.84	11.92	11.11	11.41	12.05	11.25	10.29	12.34
15	13.38	12.18	---	11.55	12.13	10.64	11.64	10.11	11.89	11.45	11.13	12.39
20	12.65	12.71	10.92	11.65	12.04	10.25	11.30	10.35	11.80	11.70	11.53	12.28
25	12.74	12.51	10.95	---	12.19	10.61	11.39	10.97	12.15	11.82	11.48	12.06
EOM	13.19	12.21	11.80	11.29	12.14	10.68	11.50	11.38	11.60	11.85	11.85	12.87

WTR YR 1978 HIGH 9.48 MAY 17 LOW 13.99 OCT 1

POTTER COUNTY

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, 29.09 ft (8.87 m) below land-surface datum, July 29, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.11	19.66	16.17	20.65	19.91	23.49	---	21.00	22.92	27.40	---	28.34
10	16.10	12.99	19.52	14.01	21.04	23.55	---	18.62	22.71	27.79	---	27.92
15	---	16.91	13.32	18.46	22.00	16.82	---	11.85	23.55	28.24	---	28.23
20	13.98	15.72	16.04	20.41	22.50	17.80	---	15.35	24.30	28.75	---	23.42
25	17.70	18.44	17.63	21.41	22.87	---	17.05	18.65	25.78	28.80	27.80	26.78
EOM	20.48	20.08	18.67	17.56	23.17	---	19.81	21.40	26.81	28.47	28.52	28.08

WTR YR 1978 HIGH 11.85 MAY 15 LOW 29.09 JUL 29

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.16	19.18	18.37	19.00	18.81	19.23	18.72	19.09	19.04	19.23	19.31	---
10	18.97	18.15	18.95	17.63	18.98	19.23	18.60	19.13	19.11	19.24	19.19	---
15	19.05	18.64	18.81	18.71	19.10	16.09	18.90	18.35	19.15	19.17	19.29	---
20	18.38	19.03	17.50	18.93	19.15	16.75	18.92	18.12	19.18	19.25	19.33	---
25	18.91	19.07	18.04	18.76	19.16	18.06	18.83	18.47	19.18	19.27	19.29	---
EOM	19.13	18.75	18.75	18.43	19.20	18.19	18.98	18.87	19.24	19.29	19.30	19.42
WTR YR 1978	HIGH	16.09	MAR 15	LOW	19.42	SEP 26	AND OTHERS					

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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.66	27.05	24.03	26.21	25.32	27.50	23.80	27.06	---	27.40	27.36	26.35
10	24.91	25.75	25.50	18.07	26.12	27.64	24.30	26.43	---	28.06	24.32	27.24
15	25.07	23.63	25.04	24.16	26.73	15.08	25.51	24.51	28.45	28.42	25.94	28.07
20	22.00	25.53	21.70	25.45	27.00	20.71	26.25	22.50	26.13	28.75	27.27	26.15
25	24.52	26.33	23.55	25.85	27.27	---	25.68	---	26.54	29.08	28.09	26.48
EOM	26.34	26.48	24.96	23.58	27.39	21.58	26.37	---	27.54	28.68	28.65	27.62
WTR YR 1978	HIGH	14.64	JAN 26	LOW	29.18	JUN 13						

SUSQUEHANNA COUNTY

397

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, 21.49 ft (6.55 m) below land-surface datum, Apr. 3, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.29	30.45	27.47	29.24	27.33	31.98	21.91	30.62	31.36	32.05	33.48	34.49
10	28.54	29.42	28.75	28.11	28.65	32.11	23.25	29.29	31.63	31.39	33.22	34.54
15	28.89	26.41	28.91	25.84	29.89	31.92	26.45	28.50	31.42	32.08	33.42	34.53
20	24.15	28.49	25.84	27.60	30.85	28.80	28.30	28.63	31.62	32.70	33.70	34.12
25	25.84	29.40	26.76	28.77	31.26	24.65	28.93	29.13	32.06	33.14	34.00	33.98
EOM	29.03	30.16	27.71	24.99	31.59	21.95	29.77	30.46	32.32	33.59	34.36	34.19
WTR YR 1978	HIGH	21.49	APR 3	LOW	34.64	SEP 17	AND OTHERS					

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 1977 TO SEPTEMBER 1978

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	8.80	DEC 3	14.68	FEB 4	17.57	APR 1	6.30	JUN 3	16.25	AUG 5	16.31
8	13.26	10	14.80	11	15.98	8	9.20	10	16.85	12	14.70
15	14.64	17	10.35	18	17.20	15	13.08	17	17.50	19	14.75
22	7.65	24	10.37	25	17.20	22	13.12	24	17.85	26	17.30
29	13.90	31	11.00	MAR 4	17.98	28	15.09	JUL 1	17.85	SEP 2	17.70
NOV 5	14.53	JAN 7	15.35	11	17.98	MAY 6	16.55	8	18.65	9	18.25
12	5.79	14	15.40	18	6.75	13	16.85	15	17.60	16	18.35
19	9.55	21	15.45	25	5.70	20	5.68	22	13.35	23	18.80
26	10.45	28	15.37			27	11.58	28	16.70	30	18.35
WTR YR 1978	HIGH	5.68	MAY 20	LOW	18.80	SEP 23					

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, 31.02 ft (9.45 m) below land-surface datum, Mar. 27, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.41	32.47	32.06		---	32.64	31.41	32.26	32.00	32.73	32.39	32.58
10	32.52	31.49	---		---	32.38	31.37	32.30	32.13	32.75	31.90	32.66
15	32.38	31.61	---		---	31.97	31.67	31.46	32.26	32.30	31.89	32.64
20	32.02	32.00	31.57		32.32	31.80	31.49	31.21	32.33	31.98	32.18	32.55
25	32.14	32.08	31.80		32.42	31.39	31.77	31.43	32.38	32.14	32.43	32.68
EOM	32.53	31.91	31.97		32.56	31.20	31.93	31.70	32.51	32.22	32.51	32.73
WTR YR 1978	HIGH	31.02	MAR 27	LOW	33.01	SEP 13						

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, 25.26 ft (7.70 m) below land-surface datum, Apr. 10, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	35.29	36.87	36.65	35.25	38.99	27.96	36.72	34.76	39.30	40.33	40.38
10	---	28.60	37.04	36.25	36.24	39.25	25.26	37.43	36.37	39.57	40.20	40.44
15	---	27.94	37.00	33.83	37.19	39.41	28.49	36.15	37.40	39.78	40.21	40.50
20	---	31.90	37.15	34.90	37.83	39.45	32.35	---	38.04	39.92	40.27	40.55
25	---	34.48	36.97	35.81	38.40	38.89	34.74	---	38.58	40.11	40.31	---
EOM	34.26	36.21	36.49	35.30	38.63	33.94	35.83	32.50	39.02	40.24	40.34	40.71
WTR YR 1978	HIGH	25.26	APR 10	LOW	40.72	SEP 29						

YORK COUNTY

399

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, 20.38 ft (6.21 m) below land-surface datum, Apr. 1, 1978; 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 1977 TO SEPTEMBER 1978
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.25	28.09	23.96	22.23	21.87	24.48	20.91	24.30	23.04	25.38	26.01	24.72
10	30.18	27.41	23.46	22.11	22.22	24.44	21.19	24.69	23.83	25.28	25.44	25.05
15	29.46	26.84	23.05	22.08	23.06	23.51	21.83	24.51	24.44	25.63	24.95	25.71
20	28.64	26.71	22.12	21.91	23.68	22.48	22.12	23.00	25.00	25.61	25.02	25.80
25	28.27	26.09	21.05	22.18	24.15	22.01	22.76	22.32	---	25.81	25.42	26.00
EOM	28.16	25.39	21.60	21.55	24.33	20.51	23.41	22.36	25.51	25.67	25.21	26.71

WTR YR 1978 HIGH 20.38 APR 1 LOW 30.32 OCT 7

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
00623	NITROGEN, AMMONIA PLUS ORGANIC, DISSOLVED (MG/L AS N)
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)
00624	NITROGEN, AMMONIA PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS N)
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)
00625	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL (MG/L AS N)
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)
00626	NITROGEN, AMMONIA PLUS ORGANIC, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00626	NITROGEN, KJELDAHL, TOTAL IN BOTTOM MATERIAL, DRY WT (MG/KG AS N)
00683	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00683	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED TOTAL (MG/L AS C)
00688	CARBON, INORGANIC, SUSPENDED (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00689	CARBON, ORGANIC, SUSPENDED (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED TOTAL (MG/L AS C)
00694	CARBON, INORGANIC PLUS ORGANIC, SUSPENDED (MG/L AS C)
00916	CALCIUM, TOTAL RECOVERABLE (MG/L AS CA)
00916	CALCIUM, TOTAL (MG/L AS CA)
00926	MAGNESIUM, SUSPENDED RECOVERABLE (MG/L AS MG)
00926	MAGNESIUM, SUSPENDED (MG/L AS MG)
00927	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)
00927	MAGNESIUM, TOTAL (MG/L AS MG)
01001	ARSENIC, SUSPENDED TOTAL (UG/L AS AS)
01001	ARSENIC, SUSPENDED (UG/L AS AS)
01006	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)
01006	BARIUM, SUSPENDED (UG/L AS BA)
01007	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)
01007	BARIUM, TOTAL (UG/L AS BA)
01008	BARIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BA)
01008	BARIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BA)
01011	BERYLLIUM, SUSPENDED RECOVERABLE (UG/L AS BE)
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)
01012	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
01012	BERYLLIUM, TOTAL (UG/L AS BE)
01013	BERYLLIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS BE)
01013	BERYLLIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS BE)
01016	BISMUTH, SUSPENDED TOTAL (UG/L AS BI)
01016	BISMUTH, SUSPENDED (UG/L AS BI)
01021	BORON, SUSPENDED RECOVERABLE (UG/L AS B)
01021	BORON, SUSPENDED (UG/L AS B)
01022	BORON, TOTAL RECOVERABLE (UG/L AS B)
01022	BORON, TOTAL (UG/L AS B)
01023	BORON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS B)
01023	BORON, TOTAL IN BOTTOM MATERIAL (UG/G AS B)
01026	CADMIUM, SUSPENDED RECOVERABLE (UG/L AS CD)
01026	CADMIUM, SUSPENDED (UG/L AS CD)
01027	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD)
01027	CADMIUM, TOTAL (UG/L AS CD)
01028	CADMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CD)
01028	CADMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CD)
01029	CHROMIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CR)
01029	CHROMIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS CR)

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01031	CHROMIUM, SUSPENDED RECOVERABLE (UG/L AS CR)
01031	CHROMIUM, SUSPENDED (UG/L AS CR)
01034	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
01034	CHROMIUM, TOTAL (UG/L AS CR)
01036	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)
01036	COBALT, SUSPENDED (UG/L AS CO)
01037	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
01037	COBALT, TOTAL (UG/L AS CO)
01038	COBALT, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CO)
01038	COBALT, TOTAL IN BOTTOM MATERIAL (UG/G AS CO)
01041	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)
01041	COPPER, SUSPENDED (UG/L AS CU)
01042	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
01042	COPPER, TOTAL (UG/L AS CU)
01043	COPPER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS CU)
01043	COPPER, TOTAL IN BOTTOM MATERIAL (UG/G AS CU)
01044	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
01044	IRON, SUSPENDED (UG/L AS FE)
01045	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01045	IRON, TOTAL (UG/L AS FE)
01050	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
01050	LEAD, SUSPENDED (UG/L AS PB)
01051	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
01051	LEAD, TOTAL (UG/L AS PB)
01052	LEAD, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS PB)
01052	LEAD, TOTAL IN BOTTOM MATERIAL (UG/G AS PB)
01053	MANGANESE, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MN)
01053	MANGANESE, TOTAL IN BOTTOM MATERIAL (UG/G AS MN)
01054	MANGANESE, SUSPENDED RECOVERABLE (UG/L AS MN)
01054	MANGANESE, SUSPENDED (UG/L AS MN)
01055	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
01055	MANGANESE, TOTAL (UG/L AS MN)
01061	MOLYBDENUM, SUSPENDED RECOVERABLE (UG/L AS MO)
01061	MOLYBDENUM, SUSPENDED (UG/L AS MO)
01062	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
01062	MOLYBDENUM, TOTAL (UG/L AS MO)
01063	MOLYBDENUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS MO)
01063	MOLYBDENUM, TOTAL IN BOTTOM MATERIAL (UG/G AS MO)
01066	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
01066	NICKEL, SUSPENDED (UG/L AS NI)
01067	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
01067	NICKEL, TOTAL (UG/L AS NI)
01068	NICKEL, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS NI)
01068	NICKEL, TOTAL IN BOTTOM MATERIAL (UG/G AS NI)
01076	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)
01076	SILVER, SUSPENDED (UG/L AS AG)
01077	SILVER, TOTAL RECOVERABLE (UG/L AS AG)
01077	SILVER, TOTAL (UG/L AS AG)
01078	SILVER, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AG)
01078	SILVER, TOTAL IN BOTTOM MATERIAL (UG/G AS AG)

PARAM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01081	STRONTIUM, SUSPENDED RECOVERABLE (UG/L AS SR)
01081	STRONTIUM, SUSPENDED (UG/L AS SR)
01082	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)
01082	STRONTIUM, TOTAL (UG/L AS SR)
01083	STRONTIUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS SR)
01083	STRONTIUM, TOTAL IN BOTTOM MATERIAL (UG/G AS SR)
01086	VANADIUM, SUSPENDED TOTAL (UG/L AS V)
01086	VANADIUM, SUSPENDED (UG/L AS V)
01091	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)
01091	ZINC, SUSPENDED (UG/L AS ZN)
01092	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
01092	ZINC, TOTAL (UG/L AS ZN)
01093	ZINC, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS ZN)
01093	ZINC, TOTAL IN BOTTOM MATERIAL (UG/G AS ZN)
01096	ANTIMONY, SUSPENDED TOTAL (UG/L AS SB)
01096	ANTIMONY, SUSPENDED (UG/L AS SB)
01101	TIN, SUSPENDED RECOVERABLE (UG/L AS SN)
01101	TIN, SUSPENDED (UG/L AS SN)
01102	TIN, TOTAL RECOVERABLE (UG/L AS SN)
01102	TIN, TOTAL (UG/L AS SN)
01105	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
01105	ALUMINUM, TOTAL (UG/L AS AL)
01107	ALUMINUM, SUSPENDED RECOVERABLE (UG/L AS AL)
01107	ALUMINUM, SUSPENDED (UG/L AS AL)
01108	ALUMINUM, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS AL)
01108	ALUMINUM, TOTAL IN BOTTOM MATERIAL (UG/G AS AL)
01116	CESIUM, SUSPENDED TOTAL (UG/L AS CS)
01116	CESIUM, SUSPENDED (UG/L AS CS)
01121	GALLIUM, SUSPENDED TOTAL (UG/L AS GA)
01121	GALLIUM, SUSPENDED (UG/L AS GA)
01126	GERMANIUM, SUSPENDED TOTAL (UG/L AS GE)
01126	GERMANIUM, SUSPENDED (UG/L AS GE)
01131	LITHIUM, SUSPENDED RECOVERABLE (UG/L AS LI)
01131	LITHIUM, SUSPENDED (UG/L AS LI)
01132	LITHIUM, TOTAL RECOVERABLE (UG/L AS LI)
01132	LITHIUM, TOTAL (UG/L AS LI)
01136	RUBIDIUM, SUSPENDED TOTAL (UG/L AS RB)
01136	RUBIDIUM, SUSPENDED (UG/L AS RB)
01146	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)
01146	SELENIUM, SUSPENDED (UG/L AS SE)
01151	TITANIUM, SUSPENDED TOTAL (UG/L AS TI)
01151	TITANIUM, SUSPENDED (UG/L AS TI)
01161	ZIRCONIUM, SUSPENDED TOTAL (UG/L AS ZR)
01161	ZIRCONIUM, SUSPENDED (UG/L AS ZR)
01170	IRON, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS FE)
01170	IRON, TOTAL IN BOTTOM MATERIAL (UG/G AS FE)
01505	ALPHA, SUSPENDED TOTAL (PCI/L)
01505	ALPHA, SUSPENDED (PCI/L)
01506	ALPHA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
01506	ALPHA, SUSPENDED, COUNTING ERROR (PCI/L)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS U NATURAL)
01516	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/L AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS U NATURAL)
01517	GROSS ALPHA RADIOACTIVITY, SUSPENDED (PCI/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/G AS U NATURAL)
01518	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/G AS U NATURAL)
03505	BETA, SUSPENDED TOTAL (PCI/L)
03505	BETA, SUSPENDED (PCI/L)
03506	BETA, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
03506	BETA, SUSPENDED, COUNTING ERROR (PCI/L)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS CS-137)
03516	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS CS-137)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS SR/YT-90)
03517	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS SR/YT-90)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/G AS CS-137)
03518	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/G AS CS-137)
07010	TRITIUM, SUSPENDED TOTAL (PCI/L)
07010	TRITIUM, SUSPENDED (PCI/L)
07011	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07011	TRITIUM, SUSPENDED, COUNTING ERROR (PCI/L)
07014	TRITIUM, SUSPENDED TOTAL, COUNTING ERROR (TRITIUM UNITS)
07014	TRITIUM, SUSPENDED, COUNTING ERROR (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED TOTAL (TRITIUM UNITS)
07016	TRITIUM, SUSPENDED (TRITIUM UNITS)
07052	CALCIUM 45, SUSPENDED TOTAL (PCI/L)
07052	CALCIUM 45, SUSPENDED (PCI/L)
07053	CALCIUM 45, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07053	CALCIUM 45, SUSPENDED, COUNTING ERROR (PCI/L)
07062	IRON 59, SUSPENDED TOTAL (PCI/L)
07062	IRON 59, SUSPENDED (PCI/L)
07063	IRON 59, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07063	IRON 59, SUSPENDED, COUNTING ERROR (PCI/L)
07082	RHODAMINE WT, SUSPENDED TOTAL (UG/L)
07082	RHODAMINE WT, SUSPENDED (UG/L)
07102	SELENIUM 75, SUSPENDED TOTAL (PCI/L)
07102	SELENIUM 75, SUSPENDED (PCI/L)
07103	SELENIUM 75, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07103	SELENIUM 75, SUSPENDED, COUNTING ERROR (PCI/L)
07122	SILVER 110, SUSPENDED TOTAL (PCI/L)
07122	SILVER 110, SUSPENDED (PCI/L)
07123	SILVER 110, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07123	SILVER 110, SUSPENDED, COUNTING ERROR (PCI/L)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
07142	SULFUR 35, SUSPENDED TOTAL (PCI/L)
07142	SULFUR 35, SUSPENDED (PCI/L)
07143	SULFUR 35, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
07143	SULFUR 35, SUSPENDED, COUNTING ERROR (PCI/L)
09505	RADIUM 226, SUSPENDED TOTAL (PCI/L)
09505	RADIUM 226, SUSPENDED (PCI/L)
13505	STRONTIUM 90, SUSPENDED TOTAL (PCI/L)
13505	STRONTIUM 90, SUSPENDED (PCI/L)
13506	STRONTIUM 90, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
13506	STRONTIUM 90, SUSPENDED, COUNTING ERROR (PCI/L)
22705	URANIUM, NATURAL, SUSPENDED TOTAL (UG/L AS U NATURAL)
22705	URANIUM, NATURAL, SUSPENDED (UG/L AS U NATURAL)
28404	CESIUM 137, SUSPENDED TOTAL (PCI/L)
28404	CESIUM 137, SUSPENDED (PCI/L)
28405	CESIUM 137, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28405	CESIUM 137, SUSPENDED, COUNTING ERROR (PCI/L)
28412	CESIUM 134, SUSPENDED TOTAL (PCI/L)
28412	CESIUM 134, SUSPENDED (PCI/L)
28413	CESIUM 134, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
28413	CESIUM 134, SUSPENDED, COUNTING ERROR (PCI/L)
29633	SCANDIUM 46, SUSPENDED TOTAL (PCI/L)
29633	SCANDIUM 46, SUSPENDED (PCI/L)
29634	SCANDIUM 46, SUSPENDED TOTAL, COUNTING ERROR (PCI/L)
29634	SCANDIUM 46, SUSPENDED, COUNTING ERROR (PCI/L)
39332	ALDRIN, SUSPENDED TOTAL (UG/L)
39332	ALDRIN, SUSPENDED (UG/L)
39342	LINDANE, SUSPENDED TOTAL (UG/L)
39342	LINDANE, SUSPENDED (UG/L)
39353	CHLORDANE, SUSPENDED TOTAL (UG/L)
39353	CHLORDANE, SUSPENDED (UG/L)
39362	DDD, SUSPENDED TOTAL (UG/L)
39362	DDD, SUSPENDED (UG/L)
39367	DDE, SUSPENDED TOTAL (UG/L)
39367	DDE, SUSPENDED (UG/L)
39372	DDT, SUSPENDED TOTAL (UG/L)
39372	DDT, SUSPENDED (UG/L)
39382	DIELDRIN, SUSPENDED TOTAL (UG/L)
39382	DIELDRIN, SUSPENDED (UG/L)
39392	ENDRIN, SUSPENDED TOTAL (UG/L)
39392	ENDRIN, SUSPENDED (UG/L)
39402	TOXAPHENE, SUSPENDED TOTAL (UG/L)
39402	TOXAPHENE, SUSPENDED (UG/L)
39412	HEPTACHLOR, SUSPENDED TOTAL (UG/L)
39412	HEPTACHLOR, SUSPENDED (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED TOTAL (UG/L)
39422	HEPTACHLOR EPOXIDE, SUSPENDED (UG/L)
39432	ISODRIN, SUSPENDED TOTAL (UG/L)
39432	ISODRIN, SUSPENDED (UG/L)

PARM. CODE	NEW TERMINOLOGY -- FIRST LINE OLD TERMINOLOGY -- SECOND LINE
39502	AROCLOR, SUSPENDED TOTAL, 1248 PCB SERIES (UG/L)
39502	AROCLOR, SUSPENDED, 1248 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED TOTAL, 1254 PCB SERIES (UG/L)
39506	AROCLOR, SUSPENDED, 1254 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED TOTAL, 1260 PCB SERIES (UG/L)
39510	AROCLOR, SUSPENDED, 1260 PCB SERIES (UG/L)
39518	PCB, SUSPENDED TOTAL (UG/L)
39518	PCB, SUSPENDED (UG/L)
39533	MALATHION, SUSPENDED TOTAL (UG/L)
39533	MALATHION, SUSPENDED (UG/L)
39543	PARATHION, SUSPENDED TOTAL (UG/L)
39543	PARATHION, SUSPENDED (UG/L)
39573	DIAZINON, SUSPENDED TOTAL (UG/L)
39573	DIAZINON, SUSPENDED (UG/L)
39603	METHYL PARATHION, SUSPENDED TOTAL (UG/L)
39603	METHYL PARATHION, SUSPENDED (UG/L)
39733	2,4-D, SUSPENDED TOTAL (UG/L)
39733	2,4-D, SUSPENDED (UG/L)
39743	2,4,5-T, SUSPENDED TOTAL (UG/L)
39743	2,4,5-T, SUSPENDED (UG/L)
39757	MIREX, SUSPENDED TOTAL (UG/L)
39757	MIREX, SUSPENDED (UG/L)
39763	SILVEX, SUSPENDED TOTAL (UG/L)
39763	SILVEX, SUSPENDED (UG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED TOTAL (MG/L)
70299	SOLIDS, RESIDUE AT 110 DEG. C, SUSPENDED (MG/L)
71895	MERCURY, SUSPENDED RECOVERABLE (UG/L AS HG)
71895	MERCURY, SUSPENDED (UG/L AS HG)
71900	MERCURY, TOTAL RECOVERABLE (UG/L AS HG)
71900	MERCURY, TOTAL (UG/L AS HG)
71921	MERCURY, RECOVERABLE FROM BOTTOM MATERIAL (UG/G AS HG)
71921	MERCURY, TOTAL IN BOTTOM MATERIAL (UG/G AS HG)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED TOTAL (UG/L AS U NATURAL)
80040	GROSS ALPHA RADIOACTIVITY, SUSPENDED (UG/L AS U NATURAL)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED TOTAL (PCI/L AS SR/YT-90)
80060	GROSS BETA RADIOACTIVITY, SUSPENDED (PCI/L AS SR/YT-90)

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

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound 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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