Water Resources Data Maryland and Delaware Water Year 1982

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-82-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

CALENDAR FOR WATER YEAR 1982

1981

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1982

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Water Resources Data Maryland and Delaware Water Year 1982

by Robert W. James, Jr., Robert H. Simmons, and Bernard F. Strain

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-82-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

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U.S. Geological Survey
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Towson, Maryland 21204

1983

PREFACE

This volume of the annual hydrologic data report of Maryland and Delaware is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S.Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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Prepared in cooperation with the States of Maryland and Delaware and with other agencies.

16. Abstract (Limit: 200 words)

Water resources data for the 1982 water year for Maryland and Delaware consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 108 gaging stations; stage and contents at 1 reservoir; water quality at 43 gaging stations and 129 wells; and water levels at 27 observation wells. Also included are data for 12 crest-stage, 59 low-flow, and 4 tidal crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.

17. Document Analysis a. Descriptors

*Maryland, *Delaware, *District of Columbia, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

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WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1982

INTRODUCTION

Water resources data for the 1982 water year for Maryland and Delaware consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 108 gaging stations; stage and contents at 1 reservoir; water quality at 43 gaging stations and 129 wells; and water levels at 27 observation wells. Also included are data for 12 crest-stage, 59 low-flow, and 4 tidal crest-stage partial-record stations. Locations of these sites are shown on figures 3, 4, and 5. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.

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, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 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 report is identified as "U.S. Geological Survey Water-Data Report MD-DE-82-1." 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, Virginia, 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 (301) 828-1535.

COOPERATION

The U.S. Geological Survey and organizations of the State of Maryland have had cooperative agreements for the systematic collection of streamflow records from 1896 to 1909 and since 1924, for ground-water levels since 1943, and for water-quality records since 1958. Similar agreements between the Survey and organizations of the State of Delaware began in 1943 for streamflow records and in 1949 for water-quality records. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Maryland Geological Survey, K. N. Weaver, director.

Delaware Geological Survey, R. R. Jordan, State geologist.

Maryland State Highway Administration, M. S. Caltrider, administrator.

Maryland Department of Health and Mental Hygiene, Environmental Health Administration, William Eichbaum, assistant secretary.

District of Columbia Department of Environmental Services, William B. Johnson, director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, for 20 gaging stations; by Regional Planning Council, for 9 gaging stations; and by the National Park Service, U.S. Department of the Interior, for 1 gaging station.

The following organizations aided in collecting records:

Delaware: State Department of Natural Resources and Environmental Control, and New Castle County.

Maryland: Maryland Water Resources Administration, Washington Suburban Sanitary Commission, Upper Potomac River Commission, Baltimore and Howard Counties, Potomac Electric Power Co., and Virginia Electric Power Co.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow was in the normal range in central and southern Maryland and in the excessive range (upper 25 percent of record) in western Maryland, Delaware, and the eastern shore of Maryland as the 1982 water year began. Flows were in the normal range throughout the bistate area in October and remained in the normal range for western Maryland, Delaware, and the eastern shore of Maryland through December. Flows in central and southern Maryland dropped into the deficient range (lower 25 percent of record) following several months of deficient rainfall. Early spring rains and snowmelt brought flows throughout the bistate area into the excessive range during February. Flows in Maryland dropped back into the normal range until June when heavy rains (about two inches above normal) brought flows back into the excessive range. For the remainder of the year flows remained in the normal range.

During the 1982 water year, all four index stations, Potomac River near Washington, D.C., in central Maryland, North Branch Potomac River at Paw Paw, W. Va., in western Maryland, Seneca Creek at Dawsonville in central Maryland, and Choptank River near Greensboro on the Eastern Shore, were in the normal range.

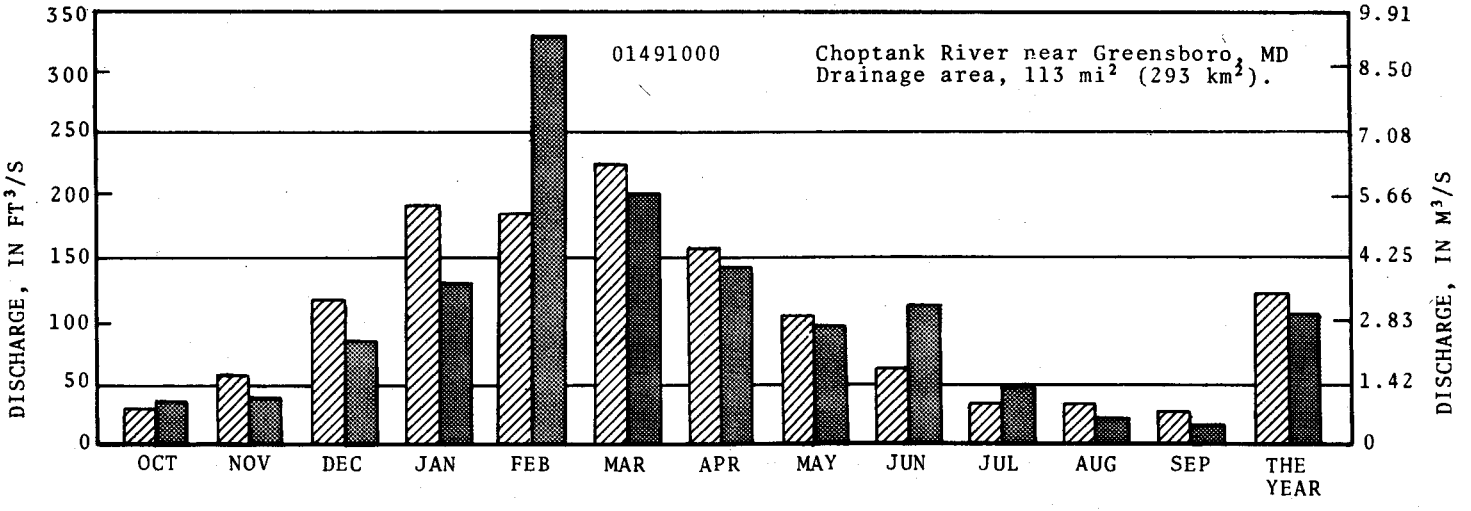
Monthly and annual mean discharge are compared with the long-term averages (reference period 1951-80) for two representative gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks in central Maryland, reflects runoff conditions in the Potomac River basin, excluding the Coastal Plain. Data for the station, Choptank River at Greensboro on the eastern shore of Maryland, reflects runoff from a 113 mi^2 (293 km^2) area, of which 21.6 mi^2 (34.8 km^2) is in Delaware in the central part of the Delmarva peninsula.

Average fresh-water inflow to the Chesapeake Bay was estimated at 74,900 ft^3/s (2,120 m^3/s) based on flows of the James, Potomac, and Susquehanna Rivers. This is 99 percent of the long-term average during the reference period 1951-82. Inflow to the Bay was relatively normal throughout the year.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System, with a combined usable capacity of 85,340,000,000 gal (323 hm^3), declined from 75 percent of capacity in September 1981, to 73 percent of capacity at the end of September 1982.

As reflected by the statewide network of observation wells, the water table at the beginning of the 1982 water year was at or near the same level it was at the end of the previous water year. Overall precipitation for the year was lower than normal for most stations, particularly during the first quarter of the year. This resulted in several new alltime recorded lows in each of the four ground-water areas being measured (one for the Appalachian region, three for the Eastern Shore, two for the western shore part of the Coastal Plain, and three for the Piedmont province).

Heavy rains, as noted above in February and June, resulted in four new alltime recorded highs (three for the Eastern Shore and one for the western shore part of the Coastal Plain). By the end of the water year, water levels throughout the areas measured had returned to normal or slightly below normal levels.



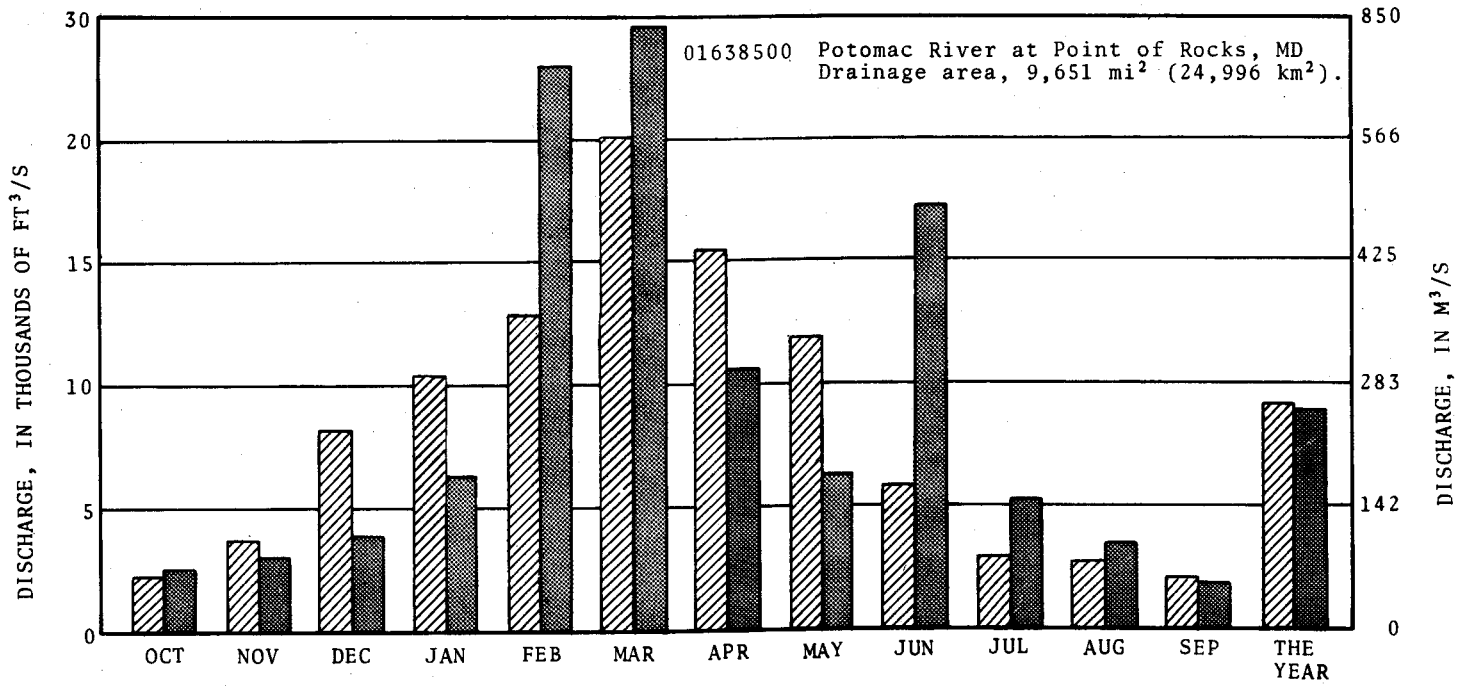


FIGURE 1.--COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1982 WATER YEAR WITH MEDIAN DISCHARGE FOR THE INDICATED PERIOD.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System 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.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms 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-enterrococcus 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 micro-organisms, such as bacteria.

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

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

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

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

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

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

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

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

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

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

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

Cubic foot per second (FT^3/S, ft^3/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 constitutes 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 specified 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 ($CaCO_3$).

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

Land-surface datum is a datum plane that is approximately at the land surface at the well.

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

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 (µg/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, µg/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 (m^2), acres, or hectares. Periphyton benthic organisms and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually 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.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

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

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.

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

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

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2·time) for periphyton and macrophytes and mg O_2/(m^3·time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light-and-dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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 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 in ft^3/s times mg/L times 0.0027.

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

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

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

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

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

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

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

Substrate is the physical surface upon which an organism lived.

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

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

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

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

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 µm 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 µm 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	Hexageria
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 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 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 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 in ft^3/s, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

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.

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

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

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

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

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 01477800, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "477800."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and 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 degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2 below.

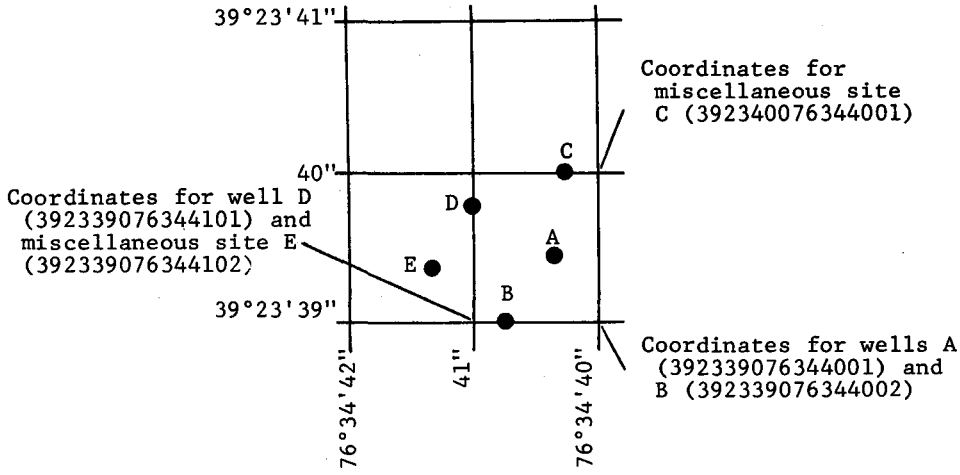


Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

A second well-numbering system used in Maryland utilizes the county prefix and a 5-minute grid. The first 2 letters of the identification number are the county prefix; for example, for Charles County the prefix is CH. Each county is divided by 5-minute quadrangles of latitude and longitude. Each quadrangle is identified by 2 uppercase letters; the first designates north to south and the second, west to east. The wells are numbered serially within each quadrangle. A similar system used in Delaware divides the state, rather than the counties, by 5-minute quadrangles of latitude and longitude which are designated as explained above. Each 5-minute quadrangle is further subdivided by 1-minute quadrangles. Each of the 1-minute quadrangles from north to south is designated by a number from 1 to 5, and west to east by a number from 1 to 5. Thus ID 55-1 is the first well inventoried in the southeast 1-minute quad of the ID 5-minute quadrangle of Delaware.

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

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements 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 monthly 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 6.

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.

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. If 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 discharges 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 in 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 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. 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 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.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22902, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records available at specific sites can be obtained upon request.

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.

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

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 sections.

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 2.

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 insure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum of 1929 (NGVD) is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above NGVD is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and at the end of each month (EOM).

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven 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, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

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-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.
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.
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.
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.
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.
3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
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.
3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
3-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.
3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
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.
3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
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.
3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
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.
5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages
8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

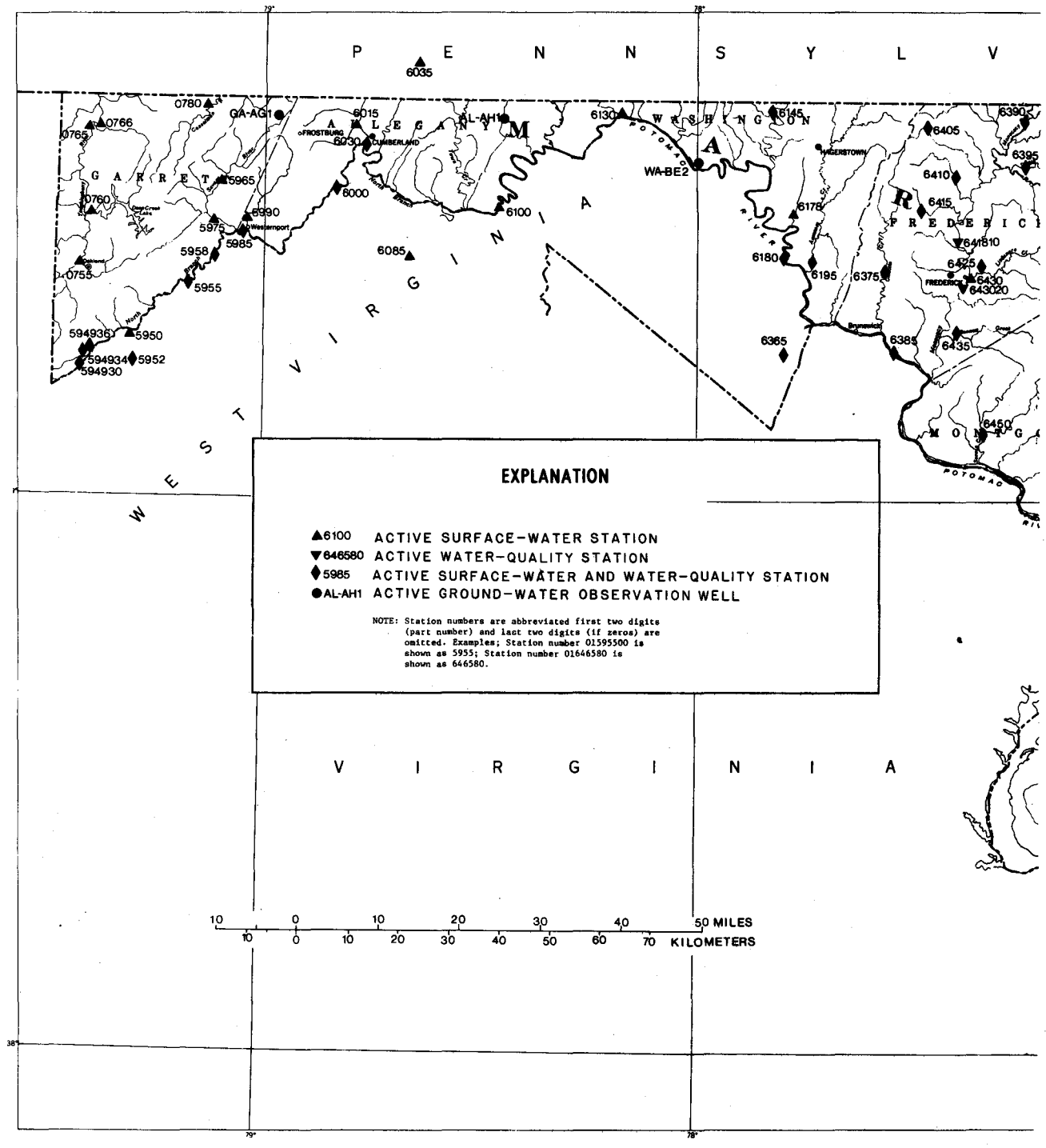
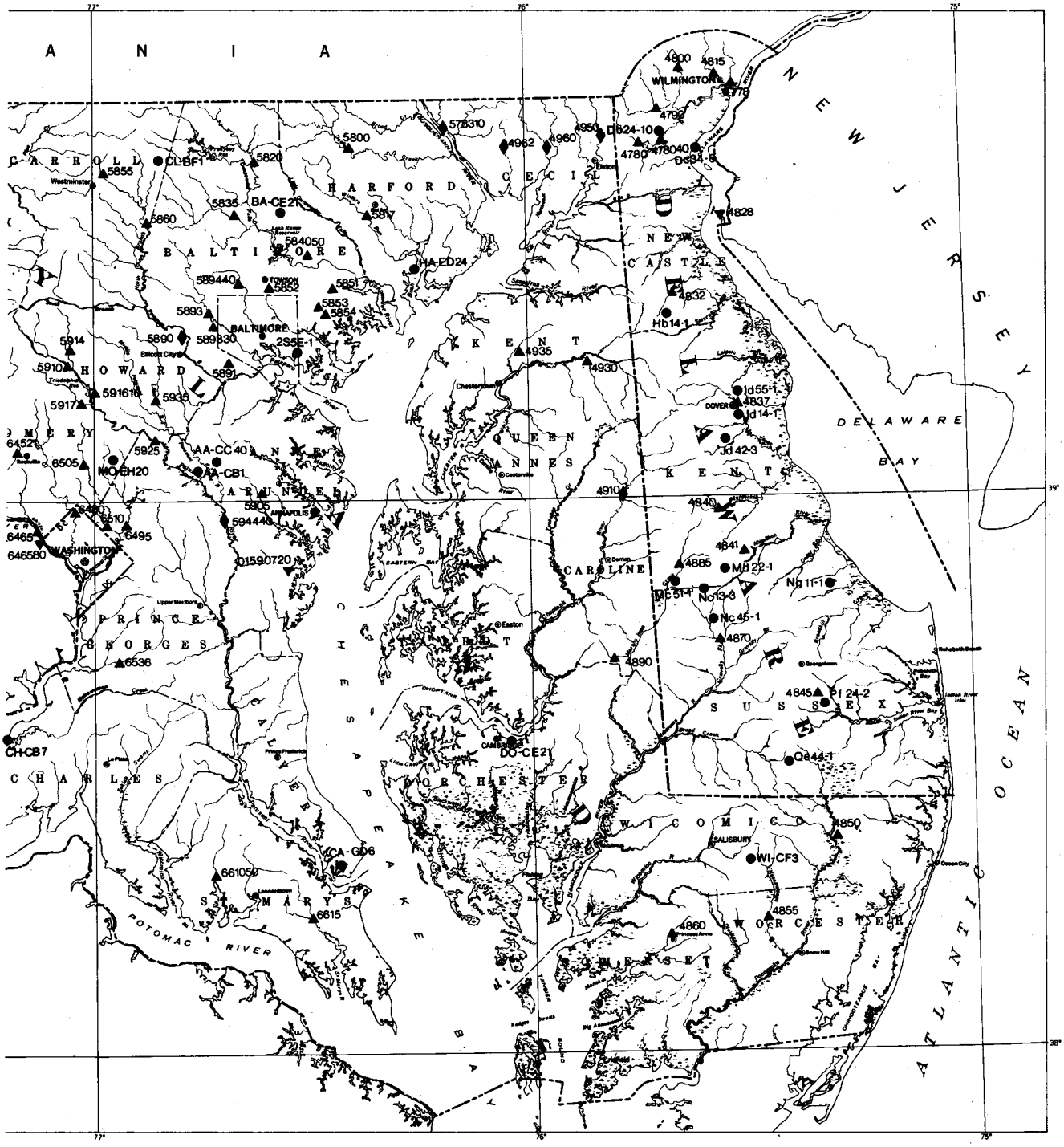


Figure 3. Location of surface-water and water-quality stations and ground-water observations wells in Maryland and Delaware.


A N I A
NEW JERSEY
DELAWARE BAY
ATLANTIC OCEAN
CHESAPEAKE BAY
POTOMAC RIVER
CARROLL
HARFORD
CECIL
BALTIMORE
KENT
HOWARD
QUEEN ANNES
CAROLINE
TALBOT
DORCHESTER
SUSSEX
WICOMICO
WORCESTER
SOMERSET
PRINCE GEORGES
CHARLES
ST MARYS
ANNE ARUNDEL
WILMINGTON
DOVER
SALISBURY
BALTIMORE
WASHINGTON
ANNAPOLIS
CAMBRIDGE
EASTON
CA-G06
CH-CB7
WI-CF3
DO-CE2
BA-CE2
AA-CB1
AA-CC40
MO-EH20
HA-ED24
Hb14-1
Id55-1
Jd14-1
Jd42-3
Mb22-1
Nb11-1
Nc13-3
Nc45-1
Pi24-2
Qe44-1
Dd24-10
Dd34-6
2S5E-1
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4815
4778
4792
4780
4760
4828
4832
4837
4935
4930
4910
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4841
4885
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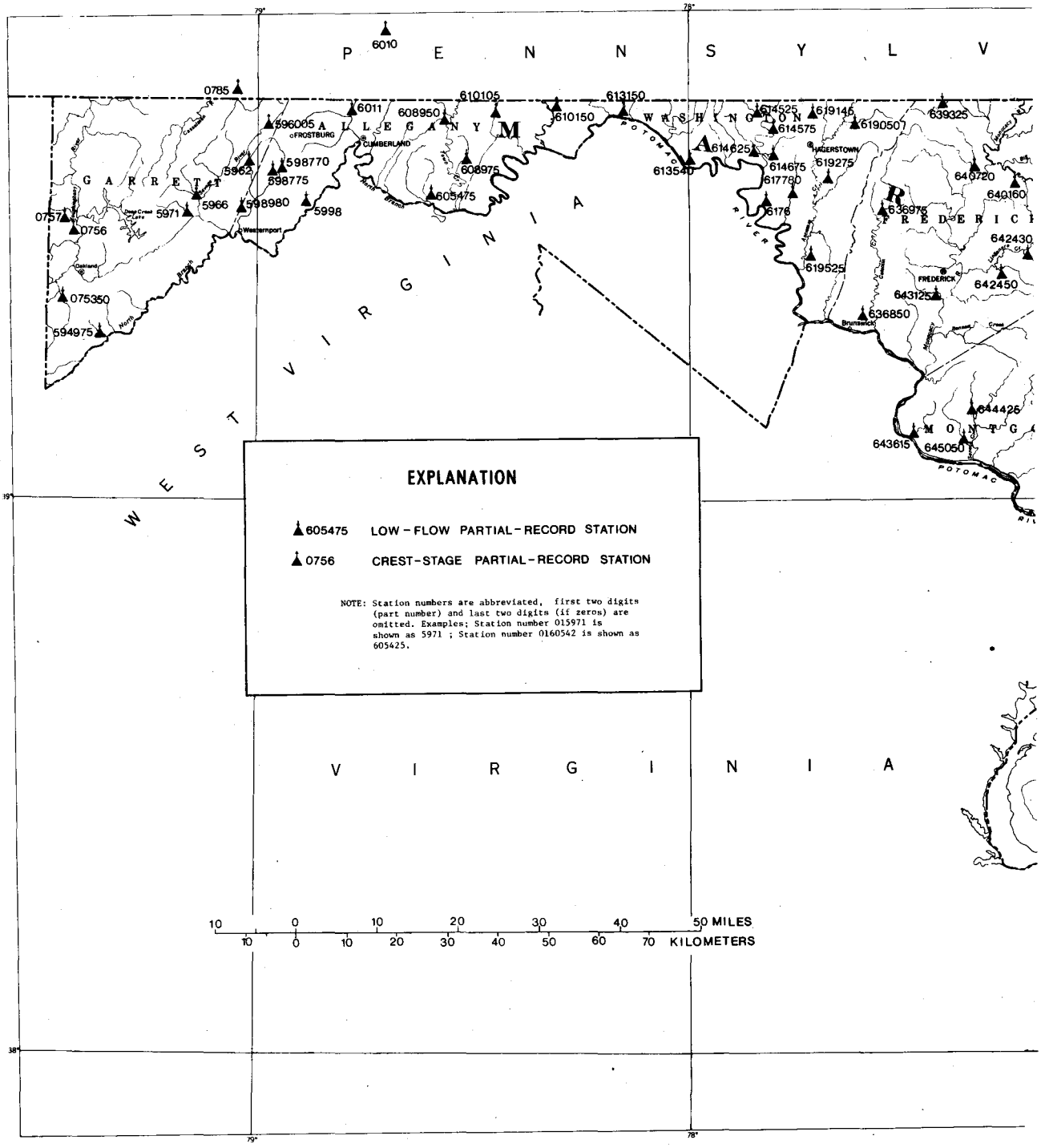
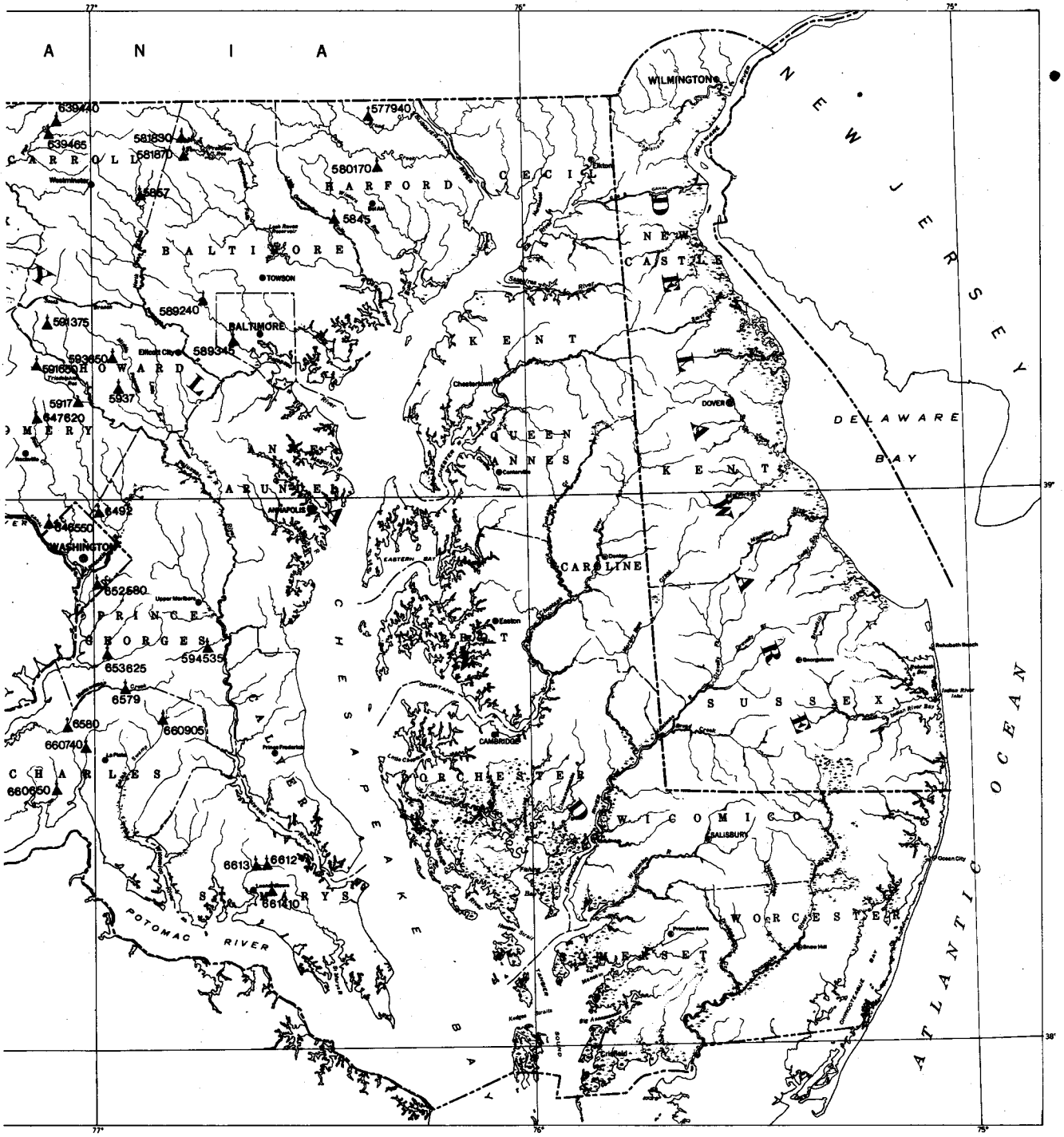


Figure 4. Location of low-flow and crest-stage partial-record stations in Maryland and Delaware.


77°
76°
75°
39°
38°
A N I A
WILMINGTON
NEW JERSEY
DELAWARE BAY
ATLANTIC OCEAN
CHESAPEAKE BAY
POTOMAC RIVER
639440
639465
581830
581870
577940
580170
5857
5845
589240
581375
589345
593650
591650
5917
5937
647620
8492
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6580
660905
660740
660650
6613
6612
661410
CARROLL
HARFORD
CECIL
BALTIMORE
TOWSON
BALTIMORE
HOWARD
ANNE ARUNDEL
ANNAPOLIS
WASHINGTON
PRINCE GEORGES
CHARLES
ST MARYS
KENT
QUEEN ANNES
CHESTER
DOVER
NEW CASTLE
CAROLINE
TALBOT
EASTON
CAMBRIDGE
DORCHESTER
SUSSEX
WICOMICO
SALISBURY
WORCESTER
OCEAN CITY

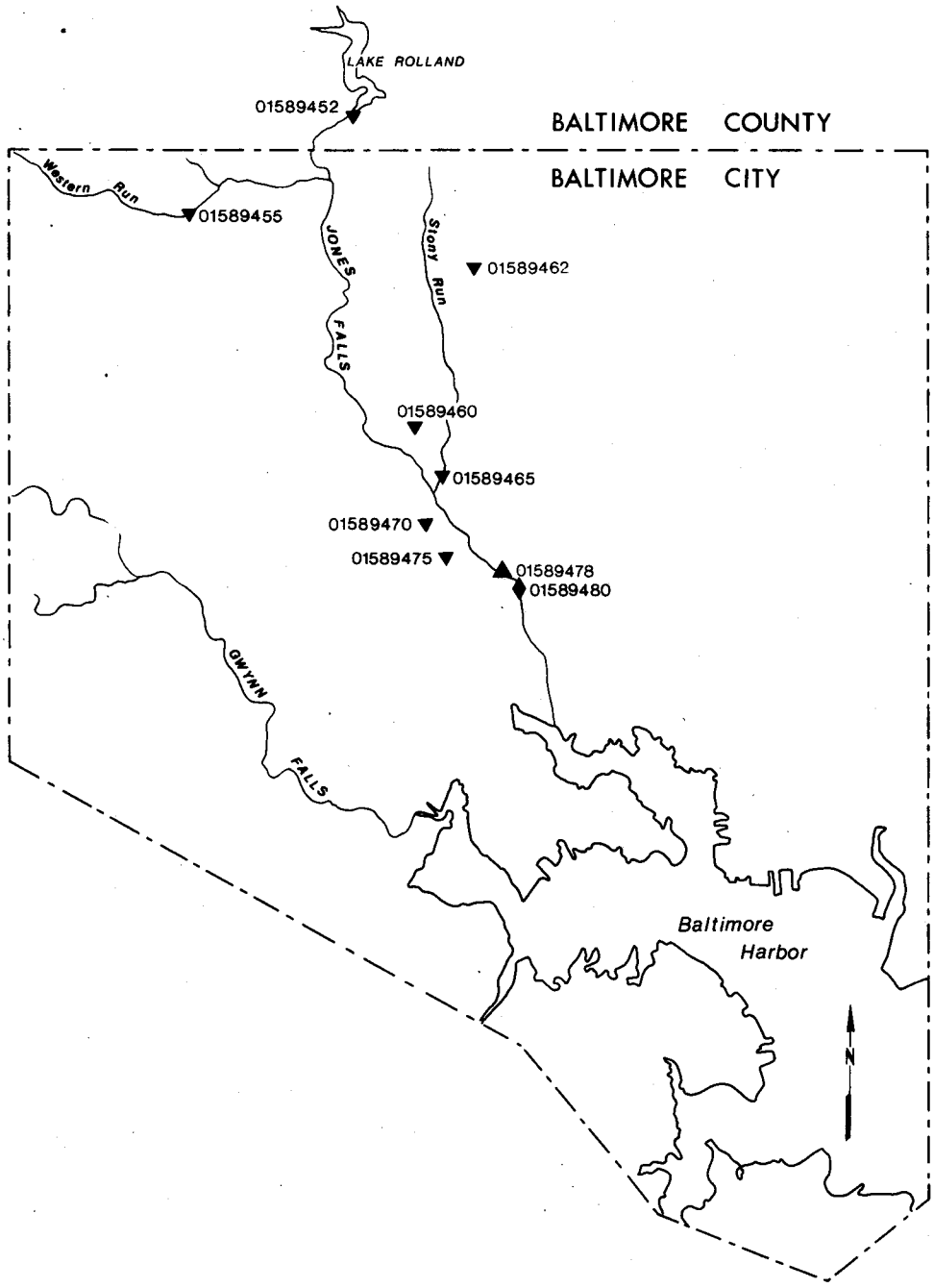

Figure 5. Location of surface-water and water-quality stations in Baltimore City.

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, Hydrologic Unit 02040205, on right bank 100 ft (30 m) east of intersection of 44th and Pine Streets in Clifton Park, 700 ft (213 m) downstream from bridge on North Market Street in Wilmington, 0.2 mi (0.3 km) downstream from Matson Run, and 2.3 mi (3.7 km) upstream from mouth.
DRAINAGE AREA.--7.46 mi^2 (19.32 km^2).
PERIOD OF RECORD.--December 1945 to current year.
REVISED RECORDS.--WSP 1382: 1948(m).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft (4.621 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Records good. Occasional regulation at low flow from unknown source above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--36 years (water years 1947-82), 9.59 ft^3/s (0.272 m^3/s), 17.46 in/yr (443 mm/yr).
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,850 ft^3/s (194 m^3/s) Sept. 13, 1971, gage height, 11.91 ft (3.630 m), from rating curve extended above 620 ft^3/s (17.6 m^3/s) on basis of computation of flow over dam at gage height 6.52 ft (1.987 m); contracted-opening measurements at gage heights 6.52 ft (1.987 m), 7.97 ft (2.429 m), and 8.6 ft (2.62 m), from floodmarks; type V culvert measurement at 9.10 ft (2.774 m); and contracted-opening measurement of peak flow; minimum daily discharge, 0.09 ft^3/s (0.003 m^3/s) Oct. 2, 4, 1968.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1940, that of Sept. 13, 1971. Flood of Aug. 1, 1945, reached a stage of about 8.5 ft (2.59 m), from floodmarks.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 550 ft^3/s (15 m^3/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)
Jan. 4	1015	942	26.7	4.27	1.301	June 16	2305	586	16.6	3.65	1.113
Feb. 3	0130	681	19.3	3.82	1.164	June 17	0125	602	17.0	3.68	1.122
Apr. 3	1835	*1180	33.4	4.70	1.433	June 29	1410	960	27.2	4.30	1.311
June 13	1520	828	23.4	4.07	1.241						

Minimum daily discharge, 0.38 ft^3/s (0.010 m^3/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.4	12	34	76	2.9	5.6	5.3	6.5	3.7	1.2	60
2	12	1.4	28	6.4	17	2.9	2.5	4.4	14	2.6	1.0	1.4
3	1.3	1.4	3.6	4.3	172	4.1	113	4.0	3.3	7.1	.93	7.6
4	.66	1.4	5.7	220	23	5.3	18	3.8	7.0	4.8	.89	.84
5	.60	1.3	8.2	12	9.9	6.0	6.5	3.3	16	2.3	1.1	.53
6	.60	13	2.6	6.3	7.7	8.3	74	3.1	5.0	2.0	1.5	.57
7	.78	2.3	2.0	4.9	6.6	73	11	3.0	3.6	1.9	.99	.60
8	.55	1.7	3.8	3.8	5.2	16	6.7	2.9	3.0	1.9	33	.58
9	.66	1.7	2.1	3.4	11	7.1	9.4	2.8	2.5	1.9	9.7	.56
10	.46	1.4	1.6	2.7	9.2	5.3	6.7	2.4	2.2	1.7	2.7	.57
11	.46	1.4	1.5	2.3	5.2	5.0	5.1	2.2	3.0	1.7	1.3	.62
12	.42	1.4	1.5	2.3	5.0	6.7	4.4	2.6	2.5	1.8	6.0	.62
13	.46	1.3	1.3	3.1	3.9	4.6	4.6	4.8	173	1.6	1.5	.74
14	.46	1.3	16	3.4	3.6	3.9	4.4	2.3	20	1.5	1.2	.65
15	.46	3.8	85	2.6	4.3	3.4	3.4	2.1	6.3	5.4	1.2	.66
16	.46	11	40	2.4	5.6	7.1	3.1	1.9	30	2.1	1.1	1.4
17	.42	2.5	9.5	2.3	4.6	9.9	15	1.8	75	1.6	1.5	.76
18	6.7	2.4	6.2	2.2	5.2	4.3	40	3.2	6.3	1.5	2.8	.46
19	5.3	1.7	4.1	2.2	31	3.7	6.1	2.6	4.4	1.4	.89	.38
20	.92	5.6	3.3	2.7	10	3.3	4.6	5.0	3.5	4.1	.76	7.9
21	.55	2.5	2.7	2.3	15	3.2	4.0	19	3.1	2.4	.74	2.1
22	.99	1.7	2.7	2.0	7.6	3.1	3.5	4.3	2.7	1.3	.55	4.1
23	4.1	1.6	10	13	5.0	2.8	3.2	6.4	2.6	3.5	.66	3.5
24	6.8	1.5	4.9	15	4.4	2.7	3.0	4.6	2.3	1.7	.92	1.0
25	2.8	1.5	3.2	8.5	3.8	2.7	2.8	3.1	2.1	1.1	3.6	.63
26	32	1.5	2.6	4.5	3.1	4.3	73	2.4	2.1	1.2	.92	.95
27	50	1.6	3.1	2.9	3.1	2.6	59	2.0	2.1	1.2	.78	34
28	15	1.5	3.3	2.8	3.1	2.5	41	67	3.1	12	.78	1.5
29	2.5	1.4	2.4	2.7	---	2.2	9.1	35	78	1.9	.71	.85
30	1.7	1.3	2.1	3.8	---	2.3	6.4	5.4	9.7	1.3	.66	.91
31	1.4	---	2.7	16	---	18	---	3.6	---	1.4	.66	---
TOTAL	153.81	75.5	277.7	396.8	461.1	229.2	549.1	216.3	494.9	81.6	82.24	136.98
MEAN	4.96	2.52	8.96	12.8	16.5	7.39	18.3	6.98	16.5	2.63	2.65	4.57
MAX	50	13	85	220	172	73	113	67	173	12	33	60
MIN	.42	1.3	1.3	2.0	3.1	2.2	2.5	1.8	2.1	1.1	.55	.38
CFSM	.67	.34	1.20	1.72	2.21	.99	2.45	.94	2.21	.35	.36	.61
IN.	.77	.38	1.38	1.98	2.30	1.14	2.74	1.08	2.47	.41	.41	.68

CAL YR 1981 TOTAL 2233.66 MEAN 6.12 MAX 267 MIN .34 CFSM .82 IN 11.14
WTR YR 1982 TOTAL 3155.23 MEAN 8.64 MAX 220 MIN .38 CFSM 1.16 IN 15.73

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

LOCATION.--Lat 39°38'14", long 75°43'43", New Castle County, Hydrologic Unit 02040205, on right bank 60 ft (18 m) downstream from highway bridge, 0.5 mi (0.8 km) southeast of Coochs Bridge, 3.6 mi (5.8 km) upstream from Bellton Run, 3.3 mi (5.3 km) south of Newark, and 22.6 mi (36.4 km) upstream from mouth.

DRAINAGE AREA.--20.5 mi² (53.1 km²).

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

REVISED RECORDS.--WDR MD-DE-79-1: 1943-70 (P).

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft (7.78 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 14, 1944, nonrecording gage on upstream side of bridge at same datum. Sept. 14, 1944, to May 13, 1969, recording gage at site on left bank at downstream side of highway bridge at same datum. May 26, 1969, to Dec. 5, 1973, recording gage on left bank 82 ft (25 m) downstream from highway bridge at same datum.

REMARKS.--Records good. Low and medium flow regulated by mill above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 28.2 ft³/s (0.799 m³/s), 18.68 in/yr (474 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,330 ft³/s (123 m³/s) May 1, 1947, gage height, 12.41 ft (3.783 m); minimum daily discharge, 0.2 ft³/s (0.006 m³/s) Aug. 7, 14, 18, 21, 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 4	1130	2240	63.4	10.60	3.231	May 28	1730	2080	58.9	10.52	3.206
Feb. 1	0930	1150	32.6	9.83	2.996	June 13	1845	*2410	68.3	10.71	3.264
Feb. 3	0515	1910	54.1	10.43	3.179						

Minimum daily discharge, 0.75 ft³/s (0.021 m³/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.9	10	94	429	13	24	20	17	11	5.4	5.2
2	15	6.7	54	20	55	14	13	18	44	8.6	6.0	5.1
3	6.5	3.3	12	13	766	13	104	17	16	14	5.6	28
4	2.3	6.1	11	845	88	14	59	16	17	15	5.7	5.1
5	3.8	4.0	16	62	32	15	19	15	26	8.6	3.4	4.2
6	4.9	15	9.6	29	26	16	226	15	21	8.5	5.5	3.8
7	1.9	8.4	8.5	23	21	134	37	15	16	5.8	4.1	5.1
8	3.0	5.4	9.4	19	19	73	21	13	14	73	10	2.2
9	3.9	6.8	8.4	18	28	23	25	14	13	30	24	3.8
10	2.3	3.4	6.7	14	28	22	22	14	13	9.5	6.7	4.1
11	1.1	5.1	7.7	11	19	16	18	12	13	7.5	5.4	3.0
12	3.0	5.1	4.8	11	17	20	16	13	12	8.8	11	3.4
13	3.1	6.4	5.9	12	17	17	16	11	743	5.2	5.8	4.5
14	3.9	3.1	19	13	15	15	14	12	103	6.3	4.0	2.8
15	2.7	5.5	213	14	19	15	13	11	22	7.1	3.8	2.7
16	4.4	10	152	14	24	15	13	11	19	8.6	4.1	3.1
17	2.3	3.9	29	11	20	25	20	11	82	6.0	97	3.5
18	4.3	6.5	17	11	18	16	82	9.4	17	5.7	23	2.1
19	9.7	3.4	13	12	110	14	19	16	14	5.9	10	.75
20	4.2	7.7	10	13	44	14	15	18	13	4.9	8.7	14
21	1.2	6.8	10	11	27	13	14	14	12	7.1	7.2	5.5
22	5.0	3.8	9.1	13	21	13	13	14	11	3.2	7.0	4.4
23	4.8	6.8	21	19	18	13	11	17	11	48	8.5	3.1
24	13	3.3	17	35	16	11	12	16	10	8.2	28	4.0
25	6.5	5.3	9.8	19	15	12	12	13	9.7	5.9	15	2.8
26	36	2.4	10	15	13	14	121	12	8.9	6.9	8.1	2.3
27	30	6.2	10	14	13	12	147	11	9.4	4.1	5.7	140
28	60	3.1	12	13	13	10	105	691	16	6.8	5.5	7.7
29	9.4	3.9	7.3	13	---	11	28	227	13	6.1	4.9	5.6
30	5.7	6.3	9.6	14	---	12	22	27	17	5.5	6.0	2.9
31	5.8	---	6.6	26	---	23	---	22	---	4.9	2.3	---
TOTAL	265.2	168.6	739.4	1451	1931	648	1261	1345.4	1353.0	356.7	347.4	284.75
MEAN	8.55	5.62	23.9	46.8	69.0	20.9	42.0	43.4	45.1	11.5	11.2	9.49
MAX	60	15	213	845	766	134	226	691	743	73	97	140
MIN	1.1	2.4	4.8	11	13	10	11	9.4	8.9	3.2	2.3	.75
CFSM	.42	.27	1.17	2.28	3.37	1.02	2.05	2.12	2.20	.56	.55	.46
IN.	.48	.31	1.34	2.63	3.50	1.18	2.29	2.44	2.46	.65	.63	.52

CAL YR 1981 TOTAL 5448.70 MEAN 14.9 MAX 284 MIN 1.1 CFSM .73 IN 9.89
WTR YR 1982 TOTAL 10151.45 MEAN 27.8 MAX 845 MIN .75 CFSM 1.36 IN 18.42

01478040 CHRISTINA RIVER NEAR BEAR, DE

LOCATION.--Lat 39°38'12", long 75°40'53", New Castle County, Hydrologic Unit 02040205, on right bank 500 ft (152 m) upstream from highway bridge, 1.3 mi (2.1 km) northwest of Bear, 1.6 mi (2.6 km) downstream from Belltown Run, and 17.7 mi (28.5 km) upstream from mouth.

DRAINAGE AREA.--40.6 mi^2 (105.2 km^2).

PERIOD OF RECORD.--October 1978 to September 1982 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 12 ft (3.7 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft^3/s (95.2 m^3/s) Feb. 25, 1979, gage height, 10.95 ft (3.338 m); minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s) Sept. 6, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42 m^3/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)
Jan. 4	1645	*1880	53.2	8.79	2.679	June 14	0415	1850	52.4	8.73	2.661
Feb. 3	1030	1520	43.0	8.11	2.472						

Minimum daily discharge, 3.6 ft^3/s (0.102 m^3/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	9.7	10	120	682	23	62	39	30	26	8.3	6.6
2	19	12	89	79	189	25	32	33	56	16	9.0	5.2
3	16	8.4	36	35	1050	22	159	29	26	14	7.1	32
4	7.6	11	22	826	285	24	308	25	28	34	8.3	8.9
5	7.0	8.8	37	339	83	33	55	23	41	19	5.6	6.3
6	8.1	24	23	66	56	30	407	19	46	15	7.2	5.9
7	6.3	16	19	45	41	145	122	19	31	12	6.4	7.1
8	6.2	10	17	33	35	314	53	18	22	32	6.3	5.1
9	6.4	12	19	29	47	67	57	18	22	64	37	5.2
10	7.5	7.4	14	26	67	46	55	18	16	15	12	5.7
11	5.2	8.5	14	15	43	36	42	16	18	12	8.7	5.5
12	4.5	8.6	10	14	35	41	35	16	16	14	15	5.0
13	6.7	11	10	16	34	38	33	13	211	8.4	9.8	5.9
14	7.6	7.1	14	20	29	32	28	17	992	10	6.9	5.8
15	7.0	8.9	283	24	31	29	26	12	91	11	5.5	5.2
16	7.7	17	453	22	47	28	25	13	41	14	5.9	5.1
17	7.1	9.7	118	20	43	51	25	15	89	9.3	49	5.0
18	5.3	12	53	18	37	38	125	10	41	8.6	104	4.8
19	16	9.1	32	20	120	29	57	13	28	9.0	15	3.6
20	8.9	12	28	22	153	27	39	31	22	7.4	9.8	15
21	6.7	13	20	21	68	27	31	25	21	10	7.4	13
22	7.2	8.1	18	21	51	28	27	17	18	5.7	6.8	7.9
23	6.6	10	27	31	39	25	23	24	17	52	7.6	7.2
24	21	7.7	43	68	31	21	24	33	16	21	38	7.5
25	11	8.6	25	47	29	23	21	20	15	11	23	5.4
26	47	7.0	20	33	24	26	91	24	14	11	16	5.1
27	75	9.8	20	26	25	23	217	15	13	7.5	8.5	152
28	108	7.1	23	24	23	19	399	79	23	12	7.3	29
29	30	7.0	19	24	---	19	96	894	17	12	6.5	13
30	18	9.3	17	24	---	21	50	86	30	8.2	7.6	7.6
31	14	---	14	39	---	37	---	46	---	8.1	5.8	---
TOTAL	510.7	310.8	1547	2147	3397	1347	2724	1660	2051	509.2	471.3	396.6
MEAN	16.5	10.4	49.9	69.3	121	43.5	90.8	53.5	68.4	16.4	15.2	13.2
MAX	108	24	453	826	1050	314	407	894	992	64	104	152
MIN	4.5	7.0	10	14	23	19	21	10	13	5.7	5.5	3.6
CFSM	.41	.26	1.23	1.71	2.98	1.07	2.24	1.32	1.69	.40	.37	.33
IN.	.47	.28	1.42	1.97	3.11	1.23	2.50	1.52	1.88	.47	.43	.36

CAL YR 1981 TOTAL 10569.3 MEAN 29.0 MAX 632 MIN 2.5 CFSM .71 IN 9.68
WTR YR 1982 TOTAL 17071.6 MEAN 46.8 MAX 1050 MIN 3.6 CFSM 1.15 IN 15.64

01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°41'57", long 75°40'33", New Castle County, Hydrologic Unit 02040205, on left bank 35 ft (11 m) downstream from bridge on private road owned by Delaware Racing Association, 0.4 mi (0.6 km) downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi (1.8 km) downstream from Pike Creek, 3.8 mi (6.1 km) east of Newark, and 5.0 mi (8.0 km) upstream from mouth. Prior to April 8, 1976, at site 0.5 mi (0.8 km) upstream.

DRAINAGE AREA.--89.1 mi^2 (230.8 km^2).

PERIOD OF RECORD.--October 1931 to September 1936, June 1943 to September 1957, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: 1933(M). WSP 1382: 1932, 1934.

GAGE.--Water-stage recorder. Datum of gage is 9.00 ft (2.74 m) National Geodetic Vertical Datum of 1929. Nov. 17, 1931, to Sept. 30, 1936, June 4, 1943, to Sept. 30, 1957, and Oct. 1, 1959, to Apr. 7, 1976, at site 0.5 mi (0.8 km) upstream at datum 2.6 ft (0.792 m) higher.

REMARKS.--Records good except those for January, which are fair. Slight diurnal fluctuation at low flow caused by mills above station. Records do not include a negligible diversion above station by E. I. du Pont de Nemours & Co. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1932-36, 1944-57, 1960-82), 113 ft^3/s (3.200 m^3/s), 17.22 in/yr (437 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft^3/s (257 m^3/s) June 22, 1972, gage height, 15.91 ft (4.849 m), present datum, from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 4.7 ft^3/s (0.13 m^3/s) Sept. 11, 1966; minimum daily discharge, 5.0 ft^3/s (0.14 m^3/s) Sept. 10, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23 ft (7 m), previous site and datum, in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56 m^3/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)
Jan. 4	1445	*3870	110	12.69	3.868	June 13	2000	3090	87.5	11.92	3.633
Feb. 1	1115	Ice Jam		*14.31	4.362	June 29	1445	2310	65.4	11.02	3.359
Feb. 3	----	2500	70.8	Ice Jam							

Minimum daily discharge, 24 ft^3/s (0.68 m^3/s) Sept. 15, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	39	48	129	900	74	98	90	76	81	41	30
2	71	39	171	90	230	73	74	85	285	68	38	33
3	40	38	68	65	1610	75	171	79	88	75	36	66
4	31	37	57	1690	337	73	172	76	81	92	34	35
5	30	37	71	254	175	78	91	74	97	66	34	31
6	29	58	54	119	127	79	370	72	97	60	59	30
7	29	53	46	98	105	215	157	72	119	58	40	29
8	27	40	50	83	102	196	106	73	78	78	51	29
9	25	38	48	72	111	105	108	74	70	62	81	30
10	28	37	42	70	117	92	101	69	64	56	45	30
11	25	37	40	58	92	88	93	65	67	54	40	28
12	27	35	40	54	88	94	86	64	68	54	62	28
13	26	35	40	62	85	90	82	65	986	50	45	27
14	26	35	61	70	83	85	81	63	380	48	38	25
15	26	38	313	74	91	78	76	61	119	49	35	24
16	26	44	336	68	131	83	74	60	99	48	34	25
17	26	39	105	66	108	106	86	58	464	48	100	25
18	31	36	79	64	92	87	246	57	112	46	53	24
19	48	34	68	63	223	80	102	64	87	46	37	26
20	34	40	65	63	176	78	87	70	79	48	35	51
21	28	40	72	63	122	78	81	76	72	47	34	44
22	29	37	81	62	109	75	77	70	68	43	33	34
23	37	35	74	70	93	72	73	79	67	103	34	32
24	64	34	100	105	89	71	73	76	64	49	59	30
25	47	34	63	94	83	71	71	71	61	43	47	29
26	91	34	58	80	75	79	245	68	61	42	39	30
27	88	35	57	75	77	72	290	60	71	39	32	221
28	126	34	57	71	77	67	231	527	65	51	33	52
29	56	34	54	68	---	68	119	468	448	43	31	37
30	46	32	50	67	---	68	98	110	179	40	29	33
31	43	---	49	80	---	97	---	86	---	43	30	---
TOTAL	1288	1138	2517	4147	5708	2747	3819	3082	4672	1730	1339	1168
MEAN	41.5	37.9	81.2	134	204	88.6	127	99.4	156	55.8	43.2	38.9
MAX	126	58	336	1690	1610	215	370	527	986	103	100	221
MIN	25	32	40	54	75	67	71	57	61	39	29	24
CFSM	.47	.43	.91	1.50	2.29	.99	1.43	1.12	1.75	.63	.49	.44
IN.	.54	.48	1.05	1.73	2.38	1.15	1.59	1.29	1.95	.72	.56	.49

CAL YR 1981 TOTAL 24023 MEAN 65.8 MAX 1550 MIN 20 CFSM .74 IN 10.03
WTR YR 1982 TOTAL 33355 MEAN 91.4 MAX 1690 MIN 24 CFSM 1.03 IN 13.93

01480000 RED CLAY CREEK AT WOODDALE, DE

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, Hydrologic Unit 02040205, on right bank 12 ft (4 m) upstream from bridge on State Highway 48, 0.3 mi (0.5 km) south of Wooddale, 2.3 mi (3.7 km) north of Marshallton, and 4.9 mi (7.9 km) upstream from mouth.

DRAINAGE AREA.--47.0 mi^2 (121.7 km^2).

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

REVISED RECORDS.--WSP 1141: 1948. WSP 1272: 1951(m). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WSP 2102: 1960(M), 1964(M), 1966-67(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft (24.829 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft (3 m) downstream at same datum.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 64.1 ft^3/s (1.815 m^3/s), 18.52 in/yr (470 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft^3/s (142 m^3/s) July 21, 1975, gage height, 10.32 ft (3.146 m); minimum discharge, 2.9 ft^3/s (0.082 m^3/s) Sept. 4, 1966; minimum daily discharge, 4.5 ft^3/s (0.13 m^3/s) Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) Feb.3, gage height, 5.04 ft (1.536 m), (ice jam); no other peak above base of 1,200 ft^3/s (34 m^3/s); minimum discharge, 5.3 ft^3/s (0.150 m^3/s) Oct. 17, gage height, 2.15 ft (0.655 m), result of regulation; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	23	25	67	430	44	55	55	46	52	26	20
2	35	23	97	49	96	46	42	54	165	43	24	19
3	23	22	37	36	684	46	77	51	54	47	24	34
4	20	21	30	387	171	44	81	49	47	65	22	18
5	19	21	41	120	88	49	51	50	57	44	23	18
6	20	38	33	63	69	47	158	46	59	40	27	19
7	19	28	25	54	58	114	78	47	56	38	23	17
8	18	24	29	48	52	102	60	45	47	37	27	19
9	18	22	28	44	60	61	61	46	43	36	49	19
10	18	22	25	34	65	54	58	44	39	35	27	19
11	18	22	24	31	51	52	53	42	40	33	24	17
12	15	22	24	34	47	55	49	41	42	36	36	17
13	18	21	23	36	47	51	49	43	272	33	27	17
14	18	21	26	43	44	49	48	41	143	31	24	16
15	18	22	133	40	53	45	45	39	67	31	23	18
16	21	35	143	37	64	48	44	38	55	31	22	15
17	13	27	56	36	58	63	47	39	206	31	23	16
18	17	24	44	36	50	49	127	34	68	29	44	15
19	32	22	37	36	109	46	57	37	57	29	24	16
20	19	26	31	36	84	45	51	38	51	32	22	29
21	18	26	29	35	72	44	48	55	47	34	22	29
22	18	23	31	35	65	44	45	41	44	25	20	21
23	20	22	53	50	56	42	46	41	44	31	21	21
24	40	22	55	66	54	41	45	44	41	29	23	19
25	23	22	38	48	52	41	44	50	39	26	31	18
26	36	21	33	45	42	46	140	43	39	26	27	19
27	45	21	33	44	45	41	117	40	40	25	21	86
28	69	21	33	41	46	38	124	141	36	43	24	29
29	30	20	31	39	---	38	71	206	211	28	20	21
30	26	20	29	38	---	39	64	60	92	26	16	20
31	24	---	29	42	---	54	---	49	---	27	18	---
TOTAL	748	704	1305	1750	2812	1578	2035	1649	2247	1073	784	661
MEAN	24.1	23.5	42.1	56.5	100	50.9	67.8	53.2	74.9	34.6	25.3	22.0
MAX	69	38	143	387	684	114	158	206	272	65	49	86
MIN	13	20	23	31	42	38	42	34	36	25	16	15
CFSM	.51	.50	.90	1.20	2.13	1.08	1.44	1.13	1.59	.74	.54	.47
IN.	.59	.56	1.03	1.39	2.23	1.25	1.61	1.31	1.78	.85	.62	.52

CAL YR 1981 TOTAL 12204 MEAN 33.4 MAX 668 MIN 10 CFSM .71 IN 9.66
WTR YR 1982 TOTAL 17346 MEAN 47.5 MAX 684 MIN 13 CFSM 1.01 IN 13.73

01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi (0.3 km) downstream from Rising Sun Bridge, in Wilmington, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--314 mi^2 (813 km^2).

PERIOD OF RECORD.--October 1946 to current year. Prior to December 1946 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1948, 1950.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft (20.797 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Flow regulated since November 1973 by Marsh Creek Reservoir, capacity 22,190 acre-ft (27.4 hm^3), about 27 mi (43 km) upstream. No diversion just above station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 477 ft^3/s (13.51 m^3/s), 20.63 in/yr (524 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft^3/s (821 m^3/s) June 23, 1972, gage height, 15.49 ft (4.721 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); minimum discharge, about 30 ft^3/s (0.85 m^3/s) Dec. 26, 1948, during period of ice effect; minimum daily discharge, 56 ft^3/s (1.59 m^3/s) Aug. 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (110 m^3/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)
Jan. 5	0100	5400	153	7.91	2.411	Feb. 3	1600	*5980	169	8.22	2.505
Feb. 1	1815	Ice Jam		*9.13	2.783	June 17	1400	4530	128	7.38	2.249

Minimum daily discharge, 114 ft^3/s (3.23 m^3/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	148	153	333	1980	348	620	598	375	583	255	158
2	231	144	559	384	1130	343	409	562	1300	480	231	167
3	195	135	272	283	4640	358	542	532	604	458	213	359
4	135	134	186	2670	2820	335	1390	506	494	584	195	229
5	119	129	192	2110	1110	353	607	485	526	451	181	162
6	121	266	170	785	808	356	893	478	594	402	218	151
7	123	289	160	811	669	597	767	463	581	376	183	147
8	116	165	165	574	617	961	615	443	473	356	194	149
9	114	145	181	500	840	542	645	431	417	344	356	151
10	119	146	166	347	905	498	594	387	366	325	431	148
11	116	147	155	340	585	476	617	369	351	304	241	152
12	116	142	143	330	499	514	550	364	345	328	457	142
13	116	136	144	316	440	481	497	374	1360	291	320	137
14	116	135	148	330	367	466	511	349	1860	264	244	133
15	119	141	686	336	392	397	449	327	762	273	216	133
16	117	206	779	314	725	439	422	311	615	288	200	138
17	115	191	348	330	612	521	427	302	3020	248	194	131
18	119	157	284	310	462	476	1010	294	1380	228	340	124
19	193	145	243	301	606	440	620	286	1210	226	183	124
20	143	167	194	299	872	428	494	303	656	276	165	141
21	120	182	192	292	622	415	469	433	530	328	162	187
22	116	152	223	282	589	409	437	327	464	245	158	159
23	125	141	233	322	515	389	412	345	490	226	155	164
24	236	136	406	441	467	378	396	341	436	245	382	157
25	181	143	270	325	428	334	394	381	396	216	354	150
26	219	140	224	307	364	341	703	337	377	206	391	137
27	281	141	216	273	375	332	1410	303	363	199	210	547
28	401	141	223	271	363	298	1140	500	364	279	195	354
29	235	136	356	259	---	284	783	1120	1170	548	172	187
30	165	133	262	252	---	289	646	501	1280	299	164	161
31	153	---	226	295	---	361	---	422	---	276	158	---
TOTAL	4891	4713	8159	15322	24802	13159	19469	13174	23159	10152	7518	5379
MEAN	158	157	263	494	886	424	649	425	772	327	243	179
MAX	401	289	779	2670	4640	961	1410	1120	3020	584	457	547
MIN	114	129	143	252	363	284	394	286	345	199	155	124
(≠)	+0.2	-0.8	-7.0	-0.5	+1.3	-10.0	+28.7	-2.7	+1.1	+0.7	-5.1	-2.8
MEAN‡	158	156	256	494	887	414	678	422	773	328	238	176
CFSM‡	0.50	0.50	0.82	1.57	2.82	1.32	2.16	1.34	2.46	1.04	0.76	0.56
IN‡	0.58	0.56	0.94	1.81	2.94	1.52	2.41	1.55	2.75	1.21	0.87	0.63

CAL YR 1981 TOTAL 85989 MEAN 236 MAX 1950 MIN 92 MEAN‡ 236 CFSM‡ 0.75 IN‡ 10.18
WTR YR 1982 TOTAL 149897 MEAN 411 MAX 4640 MIN 114 MEAN‡ 411 CFSM‡ 1.31 IN‡ 17.76

≠ Change in contents in Marsh Creek Reservoir, equivalent in cubic feet per second, furnished by Pennsylvania Department of Environmental Resources.
‡ Adjusted for change in reservoir contents.

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, water-quality recorder located on platform about 0.4 mi (0.6 km) downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi^2 (29,000 km^2), approximately.

PERIOD OF RECORD.--October 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURES: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

REMARKS.--Interruptions in record due to instrument malfunctions and pump failures.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 micromhos Nov. 15, 1978; minimum, 100 micromhos on several days during August 1969, April 1970, February 1974, January, February, and March 1979.
pH: Maximum, 8.9 units Mar. 4, 1980; minimum, 5.4 units Dec. 31, 1972.
WATER TEMPERATURES: Maximum, 31.5°C July 21, 1977, July 19, 1982; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19, 1976; minimum, 0.3 mg/L Sept. 16, 17, 1971.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 31.5°C July 19; minimum, 0.0°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19100	12400	14800	15900	15200	15500	21000	12300	17800	---	---	---
2	20100	12900	16000	15200	14400	14800	19400	18500	19000	---	---	---
3	20000	12800	15400	14300	13700	14000	18800	17400	18000	---	---	---
4	21000	12400	17000	18900	13000	15300	17600	14300	16300	19000	13700	---
5	21900	12400	17800	19000	15200	17200	15800	13200	14700	18500	10900	14900
6	23000	14700	18700	20100	14000	17100	14400	12200	13200	10300	7720	9190
7	21600	13200	17700	16900	10700	13700	---	---	---	10400	6600	8840
8	21600	11700	16800	18800	9520	14200	21400	17100	---	8840	5800	7530
9	25000	13900	20000	18600	10900	14800	18000	14100	16300	6760	4640	6000
10	25000	14800	19700	18800	12300	16100	18000	13900	15900	5360	3600	4460
11	24700	15600	21100	18900	12900	16500	16300	13700	15300	4840	4080	4620
12	24800	15300	19100	17400	12400	15000	14900	13200	14300	5160	4520	4800
13	23600	15700	18900	22000	12400	16200	14000	12900	13600	7320	4440	6170
14	22800	15400	18800	22700	13700	17900	23200	12700	17300	9200	6640	7650
15	23100	15800	18500	26000	14600	19800	22200	18300	20000	8920	7400	8110
16	23700	16000	19100	23900	14000	19200	19800	16700	18500	7440	6920	7120
17	23900	15800	18500	21200	13700	17100	16800	12400	14400	7120	6400	6650
18	24100	16000	19600	21100	13800	17300	16100	13300	14800	7080	6360	6830
19	20300	15600	17500	20100	12900	16200	16300	13800	15600	7560	7040	7280
20	21200	13700	16400	20800	17900	19200	15600	14200	15000	8280	7520	7890
21	19300	11500	14900	20400	17800	18900	19400	12400	15100	8320	8240	8280
22	21000	11800	15300	17700	16000	16900	19200	18000	18500	8640	8280	8490
23	20300	12600	16200	18900	16000	17700	19600	17700	18600	8680	8520	8620
24	20000	12600	15400	20900	11300	16600	19100	17000	18500	8800	8600	8690
25	20500	13200	16200	20900	11400	15500	19700	17900	18900	8760	8480	8600
26	21400	13600	17100	22100	12500	16500	19300	18500	18900	8480	8240	8340
27	19700	14200	17800	22400	12800	17300	20800	17900	19300	8240	8120	8200
28	19000	17000	18100	20400	12600	15800	20000	19200	---	8360	8200	8280
29	17500	15900	16800	18800	10700	14000	---	---	---	8320	8280	8310
30	16800	16300	16600	19800	10900	14500	---	---	---	8320	8200	8240
31	16500	15800	16100	---	---	---	---	---	---	8240	8120	8170
MONTH	25000	11500	17500	26000	9520	16400	23200	12200	16700	19000	3600	7790

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8200	8120	8160				---	---	---	520	320	421
2	8120	7960	8040				---	---	---	1560	360	513
3	7960	7800	7890				---	---	---	4000	360	753
4	7840	7240	7630				---	---	---	3560	360	860
5	7280	6400	6860				---	---	---	3600	440	979
6	6400	5720	6100				---	---	---	4640	440	1200
7	5720	4680	5090				---	---	---	3840	480	1190
8	4720	4280	4500				---	---	---	4160	640	1540
9	4320	3840	4100				---	---	---	4600	640	1510
10	3880	3480	3740				---	---	---	4800	760	1760
11	3680	2000	3340				---	---	---	7720	1080	3310
12	3480	2800	3120				---	---	---	10400	1760	5320
13	3480	2720	3200				---	---	---	10600	2560	5290
14	3880	3360	3760				---	---	---	9480	2640	4980
15	4720	2000	4040				---	---	---	9520	2840	5570
16	6320	4120	5590				---	---	---	11100	3080	6030
17	10700	5320	7210				---	---	---	9600	3440	5560
18	11900	9800	---				---	---	---	10200	3520	5970
19	---	---	---				6120	760	---	10100	3760	6080
20	---	---	---				4560	680	2020	10600	3880	6060
21	---	---	---				3120	720	1490	11800	3440	5430
22	---	---	---				3120	600	1200	11500	3880	6330
23	---	---	---				2200	520	900	12400	4280	7250
24	---	---	---				2960	560	966	13000	4480	7700
25	---	---	---				3440	560	998	12800	4840	7410
26	---	---	---				3800	560	1200	12800	4960	7410
27	---	---	---				2120	520	797	12700	4920	7230
28	---	---	---				1040	440	645	11400	5120	7040
29	---	---	---				2640	360	786	11400	4520	6780
30	---	---	---				760	320	478	10500	4360	6110
31	---	---	---				---	---	---	10400	3920	6070
MONTH	11900	2000	5430				6120	320	1040	13000	320	4510

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10800	3760	6000	5720	1320	2400	14400	5720	8620	19600	9120	12700
2	9600	3240	5270	8280	1320	3100	15800	5720	9530	18800	7800	11800
3	8600	2920	4610	7800	1400	3250	17000	6680	9770	18700	8000	11600
4	7720	2600	4280	10400	1720	3940	17000	6640	10900	17400	8360	11600
5	9680	2240	4470	10100	2120	4840	17400	7480	10900	16600	8680	11700
6	9920	2520	4760	9440	2280	4310	15700	7680	10200	17500	9120	12200
7	9320	2480	4840	8480	2440	4080	16500	7880	11400	16800	9280	12300
8	11600	2880	5460	8120	2200	3870	16000	8320	11300	17100	9920	13200
9	10900	2520	5380	7560	2200	3870	14700	8040	10800	17200	9680	12800
10	11200	2800	5630	8640	2320	4460	14400	7160	10000	16400	9600	11800
11	9480	2960	5080	9120	2920	5160	12700	6920	9270	17000	8080	11100
12	9320	3040	5680	9040	2880	5220	15500	7040	10100	18000	8320	11500
13	8320	3120	5070	8920	3160	5050	15000	6960	10400	17200	9000	11700
14	6680	1920	3630	9320	3200	5430	16200	7120	10200	17800	8920	11600
15	7560	1680	3890	10700	3320	5710	16200	7040	9940	18300	9200	12000
16	6920	1600	3370	11400	3480	5920	17200	7320	10100	18400	9600	12600
17	4880	1080	2180	12300	3880	6290	23200	7440	11700	18700	10000	13000
18	6160	720	1810	12200	4000	6260	23900	9480	14800	19100	10400	13800
19	7080	800	2020	12400	4080	6320	21000	8720	12600	17400	10600	13000
20	5760	720	1970	12800	4240	6640	20300	9120	12900	17300	10900	13800
21	7320	880	2190	12700	4600	7330	17300	9080	12000	18200	11400	14100
22	6720	1000	2240	13600	4960	8040	17400	8800	12700	19500	11700	15200
23	5920	1000	2300	13400	5200	7580	18200	9880	12100	18000	11800	14600
24	5320	1080	2380	12400	5360	7870	16300	9240	12100	17600	10800	13100
25	5680	1320	2980	13500	5640	8670	16500	9560	12300	18000	11200	14000
26	---	---	---	11400	5760	8020	15400	8080	11200	18500	11700	14800
27	---	---	---	12600	5680	7940	17200	8640	12200	19900	12800	17000
28	5400	1520	---	13400	6360	9120	17400	8320	11800	19000	11300	14000
29	5600	1680	3120	11400	5440	7390	20000	8800	13300	19900	11100	14100
30	5600	1520	2520	12700	5120	7790	19900	10200	14400	21400	12000	16400
31	---	---	---	14500	5200	8260	19700	9680	13300	---	---	---
MONTH	11600	720	3820	14500	1320	5940	23900	5720	11400	21400	7800	13100

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.3	7.2	7.2	7.5	7.3	7.4	7.7	7.5	7.6
2	---	---	---	7.4	7.2	7.2	7.5	7.3	7.4	7.7	7.4	7.6
3	---	---	---	7.3	7.1	7.2	7.6	7.4	7.4	7.7	7.5	7.6
4	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.8	7.5	7.6
5	---	---	---	7.4	7.2	7.3	7.5	7.4	7.5	7.7	7.5	7.6
6	---	---	---	7.4	7.2	7.3	7.5	7.4	7.4	7.7	7.5	7.6
7	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.6	7.5	7.6
8	---	---	---	7.4	7.2	7.3	7.6	7.5	7.5	7.6	7.5	7.6
9	---	---	---	7.3	7.2	7.3	7.6	7.4	7.5	7.6	7.4	7.6
10	---	---	---	7.3	7.2	7.2	7.5	7.4	7.5	7.6	7.4	7.5
11	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.5	7.4	7.5
12	---	---	---	7.4	7.2	7.3	7.6	7.5	7.6	7.6	7.4	7.5
13	---	---	---	7.3	7.2	7.3	7.6	7.4	7.6	7.5	7.4	7.5
14	---	---	---	7.3	7.2	7.3	7.6	7.5	7.5	7.6	7.4	7.5
15	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.5	7.4	7.5
16	---	---	---	7.3	7.2	7.3	7.6	7.4	7.5	7.5	7.4	7.5
17	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.6	7.5	7.5
18	---	---	---	7.6	7.2	7.3	7.8	7.5	7.5	7.6	7.5	7.5
19	---	---	---	7.7	7.2	7.3	7.7	7.4	7.5	7.6	7.5	7.5
20	---	---	---	7.5	7.2	7.3	7.6	7.4	7.5	7.6	7.5	7.6
21	---	---	---	7.7	7.3	7.3	7.8	7.4	7.5	7.6	7.5	7.6
22	---	---	---	7.6	7.2	7.3	7.7	7.5	7.6	7.7	7.5	7.6
23	---	---	---	7.4	7.2	7.3	7.6	7.5	7.6	7.6	7.6	7.6
24	---	---	---	7.4	7.2	7.3	7.6	7.4	7.5	7.7	7.6	7.6
25	---	---	---	7.4	7.3	7.3	7.6	7.4	7.5	7.7	7.6	7.6
26	---	---	---	7.4	7.3	7.3	7.7	7.5	7.6	7.7	7.6	7.7
27	---	---	---	7.4	7.3	7.3	7.7	7.5	7.6	7.8	7.7	7.7
28	7.2	7.1	---	7.4	7.3	7.4	7.7	7.5	7.6	7.7	7.6	7.7
29	7.3	7.2	7.2	7.5	7.3	7.4	7.9	7.6	7.7	7.8	7.6	7.7
30	7.2	7.2	7.2	7.5	7.3	7.4	7.8	7.7	7.8	7.8	7.7	7.7
31	---	---	---	7.5	7.3	7.4	7.8	7.6	7.7	---	---	---
MONTH	7.3	7.1	7.2	7.7	7.1	7.3	7.9	7.3	7.5	7.8	7.4	7.6

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5				---	---	---	15.0	13.5	14.0
2	.5	.0	.5				---	---	---	15.5	14.0	14.5
3	1.0	.5	.5				---	---	---	16.0	14.5	15.5
4	1.5	.5	1.0				---	---	---	17.0	15.0	16.0
5	1.0	1.0	1.0				---	---	---	17.0	15.5	16.0
6	1.5	1.0	1.0				---	---	---	17.5	16.0	16.5
7	1.5	.5	1.0				---	---	---	17.5	16.5	17.0
8	1.5	.5	1.0				---	---	---	17.0	16.5	17.0
9	1.0	.5	1.0				---	---	---	17.5	16.5	17.0
10	1.0	.5	1.0				---	---	---	17.5	16.5	17.0
11	1.5	.5	1.0				---	---	---	17.5	16.0	17.0
12	1.0	.5	1.0				---	---	---	17.5	16.5	17.0
13	1.0	1.0	1.0				---	---	---	18.5	17.0	17.5
14	1.0	.5	1.0				---	---	---	19.0	17.5	18.0
15	2.0	1.0	1.5				---	---	---	19.0	17.5	18.0
16	2.5	1.5	2.0				---	---	---	19.5	18.0	18.5
17	2.0	1.5	2.0				---	---	---	20.0	18.5	19.5
18	1.5	1.5	---				---	---	---	20.0	19.0	19.5
19	---	---	---				11.5	10.5	---	20.0	19.0	19.5
20	---	---	---				12.0	10.5	11.0	20.5	19.5	20.0
21	---	---	---				12.0	11.0	11.5	21.0	20.0	20.5
22	---	---	---				12.0	11.0	11.5	20.5	19.5	20.0
23	---	---	---				12.0	11.0	11.5	19.5	19.0	19.5
24	---	---	---				12.5	11.0	12.0	19.0	18.5	19.0
25	---	---	---				13.0	11.5	12.5	19.5	18.5	19.0
26	---	---	---				13.0	12.5	12.5	20.0	19.0	19.5
27	---	---	---				13.5	12.5	13.0	20.5	19.5	20.0
28	---	---	---				13.5	12.5	13.0	20.0	20.0	20.0
29	---	---	---				13.5	12.5	13.0	20.5	19.5	20.0
30	---	---	---				15.0	13.0	13.5	22.0	20.0	21.0
31	---	---	---				---	---	---	22.5	21.0	21.5
MONTH	2.5	.0	1.0				15.0	10.5	12.5	22.5	13.5	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.5	21.5	22.0	25.5	24.5	24.5	28.0	27.0	27.5	23.5	23.0	23.5
2	23.0	22.0	22.0	25.5	24.0	24.5	28.0	26.5	27.0	24.0	23.0	23.5
3	23.0	22.0	22.5	25.0	24.0	24.5	28.0	26.5	27.0	24.5	23.5	23.5
4	22.0	22.0	22.0	25.5	23.5	24.5	28.0	26.5	27.5	24.0	23.0	23.5
5	22.0	21.5	21.5	25.0	24.0	24.5	28.0	27.0	27.5	24.5	23.0	23.5
6	22.0	21.5	21.5	25.0	23.5	24.5	27.5	26.5	27.0	24.5	23.0	23.5
7	21.5	21.0	21.5	25.0	24.0	24.5	27.5	26.0	27.0	24.0	23.0	23.5
8	21.5	21.0	21.0	26.0	24.5	25.0	27.0	26.5	26.5	23.5	23.0	23.5
9	22.5	21.0	21.5	26.0	25.0	25.5	27.0	26.5	27.0	24.0	23.0	23.0
10	21.5	21.0	21.5	27.0	25.0	25.5	27.5	26.5	27.0	24.0	23.0	23.5
11	21.5	21.0	21.5	26.5	25.5	26.0	27.0	26.0	26.5	24.5	23.0	23.5
12	21.5	21.0	21.0	27.5	25.5	26.0	26.5	25.5	26.0	24.5	23.5	24.0
13	21.0	20.0	20.5	28.0	26.0	26.5	26.5	25.5	26.0	25.0	23.5	24.0
14	20.5	20.0	20.0	27.5	26.5	26.5	27.0	25.5	26.0	25.5	23.5	24.0
15	21.5	20.0	20.5	28.5	26.5	27.0	27.5	25.5	26.0	25.0	24.0	24.0
16	22.0	20.5	21.0	29.0	27.0	27.5	27.0	26.0	26.5	25.0	24.0	24.5
17	22.5	21.0	21.5	29.0	27.0	28.0	27.0	26.0	26.5	24.5	23.5	24.0
18	23.0	21.5	22.0	30.0	27.5	28.5	27.0	25.5	26.0	24.0	23.0	23.5
19	23.0	22.0	22.5	31.5	28.0	28.5	27.0	25.5	26.0	24.0	22.5	23.5
20	23.0	22.0	22.5	29.0	28.0	28.5	26.5	25.5	26.0	23.5	22.5	22.5
21	23.0	22.0	22.5	28.5	27.5	28.0	26.5	25.5	26.0	22.5	22.0	22.0
22	23.5	22.5	23.0	28.5	27.0	28.0	25.5	24.5	25.0	22.0	21.5	21.5
23	23.5	22.5	23.0	28.0	27.5	28.0	25.5	24.5	25.0	22.0	21.0	21.5
24	23.5	22.5	23.0	28.5	27.0	27.5	26.0	24.5	25.0	22.0	20.5	21.0
25	24.0	22.5	23.5	28.5	27.0	27.5	25.5	25.0	25.0	21.5	20.5	21.0
26	---	---	---	29.0	27.0	28.0	26.0	24.5	25.0	21.0	20.5	21.0
27	---	---	---	29.0	27.5	28.0	25.0	24.5	24.5	21.5	20.5	21.0
28	25.5	24.5	---	28.5	28.0	28.0	25.0	24.0	24.5	22.0	20.5	21.0
29	25.5	24.5	24.5	28.5	27.5	28.0	24.5	22.5	23.5	22.0	21.0	21.0
30	25.5	24.5	25.0	27.5	27.0	27.5	23.5	22.5	23.0	21.0	20.5	21.0
31	---	---	---	28.0	27.0	27.0	24.0	22.5	23.0	---	---	---
MONTH	25.5	20.0	22.0	31.5	23.5	26.5	28.0	22.5	26.0	25.5	20.5	23.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	6.8	6.0	6.5	5.7	5.1	5.3	7.1	6.1	6.6
2	---	---	---	7.5	6.2	6.6	5.6	4.9	5.3	6.6	5.9	6.3
3	---	---	---	6.8	6.1	6.5	6.0	5.2	5.4	8.6	5.6	6.7
4	---	---	---	7.3	6.4	6.7	6.0	5.2	5.5	8.6	6.1	7.0
5	---	---	---	7.3	6.5	7.0	5.8	4.8	5.4	7.2	6.0	6.7
6	---	---	---	7.1	6.5	6.8	5.7	5.3	5.5	7.3	6.0	6.6
7	---	---	---	7.1	6.5	6.9	6.1	5.1	5.5	6.7	5.9	---
8	---	---	---	9.2	6.5	6.9	6.0	5.3	5.7	---	---	---
9	---	---	---	6.8	6.3	6.5	5.8	4.8	5.4	---	---	---
10	---	---	---	6.6	6.1	6.4	5.4	4.9	5.2	---	---	---
11	---	---	---	6.8	6.3	6.5	5.6	4.9	5.3	---	---	---
12	---	---	---	6.7	6.2	6.5	5.5	5.1	5.3	---	---	---
13	---	---	---	6.5	6.0	6.3	5.7	4.7	5.3	---	---	---
14	---	---	---	6.3	5.9	6.1	5.7	5.0	5.3	---	---	---
15	---	---	---	6.1	5.7	6.0	6.7	4.7	5.2	---	---	---
16	---	---	---	7.2	5.5	5.8	6.8	5.0	5.3	---	---	---
17	---	---	---	7.7	5.5	5.7	7.9	4.7	5.7	---	---	---
18	---	---	---	7.7	5.2	5.7	7.5	5.2	5.7	---	---	---
19	---	---	---	7.6	5.0	5.5	7.4	5.2	5.7	---	---	---
20	---	---	---	7.5	4.8	5.4	7.2	5.2	5.3	---	---	---
21	---	---	---	7.5	5.0	5.4	7.1	5.0	5.7	---	---	---
22	---	---	---	7.5	4.8	5.3	6.1	4.5	5.1	---	---	---
23	---	---	---	5.9	4.9	5.1	6.9	5.6	6.3	---	---	---
24	---	---	---	5.8	4.7	5.3	6.3	5.2	6.0	---	---	---
25	---	---	---	5.6	4.8	5.3	6.9	5.8	6.3	---	---	---
26	---	---	---	5.6	5.0	5.2	6.8	5.9	6.4	---	---	---
27	---	---	---	5.7	4.8	5.2	6.5	5.8	6.1	7.3	6.7	---
28	6.1	5.6	---	5.5	5.0	5.2	6.7	5.4	6.0	7.1	6.7	6.9
29	6.5	5.8	6.2	5.7	5.0	5.4	8.1	6.5	7.0	7.2	6.8	7.0
30	6.5	6.0	6.3	5.8	5.2	5.5	7.7	6.1	7.1	7.3	6.9	7.1
31	---	---	---	5.7	5.0	5.3	7.8	6.6	7.1	---	---	---
MONTH	6.5	5.6	6.3	9.2	4.7	6.0	8.1	4.5	5.7	8.6	5.6	6.8

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE

LOCATION.--Lat 39°21'58", long 75°40'10", New Castle County, Hydrologic Unit 02040205, on right bank 15 ft (5 m) downstream from highway bridge, 0.5 mi (0.8 km) upstream from Barlow Branch, 0.6 mi (1.0 km) southwest of Blackbird, 5.6 mi (9.0 km) northwest of Smyrna, and 13.8 mi (22.2 km) upstream from mouth.

DRAINAGE AREA.--3.85 mi^2 (9.97 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1952-56, and occasional low-flow measurements, water years 1952-53, 1955-56. October 1956 to current year.

GAGE.--Water-stage recorder. Concrete control since May 23, 1968. Datum of gage is 18.89 ft (5.758 m) National Geodetic Vertical Datum of 1929. Mar. 5, 1951, to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft (5 m) upstream at same datum.

REMARKS.--Records good except those for the period of missing record, June 11 to July 12, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 4.70 ft^3/s (0.133 m^3/s), 16.58 in/yr (421 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 712 ft^3/s (20.2 m^3/s) June 22, 1972, gage height, 5.04 ft (1.536 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 28	0715	54	1.53	2.21	0.674
May 28	1500	*113	3.20	2.68	0.817

Minimum discharge, 0.09 ft^3/s (0.003 m^3/s) Oct. 1, gage height, 0.69 ft (0.210 m)

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.87	1.3	6.3	19	3.4	10	6.1	6.4	2.4	1.4	.27
2	.57	.83	2.8	4.4	8.5	3.4	5.1	5.4	6.7	2.3	1.1	.24
3	.36	.73	1.6	2.3	15	3.3	6.7	5.0	4.2	2.8	.87	1.5
4	.27	.72	1.1	9.7	12	3.3	10	4.7	4.8	5.6	.72	.67
5	.21	.70	1.5	7.2	5.2	3.8	5.2	4.5	7.6	5.0	.80	.41
6	.23	1.4	1.2	3.2	3.9	4.9	19	4.4	7.4	3.7	.79	.36
7	.30	1.1	1.0	2.5	3.1	15	13	4.0	7.2	2.5	.93	.30
8	.16	.79	1.3	2.2	2.9	20	6.3	3.9	4.8	1.9	.76	.29
9	.14	.74	1.1	2.1	5.0	7.8	6.6	4.5	3.9	1.5	.85	.30
10	.18	.70	.92	1.5	6.4	5.2	6.3	3.6	3.3	1.5	.80	.30
11	.21	.72	.85	.98	3.9	4.8	5.1	3.1	3.4	3.2	.51	.30
12	.21	.66	.85	1.2	3.2	5.5	4.7	3.1	3.2	3.3	.63	.30
13	.20	.65	.80	1.4	3.3	4.9	4.6	3.0	5.0	1.9	.59	.30
14	.19	.67	1.5	1.7	3.0	4.4	4.5	3.0	14	1.5	.43	.26
15	.21	.81	9.0	1.7	3.3	4.1	4.1	2.7	9.0	1.5	.43	.22
16	.24	1.1	10	1.9	3.4	4.9	3.9	2.5	6.0	1.3	.39	.22
17	.20	.94	5.6	1.7	3.9	8.8	4.4	2.4	8.1	1.2	.41	.23
18	.60	.81	2.7	1.6	4.6	5.6	14	2.4	7.0	1.0	.62	.18
19	1.7	.73	1.9	1.7	8.7	4.6	7.3	2.5	6.0	.87	.46	.15
20	.70	.80	1.5	1.8	12	4.3	4.8	3.6	4.5	1.3	.38	.16
21	.42	.70	1.3	1.9	9.8	4.3	4.4	4.3	3.8	1.4	.41	.18
22	.42	.65	1.5	1.8	6.9	4.1	4.1	3.5	3.5	.93	.41	.61
23	.78	.64	2.3	2.8	4.8	3.8	3.8	4.9	3.3	8.3	.33	.61
24	1.7	.66	2.3	3.9	4.3	3.7	3.7	4.2	3.0	3.1	.37	.36
25	1.4	.65	1.8	2.7	3.8	3.7	3.6	4.0	2.6	1.4	.50	.28
26	3.7	.65	1.6	2.1	3.3	3.9	7.5	3.8	2.5	1.1	.46	.40
27	2.9	.76	1.6	1.8	3.5	3.5	16	3.0	2.6	.86	.38	6.6
28	3.7	.69	1.6	1.7	3.6	3.1	39	34	2.7	1.2	.39	1.6
29	2.1	.63	1.5	1.7	---	3.2	13	39	2.8	.95	.41	.74
30	1.1	.63	1.4	1.8	---	3.2	7.4	13	2.6	1.3	.37	.57
31	.94	---	1.5	4.7	---	6.4	---	16	---	2.7	.32	---
TOTAL	26.24	23.13	66.92	83.98	170.3	164.9	248.1	204.1	151.9	69.51	18.22	18.91
MEAN	.85	.77	2.16	2.71	6.08	5.32	8.27	6.58	5.06	2.24	.59	.63
MAX	3.7	1.4	10	9.7	19	20	39	39	14	8.3	1.4	6.6
MIN	.14	.63	.80	.98	2.9	3.1	3.6	2.4	2.5	.86	.32	.15
CFSM	.22	.20	.56	.70	1.58	1.38	2.15	1.71	1.31	.58	.15	.16
IN.	.25	.22	.65	.81	1.65	1.59	2.40	1.97	1.47	.67	.18	.18

CAL YR 1981 TOTAL 705.04 MEAN 1.93 MAX 25 MIN .06 CFSM .50 IN 6.81
WTR YR 1982 TOTAL 1246.21 MEAN 3.41 MAX 39 MIN .14 CFSM .89 IN 12.04

01483700 ST. JONES RIVER AT DOVER, DE

LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, Hydrologic Unit 02040207, on left bank 150 ft (46 m) upstream from Division Street Bridge in Dover, 1,950 ft (594 m) downstream from Silver Lake, and 12.5 mi (20.1 km) upstream from mouth.

DRAINAGE AREA.--31.9 mi^2 (82.6 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.00 ft (0.000 m) National Geodetic Vertical Datum of 1929. Prior to June 1973, at datum 0.50 ft (0.152 m) higher.

REMARKS.--Records good. Flow affected by Silver Lake. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 36.8 ft^3/s (1.042 m^3/s), 15.67 in/yr (398 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft^3/s (53.8 m^3/s) Sept. 13, 1960, gage height, 9.45 ft (2.880 m), from floodmark; no flow at times in 1959, 1961, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 227 ft^3/s (6.43 m^3/s) June 16, gage height, 4.03 ft (1.228 m); minimum daily discharge, 1.2 ft^3/s (0.034 m^3/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	12	14	49	93	39	51	56	25	10	7.4	2.0
2	9.7	12	28	64	134	39	43	41	83	7.7	4.9	2.8
3	7.9	11	25	54	137	38	43	33	111	18	4.4	17
4	5.7	10	17	78	147	36	53	27	69	42	3.4	7.9
5	6.1	9.5	20	99	120	37	40	24	45	32	3.6	4.2
6	6.7	16	18	84	83	40	73	22	45	14	4.0	3.2
7	7.4	13	11	52	57	82	98	20	36	10	5.0	2.2
8	4.9	12	14	36	46	157	72	21	37	9.2	4.8	2.3
9	4.2	11	13	31	58	161	52	28	26	8.1	5.3	2.3
10	4.8	9.9	9.9	27	86	103	52	21	19	8.1	5.5	2.6
11	5.4	9.7	8.5	15	92	71	46	16	16	8.8	3.9	2.4
12	5.6	9.8	8.8	17	67	61	38	15	15	13	3.0	2.5
13	5.8	9.3	8.8	17	53	58	34	15	35	13	2.6	1.8
14	5.8	11	14	18	45	52	31	15	87	8.9	2.3	1.8
15	5.7	11	59	19	45	45	28	13	99	8.5	2.7	1.9
16	7.8	10	99	21	48	49	26	13	69	8.3	2.1	3.0
17	5.9	11	95	20	51	81	28	12	135	7.9	3.2	3.8
18	7.8	12	69	19	64	103	87	12	164	6.5	5.1	2.4
19	13	9.6	41	18	95	78	112	12	109	5.9	3.5	2.1
20	11	11	24	20	133	56	78	13	55	7.6	3.1	6.1
21	9.4	10	19	22	149	49	47	12	29	9.0	3.7	5.4
22	8.2	8.1	19	21	133	46	36	12	20	5.6	2.4	10
23	10	8.2	24	30	108	41	30	15	17	4.9	1.8	7.8
24	13	8.6	26	30	80	38	27	17	14	5.1	5.0	4.2
25	17	8.6	25	36	62	36	23	16	12	4.6	9.2	3.3
26	30	7.7	20	38	48	37	35	15	11	3.6	4.6	3.8
27	29	9.5	19	31	43	33	89	13	11	3.4	3.0	31
28	21	9.4	19	26	41	28	155	16	12	3.9	3.3	17
29	15	8.3	19	23	---	27	149	33	12	3.5	1.7	8.0
30	15	7.6	16	23	---	28	98	31	13	5.1	1.2	5.7
31	12	---	17	32	---	37	---	34	---	9.0	1.7	---
TOTAL	317.9	306.8	820.0	1070	2318	1786	1774	643	1431	305.2	117.4	170.5
MEAN	10.3	10.2	26.5	34.5	82.8	57.6	59.1	20.7	47.7	9.85	3.79	5.68
MAX	30	16	99	99	149	161	155	56	164	42	9.2	31
MIN	4.2	7.6	8.5	15	41	27	23	12	11	3.4	1.2	1.8
CFSM	.32	.32	.83	1.08	2.60	1.81	1.85	.65	1.50	.31	.12	.18
IN.	.37	.36	.96	1.25	2.70	2.08	2.07	.75	1.67	.36	.14	.20

CAL YR 1981 TOTAL 8175.2 MEAN 22.4 MAX 404 MIN 2.1 CFSM .70 IN 9.53
WTR YR 1982 TOTAL 11059.8 MEAN 30.3 MAX 164 MIN 1.2 CFSM .95 IN 12.90

01484000 MURDERKILL RIVER NEAR FELTON, DE

LOCATION.--Lat 38°58'33", long 75°34'03", Kent County, Hydrologic Unit 02040207, on left bank 30 ft (9 m) downstream from northbound lane of bridge on U.S. Highway 13, 400 ft (122 m) downstream from Black Swamp Creek, 1.3 mi (2.1 km) upstream from Killen Pond, 2.2 mi (3.5 km) south of Felton, and 17.6 mi (28.3 km) upstream from mouth.

DRAINAGE AREA.--13.6 mi^2 (35.2 km^2).

PERIOD OF RECORD.--July 1931 to October 1933. Monthly discharge only for July to September 1931, published in WSP 1302. Annual maximum, water years 1952-60, and occasional low-flow measurements, water years 1952-53, 1955-57, 1959-60. June 1960 to current year.

REVISED RECORDS.--WSP 1432: 1932.

GAGE.--Water-stage recorder. Datum of gage is 21.87 ft (6.666 m) National Geodetic Vertical Datum of 1929. July 1931 to October 1933, nonrecording gage at bridge 200 ft (61 m) upstream at datum 2.00 ft (0.610 m) higher. March 1951 to May 1960, nonrecording gage and crest-stage gage at bridge 200 ft (61 m) upstream at datum 2.00 ft (0.610 m) higher.

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

AVERAGE DISCHARGE.--24 years (water years 1932-33, 1961-82), 18.3 ft^3/s (0.518 m^3/s), 18.27 in/yr (464 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft^3/s (59.2 m^3/s) Aug. 4, 1967, gage height, 8.83 ft (2.691 m); minimum discharge, 0.80 ft^3/s (0.023 m^3/s) Aug. 28, Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 4, 1967, is believed to have been the highest since that of 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107 ft^3/s (4.55 m^3/s) Feb. 20, Mar. 8, gage height, 4.55 ft (1.387 m), no peak above base of 130 ft^3/s (3.6 m^3/s); minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Sept. 11, 12, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.3	7.1	10	78	22	24	18	7.2	4.2	3.6	2.0
2	4.9	6.2	9.0	14	42	22	18	16	11	3.6	3.0	2.0
3	4.3	5.9	5.9	11	71	20	23	14	7.0	13	2.8	2.2
4	4.0	5.9	5.5	40	65	20	30	13	13	29	2.7	2.0
5	3.9	6.0	8.6	30	37	23	20	13	13	7.4	2.7	2.0
6	3.8	8.9	5.9	25	30	25	37	12	10	5.9	3.3	2.0
7	5.4	7.4	5.2	20	26	47	28	11	9.3	4.8	3.3	2.0
8	3.8	6.5	5.4	15	23	84	21	12	8.6	4.3	2.7	2.1
9	3.7	6.2	4.9	13	35	40	24	14	7.6	3.9	3.6	2.1
10	3.5	6.0	4.6	11	45	31	24	11	6.9	3.9	4.9	2.0
11	3.5	5.9	4.4	10	29	28	20	10	6.8	5.0	2.9	1.9
12	3.4	5.8	4.3	8.4	24	28	19	9.8	6.4	7.1	2.7	1.9
13	3.5	5.6	4.0	8.2	23	26	17	9.5	14	4.4	2.6	1.9
14	3.4	5.9	5.1	8.8	23	24	16	9.0	20	4.0	2.4	1.9
15	3.4	6.6	22	9.1	25	21	15	8.8	10	5.4	2.4	2.0
16	3.4	7.1	33	8.9	26	25	15	8.5	8.0	4.7	2.3	2.1
17	3.5	6.6	18	8.8	31	51	15	8.1	7.2	3.8	2.3	2.1
18	3.9	6.8	12	8.7	59	33	44	8.0	7.5	3.3	2.3	2.0
19	6.2	6.0	9.5	8.5	69	27	25	7.9	7.3	3.1	2.2	2.0
20	4.0	6.0	7.7	8.3	87	25	20	7.9	6.6	4.4	2.2	2.4
21	3.9	5.8	7.3	8.4	61	24	18	7.4	5.9	5.3	2.7	2.4
22	3.7	5.7	7.0	8.2	45	22	16	9.5	5.4	3.4	2.4	4.1
23	4.0	5.5	7.4	13	34	20	14	10	5.1	3.4	2.4	3.9
24	6.4	5.5	8.0	16	29	19	14	9.1	4.5	3.6	2.2	2.4
25	7.4	5.5	7.0	13	26	18	13	8.6	4.3	3.0	2.1	2.2
26	14	5.4	6.3	11	23	18	19	7.9	4.2	2.8	2.1	2.3
27	7.4	5.4	6.0	10	22	17	32	7.3	4.2	2.6	2.1	6.3
28	9.1	5.2	6.0	9.0	23	16	53	7.9	3.7	2.6	2.1	2.6
29	6.9	5.0	5.8	8.7	---	16	29	10	4.2	2.6	2.0	2.4
30	6.1	4.9	5.6	9.1	---	15	21	7.9	4.8	3.8	2.0	2.3
31	6.0	---	5.4	26	---	18	---	7.5	---	4.8	2.0	---
TOTAL	154.4	181.5	253.9	409.1	1111	825	684	314.6	233.7	163.1	81.0	71.5
MEAN	4.98	6.05	8.19	13.2	39.7	26.6	22.8	10.1	7.79	5.26	2.61	2.38
MAX	14	8.9	33	40	87	84	53	18	20	29	4.9	6.3
MIN	3.4	4.9	4.0	8.2	22	15	13	7.3	3.7	2.6	2.0	1.9
CFSM	.37	.45	.60	.97	2.92	1.96	1.68	.74	.57	.39	.19	.18
IN.	.42	.50	.69	1.12	3.04	2.26	1.87	.86	.64	.45	.22	.20

CAL YR 1981 TOTAL 3156.5 MEAN 8.65 MAX 63 MIN 3.1 CFSM .64 IN 8.63
WTR YR 1982 TOTAL 4482.8 MEAN 12.3 MAX 87 MIN 1.9 CFSM .90 IN 12.26

01484100 BEAVERDAM BRANCH AT HOUSTON, DE

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, Hydrologic Unit 02040207, on left bank 15 ft (5 m) upstream from bridge on State Highway 384, 0.8 mi (1.3 km) south of Houston, and 1.2 mi (1.9 km) upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi^2 (7.33 km^2).

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

GAGE.--Water-stage recorder and concrete control; timber control prior to Nov. 8, 1979. Datum of gage is 35.67 ft (10.872 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversion for irrigation of about 150 acres (60.7 hm^2) above station during some years. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 3.70 ft^3/s (0.105 m^3/s), 17.75 in/yr (451 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s (4.98 m^3/s) Sept. 12, 1960, gage height, 5.55 ft (1.692 m); no flow July 28, 1977 (result of pumpage for irrigation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) Apr. 27, gage height, 2.92 ft (0.890 m), no peak above base of 30 ft^3/s (0.84 m^3/s); minimum discharge, 0.17 ft^3/s (0.005 m^3/s) Sept. 14, 15, gage height, 2.26 ft (0.689 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.68	.75	2.1	5.1	4.5	4.3	4.6	2.3	1.5	1.3	.90
2	.86	.68	.88	1.7	3.1	4.5	3.8	4.5	2.1	1.5	1.3	.90
3	.80	.66	.73	1.6	6.1	4.3	4.8	4.3	2.0	1.6	1.2	1.0
4	.79	.64	.70	4.2	4.3	4.3	5.6	4.1	3.0	2.0	1.2	.90
5	.79	.65	.86	2.7	3.5	4.5	4.3	4.1	2.9	1.5	1.2	.90
6	.84	.70	.76	2.2	3.5	5.0	6.6	3.9	2.6	1.4	2.0	.80
7	1.1	.66	.68	2.1	3.3	8.6	5.0	3.9	2.4	1.4	1.8	.80
8	.84	.62	.70	2.0	3.3	8.2	4.5	3.7	2.3	1.3	1.3	.80
9	.75	.62	.67	2.1	4.1	5.6	4.8	3.7	2.3	1.3	1.3	.80
10	.75	.62	.62	2.0	4.0	5.1	4.7	3.4	2.1	1.4	1.5	.80
11	.75	.62	.62	1.9	3.5	5.0	4.5	3.3	2.1	1.3	1.2	.70
12	.75	.62	.62	1.8	3.4	5.0	4.3	3.2	2.1	1.2	1.2	.70
13	.75	.62	.62	1.7	3.5	4.8	4.3	3.2	2.8	1.1	1.2	.50
14	.75	.62	.72	1.9	3.3	4.7	4.1	2.9	3.3	1.2	1.1	.45
15	.75	.67	1.8	1.9	3.6	4.5	4.0	2.9	2.4	2.1	1.1	.30
16	.75	.69	2.8	1.9	3.8	5.0	3.9	2.9	2.3	2.3	1.1	.75
17	.69	.69	1.7	1.8	5.0	6.3	3.9	2.8	2.0	1.5	1.1	.75
18	.75	.71	1.4	1.7	7.1	5.1	6.3	2.6	2.1	1.4	1.1	.68
19	.90	.67	1.3	1.6	9.4	4.9	4.5	2.8	2.1	1.4	1.1	.68
20	.75	.71	1.2	1.7	7.3	4.8	4.2	2.9	2.0	1.9	1.1	.73
21	.73	.68	1.2	1.7	6.4	4.8	4.0	2.8	1.9	1.8	1.0	.75
22	.69	.62	1.2	1.7	5.5	4.4	3.9	3.1	1.9	1.4	1.0	.98
23	.68	.62	1.3	2.4	4.8	4.1	3.7	2.9	1.8	1.3	1.0	.98
24	.72	.62	1.2	2.7	4.8	4.1	3.7	2.8	1.8	1.3	1.0	.74
25	.80	.62	1.2	2.4	4.4	4.1	3.6	2.8	1.8	1.2	1.0	.72
26	1.2	.62	1.2	2.1	4.3	4.0	4.2	2.6	1.6	1.2	.90	.74
27	.87	.62	1.3	1.9	4.3	3.8	7.6	2.4	1.6	1.2	.90	1.2
28	.79	.62	1.2	1.9	4.4	3.7	8.2	2.4	1.6	1.2	.90	.90
29	.72	.62	1.2	1.9	---	3.7	5.5	2.8	1.6	1.1	.90	.79
30	.68	.62	1.2	2.0	---	3.7	4.9	2.4	1.8	1.2	.90	.75
31	.68	---	1.3	4.1	---	4.0	---	2.3	---	1.5	.90	---
TOTAL	24.49	19.41	33.63	65.4	129.1	149.1	141.7	99.0	64.6	44.7	35.80	23.39
MEAN	.79	.65	1.08	2.11	4.61	4.81	4.72	3.19	2.15	1.44	1.15	.78
MAX	1.2	.71	2.8	4.2	9.4	8.6	8.2	4.6	3.3	2.3	2.0	1.2
MIN	.68	.62	.62	1.6	3.1	3.7	3.6	2.3	1.6	1.1	.90	.30
CFSM	.28	.23	.38	.75	1.63	1.70	1.67	1.13	.76	.51	.41	.28
IN.	.32	.26	.44	.86	1.70	1.96	1.86	1.30	.85	.59	.47	.31

CAL YR 1981 TOTAL 735.99 MEAN 2.02 MAX 13 MIN .53 CFSM .71 IN 9.67
WTR YR 1982 TOTAL 830.32 MEAN 2.27 MAX 9.4 MIN .30 CFSM .80 IN 10.91

01484500 STOCKLEY BRANCH AT STOCKLEY, DE

LOCATION.--Lat 38°38'19", long 75°20'31", Sussex County, Hydrologic Unit 02060010, on left bank at highway bridge in Stockley, 1.6 mi (2.6 km) upstream from mouth, and 4.4 mi (7.1 km) southeast of Georgetown.

DRAINAGE AREA.--5.24 mi^2 (13.57 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft (7.480 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

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

AVERAGE DISCHARGE.--39 years, 6.88 ft^3/s (0.195 m^3/s), 17.83 in/yr (453 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 217 ft^3/s (6.15 m^3/s) Feb. 26, 1979, gage height, 5.01 ft (1.53 m); minimum discharge observed, 0.13 ft^3/s (0.004 m^3/s) Sept. 1-11, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft^3/s (0.85 m^3/s) July 30, gage height, 2.74 ft (0.835 m), no peak above base of 45 ft^3/s (1.2 m^3/s); minimum daily discharge, 0.91 ft^3/s (0.026 m^3/s) Nov. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	1.2	3.1	5.2	7.3	7.6	8.1	3.6	3.3	5.1	2.4
2	1.3	1.2	1.7	2.4	4.4	7.4	7.0	7.7	3.7	3.1	3.5	2.5
3	1.3	1.1	1.4	2.1	5.7	7.2	7.6	7.4	3.4	3.4	3.3	2.7
4	1.2	1.1	1.3	4.7	4.6	8.1	8.2	7.1	7.6	4.4	3.3	2.1
5	1.2	1.1	1.3	3.2	4.6	13	7.1	6.9	6.8	3.2	3.1	2.2
6	1.2	1.3	1.2	2.6	4.6	12	8.9	6.7	5.7	2.8	11	2.0
7	1.4	1.1	1.1	2.6	4.6	19	7.8	6.6	5.3	2.8	6.3	2.0
8	1.1	1.1	1.1	2.6	4.6	19	7.5	6.6	5.4	2.6	4.6	2.1
9	1.1	1.1	1.1	2.6	4.9	13	8.2	7.0	4.8	2.5	4.3	2.1
10	1.1	1.1	1.1	2.5	5.0	12	7.7	6.3	4.3	2.7	4.8	2.0
11	1.4	1.1	1.0	2.3	4.6	12	7.1	5.9	4.2	2.6	4.6	2.0
12	1.3	1.1	1.0	2.4	4.6	12	6.9	5.8	4.0	2.5	4.2	1.9
13	1.1	1.0	1.0	2.8	4.9	11	6.8	5.6	4.7	2.3	3.9	1.9
14	1.1	1.0	1.2	3.4	4.7	10	6.6	5.5	5.9	4.1	3.8	1.9
15	1.1	1.0	4.2	3.1	5.0	9.5	6.4	5.4	4.6	4.1	3.7	1.9
16	1.1	1.0	4.1	3.1	5.3	10	6.2	5.3	4.2	3.4	3.5	1.9
17	1.1	1.1	2.2	2.6	6.0	12	6.0	5.1	4.2	2.9	3.8	1.8
18	1.3	1.2	1.9	2.4	8.3	10	13	4.9	4.0	2.5	5.1	2.0
19	1.4	1.0	1.8	2.5	9.1	9.9	8.8	4.8	3.9	2.3	3.8	1.7
20	1.1	1.0	1.7	2.8	8.6	9.6	7.8	5.0	4.0	3.0	3.5	2.2
21	1.1	1.0	1.6	2.8	8.7	9.6	7.6	4.8	3.7	3.0	3.4	2.0
22	1.1	1.0	1.7	2.8	8.2	9.2	7.2	4.8	3.6	2.3	3.2	2.1
23	1.0	1.0	1.7	6.2	8.1	8.6	6.8	4.8	3.6	2.2	3.4	1.9
24	1.1	1.0	1.7	8.5	7.7	8.3	6.7	5.0	3.3	2.3	3.4	1.8
25	1.4	1.0	1.7	4.5	7.2	8.2	6.5	4.1	3.2	2.1	3.2	1.7
26	1.7	1.0	1.7	4.3	6.8	8.1	8.1	3.9	3.2	2.0	3.0	2.0
27	1.4	1.0	1.7	3.9	7.0	7.6	11	4.0	3.2	1.9	3.0	6.0
28	1.4	.93	1.7	3.8	7.5	7.3	10	3.8	2.9	2.1	2.9	2.6
29	1.3	.91	1.7	3.8	---	7.3	8.9	5.4	3.2	2.1	2.8	2.4
30	1.2	.91	1.7	3.9	---	7.2	8.4	4.5	3.9	8.2	2.8	2.2
31	1.1	---	1.7	4.5	---	7.4	---	3.8	---	14	2.7	---
TOTAL	38.0	31.65	51.2	104.8	170.5	312.8	234.4	172.6	128.1	102.7	123.0	66.0
MEAN	1.23	1.06	1.65	3.38	6.09	10.1	7.81	5.57	4.27	3.31	3.97	2.20
MAX	1.7	1.3	4.2	8.5	9.1	19	13	8.1	7.6	14	11	6.0
MIN	1.0	.91	1.0	2.1	4.4	7.2	6.0	3.8	2.9	1.9	2.7	1.7
CFSM	.24	.20	.32	.65	1.16	1.93	1.49	1.06	.82	.63	.76	.42
IN.	.27	.22	.36	.74	1.21	2.22	1.66	1.23	.91	.73	.87	.47

CAL YR 1981 TOTAL 1195.25 MEAN 3.27 MAX 28 MIN .91 CFSM .62 IN 8.48
WTR YR 1982 TOTAL 1535.75 MEAN 4.21 MAX 19 MIN .91 CFSM .80 IN 10.90

01485000 POCOMOKE RIVER NEAR WILLARDS, MD

LOCATION.--Lat 38°23'20", long 75°19'30", Worcester County, Hydrologic Unit 02060009, on left bank 30 ft (9 m) downstream from bridge on State Highway 346, 0.6 mi (1.0 km) upstream from Burnt Mill Branch, 1.3 mi (2.1 km) east of Willards, 1.3 mi (2.1 km) west of Whaleysville, and 50.3 mi (80.9 km) upstream from mouth.

DRAINAGE AREA.--60.5 mi^2 (156.7 km^2).

PERIOD OF RECORD.--December 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft (4.252 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--32 years (water years 1951-82), 70.6 ft^3/s (1.999 m^3/s), 15.85 in/yr (403 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft^3/s (53.0 m^3/s) Feb. 26, 1979, gage height, 13.88 ft (4.231 m); minimum discharge, 2.2 ft^3/s (0.062 m^3/s) Aug. 18, 19, 1957, gage height, 1.91 ft (0.582 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 553 ft^3/s (15.7 m^3/s) Mar. 8, gage height, 8.89 ft (2.710 m), no other peak above base of 500 ft^3/s (14 m^3/s); minimum daily discharge, 5.3 ft^3/s (0.150 m^3/s) Oct. 11, 12, 13, 14, 15, 16, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	9.1	6.7	59	89	86	52	98	32	22	228	11
2	6.8	9.3	8.9	73	77	92	49	82	32	18	118	11
3	6.6	9.5	9.5	57	82	87	49	71	29	17	76	11
4	6.3	9.4	8.3	139	85	78	60	62	36	19	56	10
5	6.1	9.2	8.6	149	74	100	54	56	58	18	44	10
6	5.9	10	8.4	97	68	130	65	51	68	16	210	9.7
7	5.7	10	8.3	79	61	331	71	47	68	14	170	9.4
8	5.7	9.2	8.7	66	56	434	63	44	62	14	105	9.1
9	5.7	9.0	8.5	60	54	234	63	43	54	13	84	8.8
10	5.5	8.7	8.2	52	55	168	65	40	46	17	68	8.3
11	5.3	8.7	8.0	42	50	144	60	36	40	23	56	8.3
12	5.3	8.5	8.0	37	47	140	57	34	35	19	48	8.0
13	5.3	8.0	7.8	37	50	130	53	32	32	16	41	8.0
14	5.3	8.0	8.0	52	48	112	50	30	36	14	34	8.0
15	5.3	8.6	19	45	50	97	47	29	34	14	30	7.8
16	5.3	8.3	52	41	85	96	44	27	30	14	26	7.8
17	5.3	8.3	46	40	126	130	43	26	29	14	23	7.5
18	5.3	8.5	38	42	374	115	50	25	36	12	29	7.3
19	7.3	7.6	32	39	275	100	52	24	34	12	30	7.0
20	6.3	7.4	28	37	234	90	49	23	46	12	25	8.3
21	5.9	7.1	25	37	178	85	47	23	46	14	21	8.3
22	5.7	6.8	25	35	147	81	44	21	38	12	19	8.3
23	5.9	6.6	25	101	117	72	41	21	33	13	18	8.0
24	6.6	6.6	23	323	102	68	38	21	28	18	18	7.5
25	7.0	6.6	23	164	90	64	36	22	25	14	16	7.5
26	9.3	6.4	23	109	77	62	51	22	22	12	15	7.8
27	8.6	6.5	25	84	73	58	226	21	21	11	14	12
28	8.8	6.5	27	71	77	53	206	19	19	30	13	11
29	8.7	6.3	26	65	---	50	157	23	18	109	12	9.4
30	8.6	6.2	23	61	---	49	119	23	24	98	12	9.1
31	9.0	---	22	69	---	49	---	34	---	386	11	---
TOTAL	201.0	240.9	597.9	2362	2901	3585	2061	1130	1111	1035	1670	265.2
MEAN	6.48	8.03	19.3	76.2	104	116	68.7	36.5	37.0	33.4	53.9	8.84
MAX	9.3	10	52	323	374	434	226	98	68	386	228	12
MIN	5.3	6.2	6.7	35	47	49	36	19	18	11	11	7.0
CFSM	.11	.13	.32	1.26	1.72	1.92	1.14	.60	.61	.55	.89	.15
IN.	.12	.15	.37	1.45	1.78	2.20	1.27	.69	.68	.64	1.03	.16

CAL YR 1981 TOTAL 8779.5 MEAN 24.1 MAX 180 MIN 5.3 CFSM .40 IN 5.40
WTR YR 1982 TOTAL 17160.0 MEAN 47.0 MAX 434 MIN 5.3 CFSM .78 IN 10.55

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD

LOCATION.--Lat 38°13'44", long 75°28'19", Worcester County, Hydrologic Unit 02060009, on right bank 15 ft (5 m) downstream from bridge on State Highway 12, 0.5 mi (0.8 km) upstream from Furnace Branch, 0.6 mi (1.0 km) downstream from Millville Creek, 5.5 mi (8.8 km) northwest of Snow Hill, and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--44.9 mi^2 (116.3 km^2).

PERIOD OF RECORD.--December 1949 to current year.

REVISED RECORDS.--WSP 1332: 1953.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft (3.746 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--32 years (water years 1951-82), 53.8 ft^3/s (1.524 m^3/s), 16.27 in/yr (413 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) Feb. 26, 1979, gage height, 7.95 ft (2.423 m); minimum discharge, 0.80 ft^3/s (0.023 m^3/s) Sept. 8, 9, 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft^3/s (7.9 m^3/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)
Feb. 19	1100	*386	10.9	5.77	1.759	Mar. 8	1700	384	10.9	5.76	1.756

Minimum discharge, 2.3 ft^3/s (0.065 m^3/s) Sept. 18, gage height, 1.47 ft (0.448 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	6.3	6.1	57	85	75	32	107	14	6.7	151	3.4
2	3.3	6.3	16	71	89	82	30	79	15	5.6	181	3.3
3	3.4	5.7	16	75	87	85	30	62	13	5.9	113	3.2
4	3.4	5.7	13	95	81	80	44	50	20	11	58	3.0
5	3.2	5.7	13	125	75	86	42	39	37	11	31	2.9
6	3.1	8.2	12	129	67	99	49	34	42	8.5	23	2.8
7	2.9	8.2	10	99	58	194	56	29	50	6.7	19	2.7
8	2.7	7.0	11	75	49	355	54	27	49	5.3	19	2.7
9	2.7	6.0	10	60	43	329	54	26	47	4.6	23	2.7
10	2.7	5.7	9.3	45	43	214	55	23	37	5.3	20	2.7
11	2.7	5.7	8.5	35	40	147	51	21	27	9.8	17	2.7
12	2.7	5.7	8.2	25	38	130	46	19	21	9.2	17	2.6
13	2.9	5.7	8.0	24	36	123	39	18	17	8.5	16	2.5
14	2.9	5.7	8.4	35	36	107	36	17	21	7.7	13	2.7
15	3.1	5.7	38	35	46	90	32	16	20	7.1	13	2.6
16	3.1	6.7	62	37	75	90	28	15	17	24	11	2.6
17	3.1	7.2	61	37	119	119	27	13	15	30	8.8	2.6
18	3.1	10	49	34	276	126	32	12	38	15	8.1	2.4
19	5.1	9.1	34	32	376	109	32	12	69	9.0	8.1	2.4
20	4.5	7.8	27	33	304	88	31	12	71	6.5	7.2	4.2
21	4.1	7.0	22	33	228	77	29	12	49	5.3	6.6	5.3
22	3.8	6.3	21	32	174	69	28	12	31	4.3	5.8	5.3
23	3.6	6.0	24	52	132	61	25	12	23	15	9.9	4.7
24	3.8	5.7	24	116	103	55	23	12	18	16	13	3.7
25	5.7	5.4	25	189	83	50	21	12	14	11	8.2	3.2
26	14	5.4	26	180	70	45	47	12	11	11	6.4	3.2
27	11	5.4	28	106	62	41	178	11	9.6	9.8	5.2	15
28	8.2	5.7	29	73	65	37	262	10	8.4	6.8	4.7	11
29	7.0	5.7	28	59	---	35	223	12	7.5	8.6	4.2	7.1
30	6.3	5.4	26	57	---	33	157	12	7.6	45	3.4	5.2
31	6.0	---	24	67	---	32	---	16	---	117	3.4	---
TOTAL	137.4	192.1	697.5	2122	2940	3263	1793	764	819.1	447.2	828.0	120.4
MEAN	4.43	6.40	22.5	68.5	105	105	59.8	24.6	27.3	14.4	26.7	4.01
MAX	14	10	62	189	376	355	262	107	71	117	181	15
MIN	2.7	5.4	6.1	24	36	32	21	10	7.5	4.3	3.4	2.4
CFSM	.10	.14	.50	1.53	2.34	2.34	1.33	.55	.61	.32	.60	.09
IN.	.11	.16	.58	1.76	2.44	2.70	1.49	.63	.68	.37	.69	.10

CAL YR 1981 TOTAL 7183.5 MEAN 19.7 MAX 170 MIN 2.6 CFSM .44 IN 5.95
WTR YR 1982 TOTAL 14123.7 MEAN 38.7 MAX 376 MIN 2.4 CFSM .86 IN 11.70

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD

LOCATION.--Lat 38°12'50", long 75°40'18", Somerset County, Hydrologic Unit 02060009, on right bank 45 ft (14 m) downstream from farm bridge, 1.4 mi (2.3 km) northeast of Princess Anne, and 1.6 mi (2.6 km) upstream from confluence with Loretto Branch.

DRAINAGE AREA.--4.80 mi^2 (12.43 km^2).

PERIOD OF RECORD.--April 1951 to September 1971, October 1974 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.03 ft (2.143 m) National Geodetic Vertical Datum of 1929. Artificial control since April 30, 1975. Nov. 26, 1968, to Sept. 30, 1971, water-stage recorder above and nonrecording gage below gage height 1.4 ft (0.43 m). Prior to Nov. 26, 1968, recording gage at datum 1.0 ft (0.30 m) higher.

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

AVERAGE DISCHARGE.--28 years (water years 1952-71, 1975-82), 4.54 ft^3/s (0.129 m^3/s), 12.84 in/yr (326 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 547 ft^3/s (15.5 m^3/s) Aug. 20, 1969, gage height, 5.44 ft (1.658 m), from rating curve extended above 27 ft^3/s (0.76 m^3/s) on basis of channel-conveyance study; no flow at times in 1954, 1963, 1964, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft^3/s (1.64 m^3/s) Mar. 7, gage height, 3.17 ft (0.966 m), no other peak above base of 50 ft^3/s (1.4 m^3/s); minimum daily discharge, 0.25 ft^3/s (0.007 m^3/s) Oct. 22, Nov. 26, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.27	.28	6.2	8.1	13	3.8	7.8	1.2	1.0	1.7	.39
2	.36	.29	.37	4.8	5.8	12	3.6	6.2	1.2	.82	1.2	.39
3	.34	.28	.34	4.0	6.5	10	4.0	5.1	1.1	.85	.93	.38
4	.33	.27	.33	10	6.5	9.0	5.7	4.3	1.6	1.5	.82	.36
5	.32	.29	.36	8.6	5.8	11	4.5	3.8	3.1	.89	.71	.34
6	.32	.35	.32	5.8	5.1	19	6.5	3.4	3.3	.75	.72	.34
7	.31	.31	.32	4.9	4.5	37	5.8	3.2	2.6	.71	.72	.34
8	.30	.28	.35	4.2	4.3	28	4.8	3.1	2.1	.68	.70	.34
9	.30	.28	.34	4.0	4.0	18	5.3	3.0	1.7	.66	.71	.33
10	.30	.27	.32	3.4	4.3	14	5.3	2.7	1.5	3.5	.71	.33
11	.30	.27	.32	2.8	4.0	13	4.7	2.3	1.4	3.0	.63	.33
12	.30	.27	.32	2.6	3.5	14	4.3	2.2	1.4	1.3	.65	.32
13	.29	.27	.32	2.9	4.0	13	4.1	2.1	1.4	1.0	.62	.32
14	.29	.29	.34	4.2	3.8	11	3.5	2.0	1.5	.91	.56	.31
15	.29	.33	1.1	3.8	5.2	10	3.1	1.9	1.4	.89	.54	.31
16	.30	.32	2.6	3.6	16	17	3.0	1.8	1.2	.84	.52	.30
17	.29	.33	2.3	3.1	21	24	3.0	1.7	1.2	.81	.51	.30
18	.30	.33	1.8	2.9	34	15	3.5	1.6	1.9	.73	.50	.29
19	.34	.31	1.5	2.9	23	11	3.3	1.5	1.4	.67	.47	.29
20	.30	.31	1.4	2.9	18	9.0	3.1	1.5	1.4	.65	.46	.39
21	.27	.30	1.3	2.9	16	8.1	2.9	1.5	1.3	.63	.46	.40
22	.25	.28	1.4	2.8	13	7.1	2.7	1.4	1.2	.58	.44	.37
23	.26	.28	1.5	12	11	6.2	2.5	1.4	1.1	.69	.63	.32
24	.28	.29	1.3	18	9.5	5.6	2.4	1.4	1.0	1.0	.71	.30
25	.32	.28	1.5	9.1	8.1	5.2	2.3	1.4	.94	.68	.54	.29
26	.38	.25	1.5	6.8	6.9	5.1	10	1.4	.89	.59	.47	.30
27	.33	.27	1.8	5.4	6.9	4.5	29	1.2	.87	.53	.45	.36
28	.31	.27	2.1	5.1	9.0	4.0	22	1.2	.84	.52	.43	.32
29	.28	.26	2.1	4.5	---	3.9	14	1.3	.88	.52	.41	.29
30	.27	.25	1.8	4.8	---	3.8	10	1.2	1.5	1.3	.38	.28
31	.27	---	1.8	6.5	---	3.9	---	1.4	---	2.7	.38	---
TOTAL	9.43	8.65	33.43	165.5	267.8	365.4	182.7	76.0	44.12	31.90	19.68	9.93
MEAN	.30	.29	1.08	5.34	9.56	11.8	6.09	2.45	1.47	1.03	.63	.33
MAX	.38	.35	2.6	18	34	37	29	7.8	3.3	3.5	1.7	.40
MIN	.25	.25	.28	2.6	3.5	3.8	2.3	1.2	.84	.52	.38	.28
CFSM	.06	.06	.23	1.11	1.99	2.46	1.27	.51	.31	.22	.13	.07
IN.	.07	.07	.26	1.28	2.08	2.83	1.42	.59	.34	.25	.15	.08

CAL YR 1981 TOTAL 510.81 MEAN 1.40 MAX 10 MIN .25 CFSM .29 IN 3.96
WTR YR 1982 TOTAL 1214.54 MEAN 3.33 MAX 37 MIN .25 CFSM .69 IN 9.41

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE

LOCATION.--Lat 38°43'42", long 75°33'44", Sussex County, Hydrologic Unit 02060008, on left bank at downstream side of highway bridge, 800 ft (244 m) downstream from Gum Branch, 2.5 mi (4.0 km) southeast of Bridgeville, and 50.5 mi (81.3 km) upstream from mouth.

DRAINAGE AREA.--75.4 mi^2 (195.3 km^2).

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as Gravelly Fork near Bridgeville.

REVISED RECORDS.--WSP 1111: 1947. WSP 1232: 1945-49.

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft (4.157 m) National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Prior to Apr. 19, 1947, nonrecording gage, and Apr. 19, 1947, to Dec. 18, 1969, recording gage at present site and datum. Timber control Sept. 3, 1947, to Dec. 18, 1969. Feb. 18, 1970, to Oct. 1, 1973, recording gage at site 300 ft (91 m) downstream at same datum.

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

AVERAGE DISCHARGE.--39 years, 91.9 ft^3/s (2.603 m^3/s), 16.55 in/yr (420 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft^3/s (85.5 m^3/s) Feb. 26, 1979, gage height, 10.31 ft (3.142 m); minimum discharge observed, 6.3 ft^3/s (0.18 m^3/s) Sept. 29, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 11.0 ft (3.35 m) in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 248 ft^3/s (7.02 m^3/s) Mar. 8, gage height, 6.05 ft (1.844 m), no peak above base of 360 ft^3/s (10 m^3/s); minimum daily discharge, 24 ft^3/s (0.68 m^3/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	30	29	53	129	115	110	133	65	51	43	30
2	27	29	33	53	95	115	106	127	67	47	40	31
3	26	29	30	49	121	113	110	121	62	45	39	33
4	25	28	31	86	125	110	167	117	77	48	37	32
5	25	28	36	91	105	121	133	112	82	45	37	30
6	26	30	33	69	99	121	142	108	82	43	44	30
7	30	29	31	64	94	157	143	104	95	42	48	29
8	27	28	32	61	91	212	130	105	87	40	44	29
9	26	27	31	60	97	159	131	109	78	41	43	27
10	25	28	31	58	109	146	130	101	73	40	44	28
11	25	28	30	61	98	140	125	97	69	41	43	28
12	25	27	30	55	94	138	122	95	65	41	42	27
13	25	28	30	56	95	133	120	91	68	39	40	27
14	25	27	31	59	91	129	117	88	81	37	39	28
15	25	29	52	57	90	124	114	85	75	39	38	28
16	25	29	84	54	96	124	111	81	68	45	36	28
17	24	29	65	52	102	137	110	80	62	50	37	27
18	25	29	54	52	164	131	146	77	79	44	47	26
19	33	28	49	51	175	126	137	74	73	41	42	26
20	28	29	47	52	183	124	130	81	72	40	38	27
21	27	29	46	52	157	121	126	78	67	39	37	27
22	27	28	46	50	147	119	121	78	64	38	36	30
23	27	28	47	59	135	115	117	95	60	38	35	30
24	28	28	45	84	129	112	116	85	56	39	35	28
25	29	28	44	78	123	111	114	82	52	37	35	27
26	38	27	44	64	116	111	118	78	51	36	33	27
27	34	27	44	59	115	108	132	73	49	33	33	32
28	34	28	43	58	117	104	169	70	47	32	33	29
29	32	27	42	58	---	103	154	75	47	34	32	27
30	31	27	41	58	---	102	140	72	64	40	31	27
31	30	---	42	93	---	105	---	69	---	51	30	---
TOTAL	860	846	1273	1906	3292	3886	3841	2841	2037	1276	1191	855
MEAN	27.7	28.2	41.1	61.5	118	125	128	91.6	67.9	41.2	38.4	28.5
MAX	38	30	84	93	183	212	169	133	95	51	48	33
MIN	24	27	29	49	90	102	106	69	47	32	30	26
CFSM	.37	.37	.55	.82	1.57	1.66	1.70	1.22	.90	.55	.51	.38
IN.	.42	.42	.63	.94	1.62	1.92	1.90	1.40	1.00	.63	.59	.42

CAL YR 1981 TOTAL 20933 MEAN 57.4 MAX 351 MIN 24 CFSM .76 IN 10.33
WTR YR 1982 TOTAL 24104 MEAN 66.0 MAX 212 MIN 24 CFSM .88 IN 11.89

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50'59", long 75°40'24", Kent County, Hydrologic Unit 02060008, on left bank 45 ft (14 m) upstream from highway bridge, 1.4 mi (2.3 km) upstream from Cattail Branch, 1.6 mi (2.6 km) northeast of Adamsville, 4.9 mi (7.9 km) northwest of Greenwood, and 33 mi (53 km) upstream from mouth.

DRAINAGE AREA.--43.9 mi^2 (113.7 km^2).

PERIOD OF RECORD.--April 1943 to March 1969, October 1971 to current year.

REVISED RECORDS.--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft (7.989 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1953, nonrecording gage and crest-stage gage, and Nov. 24, 1953, to March 1969, recording gage at site on old channel about 240 ft (73 m) southeast of present site at datum,2.00 ft (0.610 m) higher.

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

AVERAGE DISCHARGE.--36 years (water years 1944-68, 1972-82), 54.5 ft^3/s (1.543 m^3/s), 16.86 in/yr (428 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft^3/s (105 m^3/s) July 13, 1975, gage height, 13.19 ft (4.020 m); maximum gage height, 13.98 ft (4.261 m) Aug. 5, 1967, present datum; minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Sept. 9, 10, 1964, Aug. 20, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.5 ft (5.03 m), present datum, in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s (12 m^3/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)
Feb. 19	1730	564	16.0	4.99	1.521	Mar. 7	2115	*593	16.8	5.09	1.551

Minimum daily discharge, 7.6 ft^3/s (0.215 m) Sept. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	11	35	231	79	59	81	21	20	14	9.1
2	13	11	12	46	98	78	55	70	22	18	15	9.1
3	12	11	11	34	243	73	61	61	21	18	13	9.1
4	12	11	11	128	173	68	109	55	25	20	12	8.7
5	12	11	12	107	112	72	70	51	26	25	12	8.3
6	12	12	12	62	97	76	110	47	27	20	15	8.3
7	13	11	11	54	84	235	96	45	31	18	14	8.3
8	12	11	11	47	75	280	77	45	27	17	14	8.3
9	11	11	11	45	104	144	77	44	26	16	15	8.3
10	11	11	11	37	132	116	78	40	25	16	15	8.3
11	11	11	11	37	93	103	70	38	23	16	13	8.3
12	11	11	11	36	81	99	63	36	23	16	12	8.0
13	11	11	11	35	78	95	60	36	25	15	12	8.0
14	11	10	11	36	72	86	58	34	36	15	12	8.0
15	11	11	18	36	74	78	53	31	36	15	12	8.0
16	11	11	65	33	86	78	49	30	31	15	11	8.3
17	10	11	50	27	124	146	50	29	28	14	11	8.0
18	11	11	34	28	278	106	99	28	31	14	11	7.6
19	12	11	28	30	365	92	80	29	29	13	11	7.6
20	11	11	25	31	259	85	67	28	28	14	10	8.3
21	10	10	23	30	194	81	61	28	26	14	10	8.0
22	10	10	23	28	155	76	55	28	24	13	10	8.7
23	10	10	23	33	121	67	51	28	23	13	10	8.7
24	11	10	22	51	106	63	48	27	23	13	10	8.3
25	11	10	21	49	93	60	46	26	22	13	10	8.0
26	12	10	21	41	82	59	49	25	22	13	9.6	8.0
27	12	10	21	35	77	55	123	24	21	13	9.6	8.7
28	12	10	21	34	77	51	262	24	20	13	9.6	8.3
29	12	10	20	34	---	48	138	25	20	13	9.6	8.0
30	11	10	20	33	---	48	105	23	20	14	9.6	8.0
31	11	---	19	134	---	50	---	23	---	15	9.6	---
TOTAL	352	320	611	1426	3764	2847	2379	1139	762	482	361.6	248.6
MEAN	11.4	10.7	19.7	46.0	134	91.8	79.3	36.7	25.4	15.5	11.7	8.29
MAX	13	12	65	134	365	280	262	81	36	25	15	9.1
MIN	10	10	11	27	72	48	46	23	20	13	9.6	7.6
CFSM	.26	.24	.45	1.05	3.05	2.09	1.81	.84	.58	.35	.27	.19
IN.	.30	.27	.52	1.21	3.19	2.41	2.02	.97	.65	.41	.31	.21

CAL YR 1981 TOTAL 10252.9 MEAN 28.1 MAX 156 MIN 9.9 CFSM .64 IN 8.69
WTR YR 1982 TOTAL 14692.2 MEAN 40.3 MAX 365 MIN 7.6 CFSM .92 IN 12.45

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, Hydrologic Unit 02060008, on right bank 25 ft (8 m) downstream from bridge on Laurel Grove Road, 0.9 mi (1.4 km) upstream from mouth, and 1.6 mi (2.6 km) northwest of Federalsburg.

DRAINAGE AREA.--7.10 mi^2 (18.39 km^2).

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

REVISED RECORDS.--WSP 1552: 1952. WSP 2103: 1960(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft (5.090 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversion for irrigation of about 100 acres (40.5 hm^2) above station during some years. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 8.99 ft^3/s (0.255 m^3/s), 17.20 in/yr (437 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft^3/s (47.6 m^3/s) July 13, 1975, gage height, 5.98 ft (1.823 m), from rating curve extended above 210 ft^3/s (5.95 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times during many years (result of pumpage for irrigation).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of July 13, 1975, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft^3/s (1.6 m^3/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)
Feb. 17	2300	77	2.18	2.51	0.765	Apr. 3	2130	63	1.78	2.35	0.716
Mar. 7	1745	93	2.63	2.69	0.820	Apr. 27	1845	*738	20.9	4.75	1.448

Minimum discharge, 0.95 ft^3/s (0.027 m^3/s) Sept. 13, 15, 16, 17, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.2	2.2	4.2	22	15	10	27	6.7	5.0	5.4	1.2
2	2.0	2.2	2.5	4.2	12	15	9.4	23	8.3	4.5	3.9	1.2
3	1.9	2.2	2.2	4.2	25	14	19	21	6.4	3.5	3.8	1.5
4	1.9	2.1	2.2	11	18	14	20	19	12	3.8	3.7	1.6
5	1.9	2.1	2.7	8.5	15	15	14	17	12	4.4	2.7	1.3
6	1.9	2.2	2.4	6.7	14	16	17	16	11	4.1	3.2	1.3
7	2.0	2.3	2.2	6.4	12	41	14	15	9.4	3.6	4.2	1.3
8	2.0	2.2	2.2	6.1	12	32	12	15	8.6	2.4	3.9	1.3
9	1.9	2.2	2.1	5.8	16	24	13	15	7.9	2.6	3.2	1.5
10	1.7	1.9	2.1	5.2	16	21	12	13	7.4	2.7	2.9	1.6
11	2.0	1.9	2.1	4.7	14	20	11	12	7.3	2.8	3.2	1.3
12	2.0	1.9	2.1	5.0	13	19	11	12	7.0	3.6	3.0	1.3
13	2.0	1.9	2.1	5.0	13	18	11	11	9.5	3.4	2.9	1.2
14	2.0	1.9	2.2	5.0	12	17	10	11	12	3.0	2.2	1.1
15	2.1	1.9	4.2	5.2	12	16	9.5	9.9	9.4	2.6	2.2	1.1
16	2.1	2.0	7.4	5.0	13	17	9.2	9.4	8.6	2.8	2.2	1.1
17	2.1	1.9	4.9	4.5	23	19	9.4	8.9	8.0	2.9	1.7	1.1
18	2.3	1.9	4.2	5.0	36	16	17	8.6	7.8	2.9	2.2	1.2
19	2.4	1.9	3.7	4.5	34	16	12	9.2	8.0	2.9	1.6	1.3
20	2.1	2.0	3.5	4.5	28	15	11	9.2	7.3	2.2	1.5	1.5
21	2.0	1.9	3.2	4.5	25	15	11	8.2	6.1	1.7	1.6	1.5
22	2.0	1.9	3.5	4.2	22	14	9.6	12	6.4	1.6	1.6	2.4
23	1.9	1.9	3.2	5.5	19	13	9.0	9.0	6.2	1.7	1.5	2.7
24	2.1	1.9	3.0	7.1	18	12	8.7	8.4	5.2	1.6	1.7	2.6
25	2.3	1.9	3.0	5.5	16	12	8.4	8.1	4.7	1.6	1.5	2.6
26	2.6	1.9	3.0	5.2	15	12	10	7.7	5.4	2.1	1.3	2.8
27	2.2	2.0	3.0	5.0	15	11	230	7.3	5.0	1.5	1.7	3.5
28	2.2	2.0	3.0	4.8	15	10	104	7.2	3.8	1.5	1.3	3.5
29	2.2	1.9	3.0	4.8	---	9.8	39	7.9	4.2	1.6	1.3	3.5
30	2.2	1.9	3.0	5.0	---	9.8	31	7.0	5.8	9.2	1.2	3.5
31	2.2	---	3.0	24	---	10	---	6.7	---	13	1.2	---
TOTAL	64.1	60.0	93.1	186.3	505	508.6	712.2	371.7	227.4	102.8	75.5	54.6
MEAN	2.07	2.00	3.00	6.01	18.0	16.4	23.7	12.0	7.58	3.32	2.44	1.82
MAX	2.6	2.3	7.4	24	36	41	230	27	12	13	5.4	3.5
MIN	1.7	1.9	2.1	4.2	12	9.8	8.4	6.7	3.8	1.5	1.2	1.1
CFSM	.29	.28	.42	.85	2.54	2.31	3.34	1.69	1.07	.47	.34	.26
IN.	.34	.31	.49	.98	2.65	2.66	3.73	1.95	1.19	.54	.40	.29

CAL YR 1981 TOTAL 1985.6 MEAN 5.44 MAX 37 MIN 1.6 CFSM .77 IN 10.40
WTR YR 1982 TOTAL 2961.3 MEAN 8.11 MAX 230 MIN 1.1 CFSM 1.14 IN 15.51

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, Hydrologic Unit 02060005, on left bank at highway bridge, 0.1 mi (0.2 km) upstream from Gravelly Branch, 2.0 mi (3.2 km) northeast of Greensboro, and 60 mi (97 km) upstream from mouth.

DRAINAGE AREA.--113 mi^2 (293 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1622: 1948. WDR MD-DE-79-1: 1961 (P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft (1.070 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 500 acres (202 hm^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 130 ft^3/s (3.682 m^3/s), 15.62 in/yr (397 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft^3/s (197 m^3/s) Aug. 4, 1967, gage height, 14.47 ft (4.410 m), from rating curve extended above 3,600 ft^3/s (102 m^3/s); minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Aug. 29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of Aug. 4, 1967, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 877 ft^3/s (24.8 m^3/s) Feb. 20, gage height, 6.16 ft (1.878 m), no peak above base of 1,000 ft^3/s (28 m^3/s); minimum daily discharge, 8.5 ft^3/s (0.241 m^3/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	42	31	108	404	170	151	219	89	51	33	11
2	36	41	45	174	490	163	155	186	159	45	30	12
3	36	40	45	175	387	159	147	164	197	56	27	13
4	33	39	39	186	609	150	186	146	141	139	21	12
5	31	38	47	352	442	147	196	131	136	125	16	14
6	32	42	49	315	285	149	199	120	142	69	30	13
7	41	44	43	216	239	194	268	112	131	53	24	8.5
8	35	40	43	179	204	554	245	107	118	45	17	9.5
9	30	39	42	157	202	537	203	126	105	41	18	9.0
10	29	38	39	130	310	311	198	120	92	42	30	8.8
11	28	36	38	128	318	250	192	103	84	42	26	8.8
12	27	36	37	114	241	229	173	93	78	47	24	9.4
13	26	35	36	98	209	219	158	89	87	42	22	11
14	26	34	36	101	195	207	149	85	171	34	20	9.1
15	25	36	89	102	186	182	138	80	221	37	20	12
16	26	37	187	98	190	162	127	75	171	41	18	13
17	25	37	246	83	196	236	123	69	125	72	14	13
18	26	36	202	84	269	304	189	66	160	45	19	12
19	36	35	155	88	431	251	273	64	171	37	20	12
20	37	34	123	88	781	216	233	67	131	32	14	13
21	30	34	112	86	669	196	190	61	105	52	18	15
22	26	32	105	85	546	185	166	62	89	47	17	16
23	26	31	109	87	392	172	147	66	79	37	17	20
24	30	31	123	115	286	158	134	66	70	39	18	17
25	33	31	98	130	246	150	125	65	62	34	20	15
26	47	30	92	126	211	146	130	63	60	31	19	15
27	50	31	90	107	188	138	180	59	56	27	13	23
28	57	31	90	102	178	127	346	63	53	26	13	24
29	58	31	86	101	---	119	404	85	49	20	11	19
30	49	29	80	97	---	117	280	84	59	12	8.9	17
31	44	---	76	123	---	121	---	76	---	31	11	---
TOTAL	1069	1070	2633	4135	9304	6419	5805	2972	3391	1451	608.9	405.1
MEAN	34.5	35.7	84.9	133	332	207	194	95.9	113	46.8	19.6	13.5
MAX	58	44	246	352	781	554	404	219	221	139	33	24
MIN	25	29	31	83	178	117	123	59	49	12	8.9	8.5
CFSM	.31	.32	.75	1.18	2.94	1.83	1.72	.85	1.00	.41	.17	.12
IN.	.35	.35	.87	1.36	3.06	2.11	1.91	.98	1.12	.48	.20	.13

CAL YR 1981 TOTAL 26555.0 MEAN 72.8 MAX 520 MIN 12 CFSM .64 IN 8.74
WTR YR 1982 TOTAL 39263.0 MEAN 108 MAX 781 MIN 8.5 CFSM .96 IN 12.93

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1974 to current year.
SUSPENDED SEDIMENT: October 1980 to current year.

REMARKS.--Daily samples collected by local observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 28.0°C July 23, 1978, and July 22, 1980; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 77 mg/L May 12, 1981; minimum daily mean, 1 mg/L on many days during November 1981 and August to September 1982.
SEDIMENT LOADS: Maximum daily, 101 tons (91.6 tonnes) May 12, 1981; minimum daily, 0.02 ton (0.02 tonne) Aug. 30, Sept. 7, 1982.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 27.0°C July 19; minimum daily, 0.5°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 55 mg/L Mar. 8; minimum daily mean, 1 mg/L on many days during November and August to September.
SEDIMENT LOADS: Maximum daily, 86 tons (78.0 tonnes) Mar. 8; minimum daily, 0.02 ton (0.02 tonne) Aug. 30, Sept. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV 19...	1110	35	140	6.9	15.5	8.0	3.0	6.3	77	120	43	19
JAN 26...	1130	129	128	6.5	23.0	.0	5.5	--	36	170	35	24
MAR 15...	1115	189	111	--	8.0	9.0	1.0	10.7	79	33	33	23
APR 27...	1015	164	105	6.1	21.0	15.4	4.8	7.2	340	850	36	19
JUL 27...	1000	28	143	6.9	26.5	24.7	4.5	5.9	140	380	46	18
SEP 28...	0850	26	154	6.6	20.5	17.2	--	7.3	440	5800	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 19...	12	3.1	7.7	27	.5	2.2	24	19	15	<.1	14	107
JAN 26...	9.3	2.8	8.2	32	.7	1.9	11	20	13	<.1	19	102
MAR 15...	8.6	2.7	6.2	28	.5	1.8	10	20	10	.1	16	95
APR 27...	9.6	2.9	7.0	29	.5	1.8	17	15	8.9	.1	14	82
JUL 27...	13	3.3	9.1	29	.6	2.0	28	11	11	.1	15	105
SEP 28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV 19...	88	.15	10.1	--	--	--	--	--	--	--	--	--
JAN 26...	81	.14	35.5	1.4	.110	.14	.54	.060	.18	.010	.020	.06
MAR 15...	72	.13	48.5	1.2	.040	.05	<.10	.050	.15	.020	.020	.06
APR 27...	70	.11	36.3	1.4	.170	.22	.53	.080	.25	.060	.030	.09
JUL 27...	81	.14	8.1	1.1	.040	.05	.60	.070	.21	.050	.030	.09
SEP 28...	--	--	--	1.1	.050	.06	.10	.060	.18	.070	.030	.09

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
NOV 19...	1	0	1	100	40	56	<1	2	20	10
JAN 26...	1	--	<1	<100	--	64	<1	4	10	--
MAR 15...	1	--	<1	100	20	76	<1	<1	10	0
APR 27...	2	0	2	100	20	82	2	<3	20	10

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
NOV 19...	10	<1	--	<1	46	45	1	700	490	210
JAN 26...	<10	2	0	2	7	4	3	750	540	210
MAR 15...	10	1	0	1	8	5	3	980	780	200
APR 27...	10	3	1	2	10	0	10	1700	1200	510

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
NOV 19...	1	0	2	30	6	24	<.1	--	<.1	4
JAN 26...	9	5	4	80	0	82	.1	.0	.1	6
MAR 15...	--	--	<1	40	1	39	.2	.0	.2	4
APR 27...	3	2	1	140	30	110	.2	.0	.2	8

DATE	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL 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)
NOV 19...	3	1	<1	<1	<1	<1	40	--	<4
JAN 26...	--	<1	<1	<1	<1	<1	30	0	30
MAR 15...	0	4	<1	<1	<1	<1	20	0	21
APR 27...	0	8	<1	<1	<1	<1	10	0	16

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PCB, TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
NOV 19...	--	<1	<1.0	--	<.1	--	<1.0	--	<.1	--	<.1	--
JAN 26...	<.10	--	--	<.01	--	<.10	--	<.01	--	<.01	--	<.01
MAR 30...	--	<1	<1.0	--	<.1	--	<1.0	--	.3	--	.2	--
APR 27...	<.10	<1	<1.0	<.01	<.1	<.10	<1.0	<.01	.2	<.01	<.1	<.01
JUL 27...	<.10	<1	<1.0	<.01	<.1	<.10	<1.0	<.01	<.1	<.01	.2	<.01

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 19...	<.1	--	--	<.1	--	<.1	--	<.1	--	--	<.1
JAN 26...	--	.02	<.01	--	<.01	--	<.01	--	<.01	<.01	--
MAR 30...	<.1	--	--	<.1	--	<.1	--	<.1	--	--	<.1
APR 27...	<.1	.01	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1
JUL 27...	1.1	<.01	<.01	<.1	<.01	<.1	<.01	<.1	<.01	<.01	<.1

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 19...	--	<.1	--	<.1	--	--	<.1	--	--	--	<.1
JAN 26...	<.01	--	<.01	--	<.01	<.01	--	<.01	<.01	<.01	--
MAR 30...	--	<.1	--	<.1	--	--	<.1	--	--	--	<.1
APR 27...	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.01	<.01	<.1
JUL 27...	<.01	<.1	<.01	<.1	<.01	<.01	<.1	<.01	<.01	<.01	<.1

DATE	NAPHTHALENES, POLYCHLOR, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
NOV 19...	--	--	--	<.10	--	<1.0	--	--	--	--	--
JAN 26...	<.10	<.01	<.01	--	<1	--	<.01	<.01	<.01	<.01	<.01
MAR 30...	--	--	--	<1.00	--	<10	--	--	--	--	--
APR 27...	<.10	<.01	<.10	<1.00	<1	<10	<.01	--	--	--	--
JUL 27...	<.10	<.01	<.10	<1.00	<1	<10	<.01	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 19...	69	9	.85
JAN 26...	100	3	1.0
MAR 15...	93	7	3.6
APR 27...	86	12	5.3
JUL 27...	78	3	.23
SEP 28...	55	6	.42

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	13.5	3.5	4.0	1.0	6.0	13.0	15.0	25.0	22.0	23.0	---
2	17.0	11.5	6.0	---	.5	5.5	---	---	22.5	22.5	22.5	19.0
3	15.0	14.0	7.0	3.0	4.5	5.5	12.0	19.0	21.5	22.5	23.0	22.0
4	12.5	12.0	---	6.0	5.0	5.5	---	19.0	20.0	---	23.0	20.0
5	15.0	12.0	6.5	7.0	---	---	---	19.0	19.0	21.0	23.5	22.0
6	15.0	13.5	6.0	5.5	4.0	7.0	8.5	18.0	19.0	22.0	---	---
7	16.0	11.5	5.0	6.5	2.5	5.5	---	20.0	18.0	22.5	23.5	18.0
8	14.5	10.5	6.5	4.5	3.0	4.5	---	19.0	17.5	---	23.0	19.0
9	12.5	10.5	5.5	3.0	4.0	5.5	---	18.0	---	24.5	---	19.0
10	11.5	---	3.5	.5	3.5	5.5	9.0	16.0	19.0	---	24.0	19.0
11	---	8.5	2.5	.5	3.0	8.0	7.5	16.0	19.0	25.0	23.5	19.0
12	12.0	8.5	2.5	.5	---	13.0	11.0	16.5	18.0	24.0	23.0	19.5
13	12.0	---	2.5	.5	2.5	12.5	12.0	---	17.5	25.5	22.0	19.5
14	11.5	8.0	1.5	---	3.0	---	14.5	19.0	18.0	24.0	---	21.0
15	---	10.0	3.0	.5	3.5	9.0	14.5	19.0	18.0	24.5	20.0	21.5
16	---	9.5	3.0	.5	9.0	8.0	16.0	---	22.0	25.0	22.0	22.0
17	---	9.5	2.0	.5	9.5	7.0	19.0	---	24.0	25.5	22.5	20.0
18	---	10.0	2.0	.5	3.0	9.0	15.5	19.5	23.0	---	23.0	19.0
19	---	8.0	1.5	.5	3.5	10.5	16.5	19.5	22.5	27.0	23.0	18.0
20	---	10.5	1.0	.5	4.0	10.0	16.5	22.0	21.5	26.0	23.0	---
21	11.0	9.0	1.0	---	5.5	10.0	---	21.0	21.0	---	23.0	18.0
22	11.0	7.5	1.5	---	---	10.5	15.0	19.5	21.0	25.0	---	17.5
23	13.0	6.0	5.5	---	6.5	9.5	15.0	17.5	22.0	24.0	21.0	16.5
24	12.5	4.5	5.0	.5	6.5	---	16.5	16.5	21.5	24.5	---	15.0
25	11.0	4.0	5.0	.5	6.0	12.0	17.5	16.5	---	24.0	21.5	16.5
26	12.5	4.5	4.0	.5	2.5	12.5	17.0	19.0	23.0	25.0	21.5	16.0
27	14.5	3.0	4.5	.5	3.0	14.0	16.5	18.5	23.5	25.0	18.0	18.0
28	15.0	5.0	5.0	.5	5.0	---	14.0	19.5	25.0	26.0	20.0	17.5
29	14.0	6.5	5.0	.5	---	---	14.0	20.5	24.0	---	18.0	17.5
30	13.0	4.5	3.5	---	---	---	16.5	22.5	24.0	22.5	18.0	18.0
31	12.0	---	3.0	1.0	---	---	---	22.0	---	22.0	19.0	---

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5	.46	9	1.0	9	.75	8	2.3	32	37	5	2.3
2	5	.49	8	.89	15	1.8	15	7.0	31	41	5	2.2
3	6	.58	7	.76	36	4.4	20	9.5	22	23	6	2.6
4	6	.53	9	.95	25	2.6	17	8.8	19	31	6	2.4
5	4	.33	7	.72	12	1.5	33	33	17	20	6	2.4
6	7	.60	3	.34	9	1.2	37	32	12	9.1	7	2.8
7	9	1.0	1	.12	9	1.0	14	8.2	10	6.5	10	5.7
8	9	.85	1	.11	10	1.2	16	7.7	10	5.5	55	86
9	10	.81	1	.11	11	1.2	19	8.1	10	5.5	37	56
10	4	.31	1	.10	9	.95	15	5.3	17	14	19	16
11	4	.30	1	.10	8	.82	9	3.1	15	13	12	8.1
12	5	.36	1	.10	8	.80	7	2.2	11	7.2	8	4.9
13	5	.35	1	.09	5	.49	10	2.6	11	6.2	8	4.7
14	4	.28	1	.09	10	.97	8	2.2	17	9.0	8	4.5
15	3	.20	1	.10	18	4.3	4	1.1	8	4.0	8	3.9
16	4	.28	1	.10	27	14	3	.79	6	3.1	7	3.1
17	7	.47	1	.10	31	21	5	1.1	9	4.8	11	7.1
18	7	.49	1	.10	20	11	5	1.1	19	14	25	21
19	7	.68	2	.19	11	4.6	4	.95	26	31	20	14
20	7	.70	7	.64	10	3.3	3	.71	36	74	10	5.8
21	16	1.3	12	1.1	8	2.4	3	.70	23	41	7	3.7
22	9	.63	15	1.3	7	2.0	3	.69	18	27	6	3.0
23	9	.63	11	.92	8	2.4	4	.94	17	18	12	5.6
24	8	.65	9	.75	9	3.0	4	1.2	12	9.3	14	6.0
25	12	1.1	10	.84	15	4.0	7	2.5	8	5.3	13	5.3
26	13	1.6	9	.73	11	2.7	6	2.0	10	5.7	12	4.7
27	9	1.2	9	.75	9	2.2	10	2.9	8	4.1	15	5.6
28	7	1.1	8	.67	11	2.7	11	3.0	6	2.9	15	5.1
29	6	.94	7	.59	15	3.5	9	2.5	---	---	13	4.2
30	7	.93	8	.63	14	3.0	7	1.8	---	---	15	4.7
31	10	1.2	---	---	7	1.4	6	2.1	---	---	15	4.9
TOTAL	---	21.35	---	14.99	---	107.18	---	158.08	---	472.2	---	308.3
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13	5.3	12	7.1	12	2.9	7	.96	10	.89	1	.03
2	14	5.9	15	7.5	32	14	5	.61	6	.49	1	.03
3	14	5.6	17	7.5	40	21	5	.73	4	.29	1	.04
4	16	8.0	17	6.7	22	8.4	23	8.8	5	.28	2	.06
5	17	9.0	15	5.3	14	5.1	27	9.1	7	.25	1	.04
6	18	9.7	16	5.2	14	5.4	12	2.2	10	.82	1	.04
7	24	17	15	4.5	17	6.0	7	1.0	16	1.0	1	.02
8	22	15	14	4.0	13	4.1	6	.73	5	.23	1	.03
9	17	9.3	12	4.1	10	2.8	6	.66	4	.18	2	.05
10	13	6.9	11	3.6	9	2.2	5	.57	5	.41	2	.05
11	8	4.1	12	3.3	8	1.8	5	.57	7	.49	2	.05
12	5	2.3	10	2.5	8	1.7	5	.63	6	.39	1	.03
13	5	2.1	9	2.2	9	2.1	5	.57	7	.42	2	.06
14	6	2.4	9	2.1	19	8.8	4	.37	9	.49	4	.10
15	7	2.6	10	2.2	25	15	3	.30	16	.86	2	.06
16	7	2.4	11	2.2	13	6.0	3	.33	9	.42	1	.04
17	7	2.3	11	2.0	11	3.7	8	1.6	6	.23	1	.04
18	20	10	12	2.1	28	12	6	.73	7	.36	1	.03
19	13	9.6	10	1.7	22	10	2	.20	8	.43	2	.06
20	8	5.0	9	1.6	13	4.6	2	.17	7	.26	1	.04
21	12	6.2	8	1.3	12	3.4	2	.28	4	.19	1	.04
22	11	4.9	7	1.2	10	2.4	3	.38	3	.14	2	.09
23	8	3.2	8	1.4	10	2.1	3	.30	5	.23	4	.22
24	8	2.9	9	1.6	7	1.3	4	.42	5	.24	1	.05
25	9	3.0	7	1.2	7	1.2	5	.46	6	.32	1	.04
26	11	3.9	7	1.2	5	.81	5	.42	5	.28	1	.04
27	16	7.8	8	1.3	6	.91	4	.29	4	.14	3	.19
28	24	22	7	1.2	6	.86	5	.35	1	.04	2	.13
29	19	20	8	1.8	5	.66	7	.39	1	.03	1	.05
30	15	11	11	2.5	7	1.1	8	.28	1	.02	3	.14
31	---	---	9	1.8	---	---	9	.75	1	.03	---	---
TOTAL	---	219.4	---	93.9	---	152.34	---	35.15	---	10.85	---	1.89

TOTAL LOAD FOR YEAR: 1595.63 TONS.

01493000 UNICORN BRANCH NEAR MILLINGTON, MD.

LOCATION.--Lat 39°14'59", long 75°51'40", Queen Annes County, Hydrologic Unit 02060002, on right bank 20 ft (6 m) upstream from bridge on State Highway 313, 0.9 mi (1.4 km) upstream from mouth, and 1.4 mi (2.3 km) southwest of Millington.

DRAINAGE AREA.--22.3 mi^2 (57.8 km^2).

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

REVISED RECORDS.--WSP 1382: 1952(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft (1.088 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation at low and medium flow by fish hatchery above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 24.6 ft^3/s (0.697 m^3/s), 14.98 in/yr (380 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft^3/s (30.0 m^3/s) Sept. 12, 1960, gage height, 7.17 ft (2.185 m); no flow for part of each day June 13, 14, 1965, caused by regulation at Unicorn Lake Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft^3/s (5.04 m^3/s) Apr. 28, gage height, 3.84 ft (1.170 m), no peak above base of 180 ft^3/s (5.1 m^3/s); minimum discharge, 0.15 ft^3/s (0.004 m^3/s) Mar. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	8.5	17	12	43	27	28	36	21	16	15	9.6
2	8.4	8.4	26	12	50	23	25	30	21	15	14	9.1
3	7.3	8.4	22	13	46	22	26	27	19	19	13	14
4	7.3	7.9	12	25	68	22	30	24	19	39	13	9.9
5	7.9	8.0	5.8	33	38	7.4	26	23	23	22	13	9.2
6	7.3	8.9	5.8	26	28	.65	34	22	23	18	14	8.6
7	8.4	8.5	6.9	22	25	33	42	22	22	17	15	8.5
8	7.3	8.4	8.5	16	32	98	30	22	20	16	14	8.9
9	7.3	8.3	9.3	16	30	61	28	22	18	16	14	8.9
10	6.8	8.4	8.7	16	34	37	28	20	16	15	13	9.5
11	6.7	8.3	7.9	15	33	31	26	19	17	15	13	9.0
12	6.1	8.3	7.9	13	26	30	24	19	16	18	12	8.4
13	5.9	8.3	7.7	8.2	26	29	23	19	32	16	12	7.8
14	5.9	8.4	6.6	7.5	25	27	23	18	81	14	11	9.1
15	6.9	8.7	15	7.3	24	25	22	17	57	16	11	8.8
16	6.7	9.1	25	6.8	24	26	21	17	35	88	11	8.3
17	6.7	8.5	21	7.3	24	46	22	17	69	56	10	8.2
18	8.7	8.4	15	7.3	25	42	48	16	57	24	10	8.1
19	11	8.4	14	7.3	32	33	53	17	36	18	9.9	8.2
20	8.1	8.4	14	14	64	29	32	18	27	18	10	9.9
21	7.4	8.1	15	17	63	27	27	17	23	25	10	9.2
22	7.2	7.9	16	16	55	26	25	17	21	21	11	10
23	7.9	7.9	14	19	42	25	23	18	20	18	8.7	9.7
24	9.9	7.9	14	23	38	24	22	17	18	17	11	8.5
25	11	8.0	13	19	34	24	21	18	18	15	11	8.5
26	15	8.0	13	17	27	24	25	17	18	14	9.3	9.4
27	12	8.0	11	14	24	23	38	16	17	14	8.5	14
28	14	7.9	11	14	24	22	132	33	17	15	9.4	10
29	11	7.8	11	14	---	22	102	41	17	14	9.3	8.6
30	9.0	7.8	11	14	---	21	52	26	17	14	8.8	8.6
31	8.2	---	11	15	---	24	---	28	---	17	11	---
TOTAL	260.6	247.8	396.1	466.7	1004	911.05	1058	673	815	660	355.9	278.5
MEAN	8.41	8.26	12.8	15.1	35.9	29.4	35.3	21.7	27.2	21.3	11.5	9.28
MAX	15	9.1	26	33	68	98	132	41	81	88	15	14
MIN	5.9	7.8	5.8	6.8	24	.65	21	16	16	14	8.5	7.8
CFSM	.38	.37	.57	.68	1.61	1.32	1.58	.97	1.22	.96	.52	.42
IN.	.43	.41	.66	.78	1.67	1.52	1.76	1.12	1.36	1.10	.59	.46

CAL YR 1981 TOTAL 4807.70 MEAN 13.2 MAX 53 MIN 4.9 CFSM .59 IN 8.02
WTR YR 1982 TOTAL 7126.65 MEAN 19.5 MAX 132 MIN .65 CFSM .87 IN 11.89

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, Hydrologic Unit 02060002, on right bank 200 ft (61 m) upstream from highway bridge, 2.0 mi (3.2 km) southwest of Kennedyville, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--12.7 mi^2 (32.9 km^2).

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

REVISED RECORDS.--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WDR MD-DE-76-1: Drainage area. WDR MD-DE-79-1: 1961(M). WDR MD-DE-80-1: 1976(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft (0.536 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good below 50 ft^3/s (1.42 m^3/s) and fair above. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 10.5 ft^3/s (0.297 m^3/s), 11.23 in/yr (285 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s (212 m^3/s) June 22, 1972, gage height, 13.07 ft (3.984 m), from rating curve extended above 590 ft^3/s (16.7 m^3/s) on basis of Type IV culvert and flow-over-road measurement of peak flow; minimum discharge, 0.60 ft^3/s (0.017 m^3/s) Aug. 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 ft^3/s (3.60 m^3/s) May 29, gage height, 3.87 ft (1.180 m), no peak above base of 200 ft^3/s (5.6 m^3/s); minimum daily discharge, 2.6 ft^3/s (0.074 m^3/s) Oct. 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.4	6.3	13	91	5.8	15	6.3	8.1	4.9	4.6	3.2
2	3.5	4.4	12	7.5	21	6.3	6.3	5.8	6.9	4.0	4.3	3.7
3	3.2	4.4	5.8	5.3	45	5.8	10	5.3	5.8	10	4.0	9.8
4	3.2	4.0	4.9	24	32	5.8	10	5.3	6.3	25	3.9	4.7
5	3.2	4.0	5.8	21	12	6.3	5.8	4.9	8.7	6.3	3.6	3.5
6	3.4	5.3	4.9	6.9	8.1	8.7	19	4.9	8.7	4.9	3.7	3.2
7	3.2	4.9	4.0	5.8	6.3	30	11	4.9	6.3	4.4	4.0	3.2
8	2.9	4.4	4.9	5.3	5.3	38	6.9	5.3	5.8	5.8	4.0	3.2
9	2.6	4.4	4.4	4.4	9.4	12	7.5	5.8	5.3	26	4.0	3.5
10	2.6	4.0	3.6	3.2	12	8.1	7.5	4.9	5.3	6.9	3.9	3.6
11	2.6	4.4	3.6	2.9	6.3	7.5	6.3	4.0	5.3	4.9	3.6	3.4
12	2.9	4.4	3.6	2.9	5.3	8.1	5.8	4.4	5.3	13	3.8	3.2
13	2.9	4.0	3.2	3.2	5.8	7.5	5.8	4.4	17	6.3	3.8	3.2
14	2.9	4.0	4.4	3.2	5.3	6.3	5.8	4.4	31	4.4	3.6	3.2
15	3.2	4.4	22	3.6	5.3	5.8	5.3	4.0	9.4	4.6	3.6	3.2
16	3.2	5.3	28	4.0	6.3	8.7	5.3	4.0	10	4.4	3.6	3.2
17	3.2	4.9	14	4.4	8.1	16	5.8	4.4	25	4.4	3.4	2.9
18	3.6	4.9	6.9	4.0	11	8.7	15	4.4	9.4	4.4	3.2	2.9
19	5.8	4.4	4.4	3.8	25	7.5	6.9	4.9	6.3	4.4	3.2	2.9
20	4.4	4.4	3.6	4.0	34	6.3	5.8	5.8	5.8	7.9	3.2	4.0
21	3.6	4.4	3.2	4.2	24	6.3	5.8	5.3	5.3	14	3.5	4.4
22	3.6	4.0	4.0	4.4	14	6.3	5.3	5.3	4.9	5.0	3.6	4.9
23	4.0	4.0	6.3	4.2	8.7	5.8	4.9	6.3	4.9	18	3.6	5.3
24	8.7	4.0	5.8	5.8	7.5	5.8	4.9	6.3	4.9	12	3.6	4.4
25	6.3	4.0	5.3	5.8	6.3	5.8	4.9	6.3	4.4	4.9	4.2	4.0
26	15	4.0	4.4	5.3	5.3	6.9	10	5.8	4.4	4.4	3.8	4.0
27	19	4.9	4.9	4.9	5.8	5.3	15	5.8	4.4	4.2	3.6	9.4
28	11	4.4	4.9	4.9	6.3	4.9	22	47	4.4	4.2	3.6	4.9
29	6.9	4.0	4.4	4.4	---	5.3	10	79	5.8	4.3	3.3	4.0
30	4.9	4.0	4.0	4.4	---	5.3	6.9	13	5.3	4.9	3.2	3.6
31	4.4	---	4.0	10	---	9.6	---	21	---	7.5	3.2	---
TOTAL	152.8	131.0	201.5	190.7	432.4	276.5	256.5	299.2	240.4	240.3	114.2	122.6
MEAN	4.93	4.37	6.50	6.15	15.4	8.92	8.55	9.65	8.01	7.75	3.68	4.09
MAX	19	5.3	28	24	91	38	22	79	31	26	4.6	9.8
MIN	2.6	4.0	3.2	2.9	5.3	4.9	4.9	4.0	4.4	4.0	3.2	2.9
CFSM	.39	.34	.51	.48	1.21	.70	.67	.76	.63	.61	.29	.32
IN.	.45	.38	.59	.56	1.27	.81	.75	.88	.70	.70	.33	.36

CAL YR 1981 TOTAL 2455.8 MEAN 6.73 MAX 230 MIN 2.2 CFSM .53 IN 7.19
WTR YR 1982 TOTAL 2658.1 MEAN 7.28 MAX 91 MIN 2.6 CFSM .57 IN 7.79

01495000 BIG ELK CREEK AT ELK MILLS, MD

LOCATION.--Lat 39°39'26", long 75°49'20", Cecil County, Hydrologic Unit 02060002, on right bank 100 ft (30 m) downstream from highway bridge at Elk Mills, 3.5 mi (5.6 km) north of Elkton, and 7 mi (11 km) upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 mi^2 (136.2 km^2).

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1932-33, 1934(M), 1935, 1936(M), 1938, 1939-40(M), 1942(M), 1943-51, 1952-53(P).

GAGE.--Water-stage recorder. Datum of gage is 68.5 ft (20.88 m) National Geodetic Vertical Datum of 1929. Apr. 10, 1932, to May 16, 1946, nonrecording gage at bridge 100 ft (30 m) upstream at same datum.

REMARKS.--Records good except those for January, which are fair. Slight diurnal fluctuation caused by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 69.1 ft^3/s (1.957 m^3/s), 17.84 in/yr (453 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) July 5, 1937, gage height, 14.5 ft (4.42 m), from floodmarks, from rating curve extended above 1,700 ft^3/s (48.1 m^3/s) on basis of velocity-area and conveyance studies; minimum discharge, 4.5 ft^3/s (0.13 m^3/s) Jan. 21, 1955, (result of freezeup); minimum daily discharge, 4.8 ft^3/s (0.14 m^3/s) Sept. 8-10, 1966; minimum gage height observed, 2.09 ft (0.637 m) Sept. 19, 22-24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft (5.8 m) from information by local residents, discharge, about 18,000 ft^3/s (510 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) Jan. 4, gage height, 6.38 ft (1.945 m), no other peak above base of 1,700 ft^3/s (48 m^3/s); minimum discharge, 13 ft^3/s (0.37 m^3/s) Sept. 20, gage height, 2.38 ft (0.725 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	21	25	63	551	36	50	53	46	47	23	19
2	38	21	103	52	113	36	34	48	137	38	21	21
3	22	21	37	33	785	37	63	45	45	45	21	39
4	17	20	26	587	200	34	110	42	40	56	19	23
5	17	20	28	133	104	38	49	39	44	38	19	19
6	16	40	25	73	71	37	179	38	66	34	24	18
7	16	33	24	60	60	89	99	37	80	33	22	17
8	15	25	26	50	71	107	64	36	44	63	25	18
9	15	22	26	46	56	57	61	37	37	36	39	19
10	15	22	23	44	61	48	59	33	33	32	26	18
11	15	21	23	42	61	46	53	31	34	31	23	18
12	16	21	22	42	51	51	47	30	33	38	45	16
13	16	21	22	42	41	49	44	31	366	30	30	16
14	16	20	28	55	45	44	43	30	154	28	23	16
15	16	22	131	60	57	39	39	28	70	28	21	16
16	16	25	146	49	90	41	38	27	60	28	20	16
17	16	22	54	51	63	59	40	26	219	26	43	15
18	18	22	40	46	47	46	134	25	66	25	28	14
19	32	21	34	42	145	41	58	26	52	23	22	14
20	21	23	33	42	119	38	47	30	44	41	19	23
21	18	27	30	41	73	38	45	26	40	29	19	26
22	18	23	32	41	62	37	40	28	37	24	18	20
23	20	21	41	70	53	34	37	32	38	34	18	21
24	42	21	73	160	49	33	36	35	34	26	30	18
25	26	22	34	97	44	33	35	32	33	23	28	17
26	32	21	30	74	41	37	108	30	32	22	25	16
27	46	20	29	59	39	34	168	33	34	22	20	159
28	79	20	29	57	38	30	131	234	33	28	20	38
29	31	20	28	55	---	30	74	157	220	25	18	23
30	25	20	25	59	---	30	60	51	78	22	17	20
31	22	---	27	88	---	41	---	41	---	23	18	---
TOTAL	727	678	1254	2413	3190	1350	2045	1391	2249	998	744	733
MEAN	23.5	22.6	40.5	77.8	114	43.5	68.2	44.9	75.0	32.2	24.0	24.4
MAX	79	40	146	587	785	107	179	234	366	63	45	159
MIN	15	20	22	33	38	30	34	25	32	22	17	14
CFSM	.45	.43	.77	1.48	2.17	.83	1.30	.85	1.43	.61	.46	.46
IN.	.51	.48	.89	1.71	2.26	.95	1.45	.98	1.59	.71	.53	.52

CAL YR 1981 TOTAL 13206 MEAN 36.2 MAX 514 MIN 11 CFSM .69 IN 9.34
WTR YR 1982 TOTAL 17772 MEAN 48.7 MAX 785 MIN 14 CFSM .93 IN 12.57

01495900 ELK RIVER NEAR TOWN POINT, MD

LOCATION.--Lat 39°30'09", long 75°54'58", Cecil County, Hydrologic Unit 02060001, at site of Old Town Point wharf, at the Corps of Engineers substation, on left bank of Elk River, 0.7 mi (1.1 km) west of Port Herman, 1.1 mi (1.8 km) northwest of Town Point, and 1.8 mi (2.9 km) downstream from mouth of Back Creek.

PERIOD OF RECORD.--October 1981 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to September 1982.
WATER TEMPERATURES: October 1981 to September 1982.

INSTRUMENTATION: Water-quality monitor since October 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, >10,000 micromhos Oct. 30, 31, Nov. 13-18, 1981; minimum, 150 micromhos Apr. 13, 17, 1982.
WATER TEMPERATURES: Maximum, 32.0°C July 18, 19, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR:
SPECIFIC CONDUCTANCE: Maximum, >10,000 micromhos Oct. 30, 31, Nov. 13-18; minimum, 150 micromhos Apr. 13, 17.
WATER TEMPERATURES: Maximum, 32.0°C July 18, 19; minimum, 0.0°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4810	4260	4520	9870	3140	5970	2890	2490	2600	3980	3210	3650
2	4610	4290	4390	5320	2330	3560	2850	2470	2590	5790	2780	3810
3	4660	4190	4440	3940	2580	3200	3090	2770	2970	4320	3560	3890
4	4470	3440	3990	3500	2270	3010	3410	3050	3220	5980	3820	4860
5	3790	3080	3360	2810	2040	2380	3770	3220	3410	5310	2850	4320
6	3720	2450	3380	2780	2040	2470	3640	2910	3450	3200	1860	2490
7	3660	3420	3520	2820	1450	1960	3150	1730	2410	2520	1450	2210
8	3630	2570	3330	2250	1330	1550	3030	2680	2850	2610	2400	2510
9	3130	2600	2840	1670	1230	1430	3100	2950	3040	2420	1140	1610
10	4810	3040	3840	1780	1470	1600	3170	3070	3110	2620	760	1360
11	6810	4790	5570	3850	1880	2480	3120	3030	3080	850	600	730
12	8170	6020	6560	9070	2710	4930	4380	2980	3390	810	640	687
13	9090	6680	7590	>10000	5680	---	6270	3300	4570	680	560	618
14	8340	6070	7220	>10000	7520	---	5900	4120	4880	2890	570	895
15	7400	6060	6790	>10000	>10000	>10000	7590	4730	5680	2400	1010	1540
16	7130	5640	6600	>10000	>10000	>10000	8360	4130	5760	1510	850	1200
17	8940	5920	6850	>10000	8800	---	4740	2290	3360	1150	910	1020
18	7580	4990	6280	>10000	8630	---	3360	3040	3240	1230	1060	1160
19	6290	5050	5620	9180	4950	6330	3410	3210	3320	1340	1180	1270
20	5840	3850	4830	6300	5390	5760	3130	1900	2570	1310	1190	1250
21	4380	2010	3710	6420	2790	4770	2340	1770	1980	1270	1230	1250
22	4180	3560	3750	3650	2260	2700	1850	1250	1540	1630	1240	1340
23	3890	3530	3690	3300	2000	2320	2110	1390	1520	2070	1340	1660
24	3870	3600	3710	2730	2280	2530	1820	1400	1540	2010	1590	1740
25	3930	3750	3800	4510	2610	3200	1670	1470	1540	2330	1490	1720
26	6290	4150	5260	6510	2520	4370	1650	1480	1550	2560	1740	2100
27	7000	5070	5760	4940	3900	4180	5100	1510	2560	4310	2350	2890
28	5870	5150	5440	4240	3610	4030	6080	2620	3560	3960	2380	3140
29	6110	4920	5480	3430	2330	2930	4240	2520	3300	3440	2770	3100
30	>10000	5830	---	2580	1930	2390	3450	2670	3190	3400	2730	3130
31	>10000	4630	---	---	---	---	3510	2810	3230	3450	2740	3210
MONTH	>10000	2010	4900	>10000	1230	3850	8360	1250	3060	5980	560	2140

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3280	2930	3100	2650	2190	2420	260	180	220	380	320	342
2	3040	2790	2940	2360	1920	2200	450	190	350	360	300	331
3	5970	2740	3640	2250	1970	2160	440	210	331	350	300	323
4	3560	3090	3340	2450	2200	2290	390	200	276	350	300	325
5	3600	2830	3340	2380	2190	2270	610	260	391	800	330	408
6	3470	2880	3130	2480	2130	2290	400	240	292	800	300	571
7	3250	2040	2690	4510	2450	3340	390	---	---	700	200	492
8	2170	1260	1680	4100	2680	3270	400	---	---	800	500	654
9	1620	1190	1450	3650	2260	3170	320	220	253	800	500	625
10	1300	1170	1230	3100	2730	2920	250	180	220	800	400	621
11	1280	1150	1210	3220	2970	3070	240	170	202	900	500	679
12	1210	1010	1140	3230	2790	3000	230	170	201	1200	700	983
13	1150	1040	1130	2970	2550	2810	220	150	185	1500	1000	1240
14	1130	970	1040	2700	2220	2490	270	180	211	1500	1000	1280
15	1040	940	997	2320	1830	2090	280	170	225	1600	1000	1350
16	990	900	955	2260	1390	1730	320	170	210	2000	1200	1480
17	1760	930	1090	1830	1280	1410	210	150	178	1800	1200	1420
18	5090	2190	3060	1610	1130	1460	280	180	211	1500	1000	1310
19	4690	3350	4010	1320	810	1050	300	190	235	1500	1100	1330
20	4470	3630	4070	1040	860	925	250	190	213	1400	1000	1200
21	4930	4320	4760	1150	860	968	230	200	213	1300	900	1080
22	4950	4380	4750	1300	800	936	290	220	246	1360	950	1110
23	4810	4010	4500	1080	550	785	290	230	258	3110	1490	2630
24	4700	4070	4410	770	500	604	280	190	227	4380	3160	3840
25	4990	4220	4680	620	500	543	250	190	216	4250	2770	3640
26	4940	3070	4170	810	400	538	220	210	214	3890	3020	3530
27	3200	1880	2460	850	250	443	230	210	216	3610	2600	3380
28	2570	2020	2290	810	380	646	260	210	232	3630	2750	3320
29	---	---	---	580	280	423	430	230	352	4180	3190	3600
30	---	---	---	390	260	320	430	310	366	3570	3090	3310
31	---	---	---	340	210	273	---	---	---	3260	2740	2970
MONTH	5970	900	2760	4510	210	1700	610	150	248	4380	200	1590

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	3860	2370	3340	560	420	476	1010	892	952	2180	1660	1930
2	3450	2520	2890	640	400	490	1050	895	977	1900	1620	1730
3	3270	2730	2990	460	380	407	1040	897	953	1880	1540	1690
4	3310	2620	3110	480	360	403	1340	900	1110	1800	1480	1660
5	3860	3300	3600	1020	440	640	1440	1100	1240	1620	1440	1530
6	3860	2900	3430	640	460	547	1150	1030	1080	1540	1400	1480
7	3570	3140	3450	580	460	519	2790	1090	1740	1480	1420	1440
8	3620	3230	3430	520	340	430	2570	1930	2170	2600	1440	1630
9	3300	2020	2840	560	360	452	2070	1510	1830	2040	1720	1820
10	2780	1860	2480	480	380	417	1620	1300	1510	1920	1700	1790
11	2300	1660	1960	440	380	405	1560	1240	1350	2080	1880	1950
12	2480	1820	1940	440	380	408	4540	1420	2070	2080	1960	2010
13	1980	1600	1790	500	380	430	4380	2500	3160	2100	1980	2040
14	1920	1520	1670	520	400	437	3210	2430	2830	2180	2020	2080
15	1820	1260	1560	460	400	430	2910	2330	2630	2240	2080	2170
16	1360	680	982	540	440	478	2690	2070	2480	2300	2140	2220
17	1420	580	889	540	480	513	2470	1850	2260	2440	2120	2190
18	1140	580	864	520	420	463	2280	1980	2170	3140	2220	2730
19	880	580	715	500	420	455	2420	1940	2200	3260	1980	2710
20	1220	520	683	480	420	438	2240	2000	2160	3780	3140	3420
21	980	520	697	503	443	476	2040	1840	1950	6560	3240	4090
22	780	440	559	1430	465	971	3440	1920	2350	8620	5260	6330
23	620	460	539	1130	768	1020	3500	2640	2950	7100	5280	6180
24	840	540	643	1650	851	1140	2660	2220	2420	5660	4320	5050
25	700	500	607	2510	1190	1950	2540	2060	2370	5220	4320	4800
26	560	440	498	2000	1540	1760	2040	1800	1920	9480	4680	5340
27	660	440	548	1400	1280	1350	2000	1620	1710	9460	5920	6910
28	600	440	483	1680	1280	1450	1600	1300	1470	6480	5200	5820
29	520	400	449	1460	1040	1170	5240	1520	2090	6140	5280	5720
30	580	380	449	1210	1030	1140	5460	2140	3100	>10000	5760	7540
31	---	---	---	1110	849	1000	2500	2080	2250	---	---	---
MONTH	3860	380	1670	2510	340	731	5460	892	1980	>10000	1400	3270

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	3.5	2.0	3.0	10.0	7.5	8.5	17.0	14.0	15.5
2	.0	.0	.0	3.0	2.5	3.0	11.5	7.5	9.0	19.5	15.0	16.5
3	.0	.0	.0	4.5	2.0	3.0	9.5	8.5	9.0	20.0	15.5	17.0
4	.0	.0	.0	2.5	2.0	2.5	9.0	5.5	8.0	20.0	16.0	17.5
5	.0	.0	.0	5.0	2.5	3.5	10.0	4.5	7.0	21.5	16.0	18.0
6	.0	.0	.0	3.5	3.0	3.0	7.5	4.5	6.5	20.5	16.5	18.0
7	.0	.0	.0	3.0	2.5	3.0	6.0	---	---	20.5	17.5	19.0
8	.0	.0	.0	5.0	1.5	3.0	6.5	---	---	18.5	17.5	18.0
9	.0	.0	.0	4.0	2.5	3.0	4.5	3.5	4.0	18.5	16.5	17.5
10	.0	.0	.0	3.5	2.0	3.0	7.5	2.5	5.0	18.0	15.0	16.5
11	.0	.0	.0	6.0	3.0	4.0	7.5	5.0	6.0	19.0	14.5	17.0
12	.0	.0	.0	7.0	4.5	5.5	8.5	5.0	6.5	19.0	16.5	18.0
13	.0	.0	.0	6.5	5.5	6.0	8.0	7.0	7.5	20.0	17.5	18.5
14	.5	.0	.0	7.5	5.0	6.0	11.5	7.0	9.5	20.5	18.0	19.5
15	1.5	.0	.5	6.5	5.5	6.0	11.0	9.0	9.5	21.0	18.5	19.5
16	3.0	1.0	2.0	6.5	5.5	5.5	12.0	9.0	10.0	21.5	18.5	20.0
17	3.0	.0	1.5	6.5	5.0	6.0	13.0	10.0	11.5	22.5	20.0	21.0
18	2.0	.0	1.0	7.5	5.5	6.5	16.0	11.5	13.5	22.5	20.5	21.0
19	2.0	1.5	1.5	8.5	5.5	7.0	16.0	12.0	13.5	23.0	20.5	21.5
20	2.5	1.5	2.0	7.5	6.5	7.0	15.0	12.5	13.5	24.0	21.0	22.0
21	2.5	2.0	2.0	7.5	6.5	7.0	15.0	13.0	14.0	23.5	21.5	22.5
22	3.5	2.0	2.5	7.5	6.0	6.5	15.5	12.0	13.5	22.0	19.5	20.5
23	4.5	2.0	3.0	9.0	5.5	7.0	16.5	11.0	13.5	19.5	18.0	18.5
24	3.5	2.5	3.0	8.5	6.0	7.0	17.0	12.5	14.0	18.5	17.5	18.5
25	3.0	1.0	2.0	9.0	6.5	7.5	17.0	13.5	15.0	19.5	18.0	18.5
26	3.0	.0	1.5	8.5	7.0	8.0	15.0	14.5	14.5	21.0	18.0	19.5
27	2.5	1.5	2.0	7.5	5.0	6.0	15.5	14.5	15.0	21.5	19.5	20.5
28	3.5	1.0	2.5	8.0	3.0	5.5	15.0	13.5	14.0	20.5	19.5	20.0
29	---	---	---	8.0	5.0	6.5	15.0	12.5	13.5	22.0	19.5	20.5
30	---	---	---	8.5	6.0	7.5	16.5	13.5	14.5	23.5	21.0	22.0
31	---	---	---	8.0	7.5	7.5	---	---	---	26.0	22.0	23.5
MONTH	4.5	.0	1.0	9.0	1.5	5.5	17.0	2.5	10.5	26.0	14.0	19.0

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01496000 NORTHEAST CREEK AT LESLIE, MD

LOCATION.--Lat 39°37'38", long 75°56'40", Cecil County, Hydrologic Unit 02060002, on left bank at downstream side of highway bridge, 0.7 mi (1.1 km) northeast of Leslie, 1.5 mi (2.4 km) southeast of Bay View, and 1.7 mi (2.7 km) upstream from confluence with Little Northeast Creek.

DRAINAGE AREA.--24.3 mi^2 (62.9 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1232: 1949-51. WDR MD-DE-79-1: 1979.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.0 ft (35.05 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Slight diurnal fluctuation at low flow caused by powerplant above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 35.6 ft^3/s (1.008 m^3/s), 19.89 in/yr (505 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft^3/s (136 m^3/s) June 22, 1972, gage height, 8.41 ft (2.563 m), from rating curve extended above 2,300 ft^3/s (65.1 m^3/s) on basis of contracted-opening measurement at gage height 7.74 ft (2.359 m); minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Sept. 8, 9, 10, 11, 12, 13, 14, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22 m^3/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)
Jan. 4	2015	*1120	31.7	4.39	1.338	Feb. 3	1400	893	25.3	4.03	1.228
Feb. 1	1300	905	25.6	4.05	1.234						

Minimum daily discharge, 4.2 ft^3/s (0.119 m^3/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	9.3	11	77	531	18	27	25	47	27	11	6.2
2	18	9.5	88	39	80	18	18	23	168	19	9.8	7.9
3	9.8	9.7	24	22	591	19	46	21	28	19	8.6	14
4	7.0	8.0	15	609	131	17	77	19	24	27	8.4	8.0
5	6.1	8.7	18	150	47	19	26	18	28	17	8.4	6.2
6	7.2	22	15	35	32	19	211	18	50	16	8.7	6.3
7	7.2	17	12	28	25	81	63	17	44	14	8.5	5.8
8	5.9	11	13	23	23	76	36	17	23	22	11	6.0
9	6.0	10	14	20	25	31	33	17	20	18	13	5.7
10	5.6	9.8	12	19	31	25	33	15	17	14	10	5.3
11	6.2	9.4	11	18	24	24	28	13	18	14	9.4	5.7
12	5.9	9.3	10	17	23	29	24	13	17	20	17	4.9
13	6.2	8.9	9.8	18	20	26	22	13	273	13	12	5.7
14	5.9	9.0	17	22	19	23	21	13	248	11	8.5	4.3
15	5.9	9.8	159	23	35	20	20	13	40	16	8.6	5.0
16	5.9	10	136	19	47	21	19	12	26	15	8.3	5.7
17	6.4	9.7	38	17	36	36	22	12	147	11	8.0	5.0
18	5.7	9.7	25	16	26	25	97	11	37	11	7.9	4.2
19	10	8.7	19	18	130	22	30	13	25	11	8.0	5.0
20	7.8	9.4	18	17	116	20	24	15	22	19	7.0	7.3
21	7.3	10	17	16	55	20	21	13	20	14	7.3	6.9
22	6.1	9.3	16	16	36	19	19	13	18	11	7.1	7.5
23	6.7	8.5	29	21	27	17	17	14	17	11	6.9	7.9
24	17	8.4	36	60	25	17	17	16	15	10	12	6.3
25	11	8.8	20	26	22	16	16	14	15	9.3	10	5.9
26	13	9.0	17	20	18	19	146	14	14	9.3	10	6.1
27	24	8.7	16	17	18	17	156	12	14	9.3	6.8	29
28	58	8.7	17	18	19	15	132	127	15	11	7.1	12
29	16	7.5	16	18	---	15	41	116	246	10	6.6	7.2
30	11	8.2	14	16	---	15	29	27	89	9.1	6.3	6.6
31	11	---	13	31	---	22	---	22	---	10	6.1	---
TOTAL	325.9	296.0	875.8	1466	2212	761	1471	706	1765	448.0	278.3	219.6
MEAN	10.5	9.87	28.3	47.3	79.0	24.5	49.0	22.8	58.8	14.5	8.98	7.32
MAX	58	22	159	609	591	81	211	127	273	27	17	29
MIN	5.6	7.5	9.8	16	18	15	16	11	14	9.1	6.1	4.2
CFSM	.43	.41	1.17	1.95	3.25	1.01	2.02	.94	2.42	.60	.37	.30
IN.	.50	.45	1.34	2.24	3.39	1.16	2.25	1.08	2.70	.69	.43	.34

CAL YR 1981 TOTAL 6583.1 MEAN 18.0 MAX 554 MIN 4.1 CFSM .74 IN 10.08
WTR YR 1982 TOTAL 10824.6 MEAN 29.7 MAX 609 MIN 4.2 CFSM 1.22 IN 16.57

01496000 NORTHEAST CREEK AT LESLIE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 18...	1215	7.7	141	8.2	20.9	16	49	9.0	9.4	6.3	7.2	23

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 18...	.5	2.1	40	8.0	8.0	<.1	19	92	84	.13	1.9

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 18...	2.0	.050	.15	.030	320	200	120	20	10	10	1.6

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD

LOCATION.--Lat 39°37'34", long 76°02'27", Cecil County, Hydrologic Unit 02060002, on left bank, 55 ft (17 m) downstream from bridge on Belvedere Road, 3.5 mi (5.6 km) north of Principio Furnace, and 4.9 mi (7.9 km) upstream from mouth.

DRAINAGE AREA.--9.03 mi^2 (23.39 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 215 ft (65.5 m).

REMARKS.--Water-discharge records good except those for January, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 13.1 ft^3/s (0.371 m^3/s), 19.70 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,060 ft^3/s (200 m^3/s) Aug. 4, 1969, gage height, 9.26 ft (2.822 m), from rating curve extended above 170 ft^3/s (4.81 m^3/s) on basis of slope-area measurements at gage heights 8.89 ft (2.710 m) and 9.26 ft (2.822 m); minimum discharge, 1.2 ft^3/s (0.034 m^3/s) Aug. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.5 m^3/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)
Jan. 4	0930	*759	21.5	5.61	1.710	June 1	2100	384	10.9	4.48	1.366
Feb. 1	0200	536	15.2	4.99	1.521	June 13	1530	485	13.7	4.83	1.472
Feb. 3	0215	497	14.1	4.87	1.484	June 29	0930	639	18.1	5.29	1.612

Minimum discharge, 2.3 ft^3/s (0.065 m^3/s) Oct. 1, Sept. 17, 18, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.3	4.6	24	145	7.4	7.8	8.5	55	7.7	5.1	3.0
2	5.9	3.2	22	7.3	17	7.3	6.4	7.9	30	6.6	4.2	3.2
3	2.8	3.1	4.8	5.6	179	7.3	16	7.5	9.1	7.7	4.0	4.8
4	2.5	3.1	4.1	177	25	6.9	13	7.1	9.3	8.2	3.8	3.1
5	2.5	3.1	4.8	15	12	7.5	7.7	6.9	13	6.4	3.8	2.8
6	2.5	7.0	4.0	9.1	10	7.1	52	6.6	22	6.1	3.8	2.8
7	2.6	3.8	3.8	7.8	8.6	24	13	6.5	13	5.8	3.7	2.8
8	2.5	3.4	4.4	6.6	8.0	15	9.6	6.6	8.7	17	4.8	2.9
9	2.5	3.3	3.9	6.1	9.5	9.5	10	6.5	7.6	8.1	5.7	2.9
10	2.5	3.3	3.5	5.7	9.3	8.4	9.4	6.1	7.1	5.9	4.9	2.8
11	2.5	3.3	3.4	5.5	7.9	8.4	8.4	5.9	7.1	5.7	4.0	2.7
12	2.4	3.2	3.4	5.5	7.6	9.7	7.9	5.9	6.9	5.6	6.7	2.6
13	2.4	3.1	3.3	5.5	7.2	8.5	7.6	5.8	121	5.2	4.2	2.6
14	2.4	3.1	5.4	6.1	7.1	7.7	7.2	5.6	23	5.0	3.7	2.6
15	2.5	3.5	51	6.3	20	7.2	6.9	5.5	11	12	3.6	2.6
16	2.5	3.7	22	5.9	13	8.3	6.8	5.4	9.6	9.8	3.5	2.6
17	2.5	3.4	7.8	5.0	11	11	7.8	5.3	20	5.3	3.5	2.4
18	2.9	3.3	6.1	4.8	9.4	8.1	19	5.3	9.2	4.8	3.5	2.4
19	3.9	3.3	5.1	4.8	36	7.6	8.2	6.2	8.2	4.8	3.3	2.4
20	3.0	3.6	4.7	4.8	39	7.2	7.5	7.0	7.5	5.5	3.2	3.9
21	3.3	3.4	4.5	4.8	19	7.2	7.2	5.5	7.0	4.8	3.3	3.3
22	3.3	3.2	4.5	5.0	12	6.9	6.7	5.7	6.7	4.5	3.0	3.8
23	3.9	3.1	8.6	9.1	10	6.7	6.6	6.2	6.6	5.9	3.2	3.6
24	5.2	3.2	5.8	8.6	9.3	6.6	6.5	6.2	6.3	4.8	4.3	2.9
25	3.4	3.3	4.8	6.1	8.3	6.6	6.4	5.8	6.3	4.4	4.8	2.8
26	5.5	3.2	4.5	5.9	7.9	7.4	53	5.6	6.2	4.3	3.5	2.8
27	8.5	3.3	4.6	5.7	8.0	6.8	30	5.2	6.1	4.2	3.2	10
28	10	3.2	4.6	5.7	7.9	6.4	23	38	6.3	5.4	3.2	3.4
29	4.0	3.1	4.3	5.4	---	6.2	11	19	122	4.3	2.9	2.8
30	3.6	3.1	4.0	5.5	---	6.3	9.4	8.5	12	4.3	2.9	2.8
31	3.4	---	4.2	30	---	8.4	---	8.1	---	4.5	3.0	---
TOTAL	110.3	102.2	226.5	410.2	664.0	259.6	392.0	241.9	583.8	194.6	120.3	96.1
MEAN	3.56	3.41	7.31	13.2	23.7	8.37	13.1	7.80	19.5	6.28	3.88	3.20
MAX	10	7.0	51	177	179	24	53	38	122	17	6.7	10
MIN	2.4	3.1	3.3	4.8	7.1	6.2	6.4	5.2	6.1	4.2	2.9	2.4
CFSM	.39	.38	.81	1.46	2.63	.93	1.45	.86	2.16	.70	.43	.35
IN.	.45	.42	.93	1.69	2.74	1.07	1.61	1.00	2.40	.80	.50	.40

CAL YR 1981 TOTAL 2076.5 MEAN 5.69 MAX 189 MIN 1.3 CFSM .63 IN 8.55
WTR YR 1982 TOTAL 3401.5 MEAN 9.32 MAX 179 MIN 2.4 CFSM 1.03 IN 14.01

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-78, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 16...	1800	3.5	160	7.3	23.0	10	46	5.0	10	5.2	8.3	27

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 16...	.6	2.7	41	14	7.9	<.1	21	103	94	.14	.97

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 16...	2.8	.060	.18	.050	270	200	74	20	10	8	1.3

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39'31", long 76°10'28", Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi (1.6 km) southwest of Conowingo, and 9.9 mi (15.9 km) upstream from mouth.

DRAINAGE AREA.--27,100 mi^2 (70,190 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft (1.524 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal (208.4 hm^3); dead storage, 45,290,000,000 gal (171.4 hm^3). Records do not include a small infrequent diversion above station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore Department of Public Works. Gage-height telemeter at station.

AVERAGE DISCHARGE.--15 years, 42,650 ft^3/s (1,208 m^3/s), 21.37 in/yr (543 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130,000 ft^3/s (32,000 m^3/s) June 24, 1972, gage height, 36.83 ft (11.226 m); minimum discharge, 144 ft^3/s (4.08 m^3/s) Mar. 2, 1969, gage height, 6.28 ft (1.914 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 261,000 ft^3/s (7,390 m^3/s) Feb. 5, gage height, 23.02 ft 7.016 m); minimum, 731 ft^3/s (20.7 m^3/s) Nov. 7, gage height, 7.25 ft (2.210 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19800	85500	28300	9470	37400	39700	76200	23100	60100	31300	5250	10300
2	8950	74300	24400	27200	36300	29800	83700	22100	60800	41000	13900	12100
3	2790	58200	27100	20400	61800	33600	108000	34200	64300	50600	17600	4900
4	2660	56100	30400	39400	67200	42900	136000	30700	62000	34500	15700	4900
5	11500	44500	12700	50400	132000	27600	143000	25400	69600	31100	16300	4820
6	17400	39100	11100	60600	107000	22400	144000	26200	102000	31600	6460	4840
7	16900	19800	27200	75100	83300	19400	118000	30100	201000	35800	5080	4850
8	23000	16800	23400	83000	78100	35800	99200	11800	211000	32600	5050	8590
9	17400	30500	24200	60000	70600	40500	80500	6180	154000	29500	9540	10900
10	9600	35200	27800	42400	58100	22400	71100	26700	119000	12000	17600	6980
11	2800	37700	28300	35400	46400	27500	64900	22500	88900	4520	17300	5050
12	18800	24000	11700	27200	47500	32900	62900	24800	79600	25600	15900	5010
13	23400	30100	6690	19400	32000	47700	71700	27600	73500	19000	15300	5190
14	23600	16300	25900	17200	26400	72800	71200	28500	88100	20200	5050	5210
15	20600	6360	23100	14400	30800	109000	67500	11700	88900	21600	5140	7290
16	19600	25200	22300	5290	37200	167000	66700	8040	81500	18500	6850	6550
17	4670	27100	21300	12800	44000	149000	66800	26900	90800	5010	16400	5150
18	2680	26000	28800	30100	51000	135000	65500	20000	83100	5290	8900	2350
19	12500	35300	9460	14100	52900	129000	73000	18600	60500	17400	8250	863
20	15700	42600	2580	18300	44600	116000	76000	23100	59500	12500	9120	893
21	16100	31400	16200	19400	43600	115000	74400	16500	64400	12900	4960	4620
22	16000	18100	19400	33500	53900	129000	70900	6760	54200	19400	5070	8870
23	16600	39900	19500	3680	52100	132000	64600	6430	41200	23900	5170	12100
24	4570	39100	14500	3110	53100	137000	45400	22700	35400	5420	5130	8710
25	4880	38500	2620	21100	54100	126000	35100	23200	36500	5090	8860	867
26	12700	19300	36900	19100	51600	119000	49000	35700	24000	19600	10000	844
27	18400	30200	31800	21600	34100	132000	52900	41500	13400	16000	11600	6710
28	32000	21800	44900	16500	18200	147000	44400	39100	37100	11800	5170	9900
29	63900	9690	41300	12700	---	136000	41000	29200	27600	17900	5040	12400
30	90500	26600	36400	9870	---	108000	34200	32200	38400	13800	5200	12300
31	119000	---	36800	3070	---	89400	---	39300	---	5230	7340	---
TOTAL	669000	1005250	717050	825790	1505300	2670400	2257800	740810	2270400	630660	294230	194057
MEAN	21580	33510	23130	26640	53760	86140	75260	23900	75680	20340	9491	6469
MAX	119000	85500	44900	83000	132000	167000	144000	41500	211000	50600	17600	12400
MIN	2660	6360	2580	3070	18200	19400	34200	6180	13400	4520	4960	844
CFSM	.80	1.24	.85	.98	1.98	3.18	2.78	.88	2.79	.75	.35	.24
IN.	.92	1.38	.98	1.13	2.07	3.67	3.10	1.02	3.12	.87	.40	.27

CAL YR 1981 TOTAL 11080514 MEAN 30360 MAX 301000 MIN 726 CFSM 1.12 IN 15.21
WTR YR 1982 TOTAL 13780747 MEAN 37760 MAX 211000 MIN 844 CFSM 1.39 IN 18.92

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV												
09...	1030	67800	170	7.7	12.0	13.0	9.1	10.2	35	99	67	37
JAN												
12...	1045	78600	190	7.3	-3.5	1.0	5.6	14.5	210	K560	62	34
MAR												
17...	1030	173000	192	7.7	6.5	4.5	22	13.9	520	6000	61	34
MAY												
12...	1100	60000	240	7.8	21.0	18.5	3.0	9.2	K2	61	84	41
JUL												
15...	1000	5500	230	7.5	26.0	28.0	4.0	6.1	K3	--	83	36
SEP												
22...	0945	17000	360	8.2	15.0	22.5	3.5	4.7	K1	88	140	78

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV												
09...	19	4.7	5.4	15	.3	2.0	30	29	7.7	<.1	5.2	97
JAN												
12...	17	4.7	7.4	20	.4	1.5	28	31	9.5	<.1	4.6	101
MAR												
17...	17	4.6	7.6	21	.5	1.8	27	28	9.7	<.1	4.0	104
MAY												
12...	23	6.4	7.4	16	.4	1.6	43	40	9.8	<.1	.3	128
JUL												
15...	23	6.3	6.6	14	.3	1.4	47	34	10	.1	2.8	157
SEP												
22...	36	12	13	17	.5	2.1	61	66	16	.1	.9	214

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV												
09...	91	.13	17800	.90	.120	.15	.45	<.010	.03	.020	.010	.03
JAN												
12...	93	.14	21400	1.4	.110	.14	.66	.040	.12	.010	<.010	.03
MAR												
17...	89	.14	48600	--	--	--	--	--	--	--	--	--
MAY												
12...	114	.17	20700	.81	.080	.10	.76	.050	.15	.010	<.010	.03
JUL												
15...	112	.21	2330	.94	.320	.41	1.10	.070	.21	.030	.030	.09
SEP												
22...	183	.29	9820	.72	.070	.09	1.00	.040	.12	<.010	<.010	.03

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
NOV										
09...	1	0	1	100	70	26	<1	<1	10	--
MAR										
17...	1	0	1	100	70	34	2	<1	20	10
MAY										
12...	1	0	1	<100	--	31	<1	<1	20	10
SEP										
22...	2	0	2	100	70	34	<1	2	10	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
NOV										
09...	<10	2	--	<1	7	3	4	540	470	70
MAR										
17...	10	6	--	<1	9	6	3	1800	1700	68
MAY										
12...	10	1	0	1	5	2	3	430	--	<3
SEP										
22...	<10	<1	--	<1	7	1	6	370	350	19

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
NOV										
09...	6	--	<1	100	30	74	<.1	--	<.1	6
MAR										
17...	18	17	1	320	100	220	.1	.0	.1	8
MAY										
12...	10	2	8	160	140	20	<.1	--	<.1	6
SEP										
22...	17	15	2	90	80	7	.2	.0	.2	3

DATE	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)
NOV										
09...	2	4	<1	<1	<1	<1	40	--	<4	<2.7
MAR										
17...	3	5	<1	<1	<1	<1	40	40	5	--
MAY										
12...	2	4	<1	<1	<1	<1	30	30	3	<2.8
SEP										
22...	0	3	<1	<1	<1	<1	20	--	<4	--

DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
NOV									
09...	1.4	<1.8	1.0	1.1	2.7	1.1	2.6	.08	.05
MAR									
17...	--	--	--	--	--	--	--	--	--
MAY									
12...	.7	<1.9	.5	<.5	<1.7	<.5	<1.7	.06	.16
SEP									
22...	--	--	--	--	--	--	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV			
09...	100	13	2380
JAN			
12...	100	8	1700
MAR			
17...	99	51	23800
MAY			
12...	94	11	1780
JUL			
15...	98	12	178
SEP			
22...	77	11	505

01580000 DEER CREEK AT ROCKS, MD

LOCATION.--Lat 39°37'49", long 76°24'13", Harford County, Hydrologic Unit 02050306, on right bank 0.3 mi (0.5 km) upstream from bridge on Cherry Hill Road, 0.8 mi (1.3 km) southeast of Rocks, 1.2 mi (1.9 km) upstream from Stirrup Run, and 23.5 mi (37.8 km) upstream from mouth.

DRAINAGE AREA.--94.4 mi^2 (244.5 km^2).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for November and December 1926, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft (76.322 m) Baltimore city datum.

REMARKS.--Records good except those for January, which are fair. Some regulation at low flow by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 124 ft^3/s (3.512 m^3/s), 17.84 in/yr (453 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) Aug. 23, 1933, gage height, 17.7 ft (5.39 m), from floodmarks, from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of slope-area measurements at gage heights 13.3 ft (4.05 m) and 17.7 ft (5.39 m); minimum discharge, 8 ft^3/s (0.23 m^3/s) Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily discharge, 8.6 ft^3/s (0.24 m^3/s) Sept. 11, 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1888, that of Aug. 23, 1933.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft^3/s (53 m^3/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)
Feb. 1	0330	1940	54.9	5.94	1.811	Feb. 3	1300	*3290	93.2	7.95	2.423

Minimum discharge, 25 ft^3/s (0.71 m^3/s) Dec. 10, result of freezeup; minimum daily discharge, 27 ft^3/s (0.76 m^3/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	40	37	84	816	79	77	91	102	98	54	41
2	60	40	87	74	154	78	67	89	244	89	52	46
3	39	38	53	58	1960	77	104	84	106	92	53	117
4	33	37	44	551	412	72	154	81	106	110	50	51
5	31	37	41	158	174	72	91	79	180	90	57	45
6	30	72	39	93	120	72	144	76	192	85	54	43
7	30	48	39	78	97	121	121	75	144	81	52	42
8	28	38	41	67	96	129	101	83	113	80	52	42
9	28	36	40	60	88	95	101	86	101	81	58	43
10	27	36	37	52	81	91	98	75	94	76	54	43
11	28	35	37	44	76	87	91	70	96	73	50	41
12	29	34	36	44	74	98	87	69	93	73	75	40
13	28	33	34	46	68	92	84	68	544	71	55	40
14	28	33	50	48	66	87	82	67	286	69	50	39
15	29	34	91	50	95	81	78	65	167	69	48	40
16	30	34	71	48	114	85	76	63	144	67	47	40
17	29	33	57	44	104	112	82	63	499	65	46	37
18	30	33	51	44	91	92	131	65	183	63	48	36
19	36	33	48	44	100	87	89	71	155	62	45	38
20	32	35	44	47	121	83	83	82	138	84	44	40
21	30	37	42	48	171	82	81	66	126	67	43	44
22	30	34	49	47	226	79	76	65	117	61	42	81
23	36	33	70	53	178	76	74	72	113	85	43	83
24	61	33	94	91	133	74	73	76	105	66	75	53
25	42	34	60	62	107	73	72	71	100	59	58	46
26	45	34	54	58	91	78	131	68	98	57	49	45
27	67	34	50	53	88	72	139	63	96	56	44	154
28	71	34	50	53	84	67	139	116	198	64	44	69
29	50	33	47	53	---	67	106	153	116	58	41	54
30	43	33	45	53	---	66	95	106	114	55	40	50
31	41	---	44	77	---	73	---	121	---	57	40	---
TOTAL	1152	1098	1582	2382	5985	2597	2927	2479	4870	2263	1563	1583
MEAN	37.2	36.6	51.0	76.8	214	83.8	97.6	80.0	162	73.0	50.4	52.8
MAX	71	72	94	551	1960	129	154	153	544	110	75	154
MIN	27	33	34	44	66	66	67	63	93	55	40	36
CFSM	.39	.39	.54	.81	2.27	.89	1.03	.85	1.72	.77	.53	.56
IN.	.45	.43	.62	.94	2.36	1.02	1.15	.98	1.92	.89	.62	.62

CAL YR 1981 TOTAL 21385 MEAN 58.6 MAX 520 MIN 27 CFSM .62 IN 8.43
WTR YR 1982 TOTAL 30481 MEAN 83.5 MAX 1960 MIN 27 CFSM .89 IN 12.01

01581700 WINTERS RUN NEAR BENSON, MD

LOCATION.--Lat 39°31'12", long 76°22'24", Harford County, Hydrologic Unit 02060003, on left bank 30 ft (9 m) downstream from bridge on U.S. Highway 1, 0.1 mi (0.2 km) upstream from Heavenly Waters, 1.2 mi (1.9 km) northeast of Benson, 1.8 mi (2.9 km) southwest of Bel Air, and 10.5 mi (16.9 km) upstream from mouth.

DRAINAGE AREA.--34.8 mi² (90.1 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 195 ft (59 m), from topographic map.

REMARKS.--Records good except those for January through April, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 52.9 ft³/s (1.498 m³/s), 20.64 in/yr (524 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,600 ft³/s (215 m³/s) June 22, 1972, gage height, 11.60 ft (3.536 m); minimum discharge, 3.0 ft³/s (0.085 m³/s) Jan. 10, 1982, result of freezeup; minimum daily discharge 6.7 ft³/s (0.190 m³/s) Aug. 28, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 3	Unknown	1180	33.4	4.68	1.426	June 13	1430	*1230	34.8	4.77	1.454

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Jan. 10, result of freezeup; minimum daily discharge, 7.8 ft³/s (0.221 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	15	49	350	29	26	35	60	26	16	15
2	24	13	46	29	70	29	24	33	72	25	16	16
3	13	12	21	22	900	29	45	31	37	29	16	26
4	12	12	16	280	100	28	35	31	38	32	15	15
5	11	12	16	47	50	29	32	30	140	25	54	14
6	9.2	31	15	24	40	28	80	30	75	23	23	14
7	10	19	14	21	35	50	40	28	45	23	18	14
8	12	15	16	16	30	40	32	30	38	23	19	13
9	9.2	14	15	14	32	35	35	31	35	23	23	13
10	7.8	14	13	13	28	32	31	28	32	22	25	15
11	7.8	13	13	16	25	31	30	26	33	20	17	14
12	11	12	13	19	24	30	29	26	32	20	38	13
13	11	12	14	19	23	31	28	26	290	20	19	12
14	9.2	12	18	20	23	31	28	25	82	19	16	12
15	10	12	67	21	35	29	26	25	45	19	16	13
16	10	13	41	20	35	30	26	24	40	19	18	13
17	10	12	26	19	23	45	30	24	91	19	15	11
18	11	11	20	19	20	34	86	27	43	18	16	10
19	16	10	18	19	25	31	37	85	37	18	15	12
20	13	11	16	20	50	30	32	55	32	19	15	15
21	13	11	15	19	90	29	30	32	30	19	15	15
22	13	10	16	18	100	28	29	29	29	17	14	37
23	18	10	25	22	60	27	27	36	28	22	22	24
24	22	10	28	24	45	27	27	35	26	18	35	16
25	12	11	20	20	38	27	26	31	26	16	20	15
26	18	10	19	19	33	28	106	29	26	15	15	15
27	28	10	17	20	32	26	76	27	25	18	14	61
28	31	11	17	19	30	24	60	78	33	26	15	22
29	17	10	17	19	---	23	43	57	35	17	14	18
30	14	10	15	19	---	25	38	38	32	17	14	16
31	13	---	16	25	---	28	---	43	---	18	14	---
TOTAL	428.2	376	638	931	2346	943	1194	1085	1587	645	602	519
MEAN	13.8	12.5	20.6	30.0	83.8	30.4	39.8	35.0	52.9	20.8	19.4	17.3
MAX	31	31	67	280	900	50	106	85	290	32	54	61
MIN	7.8	10	13	13	20	23	24	24	25	15	14	10
CFSM	.40	.36	.59	.86	2.41	.87	1.14	1.01	1.52	.60	.56	.50
IN.	.46	.40	.68	1.00	2.51	1.01	1.28	1.16	1.70	.69	.64	.55

CAL YR 1981 TOTAL 7845.6 MEAN 21.5 MAX 208 MIN 6.7 CFSM .62 IN 8.39
WTR YR 1982 TOTAL 11294.2 MEAN 30.9 MAX 900 MIN 7.8 CFSM .89 IN 12.07

01582000 LITTLE FALLS AT BLUE MOUNT, MD

LOCATION.--Lat 39°36'16", long 76°37'16", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of Pennsylvania Railroad bridge, 0.2 mi (0.3 km) north of Blue Mount, 0.6 mi (1.0 km) upstream from mouth, 0.9 mi (1.4 km) downstream from First Mine Branch, and 1.2 mi (1.9 km) south of White Hall.

DRAINAGE AREA.--52.9 mi^2 (137.0 km^2).

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

REVISED RECORDS.--WSP 111: 1944(M), 1945-47(P).

GAGE.--Water-stage recorder. Altitude of gage is 305 ft (93 m), from topographic map.

REMARKS.--Records good except those for January, which are fair. Slight diurnal fluctuation at low flow caused by mill above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 68.6 ft^3/s (1.943 m^3/s), 17.61 in/yr (447 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft^3/s (234 m^3/s) June 22, 1972, gage height, 18.54 ft (5.651 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of contracted-opening measurement of peak flow; minimum discharge, 1.9 ft^3/s (0.054 m^3/s) Aug. 29, 1966; minimum daily discharge, 4.5 ft^3/s (0.13 m^3/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/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)
Feb. 1	0345	1200	34.0	4.73	1.442	Feb. 3	1400	*1530	43.3	6.11	1.862

Minimum discharge, 13 ft^3/s (0.37 m^3/s) Dec. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	28	63	350	47	44	55	92	53	31	21
2	49	25	62	44	70	46	39	52	111	49	29	33
3	23	24	33	37	743	45	83	50	61	54	30	60
4	20	23	28	223	169	42	82	48	64	56	29	26
5	20	23	26	78	94	43	56	46	94	50	29	24
6	20	50	24	55	71	41	96	45	102	47	28	23
7	21	29	23	47	58	80	71	45	85	45	28	22
8	19	25	26	40	55	68	61	51	64	45	30	22
9	19	23	24	36	52	58	63	51	57	46	36	23
10	19	23	22	32	45	54	59	44	55	42	30	23
11	20	22	22	30	45	53	55	42	57	42	28	22
12	20	21	22	30	43	60	52	42	56	42	37	21
13	19	21	22	31	38	56	50	42	234	40	28	20
14	20	21	29	32	38	52	48	41	130	39	26	20
15	20	21	61	32	58	48	45	40	90	40	25	21
16	21	21	42	31	65	56	44	36	78	39	24	21
17	20	21	35	30	63	70	50	35	242	37	24	19
18	22	21	31	30	55	56	67	37	100	37	26	19
19	27	20	28	30	65	53	49	43	85	42	24	19
20	22	23	28	31	78	51	47	46	76	45	23	24
21	22	22	28	32	105	50	46	37	69	38	23	24
22	22	21	32	32	116	47	43	38	66	34	22	65
23	31	20	55	32	92	44	42	43	65	34	23	43
24	42	20	51	45	75	43	42	44	59	34	38	29
25	26	21	37	35	62	43	41	41	57	31	30	27
26	31	20	32	35	55	47	86	40	57	30	25	26
27	49	21	32	33	52	41	78	38	106	31	23	84
28	48	20	32	32	50	40	83	91	87	42	24	36
29	31	19	30	32	---	39	62	82	60	33	21	30
30	28	19	27	33	---	40	57	60	56	31	21	28
31	26	---	32	36	---	45	---	55	---	33	21	---
TOTAL	800	685	1004	1339	2862	1558	1741	1460	2615	1261	836	875
MEAN	25.8	22.8	32.4	43.2	102	50.3	58.0	47.1	87.2	40.7	27.0	29.2
MAX	49	50	62	223	743	80	96	91	242	56	38	84
MIN	19	19	22	30	38	39	39	35	55	30	21	19
CFSM	.49	.43	.61	.82	1.93	.95	1.10	.89	1.65	.77	.51	.55
IN.	.56	.48	.71	.94	2.01	1.10	1.22	1.03	1.84	.89	.59	.62

CAL YR 1981 TOTAL 13662 MEAN 37.4 MAX 344 MIN 15 CFSM .71 IN 9.61
WTR YR 1982 TOTAL 17036 MEAN 46.7 MAX 743 MIN 19 CFSM .88 IN 11.98

01583500 WESTERN RUN AT WESTERN RUN, MD

LOCATION.--Lat 39°30'38", long 76°40'37", Baltimore County, Hydrologic Unit 02060003, on right bank 100 ft (30 m) downstream from bridge on Western Run Road, 0.3 mi (0.5 km) southeast of Western Run, 2.5 mi (4.0 km) northwest of Cockeysville, 3.2 mi (5.1 km) upstream from Beaverdam Run, and 5.0 mi (8.0 km) upstream from mouth.

DRAINAGE AREA.--59.8 mi^2 (154.9 km^2).

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

REVISED RECORDS.--WSP 1502: 1945-46, 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft (80.095 m) Baltimore County datum.

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

AVERAGE DISCHARGE.--38 years, 69.1 ft^3/s (1.957 m^3/s), 15.69 in/yr (399 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft^3/s (1,080 m^3/s) June 22, 1972, gage height, 26.0 ft (7.92 m), from floodmarks, from rating curve extended above 3,200 ft^3/s (90.6 m^3/s) on basis of slope-area measurement and contracted-opening measurement at gage height 26.0 ft (7.92 m); minimum discharge, 2.4 ft^3/s (0.068 m^3/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/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)
Feb. 1	0615	1160	32.9	4.45	1.356	May 29	0145	1050	29.7	4.22	1.286
Feb. 3	1530	*2430	68.8	6.52	1.987	June 1	2245	1150	32.6	4.43	1.350

Minimum discharge, 19 ft^3/s (0.54 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	25	28	65	330	60	56	62	156	55	34	23
2	35	24	60	48	90	58	49	59	156	51	34	24
3	22	24	33	38	1110	57	97	57	76	57	35	37
4	20	23	28	236	203	55	97	55	90	64	31	23
5	20	23	26	92	108	55	67	53	114	56	35	23
6	21	47	25	65	80	54	105	51	122	50	36	23
7	22	30	24	56	66	85	78	51	108	48	33	23
8	20	26	27	47	60	84	68	53	83	48	34	23
9	20	25	25	40	60	70	72	54	74	48	40	23
10	20	25	23	34	55	64	69	48	68	43	36	23
11	20	25	23	33	50	63	64	47	66	42	32	23
12	21	24	23	32	48	70	61	46	64	43	46	23
13	20	23	23	33	49	66	61	46	282	40	32	22
14	20	23	32	34	45	62	59	44	137	40	32	22
15	21	24	72	35	49	58	56	44	92	40	32	23
16	21	24	50	35	64	64	56	43	80	39	31	23
17	20	23	37	34	72	85	60	43	148	38	30	21
18	21	23	34	32	62	72	91	41	84	37	34	21
19	25	23	30	30	71	70	63	50	75	37	31	21
20	22	24	30	31	91	68	60	64	68	42	29	26
21	22	24	29	31	114	62	58	47	65	45	28	26
22	22	23	30	36	107	59	55	45	64	36	27	50
23	27	23	50	44	101	56	53	51	63	35	26	40
24	38	23	50	46	89	54	52	53	60	35	34	32
25	25	24	37	38	77	54	51	48	60	32	28	30
26	31	23	32	36	68	57	95	46	60	31	24	30
27	48	23	32	35	64	52	87	43	60	31	24	70
28	54	23	31	34	63	50	92	66	66	42	25	40
29	31	22	29	34	---	52	70	246	65	35	23	34
30	27	22	27	34	---	51	65	69	60	32	23	30
31	25	---	28	38	---	55	---	59	---	34	23	---
TOTAL	780	738	1028	1456	3446	1922	2067	1784	2766	1306	962	852
MEAN	25.2	24.6	33.2	47.0	123	62.0	68.9	57.5	92.2	42.1	31.0	28.4
MAX	54	47	72	236	1110	85	105	246	282	64	46	70
MIN	19	22	23	30	45	50	49	41	60	31	23	21
CFSM	.42	.41	.56	.79	2.06	1.04	1.15	.96	1.54	.70	.52	.48
IN.	.49	.46	.64	.91	2.14	1.20	1.29	1.11	1.72	.81	.60	.53

CAL YR 1981 TOTAL 14777 MEAN 40.5 MAX 387 MIN 18 CFSM .68 IN 9.19
WTR YR 1982 TOTAL 19107 MEAN 52.3 MAX 1110 MIN 19 CFSM .88 IN 11.89

01584050 LONG GREEN CREEK AT GLEN ARM, MD

LOCATION.--Lat 39°27'17", long 76°28'45", Baltimore County, Hydrologic Unit 02060003, on right bank 0.5 mi (0.8 km) downstream from bridge on Glen Arm Road, 0.6 mi (1.0 km) upstream from State Highway 147 (Harford Road), 0.8 mi (1.3 km) east of Glen Arm, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--9.40 mi^2 (24.35 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 230 ft (70 m), from topographic map.

REMARKS.--Records good except those for period of missing record, Apr. 22 to June 7, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 11.7 ft^3/s (0.331 m^3/s), 16.90 in/yr (429 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft^3/s (73.9 m^3/s) Aug. 27, 1978, gage height, 6.31 ft (1.923 m); minimum discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 29, 1977, gage height, 0.79 ft (0.241 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.5 m^3/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)
Feb. 3	Unknown	383	10.8	3.75	1.143	June 13	1400	*408	11.6	3.82	1.164

Minimum discharge, 1.9 ft^3/s (0.054 m^3/s) Jan. 17, result of freezeup; minimum daily discharge, 2.5 ft^3/s (0.071 m) Oct. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.1	4.1	9.7	60	7.4	7.3	8.6	11	6.5	4.2	3.4
2	4.3	3.1	7.0	5.8	13	7.3	6.7	8.0	9.4	6.1	4.0	3.7
3	2.7	3.1	3.6	4.9	170	7.2	10	8.0	9.0	8.4	4.0	4.7
4	2.5	2.9	3.2	45	17	6.8	9.0	8.0	9.0	7.3	4.0	3.2
5	2.5	2.9	3.2	9.6	11	6.9	7.8	7.4	18	6.3	4.7	3.1
6	2.7	6.5	3.0	7.3	9.1	6.7	16	7.4	14	6.1	4.4	3.1
7	2.8	3.5	2.9	6.4	7.6	12	8.6	7.2	10	6.0	4.0	2.9
8	2.6	3.1	3.2	5.7	7.2	10	7.6	7.6	8.1	5.8	5.0	2.9
9	2.6	3.1	3.1	5.4	7.8	8.5	8.2	8.0	7.3	5.8	5.6	3.0
10	2.6	3.1	2.9	4.6	7.1	7.9	7.8	7.0	7.0	5.5	5.0	3.1
11	2.6	3.1	2.9	4.2	6.4	7.8	7.2	6.6	7.0	5.3	4.0	3.1
12	2.6	3.0	2.9	4.2	6.4	8.7	7.1	6.6	7.1	5.4	9.0	2.9
13	2.6	2.9	2.8	4.2	6.4	7.8	6.8	6.6	63	4.9	4.6	2.9
14	2.6	2.9	4.2	4.6	6.0	7.4	6.7	6.2	16	4.7	4.0	2.9
15	2.6	2.9	11	4.7	9.2	7.2	6.2	6.2	11	4.8	3.8	2.9
16	2.6	2.9	7.2	4.6	8.9	9.1	6.2	6.0	10	4.8	3.6	2.9
17	2.6	2.9	4.9	4.2	9.4	9.7	8.8	6.0	19	4.7	3.6	2.8
18	3.0	2.9	4.4	4.2	8.6	8.4	13	7.0	10	4.5	3.7	2.8
19	3.3	2.8	3.5	4.2	12	8.0	7.7	12	9.2	4.3	3.6	2.8
20	2.8	2.9	3.4	4.4	19	7.7	7.2	9.5	8.4	5.7	3.5	3.7
21	2.8	2.8	3.3	4.2	18	7.5	7.1	8.0	7.8	4.9	3.6	3.3
22	2.8	2.8	3.3	4.0	14	7.3	7.0	7.5	7.5	4.3	3.4	7.4
23	4.2	2.8	5.2	5.0	11	7.2	6.8	9.0	7.2	6.0	3.3	4.7
24	4.6	2.8	4.9	5.1	9.8	7.1	6.8	8.8	6.9	4.8	6.6	3.5
25	3.1	2.8	4.1	4.4	8.7	7.2	6.6	8.0	6.7	4.3	3.9	3.3
26	5.2	2.8	3.8	4.0	8.1	7.4	16	7.2	6.6	4.0	3.4	3.4
27	6.2	2.8	3.7	4.2	7.9	6.6	14	6.8	6.6	5.0	3.2	18
28	5.2	2.8	3.6	4.0	7.6	6.3	11	13	7.2	7.6	3.2	4.6
29	3.8	2.8	3.6	3.9	---	6.6	10	10	11	4.7	3.1	3.9
30	3.4	2.8	3.3	4.0	---	6.7	9.4	9.0	7.3	4.3	3.1	3.6
31	3.2	---	3.5	8.7	---	7.7	---	10	---	4.7	3.2	---
TOTAL	99.9	91.6	125.7	199.4	487.2	240.1	260.6	247.2	338.3	167.5	128.3	118.5
MEAN	3.22	3.05	4.05	6.43	17.4	7.75	8.69	7.97	11.3	5.40	4.14	3.95
MAX	6.2	6.5	11	45	170	12	16	13	63	8.4	9.0	18
MIN	2.5	2.8	2.8	3.9	6.0	6.3	6.2	6.0	6.6	4.0	3.1	2.8
CFSM	.34	.32	.43	.68	1.85	.82	.92	.85	1.20	.57	.44	.42
IN.	.40	.36	.50	.79	1.93	.95	1.03	.98	1.34	.66	.51	.47

CAL YR 1981 TOTAL 1840.9 MEAN 5.04 MAX 55 MIN 2.3 CFSM .54 IN 7.28
WTR YR 1982 TOTAL 2504.3 MEAN 6.86 MAX 170 MIN 2.5 CFSM .73 IN 9.91

01585100 WHITEMARSH RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, Hydrologic Unit 02060003, on left bank at upstream side of bridge on State Highway 7, 1.0 mi (1.6 km) southwest of White Marsh, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--7.61 mi^2 (19.71 km^2).

PERIOD OF RECORD.--February 1959 to current year.

REVISED RECORDS.--WDR MD-DE-73-1: 1960(M), 1967-68, 1969(M). WDR MD-DE-79-1: 1965-66(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft (11.875 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for January, which are fair. Low flow affected by operations of sand and gravel plant in vicinity of gage. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 11.3 ft^3/s (0.320 m^3/s), 20.16 in/yr (512 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s (227 m^3/s) Aug. 1, 1971, gage height, 14.05 ft (4.282 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s) on basis of computation of flow-through-culvert at gage height 10.04 ft (3.060 m) and computation of flow-through-culvert and over road at gage height 14.05 ft (4.282 m); no flow for part of Mar. 20, 1965, caused by construction work above station; minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21 m^3/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)
Apr. 26	1400	931	26.4	5.03	1.533	June 13	1400	*1210	34.3	6.37	1.942

Minimum discharge, 0.78 ft^3/s (0.022 m^3/s) Aug. 29, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	1.9	14	40	100	3.8	6.9	6.3	32	3.1	1.7	1.2
2	10	1.9	23	6.6	33	3.8	4.3	5.3	21	2.6	1.4	2.4
3	1.8	1.9	3.4	5.7	140	3.7	35	4.8	6.6	32	1.3	4.3
4	1.4	1.9	2.7	150	26	3.5	8.7	4.3	8.7	8.1	1.4	1.0
5	1.5	1.8	3.1	16	12	3.5	4.8	4.3	85	3.4	29	.94
6	2.1	15	2.0	7.5	8.8	3.5	66	3.9	20	2.9	5.3	.94
7	1.8	2.4	1.9	5.4	6.3	34	10	3.9	8.8	2.6	2.4	1.0
8	1.3	1.9	4.2	3.9	5.8	13	6.9	5.6	6.3	2.6	2.4	1.2
9	1.3	1.9	2.0	3.4	18	5.8	11	4.8	4.5	2.8	6.3	1.2
10	1.2	1.9	1.8	3.0	11	4.8	6.2	3.5	4.1	2.4	4.8	1.2
11	1.2	1.9	1.6	2.6	8.1	4.8	5.3	3.1	5.3	2.5	1.6	1.1
12	1.1	1.7	1.6	2.2	6.3	10	4.8	3.1	5.3	2.5	18	.97
13	1.2	1.4	1.4	2.2	5.8	5.3	5.3	3.1	190	2.4	3.4	1.0
14	1.3	1.4	27	3.0	5.6	4.3	4.8	3.1	21	2.1	3.1	1.1
15	1.3	1.6	59	2.6	5.2	4.3	3.9	3.1	8.1	3.3	2.4	1.3
16	1.4	1.6	33	2.2	6.9	21	3.9	3.1	6.9	2.2	1.9	1.1
17	1.4	1.6	9.8	2.2	14	15	25	3.8	34	6.3	1.6	.89
18	6.5	1.4	5.3	2.2	17	6.3	57	3.9	7.5	3.0	1.9	.98
19	3.5	1.4	3.1	2.2	50	4.8	8.8	38	5.8	2.2	1.2	.94
20	1.5	2.4	2.7	2.6	45	5.3	6.9	9.2	4.1	10	.99	5.8
21	1.4	1.6	2.3	2.2	27	5.0	5.8	4.3	3.8	3.2	3.5	2.1
22	1.4	1.4	2.9	2.2	11	4.3	4.8	6.3	3.5	2.2	1.9	30
23	15	1.4	4.0	3.0	8.1	3.9	4.8	9.1	3.4	2.8	1.1	5.3
24	5.2	1.5	2.7	4.2	6.3	3.9	4.3	5.3	3.3	2.3	1.0	1.9
25	2.7	1.6	2.3	3.0	4.8	3.5	3.9	8.6	3.4	1.9	1.1	1.9
26	26	1.5	2.0	2.6	4.5	4.8	123	3.9	3.4	1.6	1.0	3.5
27	14	1.6	3.4	2.6	4.2	3.5	55	3.5	3.6	2.4	1.0	52
28	12	1.5	2.5	2.4	4.0	3.1	28	98	18	3.5	1.0	3.1
29	3.2	1.4	2.0	2.2	---	3.1	10	23	8.2	1.6	.89	1.8
30	2.2	1.4	1.8	2.2	---	3.1	7.5	14	4.4	3.1	.97	1.3
31	1.9	---	6.0	3.4	---	10	---	5.3	---	2.5	1.3	---
TOTAL	131.8	63.8	234.5	295.5	594.7	208.7	532.6	301.5	540.0	126.1	106.85	133.46
MEAN	4.25	2.13	7.56	9.53	21.2	6.73	17.8	9.73	18.0	4.07	3.45	4.45
MAX	26	15	59	150	140	34	123	98	190	32	29	52
MIN	1.1	1.4	1.4	2.2	4.0	3.1	3.9	3.1	3.3	1.6	.89	.89
CFSM	.56	.28	.99	1.25	2.79	.88	2.34	1.28	2.37	.54	.45	.59
IN.	.64	.31	1.15	1.44	2.91	1.02	2.60	1.47	2.64	.62	.52	.65

CAL YR 1981 TOTAL 2740.09 MEAN 7.51 MAX 231 MIN .99 CFSM .99 IN 13.39
WTR YR 1982 TOTAL 3269.51 MEAN 8.96 MAX 190 MIN .89 CFSM 1.18 IN 15.98

01585200 WEST BRANCH HERRING RUN AT IDLEWYLDE, MD

LOCATION.--Lat 39°22'25", long 76°35'05", Baltimore County, Hydrologic Unit 02060003, on left bank 40 ft (12 m) downstream from bridge on Regester Avenue, at Idlewylde, 0.1 mi (0.2 km) north of Baltimore city limits, 1 mi (1.6 km) upstream from mouth, and 1.3 mi (2.1 km) east of State Highway 45.

DRAINAGE AREA.--2.13 mi^2 (5.52 km^2).

PERIOD OF RECORD.--July 1957 to May 1965, January 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 285 ft (87 m), from topographic map. Prior to May 31, 1965, at site 40 ft (12 m) upstream at datum 3.24 ft (0.988 m) higher.

REMARKS.--Records good. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1958-64, 1967-82), 2.61 ft^3/s (0.074 m^3/s), 16.64 in/yr (423 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) Sept. 11, 1971, gage height, 6.80 ft (2.073 m), from rating curve extended above 90 ft^3/s (2.55 m^3/s) on basis of slope-area measurement at gage height 6.37 ft (1.942 m); no flow Aug. 14-24, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft^3/s (6.74 m^3/s) Apr. 17, gage height, 3.21 ft (0.978 m), no peak above base of 290 ft^3/s (8.2 m^3/s); minimum discharge, 0.08 ft^3/s (0.002 m^3/s) Jan. 11 (result of freezeup); minimum daily discharge, 0.16 ft^3/s (0.005 m^3/s) Oct. 9, 10, 12, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	.25	9.2	6.9	10	.80	.77	.93	7.7	.52	.44	.28
2	1.9	.24	2.7	.61	10	.76	.61	.84	1.4	.46	.36	2.4
3	.20	.25	.35	1.5	25	.74	9.4	.76	1.8	11	.30	.78
4	.20	.24	.39	22	3.5	.75	.94	.64	1.0	.91	.30	.24
5	.20	.25	.35	1.1	1.5	.72	.88	.64	15	.59	8.0	.24
6	.65	5.6	.25	.75	1.1	.83	12	.64	1.5	.53	.83	.32
7	.20	.24	.30	.66	.86	9.3	1.1	.64	.93	.49	1.2	.37
8	.20	.24	.94	.54	.82	1.9	.94	2.4	.84	.51	3.0	.24
9	.16	.24	.26	.48	3.9	.94	2.9	.79	.77	.52	2.5	.24
10	.16	.20	.27	.35	1.2	.83	.94	.54	.83	.45	1.1	.24
11	.20	.22	.26	.24	.81	.85	.84	.54	.77	.45	.59	.32
12	.16	.22	.26	.38	.74	3.1	.90	.51	1.8	.40	11	.24
13	.32	.24	.26	.40	1.0	1.2	.93	.48	26	.38	.37	.24
14	.68	.24	11	.46	.68	.81	.76	.45	1.8	.43	.35	.24
15	.35	.26	6.6	.45	1.0	.73	.68	.48	1.1	.39	.32	.22
16	.20	.24	2.9	.45	1.2	7.6	.76	.45	4.7	.40	.30	.18
17	.20	.24	.92	.45	2.7	1.6	12	.87	4.4	.37	3.6	.16
18	2.8	.24	.75	.45	2.7	.91	3.8	.61	.95	.36	.44	.26
19	.37	.28	.37	.45	10	.86	1.6	4.9	1.1	.35	.30	.24
20	.22	.54	.35	.78	5.2	1.1	.97	.89	.86	1.1	.28	4.7
21	.22	.22	.35	.55	3.4	.86	1.0	.61	.73	.34	3.2	.28
22	.24	.24	.61	.48	1.6	.75	1.5	1.6	.72	.30	.30	17
23	6.4	.22	1.3	.82	1.2	.72	1.1	2.9	.68	.53	.32	.52
24	.72	.24	.45	.89	1.1	.72	.84	.84	.60	.32	.30	.30
25	.68	.26	.37	.47	.92	.69	.80	1.5	.59	.30	.67	.28
26	8.5	.30	.35	.45	.86	2.1	18	.57	.56	.30	.24	2.9
27	3.8	.26	1.0	.48	.83	.71	9.2	.35	3.0	3.3	.26	11
28	.64	.26	.45	.51	.81	.62	2.2	10	1.8	1.0	.26	.39
29	.30	.24	.35	.62	---	.62	1.1	2.4	3.0	.35	.22	.34
30	.29	.22	.32	.90	---	.60	1.0	1.2	.71	1.4	.24	.35
31	.28	---	4.3	7.0	---	4.3	---	.68	---	.39	.28	---
TOTAL	34.54	12.93	48.53	52.57	94.63	49.02	90.46	41.65	87.64	29.14	41.87	45.51
MEAN	1.11	.43	1.57	1.70	3.38	1.58	3.02	1.34	2.92	.94	1.35	1.52
MAX	8.5	5.6	11	22	25	9.3	18	10	26	11	11	17
MIN	.16	.20	.25	.24	.68	.60	.61	.35	.56	.30	.22	.16
CFSM	.52	.20	.74	.80	1.59	.74	1.42	.63	1.37	.44	.63	.71
IN.	.60	.23	.85	.92	1.65	.86	1.58	.73	1.53	.51	.73	.79

CAL YR 1981 TOTAL 595.07 MEAN 1.63 MAX 43 MIN .09 CFSM .77 IN 10.39
WTR YR 1982 TOTAL 628.49 MEAN 1.72 MAX 26 MIN .16 CFSM .81 IN 10.97

01585300 STEMMERS RUN AT ROSSVILLE, MD

LOCATION.--Lat 39°20'28", long 76°29'17", Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft (152 m) upstream from bridge on State Highway 7, at Rossville, 0.9 mi (1.4 km) upstream from Brien Run, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--4.46 mi^2 (11.55 km^2).

PERIOD OF RECORD.--December 1958 to September 1972, October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 21.64 ft (6.596 m) Baltimore County datum. Prior to Sept. 30, 1972, at site on old channel about 550 ft (168 m) southeast of present site at datum 2.40 ft (0.732 m) lower.

REMARKS.--Records good. Slight diurnal fluctuation at times from unknown source. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1960-72, 1974-82), 6.69 ft^3/s (0.189 m^3/s), 20.37 in/yr (517 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft^3/s (169 m^3/s) Aug. 1, 1971, gage height, 11.34 ft (3,456 m), from high-water mark in well, site and datum then in use, from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) many days in 1962, 1964, and 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (20 m^3/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)
Jan. 4	0830	760	21.5	3.51	1.070	June 5	1345	754	21.4	3.50	1.067
Apr. 26	1245	767	21.7	3.52	1.073	June 13	1330	1030	29.2	3.89	1.186
May 19	1400	*1120	31.7	4.03	1.228	June 28	1600	820	23.2	3.60	1.097

Minimum discharge, 0.17 ft^3/s (0.005 m^3/s) Sept. 17, 18, 19, gage height, 1.28 ft (0.390 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.87	8.8	22	41	1.8	2.7	2.7	23	1.3	.81	.45
2	5.2	.84	12	2.8	20	1.8	1.5	2.3	9.3	1.2	.70	.76
3	.64	.78	1.6	3.2	94	1.7	25	2.1	3.0	30	.66	3.8
4	.55	.78	1.2	111	13	1.7	4.6	1.9	3.9	3.3	.64	.36
5	.55	.78	1.5	6.0	5.4	1.7	2.1	1.8	74	1.5	23	.29
6	.79	8.7	.88	2.9	3.8	1.8	52	1.7	13	1.2	1.6	.26
7	.69	1.3	.82	2.3	2.7	24	3.8	1.6	5.3	1.2	.87	.30
8	.43	.82	2.4	1.7	2.2	7.6	2.6	3.0	2.4	1.2	1.6	.29
9	.43	.95	.95	1.5	12	2.8	6.6	2.3	1.9	1.1	4.1	.35
10	.43	.74	.78	1.1	7.1	2.2	2.9	1.5	1.7	1.1	1.1	.36
11	.47	.70	.75	.80	3.5	2.1	2.3	1.3	2.0	1.4	.59	.28
12	.47	.70	.72	1.2	2.5	7.1	2.0	1.3	2.4	1.2	13	.28
13	.43	.67	.71	1.2	2.6	2.9	2.0	1.3	145	.95	.82	.26
14	.43	.67	23	1.7	2.1	2.1	1.9	1.2	9.7	.94	.67	.28
15	.43	.76	31	1.2	2.2	1.9	1.7	1.2	3.4	4.3	.56	.30
16	.43	.74	16	1.2	2.7	18	1.6	1.2	3.3	1.0	.52	.27
17	.43	.70	4.0	1.2	8.6	9.9	28	1.1	23	.98	.74	.21
18	3.0	.69	2.8	1.2	9.9	3.1	26	1.1	2.6	.99	1.2	.19
19	1.7	.66	2.0	.92	45	2.5	3.3	66	2.1	.88	.45	.18
20	.51	1.4	1.3	1.0	27	2.7	2.5	8.7	1.8	2.2	.37	2.7
21	.47	.95	1.1	1.4	14	2.4	2.1	5.5	1.6	1.2	3.8	.67
22	.47	.66	1.4	1.1	5.4	2.0	1.8	3.9	1.5	.78	.52	22
23	7.3	.69	2.0	1.4	3.6	1.7	1.7	4.7	1.4	1.2	.55	2.1
24	2.6	1.2	1.6	2.3	3.0	1.7	1.7	2.3	1.3	.83	.67	.61
25	1.1	1.2	1.3	1.3	2.7	1.6	1.6	5.2	1.3	.69	1.2	.52
26	17	.74	1.1	1.1	2.1	2.7	85	1.7	1.2	.81	.49	2.2
27	9.1	.74	2.0	1.0	2.1	1.6	40	1.4	1.3	.73	.34	41
28	4.2	.68	1.3	1.2	1.9	1.4	14	66	34	2.0	.40	1.0
29	1.3	.64	1.0	1.1	---	1.4	4.4	12	3.5	.76	.22	.73
30	1.0	.66	.95	2.0	---	1.4	3.2	5.2	2.1	1.5	.26	.63
31	.89	---	3.9	16	---	5.9	---	3.0	---	1.2	.53	---
TOTAL	64.64	32.41	130.86	196.02	342.1	123.2	330.6	216.2	382.0	69.64	62.98	83.63
MEAN	2.09	1.08	4.22	6.32	12.2	3.97	11.0	6.97	12.7	2.25	2.03	2.79
MAX	17	8.7	31	111	94	24	85	66	145	30	23	41
MIN	.43	.64	.71	.80	1.9	1.4	1.5	1.1	1.2	.69	.22	.18
CFSM	.47	.24	.95	1.42	2.74	.89	2.47	1.56	2.85	.50	.46	.63
IN.	.54	.27	1.09	1.63	2.85	1.03	2.76	1.80	3.19	.58	.53	.70

CAL YR 1981 TOTAL 1680.09 MEAN 4.60 MAX 170 MIN .29 CFSM 1.03 IN 14.01
WTR YR 1982 TOTAL 2034.28 MEAN 5.57 MAX 145 MIN .18 CFSM 1.25 IN 16.96

01585400 BRIEN RUN AT STEMMERS RUN, MD

LOCATION.--Lat 39°20'01", long 76°28'23", Baltimore County, Hydrologic Unit 02060003, on right bank 0.2 mi (0.3 km) upstream from mouth and 0.3 mi (0.5 km) north of Stemmers Run.

DRAINAGE AREA.--1.97 mi^2 (5.10 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8.80 ft (2.681 m) Baltimore County datum.

REMARKS.--Records good except those for January and period of missing record, Apr. 14 to June 8, which are fair to poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 2.55 ft^3/s (0.072 m^3/s), 17.58 in/yr (447 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft^3/s (99.1 m^3/s) Aug. 1, 1971, gage height, 10.75 ft (3.277 m), from high-water mark in well, from rating curve extended above 180 ft^3/s (5.10 m^3/s) on basis of computation of peak flow through culvert and over road at site 0.8 mile (1.3 km) upstream, adjusted for flow from intervening area; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.2 m^3/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)
Jan. 4	0930	159	4.50	2.75	0.838	June 13	1430	*a240	6.80	3.39	1.033
Apr. 26	Unknown	Unknown		Unknown							

a May have been higher during period of no gage-height record, Apr. 14 to June 8.

Minimum discharge, 0.20 ft^3/s (0.06 m^3/s) Nov. 9, gage height, 0.93 ft (0.283 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.50	3.5	8.3	17	.60	1.2	1.2	7.0	.62	.50	.51
2	1.4	.50	4.4	1.4	6.2	.66	.68	1.0	5.0	.50	.50	2.4
3	.47	.74	.75	1.3	34	.64	9.1	1.0	1.3	4.9	.57	1.3
4	.41	.52	.63	39	4.5	.60	2.3	.90	1.7	1.3	.48	.41
5	.41	.50	.91	3.3	1.9	.60	.91	.90	20	.62	1.3	.41
6	.60	2.9	.60	1.9	1.6	.67	21	.80	2.0	.73	.57	.41
7	.50	.57	.69	.93	.83	9.6	1.8	.80	1.5	.61	.50	.49
8	.41	.50	1.2	.73	.72	3.6	1.1	1.1	1.2	.50	.50	.43
9	.41	.46	.62	.70	4.8	1.1	2.3	1.0	1.0	.50	.50	.41
10	.41	.52	.60	.60	2.7	1.0	1.2	.70	.85	.50	.57	.41
11	.40	.55	.60	.50	1.2	.72	.81	.60	1.1	.50	.51	.41
12	.41	.61	.60	.40	.90	2.3	.82	.60	1.1	.50	2.3	.41
13	.44	.50	.54	.40	1.0	1.0	.75	.60	48	.57	.50	.46
14	.42	.41	8.2	.60	.81	.80	.75	.60	4.4	.50	.50	.49
15	.41	.45	13	.50	.81	.70	.75	.60	1.6	.72	.50	.46
16	.41	.50	7.6	.40	1.2	6.9	.75	.60	1.2	.50	.50	.41
17	.41	.54	1.8	.40	3.3	5.3	5.0	.70	2.8	.50	.56	.37
18	1.8	.51	1.0	.40	4.6	1.4	15	.80	1.1	1.3	.48	.42
19	.62	.41	.73	.40	20	.93	1.8	9.0	.83	1.3	.51	.41
20	.49	.45	.55	.40	10	.95	1.3	2.0	.72	1.6	.50	1.8
21	.52	.41	.53	.40	4.8	.99	1.1	.90	.75	.67	1.3	.56
22	.50	.41	.69	.40	2.1	.80	1.0	1.2	.79	.71	.41	8.7
23	2.6	.41	.71	.64	1.8	.76	1.0	1.8	.81	1.2	.41	.96
24	.82	.48	.60	.81	.92	.67	.90	1.0	.72	.50	.54	.50
25	1.1	.51	.60	.57	.74	.60	.80	1.7	.72	.50	1.0	.50
26	4.3	.50	.60	.50	.62	1.0	30	.80	.72	.50	.45	1.1
27	3.0	.50	.77	.50	.60	.66	10	.75	.72	.68	.41	12
28	1.5	.50	.62	.48	.60	.60	4.0	25	2.5	.89	.41	.66
29	.61	.50	.65	.41	---	.60	2.0	5.0	.96	.47	.41	.43
30	.55	.50	.61	1.0	---	.66	1.4	2.0	.73	.70	.41	.61
31	.51	---	1.7	5.3	---	2.4	---	1.0	---	.55	.58	---
TOTAL	27.84	17.36	56.60	73.57	130.25	49.81	121.52	66.65	113.82	26.14	19.18	38.84
MEAN	.90	.58	1.83	2.37	4.65	1.61	4.05	2.15	3.79	.84	.62	1.29
MAX	4.3	2.9	13	39	34	9.6	30	25	48	4.9	2.3	12
MIN	.40	.41	.53	.40	.60	.60	.68	.60	.72	.47	.41	.37
CFSM	.46	.29	.93	1.20	2.36	.82	2.06	1.09	1.92	.43	.32	.66
IN.	.53	.33	1.07	1.39	2.46	.94	2.29	1.26	2.15	.49	.36	.73

CAL YR 1981 TOTAL 692.84 MEAN 1.90 MAX 64 MIN .25 CFSM .96 IN 13.08
WTR YR 1982 TOTAL 741.58 MEAN 2.03 MAX 48 MIN .37 CFSM 1.03 IN 14.00

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD

LOCATION.--Lat 39°35'35", long 76°58'05", Carroll County, Hydrologic Unit 02060003, on left bank 80 ft (24 m) upstream from culvert, 0.7 mi (1.1 km) upstream from mouth, and 1.8 mi (2.9 km) northeast of Westminster.

DRAINAGEA AREA.--3.29 mi^2 (8.52 km^2).

PERIOD OF RECORD.--September 1949 to current year.

REVISED RECORDS.--WSP 1432: Drainage area, 1954-55. WDR MD-DE-75-1: 1972(M). WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 670 ft (204 m), from topographic map.

REMARKS.--Records good except those for January, which are fair. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mi (1.6 km) above station since August 1957, capacity, 113,700,000 gal (430,400 m^3). Beginning October 1972 occasional large diversions past the gaging station from the reservoir through a 30-inch (0.76 m) pipe. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 3.53 ft^3/s (0.100 m^3/s), 14.57 in/yr (370 mm/yr), unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Sept. 26, 1975, gage height, 7.47 ft (2.277 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on the basis of computations of flows through culvert at gage heights 5.54 ft (1.689 m) and 7.47 ft (2.277 m); minimum daily discharge, 0.22 ft^3/s (0.006 m^3/s) Jan. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft^3/s (2.2 m^3/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)
Feb. 1	0145	83	2.35	2.70	0.823	June 16	2400	98	2.78	2.81	0.856
Feb. 3	1145	*152	4.30	3.12	0.951						

Minimum daily discharge, 0.46 ft^3/s (0.013 m^3/s) Nov. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	.82	2.1	5.5	23	.84	2.4	3.7	2.9	.90	1.9	1.4
2	3.6	.82	2.1	2.7	5.1	.56	2.0	3.5	2.7	1.7	2.9	2.3
3	1.7	.70	1.5	2.3	54	1.3	6.8	3.3	1.7	2.2	2.3	2.1
4	1.6	.67	1.5	17	9.4	.98	4.3	3.2	1.4	1.0	1.8	1.5
5	1.3	.69	1.6	3.2	3.1	1.0	1.1	3.1	4.3	1.2	1.1	1.4
6	1.3	1.7	1.6	1.7	2.9	1.7	9.5	3.0	3.6	1.1	1.2	1.4
7	1.3	1.6	1.4	1.4	2.0	5.3	2.5	2.9	1.1	1.1	1.2	1.2
8	1.2	1.5	1.6	.99	1.1	2.4	2.0	3.1	.63	1.3	1.2	1.4
9	1.2	1.5	1.4	1.5	.62	.76	1.4	3.0	1.1	1.1	1.0	1.4
10	1.2	1.0	1.3	.97	1.1	1.2	2.6	2.8	2.7	1.5	1.4	1.4
11	1.2	.46	1.4	2.3	.93	1.3	2.1	2.7	2.6	1.1	1.2	1.3
12	1.3	.46	1.4	1.7	.81	2.1	1.1	2.7	2.4	1.1	1.9	1.3
13	1.2	.47	1.3	1.8	1.7	2.4	1.5	2.6	16	2.0	1.1	1.3
14	1.2	.50	1.7	2.0	1.5	2.0	2.2	2.6	4.9	1.4	1.6	1.3
15	1.2	.60	2.9	1.9	.93	.87	3.4	2.5	2.4	2.3	1.0	1.3
16	1.2	.60	2.1	1.8	.57	3.2	3.4	2.5	6.2	2.5	1.3	1.3
17	1.2	.74	1.9	1.8	2.3	4.5	4.3	2.4	14	2.1	1.2	1.2
18	1.3	.74	1.8	1.8	1.3	1.7	5.2	2.4	2.8	2.0	1.6	1.2
19	1.5	.76	1.7	1.8	2.3	2.7	2.8	2.5	1.7	2.4	1.2	1.2
20	1.3	1.1	1.6	1.8	3.8	2.1	1.9	2.1	1.9	2.9	1.5	1.3
21	1.2	.95	1.6	1.8	4.9	.69	2.0	2.0	1.5	2.3	1.1	1.3
22	1.2	.88	1.8	2.0	4.5	1.3	3.0	2.6	2.1	2.1	.82	4.7
23	2.1	.86	6.3	2.5	2.5	2.0	2.3	2.6	1.1	2.1	1.5	1.6
24	2.1	.89	2.6	2.3	1.2	3.0	2.8	2.5	1.6	2.0	1.6	1.2
25	1.7	.91	1.6	2.0	.79	3.0	2.8	2.3	1.6	1.9	1.5	1.5
26	3.2	.87	1.9	1.9	1.3	3.2	8.8	2.5	2.0	1.7	1.3	1.1
27	5.5	.91	1.8	1.9	1.6	2.9	7.8	2.5	2.6	1.7	1.4	4.3
28	3.2	.83	1.4	1.9	1.7	2.8	6.6	3.0	1.1	2.1	1.4	1.6
29	2.2	.87	.90	1.8	---	2.7	2.7	2.9	1.4	1.7	1.0	1.2
30	1.3	.81	1.5	1.9	---	2.8	2.7	2.7	1.2	1.8	1.4	1.1
31	.79	---	1.2	7.8	---	3.3	---	2.4	---	1.9	1.4	---
TOTAL	56.19	26.21	56.50	83.76	136.95	66.60	104.0	84.6	93.23	54.20	44.02	47.8
MEAN	1.81	.87	1.82	2.70	4.89	2.15	3.47	2.73	3.11	1.75	1.42	1.59
MAX	5.5	1.7	6.3	17	54	5.3	9.5	3.7	16	2.9	2.9	4.7
MIN	.79	.46	.90	.97	.57	.56	1.1	2.0	.63	.90	.82	1.1
CFSM	.55	.26	.55	.82	1.49	.65	1.06	.83	.95	.53	.43	.48
IN.	.64	.30	.64	.95	1.55	.75	1.18	.96	1.05	.61	.50	.54

CAL YR 1981 TOTAL 856.58 MEAN 2.35 MAX 36 MIN .22 CFSM .71 IN 9.68
WTR YR 1982 TOTAL 854.06 MEAN 2.34 MAX 54 MIN .46 CFSM .71 IN 9.65

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD

LOCATION.--Lat 39°30'00", long 76°53'00", Carroll County, Hydrologic Unit 02060003, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mi (1.3 km) downstream from Roaring Run, 8 mi (12.9 km) southeast of Westminster, and 16.5 mi (26.5 km) upstream from confluence with South Branch.

DRAINAGE AREA.--56.6 mi^2 (146.6 km^2).

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 1903: 1959-60.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 425 ft (130 m), from topographic map.

REMARKS.--Records good. Slight diurnal fluctuation at low and medium flow caused by mill above station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal (430,400 m^3). Records do not include a mean discharge of 2.09 ft^3/s (0.059 m^3/s) diverted above station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 64.4 ft^3/s (1.824 m^3/s), 15.45 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 ft^3/s (787 m^3/s) June 22, 1972, gage height, 20.75 ft (6.325 m), from high-water mark in well, from rating curve extended above 4,100 ft^3/s (116 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 ft^3/s (0.054 m^3/s) Sept. 10, 1966, result of filling pond above station; minimum daily discharge, 3.1 ft^3/s (0.088 m^3/s) Sept. 10, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,350 ft^3/s (66.6 m^3/s) Feb. 3, gage height, 6.57 ft (2.003 m), no other peak above base of 1,000 ft^3/s (28 m^3/s); minimum discharge, 3.0 ft^3/s (0.085 m^3/s) Aug. 2, 3, 5, gage height, 1.17 ft (0.357 m), result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	25	68	320	49	52	58	88	37	29	14
2	61	21	45	41	73	48	40	57	69	35	25	18
3	25	21	27	31	984	47	82	52	42	45	34	48
4	21	20	24	239	186	44	76	49	57	47	24	18
5	19	20	22	77	91	44	54	43	82	37	24	17
6	20	28	21	44	67	43	113	41	73	34	31	15
7	19	23	19	39	54	87	73	40	57	32	23	15
8	17	22	22	32	46	76	60	45	43	32	25	15
9	17	20	20	29	47	56	64	45	39	31	26	15
10	17	20	18	26	45	53	62	39	42	30	36	15
11	18	20	18	22	43	53	56	37	42	30	23	14
12	18	19	18	22	40	62	52	37	40	29	27	14
13	17	19	17	23	40	56	51	37	330	26	23	13
14	17	19	19	25	38	53	50	35	113	26	21	13
15	17	20	48	26	42	48	47	35	69	30	21	13
16	17	19	33	24	57	60	46	35	58	31	18	14
17	17	19	27	22	69	87	49	33	230	27	19	12
18	18	19	25	22	58	62	80	32	78	26	28	12
19	20	18	20	22	71	58	51	36	62	24	18	12
20	18	22	20	23	98	56	46	58	54	38	17	18
21	17	21	19	24	118	54	44	35	52	33	17	16
22	17	20	23	24	120	50	43	39	47	25	16	69
23	23	18	61	24	105	49	41	44	47	26	16	36
24	36	18	50	34	87	49	40	44	43	26	22	21
25	22	19	32	25	69	47	40	39	41	24	18	18
26	28	19	27	25	58	50	110	37	41	21	15	19
27	74	20	27	23	55	45	96	35	41	22	15	67
28	50	18	27	23	53	42	126	59	40	33	16	27
29	29	18	25	23	---	40	73	69	43	24	15	21
30	27	18	21	23	---	40	62	42	40	23	14	20
31	23	---	21	35	---	47	---	41	---	26	15	---
TOTAL	758	601	821	1140	3134	1655	1879	1328	2103	930	671	639
MEAN	24.5	20.0	26.5	36.8	112	53.4	62.6	42.8	70.1	30.0	21.6	21.3
MAX	74	28	61	239	984	87	126	69	330	47	36	69
MIN	17	18	17	22	38	40	40	32	39	21	14	12
CFSM	.43	.35	.47	.65	1.98	.94	1.11	.76	1.24	.53	.38	.38
IN.	.50	.39	.54	.75	2.06	1.09	1.23	.87	1.38	.61	.44	.42

CAL YR 1981 TOTAL 15932 MEAN 43.6 MAX 562 MIN 12 CFSM .77 IN 10.47
WTR YR 1982 TOTAL 15659 MEAN 42.9 MAX 984 MIN 12 CFSM .76 IN 10.29

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD

LOCATION.--Lat 39°18'36", long 76°47'34", Baltimore County, Hydrologic Unit 0206003, on left bank at downstream side of highway bridge at Hollofield, 0.3 mi (0.5 km) downstream from Dogwood Run, 3.0 mi (4.8 km) north of Ellicott City, and 28 mi (45 km) upstream from mouth.

DRAINAGE AREA.--285 mi^2 (738 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 187.7 ft (57.21 m) National Geodetic Vertical Datum of 1929. June 26 to Dec. 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

REMARKS.--Water-discharge records good except those for October and January, which are fair. Flow regulated by Liberty Reservoir 11 mi (18 km) upstream beginning July 22, 1954, usable capacity, 42,070,000,000 gal (159.2 hm^3); dead storage, 1,260,000,000 gal (4.769 hm^3). Diversions above station for municipal supply of Westminster (sewage effluent discharged into Little Pipe Creek), and from Liberty Reservoir beginning Feb. 26, 1953, for municipal supply of Baltimore, and beginning February 1970 for a small municipal supply for part of Carroll County.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,600 ft^3/s (2,280 m^3/s) June 22, 1972, gage height, 31.3 ft (9.54 m), from floodmarks, from rating curve extended above 27,000 ft^3/s (765 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6 ft^3/s (0.17 m^3/s) Sept. 6, 1944; minimum daily, 9.6 ft^3/s (0.27 m^3/s) Aug. 12, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,950 ft^3/s (83.5 m^3/s) Feb. 3, gage height, 5.64 ft (1.719 m) (backwater from ice); minimum daily discharge, 29 ft^3/s (0.82 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	48	50	160	570	108	111	133	165	84	51	38
2	51	50	96	120	170	106	93	124	136	77	47	41
3	43	162	60	85	1750	97	137	117	91	101	47	51
4	35	164	51	460	439	94	209	110	145	157	45	42
5	33	155	47	180	187	95	127	105	165	87	64	36
6	34	78	43	100	137	90	199	100	171	79	82	35
7	34	49	42	90	114	139	154	99	148	74	50	35
8	33	43	49	75	100	169	135	101	116	70	48	35
9	30	41	45	65	105	128	140	105	101	70	48	36
10	30	43	43	60	96	114	146	92	93	69	58	37
11	31	43	43	55	90	109	127	87	107	70	47	37
12	32	42	43	55	85	134	118	83	96	72	102	35
13	32	153	40	55	85	121	117	83	768	66	53	35
14	30	46	55	60	80	115	112	81	323	61	46	35
15	30	41	154	65	84	104	104	78	173	69	42	35
16	30	41	99	60	111	124	99	76	150	74	41	35
17	30	41	67	55	140	199	106	74	260	62	40	33
18	32	41	60	55	142	143	183	72	154	60	41	31
19	36	40	48	55	149	126	123	90	133	58	41	31
20	34	41	48	55	212	127	110	84	118	72	39	42
21	30	41	46	60	244	126	106	111	106	89	53	45
22	30	39	50	58	198	117	100	89	101	61	46	94
23	40	38	81	65	163	109	95	103	98	71	42	80
24	65	38	121	70	157	104	92	102	90	62	44	47
25	40	40	75	58	140	101	89	87	89	56	41	42
26	50	40	69	58	128	108	215	83	89	53	40	41
27	100	40	63	55	113	98	237	78	85	53	38	117
28	156	40	63	58	110	90	217	94	86	154	39	56
29	60	39	58	60	---	91	157	169	97	61	37	43
30	55	38	59	60	---	89	144	147	89	53	36	40
31	48	---	55	78	---	100	---	121	---	60	37	---
TOTAL	1343	1755	1923	2645	6099	3575	4102	3078	4543	2305	1485	1340
MEAN	43.3	58.5	62.0	85.3	218	115	137	99.3	151	74.4	47.9	44.7
MAX	156	164	154	460	1750	199	237	169	768	157	102	117
MIN	29	38	40	55	80	89	89	72	85	53	36	31
(≠)	28460	27360	26870	25760	29070	30790	32510	32870	34300	34450	32890	31460
(≠)	123	125	127	127	129	113	119	142	132	159	139	141

CAL YR 1981 TOTAL 30257 MEAN 82.9 MAX 1890 MIN 25 ≠ 138
WTR YR 1982 TOTAL 34193 MEAN 93.7 MAX 1750 MIN 29 ≠ 131

≠ Month-end contents, in millions of gallons in Liberty Reservoir, contents on Sept. 30, 1981: 28,510,000,000 gal (107.9 hm^3); records furnished by Baltimore Department of Public Works.

≠ Diversions, in cubic feet per second, above station for municipal supply of city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records furnished by cities of Westminster and Baltimore, respectively.

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-74, 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
NOV											
20...	0930	40	209	7.2	8.0	7	63	16	17	5.0	9.6
APR											
19...	1015	120	166	7.8	15.5	17	53	14	14	4.3	8.2

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV											
20...	24	.6	2.4	47	11	12	.2	5.2	109	91	.15
APR											
19...	24	.5	2.4	39	11	12	.1	6.6	110	82	.15

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV										
20...	11.8	1.6	.160	.49	580	520	59	100	20	78
APR										
19...	35.6	1.5	.130	.40	840	700	140	130	30	97

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft (15 m) upstream from bridge on Tom Day Boulevard at U.S. Route 1 in Arbutus, 0.5 mi (0.8 km) upstream from mouth, and 2 mi (3 km) south of Baltimore city limits.

DRAINAGE AREA.--2.47 mi^2 (6.40 km^2).

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

REVISED RECORDS.--WDR MD-DE-81: 1979.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 45 ft (14 m), from topographic map. Prior to August 1981 at site 100 ft (30 m) downstream at same datum.

REMARKS.--Records fair. Slight regulation at low flow from unknown source above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 3.29 ft^3/s (0.093 m^3/s), 18.09 in/yr (459 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft^3/s (69.7 m^3/s) Sept. 6, 1979, gage height, 13.7 ft (4.18 m), present site, from floodmarks, from rating curve extended above 280 ft^3/s (7.93 m^3/s) on basis of culvert measurement at gage height 5.0 ft (1.52 m), present site, discharge, 580 ft^3/s (16.4 m^3/s) and culvert and flow-over-road measurement of peak flow at gage height, 13.7 ft (4.18 m) present site, from floodmarks; minimum daily discharge, 0.30 ft^3/s (0.008 m^3/s) July 24, Sept. 4, 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 275 ft^3/s (7.79 m^3/s) June 13, gage height, 3.51 ft (1.070 m), no peak above base of 400 ft^3/s (11 m^3/s); minimum daily discharge, 0.32 ft^3/s (0.009 m^3/s) Aug. 15-20, 22, 23, 30, Sept. 5, 6, 13, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	.51	3.1	7.4	9.5	1.2	2.0	1.5	11	.84	.46	.38
2	1.3	.51	2.3	1.0	10	1.2	1.6	1.3	2.1	.82	.62	5.2
3	.51	.62	.62	1.9	30	1.2	18	1.3	2.9	6.1	.61	1.5
4	.46	.62	.62	19	4.4	1.2	2.4	1.5	1.7	1.3	.51	.42
5	.46	.64	.62	2.1	2.5	1.2	2.0	1.5	27	.79	2.9	.32
6	1.0	3.3	1.0	1.3	1.9	1.3	20	1.5	2.9	.73	.63	.32
7	.62	.62	1.9	1.3	1.5	12	2.6	1.3	1.7	.73	.58	.39
8	.60	.62	1.2	1.0	1.4	2.5	2.0	4.4	1.7	.73	2.7	.51
9	.55	.55	.70	.84	5.8	1.6	6.0	1.2	1.3	.73	2.5	.51
10	.55	.50	.60	.45	2.1	1.5	2.0	1.2	1.3	4.1	.60	.51
11	.55	.50	.55	.45	1.5	1.4	1.6	1.2	1.7	.73	.46	.46
12	.65	.60	.55	.45	1.2	5.0	1.6	.99	1.5	.73	4.1	.39
13	.75	.46	.55	.45	1.7	2.2	2.0	1.0	43	.73	.46	.32
14	.85	.46	8.5	.60	1.2	1.4	1.3	.95	3.2	.73	.40	.33
15	1.0	.55	7.4	.80	1.3	1.3	1.3	.84	2.3	.76	.32	.42
16	1.2	.51	5.3	.80	1.7	22	1.3	.82	11	.73	.32	.46
17	2.0	.51	1.3	.45	5.2	7.0	12	.77	5.5	.74	.32	.38
18	3.6	.51	1.0	.55	4.4	2.0	4.4	.80	2.1	.58	.32	.32
19	1.6	.70	.70	.70	18	1.8	1.5	11	1.5	.51	.32	.32
20	1.2	.60	.51	1.0	6.4	2.4	1.3	2.3	1.3	1.3	.32	2.4
21	1.4	.50	.51	.85	3.8	2.0	1.3	1.9	1.1	.56	1.2	.52
22	1.8	.45	.84	.73	2.3	1.5	1.2	3.1	1.2	.92	.32	12
23	6.0	.45	.84	.96	2.1	1.4	1.0	1.9	1.2	2.7	.32	.73
24	1.8	.45	.73	1.1	1.7	1.3	.84	1.3	1.1	.63	.45	.51
25	1.6	.50	.62	.64	1.3	1.3	.84	2.1	1.2	.46	.55	.51
26	9.0	.60	.51	.67	1.2	4.0	19	1.0	1.1	.50	.45	2.7
27	4.4	.78	1.0	.58	1.2	1.4	10	.99	.99	.49	.51	15
28	1.1	.46	.62	.60	1.2	1.2	3.1	11	1.0	.76	.45	.57
29	.65	.46	.62	.83	---	1.2	1.9	2.1	1.0	.58	.38	.51
30	.64	.51	.51	2.9	---	1.3	1.7	1.2	.93	2.7	.32	.51
31	.60	---	2.1	5.5	---	8.0	---	1.0	---	.68	.45	---
TOTAL	51.14	19.05	47.92	57.90	126.5	96.0	127.78	64.96	137.52	35.39	24.85	49.42
MEAN	1.65	.64	1.55	1.87	4.52	3.10	4.26	2.10	4.58	1.14	.80	1.65
MAX	9.0	3.3	8.5	19	30	22	20	11	43	6.1	4.1	15
MIN	.46	.45	.51	.45	1.2	1.2	.84	.77	.93	.46	.32	.32
CFSM	.67	.26	.63	.76	1.83	1.26	1.73	.85	1.85	.46	.32	.67
IN.	.77	.29	.72	.87	1.90	1.45	1.92	.98	2.07	.53	.37	.74

CAL YR 1981 TOTAL 809.15 MEAN 2.22 MAX 145 MIN .35 CFSM .90 IN 12.18
WTR YR 1982 TOTAL 838.43 MEAN 2.30 MAX 43 MIN .32 CFSM .93 IN 12.62

01589300 GWYNNS FALLS AT VILLA NOVA, MD

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, Hydrologic Unit 02060003, on right bank 300 ft (91 m) downstream from bridge on Essex Road, 300 ft (91 m) north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 mi (1.8 km) west of Baltimore city limits, and 11.5 mi (18.5 km) upstream from mouth.

DRAINAGE AREA.--32.5 mi^2 (84.2 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 361.32 ft (110.130 m) Baltimore County datum. Prior to Aug. 27, 1963, and Oct. 25, 1972, to Sept. 20, 1973, water-stage recorder, and June 26, 1972, to Oct. 24, 1972, non-recording gage at site 300 ft (91 m) upstream at same datum.

REMARKS.--Records good except those for January, which are fair. Slight diurnal fluctuation at times from unknown source above station. Small diversion for irrigation above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 38.4 ft^3/s (1.087 m^3/s), 16.05 in/yr (408 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft^3/s (459 m^3/s) June 22, 1972, gage height, 21.5 ft (6.55 m), from floodmarks, from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of contracted-opening measurement of peak flow; minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Sept. 7, 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 21, 1956, reached a stage of 12.6 ft (3.84 m), discharge, 5,270 ft^3/s (149 m^3/s) on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21 m^3/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)
Jan. 4	1130	901	25.5	4.39	1.338	June 1	1930	810	22.9	4.13	1.259
Feb. 1	0700	773	21.9	4.02	1.225	June 13	1315	*1490	42.2	5.84	1.780
Feb. 3	1330	1150	32.6	5.05	1.539						

Minimum discharge, 6.0 ft^3/s (0.17 m^3/s) Oct. 1, Dec. 14, 31, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	11	31	91	250	21	28	28	145	21	23	8.5
2	28	11	53	26	100	21	20	25	88	17	12	12
3	8.1	11	17	21	730	20	75	25	32	80	12	27
4	7.1	12	13	356	141	20	40	23	46	41	11	9.2
5	7.1	13	13	50	61	20	25	22	114	21	62	8.3
6	7.2	60	13	28	40	19	134	20	64	18	26	7.7
7	11	18	12	23	31	98	38	20	60	17	14	8.0
8	7.4	14	14	20	28	57	29	36	28	16	23	7.7
9	7.0	11	12	17	32	33	37	24	23	17	18	7.7
10	7.3	11	11	15	27	27	32	19	20	16	142	7.7
11	7.7	10	11	13	23	26	27	19	21	14	21	7.7
12	7.1	9.7	11	13	21	47	23	17	21	14	116	7.2
13	7.3	9.4	11	13	20	30	23	17	485	13	22	7.1
14	7.1	9.9	38	14	20	27	22	16	83	12	16	7.0
15	8.2	12	94	14	20	24	21	17	37	22	14	7.1
16	7.7	12	35	14	31	64	22	16	32	26	13	7.3
17	7.7	11	22	14	40	70	44	14	169	14	12	6.8
18	10	10	17	13	36	32	99	15	36	13	16	6.2
19	16	11	15	13	79	28	31	65	27	12	12	6.8
20	9.5	10	14	13	99	28	27	37	23	27	11	18
21	8.9	12	12	13	93	27	25	25	21	21	23	11
22	9.2	10	13	13	56	24	23	25	19	13	11	90
23	27	10	33	19	43	22	21	43	18	26	11	23
24	30	10	25	16	36	21	21	31	17	14	13	12
25	13	10	17	14	28	21	21	23	17	11	14	11
26	41	11	14	12	24	30	154	21	16	11	10	14
27	51	10	17	12	23	21	99	20	18	15	9.4	141
28	46	9.8	16	12	22	19	79	52	57	56	9.6	18
29	16	9.7	14	12	---	19	38	77	69	15	8.6	13
30	13	11	11	14	---	19	31	43	43	16	8.3	12
31	12	---	18	17	---	31	---	24	---	17	8.7	---
TOTAL	455.6	380.5	647	935	2154	966	1309	859	1849	646	722.6	530.0
MEAN	14.7	12.7	20.9	30.2	76.9	31.2	43.6	27.7	61.6	20.8	23.3	17.7
MAX	51	60	94	356	730	98	154	77	485	80	142	141
MIN	7.0	9.4	11	12	20	19	20	14	16	11	8.3	6.2
CFSM	.45	.39	.64	.93	2.37	.96	1.34	.85	1.90	.64	.72	.55
IN.	.52	.44	.74	1.07	2.47	1.11	1.50	.98	2.12	.74	.83	.61

CAL YR 1981 TOTAL 9993.7 MEAN 27.4 MAX 603 MIN 5.4 CFSM .84 IN 11.44
WTR YR 1982 TOTAL 11453.7 MEAN 31.4 MAX 730 MIN 6.2 CFSM .97 IN 13.11

01589330 DEAD RUN AT FRANKLINTOWN, MD

LOCATION.--Lat 39°18'40", long 76°43'02", Baltimore County, Hydrologic Unit 02060003, on right bank at downstream side of bridge on Colonial Road at Security Boulevard at Franklintown, 0.3 mi (0.5 km) west of Baltimore city limits, 1.2 mi (1.9 km) southwest of Woodlawn, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--5.52 mi^2 (14.30 km^2).

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR MD-DE-80-1: 1979 (minimum).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 310 ft (94 m), from topographic map.

REMARKS.--Records good except those for January, which are fair. Occasional regulation at low flow from unknown source above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 7.78 ft^3/s (0.220 m^3/s), 19.14 in/yr (486 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) June 22, 1972, gage height, 12.5 ft (3.81 m), from floodmarks, from rating curve extended above 1,600 ft^3/s (45.3 m^3/s) on basis of contracted-opening measurement of peak flow at bridge 0.6 mi (1.0 km) downstream, adjusted for flow from intervening area; minimum discharge, 0.10 ft^3/s (0.003 m^3/s) Sept. 11-12, 1966, gage height, 0.57 ft (0.174 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft^3/s (18 m^3/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)
May 30	1830	813	23.0	4.49	1.369	June 13	1330	748	21.2	4.27	1.301
June 1	1915	*1070	30.3	5.30	1.615	Sept. 27	0315	651	18.4	3.93	1.198

Minimum discharge, 0.35 ft^3/s (0.010 m^3/s) Sept. 19, gage height, 0.64 ft (0.195 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	1.0	21	39	10	2.1	3.4	3.1	85	1.2	1.3	.72
2	6.3	1.0	9.5	2.6	29	2.1	2.1	2.9	11	1.2	1.5	8.2
3	.73	1.3	1.1	5.0	136	1.9	32	3.1	10	21	1.3	3.9
4	.73	1.1	.99	88	14	1.9	3.8	2.7	4.8	2.4	1.2	.63
5	.73	1.5	1.0	3.9	4.8	1.9	2.7	2.6	41	1.2	2.6	.55
6	2.0	19	.75	2.5	3.5	1.7	40	2.4	8.0	1.2	2.2	.54
7	1.0	1.2	1.0	2.1	2.5	34	3.5	2.4	3.9	1.6	1.2	.61
8	.83	1.0	4.5	1.8	2.3	6.0	2.7	20	2.7	1.2	13	.65
9	.75	.95	.95	1.6	12	2.8	11	3.4	2.1	1.5	2.1	.70
10	.71	.82	.97	1.3	4.7	2.3	3.1	2.4	2.4	11	1.4	.62
11	.70	.78	.99	1.2	2.7	2.3	2.4	2.1	2.1	1.2	1.2	.53
12	.78	.93	.94	1.2	2.3	12	2.4	2.2	3.0	1.1	33	.51
13	1.3	.76	.74	1.2	3.1	3.9	2.7	2.1	122	1.0	1.3	.50
14	1.5	.65	34	1.3	2.1	2.4	1.8	2.0	6.4	1.3	1.0	.68
15	1.7	1.0	23	1.4	2.7	2.1	2.0	2.1	3.5	19	.95	.61
16	2.1	.74	9.2	1.4	4.3	45	2.1	1.9	11	4.2	.88	.68
17	3.3	.76	3.2	1.3	11	13	29	1.9	27	1.6	.88	.61
18	9.2	.76	2.4	1.2	11	3.8	15	1.9	2.7	1.5	.84	.47
19	1.9	.88	1.2	1.2	38	3.0	3.1	44	2.4	1.4	.82	.47
20	1.5	1.1	1.2	1.2	34	4.1	3.0	11	1.8	12	.84	10
21	2.3	.79	1.0	1.2	21	3.6	2.6	7.4	1.6	1.9	7.7	1.0
22	2.4	.72	2.1	1.2	6.8	2.5	2.4	6.6	1.6	1.5	.69	48
23	20	.80	7.7	2.5	4.2	2.3	2.2	6.7	1.4	3.0	.82	1.9
24	2.4	.83	1.9	1.5	3.3	2.1	2.3	3.0	1.4	1.3	.85	.92
25	2.3	1.0	1.5	1.3	2.6	2.1	2.6	4.0	1.4	1.1	1.6	.84
26	24	.94	1.4	1.2	2.3	7.4	61	2.2	1.4	1.3	.71	12
27	13	1.2	3.1	1.2	2.1	2.1	26	2.1	1.4	7.5	.87	54
28	2.7	1.4	1.5	1.2	2.1	1.9	8.3	28	1.8	5.7	.87	1.4
29	1.5	1.0	1.4	1.2	---	1.9	4.0	22	1.6	1.4	.56	1.1
30	1.3	1.1	1.2	1.3	---	2.0	3.6	47	1.4	5.2	.51	1.0
31	1.0	---	14	1.6	---	15	---	4.9	---	1.7	.86	---
TOTAL	120.16	47.01	155.43	175.8	374.4	191.2	282.8	250.1	367.8	119.4	85.55	154.34
MEAN	3.88	1.57	5.01	5.67	13.4	6.17	9.43	8.07	12.3	3.85	2.76	5.14
MAX	24	19	34	88	136	45	61	47	122	21	33	54
MIN	.70	.65	.74	1.2	2.1	1.7	1.8	1.9	1.4	1.0	.51	.47
CFSM	.70	.28	.91	1.03	2.43	1.12	1.71	1.46	2.23	.70	.50	.93
IN.	.81	.32	1.05	1.18	2.52	1.29	1.91	1.69	2.48	.80	.58	1.04

CAL YR 1981 TOTAL 2593.77 MEAN 7.11 MAX 325 MIN .35 CFSM 1.29 IN 17.48
WTR YR 1982 TOTAL 2323.99 MEAN 6.37 MAX 136 MIN .47 CFSM 1.15 IN 15.66

01589440 JONES FALLS AT SORRENTO, MD

LOCATION.--Lat 39°23'30", long 76°39'42", Baltimore County, Hydrologic Unit 02060003, on right bank 0.3 mi (0.5 km) downstream from bridge on State Highway 25 (Falls Road), 0.4 mi (0.6 km) downstream from Slaughterhouse Branch and Sorrento, and 18 mi (29 km) upstream from mouth.

DRAINAGE AREA.--25.2 mi^2 (65.3 km^2).

PERIOD OF RECORD.--Annual maximum, water years 1958-66. April 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 240 ft (73 m), from topographic map. January 1958 to April 1966, nonrecording gage at site 450 ft (140 m) upstream at same datum.

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

AVERAGE DISCHARGE.--16 years, 33.6 ft^3/s (0.952 m^3/s), 18.11 in/yr (460 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft^3/s (391 m^3/s) June 22, 1972, gage height, 18.11 ft (5.520 m), from floodmarks, from rating curve extended above 1,400 ft^3/s (39.6 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.8 ft^3/s (0.051 m^3/s) Sept. 7, 8, 1966, gage height, 1.16 ft (0.354 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 609 ft^3/s (17.2 m^3/s) Aug. 9, gage height, 6.54 ft (1.993 m), no other peak above base of 600 ft^3/s (17 m^3/s); minimum discharge, 5.2 ft^3/s (0.15 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	11	19	48	49	20	20	21	74	21	16	9.3
2	14	11	32	24	25	19	17	20	49	17	11	12
3	7.2	10	15	19	240	19	34	19	24	35	11	9.0
4	7.1	11	13	131	70	18	27	18	25	27	9.6	8.5
5	6.7	10	12	32	39	18	21	17	62	19	30	8.1
6	7.3	32	11	20	30	18	53	16	40	17	18	7.8
7	7.7	13	11	17	24	40	28	16	31	16	13	8.3
8	6.7	11	12	15	22	32	24	23	24	15	16	8.0
9	6.7	9.6	11	13	24	24	27	19	20	14	35	8.0
10	7.0	9.1	10	12	22	21	24	16	19	14	105	7.5
11	7.3	9.1	10	11	19	21	22	15	20	13	20	7.4
12	7.2	8.9	10	11	18	27	20	14	19	13	55	7.6
13	6.6	8.6	10	11	18	23	20	13	167	12	20	7.4
14	6.7	8.7	21	12	17	21	20	13	52	12	16	6.8
15	7.2	9.4	50	12	18	19	19	13	32	12	14	7.1
16	7.1	9.1	29	12	25	28	19	12	27	12	12	7.3
17	7.5	9.0	20	12	30	33	24	12	62	11	12	6.5
18	9.2	8.9	15	12	26	24	37	11	28	11	11	6.8
19	10	8.7	11	11	36	22	22	24	24	9.7	11	7.0
20	8.1	9.3	11	11	43	22	20	18	21	13	10	9.2
21	8.1	9.1	11	11	47	21	20	13	19	12	14	8.9
22	8.0	9.0	11	11	37	20	19	15	18	9.9	11	35
23	15	8.7	22	16	31	19	18	23	17	16	11	15
24	15	8.6	20	12	28	18	17	19	16	11	11	10
25	10	8.9	16	11	25	18	17	17	15	9.9	11	9.8
26	22	9.1	15	10	22	21	50	15	15	9.1	9.3	9.9
27	29	9.3	15	10	21	18	41	13	26	11	9.2	46
28	21	9.2	14	10	21	17	36	24	64	23	9.5	14
29	13	9.1	13	9.9	---	17	25	29	45	12	8.5	11
30	12	8.7	12	11	---	17	22	23	32	12	8.4	11
31	11	---	15	15	---	21	---	16	---	13	8.4	---
TOTAL	317.6	307.1	497	572.9	1027	676	763	537	1087	452.6	556.9	330.2
MEAN	10.2	10.2	16.0	18.5	36.7	21.8	25.4	17.3	36.2	14.6	18.0	11.0
MAX	29	32	50	131	240	40	53	29	167	35	105	46
MIN	6.2	8.6	10	9.9	17	17	17	11	15	9.1	8.4	6.5
CFSM	.41	.41	.64	.73	1.46	.87	1.01	.69	1.44	.58	.71	.44
IN.	.47	.45	.73	.85	1.52	1.00	1.13	.79	1.60	.67	.82	.49

CAL YR 1981 TOTAL 6266.2 MEAN 17.2 MAX 268 MIN 4.8 CFSM .68 IN 9.25
WTR YR 1982 TOTAL 7124.3 MEAN 19.5 MAX 240 MIN 6.2 CFSM .77 IN 10.52

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD

LOCATION.--Lat 39°22'41", long 76°38'36", Baltimore County, Hydrologic Unit 02060003, at Lake Roland Dam.

DRAINAGE AREA.--34.6 mi² (89.6 km²).

PERIOD OF RECORD.--December 1980 to July 1982 (discontinued).

COOPERATION.--Chemical data were furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
OCT , 1981									
01...	2115	--	--	7.0	--	--	--	14	--
01...	2215	--	--	16	--	--	--	14	--
01...	2315	--	--	36	--	--	--	14	--
02...	0007	--	--	55	--	--	--	12	--
02...	0206	--	--	70	--	--	--	9.6	--
02...	0406	--	--	70	--	--	--	12	--
02...	0606	--	--	55	--	--	--	9.2	--
02...	0806	--	--	45	--	--	--	9.6	--
02...	1006	--	--	34	--	--	--	12	--
02...	1207	--	--	31	--	--	--	14	--
02...	1407	--	--	23	--	--	--	14	--
02-02	--	10	1410	--	--	--	--	--	--
06-06	--	1010	1100	--	--	--	--	5.4	--
18...	1923	--	--	26	--	--	--	14	--
18...	2125	--	--	39	--	--	--	9.2	--
18...	2325	--	--	42	--	--	--	14	--
19...	0125	--	--	39	--	--	--	14	--
19...	0325	--	--	34	--	--	--	20	--
19...	0525	--	--	31	--	--	--	20	--
19...	0759	--	--	28	--	--	--	22	--
19...	0959	--	--	23	--	--	--	22	--
19...	1159	--	--	21	--	--	--	22	--
20...	1115	--	--	14	350	7.2	12.5	--	9.0
20-20	--	1000	1100	--	--	--	--	22	--
23-23	--	415	1830	--	--	--	--	8.4	--
23-24	--	1830	1140	--	--	--	--	9.6	--
NOV									
03-04	--	1900	1500	--	--	--	--	9.0	--
04...	1240	--	--	18	329	7.4	14.0	--	8.0
05...	2124	--	--	14	--	--	--	9.4	--
05...	2254	--	--	14	--	--	--	9.6	--
05...	2354	--	--	14	--	--	--	8.4	--
06...	0054	--	--	21	--	--	--	14	--
06...	0154	--	--	34	--	--	--	9.4	--
06...	0254	--	--	63	--	--	--	12	--
06...	0354	--	--	98	--	--	--	12	--
06...	0454	--	--	120	--	--	--	12	--
06...	0554	--	--	120	--	--	--	12	--
06...	0654	--	--	107	--	--	--	9.0	--
06...	0854	--	--	86	--	--	--	12	--

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
NOV , 1981										
06...	1206	--	--	59	--	--	--	--	18	--
06...	1406	--	--	45	--	--	--	--	18	--
06...	1601	--	--	39	--	--	--	--	16	--
18...	1210	--	--	10	359	--	7.0	8.5	--	9.8
18-18	--	1200	1500	--	--	--	--	--	14	--
DEC										
01...	0957	--	--	18	--	--	--	--	7.2	--
01...	1357	--	--	31	--	--	--	--	6.4	--
01...	1457	--	--	39	--	--	--	--	6.4	--
01...	1557	--	--	52	--	--	--	--	6.6	--
01...	1654	--	--	63	--	--	--	--	6.6	--
01...	1751	--	--	70	--	--	--	--	4.6	--
01...	1851	--	--	74	--	--	--	--	6.0	--
01...	1951	--	--	82	--	--	--	--	5.9	--
01...	2051	--	--	82	--	--	--	--	6.6	--
01...	2151	--	--	86	--	--	--	--	6.0	--
01...	2306	--	--	98	--	--	--	--	7.3	--
02...	0021	--	--	125	--	--	--	--	5.7	--
02...	0136	--	--	142	--	--	--	--	14	--
02...	0251	--	--	142	--	--	--	--	13	--
02...	0406	--	--	125	--	--	--	--	13	--
02...	0521	--	--	111	--	--	--	--	6.5	--
02...	0636	--	--	98	--	--	--	--	14	--
02...	0751	--	--	86	--	--	--	--	7.3	--
02...	0931	--	--	74	--	--	--	--	2.4	--
02...	1350	--	--	52	--	--	--	--	4.1	--
02...	1804	--	--	39	--	--	--	--	28	--
02...	2204	--	--	34	--	--	--	--	4.1	--
03...	0204	--	--	31	--	--	--	--	3.3	--
03...	0604	--	--	42	--	--	--	--	4.3	--
14...	1546	--	--	18	--	--	--	--	5.7	--
14...	1846	--	--	45	--	--	--	--	4.7	--
14...	2146	--	--	135	--	--	--	--	5.0	--
14...	2348	--	--	170	--	--	--	--	6.4	--
15...	0118	--	--	184	--	--	--	--	4.9	--
15...	0418	--	--	160	--	--	--	--	5.0	--
15...	0618	--	--	120	--	--	--	--	5.7	--
15...	1215	--	--	70	--	--	--	--	5.5	--
15...	1346	--	--	66	--	--	--	--	5.7	--
15...	2239	--	--	78	--	250	--	--	4.7	--
16...	1032	--	--	34	--	300	--	--	6.2	--
16...	2232	--	--	36	--	270	--	--	4.5	--
17...	1032	--	--	23	--	300	--	--	5.6	--
17...	1756	--	--	21	--	--	--	--	4.4	--
18...	0228	--	--	21	--	--	--	--	4.6	--
28-29	--	1900	1500	--	--	--	--	--	3.0	--
28-29	1500	1900	1500	--	--	--	--	--	3.1	--
29...	1200	--	--	16	560	--	6.0	4.6	--	1.3
JAN , 1982										
25-26	--	1900	1500	--	--	--	--	--	14	--
26...	1320	--	--	18	420	--	6.9	1.5	--	11.4
31-31	--	2020	612	--	--	--	--	--	15	--
FEB										
01-02	--	2020	612	--	--	--	--	--	15	--
02-05	--	1820	1020	--	--	--	--	--	66	--
09...	0439	--	--	36	--	--	--	--	28	--
09...	0839	--	--	39	--	--	--	--	28	--
09...	1239	--	--	42	--	--	--	--	26	--
09...	1639	--	--	59	--	--	--	--	25	--
09...	2039	--	--	66	--	--	--	--	21	--
10...	0039	--	--	56	--	--	--	--	21	--
10...	0439	--	--	45	--	--	--	--	21	--
16-17	--	1940	1040	--	--	--	--	--	2.6	--
17-18	--	1340	941	--	--	--	--	--	3.9	--
23-24	--	1900	1500	--	--	--	--	--	13	--
MAR										
06-07	--	1830	426	--	--	--	--	--	6.8	--
07-09	--	636	1030	--	--	--	--	--	13	--
09-10	--	1600	1400	--	--	--	--	--	20	--
16-18	--	1600	600	--	--	--	--	--	120	--
18-19	--	758	801	--	--	--	--	--	20	--
23-24	--	1600	1400	--	--	--	--	--	20	--
25-25	--	236	1340	--	--	--	--	--	15	--
26-26	--	357	1360	--	--	--	--	--	15	--
31-31	--	748	1350	--	--	--	--	--	8.1	--
APR										
01-01	--	748	1350	--	--	--	--	--	8.1	--
01-02	--	1550	949	--	--	--	--	--	12	--
03-04	--	643	1440	--	--	--	--	--	11	--
04-05	--	1440	743	--	--	--	--	--	16	--
JUL										
15-16	--	1200	900	--	--	--	--	--	3.3	--

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT , 1981								
01...	2115	--	--	188	.26	20	.400	1.3
01...	2215	--	--	226	.31	12	.300	9.2
01...	2315	--	--	202	.27	6	.300	2.7
02...	0007	--	--	146	.20	20	.400	1.3
02...	0206	--	--	180	.24	18	.300	3.4
02...	0406	--	--	168	.23	26	.300	1.3
02...	0806	--	--	168	.23	4	.700	.60
02...	1006	--	--	162	.22	22	.600	9.7
02...	1207	--	--	176	.24	20	1.00	1.1
02...	1407	--	--	96	.13	20	.400	1.7
06-06	--	1010	1100	204	.28	10	.100	1.0
18...	1923	--	--	190	.26	6	.100	7.0
18...	2125	--	--	152	.21	4	.100	9.1
18...	2325	--	--	16	.02	6	.100	1.4
19...	0125	--	--	104	.14	6	.700	.80
19...	0325	--	--	166	.23	6	2.00	1.0
19...	0525	--	--	228	.31	12	2.20	2.3
19...	0759	--	--	166	.23	32	.100	4.3
19...	0959	--	--	196	.27	24	.100	1.4
19...	1159	--	--	178	.24	14	.100	2.4
20-20	--	1000	1100	182	.25	33	.300	3.6
23-23	--	415	1830	158	.21	20	.100	6.9
23-24	--	1830	1140	212	.29	18	.100	.60
NOV								
03-04	--	1900	1500	310	.42	62	.100	.70
05...	2124	--	--	130	.18	12	.100	4.6
05...	2254	--	--	142	.19	4	.100	2.8
05...	2354	--	--	158	.21	16	.100	5.6
06...	0154	--	--	158	.21	14	.100	1.0
06...	0254	--	--	172	.23	12	.300	3.8
06...	0354	--	--	158	.21	18	.100	7.1
06...	0454	--	--	140	.19	22	.100	3.1
06...	0554	--	--	128	.17	16	.100	3.6
06...	0654	--	--	152	.21	20	.100	3.5
06...	0854	--	--	164	.22	20	.100	2.1
06...	1206	--	--	214	.29	30	.100	1.1
06...	1406	--	--	188	.26	30	.100	8.8
06...	1601	--	--	164	.22	128	.100	7.4
18-18	--	1200	1500	166	.23	42	.100	1.7
DEC								
01...	0957	--	--	152	.21	<1	.300	.60
01...	1357	--	--	134	.18	<1	--	--
01...	1457	--	--	154	.21	<1	.100	.40
01...	1557	--	--	146	.20	<1	.100	1.4
01...	1654	--	--	130	.18	<1	--	--
01...	1751	--	--	114	.16	<1	.300	.70
01...	1851	--	--	128	.17	4	--	--
01...	1951	--	--	174	.24	8	--	--
01...	2051	--	--	162	.22	12	--	--
01...	2151	--	--	176	.24	4	--	--
01...	2306	--	--	178	.24	8	.100	4.2
02...	0021	--	--	168	.23	6	.300	5.0
02...	0136	--	--	166	.23	2	.100	2.5
02...	0251	--	--	118	.16	2	--	--
02...	0406	--	--	120	.16	6	.100	2.0
02...	0521	--	--	156	.21	4	.100	1.0
02...	0636	--	--	158	.21	2	--	--
02...	0751	--	--	156	.21	10	.300	.40
02...	0931	--	--	170	.23	6	.100	.80
02...	1350	--	--	170	.23	4	.100	3.6
02...	1804	--	--	186	.25	6	.300	13
02...	2204	--	--	208	.28	4	.100	2.9
03...	0204	--	--	218	.30	8	.100	2.2
03...	0604	--	--	192	.26	12	.100	1.0
14...	1546	--	--	138	.19	2	.100	3.5
14...	1846	--	--	124	.17	2	.100	2.4
14...	2146	--	--	116	.16	12	.100	2.4
14...	2348	--	--	122	.17	8	.100	2.9
15...	0118	--	--	136	.18	2	.100	4.5
15...	0418	--	--	142	.19	10	.100	2.5
15...	0618	--	--	148	.20	10	.100	3.2
15...	1215	--	--	210	.29	18	.100	3.5
15...	1346	--	--	192	.26	22	.100	4.1
15...	2239	--	--	180	.24	20	1.40	52
16...	1032	--	--	176	.24	28	1.40	47
16...	2232	--	--	200	.27	28	1.40	48
17...	1032	--	--	234	.32	12	1.40	42
17...	1756	--	--	344	.47	14	.100	4.1
18...	0228	--	--	400	.54	22	.300	4.1
28-29	--	1900	1500	376	.51	14	.100	1.4

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
DEC , 1981										
28-29	1500	1900	1500	350	.48	34	[illegible]100	--	--	5.5
JAN , 1982										
25-26	--	1900	1500	210	.29	5	[illegible]400	.100	.13	.90
31-31	--	2020	612	350	.48	22	[illegible]400	--	--	3.5
FEB										
01-02	--	2020	612	350	.48	22	[illegible]400	--	--	3.5
02-05	--	1820	1020	<1	--	54	[illegible]300	--	--	2.2
09...	0439	--	--	202	.27	30	1[illegible]10	--	--	9.9
09...	0839	--	--	214	.29	38	[illegible]600	--	--	10
09...	1239	--	--	174	.24	38	[illegible]600	--	--	9.4
09...	1639	--	--	226	.31	40	[illegible]600	--	--	12
09...	2039	--	--	188	.26	34	[illegible]800	--	--	6.2
10...	0039	--	--	184	.25	34	[illegible]600	--	--	3.1
10...	0439	--	--	240	.33	16	[illegible]600	--	--	12
16-17	--	1940	1040	252	.34	--	[illegible]300	--	--	3.6
17-18	--	1340	941	274	.37	--	[illegible]300	--	--	4.1
23-24	--	1900	1500	212	.29	<1	[illegible]300	--	--	4.5
MAR										
06-07	--	1830	426	292	.40	2	[illegible]010	--	--	3.8
07-09	--	636	1030	218	.30	14	[illegible]300	--	--	4.3
09-10	--	1600	1400	158	.21	14	[illegible]300	--	--	3.6
16-18	--	1600	600	238	.32	1	[illegible]300	--	--	3.4
18-19	--	758	801	210	.29	23	[illegible]600	--	--	3.1
23-24	--	1600	1400	217	.30	6	[illegible]600	--	--	3.5
25-25	--	236	1340	196	.27	16	[illegible]300	--	--	3.1
26-26	--	357	1360	196	.27	16	[illegible]300	--	--	3.1
31-31	--	748	1350	234	.32	14	[illegible]400	--	--	1.0
APR										
01-01	--	748	1350	234	.32	14	[illegible]400	--	--	1.0
01-02	--	1550	949	224	.30	24	[illegible]300	--	--	3.6
03-04	--	643	1440	264	.36	9	[illegible]300	--	--	4.1
04-05	--	1440	743	264	.36	9	[illegible]300	--	--	3.9
JUL										
15-16	--	1200	900	210	.29	9	1[illegible]40	--	--	11

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT , 1981						
01...	2115	--	--	1.70	<.010	.070
01...	2215	--	--	9.50	<.010	.060
01...	2315	--	--	3.00	<.010	.070
02...	0007	--	--	1.70	<.010	.050
02...	0206	--	--	3.70	<.010	.060
02...	0406	--	--	1.60	<.010	.060
02...	0806	--	--	1.30	<.010	.040
02...	1006	--	--	10.3	<.010	.050
02...	1207	--	--	2.10	<.010	.380
02...	1407	--	--	2.10	<.010	.090
06-06	--	1010	1100	1.10	<.010	.030
18...	1923	--	--	7.10	<.010	<.010
18...	2125	--	--	9.20	<.010	<.010
18...	2325	--	--	1.50	<.010	<.010
19...	0125	--	--	1.50	<.010	.210
19...	0325	--	--	3.00	<.010	.070
19...	0525	--	--	4.50	<.010	.070
19...	0759	--	--	4.40	<.010	.370
19...	0959	--	--	1.50	<.010	.070
19...	1159	--	--	2.50	<.010	.080
20-20	--	1000	1100	3.90	<.010	.070
23-23	--	415	1830	7.00	<.010	.060
23-24	--	1830	1140	.70	<.010	.060
NOV						
03-04	--	1900	1500	.80	<.010	<.010
05...	2124	--	--	4.70	<.010	<.010
05...	2254	--	--	2.90	<.010	<.010
05...	2354	--	--	5.70	<.010	<.010
06...	0154	--	--	1.10	<.010	<.010
06...	0254	--	--	4.10	<.010	<.010
06...	0354	--	--	7.20	<.010	<.010
06...	0454	--	--	3.20	<.010	<.010
06...	0554	--	--	3.70	<.010	<.010
06...	0654	--	--	3.60	<.010	<.010
06...	0854	--	--	2.20	<.010	<.010
06...	1206	--	--	1.20	<.010	<.010
06...	1406	--	--	8.90	<.010	<.010
06...	1601	--	--	7.50	<.010	<.010
18-18	--	1200	1500	1.80	<.010	<.010
DEC						
01...	0957	--	--	.90	<.010	<.010
01...	1357	--	--	--	<.010	<.010
01...	1457	--	--	.50	<.010	<.010
01...	1557	--	--	1.50	<.010	<.010
01...	1654	--	--	--	<.010	<.010
01...	1751	--	--	1.00	<.010	<.010
01...	1851	--	--	--	<.010	<.010
01...	1951	--	--	--	<.010	<.010
01...	2051	--	--	--	<.010	<.010
01...	2151	--	--	--	<.010	<.010
01...	2306	--	--	4.30	<.010	<.010
02...	0021	--	--	5.30	<.010	<.010
02...	0136	--	--	2.60	<.010	<.010
02...	0251	--	--	--	<.010	<.010
02...	0406	--	--	2.10	<.010	<.010
02...	0521	--	--	1.10	<.010	<.010
02...	0636	--	--	--	<.010	<.010
02...	0751	--	--	.70	<.010	.010
02...	0931	--	--	.90	<.010	<.010
02...	1350	--	--	3.70	<.010	<.010
02...	1804	--	--	13.7	<.010	<.010
02...	2204	--	--	3.00	<.010	<.010
03...	0204	--	--	2.30	<.010	<.010
03...	0604	--	--	1.10	<.010	<.010
14...	1546	--	--	3.60	<.010	<.010
14...	1846	--	--	2.50	<.010	<.010
14...	2146	--	--	2.50	<.010	<.010
14...	2348	--	--	3.00	<.010	<.010
15...	0118	--	--	4.60	<.010	<.010
15...	0418	--	--	2.60	<.010	<.010
15...	0618	--	--	3.30	<.010	<.010
15...	1215	--	--	3.60	<.010	<.010
15...	1346	--	--	4.20	<.010	<.010
15...	2239	--	--	53.0	<.010	<.010
16...	1032	--	--	48.0	<.010	<.010
16...	2232	--	--	49.0	<.010	<.010
17...	1032	--	--	43.0	<.010	.010
17...	1756	--	--	4.20	<.010	<.010
18...	0228	--	--	4.40	<.010	<.010
28-29	--	1900	1500	1.50	<.010	<.010

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
DEC , 1981								
28-29	1500	1900	1500	5.60	--	<.010	<.010	--
JAN , 1982								
25-26	--	1900	1500	1.30	.70	<.010	<.010	<.010
31-31	--	2020	612	3.90	--	<.001	.040	--
FEB								
01-02	--	2020	612	3.90	--	<.001	.040	--
02-05	--	1820	1020	2.50	--	.007	.180	--
09...	0439	--	--	11.0	--	<.010	.070	--
09...	0839	--	--	11.0	--	<.010	<.070	--
09...	1239	--	--	10.0	--	<.010	.060	--
09...	1639	--	--	13.0	--	<.010	.060	--
09...	2039	--	--	7.00	--	<.010	.050	--
10...	0039	--	--	3.70	--	<.010	.060	--
10...	0439	--	--	13.0	--	<.010	.060	--
16-17	--	1940	1040	3.90	--	<.010	.050	--
17-18	--	1340	941	4.40	--	<.010	<.010	--
23-24	--	1900	1500	4.80	--	.040	.070	--
MAR								
06-07	--	1830	426	3.80	--	<.010	<.010	--
07-09	--	636	1030	4.60	--	<.010	.040	--
09-10	--	1600	1400	3.90	--	<.010	.050	--
16-18	--	1600	600	3.70	--	<.010	<.010	--
18-19	--	758	801	3.70	--	<.010	<.010	--
23-24	--	1600	1400	4.10	--	<.010	<.010	--
25-25	--	236	1340	3.40	--	<.010	.030	--
26-26	--	357	1360	3.40	--	<.010	.030	--
31-31	--	748	1350	1.40	--	<.010	<.010	--
APR								
01-01	--	748	1350	1.40	--	<.010	<.010	--
01-02	--	1550	949	3.90	--	<.010	<.010	--
03-04	--	643	1440	4.40	--	<.010	.030	--
04-05	--	1440	743	4.20	--	.010	.030	--
JUL								
15-16	--	1200	900	12.0	--	<.010	<.010	--

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
OCT , 1981											
01...	2115	--	--	<5	<10	<10	50	<20	<5	30	18
01...	2215	--	--	<5	<10	<10	40	<20	<5	6.7	17
01...	2315	--	--	<5	<10	<10	40	<20	<5	14	18
02...	0007	--	--	<5	<10	<10	170	<20	20	25	12
02...	0206	--	--	<5	<10	<10	180	<20	<5	6.0	18
02...	0406	--	--	<5	<10	<10	230	30	<5	5.8	17
02...	0806	--	--	<5	<10	<10	230	<20	<5	4.0	17
02...	1006	--	--	<5	<10	<10	350	<20	<5	4.5	17
02...	1207	--	--	<5	<10	<10	540	<20	<5	2.8	18
02...	1407	--	--	<5	<10	<10	1200	60	<5	3.9	18
06-06	--	1010	1100	<5	<10	<10	220	30	<5	2.2	18
18...	1923	--	--	<5	<10	<10	310	60	10	4.7	20
18...	2125	--	--	<5	<10	<10	230	20	10	2.7	20
18...	2325	--	--	<5	<10	<10	300	30	10	2.5	20
19...	0125	--	--	<5	<10	<10	360	<2	20	2.6	22
19...	0325	--	--	<5	<10	<10	480	<20	20	5.0	22
19...	0525	--	--	<5	<10	<10	480	20	10	2.5	22
19...	0759	--	--	<5	<10	30	520	50	20	1.6	21
19...	0959	--	--	<5	<10	20	500	<20	<5	1.7	22
19...	1159	--	--	<5	<10	30	520	30	10	3.0	22
20-20	--	1000	1100	<5	<10	10	615	30	<5	2.7	19
23-23	--	415	1830	<5	<10	<10	240	20	<5	2.5	11
23-24	--	1830	1140	<5	<10	<10	290	<20	<5	.6	22
NOV											
03-04	--	1900	1500	<5	10	<10	350	80	10	1.7	5.0
05...	2124	--	--	<5	<10	50	310	<20	<5	3.8	18
05...	2254	--	--	<5	<10	720	310	<20	<5	3.8	15
05...	2354	--	--	<5	<10	10	280	<20	5	6.0	18
06...	0054	--	--	<5	<10	<10	310	<20	<5	3.3	19
06...	0154	--	--	<5	<10	30	340	<20	<5	4.1	19
06...	0254	--	--	<5	<10	20	350	<20	<5	2.6	20
06...	0354	--	--	<5	<10	10	350	<20	<5	8.3	19
06...	0454	--	--	<5	<10	60	360	<20	<5	3.0	19
06...	0554	--	--	<5	<10	30	310	<20	<5	2.6	19
06...	0654	--	--	<5	<10	60	350	<20	<5	3.0	19
06...	0854	--	--	<5	<10	<10	350	<20	<5	6.7	19
06...	1206	--	--	<5	<10	80	520	<20	<5	<.1	20
06...	1406	--	--	<5	<10	290	500	<20	<5	2.2	20
06...	1601	--	--	<5	<10	10	490	<20	<5	3.0	19
18-18	--	1200	1500	<5	<10	<10	570	<20	10	4.4	<.1

01589452 JONES FALLS AT LAKE ROLAND DAM NEAR BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
DEC , 1981									
01...	0957	<5	<10	<10	210	<20	<5	2.0	19
01...	1357	--	--	--	--	--	--	1.8	19
01...	1457	<5	<10	<10	190	<20	<5	2.3	19
01...	1557	<5	10	<10	200	<20	<5	2.2	19
01...	1654	--	--	--	--	--	--	1.4	20
01...	1751	<5	<10	<10	190	<20	<5	1.2	19
01...	1851	--	--	--	--	--	--	1.1	19
01...	1951	--	--	--	--	--	--	2.2	19
01...	2051	--	--	--	--	--	--	4.1	18
01...	2151	--	--	--	--	--	--	.6	19
01...	2306	<5	<10	<10	210	<20	<5	1.0	19
02...	0021	<5	<10	<10	220	<20	<5	3.2	13
02...	0136	<5	<10	<10	300	<20	10	3.1	13
02...	0251	--	--	--	--	--	--	1.2	13
02...	0406	<5	<10	<10	250	<20	<5	1.0	13
02...	0521	<5	<10	<10	230	<20	<5	<.1	14
02...	0636	--	--	--	--	--	--	<.1	13
02...	0751	<5	<10	<10	250	<20	<5	<.1	14
02...	0931	<5	<10	<10	200	<20	<5	<.1	15
02...	1350	<5	<10	<10	210	<20	10	.3	21
02...	1804	<5	<10	<10	210	<20	10	.6	21
02...	2204	<5	<10	<10	220	<20	<5	.8	21
03...	0204	<5	<10	<10	240	<20	1	1.0	20
03...	0604	<5	<10	<10	290	<20	1	16	19
14...	1546	<5	<10	<10	190	<20	<5	3.6	19
14...	1846	<5	<10	<10	220	<20	<5	8.3	19
14...	2146	<5	<10	<10	180	<20	<5	2.0	19
14...	2348	<5	<10	<10	190	<20	<5	3.0	19
15...	0118	<5	<10	<10	190	<20	<5	4.1	19
15...	0418	<5	<10	<10	200	<20	<5	5.0	19
15...	0618	<5	<10	<10	230	<20	<5	2.7	19
15...	1215	<5	<10	30	190	<20	<5	2.8	9.2
15...	1346	<5	<10	10	180	<20	<5	3.0	21
15...	2239	<5	<10	<10	160	<20	<5	3.7	22
16...	1032	<5	<10	<10	160	<20	<5	2.4	21
16...	2232	<5	<10	<10	160	<20	<5	13	21
17...	1032	<5	<10	<10	170	<20	<5	2.6	20
17...	1756	<5	<10	<10	120	<20	20	3.2	19
18...	0228	<5	<10	<10	140	<20	10	4.9	16

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
DEC , 1981											
28-29	--	1900	1500	<5	<10	<10	130	<20	10	.6	11
28-29	1500	1900	1500	<5	<10	<10	130	<20	10	3.5	13
JAN , 1982											
25-26	--	1900	1500	<5	<10	<10	--	<20	30	2.1	21
31-31	--	2020	612	<5	<10	<10	320	220	40	3.0	18
FEB											
01-02	--	2020	612	<5	<10	<10	320	220	40	3.0	18
02-05	--	1820	1020	<5	<10	<10	1500	20	50	4.5	7.3
09...	0439	--	--	<5	<10	<10	250	<20	30	.2	14
09...	0839	--	--	<5	<10	<10	240	<20	20	4.7	14
09...	1239	--	--	<5	<10	<10	180	20	20	3.9	18
09...	1639	--	--	<5	<10	<10	180	<20	<5	4.0	16
09...	2039	--	--	<5	<10	<10	180	<20	10	3.2	19
10...	0039	--	--	<5	<10	<10	170	<20	<5	18	16
10...	0439	--	--	<5	10	<10	70	<20	<5	3.9	15
16-17	--	1940	1040	<5	<10	<10	--	--	<5	1.0	--
17-18	--	1340	941	<5	<10	<10	--	--	--	5.5	--
23-24	--	1900	1500	<5	--	<10	--	<20	--	1.9	17
MAR											
06-07	--	1830	426	<5	<10	<10	210	<20	20	<.1	19
07-09	--	636	1030	<5	<10	<10	330	<20	<5	3.9	18
09-10	--	1600	1400	<5	<10	<10	--	--	--	4.4	--
16-18	--	1600	600	<5	<10	20	350	<20	<5	17	20
18-19	--	758	801	<5	<10	<10	470	<20	<5	5.0	20
23-24	--	1600	1400	<5	<10	<10	610	<20	30	1.3	21
25-25	--	236	1340	<5	<10	<10	430	<20	<5	<.1	21
26-26	--	357	1360	<5	<10	<10	430	<20	<5	<.1	21
31-31	--	748	1350	<5	<10	<10	300	<20	<5	4.3	22
APR											
01-01	--	748	1350	<5	<10	<10	300	<20	<5	4.3	22
01-02	--	1550	949	<5	<10	<10	290	<20	<5	2.6	22
03-04	--	643	1440	<5	<10	<10	310	<20	<5	1.6	21
04-05	--	1440	743	<5	<10	<10	360	<20	<5	1.7	20
JUL											
15-16	--	1200	900	<5	<10	<10	110	<20	<5	22	18

01589455 MOUNT WASHINGTON STORM SEWER AT BALTIMORE, MD

LOCATION.--Lat 39°21'41", long 76°40'43", Baltimore City, Hydrologic Unit 02060003, on Cross County Boulevard, 150 ft (46 m) west of intersection of Cross Country Boulevard and Glen Avenue.

DRAINAGE AREA.--0.03 mi^2 (0.08 km^2).

PERIOD OF RECORD.--February 1981 to May 1982 (discontinued).

COOPERATION.--Chemical data were furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO MAY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	PH LAB (UNITS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT , 1981											
06...	1026	--	--	.01	--	34	--	300	70	1.00	8.4
06...	1032	--	--	.02	--	22	--	300	22	1.30	4.5
18...	1154	--	--	.02	--	3.8	<5	--	6	.100	1.7
18...	1231	--	--	.02	--	4.0	<5	--	4	.100	5.3
18...	1309	--	--	.02	--	4.4	<5	--	4	.400	7.0
18...	1347	--	--	.02	--	4.0	<5	--	4	.100	2.9
18...	1757	--	--	.55	--	56	650	--	240	1.50	9.4
18...	1803	--	--	.68	--	44	--	390	108	1.10	12
18...	1810	--	--	.43	--	42	360	--	60	1.00	14
18...	1819	--	--	.32	--	22	--	300	44	.800	11
18...	1826	--	--	.55	--	18	--	290	32	.400	6.0
18...	1833	--	--	.43	--	18	--	270	22	.700	8.0
18...	1841	--	--	.23	--	20	--	220	20	.700	3.9
18...	1851	--	--	.15	--	20	--	290	35	.400	11
18...	1914	--	--	.09	--	7.8	--	170	12	.400	9.2
18...	1944	--	--	.05	--	5.8	--	140	4	.300	1.3
18...	2013	--	--	.05	--	6.4	--	150	6	.100	2.4
18...	2043	--	--	.05	--	5.6	--	160	2	.300	2.5
23-23	--	736	746	--	7.0	20	--	120	22	.100	2.1
23-24	--	1730	509	--	7.6	7.2	--	100	26	.100	6.9
NOV											
05...	2203	--	--	.09	--	29	--	80	30	.100	4.1
05...	2225	--	--	.15	--	29	--	120	54	.100	5.6
05...	2255	--	--	.23	--	--	--	140	--	1.50	3.9
06...	0100	--	--	2.3	--	47	--	190	172	.100	12
06...	0106	--	--	2.7	--	34	--	160	104	.300	11
06...	0112	--	--	2.7	--	33	--	160	62	.100	6.9
DEC											
01...	1129	--	--	.15	--	12	--	330	22	.100	2.9
01...	1200	--	--	.68	--	25	--	340	68	.800	15
01...	1220	--	--	.55	--	14	--	--	--	--	--
01...	1255	--	--	.55	--	14	--	170	18	.100	4.1
01...	1329	--	--	.55	--	8.3	--	--	24	--	--
01...	1354	--	--	.43	--	14	--	--	14	--	--
01...	1420	--	--	.43	--	6.4	--	150	--	1.80	--
01...	1430	--	--	.98	--	13	--	130	16	.100	6.6
01...	1440	--	--	.55	--	18	--	71	32	.100	8.1
01...	1455	--	--	.15	--	18	--	--	18	--	--
01...	1609	--	--	.09	--	18	--	170	8	.100	4.6
01...	1658	--	--	.55	--	13	--	140	14	.100	3.9
01...	1715	--	--	.43	--	23	--	210	20	.100	3.5

01589455 MOUNT WASHINGTON STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO MAY 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	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)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
DEC . 1981										
01...	1757	.23	19	--	--	4	--	--	--	.080
01...	1903	.55	18	--	150	22	<.100	2.9	3.00	.090
01...	1920	.43	17	--	--	18	--	--	--	.070
01...	1941	.23	17	--	--	4	--	--	--	.010
01...	2004	.15	17	--	180	10	<.100	6.4	6.50	<.010
01...	2057	.09	5.2	--	--	2	--	--	--	<.010
01...	2157	2.5	65	--	280	228	<.300	11	11.0	<.010
01...	2206	2.4	50	--	--	76	--	--	--	<.010
01...	2216	1.1	28	--	170	28	<.300	5.2	5.50	.090
01...	2227	2.0	25	--	130	14	<.100	2.1	2.20	.060
01...	2300	1.1	15	--	110	16	<.300	1.1	1.40	.060
01...	2325	.55	12	--	--	12	--	--	--	.060
01...	2356	.32	5.5	--	85	2	<.300	.70	1.00	<.010
02...	0032	.15	5.6	--	--	10	--	--	--	<.010
02...	0159	.09	1.9	--	110	12	<.300	5.9	6.20	<.010
02...	0340	.05	1.3	--	--	16	--	--	--	<.010
02...	0529	.05	.60	--	--	4	--	--	--	<.010
14...	1434	.09	17	--	270	38	<.100	3.5	3.60	<.010
14...	1546	.15	20	--	250	36	<.100	4.9	5.00	.120
14...	1729	.43	24	--	68	12	<.300	7.7	8.00	.080
14...	1809	.68	28	--	320	102	<.300	4.8	5.10	.070
14...	1932	.55	16	--	250	10	<.100	6.0	6.10	.070
14...	1950	.55	23	41	--	42	<.100	6.4	6.50	.070
14...	2101	.15	20	--	270	10	<.100	4.6	4.70	.060
14...	2309	.15	16	--	390	10	<.100	4.6	4.70	.050
15...	0039	.43	17	--	320	4	<.100	5.2	5.30	.050
15...	0135	.20	15	--	320	4	<.100	3.5	3.60	.050
FEB . 1982										
02...	1917	.05	62	16	--	60	<.800	12	13.0	.130
02...	2026	.23	56	16	--	36	<.300	4.1	4.40	.150
02...	2130	.98	66	24	--	71	<.300	4.3	4.60	.110
02...	2229	1.6	64	16	--	86	<.300	5.0	5.30	.100
03...	0002	.98	32	16	--	19	<.300	3.8	4.10	.060
03...	0255	.23	14	45	--	12	<.400	2.8	3.20	.050
03...	0416	.82	42	45	--	27	<.300	3.5	3.80	.050
03...	0616	.15	4.7	--	82	2	<.600	4.8	5.40	<.010
03...	0744	1.8	160	130	130	378	<.300	7.6	7.90	.040
03...	0926	1.3	68	24	--	65	<.300	4.9	5.20	.040
03...	1131	1.6	42	24	--	44	<.300	4.1	4.40	.040
03...	1254	.98	28	24	--	26	<.300	1.7	2.00	<.010
03...	1433	.82	22	31	--	15	<.300	3.2	3.50	<.010
03...	1810	.15	22	--	82	15	<.300	4.8	5.10	<.010
17...	1048	.05	1.5	12	--	310	<.400	4.2	4.60	<.010
17...	1215	.09	130	110	--	186	<.400	7.0	7.40	.090
17...	1256	.68	110	77	77	66	<.300	6.6	6.90	.160
17...	1344	.15	29	48	--	2	<.400	5.7	6.10	.060
17...	1445	.09	13	48	--	<1	<.300	2.7	3.00	.040
17...	1548	.22	14	41	--	1720	<.300	4.9	5.20	<.010
MAY										
19...	1656	1.3	160	--	310	380	1.40	12	13.0	.140
19...	1724	2.4	140	--	260	220	1.40	7.3	8.70	.130
19...	1733	2.9	160	--	280	120	1.40	11	12.0	.140
19...	1746	.55	140	--	290	240	1.30	6.2	7.50	.180
19...	1823	.05	71	--	330	100	1.10	7.1	8.20	.140
19...	1912	.02	45	--	310	70	1.00	4.6	5.60	.070
19...	2003	.02	38	--	310	50	2.40	5.6	8.00	.080
19...	2120	.02	26	--	320	30	<.400	5.7	6.10	.110

01589455 MOUNT WASHINGTON STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO MAY 1982

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
OCT , 1981											
06...	9.40	.090	.430	<5	<10	20	950	210	190	29	4.6
06...	5.80	.150	.440	<5	<10	<10	220	110	100	43	7.8
18...	1.80	<.010	<.010	<5	<10	<10	<10	20	<5	.7	5.6
18...	5.40	<.010	<.010	<5	<10	<10	<10	40	<5	1.0	8.0
18...	7.40	<.010	<.010	<5	<10	<10	<10	<20	<5	.8	7.8
18...	3.00	<.010	<.010	<5	<10	<10	<10	20	<5	.5	7.8
18...	10.9	<.010	3.40	<5	<10	20	2200	480	390	32	11
18...	13.4	<.010	1.20	<5	<10	<10	1100	230	170	33	12
18...	15.4	<.010	.850	<5	<10	20	900	180	170	30	13
18...	12.1	.060	.580	<5	<10	20	500	140	120	21	12
18...	6.40	.110	1.00	<5	<10	10	370	90	100	17	9.4
18...	8.70	.210	.530	<5	<10	10	420	60	120	17	9.5
18...	4.60	.150	.530	<5	<10	10	350	60	70	19	11
18...	11.3	.080	.530	<5	<10	20	320	60	80	24	12
18...	9.60	.110	.260	<5	<10	20	140	40	60	11	12
18...	1.60	.050	.110	<5	<10	30	70	60	40	6.3	9.1
18...	2.50	.050	.110	<5	<10	30	80	50	40	7.9	9.5
18...	2.80	<.010	.070	<5	<10	30	30	40	20	8.3	2.9
23-23	2.20	<.010	.170	<5	<10	<10	200	60	30	25	9.1
23-24	7.00	<.010	.090	<5	<10	<10	130	60	20	7.2	9.1
NOV											
05...	4.20	.070	.200	<5	<10	160	130	60	50	18	7.1
05...	5.70	.100	.480	<5	<10	80	370	90	80	35	8.0
05...	5.40	--	--	<5	<10	80	180	90	110	19	12
06...	11.7	.170	1.10	<5	<10	130	1900	240	220	52	5.9
06...	11.8	.300	1.10	<5	<10	40	1000	100	130	55	3.6
06...	7.00	.230	.730	<5	<10	320	760	40	80	67	3.4
DEC											
01...	3.00	.220	.300	<5	<10	20	200	40	40	19	14
01...	16.0	.670	4.80	<5	<10	20	430	80	90	78	9.3
01...	--	--	--	--	--	--	--	--	--	32	--
01...	4.20	.220	.360	<5	<10	10	150	40	40	21	11
01...	--	.200	--	--	--	--	--	--	--	20	6.1
01...	--	.170	--	--	--	--	--	--	--	18	6.4
01...	--	.160	.100	<5	<10	20	100	20	50	17	7.1
01...	6.70	.140	.280	<5	<10	10	150	30	40	17	6.3
01...	8.20	.170	2.20	<5	<10	20	410	70	150	21	6.4
01...	--	.140	--	--	--	--	--	--	--	16	6.4
01...	4.70	<.010	.100	<5	<10	20	70	<20	30	10	8.5
01...	4.00	.080	.250	<5	<10	10	150	30	30	17	6.3
01...	3.60	.110	.220	<5	<10	20	200	40	40	17	6.6

01589455 MOUNT WASHINGTON STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO MAY 1982

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
DEC , 1981									
01...	--	--	--	--	--	--	--	14	7.6
01...	.220	<5	<10	10	210	20	30	16	5.9
01...	--	--	--	--	--	--	--	16	6.4
01...	--	--	--	--	--	--	--	12	7.6
01...	.110	<5	<10	10	130	<20	20	15	7.8
01...	--	--	--	--	--	--	--	3.6	9.4
01...	.320	<5	<10	30	1800	180	160	43	6.3
01...	--	--	--	--	--	--	--	16	3.5
01...	.190	<5	<10	<10	340	30	30	1.6	4.6
01...	.200	<5	<10	<10	200	20	20	15	3.7
01...	.160	<5	<10	10	170	<20	20	2.8	5.5
01...	--	--	--	--	--	--	--	2.9	6.6
01...	.070	<5	<10	10	60	20	20	1.5	8.6
02...	--	--	--	--	--	--	--	2.3	9.8
02...	.060	<5	<10	10	30	<20	10	.7	7.0
02...	--	--	--	--	--	--	--	.1	9.6
02...	--	--	--	--	--	--	--	<.1	9.9
14...	.190	<5	<10	<10	420	90	70	15	5.4
14...	.260	<5	<10	10	260	50	80	12	4.9
14...	.170	<5	<10	<10	280	50	40	11	3.2
14...	.290	10	<10	20	430	100	100	13	3.0
14...	.160	<5	<10	10	250	30	30	5.4	3.1
14...	.160	<5	10	<10	280	40	30	13	5.1
14...	.100	<5	<10	10	160	<20	30	5.3	4.4
14...	.100	<5	<10	<10	150	<20	30	9.1	5.0
15...	.090	<5	<10	<10	150	<20	10	1.9	6.3
15...	.070	<5	<10	<10	100	<20	10	3.0	8.4
FEB , 1982									
02...	.270	<5	10	40	1300	120	90	17	6.8
02...	.210	<5	30	20	1000	90	70	22	4.5
02...	.310	<5	20	30	1300	140	90	9.8	2.6
02...	.260	<5	30	20	1300	20	110	6.8	2.4
03...	.160	<5	10	<10	440	<20	40	3.5	1.7
03...	.090	<5	10	<10	270	<20	30	4.6	3.1
03...	.160	<5	<10	10	550	<20	60	3.3	2.5
03...	<.010	<5	<10	10	50	<20	310	1.7	1.1
03...	1.10	<5	10	40	4300	480	290	54	5.5
03...	.220	<5	<10	30	990	60	70	3.6	1.9
03...	.170	<5	<10	10	780	70	60	4.8	3.1
03...	.120	<5	<10	<10	620	50	50	9.3	3.5
03...	.100	<5	<10	<10	420	<20	30	10	4.9
03...	.090	<5	<10	10	520	<20	50	3.8	--
17...	<.010	<5	<10	<10	60	<20	20	<.1	6.1
17...	.550	<5	20	40	1800	450	230	19	4.0
17...	.880	<5	<10	30	1500	190	120	16	3.6
17...	.110	<5	<10	40	480	50	170	4.8	4.0
17...	.060	<5	<10	10	230	<20	20	3.0	8.8
17...	.060	<5	<10	10	260	<20	20	3.1	7.6
MAY									
19...	.630	<5	10	40	3400	170	200	19	16
19...	.540	<5	<10	40	2600	100	140	6.1	4.9
19...	.460	<5	<10	30	2500	80	130	<.1	3.6
19...	.510	<5	<10	30	2800	80	130	6.3	5.4
19...	.320	<5	<10	40	1300	50	110	2.3	10
19...	.170	<5	<10	50	710	30	80	1.7	17
19...	.250	<5	<10	60	560	60	90	2.7	19
19...	.290	<5	<10	70	370	50	110	4.0	24

01589460 HAMPDEN STORM SEWER AT BALTIMORE, MD

LOCATION.--Lat 39°19'42", long 76°37'52", Baltimore City, Hydrologic Unit 02060003, on east side of Elm Street about 10 ft (3 m) north of intersection of 34th and Elm Streets.

DRAINAGE AREA.--0.02 mi² (0.05 km²).

PERIOD OF RECORD.--May 1981 to September 1982 (discontinued).

COOPERATION.--Chemical data for period May-September 1982 furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL, (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT , 1981												
18...	1807	--	--	2.3	56	--	560	--	--	--	178	2.50
18...	1814	--	--	2.3	36	--	260	--	--	--	6	1.40
18...	1834	--	--	.95	16	--	200	--	--	--	40	1.30
18...	1854	--	--	.87	18	--	180	--	--	--	20	1.10
18...	2002	--	--	.80	20	--	140	--	--	--	10	.700
18...	2032	--	--	.40	34	--	200	--	--	--	20	.700
18...	2132	--	--	.01	18	--	150	--	--	--	20	.700
18...	2232	--	--	.01	5.8	--	110	--	--	--	8	.100
23-23	--	907	1540	--	46	--	180	--	--	--	76	.600
23-24	--	1720	415	--	14	--	83	--	--	--	24	.100
DEC												
01-02	--	1140	41	--	16	7	--	--	--	--	38	.600
14-14	--	1410	2250	--	12	34	--	--	--	--	14	.400
MAR , 1982												
06-07	--	823	1310	--	35	--	57	--	--	--	70	.800
16-16	--	1450	2130	--	77	--	67	--	--	--	66	.700
APR												
03-03	--	530	1550	--	23	32	--	--	--	--	49	.400
26-26	--	724	1340	--	19	17	--	--	--	--	38	.700
JUN												
16-17	--	1740	133	--	34	--	440	350000	130000	180000	44	.800
JUL												
20-20	--	1410	1520	--	--	--	--	540000	110000	410000	--	--
30...	1600	--	--	--	--	--	--	230000	230000	540000	--	--
30...	1628	--	--	--	--	--	--	23000	23000	300000	--	--
AUG												
21-21	--	218	317	--	19	--	140	130000	79000	33000	25	1.50
SEP												
02-02	--	2150	2340	--	28	--	150	350000	240000	540000	62	1.10

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
OCT , 1981												
18...	14	17.0	.080	1.50	<5	<10	180	2400	780	920	110	8.3
18...	4.8	6.20	.190	.690	<5	<10	70	950	290	450	40	5.1
18...	5.5	6.80	.220	.580	<5	<10	40	560	140	330	37	5.0
18...	9.9	11.0	.240	.510	<5	<10	30	390	120	250	32	5.0
18...	3.2	3.90	.190	.400	<5	<10	20	240	90	190	20	14
18...	15	16.0	.250	.450	<5	<10	30	370	120	240	30	4.6
18...	2.2	2.90	.280	.380	<5	20	60	190	80	180	41	8.6
18...	1.0	1.10	.090	.160	<5	<10	10	140	40	100	11	11
23-23	13	13.2	.310	.690	<5	<10	40	640	200	270	42	6.0
23-24	1.1	1.20	.070	.160	<5	<10	<10	100	70	100	8.2	7.6
DEC												
01-02	5.9	6.50	.200	.240	<5	<10	30	350	100	200	15	18
14-14	2.4	2.80	<.010	<.010	<5	<10	30	390	110	190	2.4	14
MAR , 1982												
06-07	6.4	7.20	.160	.370	<5	<10	50	610	200	270	4.2	1.5
16-16	6.0	6.70	.080	.400	<5	<10	40	1300	240	310	17	2.7
APR												
03-03	4.3	4.70	.210	.300	<5	<10	40	590	160	280	11	1.3
26-26	5.6	6.30	.150	.240	<5	180	20	170	50	100	7.0	2.0
JUN												
16-17	6.2	7.00	<.010	.290	<5	10	30	38	70	210	20	3.7
JUL												
20-20	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
21-21	7.8	9.30	.150	.380	10	50	360	270	130	280	36	5.3
SEP												
02-02	4.8	5.90	.250	.420	<5	10	80	460	160	250	37	5.6

01589462 HOMELAND STORM SEWER AT BALTIMORE, MD

LOCATION.--Lat 39°21'18", long 76°37'08", Baltimore City, Hydrologic Unit 02060003, at intersection of Enfield Road and Goodale Road.

DRAINAGE AREA.--0.04 mi² (0.09 km²).

PERIOD OF RECORD.--October 1981 to August 1982 (discontinued).

COOPERATION.--Chemical data were furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	PH LAB (UNITS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT , 1981											
23...	1255	--	--	.09	--	22	320	30	.600	5.7	6.30
23...	1329	--	--	.12	--	26	250	46	.500	3.3	3.80
23...	1339	--	--	.18	--	26	280	56	.400	8.8	9.20
23...	1359	--	--	.42	--	46	330	152	5.00	5.4	10.4
23...	1413	--	--	.90	--	26	280	130	1.40	12	12.9
23...	1426	--	--	.90	--	22	240	60	.100	9.1	9.20
23...	1433	--	--	.81	--	18	170	50	.100	3.5	3.60
23...	1448	--	--	.63	--	16	170	56	.100	3.6	3.70
23...	1504	--	--	.54	--	14	160	40	.100	6.7	6.80
23...	1638	--	--	.33	--	16	150	72	.100	6.9	7.00
23-23	--	1240	1640	--	6.9	42	320	50	.100	2.2	2.30
23-24	--	1720	10	--	7.4	22	160	44	.300	6.0	6.30
NOV											
05...	2150	--	--	.42	--	220	250	356	9.90	19	29.4
05...	2226	--	--	.47	--	48	180	116	1.70	11	12.8
05...	2256	--	--	.20	--	22	260	92	.800	10	11.3
05...	2346	--	--	.33	--	22	260	70	1.00	7.4	8.40
06...	0022	--	--	.20	--	20	230	74	.100	5.3	5.40
06...	0115	--	--	.93	--	18	130	44	.100	4.2	4.30
06...	0126	--	--	.93	--	22	110	52	.100	6.7	6.80
06...	0137	--	--	.88	--	20	130	56	.300	10	10.5
06...	0148	--	--	.80	--	12	160	46	.100	5.7	5.80
06...	0203	--	--	.53	--	16	190	52	.100	7.6	7.70
06...	0224	--	--	.80	--	22	160	90	.100	5.2	5.30
06...	0236	--	--	.81	--	16	110	40	.100	12	12.3
06...	0251	--	--	.57	--	9.6	130	30	.100	7.8	7.90
06...	0313	--	--	.36	--	9.0	160	46	.300	7.8	8.10
06...	0415	--	--	.27	--	7.6	190	28	.100	4.8	4.90
06...	0526	--	--	.30	--	6.4	230	38	.100	2.7	2.80
06...	0732	--	--	.20	--	34	270	102	8.30	48	56.0
DEC											
01...	0944	--	--	.01	--	32	250	52	.700	10	10.8
01...	1058	--	--	.33	--	34	270	24	.600	4.1	4.70
01...	1115	--	--	.51	--	24	310	48	--	--	--
01...	1128	--	--	.72	--	28	240	78	.600	4.9	5.50
01...	1200	--	--	.84	--	36	310	132	.600	6.2	6.80
01...	1208	--	--	1.0	--	26	260	98	.600	6.4	7.00
01...	1216	--	--	.93	--	24	190	58	--	--	--
01...	1234	--	--	.75	--	12	210	26	--	--	--
01...	1258	--	--	.81	--	12	220	44	.400	8.0	8.40
01...	1319	--	--	.96	--	20	130	50	.400	7.0	7.40

01589462 HOMELAND STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	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)
DEC , 1981											
01...	1354	--	--	.81	20	--	240	15	--	--	--
01...	1420	--	--	.78	16	--	140	36	--	--	--
01...	1531	--	--	.63	15	--	170	8	.100	6.9	7.00
01...	1615	--	--	.48	14	--	--	14	--	--	--
01...	1700	--	--	.72	29	--	220	80	.300	7.0	7.30
01...	1717	--	--	.69	19	--	--	36	--	--	--
01...	1757	--	--	.57	14	--	--	7	--	--	--
01...	1859	--	--	.60	19	--	190	26	.100	5.3	5.40
01...	1913	--	--	1.0	29	--	240	94	1.00	8.4	9.40
01...	1927	--	--	.78	18	--	150	24	.100	5.7	5.80
01...	1945	--	--	.60	9.0	--	--	16	--	--	--
01...	2029	--	--	.47	7.0	--	--	8	--	--	--
01...	2131	--	--	.36	7.7	--	130	16	.100	2.8	2.90
01...	2153	--	--	1.3	45	--	120	112	.100	5.7	5.80
01...	2202	--	--	1.6	42	--	110	174	.300	7.7	8.00
01...	2211	--	--	1.3	20	--	--	44	--	--	--
01...	2222	--	--	1.1	14	--	85	32	.100	2.5	2.60
01...	2352	--	--	.69	63	--	120	8	.100	2.4	2.50
02...	0052	--	--	.57	39	--	--	12	--	--	--
02...	0132	--	--	.42	5.9	--	--	14	--	--	--
02...	0318	--	--	.30	5.9	--	150	16	.100	3.6	3.70
02...	0426	--	--	.12	5.9	--	--	20	--	--	--
02...	0647	--	--	.12	5.7	--	--	32	--	--	--
02...	0916	--	--	.09	6.5	--	--	28	--	--	--
14...	1453	--	--	.50	42	--	200	109	.300	4.5	4.80
14...	1548	--	--	.58	36	--	160	102	.300	9.0	9.30
14...	1801	--	--	.85	24	--	96	41	.300	4.9	5.20
14...	1839	--	--	.96	24	20	--	58	.100	5.2	5.30
14...	1929	--	--	.86	15	14	--	22	.100	3.5	3.60
14...	2159	--	--	.75	12	--	200	29	.100	2.4	2.50
14...	2302	--	--	.85	13	--	160	27	.100	5.7	5.80
15...	0014	--	--	.36	12	14	--	16	.100	4.1	4.20
FEB , 1982											
17-18	--	659	1140	--	42	48	--	16	.400	7.0	7.40
MAR											
07...	0808	--	--	.15	72	--	120	144	1.30	8.0	9.30
07...	0827	--	--	.81	65	--	120	27	1.00	7.8	8.80
07...	0859	--	--	.47	23	45	--	44	.600	5.2	5.80
07...	1026	--	--	.69	31	49	--	57	.800	7.6	8.40
07...	1133	--	--	.86	33	--	140	113	.400	4.3	4.70
07...	1210	--	--	.84	43	--	170	66	.400	4.3	4.70

01589462 HOMELAND STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
MAR . 1982												
07...	1309	--	--	.61	21	--	78	--	--	--	22	.300
07...	1605	--	--	.42	49	49	--	--	--	--	78	.300
07...	1643	--	--	.49	19	27	--	--	--	--	34	.300
07...	1731	--	--	--	19	22	--	--	--	--	22	.300
07...	1925	--	--	.46	31	30	--	--	--	--	48	.300
07...	2130	--	--	--	25	41	--	--	--	--	32	.300
16...	1449	--	--	.70	52	--	82	--	--	--	604	.400
16...	1510	--	--	.78	43	--	210	--	--	--	64	2.20
16...	1528	--	--	1.0	46	--	90	--	--	--	100	1.10
16...	1547	--	--	.68	25	--	67	--	--	--	8	.800
16...	1605	--	--	1.1	22	--	82	--	--	--	8	.700
16...	1637	--	--	1.2	36	--	67	--	--	--	20	.600
16...	1739	--	--	.38	21	--	97	--	--	--	<1	.800
16...	1935	--	--	1.1	41	--	75	--	--	--	60	1.00
16...	2009	--	--	.90	30	--	90	--	--	--	12	.700
16...	2034	--	--	.43	45	30	--	--	--	--	16	.800
16...	2126	--	--	.64	37	37	--	--	--	--	36	.800
16...	2200	--	--	.29	29	30	--	--	--	--	4	.700
31...	1201	--	--	.43	28	--	91	--	--	--	34	1.50
31...	1233	--	--	.46	20	39	--	--	--	--	22	1.30
31...	1326	--	--	--	14	25	--	--	--	--	12	1.30
31...	1636	--	--	.19	24	--	84	--	--	--	12	1.10
31...	1751	--	--	1.1	52	--	160	--	--	--	72	2.00
31...	1806	--	--	1.2	31	--	84	--	--	--	42	1.70
31...	1829	--	--	.45	18	25	--	--	--	--	16	1.30
31...	1920	--	--	.26	14	25	250	--	--	--	8	2.20
31...	2028	--	--	.42	16	17	--	--	--	--	14	1.00
31...	2131	--	--	--	18	17	--	--	--	--	18	1.00
APR												
07-07	--	--	--	--	--	--	--	--	--	--	--	<.100
MAY												
19-20	--	1700	712	--	20	--	330	--	--	--	30	.800
28-28	--	805	1120	--	14	--	310	--	--	--	24	4.00
JUN												
01-02	--	1850	20	--	19	--	250	--	--	--	25	.700
AUG												
11-12	--	2330	248	--	15	--	70	2000	2000	3000	27	.700
18...	0628	--	--	.40	--	--	--	170000	110000	10000	--	--
18...	0635	--	--	1.0	--	--	--	5400	3500	2000	--	--
18...	0655	--	--	.40	--	--	--	790	790	1100	--	--
21...	0229	--	--	.93	--	--	--	54000	17000	10000	--	--
21...	0245	--	--	.86	--	--	--	24000	24000	21000	--	--
21...	0303	--	--	.84	--	--	--	24000	24000	6500	--	--

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
AUG . 1982												
21...	0322	--	--	.48	--	--	24000	24000	5500	--	--	--
21-21	--	203	340	--	4.1	53	35000	17000	2500	<1	.800	5.9
25-25	--	332	442	--	8.0	180	92000	35000	13000	17	1.50	9.5

01589462 HOMELAND STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
OCT , 1981										
23...	.600	1.08	<5	<10	730	260	140	170	130	13
23...	.430	.690	<5	<10	530	390	150	190	80	11
23...	.350	.740	<5	<10	490	450	170	180	82	9.2
23...	.550	1.77	<5	<10	530	3000	240	260	100	22
23...	.250	2.55	<5	<10	370	850	170	200	43	7.1
23...	.300	.750	<5	<10	240	350	100	110	39	5.6
23...	.330	.680	<5	<10	260	250	100	110	37	5.3
23...	.300	.580	<5	<10	230	200	80	90	40	6.1
23...	.300	.510	<5	<10	220	230	70	80	35	6.3
23...	.280	.560	<5	<10	280	260	70	100	42	7.5
23-23	.440	.830	<5	20	510	320	130	--	90	4.3
23-24	.180	.370	<5	10	230	130	100	80	33	11
NOV										
05...	.260	1.80	<5	60	650	3300	140	200	49	3.7
05...	2.30	4.60	<5	<10	570	1500	130	290	200	3.7
05...	25.0	3.60	<5	<10	600	300	90	220	230	3.7
05...	1.30	2.10	<5	<10	440	280	80	200	190	8.8
06...	1.70	2.30	<5	<10	460	250	90	190	210	10
06...	.670	1.10	<5	<10	170	290	40	140	81	5.2
06...	.640	1.10	<5	<10	150	280	40	110	87	5.2
06...	.570	1.20	<5	<10	140	400	40	140	84	6.7
06...	.700	1.10	<5	<10	150	140	30	90	84	7.4
06...	.860	1.50	<5	<10	170	140	40	100	<.1	8.0
06...	.470	1.00	<5	<10	210	780	70	140	81	8.6
06...	.470	.950	<5	<10	200	280	30	90	74	5.5
06...	.680	1.00	<5	<10	200	140	30	90	90	6.5
06...	.860	1.40	<5	<10	200	150	40	110	130	8.4
06...	1.00	1.50	<5	<10	200	140	50	150	170	12
06...	1.00	1.50	<5	<10	210	210	90	170	180	14
06...	1.00	10.5	<5	<10	210	750	90	210	<.1	13
DEC										
01...	.180	.870	<5	<10	520	810	1200	360	59	9.5
01...	<.010	.500	<5	<10	440	330	70	170	37	6.7
01...	.360	.850	--	--	--	--	--	--	73	6.6
01...	<.010	.740	<5	<10	400	1100	140	260	58	8.4
01...	.200	1.11	<5	20	510	1700	200	340	59	6.3
01...	<.010	.920	<5	<10	320	960	120	230	45	6.1
01...	.230	.960	--	--	--	--	--	--	37	4.6
01...	.250	1.13	--	--	--	--	--	--	45	4.9
01...	.170	.900	--	--	--	--	--	--	44	3.8
01...	<.010	.540	--	--	--	--	--	--	35	3.0
01...	<.010	.400	--	--	--	--	--	--	2.7	3.5
01...	<.010	.620	--	--	--	--	--	--	26	3.4
01...	.330	.440	5	10	220	220	60	110	4.8	4.5
01...	.500	.480	--	--	--	--	--	--	20	4.9
01...	.310	.490	<5	<10	250	530	120	180	16	3.4
01...	.320	.410	--	--	--	--	--	--	4.7	3.9
01...	.410	.420	--	--	--	--	--	--	10	4.3
01...	.380	.380	<5	<10	240	260	70	120	7.3	5.3
01...	.160	.950	<5	<10	330	600	110	180	13	4.4
01...	.310	.480	<5	<10	240	250	60	90	2.3	4.8
01...	.380	.380	--	--	--	--	--	--	6.3	6.8
01...	.460	.520	--	--	--	--	--	--	16	7.6
01...	.530	.470	<5	10	230	110	30	100	27	6.5
01...	.170	1.00	<5	10	280	1000	170	200	14	6.4
01...	<.080	1.50	<5	<10	250	1500	120	170	20	8.9
01...	.210	.430	--	--	--	--	--	--	2.5	3.6
01...	.220	.310	<5	<10	180	170	40	70	.5	3.3
01...	.190	.280	<5	<10	170	90	30	70	.8	4.7
02...	.210	--	--	--	--	--	--	--	1.8	4.7
02...	.260	--	--	--	--	--	--	--	1.1	4.9
02...	.370	.490	<5	<10	180	110	30	110	2.4	6.2
02...	.380	--	--	--	--	--	--	--	6.7	8.9
02...	.350	--	--	--	--	--	--	--	12	11
02...	.320	.480	--	--	--	--	--	--	25	12
14...	.140	1.70	<5	<10	850	1700	180	310	35	5.5
14...	.110	1.80	<5	<10	390	1300	190	220	38	3.6
14...	.080	.190	<5	<10	290	600	170	120	12	2.8
14...	.090	.220	<5	<10	160	340	70	80	1.1	2.2
14...	.090	.160	<5	<10	190	10	40	70	3.9	2.7
14...	.100	.190	5	10	220	60	<20	60	3.6	<.1
14...	.110	.270	<5	<10	130	150	<20	60	4.1	4.2
15...	.160	.210	<5	<10	170	180	<20	60	14	7.1
FEB , 1982										
17-18	.110	.170	10	<10	200	490	80	140	28	4.2
MAR										
07...	.080	.480	<5	<10	750	1900	210	330	16	4.2
07...	.060	2.10	<5	<10	640	2400	310	350	23	2.9
07...	.060	.260	<5	<10	310	410	60	140	3.1	.9
07...	.500	.460	<5	<10	230	420	70	110	6.1	1.5
07...	.080	.300	<5	<10	140	370	60	70	4.4	1.6
07...	.070	.380	<5	<10	200	590	80	120	5.7	1.7

01589462 HOMELAND STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
MAR , 1982												
07...	4.6	4.90	.080	.210	<5	<10	160	270	40	80	1.6	1.1
07...	4.8	5.10	.080	.280	<5	<10	300	560	120	160	7.0	2.6
07...	5.5	5.80	.060	.160	<5	<10	220	270	50	100	1.4	1.4
07...	4.2	4.50	.080	.150	<5	<10	230	170	20	80	<.1	2.4
07...	5.2	5.50	.110	.210	<5	<10	160	370	50	110	1.8	<.1
07...	4.2	4.50	.100	.170	<5	<10	170	380	30	80	<.1	4.7
16...	6.7	7.10	<1.00	.260	<5	<10	50	370	110	90	41	13
16...	25	27.0	.470	.670	<5	<10	410	1600	270	380	120	.1
16...	5.0	6.10	.100	.520	<5	<10	250	1000	150	180	33	.3
16...	3.8	4.60	.070	.290	<5	<10	150	320	60	70	15	.1
16...	2.9	3.60	.080	.250	<5	<10	120	340	60	80	19	.1
16...	5.0	5.60	<.010	.210	<5	<10	120	400	50	70	19	2.0
16...	3.4	4.20	.060	.300	<5	<10	160	240	40	80	14	.1
16...	4.6	5.60	.050	.270	<5	<10	160	780	90	100	14	2.6
16...	3.4	4.10	.090	.280	<5	<10	150	490	90	60	15	2.8
16...	2.7	3.50	.140	.290	<5	<10	180	520	20	70	18	.1
16...	2.8	3.60	.070	.300	<5	<10	180	550	60	170	13	2.8
16...	1.4	2.10	.070	.230	<5	<10	170	220	20	70	15	3.2
31...	5.0	6.50	.120	.350	<5	<10	370	390	80	150	23	3.8
31...	3.8	5.10	.140	.340	<5	<10	340	280	50	110	15	3.1
31...	2.5	3.80	.120	.240	<5	<10	340	210	30	100	16	4.5
31...	3.9	5.00	.160	.330	<5	<10	310	440	40	100	17	16
31...	5.6	7.60	.060	.470	<5	<10	340	1100	150	90	27	10
31...	6.3	8.00	.110	.660	<5	<10	250	580	80	50	17	6.1
31...	6.3	7.60	.110	.200	<5	<10	190	240	40	30	12	4.7
31...	3.5	5.70	.110	.180	<5	<10	190	180	40	30	12	6.1
31...	3.1	4.10	.110	.210	<5	<10	190	290	20	30	13	9.5
31...	2.7	3.70	.120	.270	<5	<10	200	290	30	30	13	11
APR												
07-07	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
19-20	6.0	6.80	.090	.360	<5	<10	490	500	70	170	2.4	22
28-28	.30	4.30	.050	.160	<5	<10	240	270	50	130	3.0	12
JUN												
01-02	3.9	4.60	.100	.210	<5	<10	180	270	30	90	2.0	13
AUG												
11-12	5.8	6.50	.060	.160	<5	<10	390	240	60	150	16	3.0
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
AUG , 1982											
21...	--	--	--	--	--	--	--	--	--	--	--
21-21	6.70	.090	.160	<10	<10	250	90	50	50	10	3.0
25-25	11.0	.110	.270	<10	10	460	180	50	110	39	8.3

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD

LOCATION.--Lat 39°19'28", long 76°37'34", Baltimore City, Hydrologic Unit 02060003, on left bank 0.1 mi (0.2 km) above bridge on Wyman Park Drive.

DRAINAGE AREA.--3.20 mi^2 (8.29 km^2).

PERIOD OF RECORD.--December 1980 to July 1982.

COOPERATION.--Chemical data were furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
OCT , 1981									
01...	2144	--	--	3.1	--	--	--	26	--
01...	2211	--	--	14	--	--	--	92	--
01...	2221	--	--	36	--	--	--	180	--
01...	2246	--	--	29	--	--	--	240	--
01...	2251	--	--	58	--	--	--	240	--
01...	2321	--	--	31	--	--	--	260	--
01...	2351	--	--	17	--	--	--	140	--
01-02	--	2200	739	--	--	--	--	--	--
02...	0151	--	--	11	--	--	--	48	--
02...	0251	--	--	7.0	--	--	--	32	--
02...	0321	--	--	5.2	--	--	--	26	--
02...	0351	--	--	3.6	--	--	--	18	--
02...	0451	--	--	2.9	--	--	--	16	--
02...	0551	--	--	2.2	--	--	--	16	--
02...	0652	--	--	2.2	--	--	--	18	--
02...	0752	--	--	1.6	--	--	--	14	--
06...	1113	--	--	.79	335	7.2	16.0	--	8.6
06-06	--	1000	1100	.79	--	--	--	52	--
18...	1807	--	--	1.6	--	--	--	5.2	--
18...	1831	--	--	4.5	--	--	--	24	--
18...	1901	--	--	39	--	--	--	240	--
18...	2001	--	--	34	--	--	--	160	--
18...	2031	--	--	21	--	--	--	120	--
18...	2101	--	--	13	--	--	--	62	--
18...	2131	--	--	9.1	--	--	--	44	--
18...	2201	--	--	6.6	--	--	--	32	--
18...	2301	--	--	4.5	--	--	--	22	--
19...	0001	--	--	3.6	--	--	--	20	--
20...	1026	--	--	1.3	355	7.4	8.6	--	11.5
20-20	--	1000	1100	--	--	--	--	5.6	--
23-23	--	940	1710	--	--	--	--	62	--
23-24	--	1720	4	--	--	--	--	22	--
NOV									
03-04	--	1900	1500	--	--	--	--	3.6	--
04...	1100	--	--	1.3	380	7.4	12.5	--	10.7
05...	2257	--	--	1.6	--	--	--	8.2	--
05...	2327	--	--	3.1	--	--	--	5.2	--
05...	2357	--	--	4.3	--	--	--	6.2	--
06...	0027	--	--	4.3	--	--	--	9.2	--
06...	0057	--	--	12	--	--	--	22	--

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
NOV , 1981									
06...	0127	--	--	60	--	--	--	42	--
06...	0157	--	--	61	--	--	--	58	--
06...	0227	--	--	60	--	--	--	42	--
06...	0257	--	--	43	--	--	--	42	--
06...	0357	--	--	18	--	--	--	22	--
06...	0457	--	--	8.4	--	--	--	14	--
06...	0702	--	--	3.6	--	--	--	8.6	--
06...	1430	--	--	1.6	--	--	--	6.0	--
16-17	--	1900	1500	--	--	--	--	2.8	--
17...	1030	--	--	.58	382	7.6	9.0	--	11.6
17-18	--	1900	1500	--	--	--	--	3.0	--
18...	1033	--	--	.58	352	7.4	10.0	--	12.0
DEC									
01...	1057	--	--	1.4	--	--	--	140	--
01...	1130	--	--	1.7	--	--	--	72	--
01...	1200	--	--	2.4	--	--	--	12	--
01...	1230	--	--	4.3	--	--	--	18	--
01...	1300	--	--	10	--	--	--	22	--
01...	1330	--	--	13	--	--	--	52	--
01...	1400	--	--	24	--	--	--	76	--
01...	1500	--	--	24	--	--	--	72	--
01...	1600	--	--	16	--	--	--	52	--
01...	1701	--	--	11	--	--	--	48	--
01...	1801	--	--	10	--	--	--	36	--
01...	1901	--	--	10	--	--	--	33	66.0
01...	2001	--	--	14	--	--	--	43	--
01...	2101	--	--	11	--	--	--	40	--
01...	2201	--	--	18	--	--	--	63	--
01...	2301	--	--	89	--	--	--	200	--
02...	0001	--	--	45	--	--	--	18	--
02...	0101	--	--	18	--	--	--	80	--
02...	0201	--	--	10	--	--	--	73	--
02...	0301	--	--	5.9	--	--	--	25	--
02...	0401	--	--	4.0	--	--	--	33	--
02...	0501	--	--	3.2	--	--	--	22	--
02...	0758	--	--	2.0	--	--	--	14	--
14...	1359	--	--	2.8	--	--	--	12	--
14...	1559	--	--	13	--	--	--	34	--
14...	1759	--	--	35	--	--	--	44	--
14...	1959	--	--	63	--	--	--	62	--

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
DEC , 1981									
14...	2159	--	--	41	--	--	--	32	--
14...	2359	--	--	45	--	--	--	24	--
15...	0159	--	--	15	--	--	--	19	--
15...	0359	--	--	6.1	--	--	--	16	--
15...	0722	--	--	3.0	--	--	--	6.2	--
15...	1042	--	--	1.5	--	--	--	12	--
15...	1043	--	--	1.5	--	--	--	11	--
28-29	--	1900	1500	--	--	--	--	12	--
28-29	1500	1900	1500	--	--	--	--	5.0	--
29...	1100	--	--	1.2	420	7.0	4.0	--	14.0
JAN , 1982									
25-26	--	1900	1500	1.2	--	--	--	11	--
26...	1115	--	--	1.2	1440	7.0	1.0	--	14.2
30...	1444	--	--	1.8	--	--	--	8.5	--
30...	1626	--	--	3.0	--	--	--	41	--
30...	1958	--	--	3.6	--	--	--	21	--
30...	2358	--	--	3.6	--	--	--	13	--
31...	0358	--	--	3.1	--	--	--	6.2	--
31...	0858	--	--	2.2	--	--	--	4.9	--
31-31	--	1340	2050	--	--	--	--	65	--
FEB									
01-01	--	1340	2050	--	--	--	--	65	--
02-04	--	1850	746	--	--	--	--	100	--
09-10	--	855	300	--	--	--	--	18	--
16-17	--	2230	900	--	--	--	--	5.2	--
17-18	--	1600	336	--	--	--	--	18	--
23-24	--	1900	1500	--	--	--	--	32	--
24...	1020	--	--	1.7	640	--	10.0	--	13.0
MAR									
07-08	--	758	715	--	--	--	--	48	--
09-10	--	1600	1400	--	--	--	--	3.1	--
10...	1010	--	--	1.7	520	--	3.0	--	14.8
16-17	--	1440	718	--	--	--	--	74	--
23-24	--	1600	1400	--	--	--	--	2.7	--
24...	1026	--	--	1.3	535	8.3	7.5	--	14.4
26-26	--	306	1340	--	--	--	--	10	--
31-31	--	1320	208	--	--	--	--	50	--
APR									
01-01	--	1320	208	--	--	--	--	50	--
01-01	--	1320	208	--	--	--	--	50	--
03-03	--	745	1130	--	--	--	--	110	--
MAY									
19-19	--	1440	1700	--	--	--	--	160	--
JUN									
03-04	--	2120	100	--	--	--	--	42	--

DATE	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	TURBIDITY (FTU)
JUL , 1982			
15-16	1200	900	10

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT , 1981								
01...	2144	--	--	168	.23	80	.300	2.4
01...	2211	--	--	94	.13	228	.400	4.3
01...	2221	--	--	140	.19	736	1.00	5.3
01...	2246	--	--	76	.10	312	1.00	14
01...	2251	--	--	66	.09	674	1.40	13
01...	2321	--	--	102	.14	520	1.40	7.0
01...	2351	--	--	138	.19	70	.800	5.5
02...	0151	--	--	106	.14	112	.600	3.1
02...	0251	--	--	94	.13	58	.700	7.0
02...	0321	--	--	16	.02	30	.300	4.9
02...	0351	--	--	58	.08	12	.600	1.0
02...	0451	--	--	82	.11	20	.700	1.7
02...	0551	--	--	64	.09	12	.700	1.5
02...	0652	--	--	96	.13	72	.400	7.1
02...	0752	--	--	86	.12	42	.300	3.4
06-06	--	1000	1100	144	.20	124	.400	9.2
18...	1807	--	--	160	.22	6	.300	14
18...	1831	--	--	192	.26	22	.300	13
18...	1901	--	--	78	.11	578	.400	15
18...	2001	--	--	102	.14	336	.300	11
18...	2031	--	--	90	.12	240	.100	9.8
18...	2101	--	--	136	.18	118	.300	7.1
18...	2131	--	--	312	.42	52	.300	5.9
18...	2201	--	--	106	.14	28	.300	4.8
18...	2301	--	--	82	.11	2	.300	2.1
19...	0001	--	--	130	.18	4	.100	1.1
20-20	--	1000	1100	151	.21	13	.100	.70
23-23	--	940	1710	128	.17	160	.100	3.5
23-24	--	1720	4	56	.08	52	.100	2.9
NOV								
03-04	--	1900	1500	324	.44	100	.100	1.7
05...	2257	--	--	184	.25	20	.400	7.4
05...	2327	--	--	168	.23	14	.100	3.5
05...	2357	--	--	184	.25	14	.100	3.2
06...	0027	--	--	178	.24	14	.400	2.7
06...	0057	--	--	144	.20	24	.400	6.0
06...	0127	--	--	6	.01	64	.400	4.1
06...	0157	--	--	38	.05	72	.100	7.4
06...	0227	--	--	4	.01	38	.100	8.7
06...	0257	--	--	60	.08	56	.100	7.1
06...	0357	--	--	34	.05	24	.100	5.9
06...	0457	--	--	62	.08	8	.400	4.9
06...	0702	--	--	80	.11	6	.100	7.3
06...	1430	--	--	84	.11	2	.100	.10
16-17	--	1900	1500	116	.16	10	.100	1.8
17-18	--	1900	1500	152	.21	22	.100	4.3
DEC								
01...	1057	--	--	150	.20	100	.100	5.3
01...	1130	--	--	124	.17	4	.100	2.0
01...	1200	--	--	104	.14	4	--	--
01...	1230	--	--	144	.20	16	.300	6.2
01...	1300	--	--	140	.19	34	--	--
01...	1330	--	--	92	.13	130	.600	5.5
01...	1400	--	--	94	.13	396	.600	5.2
01...	1500	--	--	110	.15	190	.600	8.0
01...	1600	--	--	72	.10	66	--	--
01...	1701	--	--	76	.10	78	.400	6.9
01...	1801	--	--	56	.08	56	--	--
01...	1901	--	--	66	.09	48	--	--
01...	2001	--	--	110	.15	67	.100	7.7
01...	2101	--	--	88	.12	54	--	--
01...	2201	--	--	11	.01	177	.100	5.2
01...	2301	--	--	47	.06	667	.600	4.3
02...	0001	--	--	52	.07	768	.300	2.5
02...	0101	--	--	59	.08	225	--	--
02...	0201	--	--	31	.04	192	.400	8.0
02...	0301	--	--	63	.09	69	--	--
02...	0401	--	--	54	.07	45	--	--
02...	0501	--	--	41	.06	24	.100	5.6
02...	0758	--	--	76	.10	22	.100	2.2
14...	1359	--	--	957	1.3	24	.100	4.2
14...	1559	--	--	141	.19	61	.400	7.1
14...	1759	--	--	328	.45	84	.300	5.7
14...	1959	--	--	230	.31	113	.300	5.3
14...	2159	--	--	104	.14	43	.100	3.6
14...	2359	--	--	103	.14	32	.100	3.9
15...	0159	--	--	120	.16	22	.100	3.6
15...	0359	--	--	143	.19	5	.100	2.0
15...	0722	--	--	186	.25	8	.100	2.5
15...	1042	--	--	148	.20	32	.100	2.0

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
DEC , 1981								
15...	1043	--	--	152	.21	26	.100	3.6
28-29	--	1900	1500	254	.35	62	.100	6.3
28-29	1500	1900	1500	304	.41	20	.100	5.7
JAN , 1982								
25-26	--	1900	1500	715	.97	11	.400	3.3
30...	1444	--	--	640	.87	10	.600	3.8
30...	1626	--	--	1000	1.4	38	1.10	4.2
30...	1958	--	--	1140	1.6	24	1.30	3.5
30...	2358	--	--	940	1.3	6	1.30	4.1
31...	0358	--	--	1020	1.4	4	1.30	3.1
31...	0858	--	--	990	1.4	<1	1.30	3.2
31-31	--	1340	2050	500	.68	76	1.40	5.9
FEB								
01-01	--	1340	2050	500	.68	76	1.40	5.9
02-04	--	1850	746	108	.15	176	.400	3.5
09-10	--	855	300	904	1.2	30	.600	5.9
16-17	--	2230	900	360	.49	<1	.600	4.2
17-18	--	1600	336	940	1.3	14	.400	7.4
23-24	--	1900	1500	252	.34	6	.400	4.2
MAR								
07-08	--	758	715	176	.24	69	.300	4.8
09-10	--	1600	1400	214	.29	4	.300	2.8
16-17	--	1440	718	94	.13	110	.600	3.4
23-24	--	1600	1400	254	.35	<1	.400	2.5
26-26	--	306	1340	212	.29	18	.300	4.1
31-31	--	1320	208	132	.18	110	.700	5.5
APR								
01-01	--	1320	208	132	.18	110	.700	5.5
01-01	--	1320	208	132	.18	110	.700	5.5
03-03	--	745	1130	64	.09	304	.400	6.0
07-07	--	--	--	--	--	--	<.100	--
MAY								
19-19	--	1440	1700	190	.26	450	1.70	9.3
JUN								
03-04	--	2120	100	200	.27	50	.600	2.9
JUL								
15-16	--	1200	900	180	.24	6	1.40	8.6

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT , 1981						
01...	2144	--	--	2.70	≥.050	.310
01...	2211	--	--	4.70	≥.040	.340
01...	2221	--	--	6.30	≥.040	1.00
01...	2246	--	--	14.7	≥.050	1.10
01...	2251	--	--	14.3	≥.060	1.40
01...	2321	--	--	8.40	≥.070	1.50
01...	2351	--	--	6.30	≥.060	.790
02...	0151	--	--	3.70	≥.070	.360
02...	0251	--	--	7.70	≥.070	.280
02...	0321	--	--	5.20	≥.070	.200
02...	0351	--	--	1.60	≥.060	.170
02...	0451	--	--	2.40	≥.060	.160
02...	0551	--	--	2.20	≥.050	.140
02...	0652	--	--	7.50	≥.050	.200
02...	0752	--	--	3.70	≥.050	.160
06-06	--	1000	1100	9.60	≥.070	.280
18...	1807	--	--	13.9	<.010	.050
18...	1831	--	--	13.2	≥.110	.430
18...	1901	--	--	15.0	≥.070	1.20
18...	2001	--	--	11.5	≥.100	.800
18...	2031	--	--	9.90	≥.090	.540
18...	2101	--	--	7.40	≥.100	.430
18...	2131	--	--	6.20	≥.120	.400
18...	2201	--	--	5.10	≥.200	.360
18...	2301	--	--	2.40	≥.250	.370
19...	0001	--	--	1.20	≥.210	.310
20-20	--	1000	1100	.80	≥.010	.050
23-23	--	940	1710	3.60	≥.040	.340
23-24	--	1720	4	3.00	≥.070	.170
NOV						
03-04	--	1900	1500	1.80	<.010	<.010
05...	2257	--	--	7.80	≥.100	.250
05...	2327	--	--	3.60	≥.050	.240
05...	2357	--	--	3.30	≥.050	.170
06...	0027	--	--	3.10	≥.050	.220
06...	0057	--	--	6.40	≥.070	.860
06...	0127	--	--	4.50	≥.070	1.40
06...	0157	--	--	7.50	≥.090	.870
06...	0227	--	--	8.80	≥.100	.660
06...	0257	--	--	7.20	≥.130	.580
06...	0357	--	--	6.00	≥.150	.410
06...	0457	--	--	5.30	≥.160	.310
06...	0702	--	--	7.40	≥.130	.220
06...	1430	--	--	.20	≥.090	.120
16-17	--	1900	1500	1.90	<.010	.060
17-18	--	1900	1500	4.40	≥.030	.060
DEC						
01...	1057	--	--	5.40	<.010	.160
01...	1130	--	--	2.10	<.010	.070
01...	1200	--	--	--	<.010	1.70
01...	1230	--	--	6.50	≥.030	.330
01...	1300	--	--	--	≥.050	.380
01...	1330	--	--	6.10	≥.060	.620
01...	1400	--	--	5.80	≥.060	1.10
01...	1500	--	--	8.60	≥.080	.580
01...	1600	--	--	--	≥.100	.360
01...	1701	--	--	7.30	≥.150	.200
01...	1801	--	--	--	≥.110	.140
01...	1901	--	--	--	≥.120	.160
01...	2001	--	--	7.80	≥.110	.240
01...	2101	--	--	--	≥.110	.180
01...	2201	--	--	5.30	≥.110	.460
01...	2301	--	--	4.90	≥.030	1.10
02...	0001	--	--	2.80	≥.050	1.20
02...	0101	--	--	--	≥.080	1.10
02...	0201	--	--	8.40	≥.080	.380
02...	0301	--	--	--	≥.080	.220
02...	0401	--	--	--	≥.080	.150
02...	0501	--	--	5.70	≥.070	.110
02...	0758	--	--	2.30	≥.050	.060
14...	1359	--	--	4.30	≥.100	.160
14...	1559	--	--	7.50	≥.070	.290
14...	1759	--	--	6.00	≥.060	.300
14...	1959	--	--	5.60	≥.070	.300
14...	2159	--	--	3.70	≥.080	.180
14...	2359	--	--	4.00	≥.120	.210
15...	0159	--	--	3.70	≥.070	.150
15...	0359	--	--	2.10	≥.090	.100
15...	0722	--	--	2.60	≥.040	.060
15...	1042	--	--	2.10	≥.040	.100

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
DEC , 1981						
15...	1043	--	--	3.70	≥.040	.100
28-29	--	1900	1500	6.40	<.010	<.010
28-29	1500	1900	1500	5.80	<.010	<.010
JAN , 1982						
25-26	--	1900	1500	3.70	<.010	<.010
30...	1444	--	--	4.40	≥.070	.100
30...	1626	--	--	5.30	≥.060	.190
30...	1958	--	--	4.80	≥.100	.180
30...	2358	--	--	5.40	≥.110	.170
31...	0358	--	--	4.40	≥.080	.090
31...	0858	--	--	4.50	≥.060	.070
31-31	--	1340	2050	7.30	≥.110	.260
FEB						
01-01	--	1340	2050	7.30	≥.110	.260
02-04	--	1850	746	3.90	≥.100	.330
09-10	--	855	300	6.50	≥.120	.160
16-17	--	2230	900	4.80	≥.030	.090
17-18	--	1600	336	7.80	≥.070	.220
23-24	--	1900	1500	4.60	≥.030	.060
MAR						
07-08	--	758	715	5.10	≥.030	.270
09-10	--	1600	1400	3.10	≥.030	.060
16-17	--	1440	718	4.00	≥.070	.400
23-24	--	1600	1400	2.90	<.010	.060
26-26	--	306	1340	4.40	≥.040	.090
31-31	--	1320	208	6.20	≥.040	.200
APR						
01-01	--	1320	208	6.20	≥.040	.200
01-01	--	1320	208	6.20	≥.040	.200
03-03	--	745	1130	6.40	≥.160	.650
MAY						
19-19	--	1440	1700	11.0	≥.120	1.30
JUN						
03-04	--	2120	100	3.50	≥.030	.140
JUL						
15-16	--	1200	900	10.0	<.010	.070

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
OCT , 1981											
01...	2144	--	--	<5	80	20	2100	60	120	6.1	13
01...	2211	--	--	<5	60	70	3000	140	180	3.9	10
01...	2221	--	--	<5	90	120	14000	330	430	11	8.9
01...	2246	--	--	<5	70	190	17000	230	320	9.4	8.2
01...	2251	--	--	<5	100	290	22000	360	470	11	4.7
01...	2321	--	--	<5	90	200	19000	290	420	11	8.8
01...	2351	--	--	<5	50	140	8600	210	260	8.4	6.7
02...	0151	--	--	<5	40	80	1900	80	120	5.5	6.5
02...	0251	--	--	<5	30	80	890	40	70	4.7	6.9
02...	0321	--	--	<5	50	70	800	30	70	3.6	6.5
02...	0351	--	--	<5	40	60	660	40	70	2.1	7.6
02...	0451	--	--	<5	40	40	490	<20	60	2.9	7.8
02...	0551	--	--	<5	20	40	450	70	50	2.6	8.9
02...	0652	--	--	<5	50	40	1400	50	60	3.1	9.2
02...	0752	--	--	<5	40	20	640	60	60	5.3	9.6
06-06	--	1000	1100	<5	70	<10	2700	70	100	2.2	14
18...	1807	--	--	<5	<10	<10	260	<20	80	2.8	15
18...	1831	--	--	<5	10	80	1400	130	250	9.7	11
18...	1901	--	--	5	50	170	18500	300	460	13	12
18...	2001	--	--	<5	30	160	9800	150	200	14	10
18...	2031	--	--	<5	10	110	6700	120	140	11	12
18...	2101	--	--	<5	10	80	3300	100	100	7.9	14
18...	2131	--	--	<5	<10	90	2300	80	90	8.9	11
18...	2201	--	--	<5	<10	90	1600	70	100	10	11
18...	2301	--	--	<5	10	90	960	80	70	9.4	11
19...	0001	--	--	<5	<10	70	650	40	80	9.4	11
20-20	--	1000	1100	<5	<10	<10	140	20	<5	1.8	16
23-23	--	940	1710	<5	20	50	2600	110	80	9.6	13
23-24	--	1720	4	<5	<10	50	890	60	40	3.7	11
NOV											
03-04	--	1900	1500	<5	<10	<10	160	30	30	.5	19
05...	2257	--	--	<5	30	50	510	60	120	32	4.7
05...	2327	--	--	<5	<10	50	340	50	60	9.2	15
05...	2357	--	--	<5	<10	20	390	30	60	15	13
06...	0027	--	--	5	<10	50	730	40	90	28	13
06...	0057	--	--	<5	20	100	2000	120	230	30	11
06...	0127	--	--	5	30	220	9400	180	280	45	9.7
06...	0157	--	--	5	20	110	6300	130	200	34	9.5
06...	0227	--	--	<5	<10	100	4500	100	150	11	8.1
06...	0257	--	--	5	10	110	3400	90	130	26	6.2
06...	0357	--	--	<5	<10	90	1400	60	160	24	6.2
06...	0457	--	--	<5	<10	90	770	50	80	25	1.5
06...	0702	--	--	<5	<10	70	440	<20	50	19	6.2
06...	1430	--	--	<5	<10	30	280	<20	30	9.0	7.0
16-17	--	1900	1500	<5	<10	11000	2500	30	40	4.1	18
17-18	--	1900	1500	<5	<10	<10	130	<20	3400	1.7	16
DEC											
01...	1057	--	--	<5	<10	40	1200	<20	60	3.5	13
01...	1130	--	--	<5	<10	40	170	<20	50	4.9	13
01...	1200	--	--	--	--	--	--	--	--	12	12
01...	1230	--	--	<5	<10	70	750	50	110	14	11
01...	1300	--	--	--	--	--	--	--	--	17	10
01...	1330	--	--	<5	10	110	4300	70	170	19	7.8
01...	1400	--	--	<5	40	170	10000	150	270	28	7.5
01...	1500	--	--	<5	40	90	4600	70	140	14	7.7
01...	1600	--	--	--	--	--	--	--	--	15	7.2
01...	1701	--	--	<5	10	80	1500	70	140	3.2	4.7
01...	1801	--	--	--	--	--	--	--	--	1.7	4.4
01...	1901	--	--	--	--	--	--	--	--	1.8	4.1
01...	2001	--	--	<5	<10	80	1200	80	110	1.7	3.8
01...	2101	--	--	--	--	--	--	--	--	2.7	3.8
01...	2201	--	--	<5	<10	100	1900	280	290	13	5.0
01...	2301	--	--	<5	70	190	13000	330	380	4.5	6.0
02...	0001	--	--	<5	30	170	13000	240	280	16	5.1
02...	0101	--	--	--	--	--	--	--	--	11	4.8
02...	0201	--	--	<5	<10	80	3200	80	100	3.8	2.9
02...	0301	--	--	--	--	--	--	--	--	2.9	5.8
02...	0401	--	--	--	--	--	--	--	--	.9	6.4
02...	0501	--	--	<5	<10	40	710	30	50	.9	8.2
02...	0758	--	--	<5	<10	20	380	<20	30	.5	3.5
14...	1359	--	--	<5	<10	40	410	60	100	13	13
14...	1559	--	--	<5	<10	90	1500	90	120	15	7.0
14...	1759	--	--	<5	<10	80	1800	70	110	13	6.9
14...	1959	--	--	<5	<10	70	2200	100	90	13	4.6
14...	2159	--	--	<5	<10	<5	<10	50	60	11	4.2
14...	2359	--	--	<5	<10	50	770	50	60	8.2	5.4
15...	0159	--	--	<5	<10	40	470	30	40	5.9	6.6
15...	0359	--	--	<5	<10	40	260	<20	30	4.7	8.6
15...	0722	--	--	<5	<10	30	160	<20	30	4.7	4.9
15...	1042	--	--	<5	<10	30	290	<20	40	4.8	9.2

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO JULY 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
DEC , 1981											
15...	1043	--	--	<5	<10	40	280	<20	40	8.9	9.1
28-29	--	1900	1500	<5	<10	<10	270	<20	20	6.5	11
28-29	1500	1900	1500	<5	<10	<10	100	<20	20	2.3	10
JAN , 1982											
25-26	--	1900	1500	<5	<10	<10	230	<20	30	4.6	13
30...	1444	--	--	<5	<10	<10	320	<20	60	1.6	13
30...	1626	--	--	<5	<10	<10	790	80	80	4.6	14
30...	1958	--	--	<5	<10	20	510	70	100	19	12
30...	2358	--	--	<5	<10	10	320	40	80	11	12
31...	0358	--	--	<5	<10	30	220	<20	70	3.8	11
31...	0858	--	--	<5	<10	<10	180	<20	50	24	12
31-31	--	1340	2050	<5	10	70	1700	90	100	13	5.5
FEB											
01-01	--	1340	2050	<5	10	70	1700	90	100	13	5.5
02-04	--	1850	746	<5	<10	60	2600	110	110	5.0	4.0
09-10	--	855	300	10	10	50	540	50	80	4.7	8.5
16-17	--	2230	900	10	<10	30	230	<20	90	2.6	8.3
17-18	--	1600	336	<5	20	60	690	50	120	4.2	8.8
23-24	--	1900	1500	<5	10	<10	--	<20	--	.8	13
MAR											
07-08	--	758	715	<5	20	60	1400	70	120	9.1	5.0
09-10	--	1600	1400	<5	<10	<10	--	--	--	4.2	7.0
16-17	--	1440	718	<5	<10	100	2300	110	100	10	5.3
23-24	--	1600	1400	<5	<10	<10	120	<20	10	<.1	16
26-26	--	306	1340	<5	<10	40	360	<20	40	3.5	11
31-31	--	1320	208	25	<10	70	1800	160	170	14	11
APR											
01-01	--	1320	208	25	<10	70	1800	160	170	14	11
01-01	--	1320	208	25	<1	70	1800	160	170	14	11
03-03	--	745	1130	<5	<10	90	3700	160	150	16	6.7
MAY											
19-19	--	1440	1700	<5	110	320	15000	750	870	30	30
JUN											
03-04	--	2120	100	<5	80	40	630	60	60	8.8	22
JUL											
15-16	--	1200	900	<5	30	<10	150	<20	<5	12	21

01589470 RESERVOIR HILL STORM SEWER AT BALTIMORE, MD

LOCATION.--Lat 39°18'48", long 76°37'52", Baltimore City, Hydrologic Unit 02060003, on Newington Avenue about 200 ft (60 m) west of intersection of Park and Newington Avenues.

DRAINAGE AREA.--0.02 mi² (0.05 km²).

PERIOD OF RECORD.--March 1981 to August 1982 (discontinued).

COOPERATION.--Chemical data for period April-August 1982 furnished by Baltimore Regional Planning Council and were reviewed by U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO AUGUST 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL, (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
MAR . 1982												
07...	0630	--	--	E.01	7.5	--	86	--	--	--	25	12.0
07...	0930	--	--	.03	42	--	93	--	--	--	64	12.0
07...	1100	--	--	.04	45	--	64	--	--	--	64	2.40
07...	1230	--	--	.03	64	--	110	--	--	--	86	23.0
07...	1400	--	--	.01	37	--	57	--	--	--	36	2.40
07...	1615	--	--	.03	37	49	--	--	--	--	28	2.50
16-16	--	1450	2150	--	45	37	--	--	--	--	153	1.30
26...	0116	--	--	.37	280	--	460	--	--	--	682	.300
26...	0222	--	--	1.4	123	--	440	--	--	--	292	5.00
26...	0242	--	--	2.2	180	--	340	--	--	--	306	.400
26...	0318	--	--	2.1	49	--	170	--	--	--	50	.400
26...	0346	--	--	2.1	37	--	100	--	--	--	33	.300
26...	0420	--	--	.95	31	--	130	--	--	--	34	.400
AUG												
21...	0155	--	--	--	--	--	--	1400000	230000	470000	--	--
21...	0238	--	--	--	--	--	--	3500000	3500000	1400000	--	--
21...	0257	--	--	--	--	--	--	920000	350000	1100000	--	--
21...	0324	--	--	--	--	--	--	1700000	490000	870000	--	--
21...	0443	--	--	--	--	--	--	280000	170000	910000	--	--
21-21	--	200	500	--	28	110	--	--	--	--	30	.600

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
MAR . 1982												
07...	18	30.0	.380	.730	<5	<10	20	120	<20	80	38	35
07...	14	26.0	.780	2.30	<5	<10	40	470	150	300	60	22
07...	6.3	8.70	.590	2.50	<5	<10	50	470	170	290	10	<.1
07...	20	43.0	1.20	5.90	<5	<10	60	680	310	400	85	39
07...	7.1	9.50	.470	17.0	<5	<10	40	280	80	150	14	7.4
07...	4.8	7.30	.460	.680	<5	<10	50	400	100	210	15	4.0
16-16	6.4	7.70	.600	1.80	<5	<10	<10	30	<20	30	21	6.9
26...	47	47.0	2.30	12.0	<5	60	160	11000	2100	1700	143	54
26...	24	29.0	1.30	5.00	<5	<10	70	3700	770	580	80	43
26...	13	13.0	.460	4.30	<5	<10	60	1000	1000	670	47	16
26...	8.7	9.10	.450	2.20	<5	<10	20	630	160	210	27	22
26...	11	11.0	.440	1.20	<5	<10	<10	330	50	140	19	6.5
26...	7.7	8.10	.440	1.50	<5	<10	<10	200	50	90	20	8.3
AUG												
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
21-21	9.0	9.60	.380	.790	<10	10	30	410	120	170	34	6.3

01589475 BOLTON HILL STORM SEWER AT BALTIMORE, MD

LOCATION.--Lat 39°18'26", long 76°37'31", Baltimore City, Hydrologic Unit 02060003, on south side of Mosher Street about 10 ft (3 m) west of intersection of Park Avenue and Mosher Street.

DRAINAGE AREA.--0.02 mi² (0.05 km²).

PERIOD OF RECORD.--March 1981 to September 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
OCT , 1981											
01...	2151	--	--	3.2	24	45	--	44	2.20	3.1	5.30
01...	2221	--	--	.26	28	11	--	10	1.10	2.5	3.60
01...	2259	--	--	.41	16	45	--	20	1.70	4.3	6.00
02...	0004	--	--	.41	14	45	--	24	1.30	1.4	2.70
02...	0024	--	--	.46	28	30	--	8	1.30	3.5	4.80
02...	0147	--	--	.08	18	38	--	18	.600	4.3	4.90
02...	0539	--	--	.01	14	38	--	20	.600	2.1	2.70
06...	1035	--	--	2.7	--	--	930	--	.800	8.4	9.20
06...	1048	--	--	.61	--	--	200	--	1.50	6.5	8.00
06...	1053	--	--	.33	--	--	220	--	1.30	4.3	5.60
18...	1805	--	--	.66	72	--	410	140	2.10	14	15.7
18...	1809	--	--	5.3	260	--	770	592	2.20	15	16.8
18...	1821	--	--	3.1	70	--	370	52	2.00	7.7	9.70
18...	1835	--	--	1.8	28	--	220	14	1.30	4.3	5.60
18...	1851	--	--	4.1	24	--	140	10	.800	9.2	10.0
18...	1909	--	--	.72	20	--	200	14	.800	6.9	7.70
18...	1943	--	--	.19	32	--	260	24	.900	3.9	4.80
18...	1952	--	--	.23	28	--	220	4	1.10	4.1	5.20
18...	2028	--	--	.23	30	--	230	14	1.00	6.6	7.60
23-23	--	1640	2230	--	62	--	250	156	.400	3.5	3.90
NOV											
05...	2338	--	--	.66	52	--	120	82	.600	10	11.1
06...	0044	--	--	1.1	50	--	200	144	.700	9.2	9.90
06...	0053	--	--	1.7	46	--	170	156	.300	21	21.5
06...	0119	--	--	4.8	28	--	120	82	.600	7.4	8.00
06...	0148	--	--	.98	18	48	--	28	.300	16	16.8
DEC											
01...	1122	--	--	.30	24	--	230	66	1.50	5.5	7.00
01...	1215	--	--	.57	14	--	170	28	1.10	7.7	8.80
01...	1325	--	--	.51	8.6	--	130	4	.700	7.0	7.70
01...	1425	--	--	.60	14	--	140	12	1.50	4.8	6.30
01...	1525	--	--	.30	8.8	--	60	10	.700	5.2	5.90
01...	1622	--	--	.21	12	--	80	2	1.10	4.1	5.20
14...	1323	--	--	.24	34	--	100	63	.600	4.5	5.10
14...	1507	--	--	.48	18	--	250	26	.400	4.3	4.70
14...	1707	--	--	.48	14	48	--	6	.300	7.6	7.90
14...	1832	--	--	.72	10	--	200	6	.300	2.0	2.30
14...	1949	--	--	.54	13	--	180	12	.100	2.4	2.50
14...	2119	--	--	.69	5.4	14	--	6	.300	1.8	2.10
14...	2333	--	--	.33	5.2	--	110	14	.400	5.2	5.60
MAR , 1982											
06...	1206	--	--	1.1	32	--	79	52	2.40	7.6	10.0

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	TURBIDITY (FTU)	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, CONFIRMED (MPN)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL, (COLS. PER 100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
MAR , 1982												
06...	1409	--	--	1.0	28	--	120	--	--	--	10	2.10
06...	2304	--	--	.15	34	--	130	--	--	--	14	1.80
07...	0404	--	--	.27	34	--	130	--	--	--	5	1.80
07...	0803	--	--	.39	190	--	120	--	--	--	797	2.70
07...	1003	--	--	.93	18	49	--	--	--	--	22	.800
07...	1203	--	--	.84	30	49	--	--	--	--	78	.300
07...	1403	--	--	.93	14	42	--	--	--	--	2	.600
07...	1600	--	--	.27	440	--	120	--	--	--	812	1.30
07...	1735	--	--	.18	60	49	--	--	--	--	110	.400
SEP												
02-03	--	2120	23.00	--	32	--	93	240000	130000	190000	44	.800

01589475 BOLTON HILL STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
OCT , 1981										
01...	.110	.360	<5	<10	70	420	260	400	4.9	2.2
01...	.190	.310	<5	<10	110	270	390	330	4.7	.2
01...	.160	.300	<5	<10	90	240	380	330	4.5	2.0
02...	.130	.320	<5	<10	70	160	150	240	4.1	2.0
02...	.180	.290	<5	<10	70	170	290	260	4.5	2.2
02...	.110	.250	<5	<10	40	180	160	230	4.7	2.2
02...	.110	.200	<5	<10	50	170	170	200	3.4	.1
06...	.470	.690	20	40	250	27000	14000	21000	6.6	66
06...	.100	.400	<5	<10	90	930	1600	930	17	--
06...	.080	.350	<5	<10	80	330	560	560	8.7	--
18...	.090	.870	<5	20	70	2900	4100	3000	66	7.9
18...	.090	2.50	10	60	460	12000	45000	18000	150	17
18...	.070	.900	<5	<10	150	1200	5700	2400	90	9.6
18...	.100	.490	<5	<10	100	410	1300	810	51	6.9
18...	.130	.450	<5	<10	70	390	1000	590	31	4.3
18...	.150	.370	<5	<10	90	210	830	580	44	3.7
18...	.080	.470	<5	<10	110	200	1500	960	76	8.2
18...	.180	.380	<5	<10	90	180	1400	840	57	4.7
18...	<.010	.330	<5	<10	130	220	850	670	67	9.8
23-23	.050	.480	<5	<10	50	1100	19000	4900	35	10
NOV										
05...	.290	.550	<5	<10	140	1900	2000	800	79	10
06...	.210	.980	<5	<10	140	3100	2200	810	74	.6
06...	.220	.500	<5	<10	80	1500	1100	490	85	<.1
06...	.130	.580	<5	<10	70	1600	2200	740	24	<.1
06...	.160	.200	<5	<10	50	200	250	160	24	2.2
DEC										
01...	.260	6.70	<5	<10	70	810	910	460	22	3.6
01...	.180	.480	<5	10	80	460	500	350	16	.8
01...	.150	.310	<5	10	50	220	180	220	11	.9
01...	.140	.410	<5	10	40	340	390	220	10	2.0
01...	.110	.230	<5	<10	50	180	150	170	11	2.5
01...	.150	.290	<5	<10	40	110	130	180	10	2.9
14...	.170	.640	<5	<10	90	1100	1400	480	13	2.8
14...	.120	.300	<5	20	80	450	440	270	7.7	2.9
14...	.110	.280	<5	<10	50	310	300	230	7.3	1.5
14...	.090	.400	<5	<10	40	170	200	150	2.2	.9
14...	.110	.220	<5	<10	40	290	540	270	3.6	2.6
14...	.080	.170	<5	<10	30	50	40	100	2.9	.9
14...	.160	.250	<5	<10	30	50	40	100	9.5	<.1
MAR , 1982										
06...	.160	.760	<5	<10	150	1200	450	930	25	<.1

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
MAR , 1982												
06...	5.2	7.30	.260	.520	<5	<10	110	290	90	320	23	3.9
06...	5.6	7.40	<.010	.520	<5	<10	110	340	110	400	121	8.9
07...	4.5	6.30	.360	.520	<5	<10	130	260	110	380	94	<.1
07...	20	23.0	1.90	4.20	10	120	370	6800	3400	2600	69	<.1
07...	5.0	5.80	.130	.270	<5	<10	80	220	100	190	1.7	.4
07...	4.2	4.50	.140	.530	<5	<10	70	480	220	220	12	.9
07...	4.1	4.70	.110	.170	<5	<10	70	110	40	150	.2	1.1
07...	7.1	8.40	.120	2.20	<5	<10	140	3000	1700	770	21	5.6
07...	2.8	3.20	.110	.360	<5	<10	40	750	200	180	11	1.8
SEP												
02-03	4.5	5.30	.160	.300	<5	<10	60	380	210	160	11	3.2

01589478 JONES FALLS AT MARYLAND AVENUE AT BALTIMORE, MD

LOCATION.--Lat 39°18'38", long 76°37'23", Baltimore City, Hydrologic Unit 02060003, on left bank 300 ft (91 m) downstream from Howard Street bridge.

DRAINAGE AREA.--54.9 mi^2 (142 km^2).

PERIOD OF RECORD.--May 1981 to September 1982 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 43 ft (13 m), from topographic map.

REMARKS.--Records good below 300 ft^3/s (8.5 m^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) June 25, 1981, gage height, 6.41 ft (1.954 m), from rating curve extended above 300 ft^3/s (8.5 m^3/s) on basis of slope-area measurement of peak flow at site 3,200 ft (975 m) downstream; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Oct. 4, 12, 13, 14, 1981.

EXTREMES FOR CURRENT PERIOD.--May to September 1981: Maximum discharge during period, 10,600 ft^3/s (300 m^3/s) June 25, gage height, 6.41 ft (1.954 m), from rating curve extended as explained above; minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Sept. 29.

Water year 1982: Maximum discharge, 4,160 ft^3/s (118 m^3/s) June 27, gage height, 4.72 ft (1.439 ft), from rating curve extended as explained above; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Oct. 4, 12, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR MAY 1981 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								130	33	45	27	29
2								115	97	150	27	23
3								32	51	300	27	22
4								29	93	800	29	22
5								30	54	135	28	22
6								31	42	76	28	23
7								31	34	68	28	27
8								30	31	51	31	43
9								30	32	47	30	32
10								48	95	44	26	23
11								129	37	39	61	21
12								93	30	37	121	20
13								44	168	37	36	20
14								35	651	36	28	20
15								177	55	32	40	38
16								117	42	33	33	117
17								45	37	33	25	40
18								39	33	32	23	102
19								65	31	32	24	40
20								50	243	52	24	26
21								37	185	50	23	24
22								35	213	33	23	30
23								32	51	30	23	27
24								32	39	29	23	22
25								31	547	39	23	21
26								31	186	33	22	21
27								30	50	32	22	31
28								84	41	109	22	36
29								84	38	75	23	17
30								48	36	31	30	19
31								48	---	28	54	---
TOTAL	---	---	---	---	---	---	---	1792	3275	2569	984	958
MEAN	---	---	---	---	---	---	---	57.8	109	82.9	31.7	31.9
MAX	---	---	---	---	---	---	---	177	651	800	121	117
MIN	---	---	---	---	---	---	---	29	30	28	22	17
CFSM	---	---	---	---	---	---	---	.99	1.87	1.42	.54	.55
IN.	---	---	---	---	---	---	---	1.14	2.09	1.64	.63	.61

01589478 JONES FALLS AT MARYLAND AVENUE AT BALTIMORE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	24	79	139	190	41	52	47	380	60	48	26
2	66	25	90	44	109	40	37	45	94	52	32	59
3	14	24	30	39	815	39	138	43	62	150	31	53
4	13	23	25	450	173	37	65	41	62	90	31	26
5	20	24	24	76	92	38	46	43	288	50	284	25
6	24	98	23	42	63	37	206	42	116	38	66	25
7	33	28	24	38	51	150	63	38	66	45	36	24
8	20	23	28	33	46	85	49	68	52	50	52	25
9	16	23	24	31	78	50	73	52	46	56	45	25
10	15	22	22	29	55	44	52	35	42	54	200	25
11	14	22	22	29	42	43	45	33	48	54	44	25
12	13	22	22	29	39	76	43	35	47	46	205	24
13	13	21	21	29	41	49	43	35	719	39	47	24
14	13	21	101	30	38	44	40	33	146	39	37	24
15	15	22	155	30	38	40	39	30	70	46	33	25
16	17	23	75	29	47	119	38	31	83	49	32	24
17	20	22	41	29	75	94	142	28	236	43	37	23
18	45	22	33	29	73	51	148	28	65	37	39	22
19	41	22	28	29	147	46	50	180	54	36	30	22
20	22	23	25	31	118	47	45	100	49	58	28	50
21	23	22	24	30	113	45	43	42	45	54	64	28
22	22	21	28	27	80	41	40	48	44	45	30	218
23	70	21	36	32	65	39	39	66	49	52	29	52
24	58	22	36	35	57	39	38	62	54	38	30	29
25	32	22	29	34	49	38	37	46	50	28	38	27
26	100	22	27	34	44	54	287	35	38	26	28	37
27	86	22	32	34	43	38	144	30	247	31	26	200
28	50	22	29	32	42	35	95	160	184	58	27	50
29	31	21	26	27	---	35	57	80	135	35	25	35
30	25	22	25	32	---	35	50	64	113	43	24	30
31	23	---	46	70	---	68	---	60	---	38	26	---
TOTAL	999	751	1230	1602	2823	1637	2244	1680	3684	1540	1704	1282
MEAN	32.2	25.0	39.7	51.7	101	52.8	74.8	54.2	123	49.7	55.0	42.7
MAX	100	98	155	450	815	150	287	180	719	150	284	218
MIN	13	21	21	27	38	35	37	28	38	26	24	22
CFSM	.55	.43	.68	.89	1.73	.91	1.28	.93	2.11	.85	.94	.73
IN.	.64	.48	.78	1.02	1.80	1.04	1.43	1.07	2.35	.98	1.09	.82

WTR YR 1982 TOTAL 21176 MEAN 58.0 MAX 815 MIN 13 CFSM 1.00 IN 13.51

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD

LOCATION.--Lat 39°18'12", long 76°36'43", Baltimore City, Hydrologic Unit 02060003, on west side of Interstate Highway 83, 50 ft (15 m) south of the Fallsway overpass.

DRAINAGE AREA.--57.0 mi^2 (147.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1980 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 15 ft (4.6 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) June 25, 1981, gage height, unknown, from rating curve extended above 120 ft^3/s (3.4 m^3/s) on basis of slope-area measurements at gage heights 7.22 ft (2.201 m), 7.74 ft (2.359 m), and 8.65 ft (2.637 m), and runoff comparison with upstream station; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Oct. 4, 1981.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 11,000 ft^3/s (312 m^3/s) June 25, gage height, unknown, from rating curve extended as explained above; minimum daily discharge, 19 ft^3/s (0.54 m^3/s) Sept. 14.

Water year 1982: Maximum discharge, 4,420 ft^3/s (125 m^3/s) June 27, gage height, 8.65 ft (2.637 m), from rating curve extended as explained above; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	31	40	39	30	63	68	174	43	61	33	37
2	46	29	38	40	239	61	63	151	110	238	33	30
3	58	35	40	39	52	53	46	42	64	434	38	29
4	60	45	40	35	31	45	47	39	116	1160	39	28
5	48	42	38	34	36	147	63	40	70	152	38	30
6	45	36	38	37	36	53	62	41	57	87	38	36
7	47	34	37	40	48	45	48	40	42	73	39	46
8	45	34	37	37	109	40	47	36	41	67	45	65
9	45	34	41	40	93	35	60	37	46	61	42	42
10	45	34	42	40	85	32	56	65	82	55	38	25
11	54	36	40	38	203	30	58	144	45	50	86	22
12	50	39	38	36	101	28	161	99	37	47	138	21
13	45	41	37	33	76	28	91	56	253	47	49	21
14	45	42	37	35	65	28	259	46	870	45	38	19
15	45	43	40	40	58	38	80	224	200	42	56	35
16	46	47	45	40	51	64	60	140	61	40	40	151
17	46	110	45	40	43	45	57	62	53	40	23	56
18	66	160	40	40	42	41	56	51	45	39	23	115
19	70	39	38	42	55	38	51	82	50	40	26	56
20	58	42	35	45	266	34	62	63	290	69	26	34
21	54	42	35	50	173	32	53	47	225	64	25	32
22	54	42	40	50	100	25	51	43	250	46	25	41
23	56	42	45	50	984	29	58	38	90	49	25	41
24	60	277	50	45	245	25	68	38	50	49	24	33
25	280	84	40	40	116	25	58	38	720	61	24	32
26	84	70	35	38	75	25	57	37	300	56	24	38
27	54	55	35	36	66	26	61	35	100	55	23	53
28	45	70	35	34	66	23	124	94	60	155	24	39
29	35	50	38	33	---	23	60	93	52	75	26	20
30	30	45	39	32	---	59	40	64	54	38	40	26
31	31	---	38	30	---	48	---	60	---	37	68	---
TOTAL	1788	1730	1216	1208	3544	1288	2125	2219	4476	3532	1216	1253
MEAN	57.7	57.7	39.2	39.0	127	41.5	70.8	71.6	149	114	39.2	41.8
MAX	280	277	50	50	984	147	259	224	870	1160	138	151
MIN	30	29	35	30	30	23	40	35	37	37	23	19
CFSM	.96	.96	.65	.65	2.10	.69	1.17	1.19	2.47	1.89	.65	.69
IN.	1.10	1.07	.75	.74	2.18	.79	1.31	1.37	2.76	2.18	.75	.77

WTR YR 1981 TOTAL 25595 MEAN 70.1 MAX 1160 MIN 19 CFSM 1.16 IN 15.76

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	25	100	151	199	43	66	53	450	62	46	40
2	73	26	98	60	147	42	37	46	180	54	35	70
3	14	25	37	54	963	41	152	45	66	183	33	57
4	13	25	30	560	176	40	74	43	120	88	33	35
5	23	45	25	83	97	41	54	44	360	50	350	27
6	25	122	25	55	77	41	218	43	140	39	80	26
7	37	35	27	44	67	175	69	38	80	49	45	25
8	20	25	31	35	59	86	55	77	57	53	56	26
9	17	24	28	32	96	55	79	54	52	60	50	26
10	16	23	24	31	72	46	58	37	45	58	250	26
11	15	23	23	30	60	45	48	34	54	56	60	26
12	15	23	23	30	45	83	45	37	52	47	250	25
13	14	22	22	30	45	56	46	36	942	40	70	25
14	14	22	129	32	42	48	42	34	148	41	45	25
15	16	23	163	32	42	42	40	30	77	49	36	26
16	19	24	88	31	62	150	42	31	115	51	35	25
17	27	24	50	30	92	72	192	29	230	44	40	24
18	48	24	35	30	90	58	149	28	70	38	46	23
19	42	24	32	30	178	48	50	219	64	37	34	23
20	23	25	28	32	121	51	48	100	56	67	32	54
21	24	24	27	31	115	48	48	43	52	55	67	35
22	23	21	31	30	91	44	45	53	49	46	35	250
23	82	22	38	33	80	42	43	72	57	57	31	60
24	62	23	39	37	68	42	41	64	63	40	34	33
25	33	24	35	37	56	41	41	45	58	29	42	30
26	122	24	30	35	48	61	342	37	40	27	35	40
27	94	24	35	35	46	40	152	32	279	34	28	230
28	58	23	33	34	44	38	88	191	186	82	30	48
29	33	23	28	30	---	38	54	86	140	30	27	40
30	28	25	27	34	---	38	53	65	95	41	26	33
31	25	---	54	90	---	79	---	64	---	37	27	---
TOTAL	1102	842	1395	1838	3278	1774	2471	1810	4377	1644	2008	1433
MEAN	35.5	28.1	45.0	59.3	117	57.2	82.4	58.4	146	53.0	64.8	47.8
MAX	122	122	163	560	963	175	342	219	942	183	350	250
MIN	13	21	22	30	42	38	37	28	40	27	26	23
CFSM	.59	.47	.75	.98	1.94	.95	1.36	.97	2.42	.88	1.07	.79
IN.	.68	.52	.86	1.13	2.02	1.09	1.52	1.11	2.70	1.01	1.24	.88

CAL YR 1981 TOTAL 24200 MEAN 66.3 MAX 1160 MIN 13 CFSM 1.10 IN 14.90
WTR YR 1982 TOTAL 23972 MEAN 65.7 MAX 963 MIN 13 CFSM 1.09 IN 14.76

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

PERIOD OF RECORD.--December 1980 to April 1982 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO APRIL 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
OCT , 1981									
01...	2150	--	--	187	--	--	--	88	--
01...	2155	--	--	370	--	--	--	92	--
01...	2210	--	--	310	--	--	--	120	--
01...	2215	--	--	220	--	--	--	98	--
01...	2220	--	--	176	--	--	--	98	--
01...	2225	--	--	132	--	--	--	80	--
01...	2235	--	--	97	--	--	--	96	--
01...	2305	--	--	103	--	--	--	58	--
01...	2335	--	--	129	--	--	--	54	--
02...	0005	--	--	144	--	--	--	68	--
02...	0035	--	--	145	--	--	--	72	--
02...	0045	--	--	180	--	--	--	48	--
05-06	--	1900	700	--	--	--	--	6.6	--
06...	1305	--	--	28	384	7.1	19.2	--	6.7
18...	1820	--	--	103	--	--	--	160	--
18...	1825	--	--	152	--	--	--	140	--
18...	1830	--	--	220	--	--	--	140	--
18...	1835	--	--	301	--	--	--	160	--
18...	1850	--	--	241	--	--	--	120	--
18...	1900	--	--	313	--	--	--	70	--
18...	1915	--	--	237	--	--	--	64	--
18...	1925	--	--	165	--	--	--	62	--
18...	2005	--	--	99	--	--	--	66	--
18...	2035	--	--	108	--	--	--	120	--
18...	2105	--	--	92	--	--	--	96	--
19-20	--	1900	1500	--	--	--	--	19	--
20...	1430	--	--	25	436	8.2	1.4	--	9.4
NOV									
03...	1900	--	--	28	--	--	--	12	--
03...	2100	--	--	28	--	--	--	14	--
03...	2300	--	--	26	--	--	--	14	--
03-04	--	1900	1500	--	--	--	--	14	--
04...	0100	--	--	22	--	--	--	7.2	--
04...	0300	--	--	22	--	--	--	7.4	--
04...	0500	--	--	20	--	--	--	6.2	--
04...	0700	--	--	23	--	--	--	6.2	--
04...	0900	--	--	31	--	--	--	16	--
04...	1100	--	--	44	--	--	--	18	--
04...	1300	--	--	36	--	--	--	16	--
04...	1330	--	--	34	412	7.6	15.1	--	7.5
04...	1500	--	--	36	--	--	--	14	--
16-17	--	1900	1500	--	--	--	--	4.0	--
17...	1900	--	--	25	--	--	--	12	--
17...	2100	--	--	22	--	--	--	18	--
17...	2300	--	--	20	--	--	--	7.2	--
17-18	--	1900	1500	--	--	--	--	14	--
18...	0100	--	--	16	--	--	--	7.8	--
18...	0300	--	--	15	--	--	--	7.8	--
18...	0500	--	--	15	--	--	--	5.8	--
18...	0700	--	--	15	--	--	--	6.8	--
18...	0900	--	--	28	--	--	--	18	--
18...	1100	--	--	28	--	--	--	18	--
18...	1300	--	--	30	--	--	--	28	--
18...	1500	--	--	31	--	--	--	28	--
DEC									
01...	1251	--	--	109	--	--	--	46	--
01...	1445	--	--	154	--	--	--	36	--
01...	1800	--	--	122	--	--	--	23	--
01...	2020	--	--	137	--	--	--	43	--
01...	2210	--	--	343	--	--	--	61	--
14...	1408	--	--	94	--	--	--	74	--
14...	1440	--	--	103	--	--	--	62	--
14...	1520	--	--	127	--	--	--	42	--
14...	1620	--	--	134	--	--	--	50	--
14...	1720	--	--	169	--	--	--	39	--
14...	1805	--	--	237	--	--	--	46	--
14...	1835	--	--	285	--	--	--	32	--
14...	2035	--	--	407	--	--	--	230	--
14...	2235	--	--	428	--	--	--	66	--
15...	0955	--	--	114	--	--	--	18	--
15...	1730	--	--	178	--	--	--	72	--
16...	0135	--	--	96	--	--	--	13	--
16...	1129	--	--	102	--	--	--	120	--
16...	2100	--	--	76	--	--	--	14	--
17...	0900	--	--	51	--	--	--	8.1	--
17...	2100	--	--	45	--	--	--	12	--
18...	0900	--	--	37	--	--	--	6.3	--
28-29	--	1900	1500	--	--	--	--	11	--
29...	1400	--	--	25	503	8.4	6.7	--	11.5
JAN , 1982									
11-12	--	1900	1500	--	--	--	--	42	--

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR DECEMBER 1981 TO APRIL 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)
JAN , 1982									
31...	1536	--	--	90	1000	--	--	--	--
FEB									
01...	1530	--	--	159	700	--	--	--	--
09-10	--	920	120	--	--	--	--	42	--
17-18	--	1240	235	--	--	--	--	40	--
MAR									
07...	0820	--	--	90	--	--	--	120	--
07...	0830	--	--	144	--	--	--	150	--
07...	0840	--	--	174	--	--	--	140	--
07...	0855	--	--	145	--	--	--	120	--
07...	1010	--	--	117	--	--	--	36	--
07...	1450	--	--	232	--	--	--	13	--
07...	1635	--	--	257	--	--	--	150	--
07...	1910	--	--	347	--	--	--	170	--
07...	2145	--	--	214	--	--	--	240	--
08...	0145	--	--	143	--	--	--	54	--
08...	0845	--	--	83	--	--	--	13	--
09...	1600	--	--	53	--	--	--	--	--
09...	1700	--	--	53	--	--	--	--	--
09...	1800	--	--	53	--	--	--	--	--
09...	1900	--	--	52	--	--	--	--	--
09...	2000	--	--	51	--	--	--	--	--
09...	2100	--	--	51	--	--	--	--	--
09...	2200	--	--	49	--	--	--	--	--
09...	2300	--	--	49	--	--	--	--	--
09-10	--	1600	1400	--	--	--	--	--	--
10...	0100	--	--	49	--	--	--	--	--
10...	0200	--	--	49	--	--	--	--	--
10...	0300	--	--	48	--	--	--	--	--
10...	0400	--	--	48	--	--	--	--	--
10...	0500	--	--	47	--	--	--	--	--
10...	0600	--	--	45	--	--	--	--	--
10...	0700	--	--	47	--	--	--	--	--
10...	0800	--	--	45	--	--	--	--	--
10...	0900	--	--	45	--	--	--	--	--
10...	1000	--	--	51	--	--	--	--	--
10...	1100	--	--	52	--	--	--	--	--
10...	1200	--	--	47	--	--	--	--	--
10...	1300	--	--	45	--	--	--	--	--
10...	1400	--	--	45	--	--	--	--	--
10...	1445	--	--	45	493	8.1	4.0	--	13.4
10...	2400	--	--	49	--	--	--	--	--
23-24	--	1900	1500	--	--	--	--	9.0	--
24...	1500	--	--	41	432	8.8	9.7	--	11.5
APR									
03...	0530	--	--	72	--	--	--	23	--
03...	0730	--	--	207	--	--	--	34	--
03...	0930	--	--	296	--	--	--	31	--
03...	1130	--	--	177	--	--	--	28	--
03...	1330	--	--	168	--	--	--	130	--
03...	1530	--	--	186	--	--	--	190	--
04...	0130	--	--	98	--	--	--	210	--
04...	0930	--	--	70	--	--	--	52	--
04...	1930	--	--	114	--	--	--	110	--
26-26	--	746	1350	--	--	--	--	78	--
JUL									
15...	--	1200	900	--	--	--	--	--	--

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR DECEMBER 1981 TO APRIL 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT , 1981								
01...	2150	--	--	78	.11	296	3.80	10
01...	2155	--	--	44	.06	358	3.50	5.0
01...	2210	--	--	118	.16	226	2.50	2.9
01...	2215	--	--	68	.09	222	1.80	11
01...	2220	--	--	78	.11	202	2.10	3.6
01...	2225	--	--	50	.07	154	1.80	3.8
01...	2235	--	--	42	.06	178	1.80	3.8
01...	2305	--	--	124	.17	124	1.50	9.1
01...	2335	--	--	118	.16	140	1.00	4.6
02...	0005	--	--	148	.20	172	.800	4.3
02...	0035	--	--	116	.16	150	1.10	3.6
02...	0045	--	--	114	.16	96	1.00	3.5
05-06	--	1900	700	226	.31	10	.600	1.3
18...	1820	--	--	114	.16	670	9.50	23
18...	1825	--	--	190	.26	428	5.00	19
18...	1830	--	--	198	.27	366	2.10	15
18...	1835	--	--	196	.27	298	2.80	5.6
18...	1850	--	--	88	.12	316	2.70	14
18...	1900	--	--	114	.16	126	1.80	6.6
18...	1915	--	--	88	.12	178	1.80	8.8
18...	1925	--	--	112	.15	92	1.80	4.1
18...	2005	--	--	174	.24	150	1.80	7.8
18...	2035	--	--	134	.18	324	2.50	7.6
18...	2105	--	--	154	.21	268	1.00	12
19-20	--	1900	1500	212	.29	22	1.40	1.6
NOV								
03...	1900	--	--	338	.46	148	.100	4.5
03...	2100	--	--	224	.30	28	.100	1.0
03...	2300	--	--	166	.23	100	.100	3.9
03-04	--	1900	1500	386	.52	140	1.80	3.2
04...	0100	--	--	174	.24	12	.100	3.8
04...	0300	--	--	188	.26	20	.100	1.7
04...	0500	--	--	178	.24	16	.100	2.0
04...	0700	--	--	378	.51	116	.100	1.3
04...	0900	--	--	334	.45	172	.100	5.5
04...	1100	--	--	136	.18	36	.100	2.4
04...	1300	--	--	364	.50	150	.100	5.5
04...	1500	--	--	350	.48	150	.100	6.0
16-17	--	1900	1500	166	.23	6	2.10	7.3
17...	1900	--	--	148	.20	24	1.10	54

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR DECEMBER 1981 TO APRIL 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
NOV , 1981										
17...	2100	--	--	210	.29	16	1.10	--	--	67
17...	2300	--	--	148	.20	10	1.10	--	--	43
17-18	--	1900	1500	156	.21	24	1.70	--	--	3.1
18...	0100	--	--	182	.25	14	1.10	--	--	20
18...	0300	--	--	218	.30	8	1.10	--	--	32
18...	0500	--	--	190	.26	6	1.10	--	--	29
18...	0700	--	--	200	.27	4	2.20	--	--	13
18...	0900	--	--	216	.29	24	1.10	--	--	52
18...	1100	--	--	186	.25	26	1.10	--	--	57
18...	1300	--	--	160	.22	24	1.10	--	--	9.9
18...	1500	--	--	220	.30	24	1.10	--	--	62
DEC										
01...	1251	--	--	132	.18	136	1.70	--	--	8.7
01...	1445	--	--	82	.11	88	.800	--	--	6.0
01...	1800	--	--	160	.22	64	.300	--	--	4.5
01...	2020	--	--	170	.23	60	.300	--	--	6.3
01...	2210	--	--	150	.20	90	.100	--	--	6.7
14...	1408	--	--	1100	1.5	70	1.00	--	--	8.8
14...	1440	--	--	762	1.0	92	1.00	--	--	6.9
14...	1520	--	--	490	.67	52	.700	--	--	7.6
14...	1620	--	--	348	.47	50	.800	--	--	6.4
14...	1720	--	--	366	.50	51	.700	--	--	10
14...	1805	--	--	264	.36	72	.700	--	--	9.2
14...	1835	--	--	138	.19	68	.600	--	--	7.3
14...	2035	--	--	227	.31	3230	4.50	--	--	20
14...	2235	--	--	190	.26	266	1.00	--	--	19
15...	0955	--	--	244	.33	6	.600	--	--	8.1
15...	1730	--	--	152	.21	108	.700	--	--	11
16...	0135	--	--	804	1.1	18	.100	--	--	6.9
16...	1129	--	--	924	1.3	192	.100	--	--	28
16...	2100	--	--	674	.92	40	1.30	--	--	4.1
17...	0900	--	--	394	.54	28	2.80	--	--	3.4
17...	2100	--	--	272	.37	28	1.00	--	--	5.6
18...	0900	--	--	320	.44	26	3.40	--	--	7.6
28-29	--	1900	1500	450	.61	39	.900	.600	.77	3.6
JAN , 1982										
11-12	--	1900	1500	204	.28	44	1.00	--	--	2.1
FEB										
09-10	--	920	120	690	.94	50	.800	--	--	9.2
17-18	--	1240	235	1270	1.7	36	.400	--	--	5.2
MAR										
07...	0820	--	--	238	.32	292	1.00	--	--	7.7
07...	0830	--	--	195	.27	355	1.00	--	--	8.1

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR DECEMBER 1981 TO APRIL 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
MAR , 1982								
07...	0840	--	--	177	.24	340	1.00	8.4
07...	0855	--	--	189	.26	339	1.00	6.3
07...	1010	--	--	206	.28	60	.300	3.8
07...	1450	--	--	144	.20	264	.400	11
07...	1635	--	--	100	.14	166	.400	8.4
07...	1910	--	--	130	.18	204	.300	7.4
07...	2145	--	--	168	.23	588	.600	10
08...	0145	--	--	226	.31	118	.300	5.7
08...	0845	--	--	212	.29	10	.300	4.2
09...	1600	--	--	366	.50	4	--	--
09...	1700	--	--	390	.53	<1	--	--
09...	1800	--	--	254	.35	<1	--	--
09...	1900	--	--	292	.40	<1	--	--
09...	2000	--	--	342	.47	<1	--	--
09...	2100	--	--	282	.38	<1	--	--
09...	2200	--	--	252	.34	2	--	--
09...	2300	--	--	250	.34	<1	--	--
09-10	--	1600	1400	304	.41	<1	--	--
10...	0100	--	--	288	.39	10	--	--
10...	0200	--	--	254	.35	10	--	--
10...	0300	--	--	214	.29	8	--	--
10...	0400	--	--	220	.30	14	--	--
10...	0500	--	--	273	.37	10	--	--
10...	0600	--	--	304	.41	8	--	--
10...	0700	--	--	228	.31	14	--	--
10...	0800	--	--	262	.36	10	--	--
10...	0900	--	--	290	.39	14	--	--
10...	1000	--	--	268	.36	16	--	--
10...	1100	--	--	274	.37	20	--	--
10...	1200	--	--	306	.42	6	--	--
10...	1300	--	--	292	.40	14	--	--
10...	1400	--	--	326	.44	12	--	--
10...	2400	--	--	272	.37	<1	--	--
23-24	--	1900	1500	233	.32	8	.550	4.5
APR								
03...	0530	--	--	306	.42	44	1.10	9.9
03...	0730	--	--	162	.22	76	.600	13
03...	0930	--	--	148	.20	72	.800	9.0
03...	1130	--	--	136	.18	68	.600	6.2
03...	1330	--	--	146	.20	184	1.70	12
03...	1530	--	--	192	.26	250	1.10	13
04...	0130	--	--	242	.33	396	1.10	13
04...	0930	--	--	166	.23	34	.600	8.7
04...	1930	--	--	188	.26	110	1.10	11
26-26	--	746	1350	162	.22	724	1.50	7.6

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR DECEMBER 1981 TO APRIL 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT , 1981						
01...	2150	--	--	13.9	<.100	1.90
01...	2155	--	--	8.50	<.140	1.70
01...	2210	--	--	5.40	<.070	1.30
01...	2215	--	--	13.1	<.110	1.20
01...	2220	--	--	5.70	<.100	1.10
01...	2225	--	--	5.60	<.120	.980
01...	2235	--	--	5.60	<.140	.900
01...	2305	--	--	10.6	<.160	1.10
01...	2335	--	--	5.60	<.110	.630
02...	0005	--	--	5.10	<.090	.800
02...	0035	--	--	4.70	<.100	.710
02...	0045	--	--	4.50	<.090	.380
05-06	--	1900	700	1.90	<.370	.520
18...	1820	--	--	32.7	<.600	9.40
18...	1825	--	--	24.0	<.380	4.40
18...	1830	--	--	17.1	<.470	2.50
18...	1835	--	--	8.40	<.120	2.20
18...	1850	--	--	16.3	<.340	1.90
18...	1900	--	--	8.40	<.180	.990
18...	1915	--	--	10.6	<.160	.990
18...	1925	--	--	5.90	<.190	.950
18...	2005	--	--	9.60	--	1.20
18...	2035	--	--	10.1	<.100	10.4
18...	2105	--	--	13.5	<.160	.680
19-20	--	1900	1500	3.00	<.410	.590
NOV						
03...	1900	--	--	4.60	<.500	.630
03...	2100	--	--	1.10	<.490	.730
03...	2300	--	--	4.00	<.380	.630
03-04	--	1900	1500	5.00	<.450	.620
04...	0100	--	--	3.90	<.080	.140
04...	0300	--	--	1.80	<.060	.100
04...	0500	--	--	2.10	<.050	.080
04...	0700	--	--	1.40	<.070	.110
04...	0900	--	--	5.60	<.800	1.20
04...	1100	--	--	2.50	<.980	1.30
04...	1300	--	--	5.60	<.770	1.00
04...	1500	--	--	6.10	<.610	.920
16-17	--	1900	1500	9.40	<.470	.570
17...	1900	--	--	55.0	7.40	1.20

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO APRIL 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
NOV , 1981								
17...	2100	--	--	68.0	--	.630	.870	--
17...	2300	--	--	44.0	--	.480	.660	--
17-18	--	1900	1500	4.80	--	.550	.550	--
18...	0100	--	--	21.3	--	.110	.150	--
18...	0300	--	--	33.0	--	.050	.160	--
18...	0500	--	--	30.0	--	.050	1.50	--
18...	0700	--	--	15.0	--	.050	.160	--
18...	0900	--	--	53.0	--	.890	1.30	--
18...	1100	--	--	58.2	--	1.08	1.30	--
18...	1300	--	--	11.0	--	1.10	1.30	--
18...	1500	--	--	63.0	--	.790	.960	--
DEC								
01...	1251	--	--	10.4	--	.200	1.20	--
01...	1445	--	--	6.80	--	.150	.800	--
01...	1800	--	--	4.80	--	.210	.570	--
01...	2020	--	--	6.60	--	.210	.490	--
01...	2210	--	--	6.80	--	.190	.420	--
14...	1408	--	--	9.80	--	.250	1.00	--
14...	1440	--	--	7.90	--	.250	1.20	--
14...	1520	--	--	8.30	--	.250	1.10	--
14...	1620	--	--	7.20	--	.290	1.10	--
14...	1720	--	--	11.0	--	.310	1.70	--
14...	1805	--	--	9.90	--	.380	2.10	--
14...	1835	--	--	7.90	--	.210	3.30	--
14...	2035	--	--	25.0	--	.950	2.30	--
14...	2235	--	--	19.8	--	.170	10.5	--
15...	0955	--	--	8.70	--	.250	3.10	--
15...	1730	--	--	12.0	--	.630	1.10	--
16...	0135	--	--	7.00	--	.060	.860	--
16...	1129	--	--	28.0	--	1.20	2.30	--
16...	2100	--	--	5.40	--	.310	.800	--
17...	0900	--	--	6.20	--	.410	.890	--
17...	2100	--	--	6.60	--	--	.620	--
18...	0900	--	--	11.0	--	.540	.740	--
28-29	--	1900	1500	4.50	4.1	.290	.370	.250
JAN , 1982								
11-12	--	1900	1500	3.10	--	--	.380	--
FEB								
09-10	--	920	120	10.0	--	.140	.540	--
17-18	--	1240	235	5.60	--	.100	.260	--
MAR								
07...	0820	--	--	8.70	--	.080	1.70	--
07...	0830	--	--	9.10	--	.090	2.10	--

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO APRIL 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR . 1982						
07...	0840	--	--	9.40	<.070	1.50
07...	0855	--	--	7.30	<.140	4.70
07...	1010	--	--	4.10	<.110	5.40
07...	1450	--	--	11.0	<.120	1.60
07...	1635	--	--	8.80	<.010	1.00
07...	1910	--	--	7.70	<.060	1.20
07...	2145	--	--	11.0	<.140	2.10
08...	0145	--	--	6.00	<.010	.540
08...	0845	--	--	4.50	<.010	.640
09...	1600	--	--	--	--	.090
09...	1700	--	--	--	--	.090
09...	1800	--	--	--	--	.060
09...	1900	--	--	--	--	.060
09...	2000	--	--	--	--	.070
09...	2100	--	--	--	--	.080
09...	2200	--	--	--	--	.060
09...	2300	--	--	--	--	.060
09-10	--	1600	1400	--	--	.070
10...	0100	--	--	--	--	<.010
10...	0200	--	--	--	--	<.010
10...	0300	--	--	--	--	<.010
10...	0400	--	--	--	--	<.010
10...	0500	--	--	--	--	<.010
10...	0600	--	--	--	--	<.010
10...	0700	--	--	--	--	<.010
10...	0800	--	--	--	--	.070
10...	0900	--	--	--	--	.110
10...	1000	--	--	--	--	.170
10...	1100	--	--	--	--	.160
10...	1200	--	--	--	--	.110
10...	1300	--	--	--	--	.150
10...	1400	--	--	--	--	.120
10...	2400	--	--	--	--	.060
23-24	--	1900	1500	5.10	<.050	.080
APR						
03...	0530	--	--	11.0	<.500	.700
03...	0730	--	--	14.0	--	--
03...	0930	--	--	9.80	<.270	.540
03...	1130	--	--	6.80	<.560	.990
03...	1330	--	--	14.0	<.170	2.10
03...	1530	--	--	14.0	<.270	1.90
04...	0130	--	--	14.0	<.110	1.20
04...	0930	--	--	9.30	<.450	.680
04...	1930	--	--	12.0	<.500	1.50
26-26	--	746	1350	9.10	<.180	.530

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO APRIL 1982

DATE	TIME	STARTING TIME (2400 HOURS)	ENDING TIME (2400 HOURS	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INORGANIC, TOTAL (MG/L AS C)
OCT , 1981											
01...	2150	--	--	<5	50	80	10000	470	620	18	12
01...	2155	--	--	<5	40	100	5700	600	830	17	11
01...	2210	--	--	<5	20	40	6700	270	450	16	9.2
01...	2215	--	--	<5	20	40	6000	240	410	18	8.1
01...	2220	--	--	<5	60	40	6600	220	480	13	7.7
01...	2225	--	--	<5	<10	20	3700	170	290	15	7.3
01...	2235	--	--	<5	40	20	4100	130	290	14	7.4
01...	2305	--	--	<5	30	20	2100	160	280	12	9.1
01...	2335	--	--	<5	30	20	2000	120	190	9.5	11
02...	0005	--	--	<5	30	30	3700	120	190	10	11
02...	0035	--	--	<5	10	30	2900	70	140	11	10
02...	0045	--	--	<5	<10	30	1900	50	120	8.2	9.9
05-06	--	1900	700	<5	<10	<10	390	70	20	17	17
18...	1820	--	--	10	100	370	41000	1200	1400	88	24
18...	1825	--	--	<5	60	380	15000	960	1100	61	17
18...	1830	--	--	<5	20	160	9700	680	900	130	17
18...	1835	--	--	<5	40	120	13000	1100	880	63	15
18...	1850	--	--	<5	60	130	7900	460	560	46	12
18...	1900	--	--	<5	<10	80	2900	290	370	30	9.6
18...	1915	--	--	<5	10	60	3500	210	290	28	9.4
18...	1925	--	--	<5	<10	60	2800	180	25	30	--
18...	2005	--	--	<5	<10	70	4800	230	290	21	13
18...	2035	--	--	<5	20	90	7000	190	260	24	14
18...	2105	--	--	<5	<10	70	4200	90	140	18	14
19-20	--	1900	1500	<5	<10	<10	430	35	30	6.2	18
NOV											
03...	1900	--	--	<5	<10	20	660	40	50	7.4	18
03...	2100	--	--	<5	<10	20	450	20	30	13	17
03...	2300	--	--	5	<10	10	560	50	30	14	17
03-04	--	1900	1500	<5	<10	<10	550	60	30	12	17
04...	0100	--	--	<5	<10	<10	400	30	20	5.0	16
04...	0300	--	--	<5	<10	<10	380	20	<5	2.0	18
04...	0500	--	--	<5	<10	<10	350	30	20	.9	19
04...	0700	--	--	<5	<10	<10	450	<20	<5	1.3	16
04...	0900	--	--	<5	<10	20	860	60	60	20	21
04...	1100	--	--	<5	<10	<10	640	60	50	11	18
04...	1300	--	--	<5	10	10	600	60	60	8.2	16
04...	1500	--	--	<5	<10	20	800	<20	40	8.8	18
16-17	--	1900	1500	<5	10	<10	480	20	30	7.5	13
17...	1900	--	--	<5	<10	<10	440	<20	40	11	22
17...	2100	--	--	<5	<10	<10	430	<20	<30	11	20
17...	2300	--	--	<5	<10	<10	460	<20	<10	10	20
17-18	--	1900	1500	<5	<10	10	460	<20	3600	18	16
18...	0100	--	--	<5	<10	<10	440	<20	10	3.8	17
18...	0300	--	--	<5	<10	<10	370	<20	<5	13	17
18...	0500	--	--	<5	<10	<10	370	<20	10	5.7	18
18...	0700	--	--	<5	<10	<10	400	<20	30	2.9	18
18...	0900	--	--	<5	<10	10	440	<20	40	15	17
18...	1100	--	--	<5	<10	<10	500	<20	60	17	18
18...	1300	--	--	<5	<10	<10	600	<20	40	15	20
18...	1500	--	--	<5	<10	<10	480	<20	30	16	16
DEC											
01...	1251	--	--	<5	20	70	4100	170	300	30	9.0
01...	1445	--	--	<5	20	40	2500	110	180	20	9.4
01...	1800	--	--	<5	<10	20	140	50	120	3.8	12
01...	2020	--	--	<5	<10	20	1400	40	100	3.6	11
01...	2210	--	--	<5	<10	20	2100	50	80	5.8	12
14...	1408	--	--	<5	<10	60	4400	230	290	37	11
14...	1440	--	--	<5	<10	70	3300	210	280	35	10
14...	1520	--	--	<5	<10	60	2300	180	250	--	--
14...	1620	--	--	<5	<10	50	1700	160	210	28	8.6
14...	1720	--	--	<5	<10	40	1900	180	220	27	8.7
14...	1805	--	--	<5	<10	60	2200	210	250	32	7.9
14...	1835	--	--	<5	<10	60	2700	190	230	29	8.2
14...	2035	--	--	<5	20	150	12000	390	540	39	24
14...	2235	--	--	<5	<10	80	9100	210	250	48	9.8
15...	0955	--	--	<5	<10	50	810	40	30	14	17
15...	1730	--	--	<5	<10	50	2200	150	170	11	26
16...	0135	--	--	<5	<10	10	810	30	50	38	17
16...	1129	--	--	<5	<10	80	2000	90	560	110	21
16...	2100	--	--	<5	<10	<10	530	<20	30	11	16
17...	0900	--	--	<5	<10	<10	320	<20	20	10	15
17...	2100	--	--	<5	<10	<10	340	<20	30	11	17
18...	0900	--	--	<5	<10	<10	440	<20	30	11	18
28-29	--	1900	1500	<5	<10	<10	320	<20	10	9.6	14
JAN , 1982											
11-12	--	1900	1500	--	--	--	--	--	--	7.1	12
FEB											
09-10	--	920	120	<5	10	30	1700	90	40	16	5.4
17-18	--	1240	235	<5	<10	20	920	50	100	4.0	14
MAR											
07...	0820	--	--	<5	<10	80	6600	380	430	32	20
07...	0830	--	--	<5	20	160	9800	610	670	38	18

01589480 JONES FALLS NEAR MOUTH AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO APRIL 1982

DATE	TIME	START-ING TIME (2400 HOURS)	END-ING TIME (2400 HOURS	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)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, INOR-GANIC, TOTAL (MG/L AS C)
MAR , 1982											
07...	0840	--	--	<5	30	150	11000	590	630	31	17
07...	0855	--	--	<5	<10	120	6500	370	450	42	12
07...	1010	--	--	<5	<10	30	1100	80	150	11	9.0
07...	1450	--	--	<5	<10	70	5600	240	610	56	13
07...	1635	--	--	<5	20	40	4200	120	200	52	13
07...	1910	--	--	<5	<10	60	5400	180	270	42	18
07...	2145	--	--	<5	10	150	3300	470	630	70	24
08...	0145	--	--	<5	<10	20	5300	140	140	21	18
08...	0845	--	--	<5	10	<10	480	<20	40	8.6	18
09...	1600	--	--	--	--	--	480	<20	--	5.0	--
09...	1700	--	--	--	--	--	390	<20	--	5.6	--
09...	1800	--	--	--	--	--	390	<20	--	3.8	--
09...	1900	--	--	--	--	--	380	<20	--	9.4	--
09...	2000	--	--	--	--	--	430	<20	--	6.4	--
09...	2100	--	--	--	--	--	470	<20	--	2.9	--
09...	2200	--	--	--	--	--	450	<20	--	3.1	--
09...	2300	--	--	--	--	--	400	<20	--	2.6	--
09-10	--	1600	1400	--	--	--	400	<20	--	4.5	--
10...	0100	--	--	--	--	--	440	<20	--	3.6	--
10...	0200	--	--	--	--	--	350	<20	--	1.5	--
10...	0300	--	--	--	--	--	370	<20	--	1.8	--
10...	0400	--	--	--	--	--	380	<20	--	4.3	--
10...	0500	--	--	--	--	--	150	<20	--	3.2	--
10...	0600	--	--	--	--	--	350	<20	--	2.0	--
10...	0700	--	--	--	--	--	450	<20	--	1.7	--
10...	0800	--	--	--	--	--	370	<20	--	4.5	--
10...	0900	--	--	--	--	--	390	<20	--	3.5	--
10...	1000	--	--	--	--	--	380	<20	--	3.9	--
10...	1100	--	--	--	--	--	400	<20	--	3.6	--
10...	1200	--	--	--	--	--	440	<20	--	4.5	--
10...	1300	--	--	--	--	--	450	<20	--	4.4	--
10...	1400	--	--	--	--	--	420	<20	--	3.2	--
10...	2400	--	--	--	--	--	410	<20	--	4.6	--
23-24	--	1900	1500	<5	<10	<10	370	<20	10	.5	21
APR											
03...	0530	--	--	<5	<10	20	1100	100	90	5.3	21
03...	0730	--	--	<5	<10	40	1500	120	140	4.8	8.1
03...	0930	--	--	<5	<10	40	1300	120	140	4.0	9.6
03...	1130	--	--	<5	<10	40	700	70	100	4.1	9.6
03...	1330	--	--	<5	<10	50	4100	170	200	15	13
03...	1530	--	--	<5	<10	60	5800	220	260	1.7	17
04...	0130	--	--	<5	<10	120	11000	720	630	28	24
04...	0930	--	--	<5	<10	20	550	30	70	4.1	39
04...	1930	--	--	<5	<10	50	3600	180	200	12	14
26-26	--	746	1350	<5	<10	30	1500	70	110	13	3.1

01590500 BACON RIDGE BRANCH AT CHESTERFIELD, MD

LOCATION.--Lat 39°00'07", long 76°36'53", Anne Arundel County, Hydrologic Unit 02060004, on left bank 50 ft (15 m) downstream from highway bridge, 0.5 mi (0.8 km) east of Chesterfield, 1.4 mi (2.3 km) upstream from confluence with North River, and 6.8 mi (10.9 km) northwest of Annapolis.

DRAINAGE AREA.--6.92 mi^2 (17.92 km^2).

PERIOD OF RECORD.--October 1942 to September 1952. Annual maximum, water years 1965-74. October 1974 to current year. Monthly discharge only October and November 1942, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft (4.6 m), from topographic map.

REMARKS.--Records good. Records include sewage from Crownsville State Hospital, which obtains its water supply from wells. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1943-52, 1975-82), 9.48 ft^3/s (0.268 m^3/s), 18.60 in/yr (472 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s (59.5 m^3/s) Aug. 2, 1944, gage height, 5.49 ft (1.673 m), from rating curve extended above 140 ft^3/s (3.96 m^3/s) on basis of velocity-area studies; minimum discharge, 1.5 ft^3/s (0.042 m^3/s) all or part of each day July 14-16, 18-20, Aug. 18-30, 1981; minimum gage height, 1.72 ft (0.524 m) Aug. 30, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 199 ft^3/s (5.64 m^3/s) May 28; gage height, 3.60 ft (1.097 m), no other peak above base of 185 ft^3/s (5.2 m^3/s); minimum discharge, 1.8 ft^3/s (0.051 m^3/s) Aug. 29, 30, Sept. 17, 18, 19, 20, gage height 1.74 ft (0.530 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.8	9.0	15	15	5.8	7.6	6.5	6.1	2.8	3.5	2.1
2	3.1	3.8	6.0	6.9	10	5.7	5.2	5.6	18	2.2	2.8	2.1
3	2.4	3.6	4.0	5.2	26	5.4	9.0	5.2	5.2	3.3	2.6	4.1
4	2.1	3.5	3.6	18	22	5.2	6.6	5.2	10	11	2.4	2.2
5	2.3	3.5	3.4	13	12	5.4	5.1	4.8	17	3.1	5.0	2.1
6	2.4	8.3	3.2	6.5	9.2	5.8	14	4.8	17	2.5	23	2.1
7	3.3	4.9	3.2	5.8	7.4	13	7.5	4.8	11	2.3	14	2.1
8	2.4	3.6	3.4	5.1	6.2	13	5.9	6.5	6.6	2.2	4.0	2.1
9	2.3	3.5	3.0	4.6	16	6.6	7.5	7.0	5.1	2.2	8.5	2.1
10	2.3	3.5	3.0	4.4	14	5.8	6.5	4.8	4.5	9.0	13	2.1
11	2.4	3.5	3.2	4.0	7.6	5.9	5.7	4.4	4.8	4.2	3.7	2.1
12	2.6	3.2	3.0	4.0	6.4	8.5	5.3	4.0	4.5	3.0	3.2	2.1
13	2.6	3.1	3.0	4.4	6.8	6.6	5.4	4.0	26	2.5	2.8	2.1
14	2.8	3.2	3.0	4.2	6.4	5.8	5.1	4.0	30	8.7	2.6	2.1
15	2.9	3.5	30	4.0	7.1	5.4	4.8	3.7	8.5	21	2.4	2.1
16	3.0	3.5	10	4.0	8.3	9.0	4.6	3.3	5.6	3.8	2.3	2.1
17	2.8	3.5	7.0	4.0	12	18	5.9	3.3	5.5	3.0	2.3	2.0
18	3.4	3.4	6.1	4.0	14	7.9	15	3.3	5.0	2.6	2.5	1.9
19	6.8	3.2	4.5	4.0	18	6.8	6.5	4.8	4.3	2.4	2.1	1.9
20	3.3	3.5	3.4	3.8	21	7.9	5.5	5.2	3.6	2.8	2.1	2.7
21	3.0	3.3	3.2	3.8	15	7.5	5.3	3.7	3.1	2.8	2.7	2.6
22	3.1	3.1	4.7	4.4	10	6.4	4.8	6.2	3.0	2.1	2.2	14
23	3.8	3.0	6.4	5.0	8.3	5.9	4.8	5.2	3.6	4.6	2.2	7.5
24	7.2	3.0	4.9	5.1	7.5	5.5	4.6	4.4	2.8	5.7	2.3	3.0
25	4.4	3.2	4.3	4.5	6.4	5.4	4.4	4.4	2.6	2.6	2.3	2.6
26	12	3.0	3.9	4.2	5.6	7.0	15	4.0	2.6	2.3	2.1	2.8
27	15	2.8	4.5	4.5	6.0	5.3	18	3.7	2.5	2.1	2.1	19
28	10	3.2	4.3	6.1	6.2	4.8	16	37	2.5	3.0	2.1	5.2
29	5.3	2.8	4.0	4.1	---	4.8	8.1	65	2.6	2.4	1.9	3.2
30	4.1	2.8	3.6	4.5	---	4.9	7.0	11	2.8	4.3	1.9	2.8
31	3.8	---	4.2	7.2	---	6.5	---	5.8	---	9.1	2.1	---
TOTAL	129.1	105.8	163.0	178.3	310.4	217.5	226.7	245.6	226.4	135.6	128.7	106.9
MEAN	4.16	3.53	5.26	5.75	11.1	7.02	7.56	7.92	7.55	4.37	4.15	3.56
MAX	15	8.3	30	18	26	18	18	65	30	21	23	19
MIN	2.1	2.8	3.0	3.8	5.6	4.8	4.4	3.3	2.5	2.1	1.9	1.9
CFSM	.60	.51	.76	.83	1.60	1.01	1.09	1.15	1.09	.63	.60	.51
IN.	.69	.57	.88	.96	1.67	1.17	1.22	1.32	1.22	.73	.69	.57

CAL YR 1981 TOTAL 1868.8 MEAN 5.12 MAX 35 MIN 1.5 CFSM .74 IN 10.04
WTR YR 1982 TOTAL 2174.0 MEAN 5.96 MAX 65 MIN 1.9 CFSM .86 IN 11.69

01590720 RHODE RIVER NEAR SOUTH RIVER, MD

LOCATION.--Lat 38°53'10", long 76°32'30", Anne Arundel County, Hydrologic Unit 02060004, at end of 100 ft (30 m) pier located on Smithsonian Institution property, 1.5 mi (2.4 km) southeast of South River.

DRAINAGE AREA.--18.0 mi^2 (46.6 km^2).

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURES: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980. Analog recorder prior to October 1980.

REMARKS.--Interruptions in record were due to malfunctions of the recording instruments. Records of daily maximum and minimum and weekly mean for salinity, pH, water temperature, dissolved oxygen, tide and solar radiation prior to January 1979 are published in USGS Water Resources Investigation Reports 74-10, 77-20, and 79-109. All records are on file at the Smithsonian's Chesapeake Bay Center for Environmental Studies including the period January 1979 thru September 1980.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 27,900 micromhos Feb. 15, 1981; minimum, 3,900 micromhos July 11, 15, 1972.
pH: Maximum, 10.2 units May 18 and July 13, 1977; minimum, 6.8 units Aug. 30, 1972, and May 31, June 1, 6, 7, 12, July 8, 1981.
WATER TEMPERATURES: Maximum, 33.2°C July 19, 1977; minimum 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 20.0 mg/L Feb. 22, 1980; minimum, 0.0 mg/L Aug. 4, 5, 1973, and July 14, 18, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 27,200 micromhos Oct. 23; minimum, 9,980 micromhos Apr. 30.
pH: Maximum, 9.6 units May 4, 5, 10-15; minimum, 7.2 units June 7, 9, 15, 19, July 1, 31, Aug. 6-9, 22.
WATER TEMPERATURES: Maximum, 32.5°C July 18, 19; minimum, 0.0°C on many days during winter period.
DISSOLVED OXYGEN: Maximum, 19.1 mg/L Jan. 18; minimum, 0.2 mg/L July 28.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	26000	25500	25700	26100	25500	26000	25000	24600	24800	25300	25000	25100
2	26100	25800	26000	26300	26000	26100	25000	24700	24900	25200	24800	25000
3	26100	26000	26000	26200	25700	26000	25000	24800	24900	25000	24500	24800
4	26400	26000	26200	25900	22300	25300	25000	24700	24900	24600	23100	24000
5	26700	26300	26400	23500	19500	21800	24900	24500	24700	24500	23800	24100
6	27000	26500	26700	21600	19400	20400	24700	24500	24600	24000	23400	23700
7	27100	26600	26700	21500	20900	21200	24800	24800	24800	23900	23600	23700
8	26700	26500	26600	21700	21000	21300	24800	24600	24700	23800	23600	23700
9	26600	26500	26500	24100	21400	22600	24700	24400	24600	24200	23700	23800
10	26600	26500	26500	23000	21500	22000	25200	24500	24800	23800	23200	23600
11	26700	26600	26600	24100	22500	23700	25300	25100	25200	24200	23900	24100
12	26800	26700	26800	24100	23500	23800	25500	25200	25400	24400	24200	24300
13	26900	26700	26800	23600	23400	23500	25600	25300	25500	24700	24300	24500
14	26900	26800	26800	23500	23300	23400	25900	25100	25500	24800	24200	24700
15	26900	26600	26700	23500	23400	23400	25500	25000	25200	24400	24200	24300
16	26700	26500	26600	23400	23200	23400	25300	24700	25000	24400	24000	24300
17	26800	26700	26700	23300	23100	23200	25100	23300	24300	24400	23300	24200
18	26800	26500	26700	23300	23100	23200	24600	24500	24600	24400	24000	24100
19	26900	26500	26600	23400	23200	23300	24700	24400	24500	24100	23700	24000
20	26700	26600	26600	23400	23100	23200	24500	24400	24500	24100	23700	23900
21	26700	26500	26600	23500	23300	23400	24600	24400	24500	23700	23400	23500
22	26700	26500	26600	23500	23400	23400	25000	24600	24800	23400	22000	22900
23	27200	26500	26800	25600	23500	25100	25000	24300	24700	22300	21200	21700
24	27100	26900	27000	25600	23700	24300	25000	24500	24800	21900	21300	21400
25	27000	26700	26900	25100	24100	24600	25500	24600	25000	22200	21500	21800
26	26800	26500	26700	25100	24200	24700	25900	25100	25500	23400	22000	22600
27	26700	25400	26200	25000	24500	24700	26100	24900	25600	23600	22800	23200
28	26800	26300	26600	25000	24600	24800	26100	25000	25600	23800	23300	23700
29	26300	26000	26200	24900	24700	24800	26000	25300	25700	23900	23600	23800
30	26200	26000	26100	24900	24700	24800	25700	25500	25600	23900	23800	23800
31	26100	26000	26100	---	---	---	25700	25200	25500	24000	23700	23900
MONTH	27200	25400	26500	26300	19400	23700	26100	23300	25000	25300	21200	23700

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	24100	23800	24000	16300	14300	15300	16300	15800	16000	11500	11200	11300
2	24200	23900	24000	18300	15700	17000	16000	15400	15800	11500	11300	11400
3	24300	23900	24100	16900	15600	16300	16100	15200	15600	11600	11200	11400
4	24500	23900	24200	19100	15800	16900	16100	15600	15800	11500	10000	11300
5	24400	23700	24200	20200	18800	19700	15700	15700	15900	11400	11000	11300
6	24200	22700	23400	20100	17400	18200	15600	15200	15300	11300	10800	11200
7	23500	22400	22800	20000	18900	19400	15200	14400	14900	11400	11000	11200
8	22400	21700	22100	19900	18800	19400	15200	14800	15100	11200	10900	11100
9	22000	20300	21200	18900	17300	18000	15100	14600	14800	11300	10900	11100
10	20900	20100	20400	18400	17600	18000	14900	14200	14800	11400	11000	11200
11	20700	19600	20100	18300	17400	18000	14800	14300	14700	11700	10800	11400
12	19800	18700	19200	19300	18100	18600	14600	14200	14600	11700	11200	11500
13	18800	17500	18200	19500	17400	18400	14600	14100	14500	11800	11300	11600
14	18000	17200	17500	21500	18900	20400	14400	14200	14400	11800	11600	11700
15	17500	17000	17200	21500	19200	20200	14400	14100	14300	11900	11400	11800
16	17200	17000	17000	19500	18400	18900	---	---	---	12000	11300	11800
17	17200	15900	16900	22300	18400	20500	---	---	---	12300	11800	12100
18	17000	12900	15100	20300	17400	18900	---	---	---	12400	11700	12000
19	16900	15900	16500	19400	18000	18800	---	---	---	12200	11800	12000
20	17100	16100	16800	18700	17700	18200	12700	12200	12400	13100	12100	12600
21	16900	15300	16000	17500	12900	14700	12500	12400	12400	13700	12900	13100
22	16700	15900	16200	19000	13600	17300	12500	12300	12400	13200	12700	12900
23	16900	14700	16000	17500	14000	15600	12300	12200	12300	13300	12600	12900
24	15500	14900	15100	14700	14100	14500	12300	12000	12200	13600	12700	13200
25	15100	14800	14900	14800	13900	14400	12200	11900	12100	13700	13100	13400
26	15700	14800	15300	14900	14000	14600	12100	11800	11900	14000	12900	13700
27	15600	14800	15400	14800	14600	14700	12000	11600	11800	14000	13000	13600
28	15500	14800	15200	17100	14800	15600	11600	11200	11400	13500	13000	13200
29	---	---	---	17200	14900	16000	11600	10200	11200	13700	12800	13400
30	---	---	---	16000	15200	15500	11500	9980	11100	13900	13400	13600
31	---	---	---	16000	15100	15500	---	---	---	13900	13300	13700
MONTH	24500	12900	18900	22300	12900	17300	16300	9980	13800	14000	10000	12200

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13800	13400	13700	12700	12000	12300	14000	13800	13900	18500	18200	18400
2	14300	13700	14000	12400	12100	12300	14100	13900	14000	18600	18400	18500
3	14300	13400	13800	12500	12100	12400	14300	14000	14100	19100	18400	18700
4	14000	13700	13800	12300	12100	12200	14400	14000	14200	19100	18800	19000
5	14000	13700	13800	12400	12100	12300	14400	13900	14200	19500	19000	19300
6	14300	13800	14000	12500	12100	12300	14200	12600	13700	20000	19500	19800
7	14000	13500	13900	12600	12200	12400	13700	12000	13000	19900	19600	19800
8	14000	13300	13700	12700	12400	12600	14000	12100	13100	20100	19500	19800
9	13900	13400	13700	12700	12500	12500	14000	13100	13500	20100	19800	19900
10	13400	13300	13400	12600	12500	12600	14300	13700	13900	20200	20000	20100
11	13500	13100	13300	12600	12500	12500	14600	13900	14100	20500	19800	20100
12	13300	13000	13200	12800	12500	12700	14900	13800	14300	20300	19900	20100
13	13200	12800	13000	12800	12600	12700	15500	14800	15300	20400	20100	20300
14	12700	12200	12600	12800	12600	12700	15900	15000	15300	20500	20200	20300
15	12600	12100	12400	12900	12700	12800	15500	15000	15300	20500	20300	20400
16	12300	11700	12200	12900	12800	12800	15500	14900	15300	20500	20300	20400
17	12200	11900	12100	12900	12600	12800	15800	15400	15600	20700	20400	20600
18	12100	11900	12000	13000	12800	12900	15800	15400	15600	20800	20600	20700
19	12000	11800	11900	13000	12900	12900	15700	15500	15600	20800	20700	18100
20	12100	11600	11900	13100	12900	13000	16300	15700	16000	20800	20300	20200
21	11900	11700	11800	13100	12900	13100	16300	15900	16200	20800	20500	20700
22	11900	11700	11900	13200	13000	13100	16800	16000	16500	20700	20200	20500
23	11900	11700	11800	13300	13100	13200	16900	16500	16700	20600	20300	20500
24	11800	11500	11700	13200	12900	13000	17200	16900	17100	20500	20000	20300
25	---	---	---	13100	12900	13000	17500	16900	17200	20500	20200	20400
26	11800	11700	11700	13400	13000	13300	17500	17000	17300	20500	20100	20300
27	11700	11500	11700	13600	13400	13500	17600	17400	17500	20600	19800	20300
28	11900	11600	11800	14200	13400	13700	18000	17400	17600	20700	20200	20500
29	12000	11700	11800	14100	13900	14000	18000	17300	17700	20600	19700	20300
30	12200	11900	12000	14100	13600	13900	18100	17900	18000	20600	20100	20400
31	---	---	---	14000	13400	13800	18400	18200	18300	---	---	---
MONTH	14300	11500	12700	14200	12000	12900	18400	12000	15500	20800	18200	20000

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.7	8.3	8.5	8.3	8.1	8.2	8.7	8.6	8.7	8.5	8.5	8.5
2	8.4	8.2	8.3	8.4	8.1	8.2	8.6	8.5	8.6	8.6	8.5	8.5
3	8.5	8.2	8.4	8.4	8.2	8.3	8.7	8.5	8.6	8.6	8.5	8.5
4	8.5	8.4	8.4	8.4	8.2	8.3	8.6	8.6	8.6	8.5	8.5	8.5
5	8.4	8.0	8.3	8.6	8.2	8.4	8.6	8.5	8.6	8.5	8.4	8.5
6	8.5	7.9	8.1	8.6	8.4	8.5	8.6	8.5	8.6	8.6	8.4	8.5
7	8.4	7.9	8.2	8.6	8.3	8.5	8.5	8.5	8.5	8.7	8.4	8.6
8	8.4	8.2	8.3	8.6	8.4	8.5	8.5	8.4	8.5	8.7	8.6	8.7
9	8.5	8.2	8.3	8.7	7.8	8.4	8.5	8.4	8.5	8.7	8.5	8.7
10	8.5	8.3	8.4	8.7	8.3	8.6	8.5	8.5	8.5	8.7	8.6	8.7
11	8.5	8.3	8.4	8.6	7.3	8.2	8.5	8.5	8.5	8.7	8.6	8.7
12	8.5	8.3	8.4	8.7	8.0	8.4	8.6	8.5	8.5	8.7	8.7	8.7
13	8.5	8.3	8.4	8.7	8.5	8.6	8.6	8.5	8.6	8.8	8.6	8.7
14	8.4	8.3	8.4	8.6	8.5	8.5	8.6	8.5	8.5	8.7	8.5	8.6
15	8.4	8.2	8.3	8.5	8.4	8.5	8.6	8.5	8.5	8.8	8.5	8.7
16	8.4	8.2	8.3	8.5	8.3	8.4	8.5	8.4	8.5	8.7	8.6	8.7
17	8.3	8.2	8.3	8.5	8.4	8.4	8.6	8.4	8.5	8.9	8.5	8.7
18	8.3	8.2	8.3	8.5	8.3	8.4	8.6	8.4	8.5	9.0	8.6	8.7
19	8.3	8.0	8.2	8.6	8.4	8.6	8.6	8.4	8.5	8.7	8.5	8.7
20	8.4	8.2	8.3	8.6	8.4	8.5	8.6	8.5	8.6	8.7	8.5	8.6
21	8.3	8.2	8.3	8.7	8.5	8.6	8.7	8.5	8.6	8.6	8.3	8.4
22	8.3	8.1	8.2	8.8	8.6	8.7	8.8	8.5	8.6	8.3	8.0	8.1
23	8.4	8.1	8.2	8.7	7.9	8.3	8.6	8.4	8.5	8.3	8.1	8.3
24	8.4	8.1	8.3	8.8	8.1	8.6	8.6	8.4	8.6	8.3	8.2	8.3
25	8.4	8.2	8.3	8.7	8.3	8.6	8.7	8.4	8.5	8.3	8.1	8.2
26	8.3	8.1	8.2	8.6	8.4	8.5	8.6	8.1	8.4	8.2	7.5	7.9
27	8.2	7.9	8.1	8.6	8.5	8.6	8.6	8.1	8.4	8.4	7.4	7.7
28	8.3	7.8	8.1	8.6	8.4	8.6	8.6	8.1	8.4	8.5	8.1	8.4
29	8.3	8.1	8.2	8.7	8.6	8.6	8.5	8.3	8.5	8.7	8.3	8.5
30	8.4	8.1	8.2	8.7	8.6	8.7	8.6	8.5	8.5	8.8	8.5	8.6
31	8.3	8.2	8.3	---	---	---	8.6	8.5	8.5	8.7	8.6	8.6
MONTH	8.7	7.8	8.3	8.8	7.3	8.5	8.8	8.1	8.5	9.0	7.4	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.9	8.6	8.7	8.4	8.3	8.4	8.8	8.6	8.8	---	---	---
2	8.9	8.8	8.8	8.5	8.3	8.3	9.0	8.7	8.8	---	---	---
3	8.9	8.7	8.8	8.4	8.2	8.3	8.9	8.7	8.8	---	---	---
4	8.9	8.7	8.8	8.3	8.2	8.3	8.8	8.5	8.7	9.6	8.0	9.1
5	8.9	8.7	8.8	8.5	8.2	8.3	9.0	8.8	8.9	9.6	9.3	9.4
6	8.8	8.5	8.6	8.4	8.2	8.2	8.9	8.8	8.8	9.5	9.3	9.4
7	8.7	8.5	8.6	8.3	8.0	8.2	8.8	8.7	8.8	9.5	9.3	9.4
8	8.5	8.5	8.5	8.6	8.0	8.2	8.7	8.6	8.7	9.5	9.2	9.3
9	8.5	8.4	8.4	8.3	8.1	8.2	8.7	8.6	8.7	9.4	9.2	9.3
10	8.5	8.4	8.4	8.5	8.2	8.3	8.8	8.6	8.7	9.6	9.2	9.4
11	8.5	8.3	8.4	8.5	8.2	8.3	8.9	8.7	8.8	9.6	9.3	9.5
12	8.4	8.3	8.4	8.8	8.3	8.5	8.9	8.7	8.8	9.6	9.3	9.5
13	8.4	8.2	8.3	8.7	8.3	8.5	8.9	8.7	8.8	9.6	9.1	9.4
14	8.3	8.2	8.3	8.6	8.4	8.5	9.0	8.8	8.9	9.6	9.1	9.4
15	8.3	8.2	8.3	8.5	8.2	8.5	---	---	---	9.6	9.2	9.4
16	8.3	8.2	8.3	8.5	8.4	8.4	---	---	---	9.5	8.9	9.3
17	8.3	8.1	8.3	8.5	8.0	8.3	---	---	---	9.3	8.7	9.1
18	8.3	7.9	8.2	8.5	8.3	8.4	---	---	---	9.3	8.8	9.1
19	8.4	8.3	8.3	8.5	8.4	8.4	---	---	---	9.2	8.9	9.1
20	8.4	8.3	8.3	8.5	8.4	8.4	9.1	9.0	9.0	9.0	8.6	8.8
21	8.4	8.2	8.3	8.4	8.4	8.4	9.2	9.0	9.1	8.8	8.2	8.6
22	8.5	8.3	8.4	8.8	8.4	8.6	9.2	9.1	9.2	8.7	8.2	8.5
23	8.5	8.2	8.4	8.6	8.4	8.5	9.3	9.1	9.2	8.3	7.8	8.1
24	8.3	8.2	8.3	8.6	8.5	8.5	9.4	9.2	9.3	8.5	7.8	8.0
25	8.4	8.3	8.3	8.7	8.5	8.6	9.4	9.2	9.3	8.4	7.8	8.0
26	8.4	8.3	8.3	8.7	8.5	8.6	9.2	9.1	9.2	8.9	7.4	8.1
27	8.5	8.3	8.4	8.8	8.7	8.8	9.2	9.0	9.1	9.0	7.6	8.5
28	8.5	8.4	8.4	9.0	8.8	8.9	9.3	8.9	9.1	8.8	8.4	8.6
29	---	---	---	8.9	8.6	8.8	9.3	9.1	9.2	8.9	8.3	8.6
30	---	---	---	9.0	8.7	8.9	9.5	9.2	9.3	8.6	8.1	8.5
31	---	---	---	8.9	8.7	8.8	---	---	---	8.4	8.0	8.3
MONTH	8.9	7.9	8.4	9.0	8.0	8.5	9.5	8.5	9.0	9.6	7.4	8.9

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.6	7.9	8.4	8.4	7.2	7.8	7.6	7.3	7.4	8.2	7.8	8.0
2	8.4	7.9	8.3	8.7	7.5	8.1	7.8	7.3	7.5	8.4	7.5	8.0
3	8.5	7.9	8.2	8.5	8.0	8.3	8.2	7.3	7.7	8.2	7.5	7.9
4	8.1	7.6	7.9	8.6	7.4	8.0	8.4	7.4	7.8	8.0	7.5	7.7
5	7.9	7.4	7.6	8.5	7.9	8.2	8.2	7.4	7.9	8.2	7.4	7.7
6	7.9	7.3	7.6	8.7	7.9	8.3	7.7	7.2	7.5	8.3	7.5	7.9
7	8.2	7.2	7.6	8.6	8.2	8.4	8.2	7.2	7.4	8.6	7.8	8.2
8	8.4	7.6	8.0	8.6	7.8	8.3	8.0	7.2	7.5	8.5	8.1	8.2
9	8.5	7.2	8.1	8.5	7.6	8.1	8.6	7.2	7.8	8.4	7.8	8.2
10	8.4	7.9	8.1	8.6	7.7	8.2	8.3	7.5	7.9	8.4	8.1	8.2
11	8.2	7.5	7.8	8.3	7.8	8.1	8.6	7.4	8.0	8.4	7.8	8.1
12	8.3	7.6	8.0	8.6	7.6	8.0	8.5	7.6	8.1	8.5	7.6	8.0
13	8.1	7.5	7.7	8.6	7.6	8.1	8.6	7.4	7.8	8.5	7.5	8.0
14	8.4	7.4	7.7	8.6	7.7	8.2	8.4	7.3	7.8	8.2	7.6	7.9
15	8.5	7.2	8.1	8.6	7.6	8.1	8.3	7.4	7.9	7.9	7.4	7.6
16	8.5	8.1	8.3	8.7	8.0	8.4	8.6	7.5	7.9	8.3	7.8	8.1
17	8.4	7.8	8.2	8.7	8.1	8.4	8.2	7.4	7.8	8.4	7.7	8.0
18	8.5	7.7	8.0	8.4	8.0	8.2	8.2	7.5	7.9	8.4	7.9	8.1
19	8.5	7.2	8.0	---	---	---	8.6	7.3	7.9	8.5	7.7	8.0
20	8.5	7.3	8.1	8.4	7.7	8.1	8.2	7.6	7.9	8.2	7.9	8.1
21	8.7	8.0	8.3	8.6	7.8	8.1	7.9	7.4	7.6	8.3	7.9	8.1
22	8.6	7.8	8.3	8.6	7.9	8.3	8.2	7.2	7.6	8.2	7.9	8.0
23	8.4	7.7	8.1	8.4	7.9	8.1	8.5	7.7	8.0	8.2	7.8	8.0
24	8.5	7.4	8.0	8.4	7.5	7.9	8.8	7.5	8.0	8.3	7.7	8.0
25	---	---	---	8.3	7.7	7.9	8.7	7.8	8.1	8.5	7.9	8.2
26	8.5	7.7	8.1	---	---	---	8.5	7.6	8.0	8.4	8.0	8.2
27	8.5	7.9	8.2	---	---	---	8.3	8.0	8.1	8.4	7.9	8.1
28	8.6	7.4	8.2	8.2	7.3	7.9	8.5	7.7	7.9	8.3	7.6	8.1
29	8.5	7.9	8.2	8.2	7.4	7.8	8.5	7.9	8.1	8.4	7.6	8.1
30	8.3	7.3	7.8	8.1	7.4	7.7	8.5	8.0	8.2	8.3	8.0	8.1
31	---	---	---	8.1	7.2	7.5	8.4	7.7	8.2	---	---	---
MONTH	8.7	7.2	8.0	8.7	7.2	8.1	8.8	7.2	7.9	8.6	7.4	8.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.5	24.5	26.0	28.0	26.0	27.0	27.5	26.0	26.5	24.0	23.5	24.0
2	26.0	24.0	25.0	28.0	26.0	26.5	27.5	26.0	26.5	26.0	23.5	24.5
3	26.0	23.5	25.0	27.0	26.0	26.5	28.5	26.0	27.0	25.5	24.5	25.0
4	24.5	22.0	23.0	27.5	25.5	26.5	28.5	26.5	27.5	25.0	23.5	24.5
5	22.0	21.5	21.5	28.0	26.0	27.0	28.5	27.0	27.5	25.0	23.5	24.5
6	22.0	21.0	21.5	28.5	26.0	27.0	28.0	26.0	27.0	25.5	23.5	24.5
7	22.0	21.5	21.5	29.0	26.5	27.5	27.5	25.5	26.0	25.5	24.0	24.5
8	22.5	21.0	22.0	29.5	27.5	28.0	28.5	26.5	27.0	24.5	23.5	24.0
9	25.5	22.0	23.0	28.5	28.0	28.0	29.0	27.0	27.5	24.0	23.0	23.5
10	24.5	22.5	23.0	28.5	27.5	28.0	28.5	27.0	27.5	24.5	23.0	24.0
11	22.5	22.0	22.0	29.5	27.5	28.5	28.5	27.0	27.5	26.0	23.5	24.5
12	22.0	21.0	21.5	30.0	28.0	28.5	27.0	26.0	26.5	26.5	24.5	25.0
13	21.0	20.0	20.0	30.5	28.0	29.0	28.0	25.5	26.5	27.5	25.0	25.5
14	22.0	19.5	20.0	29.5	29.0	29.0	27.5	25.5	26.5	27.0	25.5	26.0
15	23.5	20.0	22.0	30.0	28.0	29.0	28.0	26.0	27.0	27.0	25.5	26.0
16	25.0	22.0	23.0	32.0	29.5	30.5	29.0	26.5	27.5	26.5	24.0	26.0
17	25.5	23.5	24.0	32.0	30.0	31.0	28.5	27.0	27.5	26.0	25.0	25.0
18	26.0	23.5	24.5	32.5	30.5	31.5	28.0	26.5	27.5	25.0	24.0	24.5
19	26.0	24.5	25.0	32.5	30.5	31.5	28.5	26.0	27.0	24.5	20.5	23.5
20	25.5	24.0	25.0	31.0	29.5	30.5	27.5	26.5	27.0	24.0	22.5	23.5
21	27.0	24.5	25.0	29.5	28.5	29.0	27.0	26.5	26.5	23.0	21.5	22.5
22	26.0	25.0	25.5	29.5	28.0	28.5	26.5	25.0	26.0	21.5	20.5	21.0
23	26.0	25.0	25.5	29.0	28.0	28.5	26.0	25.0	25.5	21.0	19.5	20.0
24	26.5	24.0	25.0	29.5	27.5	28.5	28.0	25.0	26.0	21.5	19.5	20.5
25	---	---	---	29.5	28.0	28.5	26.5	25.5	26.0	22.0	20.0	21.0
26	27.5	25.0	26.0	28.5	28.0	28.5	27.0	24.0	25.5	21.5	20.0	20.5
27	28.5	26.0	27.0	30.5	28.0	29.0	26.0	25.0	25.5	21.5	20.0	20.5
28	29.5	27.0	28.0	29.5	28.5	29.0	26.0	24.5	25.0	21.5	20.0	20.5
29	28.5	27.5	27.5	28.5	27.5	28.0	24.5	22.0	23.5	21.5	20.0	21.0
30	28.0	26.5	27.0	28.0	26.0	27.0	23.5	22.5	23.0	21.5	20.5	20.5
31	---	---	---	27.0	26.0	26.5	24.5	22.5	23.5	---	---	---
MONTH	29.5	19.5	24.0	32.5	25.5	28.5	29.0	22.0	26.5	27.5	19.5	23.5

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.5	6.5	7.8	10.4	8.9	9.6	---	---	---	13.2	12.4	12.7
2	7.8	6.2	7.2	11.2	8.9	9.8	---	---	---	13.7	12.2	12.8
3	8.7	6.2	7.4	11.2	9.6	10.4	---	---	---	13.1	12.1	12.7
4	8.7	6.9	7.7	12.1	9.7	10.8	---	---	---	12.7	11.9	12.2
5	8.1	5.4	7.0	13.3	10.1	11.4	---	---	---	12.9	11.4	12.2
6	8.7	4.9	5.8	12.0	10.2	11.3	---	---	---	12.9	11.8	12.4
7	8.2	4.8	6.7	11.0	8.8	9.9	---	---	---	14.0	11.8	12.8
8	10.0	6.6	8.1	11.7	9.4	10.6	---	---	---	13.9	12.4	13.1
9	11.1	8.0	9.4	13.5	7.0	10.7	---	---	---	13.5	12.2	12.9
10	10.9	9.0	10.0	12.0	9.5	11.2	---	---	---	13.0	11.7	12.4
11	10.4	9.0	9.7	11.8	3.8	9.2	13.1	10.7	11.6	13.7	12.3	13.0
12	10.1	8.9	9.4	13.0	8.3	10.4	12.9	11.9	12.4	14.4	13.3	14.0
13	9.8	8.4	8.8	12.8	10.0	11.0	13.2	12.0	12.6	14.8	13.2	13.8
14	10.3	8.1	9.1	11.5	10.3	10.9	13.2	11.6	12.6	13.6	12.3	15.9
15	10.5	8.7	9.4	11.0	9.7	10.4	13.0	12.0	12.5	---	---	---
16	10.1	8.9	9.5	11.4	9.3	10.5	12.4	11.4	11.9	15.0	13.6	14.5
17	9.7	8.2	9.1	10.7	9.9	10.2	13.2	11.5	11.7	18.6	13.6	15.6
18	9.3	8.0	8.7	10.9	9.5	10.1	13.8	12.8	13.2	19.1	13.8	15.7
19	8.7	6.9	8.0	12.2	9.6	11.7	13.6	12.4	13.1	15.6	14.1	15.0
20	9.3	7.8	8.5	12.3	10.5	11.4	13.9	12.9	13.4	15.7	14.5	15.2
21	9.3	8.4	8.7	11.9	10.6	11.2	14.6	13.3	13.9	15.1	13.1	14.0
22	9.7	8.4	8.9	12.1	10.4	11.2	14.7	13.5	14.0	13.7	10.4	12.0
23	9.3	8.4	8.7	11.3	7.0	9.8	14.3	13.3	14.0	13.6	12.4	13.3
24	9.9	7.4	8.6	12.3	8.9	11.1	15.5	13.0	14.3	13.6	12.5	13.3
25	9.0	8.1	8.5	12.7	9.4	11.5	15.5	12.6	14.3	13.1	12.3	12.7
26	8.9	7.6	8.0	13.2	11.1	12.3	14.6	11.0	13.1	12.9	4.6	9.6
27	8.6	6.9	7.7	12.5	11.8	12.2	14.8	11.4	13.0	12.8	5.3	8.2
28	9.6	5.8	7.8	12.4	10.7	11.9	13.3	11.2	12.5	13.5	10.8	12.6
29	9.4	8.0	8.7	12.3	11.1	11.7	13.1	11.5	12.6	15.8	12.5	13.9
30	10.7	8.1	9.4	13.6	11.3	12.4	14.0	12.2	12.9	17.0	13.9	15.2
31	10.3	9.2	9.8	---	---	---	14.1	12.6	13.1	16.3	14.5	15.4
MONTH	11.1	4.8	8.5	13.6	3.8	10.9	15.5	10.7	13.0	19.1	4.6	13.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	18.3	14.8	16.5	12.9	12.3	12.6	13.2	11.6	12.4	---	---	---
2	18.3	16.7	17.0	14.0	12.4	12.8	14.5	11.4	12.4	---	---	---
3	17.8	16.1	16.7	13.1	11.6	12.3	12.0	10.5	11.1	---	---	---
4	18.0	15.6	16.6	12.7	11.8	12.1	11.5	9.9	10.4	---	---	---
5	17.7	15.4	16.5	14.6	12.0	12.7	13.3	10.9	11.9	13.8	11.1	12.8
6	16.9	14.3	15.0	13.3	11.6	12.1	11.2	10.2	10.8	12.8	10.8	11.8
7	15.6	13.8	14.4	12.6	10.8	11.8	12.0	9.9	11.1	13.2	10.1	11.4
8	14.4	13.8	14.1	14.5	10.6	11.8	12.8	10.6	11.8	11.9	8.6	10.1
9	14.3	13.5	13.7	12.6	11.8	12.1	12.8	11.6	12.3	11.6	8.3	10.1
10	14.3	13.1	13.5	14.1	12.0	12.4	13.6	11.9	12.8	12.7	8.3	10.7
11	14.2	12.7	13.8	13.6	11.9	12.5	14.5	12.2	13.3	12.9	8.8	11.1
12	14.0	13.0	13.7	17.5	12.5	14.0	14.5	12.5	13.5	13.5	10.0	12.1
13	13.7	12.5	13.2	16.0	12.2	13.7	13.1	11.8	12.6	13.3	7.3	10.6
14	13.3	12.8	13.1	14.8	13.0	14.0	14.3	11.0	12.5	12.5	7.1	10.3
15	13.3	13.0	13.1	14.3	11.6	13.2	---	---	---	12.2	7.8	9.8
16	13.4	13.1	13.2	13.1	12.3	12.5	---	---	---	11.9	4.7	9.1
17	13.3	12.5	13.2	13.3	10.6	12.0	---	---	---	9.8	2.2	6.7
18	13.6	11.7	12.7	13.8	11.3	12.1	---	---	---	10.3	3.4	8.1
19	13.6	13.2	13.4	12.1	11.3	11.8	---	---	---	9.5	5.9	7.6
20	13.8	13.0	13.4	12.7	11.3	11.7	12.4	11.0	11.6	6.7	3.5	5.3
21	13.7	12.9	13.1	12.2	11.3	11.8	12.9	10.3	11.5	7.2	1.3	4.5
22	14.3	13.0	13.3	15.2	11.1	12.9	12.9	10.9	12.0	6.1	3.9	5.0
23	14.5	12.8	13.5	13.1	11.6	12.3	13.6	10.7	12.2	5.7	3.7	4.5
24	13.2	12.8	13.0	12.5	11.6	11.9	13.8	11.1	12.5	8.2	4.1	5.2
25	13.1	12.5	12.8	13.4	11.4	12.4	13.3	11.2	12.5	7.7	4.1	5.4
26	13.4	12.5	12.8	13.2	12.3	12.7	11.1	9.5	10.3	11.5	1.8	5.8
27	13.5	12.7	13.2	13.2	11.9	12.5	10.8	8.3	9.8	13.8	3.4	8.7
28	13.6	12.8	13.0	16.4	11.9	13.9	11.9	8.1	9.9	9.9	7.8	8.9
29	---	---	---	15.7	13.2	13.9	13.4	10.2	11.7	12.3	5.6	8.7
30	---	---	---	14.9	12.6	13.4	13.8	11.6	12.9	10.1	5.3	8.2
31	---	---	---	13.0	12.2	12.6	---	---	---	9.4	5.6	8.1
MONTH	18.3	11.7	14.0	17.5	10.6	12.6	14.5	8.1	11.8	13.8	1.3	8.5

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.8	5.6	8.1	9.2	.6	5.2	5.1	2.7	3.8	7.0	4.8	6.0
2	8.0	4.5	6.6	10.2	4.2	7.0	5.8	2.0	3.3	9.0	3.4	6.2
3	8.6	4.7	6.9	8.6	4.3	6.3	8.5	2.0	4.4	7.2	2.6	5.0
4	6.4	4.8	5.8	9.9	2.1	5.6	9.8	2.8	5.8	6.0	2.8	4.3
5	6.8	4.5	5.2	8.2	4.4	6.4	---	---	---	7.2	2.7	4.6
6	6.6	3.4	5.1	9.9	4.4	7.2	---	---	---	6.4	2.9	4.4
7	8.0	2.5	5.0	9.0	5.3	7.3	8.3	1.5	3.7	9.7	4.0	6.8
8	9.3	5.4	7.3	7.6	2.5	5.4	7.6	1.4	4.1	9.2	5.8	6.9
9	10.3	3.4	7.8	7.1	1.6	4.4	10.3	3.4	6.3	8.5	4.6	6.7
10	9.4	6.4	7.5	9.4	2.8	5.8	7.7	2.9	4.8	8.2	6.0	7.1
11	7.8	5.0	5.9	8.0	4.0	6.4	9.7	2.3	5.8	8.3	4.7	6.5
12	8.9	5.3	7.0	9.3	2.4	5.3	9.6	2.4	5.8	9.1	3.8	6.0
13	7.8	5.3	6.4	9.7	2.1	5.1	10.2	1.3	4.1	9.4	2.9	5.4
14	9.6	4.5	6.2	7.8	3.1	5.2	8.5	.9	3.9	8.1	3.5	5.4
15	9.9	3.1	8.0	8.0	2.0	4.4	7.5	1.5	4.7	6.5	3.6	4.9
16	9.9	7.4	8.2	10.2	4.0	7.0	9.3	2.7	5.2	7.0	3.8	5.2
17	9.6	5.0	7.4	9.4	3.7	6.8	5.9	1.2	3.4	7.7	3.9	5.4
18	9.7	4.9	6.4	7.0	3.9	5.3	6.7	3.0	5.0	7.9	4.7	6.0
19	9.3	2.1	6.6	8.9	2.5	5.1	8.9	1.6	4.6	---	---	---
20	9.0	2.6	6.8	5.5	1.3	3.5	6.2	2.7	4.3	---	---	---
21	10.7	5.6	7.9	7.4	2.3	4.2	4.9	1.9	3.1	7.1	4.6	5.9
22	9.9	4.7	7.4	9.3	3.1	6.2	8.0	.8	3.7	6.7	5.2	5.8
23	8.4	4.2	6.2	7.0	3.2	4.8	8.3	4.2	5.9	8.2	4.3	6.2
24	9.4	2.8	6.4	8.8	2.1	5.1	11.7	2.9	5.9	9.5	5.7	7.5
25	---	---	---	8.0	3.6	5.4	9.7	4.7	6.3	10.2	6.6	8.3
26	9.3	4.5	6.7	---	---	---	8.4	4.3	5.7	9.3	7.3	8.2
27	9.7	5.4	7.6	---	---	---	7.1	4.9	6.0	9.9	6.5	7.8
28	9.8	3.8	7.4	6.1	.2	3.8	9.0	3.4	5.1	9.4	5.5	8.0
29	8.1	5.1	6.4	5.9	1.6	3.4	8.9	4.8	6.4	10.2	5.5	8.1
30	7.0	1.0	4.5	5.5	2.4	4.0	8.2	6.1	7.1	8.7	7.1	7.9
31	---	---	---	8.3	.8	3.5	8.3	4.0	6.7	---	---	---
MONTH	10.7	1.0	6.7	10.2	.2	5.4	11.7	.8	5.0	10.2	2.6	6.3

01591000 PATUXENT RIVER NEAR UNITY, MD

LOCATION.--Lat 39°14'18", long 77°03'23", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 0.6 mi (1 km) upstream from Cattail Creek, 0.8 mi (1.3 km) upstream from Triadelphia Reservoir, 1.1 mi (1.8 km) northeast of Unity, and 97 mi (155 km) upstream from mouth.

DRAINAGE AREA.--34.8 mi^2 (90.1 km^2).

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

REVISED RECORDS.--WSP 1111: 1947. WSP 1432: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 364.76 ft (111.179 m) Washington Suburban Sanitary Commission datum. Prior to Aug. 14, 1946, non-recording gage at same site and datum.

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

AVERAGE DISCHARGE.--38 years, 39.3 ft^3/s (1.113 m^3/s), 15.33 in/yr (389 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft^3/s (595 m^3/s) Sept. 11, 1971, gage height, 18.60 ft (5.669 m), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement at gage height 13.00 ft (3.962 m); minimum discharge, 0.20 ft^3/s (0.006 m^3/s) Sept. 10, 11, 12, 1966, gage height, 1.66 ft (0.506 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 925 ft^3/s (26.2 m^3/s) Feb. 3, gage height, 5.82 ft (1.774 m); no other peak above base of 770 ft^3/s (21 m^3/s); minimum discharge, 4.6 ft^3/s (0.13 m^3/s) Sept. 18, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	11	11	33	221	30	46	45	20	23	17	7.0
2	8.1	10	19	27	69	30	33	41	25	21	15	8.5
3	7.2	10	14	20	484	29	82	38	21	36	14	8.4
4	5.9	10	12	89	123	27	81	36	38	41	15	7.3
5	5.9	10	12	44	69	26	50	33	47	25	21	6.7
6	5.9	12	11	28	51	25	69	32	45	23	17	6.3
7	6.1	11	11	24	39	46	52	31	35	21	16	6.0
8	5.9	10	11	21	36	48	46	31	28	20	14	6.0
9	5.5	9.7	11	19	35	37	50	35	25	20	14	6.7
10	5.2	9.5	10	18	31	32	50	29	27	19	14	6.7
11	5.6	9.5	9.5	18	28	32	43	27	29	19	13	6.3
12	5.9	9.5	9.5	17	27	39	40	26	26	19	18	5.9
13	5.9	9.5	9.9	17	26	35	38	24	229	17	13	5.5
14	5.7	9.5	11	18	24	33	37	23	95	17	12	5.2
15	6.0	9.5	37	17	27	29	34	22	55	17	11	5.4
16	6.5	9.5	24	17	36	43	33	21	50	16	10	5.5
17	6.5	9.5	18	16	50	86	35	21	132	15	10	5.2
18	6.9	9.5	15	16	45	50	63	20	53	14	10	4.8
19	8.0	8.9	14	16	52	44	40	19	43	13	9.9	4.8
20	7.2	9.3	12	16	75	49	36	20	37	13	9.4	6.7
21	7.4	9.4	11	16	91	46	35	21	33	13	12	7.8
22	7.9	9.0	13	15	70	41	32	30	30	12	10	26
23	9.5	9.0	26	16	56	37	31	29	29	15	9.6	14
24	14	9.1	28	16	48	34	30	28	27	14	10	9.1
25	10	9.5	20	15	41	33	29	25	25	12	9.4	8.3
26	14	9.2	16	15	35	36	81	23	24	11	8.6	8.2
27	45	9.5	15	15	33	32	78	21	24	24	7.9	18
28	34	9.4	15	16	32	28	81	27	23	84	8.3	11
29	18	9.0	14	16	---	28	57	37	23	21	7.5	9.2
30	13	9.0	13	16	---	27	49	24	24	19	7.2	8.7
31	12	---	14	30	---	34	---	23	---	20	7.0	---
TOTAL	310.2	289.5	466.9	677	1954	1146	1461	862	1322	654	370.8	245.2
MEAN	10.0	9.65	15.1	21.8	69.8	37.0	48.7	27.8	44.1	21.1	12.0	8.17
MAX	45	12	37	89	484	86	82	45	229	84	21	26
MIN	5.2	8.9	9.5	15	24	25	29	19	20	11	7.0	4.8
CFSM	.29	.28	.43	.63	2.01	1.06	1.40	.80	1.27	.61	.35	.24
IN.	.33	.31	.50	.72	2.09	1.22	1.56	.92	1.41	.70	.40	.26

CAL YR 1981 TOTAL 6962.1 MEAN 19.1 MAX 175 MIN 5.2 CFSM .55 IN 7.44
WTR YR 1982 TOTAL 9758.6 MEAN 26.7 MAX 484 MIN 4.8 CFSM .77 IN 10.43

01591400 CATTAIL CREEK AT ROXBURY MILLS ROAD AT ROXBURY MILLS, MD

LOCATION.--Lat 39°15'27", long 77°03'13", Howard County, Hydrologic Unit 02060006, on right bank at upstream side of bridge on Roxbury Mill Road, 1.3 mi (2.1 km) upstream from mouth.

DRAINAGE AREA.--22.9 mi^2 (59.3 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 400 ft (122 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s (113 m^3/s) Sept. 6, 1979, gage height, 11.69 ft (3.563 m), from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge recorded, 4.1 ft^3/s (0.12 m^3/s) part or all of each day Aug. 24, 25, 26, 27, 28, 1981, Sept. 17, 18, 19, 20, 1982, but may have been less during period of no gage-height record Aug. 28 to Oct. 15, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14 m^3/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)
Feb. 1	0315	555	15.7	5.86	1.786	Feb. 3	1500	*895	25.3	7.34	2.237

Minimum discharge, 3.8 ft^3/s (0.11 m^3/s) Oct. 10, but may have been less during period of no gage-height record Oct. 1-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	6.8	6.8	23	200	16	25	21	12	13	9.8	5.0
2	5.0	6.5	12	15	37	16	18	19	15	11	8.7	5.4
3	4.4	6.5	7.7	12	412	16	37	17	12	28	8.1	5.6
4	4.0	6.0	6.8	65	68	15	30	16	23	26	7.7	5.0
5	4.0	6.0	6.8	24	36	14	21	15	28	15	14	4.7
6	4.1	6.8	6.4	16	28	14	39	14	24	13	10	4.5
7	4.2	6.5	6.4	14	22	33	24	14	20	12	8.9	4.4
8	4.2	6.0	6.8	12	23	30	21	15	16	11	8.1	4.4
9	4.1	6.0	6.4	11	20	22	25	16	13	11	8.1	4.8
10	3.8	6.0	6.0	11	19	19	25	13	15	11	8.1	5.0
11	4.0	6.0	6.0	11	17	19	21	13	16	10	7.3	5.0
12	4.1	6.0	6.0	11	16	24	19	13	14	11	11	4.7
13	4.2	6.0	6.4	11	15	21	19	13	139	9.4	8.1	4.4
14	4.2	6.0	7.3	11	15	19	18	12	46	8.7	7.3	4.4
15	4.1	6.0	26	11	18	17	16	11	25	8.5	6.8	4.4
16	4.5	6.0	15	10	22	29	16	11	23	8.1	6.8	4.4
17	4.5	6.0	11	10	31	50	18	11	104	8.0	6.5	4.4
18	4.8	6.0	9.5	10	27	26	34	11	29	7.0	6.5	4.1
19	5.4	6.0	8.7	10	36	23	20	11	23	6.4	6.0	4.1
20	5.1	5.6	8.1	10	56	26	18	12	19	7.7	6.0	5.1
21	5.1	5.6	7.5	9.8	58	24	17	13	17	7.7	7.3	5.4
22	5.1	5.6	7.3	9.6	37	21	15	16	16	6.4	6.5	17
23	6.0	5.6	17	10	28	19	14	17	15	7.3	6.1	9.0
24	7.6	5.6	15	10	24	19	15	16	14	6.8	6.5	6.4
25	6.0	5.6	11	9.8	21	18	15	15	13	6.0	6.0	6.0
26	8.1	5.6	9.5	9.6	18	20	53	14	13	5.7	5.4	5.7
27	27	5.6	9.4	9.6	18	17	45	13	13	8.7	5.4	10
28	20	5.6	8.9	10	17	15	39	17	14	50	5.3	6.8
29	8.9	5.6	8.3	9.8	---	15	26	21	17	12	5.0	6.5
30	7.7	5.6	7.6	9.6	---	15	23	14	14	9.4	5.0	6.1
31	6.8	---	8.9	25	---	22	---	13	---	11	5.0	---
TOTAL	195.0	178.7	286.5	430.8	1339	654	726	447	762	366.8	227.3	172.7
MEAN	6.29	5.96	9.24	13.9	47.8	21.1	24.2	14.4	25.4	11.8	7.33	5.76
MAX	27	6.8	26	65	412	50	53	21	139	50	14	17
MIN	3.8	5.6	6.0	9.6	15	14	14	11	12	5.7	5.0	4.1
CFSM	.28	.26	.40	.61	2.09	.92	1.06	.63	1.11	.52	.32	.25
IN.	.32	.29	.47	.70	2.18	1.06	1.18	.73	1.24	.60	.37	.28

CAL YR 1981 TOTAL 4520.6 MEAN 12.4 MAX 153 MIN 3.8 CFSM .54 IN 7.34
WTR YR 1982 TOTAL 5785.8 MEAN 15.9 MAX 412 MIN 3.8 CFSM .69 IN 9.40

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11'31", long 77°00'16", Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft (150 m) downstream from Triadelphia Reservoir, 1.3 mi (2.1 km) east of Brighton, and 92 mi (148 km) upstream from mouth.

DRAINAGE AREA.--78.6 mi^2 (204 km^2).

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 310 ft (94 m) from topographic map. June 1978 to October 1980, nonrecording gage 300 ft (91 m) upstream on left bank at different datum.

REMARKS.--Records good. Flow completely regulated by Triadelphia Reservoir, 500 ft (150 m) upstream, usable capacity, 6,250,000,000 gal (23.66 hm^3); no dead storage. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 804 ft^3/s (22.8 m^3/s) March 1, 1982, gage height, 4.26 ft (1.298 m); minimum discharge, 1.6 ft^3/s (0.045 m^3/s) Oct. 13, Dec. 10, 1981; minimum daily discharge, 4.0 ft^3/s (0.11 m^3/s) many days in October 1980, from data furnished by Washington Suburban Sanitary Commission.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft^3/s (504 m^3/s). Data furnished by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 804 ft^3/s (22.8 m^3/s) March 1, gage height, 4.26 ft (1.298 m); minimum daily discharge, 5.8 ft^3/s (0.16 m^3/s) Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SETPEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	13	29	8.2	8.9	135	83	124	49	43	40	119
2	317	18	29	8.2	9.0	11	82	124	45	39	33	119
3	336	17	29	8.1	11	13	81	124	52	41	29	144
4	333	13	29	8.6	9.2	40	82	93	53	72	26	188
5	333	22	29	9.1	8.1	70	81	49	77	86	27	195
6	320	50	29	8.9	7.9	76	83	37	90	44	31	200
7	185	58	29	7.4	7.7	83	84	45	89	43	41	179
8	50	27	29	9.1	7.8	85	83	53	70	44	41	128
9	12	13	15	9.5	8.0	85	101	71	61	49	63	130
10	10	12	5.8	9.5	7.9	41	112	71	48	41	88	130
11	9.0	9.8	22	11	7.9	37	112	47	42	37	88	129
12	9.0	11	12	12	7.8	169	113	37	49	78	88	127
13	9.0	11	12	10	7.7	99	111	45	100	101	88	127
14	8.4	11	19	9.5	7.5	83	112	43	250	101	90	127
15	6.0	11	67	9.5	7.8	9.5	54	42	349	86	90	127
16	25	11	90	9.5	9.0	14	67	39	167	60	90	78
17	33	61	85	9.5	8.6	66	81	35	289	68	90	30
18	32	80	70	9.5	8.6	188	98	34	111	74	92	30
19	32	130	32	9.5	8.5	226	72	35	48	74	92	32
20	26	23	15	10	8.6	107	68	57	70	53	92	32
21	13	13	13	9.9	8.8	106	86	62	70	37	94	32
22	12	13	8.4	9.9	34	106	73	56	70	37	94	29
23	10	13	8.2	10	98	91	54	57	62	37	94	11
24	16	14	8.0	10	130	81	47	57	43	37	94	27
25	32	12	8.1	11	138	59	47	66	51	37	94	27
26	32	22	7.8	11	95	47	49	62	54	38	94	26
27	36	28	8.0	11	62	47	95	57	53	38	140	28
28	77	28	8.1	6.6	62	35	168	58	54	38	171	28
29	105	28	8.1	6.8	---	41	167	57	53	38	173	28
30	45	28	8.1	8.1	---	70	139	66	50	39	173	28
31	13	---	8.0	8.2	---	81	---	63	---	39	138	---
TOTAL	2687.4	800.8	770.6	289.1	795.3	2401.5	2685	1866	2669	1649	2678	2635
MEAN	86.7	26.7	24.9	9.33	28.4	77.5	89.5	60.2	89.0	53.2	86.4	87.8
MAX	336	130	90	12	138	226	168	124	349	101	173	200
MIN	6.0	9.8	5.8	6.6	7.5	9.5	47	34	42	37	26	11
(≠)	3400	3210	3170	3800	5760	5620	6240	6190	6220	6070	5650	3910

CAL YR 1981 TOTAL 15230.3 MEAN 41.7 MAX 450 MIN 5.8
WTR YR 1982 TOTAL 21926.7 MEAN 60.1 MAX 349 MIN 5.8

≠ Month-end contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1981, 5,310,000,000 gal (20.10 hm^3)). Records furnished by Washington Suburban Sanitary Commission.

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD

LOCATION.--Lat 39°10'29", long 77°01'22", Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 650, 1.0 mi (1.6 km) upstream from mouth, and 1.7 mi (2.7 km) north of Sandy Spring.

DRAINAGE AREA.--27.0 mi^2 (69.9 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (98 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft^3/s (122 m^3/s) Sept. 6, 1979, gage height, 8.80 ft (2.682 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 0.75 ft^3/s (0.021 m^3/s) Jan. 30, 1981, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19 m^3/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)
Feb. 3	1130	*918	26.0	5.08	1.548	June 13	1430	849	24.0	4.89	1.490

Minimum discharge, 3.3 ft^3/s (0.093 m^3/s) Sept. 6, 7, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	8.0	7.8	35	291	20	32	29	14	14	11	4.2
2	8.0	7.0	21	31	71	20	24	26	16	13	9.4	6.5
3	6.0	7.0	14	17	593	20	38	24	14	21	11	18
4	4.5	7.0	9.7	154	101	19	31	22	34	27	9.3	4.4
5	4.0	7.0	8.5	46	48	19	24	21	36	15	15	3.7
6	3.8	13	8.0	23	35	18	51	20	38	13	14	3.5
7	4.0	10	8.0	19	28	44	32	19	26	13	12	3.5
8	4.0	8.1	7.5	16	24	45	26	21	19	12	10	3.7
9	3.8	7.5	7.5	14	32	31	31	29	16	11	9.4	4.1
10	3.8	6.9	7.5	12	30	25	33	21	16	11	9.5	4.2
11	3.8	6.9	7.0	11	24	25	27	18	18	11	8.2	3.9
12	3.6	6.9	7.0	9.6	22	42	25	18	17	11	26	3.7
13	3.7	6.9	7.0	9.4	22	31	24	18	354	11	10	3.7
14	3.8	6.9	8.5	10	21	27	23	17	81	9.7	8.2	3.7
15	4.0	6.9	45	10	21	24	22	16	33	11	7.4	3.7
16	4.2	6.9	23	10	26	46	21	15	44	10	6.9	4.0
17	3.9	6.9	14	9.6	37	96	22	14	107	9.4	6.2	3.7
18	4.6	6.9	11	9.6	37	39	43	14	34	9.3	5.8	3.4
19	7.0	6.9	10	10	54	32	26	14	26	8.7	5.6	3.7
20	5.0	6.9	8.1	10	74	35	24	14	21	9.5	5.2	6.9
21	5.5	6.9	6.3	10	62	37	22	18	19	9.2	8.9	6.4
22	6.0	6.7	6.9	10	41	33	19	17	18	7.5	5.6	24
23	8.0	6.3	19	10	32	28	18	18	17	8.8	5.2	11
24	20	6.3	28	12	28	26	18	18	16	9.7	5.2	6.7
25	12	6.8	14	11	25	25	18	17	15	7.5	4.9	5.2
26	17	6.9	11	10	22	30	131	17	15	6.9	4.8	5.4
27	40	6.9	10	10	22	24	115	15	14	9.4	4.7	14
28	49	6.9	9.4	10	21	21	81	18	14	30	4.9	7.9
29	16	6.9	8.7	11	---	21	47	22	14	11	4.1	6.4
30	10	6.9	7.5	11	---	21	34	18	15	18	3.7	5.8
31	9.0	---	6.9	46	---	25	---	15	---	18	4.0	---
TOTAL	281.3	218.0	367.8	617.2	1844	949	1082	583	1121	386.6	256.1	189.0
MEAN	9.07	7.27	11.9	19.9	65.9	30.6	36.1	18.8	37.4	12.5	8.26	6.30
MAX	49	13	45	154	593	96	131	29	354	30	26	24
MIN	3.5	6.3	6.3	9.4	21	18	18	14	14	6.9	3.7	3.4
CFSM	.34	.27	.44	.74	2.44	1.13	1.34	.70	1.39	.46	.31	.23
IN.	.39	.30	.51	.85	2.54	1.31	1.49	.80	1.54	.53	.35	.26

CAL YR 1981 TOTAL 5800.4 MEAN 15.9 MAX 176 MIN 3.4 CFSM .59 IN 7.99
WTR YR 1982 TOTAL 7895.0 MEAN 21.6 MAX 593 MIN 3.4 CFSM .80 IN 10.88

01592500 PATUXENT RIVER NEAR LAUREL, MD

LOCATION.--Lat 39°06'56", long 76°52'27", Prince Georges County, Hydrologic Unit 02060006, on right bank at Rocky Gorge pumping station, 600 ft (180 m) downstream from T. Howard Duckett Reservoir, 0.7 mi (1.1 km) upstream from Walker Branch, 1.3 mi (2.1 km) northwest of Laurel, and 81 mi (130 km) upstream from mouth.

DRAINAGE AREA.--132 mi^2 (342 km^2).

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

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 153.5 ft (46.79 m) National Geodetic Vertical Datum of 1929 (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi (0.5 km) downstream at different datum. Oct. 1, 1955, to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft (0.37 m) lower. Oct. 1, 1956, to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957, to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972, to Sept. 4, 1973, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of doubtful gage-height record, Oct. 3-5, which are fair. Records do not include diversion at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Flow regulated by Triadelphia Reservoir, and since March 1954 by T. Howard Duckett Reservoir, combined usable capacity, 12,500,000,000 gal (47.31 hm^3); dead storage, 80,000,000 gal (302,800 m^3). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 26,000 ft^3/s (736 m^3/s) June 22, 1972, gage height, about 25 ft (7.6 m), from floodmarks, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of contracted-opening measurement of peak flow; minimum discharge, 0.10 ft^3/s (0.003 m^3/s) Sept. 25, 1964, (valve closed for repair); minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) June 26, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 630 ft^3/s (17.8 m^3/s) June 16, gage height, 6.92 ft (2.109 m); minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Oct. 23, 24, 25, 26, 27, 28, 29, Nov. 14, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	16	17	18	16	16	133	17	17	18	90
2	17	16	119	17	17	17	16	132	17	17	18	91
3	17	16	16	17	17	43	16	133	17	17	18	104
4	17	16	17	17	17	66	16	91	17	17	18	144
5	17	16	17	17	17	64	42	72	16	17	18	144
6	40	16	17	17	17	63	62	72	16	19	18	143
7	82	16	17	18	17	30	68	71	16	19	18	143
8	84	16	17	18	17	41	99	74	18	19	18	106
9	39	16	17	18	18	65	98	82	16	19	18	46
10	16	16	17	18	17	67	98	81	17	19	18	46
11	16	16	17	18	17	135	99	37	16	19	19	46
12	16	16	17	18	17	381	110	16	16	19	18	46
13	16	16	17	18	16	214	125	16	61	19	19	46
14	16	15	18	18	16	66	130	16	397	19	18	46
15	16	15	17	17	16	67	89	16	610	18	18	46
16	16	15	17	17	207	65	65	16	540	18	18	46
17	16	16	17	17	214	109	65	17	369	18	18	46
18	16	16	17	17	16	172	66	17	482	19	18	46
19	16	16	17	18	16	237	66	16	138	19	18	46
20	16	16	17	18	16	122	66	17	141	19	18	30
21	16	16	17	18	16	125	66	16	146	18	18	17
22	16	16	17	18	16	118	66	16	65	18	18	17
23	15	16	17	18	16	109	33	16	17	18	19	17
24	15	16	17	17	16	128	17	16	17	18	21	17
25	15	16	17	17	16	128	18	16	16	18	21	17
26	15	16	17	17	16	92	40	16	16	18	21	17
27	15	16	17	17	16	72	70	16	16	18	86	17
28	15	16	17	18	16	72	97	16	16	18	129	17
29	15	17	17	18	---	38	122	16	17	18	130	17
30	16	17	17	18	---	16	130	16	17	18	129	17
31	16	---	17	18	---	16	---	17	---	18	113	---
TOTAL	674	479	628	544	851	2954	2071	1302	3280	565	1067	1671
MEAN	21.7	16.0	20.3	17.5	30.4	95.3	69.0	42.0	109	18.2	34.4	55.7
MAX	84	17	119	18	214	381	130	133	610	19	130	144
MIN	15	15	16	17	16	16	16	16	16	17	18	17
(ƒ)	9060	8600	8550	9130	11260	11300	11890	11750	11840	11490	11030	9270
(‡)	50.4	40.9	23.7	45.7	52.5	40.1	53.1	58.6	59.0	59.1	58.8	59.7

CAL YR 1981 TOTAL 7764 MEAN 21.3 MAX 389 MIN 12 ‡ 40.2
WTR YR 1982 TOTAL 16086 MEAN 44.1 MAX 610 MIN 15 ‡ 50.1

ƒ Combined month-end total contents, millions of gallons, in Triadelphia and T. Howard Duckett Reservoirs, contents on Sept. 30, 1981: 10,630,000,000 gal (40.23 hm^3); furnished by Washington Suburban Sanitary Commission.
‡ Diversions, in cubic feet per second, above station at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Records furnished by Washington Suburban Sanitary Commission.

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

LOCATION.--Lat 39°10'04", long 76°51'07", Howard County, Hydrologic Unit 02060006, on left bank 75 ft (23 m) upstream from bridge on State Highway 32, 1 mi (1.6 km) west of Guilford, 3 mi (4.8 km) upstream from Middle Patuxent River, 4 mi (6.4 km) north of Laurel, and 20.1 mi (32.3 km) upstream from mouth.

DRAINAGE AREA.--38.0 mi^2 (98.4 km^2).

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for April 1932, published in WSP 1302.

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft (79.022 m), National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good. Low flow affected by regulation from unknown source. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 42.4 ft^3/s (1.201 m^3/s), 15.15 in/yr (385 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s (351 m^3/s) June 22, 1972, gage height, 18.38 ft (5.602 m), from high-water mark in well, from rating curve extended above 1,800 ft^3/s (51.0 m^3/s) on basis of contracted-opening measurement at gage height 13.26 ft (4.042 m) and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft (5.602 m); no flow Sept. 8, and parts of Sept. 6, 7, 9-12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 777 ft^3/s (22.0 m^3/s) Feb. 3, gage height, 7.15 ft (2.179 m), no peak above base of 800 ft^3/s (22 m^3/s); minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Oct. 1, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	10	16	77	270	24	44	29	26	15	14	6.4
2	13	10	42	31	59	24	27	26	40	13	15	8.2
3	6.5	10	18	21	591	23	69	25	23	28	14	26
4	5.0	9.7	13	153	135	22	48	23	42	39	11	10
5	5.0	9.7	12	52	61	23	30	21	73	19	15	8.5
6	5.0	40	11	28	42	21	95	21	49	16	23	7.6
7	6.0	19	11	23	33	70	41	21	43	15	13	7.5
8	5.0	12	12	20	30	67	32	26	27	14	13	7.0
9	4.5	11	11	18	44	37	42	28	22	13	13	7.5
10	4.5	10	10	16	40	30	35	21	21	13	11	7.4
11	4.5	10	11	14	30	29	31	20	21	13	9.9	7.4
12	5.0	10	11	14	27	47	28	19	20	13	41	7.1
13	6.0	9.6	13	15	27	34	30	19	292	12	15	6.3
14	6.0	9.6	29	17	24	33	28	18	85	12	12	6.7
15	6.0	10	93	16	25	27	26	17	35	12	11	6.5
16	6.5	10	42	14	31	62	25	17	89	12	9.8	6.8
17	6.3	10	25	13	52	116	36	17	115	11	9.1	6.1
18	7.3	9.7	19	14	55	42	83	17	39	11	8.2	5.4
19	13	9.6	17	14	90	34	33	67	30	13	8.3	5.9
20	7.8	9.7	15	14	104	38	29	66	25	17	8.0	18
21	9.9	9.9	12	14	90	36	27	49	22	17	14	12
22	10	9.6	14	14	56	31	24	31	23	13	9.6	55
23	17	9.6	26	14	42	28	23	30	24	28	8.9	24
24	24	9.4	23	17	36	26	22	28	22	15	9.0	13
25	12	10	17	15	31	25	22	30	21	12	8.7	11
26	29	9.6	15	14	27	32	101	23	21	11	7.6	11
27	45	10	15	14	26	25	110	20	18	10	7.2	97
28	31	10	15	15	25	22	86	30	16	23	7.4	19
29	15	9.6	13	15	---	22	40	77	16	14	6.6	13
30	12	9.6	13	15	---	22	32	29	17	25	6.5	11
31	11	---	17	34	---	32	---	24	---	23	6.5	---
TOTAL	343.3	336.9	611	765	2103	1104	1299	889	1317	502	366.3	438.3
MEAN	11.1	11.2	19.7	24.7	75.1	35.6	43.3	28.7	43.9	16.2	11.8	14.6
MAX	45	40	93	153	591	116	110	77	292	39	41	97
MIN	4.5	9.4	10	13	24	21	22	17	16	10	6.5	5.4
CFSM	.29	.30	.52	.65	1.98	.94	1.14	.76	1.16	.43	.31	.38
IN.	.34	.33	.60	.75	2.06	1.08	1.27	.87	1.29	.49	.36	.43

CAL YR 1981 TOTAL 8838.9 MEAN 24.2 MAX 529 MIN 4.5 CFSM .64 IN 8.65
WTR YR 1982 TOTAL 10074.8 MEAN 27.6 MAX 591 MIN 4.5 CFSM .73 IN 9.86

01594440 PATUXENT RIVER NEAR BOWIE, MD

LOCATION.--Lat 38°57'21", long 76°41'36", Anne Arundel County, Hydrologic Unit 02060006, on left bank 45 ft (14 m) upstream from bridge on U.S. Highway 50 (John Hanson Highway), 3.0 mi (4.8 km) west of Bowie City Hall, 3.1 mi (5.0 km) downstream from mouth of Little Patuxent River, 4.2 mi (6.8 km) northwest of Davidsonville, and 60 mi (97 km) upstream from mouth.

DRAINAGE AREA.--348 mi^2 (901 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), August 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.10 ft (3.993 m) National Geodetic Vertical Datum of 1929. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Some regulation at low flow by Rocky Gorge Dam, 21 mi (34 km) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 404 ft^3/s (11.44 m^3/s), 15.76 in/yr (400 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,100 ft^3/s (881 m^3/s) June 22, 1972, gage height, 27.9 ft (8.50 m), from floodmarks, on basis of contracted-opening measurement of peak flow; minimum observed, 32 ft^3/s (0.91 m^3/s); minimum daily 61 ft^3/s (1.73 m^3/s) Sept. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,200 ft^3/s (62 m^3/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)
Feb. 4	1230	*3380	95.7	11.53	3.514	June 14	1330	2690	76.2	10.84	3.304

Minimum daily discharge, 71 ft^3/s (2.01 m^3/s) Oct. 1

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	111	98	313	632	179	285	346	177	130	133	151
2	83	108	190	369	846	171	210	321	698	114	102	142
3	89	107	184	201	929	169	215	297	298	120	99	231
4	79	105	127	449	2790	195	519	284	384	285	100	196
5	75	106	115	964	903	216	264	224	505	154	99	179
6	76	153	110	367	410	217	417	196	809	114	182	173
7	96	192	105	247	292	291	538	194	403	107	154	174
8	126	128	105	212	233	553	322	203	262	100	110	177
9	128	110	107	184	345	339	323	263	200	98	136	144
10	97	105	103	150	510	274	372	205	169	97	129	111
11	74	104	98	145	290	249	313	178	162	99	101	109
12	74	102	99	143	231	379	283	134	156	94	112	106
13	76	98	101	138	212	564	283	115	390	98	157	106
14	76	99	103	149	203	436	291	110	2070	108	103	104
15	76	99	456	154	192	263	283	106	923	164	94	107
16	77	101	575	151	199	261	227	102	741	114	89	105
17	78	100	299	141	402	815	207	100	1280	125	87	106
18	81	99	199	147	718	646	456	98	980	98	89	103
19	119	97	156	148	529	447	340	105	639	92	85	102
20	97	97	123	146	863	467	246	303	349	226	82	106
21	86	98	120	151	659	416	226	174	281	145	87	114
22	88	95	123	149	461	376	209	180	264	110	101	188
23	98	142	140	148	316	319	197	157	197	117	87	247
24	165	102	175	151	261	288	163	151	138	132	87	123
25	136	96	158	151	227	301	138	148	124	100	88	95
26	186	96	129	149	195	306	237	141	119	91	86	88
27	374	96	129	145	185	262	805	124	115	87	81	340
28	312	94	128	143	186	221	986	286	112	95	126	255
29	192	95	124	138	---	211	587	691	111	125	158	127
30	133	94	118	137	---	174	402	281	113	122	161	108
31	120	---	111	189	---	164	---	176	---	200	162	---
TOTAL	3638	3229	4908	6569	14219	10169	10344	6393	13169	3861	3467	4417
MEAN	117	108	158	212	508	328	345	206	439	125	112	147
MAX	374	192	575	964	2790	815	986	691	2070	285	182	340
MIN	71	94	98	137	185	164	138	98	111	87	81	88
CFSM	.34	.31	.45	.61	1.46	.94	.99	.59	1.26	.36	.32	.42
IN.	.39	.35	.52	.70	1.52	1.09	1.11	.68	1.41	.41	.37	.47

CAL YR 1981 TOTAL 59888 MEAN 164 MAX 1340 MIN 62 CFSM .47 IN 6.40
WTR YR 1982 TOTAL 84383 MEAN 231 MAX 2790 MIN 71 CFSM .66 IN 9.02

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV												
03...	1045	122	290	7.2	16.5	15.0	5.3	5.4	K64	200	60	18
JAN												
11...	1100	142	320	6.9	-14.0	.0	6.6	12.2	K100	66	54	8.0
MAR												
16...	1230	274	240	7.1	8.5	7.0	5.5	9.9	K15	380	54	29
MAY												
11...	1245	214	230	6.8	23.0	16.0	8.2	7.9	90	1800	55	20
JUL												
14...	1245	96	330	7.0	27.0	24.0	18	4.7	87	230	79	35
SEP												
21...	1130	110	260	6.5	19.5	18.0	6.6	5.5	220	1700	60	23

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV												
03...	18	3.7	22	42	1.3	5.5	42	28	28	.3	9.1	146
JAN												
11...	15	3.9	24	47	1.5	4.4	46	25	27	.2	11	141
MAR												
16...	15	4.0	22	45	1.4	3.0	25	20	29	.2	7.6	138
MAY												
11...	16	3.7	17	39	1.1	2.9	35	17	24	.2	6.0	124
JUL												
14...	25	4.1	23	37	1.2	4.4	44	34	30	.3	8.1	197
SEP												
21...	18	3.7	21	41	1.2	5.0	37	18	26	.3	8.3	142

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV												
03...	140	.20	48.1	2.6	1.90	2.4	3.00	.720	2.2	.460	.450	1.4
JAN												
11...	138	.19	54.1	2.0	3.80	4.9	4.60	.710	2.2	.360	.370	1.1
MAR												
16...	116	.19	102	1.4	1.40	1.8	1.90	.460	1.4	.210	.200	.61
MAY												
11...	108	.17	71.6	2.3	.580	.75	1.30	.540	1.7	.310	.310	.95
JUL												
14...	155	.27	51.1	4.3	.650	.84	1.30	.670	2.1	.410	.420	1.3
SEP												
21...	123	.19	42.2	4.0	.550	.71	1.70	1.20	3.7	1.00	1.00	3.1

K Results based on colony count outside the acceptable range (non-ideal colony count).

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
NOV										
03...	1	0	2	100	90	10	<1	<1	<10	--
MAR										
16...	1	0	1	100	70	33	3	<1	20	10
MAY										
11...	1	0	1	<100	--	25	1	<1	20	10
SEP										
21...	2	1	1	100	80	17	<1	<1	10	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
NOV										
03...	<10	3	2	1	9	5	4	1000	940	63
MAR										
16...	10	4	--	<1	8	5	3	1000	880	120
MAY										
11...	10	3	2	1	7	4	3	1400	1300	83
SEP										
21...	<10	<1	--	<1	7	1	6	1100	1000	71

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
NOV										
03...	4	--	<1	220	30	190	<.1	--	.1	5
MAR										
16...	7	--	<1	210	10	200	.1	.0	.1	5
MAY										
11...	18	11	7	180	30	150	<.1	--	<.1	8
SEP										
21...	7	5	2	120	40	82	.2	.0	.2	4

DATE	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL 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)
NOV									
03...	2	3	<1	<1	<1	<1	50	40	10
MAR									
16...	1	4	<1	<1	<1	<1	30	20	9
MAY									
11...	0	8	<1	<1	<1	<1	100	90	9
SEP									
21...	3	1	<1	<1	<1	<1	20	10	7

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV 03...	100	9	3.0
JAN 11...	100	14	5.4
MAR 16...	93	19	14
MAY 11...	97	45	26
JUL 14...	99	22	5.7
SEP 21...	98	17	5.0

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

LOCATION.--Lat 39°14'38", long 79°25'41", Garrett County, Hydrologic Unit 02070002, on left bank at downstream side of bridge (abandoned) on Dobbin Road, 0.6 mi (1.0 km) south of intersection of Kempton Road, 1.2 mi (1.9 km) from mouth, and 3.0 mi (4.8 km) southwest of Wilson.

DRAINAGE AREA.--8.23 mi^2 (21.32 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,600 ft (792 m), from topographic map.

REMARKS.--Water-discharge records good except those for period of missing record, Dec. 18 to Feb. 5, which are fair. Natural flow of stream affected by inflow from deep coal mine dewatering process.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 479 ft^3/s (13.6 m^3/s) Aug. 18, 1980, gage height, 5.99 ft (1.826 m); minimum discharge, 3.2 ft^3/s (0.091 m^3/s) Sept. 26, 1982.

EXTREMES FOR CURRENT YEAR--Peak discharges above base of 170 ft^3/s (4.8 m^3/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. 23	Unknown	212	6.00	3.26	0.994	June 11	0415	*304	8.61	4.23	1.289
Mar. 11	2400	211	5.98	3.25	0.991	July 3	1800	184	5.21	2.95	0.899
Mar. 17	0045	230	6.51	3.46	1.055						

Minimum discharge, 3.2 ft^3/s (0.091 m^3/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	16	39	22	125	19	29	17	12	10	6.2	6.2
2	7.7	14	34	19	115	19	26	15	19	8.7	6.2	8.3
3	6.9	13	26	17	130	18	40	14	19	74	7.5	11
4	6.5	11	24	100	115	17	39	13	17	80	6.2	6.0
5	6.4	11	21	65	57	22	32	12	48	39	6.0	4.6
6	7.7	25	18	42	44	18	42	12	39	28	5.9	4.3
7	7.3	20	18	75	34	24	33	11	38	21	5.7	4.2
8	6.7	17	39	50	28	20	32	12	32	25	5.7	3.8
9	6.4	17	30	36	33	19	32	10	26	17	7.9	3.8
10	6.2	17	26	25	26	20	28	9.0	44	15	5.7	4.0
11	6.2	15	23	23	22	48	26	8.7	160	15	5.7	3.8
12	6.0	13	21	19	20	112	28	9.0	70	14	6.0	3.8
13	6.0	12	19	16	18	73	39	8.7	83	12	5.7	3.7
14	5.9	11	18	15	16	51	38	9.0	58	10	5.4	3.8
15	5.9	10	18	13	18	43	32	8.3	43	10	4.8	3.8
16	6.0	10	16	12	32	98	28	8.1	34	9.4	4.6	3.5
17	5.9	10	16	11	47	159	28	7.7	36	8.7	4.6	3.5
18	7.3	9.4	19	10	39	80	27	7.7	26	8.1	4.8	3.7
19	8.1	8.7	14	9.8	57	54	22	7.1	21	7.7	4.5	3.5
20	7.3	9.8	13	9.4	50	101	20	12	19	12	4.5	3.4
21	7.1	9.8	12	11	56	113	19	10	16	9.4	4.8	3.4
22	6.9	9.4	58	13	41	75	16	9.4	15	7.5	4.2	7.1
23	7.1	9.0	180	76	36	52	16	8.5	13	7.5	4.5	3.8
24	7.1	9.0	85	64	34	40	15	8.3	12	7.3	4.2	3.5
25	6.9	9.4	49	48	30	34	13	7.7	11	6.9	4.3	3.4
26	13	9.4	35	40	26	41	21	8.3	10	6.4	3.7	6.2
27	58	38	29	33	23	31	24	12	12	6.2	4.2	11
28	50	31	26	28	21	27	22	11	9.4	8.7	4.2	7.5
29	34	21	26	24	---	27	19	9.4	13	8.1	3.8	5.9
30	22	18	19	22	---	28	17	13	13	6.9	3.8	5.2
31	19	---	18	70	---	32	---	18	---	6.5	3.8	---
TOTAL	364.0	433.9	989	1018.2	1293	1515	803	326.9	968.4	506.0	159.1	149.7
MEAN	11.7	14.5	31.9	32.8	46.2	48.9	26.8	10.5	32.3	16.3	5.13	4.99
MAX	58	38	180	100	130	159	42	18	160	80	7.9	11
MIN	5.9	8.7	12	9.4	16	17	13	7.1	9.4	6.2	3.7	3.4
CFSM	1.42	1.76	3.88	3.99	5.61	5.94	3.26	1.28	3.93	1.98	.62	.61
IN.	1.65	1.96	4.47	4.60	5.84	6.85	3.63	1.48	4.38	2.29	.72	.68

CAL YR 1981 TOTAL 9428.5 MEAN 25.8 MAX 255 MIN 3.4 CFSM 3.14 IN 42.61
WTR YR 1982 TOTAL 8526.2 MEAN 23.4 MAX 180 MIN 3.4 CFSM 2.84 IN 38.53

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
WATER TEMPERATURES: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)
OCT 29...	1015	31	309	3.2	9.0	7.0	15	10.6	76	75	1.0

DATE	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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 29...	50	21	5.7	2.2	6	.1	1.4	1.0	110	2.3	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	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)
OCT 29...	11	159	165	.22	13.3	16	<.010	<.010	.65	.67	.160

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	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, 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)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 29...	.120	.15	1.9	.12	2.10	1.9	.24	2.8	.91	12	<.010

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)
OCT 29...	<.010	4600	700	3900	1	0	1	100	60	40

DATE	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
OCT 29...	30	0	30	<10	1	<10	<10	10	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
OCT 29...	4900	200	4700	<1	2	670	10	660	<.1	<.1

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 29...	64	0	67	<1	<1	<1	<1	200	20	180

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	919	872	907	551	509	524	394	260	336	424	343	379
2	862	785	800	561	544	551	279	256	261	385	347	370
3	821	792	802	601	560	569	311	287	301	394	375	387
4	867	821	853	627	596	608	341	314	332	375	180	227
5	911	867	898	636	613	624	352	334	341	229	182	206
6	918	773	854	601	415	455	384	359	372	249	231	242
7	789	782	785	462	410	433	399	329	387	243	202	212
8	859	786	831	475	455	461	320	265	279	240	208	225
9	897	859	888	478	465	470	301	272	288	254	240	250
10	929	895	915	518	466	484	335	304	321	292	254	268
11	925	909	917	519	499	506	348	328	338	323	293	309
12	919	908	915	522	502	508	380	351	369	332	317	325
13	924	914	919	534	511	521	404	383	393	344	331	338
14	944	916	929	542	519	531	408	400	403	357	344	352
15	950	931	940	552	538	545	424	405	418	371	346	356
16	952	933	941	559	548	552	441	419	428	381	371	379
17	934	915	922	562	552	555	448	424	441	414	357	389
18	915	835	892	576	562	571	431	420	425	416	410	413
19	821	714	754	593	569	578	447	426	436	417	409	413
20	756	690	716	595	542	573	460	439	450	418	415	417
21	819	756	782	537	516	525	492	460	473	417	372	386
22	868	819	852	546	523	535	472	257	358	384	373	378
23	840	817	826	555	541	550	260	222	231	382	223	283
24	820	763	781	555	547	551	276	236	259	228	219	224
25	788	749	769	577	546	565	297	276	289	247	229	237
26	782	507	695	590	561	574	326	297	312	266	246	255
27	507	308	388	557	256	360	351	326	339	295	265	282
28	338	294	310	302	257	279	377	351	366	310	294	302
29	431	338	385	350	301	325	386	376	379	329	310	318
30	484	428	446	391	350	370	420	386	402	342	326	334
31	515	469	485	---	---	---	428	406	416	327	268	313
MONTH	952	294	777	636	256	508	492	222	359	424	180	315

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	277	253	268	412	398	403	307	264	280	---	---	---
2	286	276	281	410	389	399	338	296	309	---	---	---
3	287	237	269	409	382	392	336	213	275	---	---	---
4	249	233	239	419	399	411	251	207	229	---	---	---
5	268	249	260	404	325	349	279	249	258	---	---	---
6	288	268	274	393	354	378	283	227	242	---	---	---
7	359	276	306	391	286	333	262	232	246	---	---	---
8	366	325	343	355	318	335	277	262	270	---	---	---
9	355	286	320	358	352	354	277	266	271	---	---	---
10	353	294	323	360	318	351	300	270	285	---	---	---
11	381	351	366	323	143	288	310	300	305	---	---	---
12	385	369	380	185	142	159	311	299	306	---	---	---
13	403	385	395	197	180	189	299	240	267	---	---	---
14	427	392	407	230	189	209	250	235	240	---	---	---
15	423	376	404	248	224	234	279	250	261	---	---	---
16	377	277	327	252	128	203	301	278	285	---	---	---
17	277	246	261	194	123	152	304	282	297	---	---	---
18	261	245	252	238	194	220	313	279	289	---	---	---
19	265	235	248	254	234	244	350	313	328	---	---	---
20	247	236	241	244	163	188	382	350	364	553	---	---
21	242	231	235	201	169	184	422	383	401	551	495	519
22	270	242	257	222	197	214	467	422	442	598	539	565
23	290	270	283	254	221	237	508	467	484	598	554	578
24	305	286	295	280	247	260	539	508	520	587	554	573
25	332	304	313	307	271	286	547	---	---	597	580	587
26	375	323	347	275	244	261	---	---	---	620	517	592
27	377	365	370	291	269	280	---	---	---	547	383	511
28	398	377	384	316	285	301	---	---	---	531	375	449
29	---	---	---	306	295	303	---	---	---	547	525	540
30	---	---	---	313	276	292	---	---	---	525	446	470
31	---	---	---	314	268	286	---	---	---	448	380	403
MONTH	427	231	309	419	123	280	547	207	311	620	375	526

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	467	413	437	---	---	---	---	---	---	860	644	762
2	456	352	386	---	---	---	---	---	---	729	563	667
3	434	325	386	---	---	---	---	---	---	563	---	---
4	404	348	381	---	---	---	---	---	---	---	---	---
5	362	216	235	---	---	---	---	---	---	---	---	---
6	241	227	233	---	---	---	---	---	---	---	---	---
7	276	242	255	---	---	---	---	---	---	---	---	---
8	333	276	303	---	---	---	---	---	---	---	---	---
9	411	333	364	---	---	---	---	---	---	---	---	---
10	418	211	332	---	---	---	---	---	---	---	---	---
11	194	135	154	---	---	---	---	---	---	---	---	---
12	205	183	198	---	---	---	---	---	---	---	---	---
13	209	174	185	---	---	---	---	---	---	---	---	---
14	231	190	211	561	---	---	---	---	---	---	---	---
15	269	235	247	585	561	572	---	---	---	---	---	---
16	307	269	286	614	585	603	---	---	---	---	---	---
17	309	279	292	644	614	631	---	---	---	---	---	---
18	352	305	322	657	627	646	---	---	---	---	---	---
19	383	352	362	666	601	651	---	---	---	---	---	---
20	389	---	---	597	511	550	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	809	---	---	---	---	---
28	---	---	---	---	---	---	801	778	786	---	---	---
29	---	---	---	---	---	---	---	781	---	846	---	---
30	---	---	---	---	---	---	859	---	---	888	839	862
31	---	---	---	---	---	---	858	850	854	---	---	---
MONTH	467	135	293	666	511	609	859	778	820	888	563	764

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'29", long 79°25'07", Garrett County, Hydrologic Unit 02070002, on right bank 0.1 mi (0.2 km) downstream from sediment pond, just off Old Wilson Road, 0.4 mi (0.6 km) west of mouth, and 1.4 mi (2.3 km) west of Wilson.

DRAINAGE AREA.--1.55 mi^2 (4.01 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to August 1980, October 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,540 ft (774.192 m) from topographic map.

REMARKS.--Water-discharge records fair. Natural flow of stream affected by inflow from deep coal mine dewatering process since September 1980.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282 ft^3/s (7.99 m^3/s) Aug. 18, 1980, gage height, 4.65 ft (1.417 m), minimum discharge recorded, 0.01 ft^3/s (<0.001 m^3/s) Aug. 20, 1981, gage height, 0.74 ft (0.226 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft^3/s (2.63 m^3/s) July 3, gage height, 2.98 ft (0.908 m), no other peak above base of 90 ft^3/s (2.5 m^3/s); minimum discharge, 0.01 ft^3/s (<0.001 m^3/s) Sept. 12, 13, 14, gage height, 0.73 ft (0.222 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.3	5.0	3.3	15	3.2	4.2	1.2	2.7	1.8	.33	1.8
2	.68	2.0	6.0	3.1	9.0	3.2	3.6	1.2	2.7	2.0	.68	1.3
3	1.8	2.7	4.8	2.3	22	2.5	4.8	3.0	.86	28	.20	1.4
4	.40	1.1	3.3	18	14	1.3	4.6	1.9	2.3	16	.79	.36
5	.14	.76	5.5	11	6.8	4.8	3.8	1.3	7.2	6.3	1.5	.18
6	.68	4.5	3.3	6.8	5.5	2.9	6.3	.44	4.2	6.9	1.6	.07
7	1.0	2.9	4.0	12	3.8	4.1	5.6	1.3	6.3	7.5	.33	1.2
8	.22	.97	6.7	7.7	3.9	3.8	4.4	.48	4.6	14	.14	1.5
9	1.0	3.0	3.6	4.4	5.7	4.0	3.8	.48	3.0	7.5	1.9	.52
10	.52	1.8	3.1	3.5	4.8	3.4	3.2	2.5	5.3	3.2	2.0	.03
11	.24	2.0	3.5	3.2	5.1	10	3.2	.73	16	2.6	1.4	.02
12	.79	1.2	2.4	3.6	3.6	20	3.8	1.2	6.1	4.6	1.0	.02
13	.93	1.8	2.1	2.9	1.8	11	6.9	1.2	13	4.0	2.3	.01
14	.08	.40	3.1	2.4	1.6	6.6	4.8	1.1	7.8	3.0	.30	.02
15	.93	.67	4.6	2.0	2.9	6.9	2.6	.36	3.6	2.3	.11	.79
16	.22	1.7	4.8	1.2	6.7	24	3.2	.22	5.6	1.4	.57	1.1
17	.73	1.2	1.8	1.3	11	22	4.0	1.2	6.6	.68	.04	.36
18	.36	.33	1.6	1.2	7.1	11	2.7	.33	3.8	.52	.24	.03
19	1.6	1.2	1.4	1.4	8.5	7.8	3.0	1.5	2.0	1.4	1.2	.02
20	2.1	2.3	1.3	.80	7.2	16	2.2	2.0	1.8	2.5	.44	.22
21	.33	.60	1.2	1.1	9.8	14	4.4	1.9	3.4	2.5	.48	.40
22	.52	.66	11	1.4	6.8	10	2.3	.62	2.7	.57	.30	2.0
23	.52	1.8	37	25	6.8	8.1	2.5	.52	1.8	1.4	1.3	.33
24	1.9	3.0	12	9.4	5.3	5.8	1.4	1.5	2.0	1.2	1.8	1.6
25	1.2	.70	6.7	6.3	6.0	5.0	1.2	1.2	2.5	.33	2.1	.52
26	.86	.88	4.7	5.0	4.1	5.8	5.0	.68	1.2	1.2	1.5	.86
27	8.1	7.1	3.7	4.0	2.4	3.4	5.8	.30	.33	2.3	1.1	4.6
28	5.8	3.4	5.5	3.8	2.3	3.0	3.8	2.5	1.1	2.0	.30	.73
29	3.6	2.1	4.6	2.6	---	3.2	2.3	1.5	2.7	2.7	.14	1.1
30	3.7	1.4	4.0	3.6	---	4.4	2.1	.93	2.7	.48	.40	.24
31	1.6	---	2.7	10	---	5.6	---	2.1	---	3.0	1.2	---
TOTAL	43.65	55.47	165.0	164.30	189.5	236.8	111.5	37.39	125.89	133.88	27.69	23.33
MEAN	1.41	1.85	5.32	5.30	6.77	7.64	3.72	1.21	4.20	4.32	.89	.78
MAX	8.1	7.1	37	25	22	24	6.9	3.0	16	28	2.3	4.6
MIN	.08	.33	1.2	.80	1.6	1.3	1.2	.22	.33	.33	.04	.01
CFSM	.91	1.19	3.43	3.42	4.37	4.93	2.40	.78	2.71	2.79	.57	.50
IN.	1.05	1.33	3.96	3.94	4.55	5.68	2.67	.90	3.02	3.21	.66	.56

WTR YR 1982 TOTAL 1314.40 MEAN 3.60 MAX 37 MIN .01 CFSM 2.32 IN 31.53

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--October 1980 to current year.
WATER TEMPERATURES.--October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water year 1982): Maximum, 29.5°C July 25, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C July 25; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)
OCT 29...	1215	2.9	655	5.7	10.0	9.6	5.6	10.0	340	330	.6	30

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 29...	117	11	9.5	6	.2	2.8	6.0	330	3.1	.2	3.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2)	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)
OCT 29...	514	483	.70	4.0	26	<.010	.010	.03	.22	.56	.050

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	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, 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)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 29...	.120	.15	.86	.11	.91	.68	.23	1.1	.79	5.0	<.010

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
OCT 29...	<.010	500	420	80	1	0	1	100	40	60	<10

DATE	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
OCT 29...	10	10	<1	10	<10	30	20	7	570	380

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
OCT 29...	190	<1	0	1	1200	0	1200	<.1	<.1	61

DATE	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	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, 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)
OCT 29...	0	61	1	0	1	<1	<1	190	40	150

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	>1000	896	---	617	429	482	413	312	344	375	286	328
2	984	906	958	676	431	476	624	422	474	449	258	323
3	>1000	961	---	918	676	862	805	619	739	399	337	361
4	>1000	975	---	890	848	870	746	470	585	434	322	394
5	>1000	931	---	882	727	812	929	759	889	501	427	471
6	948	854	912	>1010	826	940	938	883	907	522	428	494
7	>1000	916	---	>1000	991	---	959	865	903	430	383	400
8	947	926	939	>1000	908	---	926	681	764	463	431	450
9	972	952	963	>1000	903	---	681	525	598	461	326	397
10	>1000	967	---	>1000	943	---	530	429	469	317	268	287
11	987	942	974	>1000	822	---	571	435	495	320	246	262
12	>1000	970	---	>1000	798	---	536	397	455	697	318	550
13	>1000	930	---	>1000	974	---	397	360	378	806	706	760
14	>1000	938	---	>1020	682	880	700	359	464	828	766	798
15	>1000	974	---	804	602	669	927	697	833	843	782	825
16	>1000	940	---	>1000	586	---	>1000	932	---	792	662	713
17	>1000	959	---	>1000	974	---	>1000	571	---	662	562	613
18	>1000	818	---	>1010	988	998	592	491	533	781	641	682
19	>1000	986	---	>1020	826	959	644	486	561	887	781	853
20	>1000	977	---	>1000	>1000	---	599	443	503	886	630	769
21	>1000	927	---	>1000	>1000	---	537	364	442	839	629	746
22	>1000	933	---	>1000	935	---	728	451	565	829	485	651
23	>1000	932	---	993	882	924	619	455	520	570	332	476
24	>1000	>1000	---	>1000	993	---	454	375	422	325	231	268
25	>1000	>1000	---	>1000	795	---	375	285	323	344	214	249
26	>1000	892	---	935	520	705	284	250	264	524	344	451
27	964	683	782	876	623	753	251	236	242	663	524	602
28	848	656	768	623	521	549	367	232	303	672	599	640
29	895	640	764	519	439	477	407	374	394	640	499	552
30	837	690	777	442	340	382	490	368	416	508	425	462
31	830	558	748	---	---	---	512	385	465	449	376	409
MONTH	>1000	558	859	>1020	340	734	>1000	232	526	887	214	524

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	430	325	372	814	479	668	728	667	702	803	627	727
2	---	422	---	893	814	854	791	705	752	627	490	553
3	---	---	---	913	654	849	750	473	572	884	460	556
4	---	---	---	728	540	621	486	432	466	911	827	879
5	---	---	---	853	512	739	514	363	429	>1000	863	---
6	---	---	---	843	620	746	581	473	544	>1000	696	---
7	---	---	---	862	552	670	602	579	588	899	641	768
8	---	---	---	783	511	634	633	521	584	808	677	737
9	---	---	---	839	783	815	558	407	445	822	748	773
10	---	---	---	783	645	721	393	293	335	1000	746	---
11	---	---	---	730	563	624	284	250	261	>1000	805	---
12	---	---	---	563	447	470	302	220	249	>1000	407	---
13	---	---	---	557	471	510	541	290	438	>1000	>1000	---
14	---	---	---	471	365	418	606	477	542	>1000	>1000	---
15	---	---	---	508	352	423	477	237	335	>1000	>1000	---
16	---	---	---	541	386	489	420	221	284	>1000	>1000	---
17	---	---	---	386	300	324	623	402	520	>1000	>1000	---
18	---	---	---	403	350	378	600	487	540	>1000	>1000	---
19	---	---	---	456	403	429	568	470	499	>1000	>1000	---
20	---	---	---	450	319	388	615	530	593	>1000	>1000	---
21	---	---	---	319	283	297	726	612	634	>1000	>1000	---
22	---	---	---	447	309	389	804	726	787	>1000	>1000	---
23	---	---	---	563	447	516	821	794	809	>1000	>1000	---
24	---	---	---	571	496	526	861	819	850	>1000	816	---
25	706	---	---	638	571	614	832	775	814	>1000	>1000	---
26	744	591	697	645	577	624	822	702	744	>1000	>1000	---
27	627	494	562	577	474	521	860	822	848	>1000	>1000	---
28	504	386	429	474	355	403	832	714	751	>1000	837	---
29	---	---	---	369	314	331	800	731	756	>1000	>1000	---
30	---	---	---	590	376	482	808	693	750	>1000	691	---
31	---	---	---	732	576	660	---	---	---	832	623	750
MONTH	744	325	515	913	283	553	861	220	581	>1000	407	718

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	>1000	635	---	1550	1510	1540	1480	1450	1460	1890	1510	1820
2	>1000	>1000	---	1590	1550	1570	1500	1190	1430	1890	1640	1820
3	>1000	>1000	---	1570	772	1320	1450	1270	1390	1660	1590	1630
4	>1000	>1000	---	772	610	666	1450	885	1270	1780	1660	1760
5	>1000	900	---	624	596	608	1540	1420	1480	1800	1750	1770
6	915	805	874	882	624	700	1700	1540	1610	1800	1750	1770
7	>1000	800	---	1030	864	928	1680	1650	1670	1820	1730	1780
8	>1000	>1000	---	1040	888	948	1660	1600	1630	1890	1820	1850
9	>1000	>1000	---	946	906	930	1660	1400	1600	1940	1890	1920
10	>1000	>1000	---	936	796	882	1650	1620	1640	1920	1880	1900
11	1060	798	918	802	744	782	1670	1620	1640	1880	1810	1850
12	1020	748	896	950	738	782	1700	1650	1680	1820	1760	1790
13	848	708	758	1100	950	1040	1710	1680	1690	1760	1730	1750
14	954	842	900	1110	922	1030	1750	1710	1730	1730	643	1570
15	866	748	822	1030	966	999	1740	1710	1720	1980	591	1390
16	978	744	804	1090	1020	1050	1760	1650	1730	2040	1990	2010
17	1040	980	1010	1060	992	1030	1740	1600	1690	2080	2020	2050
18	1040	994	1020	998	938	977	1790	1100	1600	2080	1980	2020
19	1040	892	972	990	910	946	1820	1760	1800	1990	1860	1900
20	902	836	878	1140	890	1060	1840	1370	1780	2090	1700	1930
21	1000	834	878	1130	1090	1110	1810	1590	1760	2150	2100	2130
22	1190	996	1150	1130	1080	1110	1800	1750	1780	2150	1840	2070
23	1260	1180	1220	1150	996	1090	1780	1720	1770	2160	2100	2140
24	1330	1250	1300	1260	1150	1220	1810	1780	1790	2140	1990	2080
25	1410	1270	1360	1250	1200	1230	1830	1810	1830	2210	2140	2190
26	1450	1400	1420	1280	1140	1220	1840	1770	1830	2210	1710	2060
27	1400	1280	1340	1370	1300	1350	1840	1780	1820	1710	1410	1580
28	1390	1270	1330	1450	835	1340	1860	1810	1830	1730	1580	1680
29	1450	1300	1380	1420	1380	1400	1870	1820	1840	1660	1200	1410
30	1500	1400	1480	1390	1320	1360	1860	1790	1840	1590	1450	1510
31	---	---	---	1450	1390	1430	1870	1720	1830	---	---	---
MONTH	1500	635	1080	1590	596	1090	1870	885	1680	2210	591	1840

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.0	1.0	5.5	3.0	4.0	9.5	6.5	8.0	14.0	11.5	13.0
2	1.5	---	---	4.5	3.5	4.0	11.0	7.5	9.0	15.0	12.0	13.5
3	---	---	---	4.5	3.5	4.0	11.5	8.5	10.0	15.0	11.5	13.5
4	---	---	---	6.0	3.0	4.5	8.0	6.0	7.0	17.5	10.0	14.0
5	---	---	---	6.0	4.5	5.0	7.5	5.0	6.5	20.0	11.5	15.5
6	---	---	---	4.5	3.5	4.0	7.0	4.0	5.5	23.0	13.0	17.5
7	---	---	---	4.5	3.0	3.5	5.0	3.5	4.0	20.0	14.0	16.5
8	---	---	---	4.0	2.5	3.0	6.5	2.5	4.5	16.0	14.0	15.0
9	---	---	---	5.0	4.0	4.5	4.5	3.0	4.0	18.5	12.5	15.5
10	---	---	---	5.0	3.5	4.0	4.5	2.5	3.5	18.0	12.5	15.0
11	---	---	---	6.0	4.0	5.5	5.0	3.5	4.5	23.0	13.0	17.0
12	---	---	---	7.5	5.5	6.5	7.0	4.0	5.5	21.0	11.5	16.5
13	---	---	---	8.0	7.0	7.0	8.0	6.5	7.0	21.5	15.0	18.0
14	---	---	---	7.5	6.5	7.0	11.5	7.0	9.0	23.5	15.5	19.0
15	---	---	---	7.0	6.0	6.5	13.0	8.5	10.5	26.5	16.0	20.0
16	---	---	---	6.5	5.5	6.0	14.5	9.0	12.0	23.0	16.0	19.0
17	---	---	---	7.5	5.5	6.5	14.5	11.0	13.0	23.5	16.0	19.0
18	---	---	---	9.0	7.0	8.0	13.0	10.5	11.5	27.5	17.5	21.5
19	---	---	---	9.5	8.0	8.5	12.5	9.5	11.0	24.0	19.0	20.5
20	---	---	---	8.5	7.0	7.5	13.0	8.5	11.5	21.5	18.5	19.5
21	---	---	---	8.5	7.0	7.5	13.0	11.0	12.0	21.0	18.5	19.0
22	---	---	---	8.0	7.0	7.5	13.5	8.5	10.5	22.0	18.5	20.0
23	---	---	---	9.0	6.5	7.0	12.5	9.0	10.5	22.0	18.5	20.0
24	---	---	---	8.0	6.0	7.0	14.0	10.0	12.0	20.5	18.0	19.0
25	3.5	---	---	9.5	7.0	8.0	14.0	10.5	12.5	21.5	18.0	19.5
26	4.0	2.5	3.0	8.5	5.5	7.0	13.0	10.5	12.5	21.5	18.0	19.5
27	3.0	2.0	2.5	6.5	5.0	5.5	12.5	10.5	12.0	21.5	18.5	19.5
28	4.0	1.5	3.0	6.5	4.0	5.5	14.0	9.5	12.0	24.0	19.0	20.5
29	---	---	---	7.0	4.5	6.0	13.5	10.0	12.0	25.0	18.5	21.5
30	---	---	---	8.0	5.5	6.5	14.0	11.0	12.5	23.5	20.5	22.0
31	---	---	---	9.0	6.5	7.5	---	---	---	28.5	20.5	24.0
MONTH	4.0	1.0	2.5	9.5	2.5	6.0	14.5	2.5	9.0	28.5	10.0	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	21.0	22.5	25.0	18.5	20.5	25.0	19.0	22.0	19.5	17.0	18.5
2	23.5	17.0	20.5	24.5	17.5	20.5	25.0	18.5	21.5	22.0	17.0	19.5
3	22.5	17.0	19.5	21.0	16.0	19.0	28.0	19.0	23.0	20.5	17.0	19.0
4	20.0	17.0	18.5	19.5	14.5	17.0	25.0	19.5	22.0	21.5	16.5	18.5
5	17.0	15.5	16.0	18.5	16.5	17.5	25.5	21.0	23.0	23.5	15.0	19.0
6	15.5	14.0	15.0	22.0	16.5	19.0	24.5	21.0	22.5	23.0	15.0	18.5
7	15.5	14.0	15.0	24.0	18.0	20.5	26.0	21.5	23.5	20.0	15.5	18.0
8	16.5	13.5	15.0	22.5	18.0	20.5	26.0	20.0	23.5	21.0	17.0	19.0
9	21.5	15.0	18.0	23.0	19.0	20.0	24.0	20.0	22.5	22.0	16.5	19.0
10	21.5	17.0	18.5	24.0	19.0	21.5	23.5	19.0	21.5	22.0	16.0	19.0
11	20.5	15.5	17.5	25.5	19.5	22.0	22.0	17.5	20.0	24.0	15.5	19.5
12	16.5	15.0	16.0	24.5	20.0	22.0	22.0	18.0	20.5	25.0	16.0	20.5
13	16.5	14.5	16.0	23.5	19.5	21.0	23.5	17.5	20.0	24.0	16.5	20.5
14	18.0	15.0	16.0	21.0	19.0	20.0	24.0	17.0	20.5	22.0	16.5	19.5
15	21.5	14.0	17.0	25.0	19.5	21.5	25.5	17.5	21.5	21.5	16.0	19.0
16	21.5	15.0	19.0	27.0	20.0	22.5	24.5	17.0	20.5	21.0	15.5	19.0
17	19.0	16.0	17.5	28.5	20.5	24.0	27.0	17.5	22.0	22.5	15.0	18.5
18	21.5	15.5	18.0	28.5	21.0	24.5	25.0	16.5	21.0	17.0	15.0	16.0
19	21.5	16.5	19.0	27.0	23.5	25.0	23.5	16.5	20.5	20.0	13.0	16.5
20	21.0	16.0	19.0	25.0	23.0	24.0	21.5	17.0	19.5	18.5	15.0	17.0
21	21.0	15.5	19.0	28.0	22.5	24.5	22.5	19.0	20.5	17.0	15.5	16.0
22	21.0	16.0	18.5	29.0	21.5	24.5	23.5	17.5	20.0	16.5	14.5	15.5
23	21.5	16.0	18.5	25.5	22.5	24.0	20.0	16.5	18.5	14.5	13.5	14.0
24	21.5	16.0	18.5	29.0	22.0	25.0	22.0	18.0	20.0	16.5	10.0	13.5
25	22.5	15.5	19.0	29.5	21.5	25.0	21.0	17.0	19.5	18.0	13.5	15.0
26	24.0	16.5	19.5	27.5	21.5	24.5	22.5	16.5	19.5	14.0	13.0	13.5
27	25.5	18.0	21.0	27.0	23.5	25.0	19.5	17.0	18.5	13.5	12.5	13.0
28	25.0	19.0	22.0	24.0	21.0	23.0	23.0	16.5	19.5	13.0	12.5	13.0
29	23.0	20.0	21.5	25.5	20.5	22.5	22.5	14.5	18.0	14.5	12.0	13.0
30	23.5	17.5	21.0	24.0	20.0	21.5	19.5	13.5	16.5	17.5	12.5	14.5
31	---	---	---	24.5	20.5	22.5	20.5	16.0	18.0	---	---	---
MONTH	25.5	13.5	18.5	29.5	14.5	22.0	28.0	13.5	20.5	25.0	10.0	17.0

01594936 NORTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15'34", long 79°24'35", Garrett County, Hydrologic Unit 02070002, on right bank, 0.1 mi (0.2 km) northwest of Wilson-Cqrunna Road, 0.1 mi (0.2 km) upstream from mouth and 0.8 mi (1.3 km) northwest of Wilson.

DRAINAGE AREA.--1.91 mi^2 (4.95 km^2).

PERIOD OF RECORD.--October 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--October 1980 to current year.
WATER TEMPERATURES.--October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1982): Maximum, 826 micromhos Aug. 9, 1982; minimum, 68 micromhos Mar. 17, 1982.
WATER TEMPERATURES (water year 1982): Maximum, 24.0°C Aug. 6, 8, 1982; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 826 micromhos Aug. 8; minimum, 68 micromhos Mar. 17.
WATER TEMPERATURES: Maximum, 24.0°C Aug. 6, 8; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)
OCT 29...	1500	4.8	157	5.6	11.0	9.1	5.2	9.8	60	57	.2

DATE	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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 29...	10	17	4.3	.8	3	.0	1.4	3.0	56	2.3	<.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	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)
OCT 29...	4.8	95	91	.13	1.2	18	<.010	<.010	.65	.65	.120

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	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, 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)	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 29...	.090	.12	1.1	1.3	1.20	.00	1.4	1.9	2.1	8.2	<.010

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
OCT 29...	<.010	100	<100	1	0	1	100	50	50	30

DATE	BORON, SUS-PENDED RECOV-ERABLE (UG/L AS B)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
OCT 29...	10	20	<10	<1	<10	<10	10	10	1	1700

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
OCT 29...	400	1300	<1	<1	540	0	560	<.1	<.1	10

DATE	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL 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)
OCT 29...	0	10	<1	<1	<1	<1	60	30	29

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	160	141	154	253	238	249	184	96	154	238	150	184
2	192	143	161	256	248	252	147	114	133	220	130	166
3	208	192	203	284	251	265	132	100	110	226	112	192
4	208	179	189	302	280	292	143	126	136	202	97	142
5	197	184	192	305	299	299	136	131	133	172	120	142
6	203	189	195	285	279	282	161	142	151	138	123	130
7	204	197	199	287	281	284	183	120	168	163	118	141
8	207	204	205	285	283	284	121	78	89	143	124	131
9	211	207	208	283	275	279	153	91	117	132	112	123
10	220	211	214	283	273	278	194	153	171	198	122	150
11	231	220	226	285	278	281	224	194	205	209	136	156
12	234	230	232	286	278	282	238	224	232	196	146	164
13	233	229	231	280	274	277	249	218	238	252	196	231
14	231	227	228	274	259	265	268	249	255	267	242	260
15	246	231	237	258	252	256	283	268	271	277	264	271
16	264	246	254	250	238	244	302	283	289	286	265	275
17	292	264	277	238	226	232	313	302	304	294	272	279
18	319	292	303	237	228	232	325	313	316	307	294	301
19	299	288	296	233	223	228	328	325	326	312	307	309
20	290	283	286	219	197	204	335	328	329	316	304	310
21	285	281	283	197	193	195	336	335	336	307	278	283
22	286	283	285	195	192	194	342	123	224	297	258	289
23	288	285	286	189	181	187	129	99	113	246	173	200
24	287	285	286	181	169	171	105	94	98	177	176	176
25	288	284	287	164	162	163	104	99	102	185	181	182
26	287	199	249	161	156	158	117	104	107	190	185	186
27	198	130	154	154	92	117	129	117	120	196	190	191
28	147	133	137	155	102	134	143	129	132	203	196	198
29	161	147	154	173	152	163	156	143	147	212	203	205
30	211	158	183	182	170	176	226	156	176	217	212	215
31	243	209	230	---	---	---	234	188	203	224	196	219
MONTH	319	130	227	305	92	231	342	78	190	316	97	206

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	192	175	180	237	197	220	176	170	174	243	235	239
2	186	179	180	231	191	212	179	176	178	243	162	198
3	206	186	194	220	164	188	181	177	180	---	---	---
4	204	197	199	190	157	169	178	175	177	---	---	---
5	210	204	205	184	164	172	178	175	176	---	---	---
6	214	210	211	187	172	180	182	178	180	---	---	---
7	219	214	215	188	143	164	183	182	183	---	---	---
8	226	219	221	170	161	165	187	182	184	---	---	---
9	235	226	228	174	167	170	191	187	189	---	---	---
10	243	235	237	172	166	170	191	189	190	---	---	---
11	245	243	244	182	85	154	190	188	189	---	---	---
12	250	211	240	105	83	91	193	189	191	---	---	---
13	227	209	218	114	105	109	201	192	197	---	---	---
14	222	190	207	109	105	108	200	193	195	---	---	---
15	211	161	188	117	106	109	194	192	193	---	---	---
16	165	136	148	129	69	106	198	192	195	---	---	---
17	146	136	141	78	68	73	203	198	200	---	---	---
18	165	144	156	89	78	83	207	202	204	---	---	---
19	186	144	160	114	91	101	206	202	204	---	---	---
20	158	146	154	125	91	108	208	202	205	---	---	---
21	144	129	134	101	82	91	213	208	211	---	---	---
22	137	127	130	106	99	104	215	211	213	---	---	---
23	161	134	147	108	103	105	219	214	216	---	---	---
24	182	158	173	113	108	110	226	218	221	---	---	---
25	191	174	183	119	113	116	229	224	226	---	---	---
26	219	167	197	127	119	123	239	228	236	---	---	---
27	223	189	212	133	127	130	243	239	241	---	---	---
28	250	161	220	137	133	135	238	231	234	---	---	---
29	---	---	---	146	137	141	231	228	230	---	---	---
30	---	---	---	156	146	152	237	230	233	---	---	---
31	---	---	---	169	156	162	---	---	---	---	---	---
MONTH	250	127	190	237	68	136	243	170	202	243	162	219

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	424	390	403	732	600	680	604	521	570
2	---	---	---	489	416	440	725	628	703	658	474	600
3	---	---	---	498	103	326	628	595	607	625	575	596
4	---	---	---	106	101	103	595	498	533	663	623	643
5	---	---	---	103	100	102	498	385	419	687	664	672
6	---	---	---	155	100	111	622	411	519	682	641	657
7	---	---	---	253	155	201	803	622	744	638	581	604
8	---	---	---	266	127	179	826	773	803	581	522	546
9	---	---	---	208	175	189	773	474	640	568	501	523
10	---	---	---	211	200	206	474	408	431	730	568	633
11	---	---	---	201	177	189	578	469	524	814	730	766
12	---	---	---	184	160	169	623	578	606	817	789	808
13	---	---	---	304	184	242	650	614	631	793	758	781
14	---	---	---	350	304	335	722	647	676	759	638	730
15	---	---	---	375	345	367	807	712	763	638	448	560
16	---	---	---	396	364	386	784	718	741	575	529	546
17	235	211	221	644	383	483	718	560	650	552	520	531
18	286	235	255	729	644	704	575	557	566	593	552	571
19	290	260	278	718	630	700	577	535	555	645	593	624
20	260	214	235	638	435	570	602	534	562	654	644	646
21	212	186	196	577	384	495	628	482	608	657	631	649
22	304	202	271	691	578	637	625	561	587	628	503	537
23	326	304	317	690	655	677	574	472	526	617	576	596
24	331	306	321	659	635	645	472	359	396	606	579	589
25	348	314	336	648	597	622	527	412	469	608	586	597
26	423	336	379	597	507	546	708	524	632	594	465	542
27	422	356	386	507	424	453	759	685	727	529	348	388
28	356	285	320	540	401	485	784	711	753	414	351	381
29	340	266	304	425	315	366	781	752	769	433	398	418
30	401	336	373	440	405	416	764	702	733	467	433	451
31	---	---	---	592	429	469	709	606	663	---	---	---
MONTH	423	186	299	729	100	394	826	359	620	817	348	592

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	17.5	18.5	19.0	15.0	17.0	21.5	18.0	20.0	19.5	17.5	18.5
2	19.0	16.0	17.5	19.5	14.5	17.0	21.5	17.5	19.5	21.5	18.5	20.0
3	17.5	15.0	16.0	18.0	16.0	17.0	22.0	18.5	20.5	20.5	17.0	19.0
4	16.5	15.0	16.0	18.0	15.0	16.5	22.5	18.5	21.0	19.0	14.0	16.5
5	16.0	12.0	14.0	19.0	15.5	17.0	23.0	21.0	22.0	18.0	13.0	15.5
6	13.5	13.0	13.0	20.5	15.5	17.5	24.0	20.5	22.0	19.0	13.5	16.0
7	13.5	12.5	13.0	22.5	16.5	19.0	23.5	20.5	22.0	18.0	15.0	16.5
8	14.0	12.5	13.0	21.0	17.5	19.5	24.0	21.0	22.0	20.0	16.5	18.0
9	18.0	13.0	15.0	20.0	17.5	18.5	22.5	21.0	21.5	20.5	17.5	18.5
10	---	---	---	21.0	17.0	19.0	22.5	20.0	21.0	20.0	17.0	18.5
11	---	---	---	21.5	17.5	19.5	20.0	18.5	19.5	20.0	15.5	18.0
12	---	---	---	22.5	18.0	20.0	19.5	17.0	18.5	21.0	16.0	18.5
13	---	---	---	22.0	17.5	19.5	20.5	15.5	18.0	20.0	16.0	18.0
14	---	---	---	21.0	18.0	20.5	20.5	15.5	18.0	19.0	16.5	18.0
15	---	---	---	22.5	18.0	20.5	20.5	16.5	19.0	20.0	17.5	18.5
16	---	---	---	22.5	18.5	21.0	22.5	17.5	19.5	21.0	17.5	19.0
17	17.0	15.0	16.0	23.5	19.0	21.5	23.0	18.0	20.0	19.0	15.0	17.0
18	19.0	13.5	16.0	23.5	20.0	21.5	21.5	17.5	19.5	15.5	14.0	15.0
19	18.5	13.5	16.0	23.5	20.5	22.0	21.5	16.0	18.5	16.5	12.5	14.5
20	18.0	14.5	16.5	22.0	20.0	21.0	20.0	16.5	18.5	16.0	14.0	15.0
21	18.5	14.0	16.5	23.5	18.5	21.0	20.5	18.0	19.0	14.0	12.5	13.5
22	17.5	14.0	16.0	23.0	17.5	20.5	20.0	15.5	17.5	13.0	11.5	12.5
23	17.5	14.0	16.0	22.0	20.0	21.0	18.0	16.5	17.0	12.0	10.5	11.0
24	18.0	13.0	15.5	23.0	19.0	21.0	21.5	17.5	19.0	13.0	10.0	11.5
25	18.5	14.0	16.5	23.0	19.0	21.5	22.5	19.0	20.5	14.5	11.5	13.0
26	19.5	15.0	17.5	23.5	19.5	21.5	21.0	16.0	18.5	12.5	11.5	12.0
27	20.0	16.5	18.5	23.0	20.5	22.0	18.0	17.0	17.5	12.5	11.5	12.0
28	21.0	18.0	19.5	22.5	19.0	21.0	21.0	16.5	18.5	12.5	12.0	12.5
29	20.5	19.0	19.5	21.0	17.0	19.0	18.0	13.0	15.5	13.5	12.0	12.5
30	19.5	18.0	18.5	20.0	18.0	19.0	16.5	13.0	15.0	15.0	12.5	14.0
31	---	---	---	22.0	18.0	20.0	19.0	16.0	17.5	---	---	---
MONTH	21.0	12.0	16.5	23.5	14.5	20.0	24.0	13.0	19.0	21.5	10.0	16.0

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD

LOCATION.--Lat 39°18'07", long 79°18'26", Garrett County, Hydrologic Unit 02070002, on left bank 0.3 mi (0.5 km) southeast of Steyer, 0.4 mi (0.6 km) downstream from Steyer Run, 2.0 mi (3.2 km) northeast of Gorman, and at mile 81.8 (131.6 km).

DRAINAGE AREA.--73.0 mi^2 (189.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft (693.728 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for January, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 174 ft^3/s (4.928 m^3/s), 32.37 in/yr (822 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft^3/s (195 m^3/s) July 3, 1978, gage height, 10.30 ft (3.139 m), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 2.9 ft^3/s (0.082 m^3/s) Sept. 10, 1965, gage height, 2.03 ft (0.619 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft (3.96 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,230 ft^3/s (63.2 m^3/s) May 27, gage height, 6.25 ft (1.905 m), no other peak above base of 2,200 ft^3/s (62 m^3/s); minimum discharge, 6.2 ft^3/s (0.18 m^3/s) Aug. 31, gage height, 2.13 ft (0.649 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	98	280	168	987	145	206	125	95	51	37	13
2	60	86	287	150	381	143	171	116	110	37	32	32
3	47	81	199	135	1030	143	286	100	301	584	35	66
4	38	68	171	795	901	132	317	90	236	886	30	38
5	29	68	168	525	475	192	225	81	476	243	29	26
6	34	127	146	330	349	148	296	75	323	167	28	20
7	45	129	139	603	251	192	241	68	263	130	26	17
8	33	100	336	396	242	164	215	72	206	174	25	17
9	32	95	246	289	240	150	235	62	163	120	54	17
10	29	95	207	190	205	150	205	58	432	95	54	16
11	23	88	190	180	201	417	198	52	974	95	34	10
12	27	81	180	150	174	1000	210	45	459	105	37	9.7
13	25	70	155	130	140	604	287	43	775	77	26	11
14	23	68	177	115	147	432	255	43	435	64	23	13
15	23	68	150	100	165	344	205	42	283	60	20	37
16	25	66	133	90	346	814	171	37	213	56	20	26
17	23	64	130	85	472	1280	167	35	217	51	14	22
18	26	62	120	80	321	585	177	32	158	45	17	21
19	52	60	110	76	444	403	143	33	120	42	16	17
20	42	64	105	74	457	848	128	56	107	62	13	16
21	34	68	95	84	563	890	116	49	84	62	20	13
22	29	70	444	105	341	562	104	42	75	42	13	51
23	31	75	1350	600	296	385	93	42	64	38	14	37
24	38	79	643	500	285	300	86	41	58	39	22	26
25	36	68	370	381	255	241	79	36	56	31	14	22
26	68	79	265	284	203	265	145	151	51	30	10	22
27	612	260	219	254	177	215	197	550	54	29	13	120
28	453	198	192	218	154	191	209	162	54	136	15	56
29	227	144	192	184	---	195	150	109	62	100	11	43
30	158	121	151	169	---	204	129	115	64	51	8.7	37
31	121	---	137	473	---	206	---	151	---	42	7.7	---
TOTAL	2475	2800	7687	7913	10202	11940	5646	2713	6968	3744	718.4	871.7
MEAN	79.8	93.3	248	255	364	385	188	87.5	232	121	23.2	29.1
MAX	612	260	1350	795	1030	1280	317	550	974	886	54	120
MIN	23	60	95	74	140	132	79	32	51	29	7.7	9.7
CFSM	1.09	1.28	3.40	3.49	4.99	5.27	2.58	1.20	3.18	1.66	.32	.40
IN.	1.26	1.43	3.92	4.03	5.20	6.08	2.88	1.38	3.55	1.91	.37	.44

CAL YR 1981 TOTAL 65626.0 MEAN 180 MAX 1760 MIN 18 CFSM 2.47 IN 33.44
WTR YR 1982 TOTAL 63678.1 MEAN 174 MAX 1350 MIN 7.7 CFSM 2.38 IN 32.45

01595200 STONY RIVER NEAR MT. STORM, WV

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, Hydrologic Unit 02070002, on left bank 100 ft (30 m) downstream from highway bridge on U.S. Highway 50, 1.0 mi (1.6 km) west of Mt. Storm, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--48.8 mi^2 (126.4 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft (778.624 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except those for January, which are poor. Flow regulated by Stony River Reservoir, 14.0 mi (22.5 km) upstream from station, capacity, 1,948,000,000 gal (7.373 hm^3), of which 1,681,000,000 gal (6.363 hm^3) is controlled above minimum pool. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake) 4.0 mi (6.4 km) upstream from station.

AVERAGE DISCHARGE.--21 years, 100 ft^3/s (2.832 m^3/s), 27.83 in/yr (707 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft^3/s (151 m^3/s) July 3, 1978, from rating curve extended above 2,500 ft^3/s (71 m^3/s); gage height, 10.34 ft (3.152 m); minimum discharge, 1.8 ft^3/s (0.051 m^3/s) July 13, 1968; minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) July 13, 1968; minimum gage height, 1.79 ft (0.546 m), sometime during period Oct. 3-23, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 ft^3/s (61.2 m^3/s) June 13, gage height, 7.29 ft (2.222 m); minimum discharge, 6.1 ft^3/s (0.17 m^3/s), Aug. 30, gage height, 1.97 ft (0.600 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	154	64	143	273	143	116	75	48	54	11	8.1
2	31	73	87	198	156	135	102	112	96	53	9.4	10
3	19	75	75	124	352	118	145	135	143	207	8.8	16
4	15	87	92	348	424	90	145	65	94	368	8.1	11
5	14	97	92	264	336	110	114	38	264	273	8.1	12
6	17	135	74	216	368	96	140	34	237	237	7.7	12
7	18	139	60	320	404	114	126	36	279	195	7.0	12
8	16	121	106	252	348	118	116	47	288	189	6.8	11
9	15	81	109	220	336	112	130	43	291	164	15	10
10	15	43	106	195	285	108	120	39	340	30	12	10
11	14	37	98	170	161	189	110	47	448	41	9.1	9.7
12	13	34	90	150	112	440	106	41	420	37	10	12
13	14	32	81	130	94	440	122	37	1330	31	7.9	12
14	15	30	78	108	81	420	180	35	955	28	7.3	11
15	13	28	103	90	83	372	216	31	158	34	7.3	12
16	10	26	94	72	198	468	175	26	153	44	7.0	11
17	9.9	25	72	58	324	855	118	21	145	44	6.8	9.1
18	11	23	70	47	276	805	112	20	126	39	7.7	8.8
19	11	21	63	40	279	540	84	17	112	42	7.3	7.9
20	11	21	59	38	216	504	75	19	140	45	6.8	7.3
21	9.8	24	54	44	340	750	72	20	130	45	8.8	7.3
22	9.1	21	119	43	312	640	64	22	118	38	7.7	22
23	9.2	20	348	86	276	524	45	27	83	47	7.3	13
24	9.6	21	247	130	324	444	39	29	55	64	7.9	8.8
25	9.6	20	272	120	279	198	37	24	49	35	7.9	8.1
26	13	21	512	90	135	192	58	24	42	28	7.3	9.1
27	182	57	70	79	177	195	98	61	38	23	7.5	51
28	174	43	66	72	126	189	106	47	65	23	7.5	33
29	165	33	75	65	---	169	75	44	54	30	6.4	38
30	146	29	79	72	---	148	68	39	54	21	6.4	39
31	138	---	92	169	---	122	---	49	---	13	7.0	---
TOTAL	1162.2	1571	3607	4153	7075	9748	3214	1304	6755	2522	252.8	442.2
MEAN	37.5	52.4	116	134	253	314	107	42.1	225	81.4	8.15	14.7
MAX	182	154	512	348	424	855	216	135	1330	368	15	51
MIN	9.1	20	54	38	81	90	37	17	38	13	6.4	7.3
(≠)	1418	1258	1100	1120	1190	1160	1290	1410	1530	1410	1380	1440

CAL YR 1981 TOTAL 37014.9 MEAN 101 MAX 1340 MIN 4.4 CFSM 2.07 IN 28.22
WTR YR 1982 TOTAL 41806.2 MEAN 115 MAX 1330 MIN 6.4 CFSM 2.36 IN 31.87

≠ Month-end contents, in millions of gallons, in Stony River Reservoir, furnished by West Virginia Pulp and Paper Co.

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1961 to March 1974, September 1974 to current year.

INSTRUMENTATION.--Temperature recorder since December 1961.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27°C July 1, Aug. 22, 23, 1968; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 25.5°C July 7; minimum, 0.5°C Jan. 27.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.0	7.5	14.0	11.0	21.5	20.0	20.0	17.0	22.0	19.5	18.0	16.5
2	11.0	7.0	15.0	13.5	21.0	19.0	20.5	17.5	21.5	19.0	20.5	17.5
3	11.5	9.0	17.0	13.5	21.0	17.0	20.5	19.0	22.0	20.0	19.0	16.0
4	9.0	7.0	16.5	12.0	17.0	17.0	21.5	19.0	22.5	20.0	16.5	14.5
5	8.5	5.0	17.0	11.5	17.0	16.0	23.0	21.5	23.0	21.5	17.0	13.0
6	8.0	5.0	18.0	13.0	18.0	17.0	25.0	22.5	22.5	21.0	17.0	13.5
7	7.0	4.0	17.0	15.0	20.0	18.0	25.5	24.0	23.5	21.5	17.0	15.0
8	8.0	4.0	16.0	14.0	21.0	19.5	25.0	25.0	23.5	22.0	18.0	16.0
9	7.0	6.0	17.0	12.0	23.0	21.0	25.0	24.5	23.0	21.5	18.5	17.0
10	7.0	5.0	17.0	12.0	22.5	21.0	24.0	22.0	22.5	20.5	18.0	16.0
11	8.0	6.0	18.0	15.0	21.0	17.5	22.5	21.0	21.5	17.0	18.0	15.5
12	10.0	5.5	19.5	15.0	20.0	19.0	22.5	21.5	18.5	16.0	19.0	16.0
13	12.5	8.5	19.0	16.0	22.5	18.5	22.0	20.0	19.0	14.5	19.0	16.5
14	13.0	9.0	20.5	16.0	22.5	18.5	21.0	20.0	19.0	15.5	19.0	17.0
15	14.0	10.0	20.0	16.0	19.5	16.5	21.5	20.0	20.0	15.0	19.5	18.0
16	16.0	12.0	19.5	16.0	21.0	19.0	22.0	20.5	19.5	16.0	20.0	18.0
17	15.0	14.0	19.5	16.0	20.5	19.5	23.0	21.0	20.5	17.0	18.0	15.5
18	14.0	11.0	20.0	16.5	21.0	18.0	23.5	22.5	19.0	15.5	16.5	15.0
19	14.0	9.0	20.0	17.5	21.0	18.5	24.5	22.5	19.5	15.0	---	---
20	13.0	11.0	19.0	17.0	21.0	19.0	24.0	23.5	18.0	16.0	---	---
21	14.0	12.5	18.5	17.0	21.0	19.0	24.0	22.5	19.0	17.0	---	---
22	13.0	11.5	19.0	17.0	20.5	19.0	23.5	21.5	17.5	14.5	---	---
23	12.5	8.0	18.5	18.0	20.0	19.0	23.0	22.5	17.0	15.5	---	---
24	14.0	9.0	18.0	17.0	19.0	17.0	24.5	22.5	20.0	16.0	---	---
25	14.0	10.0	19.0	17.0	20.0	17.0	24.5	22.0	20.5	18.0	---	---
26	13.5	12.5	20.0	17.5	20.0	18.0	24.5	22.5	19.0	15.0	---	---
27	13.0	11.5	19.0	17.0	20.5	19.0	24.0	22.5	18.0	16.0	---	---
28	13.0	10.0	21.0	19.0	21.0	19.0	23.0	22.0	19.5	16.0	---	---
29	14.0	9.0	22.0	19.5	21.0	21.0	22.0	20.0	16.0	12.5	---	---
30	14.5	10.5	21.0	19.0	21.0	20.0	21.5	21.0	15.5	13.0	---	---
31	---	---	22.0	19.0	---	---	22.5	20.0	17.5	15.0	---	---
MONTH	16.0	4.0	22.0	11.0	23.0	16.0	25.5	17.0	23.5	12.5	20.5	13.0

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD

LOCATION.--Lat 39°23'38", long 79°10'55", Garrett County, Hydrologic Unit 02070002, on left bank 0.6 mi (1.0 km) downstream from bridge on State Highway 38 in Kitzmiller, 1.5 mi (2.4 km) downstream from Wolfden Run, and at mile 68.9 (110.9 km).

DRAINAGE AREA.--225 mi^2 (583 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft (479.225 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 15, 1954, at site 0.3 mi (0.5 km) upstream at datum 7.58 ft (2.310 m) higher. Oct. 15, 1954, to Nov. 20, 1955, nonrecording gage at bridge 0.5 mi (0.8 km) upstream at datum 21.51 ft (6.556 m) higher.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Regulation at low flow by Stony River Reservoir, 30 mi (48 km) above station (see station 01595200). Gage-height telemeter at station.

AVERAGE DISCHARGE.--33 years, 451 ft^3/s (12.77 m^3/s), 27.22 in/yr (691 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft^3/s (946 m^3/s) Oct. 15, 1954, gage height, 13.73 ft (4.185 m), from floodmarks, present site and datum; minimum discharge, 4.6 ft^3/s (0.13 m^3/s) Oct. 3-7, 1953, gage height, 1.45 ft (0.442 m), site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft^3/s (96 m^3/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. 23	1015	3880	110	6.99	2.131	Mar. 20	1200	3650	103	6.88	2.097
Feb. 1	0430	4810	136	7.42	2.262	June 11	0600	4130	117	7.11	2.167
Mar. 12	0200	5000	142	7.50	2.286	June 13	1715	4110	116	7.10	2.164
Mar. 17	0230	*5320	151	7.63	2.326	July 4	0115	3670	104	6.89	2.100

Minimum discharge, 22 ft^3/s (0.62 m^3/s) Sept. 19, 20, 21, 22, gage height, 2.15 ft (0.655 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	359	399	432	2470	515	564	355	262	154	120	38
2	118	260	695	462	878	546	474	366	288	132	102	61
3	117	230	471	392	1860	578	658	355	540	1040	95	113
4	91	223	408	1620	2360	459	807	300	560	1810	90	87
5	79	226	412	1280	1270	626	588	242	1420	720	81	63
6	76	351	356	843	1080	533	722	215	975	537	77	49
7	97	388	303	1420	892	579	645	200	832	420	73	44
8	85	323	651	1040	777	539	573	270	703	431	69	42
9	79	280	581	797	778	483	641	242	627	380	95	41
10	76	224	493	520	709	446	605	202	934	220	131	40
11	72	205	431	430	527	769	563	191	2380	260	88	35
12	69	188	406	340	413	2880	570	180	1290	243	90	32
13	67	170	350	300	383	1940	678	164	3000	177	77	35
14	65	162	316	270	334	1570	657	158	2190	153	65	33
15	65	155	361	240	389	1200	614	146	875	153	57	56
16	63	150	338	220	942	2170	539	135	659	159	52	75
17	61	145	295	200	1620	4220	465	124	616	165	49	34
18	59	134	278	190	1120	2310	516	120	501	135	54	25
19	86	129	251	180	1160	1570	409	107	401	130	48	23
20	88	130	246	170	1070	2340	365	114	367	142	43	22
21	77	139	223	200	1770	2640	337	145	327	168	45	22
22	67	137	515	240	1120	1860	304	132	290	126	49	87
23	64	128	2650	867	954	1370	266	134	251	114	40	112
24	72	128	1410	1140	1030	1100	245	156	190	155	54	69
25	72	135	991	561	979	807	224	165	172	110	50	47
26	86	119	1070	447	669	764	377	128	157	95	42	43
27	1140	402	524	350	630	684	517	712	144	144	37	263
28	1050	398	444	280	528	607	646	869	166	640	47	150
29	599	269	442	280	---	587	448	379	166	470	43	118
30	456	221	364	300	---	585	390	313	185	202	37	107
31	360	---	341	708	---	554	---	339	---	149	36	---
TOTAL	5631	6508	17015	16719	28712	37831	15407	7658	21468	9934	2036	1966
MEAN	182	217	549	539	1025	1220	514	247	716	320	65.7	65.5
MAX	1140	402	2650	1620	2470	4220	807	869	3000	1810	131	263
MIN	59	119	223	170	334	446	224	107	144	95	36	22

CAL YR 1981 TOTAL 161850 MEAN 443 MAX 3360 MIN 34 CFSM 1.97 IN 26.76
WTR YR 1982 TOTAL 170885 MEAN 468 MAX 4220 MIN 22 CFSM 2.08 IN 28.25

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURES: August 1961 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980. Temperature recorder prior to October 1980.

REMARKS.--Interruptions in record were due to malfunctions of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1961-79, 1982): Maximum, 32.0°C Aug. 15, 16, 18, 1965; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C July 25, 26; minimum, 0.0°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	690	640	665	185	165	173	247	187	239	262	232	252
2	655	585	625	213	163	193	187	148	158	233	183	198
3	585	510	539	230	210	218	189	159	169	234	184	207
4	560	495	513	260	230	245	190	180	186	236	136	185
5	600	560	580	290	240	265	192	172	182	167	137	149
6	595	555	569	300	220	268	203	183	187	188	158	168
7	555	517	---	---	---	---	244	204	218	199	139	166
8	517	457	474	---	---	---	235	165	207	180	140	158
9	466	436	454	---	---	---	186	166	176	190	160	175
10	626	426	509	---	---	---	187	177	184	200	180	186
11	665	605	632	---	---	---	198	188	190	---	---	---
12	615	575	599	---	---	---	210	190	200	---	---	---
13	635	555	596	---	---	---	201	171	186	---	---	---
14	564	494	526	---	---	---	182	162	173	---	---	---
15	654	484	557	---	---	---	203	173	189	210	---	---
16	683	653	667	---	---	---	234	204	215	270	210	239
17	653	593	629	---	---	---	245	225	235	280	230	244
18	652	582	616	---	---	---	267	247	254	270	230	241
19	602	482	535	---	---	---	268	248	259	290	260	280
20	531	421	475	380	---	---	279	239	255	290	250	268
21	541	461	497	390	360	378	260	210	241	290	260	279
22	520	430	478	380	360	370	221	181	202	290	260	276
23	570	500	535	400	350	383	181	102	121	310	110	230
24	537	397	464	370	350	360	133	113	121	130	110	115
25	505	375	438	390	360	371	124	114	122	170	120	132
26	472	372	407	401	351	380	126	106	120	180	150	167
27	459	119	290	412	202	333	167	127	151	230	180	192
28	156	116	128	203	183	187	208	168	179	260	200	227
29	184	154	168	225	195	211	229	199	221	220	206	214
30	201	161	180	246	226	232	240	220	226	227	204	217
31	228	188	206	---	---	---	261	231	243	219	144	192
MONTH	690	116	485	412	163	285	279	102	194	310	110	206

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	128	94	102	---	---	---	276	238	258	---	---	---
2	144	111	129	---	---	---	300	254	276	---	---	---
3	155	98	128	---	---	---	316	263	290	255	---	---
4	119	94	105	---	---	---	263	208	215	286	235	257
5	129	113	121	---	---	---	240	212	224	320	265	291
6	136	130	131	---	---	---	235	180	220	354	294	322
7	143	123	130	---	---	---	225	180	205	341	312	325
8	160	134	143	---	---	---	231	208	220	313	272	294
9	190	155	168	---	---	---	242	214	228	324	262	292
10	190	157	168	---	---	---	255	221	238	344	282	313
11	219	170	187	---	---	---	273	234	250	365	310	335
12	217	191	203	---	---	---	260	222	243	390	320	353
13	227	192	208	---	---	---	246	217	228	405	358	381
14	246	226	235	---	---	---	244	214	229	454	370	409
15	244	205	233	129	---	---	241	203	224	433	380	406
16	195	144	177	146	86	121	244	216	232	448	371	414
17	141	120	128	105	84	96	267	237	255	494	425	458
18	142	126	130	127	109	121	289	247	269	523	453	487
19	153	141	146	148	128	136	348	252	306	542	478	505
20	161	132	150	153	116	131	346	296	313	504	457	477
21	151	127	142	137	125	129	---	---	---	501	404	472
22	175	122	139	141	134	137	---	---	---	469	388	422
23	168	138	153	169	142	157	---	---	---	420	387	408
24	151	137	141	205	170	190	---	---	---	450	404	423
25	177	143	145	251	201	228	---	---	---	408	317	373
26	---	---	---	233	194	213	---	---	---	442	384	409
27	---	---	---	202	194	198	---	---	---	659	---	---
28	---	---	---	249	198	220	---	---	---	---	---	---
29	---	---	---	255	241	248	---	---	---	---	---	---
30	---	---	---	253	233	244	---	---	---	---	---	---
31	---	---	---	272	246	259	---	---	---	---	---	---
MONTH	246	94	154	272	84	177	348	180	246	659	235	384

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	476	397	437	---	---	---	908	838	868
2	---	---	---	486	400	439	---	---	---	960	855	889
3	---	---	---	420	---	---	595	---	---	905	785	834
4	240	---	---	151	120	134	677	565	620	785	630	714
5	233	149	174	180	144	163	665	596	629	846	706	774
6	158	151	154	236	176	209	698	610	650	1000	771	887
7	167	155	162	275	231	252	757	643	697	1020	906	963
8	194	167	180	304	242	264	771	698	730	1080	971	1020
9	211	185	199	259	229	244	773	667	713	1130	996	1050
10	---	185	---	378	247	320	764	566	700	1090	981	1030
11	---	---	---	371	292	331	584	507	549	1150	997	1080
12	---	---	---	392	320	356	605	495	548	1170	1010	1090
13	---	---	---	457	365	406	675	572	624	1190	1010	1090
14	---	---	---	468	397	426	670	585	626	1090	992	1040
15	---	---	---	497	411	451	659	556	611	1080	1010	1050
16	---	---	---	496	433	456	771	643	705	1150	1040	1110
17	---	---	---	457	384	428	796	679	730	1050	918	986
18	---	---	---	510	453	480	751	680	712	1050	963	1010
19	---	---	---	532	462	496	789	658	718	1170	1020	1090
20	---	---	---	555	487	513	753	694	724	1160	1100	1120
21	---	---	---	582	---	---	770	698	735	1160	1030	1100
22	---	---	---	386	---	---	866	753	809	---	---	---
23	313	---	---	427	387	405	831	752	789	---	---	---
24	359	262	313	472	414	447	834	722	776	---	---	---
25	398	267	324	482	396	441	934	723	813	---	---	---
26	451	323	382	532	457	495	968	827	900	---	---	---
27	448	388	421	557	---	---	915	818	848	---	---	---
28	522	443	464	---	---	---	879	790	836	---	---	---
29	487	454	468	---	---	---	812	686	758	---	---	---
30	520	432	481	---	---	---	850	766	808	---	---	---
31	---	---	---	---	---	---	891	820	854	---	---	---
MONTH	522	149	310	582	120	374	968	495	722	1190	630	990

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.2	5.1	5.2	5.7	5.6	5.6	6.9	6.3	6.5	6.4	6.2	6.3
2	5.3	5.1	5.2	5.6	5.5	5.6	6.9	6.6	6.7	6.4	6.3	6.4
3	5.4	5.3	5.4	5.5	5.2	5.4	6.7	6.6	6.6	6.4	6.2	6.3
4	5.5	5.4	5.4	5.6	5.4	5.5	6.6	6.4	6.5	6.7	6.4	6.5
5	5.4	5.2	5.3	5.6	5.5	5.6	6.6	6.5	6.5	6.6	6.4	6.4
6	5.3	5.2	5.2	6.0	5.5	5.8	6.8	6.6	6.7	6.4	6.3	6.3
7	5.3	5.2	5.3	---	---	---	6.8	6.4	6.6	6.6	6.3	6.5
8	5.4	5.3	5.3	---	---	---	6.8	6.4	6.6	6.5	6.4	6.4
9	5.4	5.3	5.4	---	---	---	6.7	6.7	6.7	6.5	6.2	6.3
10	5.4	5.3	5.4	---	---	---	6.7	6.7	6.7	6.3	6.0	6.1
11	5.4	5.4	5.4	---	---	---	6.7	6.6	6.6	---	---	---
12	5.4	5.3	5.4	---	---	---	6.6	6.3	6.4	---	---	---
13	5.4	5.2	5.3	---	---	---	6.5	6.4	6.5	---	---	---
14	5.4	5.3	5.3	---	---	---	6.5	6.4	6.4	---	---	---
15	5.4	5.2	5.3	---	---	---	6.4	6.3	6.3	5.9	---	---
16	5.2	5.2	5.2	---	---	---	6.4	6.3	6.4	6.1	5.9	6.0
17	5.3	5.2	5.2	---	---	---	6.5	6.4	6.4	6.2	6.0	6.1
18	5.3	5.2	5.2	---	---	---	6.4	6.3	6.4	6.0	5.9	5.9
19	5.4	5.3	5.4	---	---	---	6.6	6.4	6.5	5.9	5.7	5.7
20	5.5	5.2	5.4	5.9	---	---	6.6	6.5	6.5	5.8	5.7	5.7
21	5.5	5.3	5.4	5.9	5.8	5.8	6.5	6.3	6.4	5.9	5.8	5.8
22	5.4	5.3	5.4	6.0	5.8	5.9	6.7	6.2	6.4	6.2	5.8	5.9
23	5.3	5.2	5.3	6.0	5.9	6.0	6.7	6.3	6.5	6.5	6.2	6.3
24	5.4	5.2	5.3	6.0	5.9	6.0	6.2	6.1	6.2	6.5	6.1	6.2
25	5.5	5.4	5.4	6.0	5.8	6.0	6.2	6.2	6.2	6.1	5.9	6.0
26	5.5	5.3	5.4	6.1	5.9	6.0	6.3	5.9	6.1	6.3	5.8	6.0
27	6.8	5.5	6.1	6.6	6.0	6.3	6.2	6.0	6.1	6.2	5.9	6.0
28	6.7	6.3	6.5	6.6	6.5	6.5	6.2	6.1	6.1	5.9	5.7	5.8
29	6.3	6.1	6.2	6.6	6.5	6.6	6.4	6.2	6.3	5.8	5.6	5.7
30	6.0	5.8	5.9	6.6	6.4	6.5	6.4	6.3	6.4	5.9	5.7	5.8
31	5.8	5.7	5.7	---	---	---	6.5	6.2	6.4	6.6	6.0	6.3
MONTH	6.8	5.1	5.5	6.6	5.2	5.9	6.9	5.9	6.4	6.7	5.6	6.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.6	6.0	6.2	---	---	---	6.0	5.5	5.7	6.4	6.4	6.4
2	6.1	6.0	6.1	5.8	---	---	5.7	5.5	5.6	6.4	6.2	6.3
3	6.5	6.0	6.2	5.9	5.8	5.8	---	---	---	6.4	6.0	6.2
4	6.2	5.9	6.0	6.2	5.9	6.1	---	---	---	6.2	6.1	6.1
5	5.9	5.8	5.9	6.4	6.2	6.3	6.1	---	---	6.2	6.1	6.1
6	6.0	5.7	5.8	6.2	5.9	6.1	6.2	6.0	6.1	6.2	6.1	6.2
7	6.0	5.7	5.8	6.3	---	---	6.4	6.1	6.2	6.2	5.9	6.1
8	5.9	5.8	5.9	6.2	6.1	6.2	6.5	6.1	6.3	6.0	5.8	5.9
9	6.1	5.8	5.9	6.2	6.0	6.1	6.3	6.0	6.2	6.4	6.0	6.2
10	6.0	5.8	5.9	6.3	6.0	6.1	6.6	6.4	6.5	6.3	6.0	6.2
11	6.5	6.0	6.4	---	---	---	6.6	6.3	6.5	6.0	5.7	5.9
12	6.4	6.0	6.2	---	---	---	6.4	6.0	6.2	5.8	5.7	5.8
13	6.0	5.8	5.9	---	---	---	6.3	6.2	6.3	6.0	5.9	5.9
14	6.1	5.8	6.0	---	---	---	6.2	6.0	6.1	6.4	5.9	6.2
15	6.2	5.8	6.0	6.0	---	---	6.2	6.1	6.1	6.2	5.8	6.0
16	6.4	6.1	6.3	6.4	6.0	6.2	6.2	6.0	6.1	6.0	5.9	5.9
17	6.5	6.2	6.3	6.2	5.8	5.9	6.1	6.0	6.0	6.0	5.8	5.9
18	6.3	6.1	6.2	5.9	5.8	5.8	6.3	6.1	6.2	6.0	5.8	5.9
19	6.4	6.1	6.2	5.9	5.7	5.8	6.2	5.8	6.0	6.0	5.7	5.9
20	6.5	6.1	6.2	6.2	5.7	6.0	6.1	6.0	6.1	5.8	5.6	5.7
21	6.6	6.2	6.4	6.2	6.0	6.0	6.1	6.0	6.0	5.8	5.6	5.8
22	6.2	6.1	6.1	5.9	5.8	5.8	6.0	6.0	6.0	6.0	5.8	5.9
23	6.2	6.0	6.1	5.7	5.7	5.7	6.0	5.8	5.9	6.2	6.0	6.1
24	6.3	5.8	6.0	5.7	5.6	5.7	6.0	5.8	5.9	6.2	5.9	6.0
25	6.4	6.0	6.3	5.7	5.5	5.6	6.0	5.9	5.9	6.4	6.2	6.3
26	---	---	---	5.8	5.5	5.7	6.6	6.0	6.2	6.2	6.0	6.1
27	---	---	---	5.9	5.8	5.9	6.7	6.1	6.5	6.4	---	---
28	---	---	---	5.9	5.6	5.7	6.7	6.5	6.6	---	---	---
29	---	---	---	5.9	5.7	5.8	6.5	6.5	6.5	---	---	---
30	---	---	---	5.9	5.5	5.7	6.5	6.4	6.4	---	---	---
31	---	---	---	5.9	5.6	5.7	---	---	---	---	---	---
MONTH	6.6	5.7	6.1	6.4	5.5	5.9	6.7	5.5	6.2	6.4	5.6	6.0

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	5.8	5.6	5.7	---	---	---	5.0	4.9	4.9
2	---	---	---	5.7	5.6	5.6	---	---	---	5.0	4.9	5.0
3	---	---	---	6.6	5.6	---	5.9	---	---	5.1	4.9	5.0
4	6.4	---	---	6.5	6.4	6.4	5.9	5.6	5.8	5.3	5.1	5.2
5	6.6	6.3	6.4	6.3	6.2	6.3	5.7	5.6	5.6	5.3	5.1	5.2
6	6.5	6.4	6.4	6.2	6.1	6.2	5.7	5.5	5.6	5.2	5.0	5.1
7	6.4	6.3	6.3	6.1	6.0	6.1	5.6	5.5	5.6	5.1	5.0	5.0
8	6.3	6.2	6.3	6.4	6.0	6.1	5.5	5.4	5.5	5.0	4.9	5.0
9	6.2	5.9	6.1	6.3	6.1	6.2	5.7	5.5	5.6	5.0	4.9	4.9
10	---	---	---	6.1	5.9	6.0	5.9	5.6	5.7	5.0	4.8	4.9
11	---	---	---	6.4	5.7	6.1	6.0	5.9	6.0	4.9	4.8	4.8
12	---	---	---	6.5	6.1	6.4	6.2	6.0	6.1	4.9	4.7	4.8
13	---	---	---	6.3	6.2	6.3	6.2	5.8	6.0	4.9	4.8	4.8
14	---	---	---	6.5	6.0	6.2	5.8	5.6	5.7	4.9	4.8	4.8
15	---	---	---	6.3	5.2	6.0	5.6	5.3	5.4	5.0	4.8	4.8
16	---	---	---	6.2	5.9	6.1	5.4	5.2	5.3	4.9	4.8	4.9
17	---	---	---	6.6	6.1	6.2	5.4	5.1	5.3	5.0	4.9	4.9
18	---	---	---	6.3	5.9	6.1	5.4	5.1	5.2	4.9	4.9	4.9
19	---	---	---	6.1	5.6	5.9	5.5	5.2	5.4	5.0	4.8	4.9
20	---	---	---	5.9	5.6	5.8	5.5	5.2	5.3	4.9	4.8	4.8
21	---	---	---	6.1	5.9	6.0	5.3	5.1	5.2	4.9	4.8	4.9
22	---	---	---	6.1	5.8	6.0	5.4	5.1	5.2	---	---	---
23	5.7	---	---	6.0	5.8	5.9	5.2	5.1	5.2	---	---	---
24	5.7	5.5	5.6	5.9	5.3	5.6	5.2	5.1	5.2	---	---	---
25	5.7	5.4	5.5	5.8	5.6	5.7	5.1	5.0	5.1	---	---	---
26	5.5	5.4	5.5	5.8	5.5	5.7	5.2	5.0	5.1	---	---	---
27	5.5	5.4	5.4	---	---	---	5.1	5.0	5.1	---	---	---
28	5.6	5.2	5.4	---	---	---	5.1	5.0	5.1	---	---	---
29	5.8	5.2	5.4	---	---	---	5.2	5.0	5.1	---	---	---
30	5.9	5.6	5.8	---	---	---	5.1	5.0	5.0	---	---	---
31	---	---	---	---	---	---	5.0	4.9	4.9	---	---	---
MONTH	6.6	5.2	5.8	6.6	5.2	6.0	6.2	4.9	5.4	5.3	4.7	4.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	12.6	11.8	12.2	11.1	10.5	10.7
2				---	---	---	12.1	11.9	12.0	10.8	10.4	10.6
3				---	---	---	12.2	12.1	12.1	10.7	10.2	10.4
4				11.6	11.0	11.2	12.3	11.9	12.1	10.7	10.4	10.5
5				11.6	11.0	11.3	12.4	12.1	12.2	11.1	10.7	11.0
6				11.9	11.0	11.4	12.7	12.5	12.6	11.1	10.6	10.9
7				---	---	---	12.9	12.0	12.5	11.2	10.9	11.0
8				---	---	---	12.4	12.1	12.2	11.6	11.4	11.5
9				---	---	---	12.9	12.7	12.8	11.7	11.5	11.6
10				---	---	---	13.1	12.8	12.9	11.8	11.7	11.7
11				---	---	---	13.0	12.8	12.9	---	---	---
12				---	---	---	13.0	12.8	12.9	---	---	---
13				---	---	---	13.1	12.8	13.0	---	---	---
14				---	---	---	13.1	12.6	12.9	---	---	---
15				---	---	---	12.8	12.5	12.6	13.2	12.2	---
16				---	---	---	12.8	12.7	12.7	12.2	11.8	11.9
17				---	---	---	13.0	12.6	12.7	12.1	11.9	12.0
18				---	---	---	12.8	12.6	12.7	12.2	12.1	12.1
19				---	---	---	12.9	12.6	12.7	12.4	12.3	12.3
20				10.5	---	---	12.8	12.5	12.7	12.6	12.4	12.5
21				11.1	10.5	10.9	12.7	11.8	12.3	12.8	12.6	12.7
22				12.0	11.4	11.7	12.2	11.9	12.1	13.0	12.8	12.9
23				12.4	11.4	11.9	12.5	11.9	12.2	13.0	12.8	12.9
24				12.3	11.4	11.8	12.3	12.2	12.3	13.0	12.9	13.0
25				12.7	11.8	12.2	12.6	12.4	12.5	13.1	13.0	13.1
26				12.7	11.8	12.2	13.0	11.7	12.6	13.3	13.1	13.2
27				12.1	11.2	11.6	13.2	12.8	13.0	13.3	13.2	13.2
28				11.9	11.5	11.7	13.2	12.2	12.7	13.4	13.2	13.3
29				12.3	12.0	12.2	12.5	12.0	12.3	13.5	13.4	13.5
30				12.7	12.2	12.5	12.3	11.5	11.9	13.6	13.2	13.4
31				---	---	---	11.8	10.7	11.2	13.5	13.3	13.4
MONTH				12.7	10.5	11.7	13.2	10.7	12.5	13.6	10.2	12.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.0	13.6	13.8	---	---	---	---	---	---	---	---	---
2	14.2	13.8	14.0	13.6	---	---	---	---	---	---	---	---
3	13.9	13.5	13.6	13.5	13.1	13.3	---	---	---	10.0	---	---
4	13.8	13.6	13.7	13.3	12.6	13.0	---	---	---	11.1	9.8	10.4
5	14.0	13.4	13.7	12.6	12.4	12.5	12.4	---	---	11.5	9.8	10.6
6	14.4	13.5	13.8	12.5	12.2	12.3	13.1	11.8	12.3	11.3	9.6	10.4
7	14.8	14.2	14.6	12.5	---	---	13.6	12.5	13.1	10.8	10.0	10.4
8	14.7	14.0	14.4	12.5	11.8	12.2	13.3	12.0	12.6	11.0	10.4	10.6
9	14.2	13.8	14.0	11.9	11.1	11.5	12.5	11.9	12.2	11.8	10.4	11.1
10	14.8	14.3	14.6	11.5	10.9	11.2	12.9	12.1	12.5	11.9	10.3	11.1
11	14.9	14.2	14.6	11.0	---	---	12.6	11.8	12.2	11.6	10.1	10.9
12	14.9	14.4	14.6	---	---	---	12.7	11.4	12.0	11.2	9.9	10.5
13	14.5	14.1	14.3	---	---	---	11.7	10.5	11.2	10.9	10.1	10.5
14	14.5	13.8	14.2	---	---	---	11.7	10.6	11.2	11.0	9.9	10.4
15	14.2	13.2	13.8	13.2	---	---	11.7	10.4	11.0	11.2	10.0	10.6
16	13.6	12.8	13.1	12.8	12.3	12.6	11.3	10.1	10.6	11.2	10.1	10.6
17	13.0	12.8	12.9	12.6	11.5	11.9	10.5	10.0	10.3	11.1	10.0	10.6
18	13.1	12.0	12.8	11.9	10.9	11.3	11.2	10.5	10.9	11.0	10.1	10.5
19	12.4	11.9	---	11.1	10.5	10.8	11.6	10.3	10.9	10.8	10.0	10.4
20	12.2	11.6	---	11.2	10.7	10.9	---	---	---	10.5	9.7	10.2
21	---	---	---	10.8	10.0	10.4	---	---	---	10.1	9.5	9.8
22	---	12.1	---	10.9	10.6	10.8	---	---	---	9.7	9.1	9.3
23	---	12.1	---	10.9	10.1	10.4	---	---	---	9.4	9.2	9.3
24	---	11.6	---	10.5	9.8	10.1	---	---	---	9.4	8.8	9.1
25	---	11.5	---	10.2	9.4	9.7	---	---	---	9.2	8.9	9.1
26	---	---	---	10.5	9.6	10.0	---	---	---	9.3	8.8	9.1
27	---	---	---	10.8	10.5	10.7	---	---	---	9.5	---	---
28	---	---	---	11.1	10.2	10.6	---	---	---	---	---	---
29	---	---	---	10.6	9.4	10.0	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	14.9	11.5	13.9	13.6	9.4	11.3	13.6	10.0	11.6	11.9	8.8	10.2

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.2	8.6	8.9						
2	---	---	---	9.4	8.7	9.1						
3	---	---	---	9.7	---	---						
4	9.8	---	---	10.1	9.7	9.9						
5	10.1	9.8	9.9	10.1	9.7	9.9						
6	10.0	9.9	10.0	10.1	9.4	9.8						
7	10.0	9.6	9.8	9.9	9.0	9.5						
8	9.8	9.2	9.5	9.5	9.1	9.3						
9	9.2	8.3	8.8	9.7	9.2	9.5						
10	8.8	---	---	9.8	9.0	9.4						
11	---	---	---	9.5	8.9	9.2						
12	---	---	---	9.6	9.0	9.3						
13	---	---	---	9.9	9.0	9.4						
14	---	---	---	9.7	9.1	9.5						
15	---	---	---	9.7	9.0	9.4						
16	---	---	---	9.4	8.8	9.1						
17	---	---	---	9.5	8.8	9.1						
18	---	---	---	9.4	9.0	9.2						
19	---	---	---	9.2	8.5	8.9						
20	---	---	---	8.7	8.4	8.5						
21	---	---	---	8.8	8.4	8.6						
22	---	---	---	9.0	8.2	8.6						
23	11.6	---	---	9.2	8.7	8.9						
24	10.7	9.4	10.0	9.5	8.2	8.8						
25	11.0	9.6	10.3	---	---	---						
26	10.9	9.4	10.2	---	---	---						
27	10.3	8.5	9.4	---	---	---						
28	9.2	8.0	8.6	---	---	---						
29	8.7	8.2	8.4	---	---	---						
30	9.0	8.5	8.8	---	---	---						
31	---	---	---	---	---	---						
MONTH	11.6	8.0	9.5	10.1	8.2	9.2						

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV

LOCATION.--Lat 39°26'44", long 79°06'39", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at highway bridge at Barnum, W. Va., 0.4 mi (0.6 km) upstream from Folly Run, and 4.0 mi (6.4 km) southwest of Piedmont, W. Va., and at mile 59.4 (95.6 km).

DRAINAGE AREA.--266 mi^2 (689 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,151.82 ft (351.075 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Prior to July 1981 regulation at low flow by Stony River Reservoir, 39 mi (63 km) above station (see station 01595200). Since July 1981 complete regulation by Bloomington Reservoir, 1.5 mi (2.4 km) above station, capacity 96,600 acre-ft (119 hm^3).

AVERAGE DISCHARGE.--16 years, 539 ft^3/s (15.26 m^3/s), 27.52 in/yr (699 mm/yr), adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft^3/s (767 m^3/s) July 3, 1978, gage height, 13.37 ft (4.075 m), from rating curve extended above 8,000 ft^3/s (230 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 0.91 ft^3/s (0.026 m^3/s) Aug. 12, 1981, gage height, 1.76 ft (0.536 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft^3/s (174 m^3/s) Mar. 17, gage height, 7.88 ft (2.402 m); minimum discharge, 1.4 ft^3/s (0.040 m^3/s) Aug. 19, gage height, 1.79 ft (0.546 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	114	263	411	910	641	291	107	52	206	263	232
2	54	84	460	467	703	565	292	107	52	159	263	231
3	54	89	415	624	1150	645	401	107	54	243	261	230
4	54	89	415	1700	2220	683	627	107	54	740	259	229
5	54	91	415	1580	1020	683	442	107	668	839	259	229
6	54	93	386	872	508	683	459	98	1050	853	259	229
7	55	395	281	1180	513	687	475	90	1110	879	259	221
8	56	352	670	1160	334	683	392	98	926	877	260	222
9	56	296	545	581	270	555	396	93	656	878	259	219
10	56	250	415	421	457	521	394	92	852	792	277	234
11	56	227	355	313	640	500	394	104	1510	334	220	242
12	56	212	343	132	485	1860	284	115	2420	424	259	242
13	56	208	343	93	415	2310	200	115	2520	332	259	242
14	56	188	299	76	414	2420	232	110	2400	235	259	242
15	56	171	310	58	421	1950	401	116	2470	172	256	242
16	57	171	355	55	928	2320	626	124	1470	202	248	242
17	58	171	284	50	2120	4910	615	119	782	269	243	242
18	58	171	266	46	1830	2760	613	119	624	268	236	242
19	58	174	288	44	1200	1670	612	118	470	268	198	240
20	58	170	281	39	1090	2640	466	119	426	268	232	239
21	58	153	186	38	1710	2930	353	119	352	267	232	238
22	58	142	398	39	2050	1790	326	121	299	266	232	240
23	58	142	2700	42	1530	1460	306	122	290	267	232	284
24	58	142	1680	457	1200	1030	293	120	184	266	231	238
25	58	159	1140	196	1400	810	276	107	106	266	229	238
26	61	139	1080	41	903	497	215	122	105	266	210	240
27	497	250	821	72	689	493	107	123	149	265	232	239
28	836	402	433	39	685	375	106	89	187	271	231	238
29	206	402	411	38	---	284	105	52	213	264	230	237
30	263	342	411	39	---	270	105	52	217	263	220	322
31	158	---	411	61	---	290	---	52	---	263	232	---
TOTAL	3437	5989	17060	10964	27795	39915	10804	3244	22668	12162	7540	7205
MEAN	111	200	550	354	993	1288	360	105	756	392	243	240
MAX	836	402	2700	1700	2220	4910	627	124	2520	879	277	322
MIN	54	84	186	38	270	270	105	52	52	159	198	219
(ƒ)	16690	19200	20770	38700	49900	63180	77180	89460	94760	92390	80780	70270

CAL YR 1981 TOTAL 176060 MEAN 482 MAX 4500 MIN 39
WTR YR 1982 TOTAL 168783 MEAN 462 MAX 4910 MIN 38

ƒ Monthend contents, in acre-feet, in Bloomington Reservoir (contents on Sept. 30, 1981, 11,560 acre-feet).
Records furnished by Corps of Engineers.

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
pH: October 1980 to current year.
WATER TEMPERATURES: October 1980 to current year.
DISSOLVED OXYGEN: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1982): Maximum, 525 micromhos Oct. 20, 21, 1981; minimum, 172 micromhos Mar. 24, 1982.
pH (water year 1982): Maximum, 7.0 units June 5, 1982; minimum, 4.9 units Oct. 3-7, 9, 1981.
WATER TEMPERATURES (water year 1982): Maximum, 22.0°C Aug. 19, Sept. 9, 1982; minimum 0.5°C on several days during Jan. 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 525 micromhos Oct. 20, 21; minimum, 172 micromhos Mar. 24.
pH: Maximum, 7.0 units June 5; minimum, 4.9 units Oct. 3, 4, 5, 6, 7, 9.
WATER TEMPERATURES: Maximum, 22.0°C Aug. 19, Sept. 9; minimum, 0.5°C on several days during Jan.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	350	344	347	408	391	399	242	236	240
2	---	---	---	351	344	348	389	378	384	242	232	237
3	517	487	501	358	344	350	379	368	371	231	227	228
4	521	514	517	359	348	356	370	365	367	232	208	218
5	520	515	517	360	354	357	367	354	361	230	210	221
6	519	513	516	369	349	356	360	352	356	217	213	215
7	521	516	518	339	317	324	353	335	344	219	208	215
8	520	514	517	341	337	339	335	326	330	208	201	205
9	514	513	514	341	337	339	331	327	329	211	201	206
10	515	506	508	336	333	335	327	312	318	207	205	206
11	506	500	502	333	326	330	315	294	306	217	203	210
12	499	495	497	328	322	325	309	306	307	232	215	223
13	512	497	505	343	324	335	311	305	308	233	231	232
14	517	511	514	359	345	355	313	306	311	246	232	236
15	517	510	513	370	359	366	312	309	311	239	235	237
16	514	512	513	379	369	375	310	308	309	241	238	239
17	512	506	509	386	377	383	312	308	310	240	232	236
18	521	509	514	398	385	394	312	308	311	232	225	229
19	521	518	520	404	399	402	309	308	308	246	230	238
20	525	519	521	412	404	409	308	307	308	250	246	248
21	525	518	521	413	405	410	330	307	313	255	247	252
22	518	515	517	430	414	425	314	297	307	254	251	252
23	517	515	516	434	430	431	297	296	296	254	238	251
24	517	512	514	437	430	433	299	287	293	205	199	203
25	511	505	508	439	434	436	288	279	282	267	204	232
26	509	503	507	436	430	433	282	247	266	267	262	263
27	505	408	472	433	417	427	260	245	254	264	258	261
28	460	396	422	422	417	420	269	260	265	264	261	262
29	400	384	391	421	408	416	266	256	260	267	262	264
30	389	358	369	410	400	404	256	240	248	271	267	269
31	360	336	345	---	---	---	239	233	237	274	219	267
MONTH	525	336	493	439	317	379	408	233	312	274	199	235

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	289	206	244	217	212	214	208	200	204	261	252	254
2	276	206	240	221	214	217	221	202	211	262	251	256
3	248	194	223	222	219	220	230	195	215	267	257	261
4	255	249	251	223	219	221	199	192	196	264	254	260
5	249	198	220	223	220	222	224	197	209	266	261	264
6	200	182	194	222	220	221	---	---	---	272	259	265
7	196	175	184	229	220	224	---	---	---	274	267	270
8	201	183	194	224	222	223	---	---	---	296	268	278
9	206	189	200	282	210	220	---	---	---	275	268	271
10	194	186	191	214	211	212	---	---	---	278	274	276
11	209	180	196	227	210	213	---	---	---	276	263	269
12	239	202	217	227	205	217	---	---	---	268	259	264
13	237	224	229	228	211	219	---	---	---	---	---	---
14	229	224	226	222	210	213	---	---	---	---	---	---
15	230	224	227	212	205	209	---	---	---	---	---	---
16	230	195	213	247	186	205	225	215	219	---	---	---
17	240	226	234	205	193	199	226	214	220	---	---	---
18	244	237	239	204	187	196	222	214	218	---	---	---
19	238	237	238	199	194	196	221	215	217	---	---	---
20	238	236	237	199	193	195	224	215	220	---	---	---
21	235	229	232	221	190	196	250	220	224	---	---	---
22	233	224	229	196	181	186	225	220	222	---	---	---
23	225	219	221	186	179	183	225	221	223	---	---	---
24	223	215	220	183	172	177	227	221	224	---	---	---
25	214	207	210	185	175	178	230	224	226	---	---	---
26	216	206	212	216	180	184	264	223	241	---	---	---
27	216	212	214	186	181	184	268	255	261	307	292	300
28	215	213	214	198	183	189	254	247	250	339	297	310
29	---	---	---	207	195	199	251	248	250	346	331	335
30	---	---	---	207	201	204	258	231	249	337	333	335
31	---	---	---	209	202	205	---	---	---	337	330	334
MONTH	289	175	220	282	172	205	268	192	225	346	251	282

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	341	336	338	341	232	259	267	262	264	288	283	285
2	342	336	339	385	244	259	264	260	262	300	287	292
3	343	332	339	355	233	287	348	263	274	297	290	294
4	343	335	341	235	227	232	275	268	270	297	292	294
5	338	261	289	235	230	232	277	268	272	298	292	295
6	263	255	261	251	231	239	276	270	272	298	293	295
7	257	245	251	258	240	250	277	274	275	307	289	294
8	259	241	251	336	252	289	277	271	274	320	288	299
9	261	251	256	256	253	254	280	272	274	334	311	320
10	258	243	250	265	254	257	276	254	270	312	293	304
11	277	214	254	268	243	262	276	272	274	298	294	296
12	261	248	257	275	242	248	277	273	274	301	297	298
13	252	242	249	264	242	253	278	274	276	306	299	302
14	256	245	252	274	259	265	277	272	273	306	301	304
15	253	240	246	275	267	271	276	272	274	306	299	302
16	317	239	251	271	255	265	279	275	277	312	297	304
17	254	244	249	258	255	256	282	275	279	302	296	299
18	249	242	246	258	256	257	283	277	280	301	296	298
19	248	238	243	260	255	257	301	281	284	306	297	302
20	242	236	239	261	258	259	284	282	283	305	280	298
21	248	239	244	261	256	258	286	281	283	280	263	274
22	297	235	246	262	257	260	286	281	283	275	266	272
23	248	239	244	293	251	275	285	282	284	298	276	285
24	273	247	258	300	288	295	294	267	281	294	281	285
25	284	275	278	299	296	298	272	264	269	308	292	301
26	285	272	277	298	294	296	310	267	272	309	299	305
27	278	253	263	297	257	286	282	271	274	316	299	311
28	258	250	255	271	260	266	287	277	283	311	301	304
29	254	250	252	276	263	268	285	275	280	311	306	308
30	252	236	244	272	262	266	283	275	280	325	298	311
31	---	---	---	270	263	265	287	283	285	---	---	---
MONTH	343	214	265	385	227	264	348	254	276	334	263	298

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	5.6	5.5	5.6	6.1	5.8	5.9	6.0	6.0	6.0
2	---	---	---	5.6	5.5	5.5	5.8	5.8	5.8	6.0	5.9	6.0
3	5.0	4.9	5.0	5.7	5.5	5.6	5.9	5.8	5.9	6.0	5.9	5.9
4	5.0	4.9	5.0	5.8	5.6	5.7	5.9	5.8	5.9	6.1	5.8	5.9
5	5.0	4.9	4.9	6.0	5.7	5.8	5.9	5.9	5.9	6.1	5.8	5.9
6	5.0	4.9	5.0	6.2	5.8	6.0	6.0	5.9	6.0	6.1	6.0	6.0
7	5.0	4.9	5.0	5.9	5.7	5.8	6.1	6.0	6.1	6.1	5.9	6.0
8	5.1	5.0	5.0	5.8	5.8	5.8	6.1	6.0	6.0	6.2	5.9	6.0
9	5.1	4.9	5.1	5.9	5.8	5.8	6.1	6.0	6.0	6.2	6.0	6.1
10	5.1	5.0	5.1	5.9	5.8	5.9	6.1	6.0	6.1	6.2	6.1	6.1
11	5.1	5.0	5.1	5.9	5.8	5.9	6.2	6.1	6.2	6.2	6.1	6.1
12	5.1	5.0	5.1	5.9	5.8	5.9	6.2	6.2	6.2	6.4	6.2	6.3
13	5.1	5.0	5.1	6.0	5.8	5.9	6.2	6.1	6.2	6.4	6.4	6.4
14	5.1	5.0	5.1	6.0	5.9	5.9	6.2	6.2	6.2	6.6	6.4	6.5
15	5.2	5.0	5.1	6.0	5.9	6.0	6.2	6.1	6.2	6.6	6.5	6.5
16	5.1	5.0	5.1	6.0	5.9	6.0	6.2	6.1	6.1	6.5	6.5	6.5
17	5.2	5.0	5.1	6.0	5.9	6.0	6.2	6.1	6.2	6.5	6.4	6.5
18	5.2	5.1	5.1	6.0	6.0	6.0	6.2	6.2	6.2	6.6	6.5	6.5
19	5.2	5.1	5.2	6.0	6.0	6.0	6.2	6.1	6.1	6.6	6.6	6.6
20	5.2	5.0	5.2	6.0	5.6	5.8	6.2	6.1	6.1	6.6	6.6	6.6
21	5.2	5.1	5.2	5.6	5.6	5.6	6.3	6.2	6.2	6.6	6.6	6.6
22	5.2	5.0	5.2	5.6	5.6	5.6	6.3	6.1	6.2	6.6	6.6	6.6
23	5.2	5.2	5.2	5.7	5.6	5.6	6.1	6.1	6.1	6.6	6.6	6.6
24	5.3	5.1	5.2	5.7	5.6	5.7	6.1	6.0	6.0	6.2	6.0	6.1
25	5.3	5.2	5.3	5.7	5.6	5.7	6.1	6.0	6.1	6.5	6.0	6.2
26	5.4	5.2	5.3	5.8	5.7	5.7	6.1	6.0	6.1	6.5	6.5	6.5
27	6.9	5.4	6.1	5.7	5.6	5.7	6.2	6.0	6.1	6.6	6.5	6.6
28	5.6	5.3	5.5	5.7	5.6	5.6	6.2	6.0	6.1	6.6	6.6	6.6
29	5.6	5.5	5.6	5.7	5.7	5.7	6.0	6.0	6.0	6.6	6.6	6.6
30	5.6	5.5	5.5	5.8	5.7	5.7	6.2	6.0	6.1	6.6	6.6	6.6
31	5.6	5.5	5.6	---	---	---	6.2	6.0	6.1	6.7	6.3	6.6
MONTH	6.9	4.9	5.2	6.2	5.5	5.8	6.3	5.8	6.1	6.7	5.8	6.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.3	5.8	6.0	6.2	6.1	6.1	6.2	6.1	6.1	6.6	6.6	6.6
2	6.1	5.8	5.9	6.2	6.1	6.2	6.3	6.1	6.2	6.6	6.5	6.6
3	6.2	5.8	6.0	6.2	6.1	6.1	6.5	6.2	6.3	6.7	6.5	6.6
4	5.9	5.8	5.9	6.1	6.0	6.0	6.3	6.2	6.2	6.7	6.6	6.6
5	6.3	5.9	6.1	6.0	6.0	6.0	6.3	6.1	6.2	6.7	6.6	6.6
6	6.3	6.2	6.2	6.0	5.9	6.0	---	---	---	6.7	6.6	6.6
7	6.3	6.2	6.3	6.1	5.9	6.0	---	---	---	6.7	6.6	6.6
8	6.4	6.3	6.4	6.0	5.9	6.0	---	---	---	6.8	6.6	6.7
9	6.4	6.3	6.4	6.2	6.0	6.1	---	---	---	6.7	6.6	6.7
10	6.4	5.6	6.2	6.2	6.1	6.1	---	---	---	6.7	6.6	6.7
11	---	---	---	6.6	6.1	6.3	---	---	---	6.7	6.6	6.6
12	---	---	---	6.3	5.9	6.1	---	---	---	6.6	6.5	6.5
13	---	---	---	6.1	6.0	6.1	---	---	---	---	---	---
14	---	---	---	6.1	6.0	6.0	---	---	---	---	---	---
15	---	---	---	6.1	6.0	6.1	---	---	---	---	---	---
16	---	---	---	6.6	6.0	6.2	6.1	5.9	6.0	---	---	---
17	---	---	---	6.1	6.0	6.0	6.1	6.0	6.1	---	---	---
18	5.9	5.8	5.9	6.1	5.9	6.1	6.1	6.0	6.0	---	---	---
19	6.0	5.9	6.0	6.1	6.1	6.1	6.1	6.0	6.0	---	---	---
20	6.1	6.0	6.0	6.1	6.0	6.1	6.1	6.0	6.1	---	---	---
21	6.1	5.9	6.0	6.1	5.9	6.1	6.2	6.1	6.1	---	---	---
22	6.0	5.9	5.9	6.0	5.9	6.0	6.2	6.1	6.2	---	---	---
23	6.1	6.0	6.0	6.1	5.9	6.0	6.2	6.1	6.2	---	---	---
24	6.1	6.1	6.1	6.1	6.0	6.0	6.2	6.1	6.2	---	---	---
25	6.1	6.0	6.1	6.1	6.0	6.0	6.3	6.2	6.2	---	---	---
26	6.1	6.0	6.1	6.1	5.9	6.0	6.5	6.2	6.4	---	---	---
27	6.1	6.1	6.1	6.1	6.0	6.0	6.6	6.5	6.6	6.8	6.5	6.6
28	6.1	6.0	6.1	6.1	6.0	6.0	6.6	6.5	6.6	6.8	6.5	6.7
29	---	---	---	6.2	6.1	6.1	6.6	6.5	6.6	6.8	6.8	6.8
30	---	---	---	6.2	6.1	6.2	6.6	6.5	6.6	6.8	6.8	6.8
31	---	---	---	6.2	6.1	6.2	---	---	---	6.8	6.8	6.8
MONTH	6.4	5.6	6.1	6.6	5.9	6.1	6.6	5.9	6.3	6.8	6.5	6.7

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	6.8	6.8	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.7
2	6.8	6.8	6.8	6.6	6.5	6.5	6.8	6.7	6.8	6.8	6.6	6.7
3	6.8	6.7	6.8	6.7	6.4	6.6	6.8	6.7	6.8	6.8	6.8	6.8
4	6.8	6.8	6.8	6.4	6.3	6.3	6.8	6.7	6.8	6.8	6.8	6.8
5	7.0	6.1	6.5	6.3	6.3	6.3	6.8	6.7	6.8	6.8	6.8	6.8
6	6.1	6.1	6.1	6.4	6.3	6.3	6.8	6.7	6.7	6.8	6.8	6.8
7	6.2	6.1	6.1	6.4	6.3	6.3	6.8	6.7	6.7	6.8	6.8	6.8
8	6.2	6.1	6.1	6.4	6.3	6.4	6.8	6.7	6.8	6.8	6.7	6.8
9	6.2	6.2	6.2	6.4	6.4	6.4	6.8	6.7	6.8	6.8	6.7	6.8
10	6.4	6.1	6.2	6.5	6.4	6.4	6.8	6.7	6.8	6.8	6.7	6.8
11	6.2	6.1	6.1	6.6	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.8
12	6.1	6.0	6.0	6.6	6.5	6.5	6.8	6.7	6.7	6.8	6.7	6.7
13	6.1	6.0	6.0	6.6	6.5	6.5	6.8	6.7	6.7	6.8	6.7	6.7
14	6.1	6.0	6.0	6.6	6.5	6.6	6.8	6.7	6.7	6.8	6.7	6.7
15	6.0	6.0	6.0	6.6	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.7
16	6.3	6.0	6.2	6.7	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.7
17	6.3	6.2	6.3	6.6	6.5	6.6	6.8	6.7	6.8	6.8	6.7	6.8
18	6.3	6.3	6.3	6.6	6.6	6.6	6.8	6.7	6.8	6.8	6.7	6.7
19	6.3	6.3	6.3	6.7	6.6	6.6	6.8	6.6	6.7	6.8	6.7	6.8
20	6.4	6.3	6.3	6.7	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.8
21	6.4	6.3	6.3	6.7	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.8
22	6.4	6.2	6.3	6.7	6.6	6.6	6.8	6.7	6.7	6.8	6.7	6.7
23	6.4	6.3	6.3	6.8	6.4	6.7	6.7	6.7	6.7	6.8	6.7	6.8
24	6.6	6.3	6.4	6.8	6.7	6.7	6.9	6.7	6.7	6.8	6.7	6.8
25	6.6	6.5	6.6	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.8
26	6.6	6.6	6.6	6.8	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.8
27	6.6	6.5	6.5	6.8	6.7	6.7	6.7	6.7	6.7	6.8	6.7	6.8
28	6.6	6.5	6.5	6.9	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.8
29	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.8
30	6.5	6.5	6.5	6.8	6.7	6.8	6.8	6.7	6.7	6.8	6.5	6.7
31	---	---	---	6.8	6.7	6.8	6.8	6.7	6.7	---	---	---
MONTH	7.0	6.0	6.4	6.9	6.3	6.6	6.9	6.6	6.7	6.8	6.5	6.8

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	13.5	14.5	18.0	15.0	16.0	20.5	19.0	19.5	20.0	18.5	19.0
2	19.0	13.0	15.5	18.5	15.0	16.5	20.5	19.0	19.5	21.0	18.5	19.0
3	15.5	13.0	14.0	17.0	14.0	15.5	21.0	19.0	19.5	20.0	18.0	19.0
4	13.5	12.5	13.0	14.0	13.0	13.5	21.0	19.0	19.5	20.0	18.0	18.5
5	13.0	11.5	12.0	13.0	12.5	13.0	21.0	19.5	20.0	20.0	18.0	18.5
6	12.0	11.0	11.5	17.0	12.5	15.0	21.0	19.5	20.0	20.0	18.0	18.5
7	11.5	10.0	11.0	17.0	16.5	16.5	21.0	19.5	20.0	20.0	18.0	19.0
8	13.0	10.0	11.5	17.5	16.5	17.0	21.0	19.5	20.0	20.5	18.5	19.5
9	14.0	12.0	12.5	17.5	16.5	17.0	20.5	19.5	20.0	22.0	19.5	20.5
10	12.0	11.5	11.5	17.5	17.0	17.0	20.5	19.0	19.5	20.5	19.0	19.5
11	13.5	10.5	11.5	18.5	17.0	17.5	19.5	19.0	19.0	20.5	18.5	19.5
12	11.0	11.0	11.0	19.0	17.5	18.0	20.5	18.5	19.5	20.5	19.0	19.5
13	11.0	9.5	11.0	20.0	17.5	18.5	20.5	18.5	19.0	21.0	19.0	19.5
14	11.5	9.0	11.0	20.0	18.5	19.0	20.5	18.5	19.5	20.5	19.0	19.5
15	12.0	11.5	11.5	21.0	18.5	19.5	20.5	18.5	19.5	20.5	19.5	19.5
16	18.0	11.5	15.0	21.0	18.5	19.5	21.0	19.0	19.5	20.5	19.0	19.5
17	18.0	17.5	17.5	20.5	18.5	19.5	21.0	19.0	19.5	20.5	18.5	19.5
18	18.0	16.5	17.5	20.5	19.0	19.5	21.5	19.0	19.5	19.5	18.5	19.0
19	18.0	16.5	17.0	21.0	19.0	19.5	22.0	19.0	20.0	20.5	18.0	19.0
20	18.5	16.5	17.5	20.5	19.0	19.5	20.5	19.0	19.5	19.0	17.5	18.5
21	18.5	16.5	17.5	21.0	19.0	19.5	20.5	19.0	19.5	18.5	16.5	17.5
22	18.5	17.0	17.5	21.0	19.0	19.5	20.5	18.5	19.5	16.5	15.5	16.0
23	18.5	16.5	17.5	20.5	19.5	20.0	19.5	19.0	19.0	16.5	16.0	16.5
24	19.5	16.5	17.5	21.5	19.5	20.0	20.5	18.0	19.5	17.0	16.0	16.5
25	20.5	15.5	17.5	21.5	19.0	20.0	20.5	18.5	19.0	18.0	16.0	16.5
26	20.5	16.0	18.0	21.5	19.5	20.0	21.0	18.0	19.0	16.5	16.0	16.5
27	19.5	16.5	17.5	21.0	20.0	20.5	19.0	18.5	18.5	17.0	16.0	16.5
28	20.0	17.0	18.0	20.5	19.5	20.0	20.5	18.0	19.0	17.0	16.0	16.5
29	18.5	17.5	18.0	20.5	19.0	19.5	20.0	17.5	18.5	17.0	16.0	16.5
30	17.5	15.0	17.0	20.0	19.0	19.0	19.5	18.0	18.5	16.5	15.5	16.0
31	---	---	---	20.5	19.0	19.5	20.0	18.5	19.0	---	---	---
MONTH	20.5	9.0	15.0	21.5	12.5	18.0	22.0	17.5	19.5	22.0	15.5	18.5

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---				---	---	---
2	---	---	---	---	---	---				---	---	---
3	9.4	9.2	9.3	---	---	---				---	---	---
4	9.6	9.0	9.3	9.3	8.6	8.9				---	---	---
5	9.3	8.8	9.1	9.0	8.6	8.7				---	---	---
6	9.3	8.8	9.1	8.9	8.6	8.7				---	---	---
7	9.5	9.2	9.4	8.9	8.8	8.8				---	---	---
8	9.5	9.4	9.4	9.1	9.0	9.0				---	---	---
9	9.6	8.9	9.4	9.3	9.3	9.3				---	---	---
10	9.7	9.3	9.5	9.6	9.4	9.5				---	---	---
11	9.5	9.3	9.4	9.6	9.4	9.6				---	---	---
12	9.6	9.3	9.4	9.8	9.6	9.7				---	---	---
13	9.7	9.1	9.5	10.0	9.8	9.9				---	---	---
14	9.7	8.9	9.4	10.1	9.9	10.0				---	---	---
15	9.7	8.8	9.3	10.2	9.9	10.0				12.7	12.3	12.5
16	9.4	9.0	9.2	10.2	10.0	10.1				12.5	11.8	12.2
17	9.6	8.8	9.3	10.3	10.1	10.2				12.4	11.6	12.0
18	9.2	8.9	9.1	10.4	10.3	10.3				11.8	10.9	11.4
19	9.4	9.1	9.3	10.5	10.3	10.4				11.5	11.1	11.3
20	---	---	---	---	---	---				11.3	11.0	11.1
21	---	---	---	---	---	---				11.3	11.1	11.2
22	---	---	---	---	---	---				11.4	11.3	11.3
23	---	---	---	---	---	---				11.6	10.9	11.2
24	---	---	---	---	---	---				11.3	11.3	11.3
25	---	---	---	---	---	---				11.5	11.2	11.4
26	---	---	---	---	---	---				11.7	11.4	11.6
27	---	---	---	---	---	---				11.9	11.4	11.7
28	---	---	---	---	---	---				11.9	11.4	11.7
29	---	---	---	---	---	---				12.3	11.8	12.0
30	---	---	---	---	---	---				12.2	11.7	11.9
31	---	---	---	---	---	---				12.1	11.8	11.9
MONTH	9.7	8.8	9.3	10.5	8.6	9.6				12.7	10.9	11.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	11.7	12.4	12.3	11.9	12.1	12.1	11.7	11.9	9.9	8.7	9.6
2	11.7	9.8	10.6	---	---	---	12.0	11.2	11.6	9.8	8.8	9.5
3	10.4	9.6	10.1	---	---	---	11.6	10.8	11.2	11.3	8.9	10.2
4	10.9	10.6	10.7	---	---	---	11.9	11.5	11.7	11.4	9.7	10.8
5	11.0	10.1	10.4	---	---	---	12.1	11.9	12.0	10.9	9.6	10.3
6	10.5	10.3	10.4	---	---	---	---	---	---	10.4	9.2	9.9
7	10.7	10.6	10.6	---	---	---	---	---	---	10.1	9.0	9.8
8	11.0	10.7	10.8	---	---	---	---	---	---	9.8	9.0	9.6
9	11.1	10.9	11.0	---	---	---	---	---	---	9.9	9.1	9.6
10	11.6	11.3	11.5	---	---	---	---	---	---	10.0	8.9	9.5
11	12.0	11.8	11.9	---	---	---	---	---	---	9.9	9.0	9.6
12	12.3	12.0	12.1	---	---	---	---	---	---	9.7	9.0	9.4
13	12.4	12.3	12.3	---	---	---	---	---	---	---	---	---
14	12.7	12.6	12.7	---	---	---	---	---	---	---	---	---
15	13.1	12.9	13.0	---	---	---	---	---	---	---	---	---
16	13.9	13.3	13.5	---	---	---	11.4	11.2	11.3	---	---	---
17	14.4	13.6	14.1	---	---	---	11.4	10.9	11.1	---	---	---
18	14.2	13.8	13.9	---	---	---	11.3	11.0	11.2	---	---	---
19	14.1	13.4	13.8	13.4	13.2	13.3	11.4	11.1	11.2	---	---	---
20	13.5	13.0	13.3	14.5	13.4	14.1	11.3	10.9	11.1	---	---	---
21	13.7	12.9	13.4	14.4	13.7	14.1	11.2	10.8	11.1	---	---	---
22	13.9	13.6	13.8	13.7	13.1	13.4	11.3	10.9	11.1	---	---	---
23	14.0	13.0	13.5	13.7	12.8	13.2	11.2	10.7	10.9	---	---	---
24	13.1	12.8	12.9	12.9	12.6	12.7	11.0	10.4	10.7	---	---	---
25	13.1	12.9	13.0	12.6	12.3	12.5	10.7	10.0	10.4	---	---	---
26	13.1	12.4	12.6	12.3	12.0	12.2	10.4	9.9	10.1	---	---	---
27	12.5	12.2	12.3	12.6	12.2	12.4	10.1	9.4	10.0	---	---	---
28	12.3	12.1	12.2	12.6	12.1	12.4	10.2	9.1	9.9	9.8	8.5	9.4
29	---	---	---	12.6	12.1	12.4	10.3	9.4	10.0	9.6	8.4	9.2
30	---	---	---	12.7	11.8	12.4	10.2	9.1	9.9	9.5	8.4	9.0
31	---	---	---	12.3	11.8	12.1	---	---	---	9.3	8.1	8.9
MONTH	14.4	9.6	12.2	14.5	11.8	12.8	12.1	9.1	10.9	11.4	8.1	9.6

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.4	8.8	9.1	12.0	9.3	10.6	8.9	8.6	8.8	---	---	---
2	9.5	8.2	9.0	12.2	10.3	11.2	8.7	8.4	8.6	---	---	---
3	9.5	8.9	9.3	11.0	9.8	10.5	8.5	8.1	8.3	9.2	9.0	9.1
4	9.5	9.3	9.4	11.7	11.1	11.5	8.3	8.0	8.2	9.3	9.0	9.2
5	10.2	9.2	9.8	11.7	11.3	11.6	8.2	8.0	8.2	9.3	9.0	9.2
6	10.4	10.2	10.3	11.5	9.9	10.7	8.3	7.8	8.2	9.3	9.0	9.1
7	10.9	10.4	10.6	10.1	9.8	10.0	8.3	8.0	8.2	9.2	8.9	9.1
8	11.2	9.7	10.4	10.0	9.5	9.8	8.2	7.9	8.1	9.1	8.8	9.0
9	10.0	9.6	9.8	9.9	9.5	9.7	8.2	7.9	8.1	8.9	8.1	8.7
10	10.3	9.9	10.1	9.7	9.1	9.5	8.5	8.1	8.3	9.0	8.7	8.8
11	11.6	9.7	10.8	9.1	8.6	8.9	8.4	8.3	8.3	9.0	8.7	8.9
12	11.7	11.4	11.6	9.0	8.4	8.8	8.5	8.2	8.4	9.0	8.6	8.9
13	12.2	11.6	11.7	9.2	8.0	8.6	8.6	8.3	8.4	9.0	8.6	8.9
14	12.0	11.5	11.6	8.5	8.0	8.3	8.5	8.2	8.4	9.0	8.7	8.8
15	11.7	11.4	11.5	8.7	7.8	8.3	8.6	8.3	8.4	8.9	8.6	8.8
16	11.5	8.6	9.8	8.6	7.9	8.4	8.5	8.2	8.4	8.9	8.6	8.8
17	8.9	8.6	8.8	8.8	7.9	8.4	8.4	8.2	8.3	9.0	8.7	8.8
18	9.4	9.0	9.5	8.8	8.2	8.4	8.5	8.2	8.4	8.9	8.8	8.8
19	9.6	9.1	9.4	8.6	7.9	8.3	8.6	7.7	8.4	8.9	8.6	8.8
20	9.8	9.2	9.5	8.6	8.0	8.3	8.5	8.3	8.4	9.0	8.7	8.8
21	9.5	9.2	9.4	8.7	7.8	8.3	8.5	8.3	8.4	9.2	8.9	9.0
22	9.6	9.1	9.4	8.8	7.8	8.3	8.7	8.1	8.5	9.4	9.2	9.3
23	9.6	9.3	9.5	---	---	---	8.5	8.2	8.4	9.3	9.0	9.2
24	10.9	9.5	10.1	10.5	10.0	10.2	8.5	6.3	8.2	9.3	9.0	9.2
25	10.9	9.0	9.9	10.5	10.2	10.3	8.6	8.3	8.4	9.1	8.9	9.0
26	10.2	9.0	9.6	10.4	10.1	10.2	8.7	8.3	8.5	9.1	9.0	9.0
27	10.0	8.6	9.3	10.0	9.9	9.9	8.6	8.5	8.6	9.0	8.8	8.9
28	9.5	8.6	9.1	9.8	9.5	9.7	8.7	8.3	8.5	9.2	8.9	9.0
29	9.6	8.1	9.3	9.8	9.5	9.6	8.8	8.4	8.6	9.1	8.9	9.0
30	10.1	9.4	9.6	9.5	9.2	9.4	---	---	---	9.4	8.8	9.1
31	---	---	---	9.2	8.9	9.1	---	---	---	---	---	---
MONTH	12.2	8.1	9.9	12.2	7.8	9.5	8.9	6.3	8.4	9.4	8.1	9.0

01596500 SAVAGE RIVER NEAR BARTON, MD

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, Hydrologic Unit 02070002, on right bank 0.9 mi (1.4 km) upstream from Bear Pen Run, 1.5 mi (2.4 km) downstream from Popular Lick Run, 5.4 mi (8.7 km) northwest of Barton, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--49.1 mi^2 (127.2 km^2).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1603.88 ft (488.863 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are fair to poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 75.3 ft^3/s (2.132 m^3/s), 20.83 in/yr (529 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft^3/s (213 m^3/s) Oct. 15, 1954, gage height, 8.45 ft (2.576 m), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 0.40 ft^3/s (0.011 m^3/s) Sept. 3, 4, 1966, gage height, 0.96 ft (0.293 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22 m^3/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)
Feb. 1	---	Ice jam		*4.07	1.241	Mar. 17	1800	929	26.3	3.47	1.058
Mar. 13	1815	*987	28.0	3.55	1.082						

Minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Sept. 14, 15, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	53	36	63	350	110	73	27	56	11	6.3	4.4
2	14	43	56	56	150	122	63	26	47	9.6	5.6	4.1
3	11	37	92	53	250	110	74	26	50	49	5.6	6.9
4	9.9	31	94	260	472	98	103	25	57	66	5.0	6.3
5	9.0	28	88	340	308	94	94	24	295	36	33	4.7
6	9.1	41	75	229	216	84	123	21	314	24	13	3.8
7	8.8	39	66	298	170	96	128	18	212	18	8.4	3.2
8	8.4	33	136	278	130	84	128	26	146	16	6.9	3.2
9	8.8	32	174	193	100	78	128	31	104	14	7.9	2.9
10	7.7	38	141	115	80	71	110	25	92	12	6.9	2.6
11	7.5	37	113	90	70	119	113	22	143	11	9.9	2.6
12	7.3	37	94	70	60	486	115	20	100	12	17	2.3
13	7.0	34	77	60	55	683	125	19	146	9.6	9.8	2.0
14	6.9	32	71	52	50	602	126	19	178	8.7	7.5	2.0
15	6.6	31	66	48	100	390	110	17	141	9.1	5.9	2.3
16	6.6	30	60	44	250	415	96	16	106	8.6	5.6	2.9
17	6.6	27	51	42	440	846	86	15	92	7.5	5.0	2.6
18	6.9	25	53	39	345	610	78	15	66	7.2	5.3	2.3
19	7.5	22	33	36	246	446	65	14	51	7.2	5.0	2.6
20	7.4	22	37	34	208	433	57	13	43	7.2	4.4	2.3
21	7.0	22	47	33	385	427	50	18	36	6.9	6.3	2.0
22	6.6	20	63	32	298	385	42	35	28	5.9	5.3	7.9
23	6.7	17	200	38	225	293	37	44	25	7.2	5.6	8.7
24	6.9	17	313	45	242	200	35	51	21	5.9	6.3	5.3
25	6.9	18	212	40	197	157	32	123	18	5.3	7.5	4.4
26	9.0	18	148	37	159	141	33	92	16	5.0	7.5	4.7
27	200	22	117	34	133	111	38	74	15	5.0	5.9	15
28	274	32	92	32	117	87	35	93	14	10	5.0	9.7
29	138	29	78	31	---	75	30	95	13	16	4.1	6.9
30	92	28	60	35	---	69	28	78	13	9.0	3.8	5.9
31	62	---	58	50	---	72	---	71	---	7.2	3.8	---
TOTAL	976.1	895	3001	2807	5806	7994	2355	1193	2638	427.1	235.1	136.5
MEAN	31.5	29.8	96.8	90.5	207	258	78.5	38.5	87.9	13.8	7.58	4.55
MAX	274	53	313	340	472	846	128	123	314	66	33	15
MIN	6.6	17	33	31	50	69	28	13	13	5.0	3.8	2.0
CFSM	.64	.61	1.97	1.84	4.22	5.26	1.60	.78	1.79	.28	.15	.09
IN.	.74	.68	2.27	2.13	4.40	6.06	1.78	.90	2.00	.32	.18	.10

CAL YR 1981 TOTAL 29349.0 MEAN 80.4 MAX 1080 MIN 3.2 CFSM 1.64 IN 22.24
WTR YR 1982 TOTAL 28463.8 MEAN 78.0 MAX 846 MIN 2.0 CFSM 1.59 IN 21.56

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD

LOCATION.--Lat 39°30'05", long 79°07'25", Garrett County, Hydrologic Unit 02070002, on left bank 0.7 mi (1.1 km) downstream from Savage River Dam, 1.1 mi (1.8 km) downstream from Crabtree Creek, 3.2 mi (5.1 km) northwest of Bloomington, and 3.7 mi (6.0 km) upstream from mouth.

DRAINAGE AREA.--106 mi^2 (275 km^2).

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

REVISED RECORDS.--WSP 1432: 1955.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft (389.047 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions above station by Baltimore and Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity 20,000 acre-ft (24.7 hm^3). Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--34 years, 165 ft^3/s (4.673 m^3/s), 21.14 in/yr (537 mm/yr), adjusted for storage since December 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,530 ft^3/s (185 m^3/s) Oct. 16, 1954, gage height, 7.70 ft (2.347 m); minimum discharge, 0.35 ft^3/s (0.010 m^3/s) Oct. 27, 1966, gage height, 0.57 ft (0.174 m); minimum daily discharge, 0.6 ft^3/s (0.017 m^3/s) July 27-31, Aug. 5, 6, 9, 10, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) Mar. 18, gage height, 4.35 ft (1.326 m); minimum discharge, 6.8 ft^3/s (0.19 m^3/s) Sept. 22, gage height, 0.80 ft (0.244 m); minimum daily discharge 21 ft^3/s (0.59 m^3/s) Aug. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	271	98	95	240	256	102	40	108	33	46	41
2	108	162	197	95	504	256	69	40	87	28	46	42
3	108	99	259	95	412	256	53	40	86	157	46	42
4	108	99	159	333	510	159	54	40	98	415	46	42
5	108	99	95	508	747	246	54	36	439	219	56	42
6	108	99	95	508	661	259	53	31	598	146	40	42
7	108	99	197	508	417	238	54	29	402	108	40	42
8	108	99	259	508	252	98	54	30	288	90	40	42
9	106	99	259	506	252	98	42	29	208	73	40	42
10	106	99	259	361	174	202	36	29	192	60	40	59
11	106	99	259	152	95	209	35	29	337	55	38	54
12	106	99	257	96	95	375	35	29	247	55	36	54
13	72	99	256	95	95	564	77	29	286	55	29	54
14	52	99	254	95	95	902	62	29	354	46	21	54
15	52	99	154	95	154	1050	62	29	295	46	21	54
16	52	99	93	95	413	753	112	29	219	46	29	54
17	50	99	93	95	656	932	112	29	186	46	39	54
18	50	99	93	94	873	1400	112	29	142	46	49	54
19	50	99	93	94	705	1540	92	29	114	46	58	54
20	50	99	93	94	240	1260	77	29	94	46	69	54
21	50	98	86	94	103	940	54	29	81	46	76	55
22	50	98	81	93	700	867	39	29	69	46	76	49
23	38	98	348	94	859	539	39	29	63	46	54	67
24	36	98	634	93	630	361	39	29	53	46	40	52
25	36	98	409	93	410	284	39	41	47	46	40	52
26	36	98	252	62	256	281	40	43	44	46	40	52
27	118	98	252	44	256	280	40	96	42	46	35	53
28	427	98	189	44	256	192	41	130	40	47	29	53
29	529	95	90	44	---	104	41	132	40	46	41	52
30	363	95	95	44	---	104	53	114	41	46	41	66
31	275	---	95	45	---	102	---	112	---	46	41	---
TOTAL	3674	3189	6053	5272	11060	15107	1772	1418	5300	2323	1342	1527
MEAN	119	106	195	170	395	487	59.1	45.7	177	74.9	43.3	50.9
MAX	529	271	634	508	873	1540	112	132	598	415	76	67
MIN	36	95	81	44	95	98	35	29	40	28	21	41
(≠)	10620	7770	7320	6920	7250	11510	18220	20130	20000	19230	17520	15160

CAL YR 1981 TOTAL 54135 MEAN 148 MAX 1660 MIN 15 CFSM 1.40 IN 19.00
WTR YR 1982 TOTAL 58037 MEAN 159 MAX 1540 MIN 21 CFSM 1.50 IN 20.37

≠ Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1981, 14,740 acre-feet).
Records furnished by Corps of Engineers.

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28'45", long 79°03'55", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank 0.2 mi (0.3 km) downstream from Savage River, 0.5 mi (0.8 km) northwest of Luke, and at mile 53.3 (85.8 km).

DRAINAGE AREA.--404 mi^2 (1,046 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 944.22 ft (287.798 m) National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi (1.8 km) downstream at datum about 35 ft (11 m) lower.

REMARKS.--Water-discharge records good except those for January, which are fair. Flow regulated prior to July 1981 by Stony River Reservoir, 45 mi (72 km) above station (see station 01595200), since December 1950 by Savage River Reservoir, 5 mi (8 km) above station (see station 01597500), and since July 1981 by Bloomington Reservoir, 9 mi (14 km) above station (see station 01595800). Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906.

AVERAGE DISCHARGE.--39 years (water years 1900-05, 1950-82), 715 ft^3/s (20.25 m^3/s), 24.03 in/yr (610 mm/yr), adjusted for storage since October 1949.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,400 ft^3/s (1,120 m^3/s) Oct. 15, 1954, gage height, 17.15 ft (5.227 m); minimum daily discharge, 6 ft^3/s (0.17 m^3/s) Sept. 4, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,330 ft^3/s (208 m^3/s) Mar. 17, gage height, 8.57 ft (2.612 m); minimum discharge, 83 ft^3/s (2.35 m^3/s) May 25, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	431	389	555	1040	1050	479	175	172	258	326	287
2	165	282	730	591	1370	977	443	172	155	194	327	287
3	162	190	793	761	1590	1050	497	168	154	441	326	288
4	162	188	661	1990	2920	977	792	166	174	1300	325	285
5	162	191	583	2330	2210	1040	600	160	1130	1160	342	283
6	163	199	553	1480	1330	1070	602	146	1790	1070	320	283
7	161	477	537	1750	1080	1080	647	134	1600	1040	318	276
8	162	477	990	1870	734	881	543	162	1350	1010	320	278
9	162	417	938	1250	617	765	558	142	965	986	322	273
10	160	360	768	895	639	814	542	137	1130	940	340	307
11	160	337	699	559	815	859	541	142	1890	434	272	311
12	160	311	674	311	676	2340	446	153	2830	537	313	311
13	132	308	672	224	579	3280	342	151	3070	454	306	311
14	107	294	634	209	577	3750	385	146	2990	322	293	312
15	107	271	523	177	646	3440	467	146	2960	229	292	316
16	107	270	520	173	1310	3290	827	158	1960	248	290	311
17	107	269	437	180	3180	6500	802	147	1080	340	302	309
18	109	268	397	175	3120	4880	797	147	887	339	302	308
19	109	268	429	170	2220	3790	772	146	664	340	270	308
20	107	268	420	167	1530	4400	632	147	598	343	316	308
21	107	256	315	157	1940	4390	483	149	499	337	330	308
22	107	237	435	153	2990	3160	418	155	414	336	327	317
23	99	237	2970	500	2810	2320	398	160	406	338	308	372
24	95	238	2530	450	2030	1600	381	157	283	334	288	306
25	95	249	1630	400	1990	1290	362	160	160	333	285	305
26	103	242	1370	127	1380	966	340	166	154	333	262	313
27	499	315	1180	112	1100	927	189	233	185	335	283	321
28	1420	521	697	117	1080	740	184	271	230	361	268	308
29	810	520	545	106	---	495	177	227	270	340	286	307
30	733	476	549	107	---	470	195	199	272	331	275	403
31	476	---	549	111	---	489	---	193	---	330	288	---
TOTAL	7372	9367	25117	18157	43503	63080	14841	5115	30422	15693	9422	9212
MEAN	238	312	810	586	1554	2035	495	165	1014	506	304	307
MAX	1420	521	2970	2330	3180	6500	827	271	3070	1300	342	403
MIN	95	188	315	106	577	470	177	134	154	194	262	273

CAL YR 1981 TOTAL 244949 MEAN 671 MAX 4470 MIN 95 CFSM 1.66 IN 22.55
WTR YR 1982 TOTAL 251301 MEAN 688 MAX 6500 MIN 95 CFSM 1.70 IN 23.14

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1961 to December 1962, July to September 1963, December 1963 to September 1973, October 1974 to September 1982 (discontinued).

INSTRUMENTATION.--Temperature recorder during all periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1964-72, 1977, 1981-82): Maximum, 33.0°C July 3, 1966; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.5°C May 24, 25; minimum, 0.0°C Jan. 11, 17, 25.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

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

01599000 GEORGES CREEK AT FRANKLIN, MD

LOCATION.--Lat 39°29'38", long 79°02'42", Allegany County, Hydrologic Unit 02070002, on right bank at Franklin, and 1.2 mi (1.9 km) upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi^2 (187.5 km^2).

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940.

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft (292.291 m) Westvaco Corporation datum. May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mi (1.3 km) downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft (29 m) downstream at present datum.

REMARKS.--Records good except those for January, which are fair. Records include about 0.5 ft^3/s (0.014 m^3/s) of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted above station by Frostburg Water Co. for municipal supplies of Eckhart and Welch Hill. An undetermined amount of water is diverted from the upper third of basin into the Wills Creek basin by the Hoffman drainage tunnel (see station 01601500). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years (water years 1930-82), 81.3 ft^3/s (2.302 m^3/s), 15.25 in/yr (387 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft^3/s (241 m^3/s) Mar. 17, 1936, gage height, 9.6 ft (2.93 m), site then in use, from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.6 ft^3/s (0.045 m^3/s) Sept. 29 to Oct. 13, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 10 ft (3.0 m), from floodmarks, at site 95 ft (29 m) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft^3/s (34.6 m^3/s) Mar. 17, gage height, 7.16 ft (2.182 m), no other peak above base of 1,200 ft^3/s (34 m^3/s); minimum discharge, 7.5 ft^3/s (0.212 m^3/s), gage height, 3.72 ft (1.134 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	36	39	58	175	138	108	65	44	24	17	11
2	20	33	63	54	85	153	101	62	39	22	16	11
3	14	29	68	48	218	143	138	65	55	239	15	12
4	12	27	55	208	383	125	134	55	57	135	14	9.7
5	12	27	51	194	194	121	112	52	440	66	34	9.0
6	12	50	47	129	146	112	136	50	251	51	19	8.7
7	11	40	43	181	114	129	126	47	168	43	16	8.7
8	11	32	67	137	99	111	115	96	129	38	19	8.7
9	11	29	68	114	93	106	125	72	100	35	25	8.8
10	10	36	57	68	79	99	127	62	94	31	17	8.8
11	10	32	53	54	68	148	132	54	122	58	19	8.8
12	10	29	49	50	61	560	122	52	82	77	23	8.5
13	10	27	41	45	58	768	117	50	219	40	17	8.1
14	9.7	25	39	43	55	677	110	48	176	32	14	8.0
15	9.8	25	43	40	85	494	103	44	123	28	13	8.0
16	9.6	24	39	38	305	638	96	41	100	32	13	8.1
17	9.5	24	32	37	565	1040	92	38	96	35	14	7.8
18	12	23	32	34	316	733	92	35	75	26	14	7.6
19	12	22	26	32	257	577	81	33	64	24	12	8.0
20	11	22	25	30	251	604	77	33	58	24	11	8.1
21	10	22	22	29	393	633	71	43	51	21	18	7.8
22	10	21	26	28	256	490	66	73	46	19	13	18
23	11	20	100	30	251	354	62	69	43	21	14	11
24	10	19	113	30	273	282	59	59	39	19	15	9.4
25	10	19	88	38	228	235	56	71	35	17	15	8.9
26	23	18	75	30	175	208	96	55	32	16	13	9.9
27	308	20	68	26	152	165	91	54	29	16	12	25
28	138	24	62	23	137	142	80	70	27	40	12	13
29	72	21	57	21	---	127	71	59	26	34	10	11
30	55	20	49	15	---	117	67	52	26	20	10	9.6
31	44	---	43	13	---	113	---	52	---	19	10	---
TOTAL	919.6	796	1640	1877	5472	10342	2963	1711	2846	1302	484	301.0
MEAN	29.7	26.5	52.9	60.5	195	334	98.8	55.2	94.9	42.0	15.6	10.0
MAX	308	50	113	208	565	1040	138	96	440	239	34	25
MIN	9.5	18	22	13	55	99	56	33	26	16	10	7.6
CFSM	.41	.37	.73	.84	2.69	4.61	1.37	.76	1.31	.58	.22	.14
IN.	.47	.41	.84	.96	2.81	5.31	1.52	.88	1.46	.67	.25	.15

CAL YR 1981 TOTAL 25651.4 MEAN 70.3 MAX 981 MIN 7.3 CFSM .97 IN 13.18
WTR YR 1982 TOTAL 30653.6 MEAN 84.0 MAX 1040 MIN 7.6 CFSM 1.16 IN 15.75

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD

LOCATION.--Lat 39°33'59", long 78°50'25", Mineral County, W. Va., Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge at Pinto, 2.8 mi (4.5 km) downstream from Mill Run, and at mile 32.6 (52.5 km).

DRAINAGE AREA.--596 mi^2 (1,544 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1332: 1943.

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft (197.581 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250 ft (76 m) downstream at same datum.

REMARKS.--Water-discharge records good except those for winter periods, which are fair. Some regulation at low flow by Stony River Reservoir, 66 mi (106 km) above station (see station 01595200) prior to July 1981. Low-flow regulation since December 1950 by Savage River Reservoir, 25 mi (40 km) above station (see station 01597500). Flow regulated by Bloomington Reservoir, 29 mi (47 km) above station (see station 01595800) since July 1981.

AVERAGE DISCHARGE.--44 years, 892 ft^3/s (25.26 m^3/s), 20.32 in/yr (516 mm/yr), adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft^3/s (1,050 m^3/s) Oct. 16, 1954, gage height, 23.23 ft (7.081 m); minimum discharge, 31 ft^3/s (0.88 m^3/s) Dec. 18, 19, 1943, gage height, 1.37 ft (0.418 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 24 ft (7.3 m), discharge, about 55,000 ft^3/s (1,560 m^3/s). Flood of Mar. 17, 1936, reached a stage of about 23.5 ft (7.16 m), from floodmarks, discharge, about 50,000 ft^3/s (1,420 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,690 ft^3/s (274 m^3/s) Mar. 17, gage height, 11.32 ft (3.450 m); minimum discharge, 126 ft^3/s (3.57 m^3/s) Oct. 24, 25, gage height 1.88 ft (0.572 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	537	472	687	665	1470	712	418	276	331	382	303
2	209	461	797	699	1930	1400	658	385	251	279	372	304
3	202	269	1000	878	1760	1440	773	367	259	539	366	310
4	199	260	861	1990	3500	1390	1210	343	339	1660	361	299
5	199	260	700	3290	3130	1350	960	324	1690	1450	393	296
6	199	295	675	2040	1920	1410	950	307	2520	1250	369	303
7	198	429	605	2020	1550	1520	1060	277	2110	1200	353	298
8	193	566	920	2420	1140	1340	849	441	1860	1150	367	280
9	196	512	1260	1710	926	1220	919	422	1260	1120	383	290
10	194	451	937	1180	855	1140	917	345	1330	1080	363	290
11	195	416	836	781	1050	1290	898	312	2190	707	354	327
12	195	368	789	600	939	2890	847	312	3100	778	341	320
13	195	360	769	500	761	4600	619	299	3810	614	345	317
14	147	359	764	450	741	4720	705	292	3660	426	323	315
15	139	325	649	400	800	4190	585	271	3330	341	315	324
16	140	321	611	350	1890	4180	1070	270	2630	299	312	318
17	139	319	534	330	4950	8790	1060	263	1480	379	315	313
18	145	318	459	320	4290	6350	1090	251	1270	398	336	312
19	149	313	478	300	3230	4720	1020	243	902	399	323	313
20	145	314	477	290	2540	5330	916	239	815	401	295	312
21	142	311	428	270	3090	5610	707	267	675	381	359	312
22	143	286	332	260	3650	4440	583	281	547	374	346	349
23	146	280	2380	250	3680	3190	561	320	525	378	345	344
24	134	283	3230	600	2900	2350	527	305	436	375	318	356
25	129	283	2010	300	2760	1910	513	299	289	367	308	314
26	154	300	1520	220	2120	1520	598	276	247	363	301	316
27	679	281	1630	200	1610	1350	510	314	236	360	283	372
28	2100	527	939	190	1520	1200	492	386	297	644	292	332
29	1010	565	677	180	---	795	444	372	325	640	293	317
30	1000	559	653	170	---	747	423	318	339	436	298	356
31	613	---	642	169	---	734	---	301	---	403	292	---
TOTAL	9828	11128	29034	24044	59897	84586	23176	9820	38998	19522	10403	9512
MEAN	317	371	937	776	2139	2729	773	317	1300	630	336	317
MAX	2100	566	3230	3290	4950	8790	1210	441	3810	1660	393	372
MIN	129	260	332	169	665	734	423	239	236	279	283	280

CAL YR 1981 TOTAL 301940 MEAN 827 MAX 6190 MIN 116 CFSM 1.39 IN 18.85
WTR YR 1982 TOTAL 329948 MEAN 904 MAX 8790 MIN 129 CFSM 1.52 IN 20.59

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-74, 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981.
pH: October 1980 to September 1981.
WATER TEMPERATURES: October 1980 to September 1981.
DISSOLVED OXYGEN: October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1982): Maximum, 1,240 micromhos Oct. 20, 1982; minimum, 160 micromhos July 5, 1982.
pH (water year 1982): Maximum, 8.6 units June 27, 1982; minimum, 6.6 units Mar. 14, 1982.
WATER TEMPERATURES (water year 1982): Maximum, 26.5°C June 29, July 27, Aug. 5, 1982; minimum, 0.5°C Jan. 10, 12-30, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,240 micromhos Oct. 20; minimum, 160 micromhos July 5.
pH: Maximum, 8.6 units June 27; minimum, 6.6 units Mar. 14.
WATER TEMPERATURES: Maximum, 26.5°C June 29, July 27, Aug. 5; minimum, 0.5°C Jan. 10, 12-30.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	950	370	689	430	400	412	578	518	540	390	370	382
2	960	830	899	460	420	431	577	550	560	390	380	384
3	851	751	811	560	450	487	550	390	430	390	330	359
4	821	771	794	650	580	631	400	390	395	350	230	312
5	872	800	845	620	610	615	470	400	440	240	220	225
6	902	862	884	620	540	583	466	456	462	250	240	245
7	883	823	855	540	490	535	485	465	471	250	230	240
8	903	853	881	490	420	430	485	360	410	240	220	226
9	884	824	859	472	422	452	360	335	347	250	230	233
10	814	684	730	463	412	447	364	360	380	260	240	253
11	895	695	817	473	463	465	384	364	374	---	---	---
12	895	885	890	504	453	473	393	373	382	---	---	---
13	896	876	892	554	504	531	383	373	382	450	380	415
14	936	886	908	584	554	567	383	363	374	500	450	474
15	1150	897	959	590	565	575	392	302	365	550	490	510
16	1190	1150	1180	620	590	610	482	382	438	570	550	562
17	1210	1140	1170	620	595	610	492	442	461	670	570	648
18	1180	1120	1140	615	560	590	521	481	495	760	670	710
19	1230	1180	1200	560	540	550	531	481	510	700	610	640
20	1240	1110	1170	650	570	600	500	480	484	610	600	605
21	1130	1080	1110	658	638	646	510	480	493	630	600	610
22	1230	1070	1180	708	648	666	660	470	528	660	560	627
23	1230	1160	1200	720	680	690	620	270	410	600	560	571
24	1190	1140	1150	690	680	685	270	260	265	700	580	648
25	1220	1130	1180	690	680	685	280	260	270	580	350	368
26	1140	1090	1120	700	660	680	310	270	298	500	350	382
27	1140	660	980	680	659	667	310	270	281	660	500	600
28	660	410	480	719	549	641	330	290	322	920	660	748
29	410	330	343	568	548	556	410	330	371	980	790	888
30	340	320	326	568	550	559	410	400	405	940	790	853
31	400	320	373	---	---	---	410	390	396	940	890	913
MONTH	1240	320	904	720	400	569	660	260	411	980	220	505

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	900	430	800	331	317	327	---	---	---	644	556	597
2	430	250	272	335	330	330	---	---	---	662	591	636
3	284	229	263	---	---	---	---	---	---	696	635	659
4	245	204	226	---	---	---	---	---	---	698	661	675
5	204	187	194	390	311	348	---	---	---	820	670	771
6	200	179	189	342	308	331	---	---	---	890	790	818
7	220	181	209	340	327	331	---	---	---	900	870	882
8	274	209	250	366	320	343	---	---	---	920	760	844
9	343	274	320	372	356	364	---	---	---	780	750	768
10	364	339	350	441	359	384	343	340	340	840	770	797
11	431	304	334	356	324	340	348	327	338	910	850	890
12	365	322	347	330	240	290	391	328	363	920	900	909
13	450	365	417	244	224	236	496	380	430	---	---	---
14	469	444	454	225	216	219	528	450	470	---	---	---
15	474	447	460	223	210	215	---	---	---	702	672	690
16	452	266	340	227	205	210	623	355	439	783	713	748
17	266	230	239	223	205	215	---	---	---	747	705	728
18	243	228	236	210	203	206	---	---	---	807	747	782
19	280	232	250	230	210	220	---	---	---	838	798	808
20	310	280	285	240	230	235	387	363	378	850	800	823
21	310	280	295	252	240	245	---	---	---	812	772	797
22	285	275	280	262	245	255	---	---	---	803	753	780
23	---	---	---	310	262	292	---	---	---	825	645	755
24	270	254	258	322	310	315	---	---	---	667	627	644
25	264	256	260	352	315	333	---	---	---	758	658	710
26	314	259	280	418	340	380	---	---	---	770	630	716
27	322	312	317	435	425	430	---	---	---	770	680	733
28	330	322	325	448	435	443	---	---	---	680	600	628
29	---	---	---	554	445	520	---	---	---	610	530	577
30	---	---	---	571	540	560	598	579	589	620	600	609
31	---	---	---	544	430	470	---	---	---	620	600	608
MONTH	900	179	313	571	203	324	623	327	418	920	530	737

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	650	620	629	---	---	---	550	530	542	690	650	666
2	720	650	690	580	560	568	560	540	549	650	618	630
3	730	720	720	580	420	520	590	560	577	697	627	663
4	---	---	---	500	170	229	590	570	582	685	655	673
5	---	---	---	190	160	169	610	560	590	673	643	659
6	---	---	---	210	180	186	620	530	580	661	631	648
7	---	---	---	230	190	210	600	560	582	650	370	501
8	---	---	---	230	220	226	600	550	579	368	348	356
9	---	---	---	---	---	---	610	570	596	476	356	408
10	---	---	---	---	---	---	610	560	575	644	484	537
11	240	220	230	---	---	---	580	490	552	653	573	613
12	260	240	250	---	---	---	700	590	643	631	581	604
13	260	240	250	---	---	---	610	580	594	669	639	653
14	250	210	230	---	---	---	600	580	591	648	608	626
15	250	220	230	---	---	---	640	580	594	696	636	666
16	230	210	220	---	---	---	660	620	632	636	584	613
17	270	220	240	---	---	---	650	610	631	672	602	642
18	270	220	250	---	---	---	630	590	613	611	561	580
19	300	230	260	---	---	---	590	580	587	647	599	621
20	---	---	---	---	---	---	740	590	625	677	647	662
21	---	---	---	---	---	---	670	590	613	676	656	664
22	---	---	---	---	---	---	630	610	620	654	624	647
23	---	---	---	---	---	---	620	580	600	692	632	656
24	---	---	---	580	550	560	650	580	602	690	510	608
25	580	520	540	590	560	575	660	620	644	639	609	631
26	770	580	700	560	540	549	620	520	572	667	627	647
27	790	750	770	570	540	558	690	560	598	695	635	668
28	860	760	800	570	320	397	660	590	622	683	643	666
29	---	---	---	440	330	392	700	600	665	682	622	653
30	---	---	---	520	450	485	690	650	661	640	540	591
31	---	---	---	540	520	528	740	660	678	---	---	---
MONTH	860	210	438	590	160	410	740	490	603	697	348	615

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.3	7.5	7.3	7.2	7.3	7.3	7.2	7.3	7.3	7.2	7.3
2	7.5	7.2	7.3	7.4	7.3	7.3	7.4	7.3	7.3	7.3	7.2	7.3
3	7.5	7.2	7.4	7.5	7.3	7.4	7.3	7.2	7.2	7.6	7.2	7.3
4	7.8	7.5	7.6	7.6	7.4	7.5	7.3	7.2	7.2	7.3	7.0	7.2
5	7.5	7.4	7.4	7.6	7.4	7.5	7.3	7.2	7.2	7.1	6.9	7.0
6	7.5	7.4	7.4	7.7	7.4	7.5	7.3	7.3	7.3	7.1	7.1	7.1
7	7.5	7.4	7.5	7.5	7.3	7.4	7.3	7.2	7.3	7.1	7.1	7.1
8	7.5	7.4	7.5	7.4	7.2	7.3	7.4	7.3	7.3	7.1	6.9	7.0
9	7.5	7.4	7.4	7.3	7.1	7.2	7.2	7.0	7.1	7.2	7.0	7.1
10	7.7	7.4	7.5	7.5	7.1	7.3	7.3	7.1	7.2	7.2	7.1	7.1
11	7.5	7.3	7.4	7.7	7.2	7.4	7.3	7.2	7.3	---	---	---
12	7.4	7.3	7.3	7.9	7.3	7.5	7.3	7.3	7.3	---	---	---
13	7.4	7.3	7.3	7.5	7.4	7.4	7.3	7.2	7.3	7.4	7.2	7.3
14	7.5	7.3	7.4	7.5	7.4	7.4	7.4	7.2	7.3	7.5	7.4	7.5
15	7.4	7.2	7.3	7.4	7.3	7.4	7.3	7.2	7.2	7.6	7.5	7.5
16	7.5	7.3	7.4	7.4	7.3	7.3	7.3	7.3	7.3	7.7	7.5	7.6
17	7.5	7.4	7.4	7.4	7.3	7.3	7.3	7.2	7.3	7.7	7.6	7.6
18	7.5	7.4	7.4	7.4	7.3	7.3	7.4	7.2	7.3	7.6	7.6	7.6
19	7.5	7.4	7.5	7.5	7.3	7.4	7.4	7.4	7.4	7.6	7.4	7.5
20	7.6	7.5	7.5	7.4	7.3	7.4	7.4	7.4	7.4	7.5	7.4	7.5
21	7.7	7.4	7.5	7.4	7.4	7.4	7.5	7.3	7.4	7.6	7.5	7.5
22	7.7	7.5	7.6	7.6	7.4	7.5	7.5	7.3	7.4	7.7	7.6	7.6
23	7.6	7.5	7.5	7.7	7.5	7.5	7.5	7.3	7.4	7.6	7.5	7.6
24	7.6	7.5	7.6	7.5	7.4	7.5	7.3	7.1	7.2	7.6	7.5	7.6
25	7.6	7.5	7.6	7.6	7.4	7.5	7.1	6.9	7.0	7.5	7.2	7.3
26	7.7	7.6	7.6	7.6	7.5	7.5	7.0	6.9	6.9	7.4	7.2	7.3
27	7.6	7.3	7.4	7.6	7.4	7.5	7.0	6.8	6.9	7.6	7.4	7.5
28	7.3	6.8	6.9	7.5	7.2	7.4	7.2	7.0	7.2	7.7	7.5	7.6
29	7.3	6.9	7.2	7.3	7.1	7.2	7.3	7.2	7.3	7.7	7.6	7.7
30	7.3	7.2	7.2	7.3	7.2	7.2	7.4	7.3	7.3	7.7	7.7	7.7
31	7.3	7.2	7.2	---	---	---	7.3	7.3	7.3	7.7	7.6	7.7
MONTH	7.8	6.8	7.4	7.9	7.1	7.4	7.5	6.8	7.3	7.7	6.9	7.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.7	7.4	7.6	7.1	7.0	7.1	---	---	---	7.7	7.3	7.4
2	7.3	6.8	7.0	7.2	7.0	7.1	---	---	---	7.6	7.2	7.4
3	7.2	7.1	7.1	---	---	---	---	---	---	8.0	7.3	7.6
4	7.0	6.9	6.9	---	---	---	---	---	---	8.2	7.3	7.7
5	7.0	6.8	6.9	7.0	6.9	7.0	---	---	---	8.4	7.3	8.1
6	7.2	7.1	7.1	7.1	6.9	7.0	---	---	---	8.2	7.4	7.7
7	7.2	7.1	7.2	7.1	7.0	7.0	---	---	---	7.8	7.3	7.5
8	7.2	7.1	7.2	7.1	7.0	7.1	---	---	---	7.5	7.3	7.4
9	7.3	7.2	7.3	7.1	7.0	7.0	---	---	---	7.5	7.1	7.3
10	7.3	7.3	7.3	7.2	7.1	7.1	---	---	---	7.5	7.0	7.2
11	7.3	7.2	7.2	7.1	7.0	7.1	7.3	7.2	7.2	8.0	7.4	7.6
12	7.2	7.2	7.2	7.0	6.7	6.8	7.3	7.2	7.3	7.3	6.9	7.1
13	7.3	7.2	7.3	6.9	6.7	6.8	7.3	7.2	7.3	---	---	---
14	7.4	7.3	7.3	6.8	6.6	6.7	7.4	7.3	7.3	---	---	---
15	7.4	7.3	7.3	6.9	6.7	6.8	---	---	---	8.0	7.3	7.5
16	7.4	7.2	7.3	7.3	6.9	7.1	7.4	7.1	7.2	7.6	7.3	7.4
17	7.2	7.0	7.1	7.3	6.8	7.0	---	---	---	7.6	7.3	7.4
18	7.0	6.9	7.0	6.8	6.7	6.8	---	---	---	7.6	7.3	7.4
19	7.2	6.9	7.0	6.8	6.8	6.8	---	---	---	7.5	7.3	7.4
20	7.2	7.0	7.1	6.8	6.7	6.7	7.4	7.0	7.2	7.6	7.4	7.5
21	7.2	7.0	7.1	6.7	6.7	6.7	---	---	---	7.4	7.3	7.4
22	7.2	7.1	7.1	6.8	6.7	6.7	---	---	---	7.4	7.3	7.3
23	---	---	---	6.8	6.7	6.7	---	---	---	7.4	7.2	7.3
24	7.1	7.0	7.1	7.2	6.8	7.0	---	---	---	7.5	7.4	7.4
25	7.1	7.0	7.0	7.2	7.1	7.1	---	---	---	7.5	7.4	7.4
26	7.2	7.0	7.1	7.1	7.0	7.1	---	---	---	7.6	7.4	7.5
27	7.2	7.1	7.1	7.0	6.9	6.9	---	---	---	7.6	7.4	7.5
28	7.1	7.0	7.1	7.0	6.8	6.9	---	---	---	7.5	7.4	7.4
29	---	---	---	7.0	6.8	7.0	---	---	---	7.5	7.3	7.4
30	---	---	---	7.1	7.0	7.0	8.3	7.4	7.8	7.4	7.3	7.4
31	---	---	---	7.1	7.0	7.1	---	---	---	7.5	7.3	7.4
MONTH	7.7	6.8	7.2	7.3	6.6	6.9	8.3	7.0	7.3	8.4	6.9	7.5

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.3	7.3	---	---	---	7.5	7.3	7.4	7.4	7.1	7.2
2	7.4	7.2	7.3	8.5	7.4	8.0	7.4	7.2	7.3	7.4	7.1	7.2
3	7.3	7.3	7.3	7.7	7.3	7.5	7.4	7.2	7.3	7.4	7.1	7.2
4	---	---	---	7.3	7.1	7.2	7.4	7.2	7.3	7.3	7.1	7.2
5	---	---	---	7.3	7.1	7.2	7.4	7.2	7.3	7.4	7.0	7.2
6	---	---	---	7.4	7.1	7.3	7.4	7.3	7.4	7.4	7.0	7.2
7	---	---	---	7.3	7.1	7.2	7.5	7.3	7.3	7.6	7.1	7.3
8	---	---	---	7.2	7.1	7.1	7.3	7.2	7.3	7.7	7.0	7.3
9	---	---	---	---	---	---	7.3	7.2	7.3	7.7	7.0	7.3
10	---	---	---	---	---	---	7.3	7.2	7.3	7.5	7.1	7.3
11	7.2	7.0	7.1	---	---	---	7.3	7.2	7.2	7.6	7.1	7.4
12	7.2	6.9	7.0	---	---	---	7.4	7.2	7.3	7.5	7.1	7.3
13	7.1	6.9	7.0	---	---	---	7.4	7.2	7.3	7.4	7.2	7.3
14	7.2	7.0	7.1	---	---	---	7.4	7.2	7.3	7.4	7.2	7.3
15	7.1	7.0	7.0	---	---	---	7.4	7.2	7.3	7.3	7.2	7.3
16	7.2	6.9	7.0	---	---	---	7.4	7.2	7.3	7.4	7.2	7.3
17	7.4	7.2	7.3	---	---	---	7.5	7.2	7.3	7.4	7.1	7.2
18	7.3	7.2	7.2	---	---	---	7.6	7.2	7.3	7.2	7.1	7.1
19	7.4	7.2	7.3	---	---	---	7.3	6.9	7.1	7.4	7.1	7.3
20	---	---	---	---	---	---	7.2	6.8	7.0	7.3	7.2	7.2
21	---	---	---	---	---	---	7.2	7.1	7.1	7.3	7.2	7.2
22	---	---	---	---	---	---	7.1	7.0	7.1	7.2	7.1	7.1
23	---	---	---	---	---	---	7.1	7.0	7.0	7.1	7.1	7.1
24	---	---	---	7.4	7.2	7.3	7.1	7.0	7.0	7.3	7.1	7.2
25	8.3	7.4	7.8	7.3	7.2	7.2	7.2	7.1	7.1	7.4	7.3	7.3
26	8.5	7.6	8.0	7.3	7.1	7.2	7.2	7.0	7.1	7.4	7.3	7.3
27	8.6	7.6	8.0	7.3	7.2	7.3	7.1	7.0	7.0	7.3	7.3	7.3
28	8.2	7.7	7.9	7.5	7.2	7.3	7.3	7.0	7.1	7.3	7.3	7.3
29	---	---	---	7.5	7.1	7.3	7.3	7.1	7.2	7.3	7.2	7.2
30	---	---	---	7.5	7.4	7.4	7.2	7.1	7.2	7.7	7.3	7.5
31	---	---	---	7.5	7.3	7.4	7.2	7.1	7.2	---	---	---
MONTH	8.6	6.9	7.4	8.5	7.1	7.3	7.6	6.8	7.2	7.7	7.0	7.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	3.0	2.0	2.5	---	---	---	14.5	13.0	14.0
2	3.0	1.0	2.0	4.0	3.0	3.5	---	---	---	15.0	13.0	14.0
3	3.5	2.5	3.0	---	---	---	---	---	---	17.0	13.5	15.0
4	2.5	2.0	2.5	---	---	---	---	---	---	17.5	14.5	16.0
5	3.0	2.0	2.5	5.0	4.5	4.5	---	---	---	18.5	15.0	17.5
6	3.0	2.5	3.0	5.0	4.0	4.5	---	---	---	19.5	16.0	17.5
7	2.5	1.0	1.5	4.0	3.5	3.5	---	---	---	19.5	17.5	18.5
8	3.0	1.5	2.0	4.5	3.5	4.0	---	---	---	18.5	16.5	18.0
9	3.5	3.0	3.0	5.0	4.0	4.5	---	---	---	19.5	15.0	16.5
10	3.0	2.0	2.5	5.0	4.0	4.5	---	---	---	20.0	17.5	18.5
11	3.0	1.5	2.0	7.0	5.0	6.0	8.5	7.5	8.0	22.0	16.0	18.5
12	3.0	2.0	2.5	9.0	7.0	8.5	9.5	6.5	8.0	24.5	21.5	22.5
13	3.5	2.5	3.0	7.0	5.0	6.0	12.0	9.0	11.0	25.0	23.5	24.0
14	4.0	2.5	3.5	6.5	4.5	5.5	11.5	10.0	10.5	24.5	20.0	22.5
15	4.5	3.5	4.0	6.0	4.5	4.5	---	---	---	22.5	19.0	21.0
16	5.0	4.5	4.5	5.0	4.5	5.0	12.5	11.5	12.0	22.5	19.0	21.0
17	---	---	---	7.5	4.5	6.0	---	---	---	23.5	19.5	21.5
18	---	---	---	7.5	5.5	6.5	---	---	---	23.5	20.5	22.0
19	4.0	3.0	3.5	7.5	6.5	7.0	---	---	---	23.5	21.5	22.5
20	5.0	4.0	4.5	7.5	6.5	7.0	12.0	11.5	11.5	23.5	21.5	22.0
21	5.0	4.0	4.5	7.5	6.5	7.0	---	---	---	21.5	20.5	21.0
22	4.0	3.5	3.5	7.0	5.5	6.5	---	---	---	21.0	20.0	20.5
23	---	---	---	8.0	6.0	7.0	---	---	---	20.0	18.0	19.0
24	6.0	4.5	5.0	12.0	8.0	9.5	---	---	---	18.0	17.5	17.5
25	6.0	3.5	4.5	13.0	10.5	11.5	---	---	---	20.0	17.5	18.5
26	4.5	2.0	3.5	13.0	7.5	10.5	---	---	---	21.0	19.0	20.0
27	5.0	3.5	4.5	7.5	5.5	6.0	---	---	---	22.0	20.0	21.0
28	5.5	3.0	4.0	8.5	5.0	6.5	---	---	---	22.5	21.0	21.5
29	---	---	---	8.5	6.0	7.5	---	---	---	23.0	21.0	22.0
30	---	---	---	9.0	8.0	8.5	15.0	12.5	14.0	23.5	21.5	22.5
31	---	---	---	11.0	9.0	9.5	---	---	---	25.0	22.0	23.5
MONTH	6.0	1.0	3.5	13.0	2.0	6.5	15.0	6.5	10.5	25.0	13.0	19.5

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

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	8.7	9.1	9.9	9.5	9.7	12.0	10.7	11.4	12.8	12.5	12.7
2	8.4	7.5	8.0	10.0	9.3	9.4	10.7	10.2	10.3	12.7	12.4	12.6
3	9.7	8.4	9.0	11.3	10.0	11.0	10.7	10.2	10.5	12.5	12.3	12.4
4	10.8	9.3	9.9	11.8	11.3	11.6	11.3	10.6	10.9	12.4	11.6	11.9
5	9.6	8.4	9.0	12.5	11.7	12.1	11.2	10.8	10.0	12.2	11.8	12.0
6	8.3	7.7	8.1	11.8	11.0	11.4	11.9	11.1	11.5	12.3	12.0	12.2
7	8.8	7.6	8.2	11.8	10.0	10.9	11.8	11.4	11.6	12.0	11.9	12.0
8	8.6	8.2	8.4	10.9	10.1	10.4	11.3	11.0	11.1	12.7	12.0	12.5
9	9.4	8.5	8.9	10.1	9.7	10.0	11.7	11.0	11.5	12.5	12.3	12.4
10	10.4	8.7	9.3	10.6	9.8	10.1	12.2	11.6	11.9	13.2	12.2	12.8
11	9.1	8.2	8.7	10.9	9.8	10.2	12.2	11.8	12.0	---	---	---
12	9.0	8.2	8.4	12.2	10.4	11.5	12.3	11.8	12.1	---	---	---
13	9.1	8.3	8.6	12.4	11.6	11.9	12.4	12.0	12.2	13.5	13.4	13.4
14	11.8	8.3	11.1	12.1	11.7	11.9	12.4	12.1	12.2	13.4	13.2	13.3
15	12.4	11.7	12.2	12.0	11.7	11.8	12.2	11.9	12.1	---	---	---
16	11.9	11.6	11.7	11.8	11.4	11.6	12.2	11.7	11.9	13.5	12.5	13.1
17	12.2	11.9	12.1	11.8	11.6	11.7	12.4	12.1	12.2	13.2	12.1	12.9
18	12.1	11.9	12.0	12.2	11.7	11.8	12.4	11.8	12.2	13.1	12.2	12.9
19	12.5	11.0	12.3	12.4	12.2	12.3	12.8	12.2	12.4	12.2	11.8	12.0
20	13.0	12.5	12.9	12.2	11.8	11.9	13.2	12.8	13.0	11.9	9.5	10.8
21	13.0	12.2	12.8	12.4	12.0	12.1	13.9	13.0	13.3	10.1	9.4	9.8
22	12.7	12.2	12.6	13.1	12.4	12.9	14.3	12.2	13.8	11.0	10.1	10.6
23	12.5	12.1	12.2	13.1	12.9	13.0	12.2	10.0	11.1	11.3	10.5	11.0
24	13.1	12.5	13.0	13.0	12.8	12.9	13.2	10.8	11.9	12.1	10.7	11.1
25	13.6	13.1	13.5	12.9	12.0	12.6	13.2	13.0	13.1	12.5	10.7	11.9
26	13.4	12.4	13.3	12.6	12.0	12.4	13.3	13.0	13.2	11.1	10.1	10.6
27	12.4	8.2	9.5	12.8	12.6	12.7	13.0	12.8	12.9	12.4	10.2	11.2
28	9.6	8.2	9.4	12.5	10.4	11.5	12.8	12.6	12.7	11.1	9.1	10.5
29	9.9	9.5	9.7	10.6	10.2	10.5	12.5	12.2	12.3	9.2	7.5	8.5
30	10.0	9.7	9.8	11.4	10.4	10.8	12.7	12.3	12.5	9.2	8.0	8.7
31	10.0	9.7	9.9	---	---	---	13.0	12.6	12.8	---	---	---
MONTH	13.6	7.5	10.4	13.1	9.3	11.5	14.3	10.0	12.0	13.5	7.5	11.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---				8.4	7.5	8.0
2				---	---	---				9.3	7.8	8.3
3				---	---	---				9.7	7.9	8.7
4				---	---	---				9.8	7.7	8.5
5				11.8	11.4	11.7				9.5	6.6	8.0
6				11.7	11.4	11.5				---	---	---
7				12.1	11.7	11.9				---	---	---
8				12.4	11.9	12.2				---	---	---
9				12.4	11.8	12.2				---	---	---
10				12.4	11.7	12.0				---	---	---
11				11.8	10.9	11.5				---	---	---
12				---	---	---				---	---	---
13				---	---	---				---	---	---
14				11.7	11.2	11.4				---	---	---
15				12.0	11.2	11.6				---	---	---
16				---	---	---				---	---	---
17				---	---	---				---	---	---
18				---	---	---				---	---	---
19				---	---	---				---	---	---
20				---	---	---				---	---	---
21				---	---	---				---	---	---
22				---	---	---				---	---	---
23				---	---	---				---	---	---
24				---	---	---				---	---	---
25				---	---	---				---	---	---
26				---	---	---				---	---	---
27				---	---	---				---	---	---
28				---	---	---				---	---	---
29				---	---	---				---	---	---
30				---	---	---				---	---	---
31				---	---	---				---	---	---
MONTH				12.4	10.9	11.8				9.8	6.6	8.3

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1				8.9	5.0	7.5	7.5	6.0	6.8	10.1	8.0	8.9
2				8.3	5.0	6.4	7.6	5.7	6.9	9.6	9.2	9.4
3				6.4	6.0	6.2	7.5	6.0	6.7	9.9	9.2	9.6
4				7.3	5.9	6.9	7.3	5.8	6.6	10.6	9.9	10.3
5				7.8	7.1	7.5	6.0	5.8	4.6	11.0	10.6	10.8
6				7.9	7.1	7.6	---	---	---	11.2	10.8	11.0
7				7.3	6.7	7.1	---	---	---	11.6	10.7	11.2
8				7.4	6.9	7.1	---	---	---	11.8	11.5	11.6
9				---	---	---	---	---	---	11.6	11.0	11.4
10				---	---	---	---	---	---	11.1	10.8	11.0
11				---	---	---	---	---	---	11.0	10.6	10.8
12				---	---	---	---	---	---	10.9	10.4	10.7
13				---	---	---	---	---	---	10.6	10.1	10.4
14				---	---	---	---	---	---	10.4	9.8	10.1
15				---	---	---	---	---	---	9.9	9.6	9.7
16				---	---	---	---	---	---	10.0	9.6	9.8
17				---	---	---	---	---	---	10.4	9.9	10.2
18				---	---	---	---	---	---	10.9	10.4	10.7
19				---	---	---	---	---	---	11.2	10.9	11.0
20				---	---	---	---	---	---	10.9	10.6	10.7
21				---	---	---	---	---	---	11.0	10.8	10.9
22				---	---	---	---	---	---	11.4	10.9	11.1
23				---	---	---	7.2	6.8	7.0	11.9	11.3	11.6
24				7.0	6.3	6.7	7.1	6.7	7.0	11.8	11.7	11.7
25				6.8	6.2	6.3	6.8	6.2	6.5	11.7	11.0	11.4
26				7.3	6.0	6.5	7.4	6.4	6.8	11.1	11.0	11.1
27				6.6	5.6	6.3	7.0	6.6	7.1	11.1	10.8	11.0
28				7.2	6.4	6.7	7.4	6.6	7.0	11.1	11.0	11.0
29				7.9	7.2	7.5	7.5	6.9	7.1	11.1	10.5	10.8
30				7.9	7.1	7.7	8.7	7.0	7.4	10.8	10.6	10.7
31				7.9	6.1	7.0	9.2	7.9	8.4	---	---	---
MONTH				8.9	5.0	6.9	9.2	5.7	6.9	11.9	8.0	10.7

01601500 WILLS CREEK NEAR CUMBERLAND, MD

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge, 2.0 mi (3.2 km) upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi^2 (640 km^2).

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft (195.343 m) National Geodetic Vertical Datum of 1929. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft (213 m) upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft (61 m) upstream at present datum.

REMARKS.--Records good except those for January, which are fair. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into the basin from Georges Creek basin by Hoffman drainage tunnel. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1964-65, and 1967-82 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. See page 288. Slight diurnal fluctuation at low flow caused by quarry upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years (water years 1930-82), 326 ft^3/s (9.232 m^3/s), 17.92 in/yr (455 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft^3/s (1,080 m^3/s) Mar. 17, 1936, gage height, 20.2 ft (6.16 m), from floodmarks at present site, from rating curve extended above 6,500 ft^3/s (184 m^3/s) on basis of slope-area measurements at gage heights 13.45 ft (4.100 m) and 20.2 ft (6.16 m); minimum discharge, 9 ft^3/s (0.25 m^3/s) Oct. 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s (99 m^3/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)
Mar. 13	2045	*4930	140	7.10	2.164	Mar. 17	2100	3680	104	6.40	1.951

Minimum discharge, 22 ft^3/s (0.62 m^3/s) Sept. 18, gage height, 1.54 ft (0.469 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	183	116	229	295	556	386	204	267	112	125	35
2	55	158	165	218	444	616	335	200	229	96	102	37
3	57	139	233	204	697	557	463	190	286	160	89	41
4	55	124	240	912	1470	495	596	182	311	297	79	40
5	54	114	238	1210	1170	499	575	173	1740	175	78	38
6	51	163	213	852	847	471	735	166	1570	140	75	34
7	52	158	195	882	611	528	693	163	1020	122	65	31
8	50	135	252	832	503	475	664	266	733	111	95	31
9	47	129	284	695	458	447	685	299	551	106	84	29
10	46	143	279	350	378	423	627	247	518	100	71	30
11	45	138	256	270	302	509	631	241	457	113	80	30
12	43	131	222	250	268	2470	603	231	349	157	122	29
13	43	126	185	230	270	3770	593	216	668	115	80	27
14	41	121	153	210	228	3420	560	201	697	96	66	26
15	40	119	187	190	295	2070	503	185	580	88	59	26
16	40	116	167	175	1030	1990	447	171	488	84	54	26
17	39	111	137	160	2490	3160	436	160	592	79	51	26
18	44	105	142	150	1680	2880	427	149	435	77	51	25
19	45	98	103	140	1200	1980	356	144	363	72	50	25
20	45	96	108	125	1040	2010	328	141	307	68	46	24
21	43	95	87	120	1370	1770	306	138	252	65	46	27
22	41	90	126	115	1120	1570	274	222	215	62	46	54
23	42	83	218	125	1050	1130	252	267	199	61	47	65
24	42	79	489	135	1200	867	239	266	172	62	46	44
25	42	82	438	127	968	739	228	279	151	60	49	37
26	62	73	368	120	768	713	281	235	138	59	51	37
27	728	79	320	114	662	598	272	246	127	60	46	61
28	857	91	277	118	576	495	245	421	124	300	42	72
29	459	87	246	120	---	437	222	442	117	470	38	47
30	305	81	201	115	---	398	210	371	121	234	35	40
31	225	---	172	123	---	391	---	321	---	166	35	---
TOTAL	3790	3447	6817	9616	23390	38434	13172	7137	13777	3967	2003	1094
MEAN	122	115	220	310	835	1240	439	230	459	128	64.6	36.5
MAX	857	183	489	1210	2490	3770	735	442	1740	470	125	72
MIN	39	73	87	114	228	391	210	138	117	59	35	24
CFSM	.49	.47	.89	1.26	3.38	5.02	1.78	.93	1.86	.52	.26	.15
IN.	.57	.52	1.03	1.45	3.52	5.79	1.98	1.07	2.07	.60	.30	.16

CAL YR 1981 TOTAL 106708 MEAN 292 MAX 6910 MIN 33 CFSM 1.18 IN 16.07
WTR YR 1982 TOTAL 126644 MEAN 347 MAX 3770 MIN 24 CFSM 1.41 IN 19.07

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37'16", long 78"46'24", Allegany County, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi (3.2 km) south of Cumberland, 2.1 mi (3.4 km) downstream from Wills Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--875 mi^2 (2,266 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi (3.2 km) upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft (178.375 m) National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for January, which are fair. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi (127 km) above station (see station 01595200). Low-flow regulatation since December 1950 by Savage River Reservoir, 39 mi (63 km) above station (see station 01597500). Flow regulated by Bloomington Reservoir, 43 mi (69 km) above station (see station 01595800) since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is below station. Diversion to Chesapeake and Ohio Canal prior to 1935. Gage-height telemeter at station.

AVERAGE DISCHARGE.--53 years, 1,263 ft^3/s (35.77 m^3/s), 19.60 in/yr (498 mm/yr), adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,200 ft^3/s (2,500 m^3/s) Mar. 17, 1936, gage height, 29.1 ft (8.87 m), from rating curve extended above 33,000 ft^3/s (935 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge (river only), 12 ft^3/s (0.34 m^3/s) Sept. 22, 1932, gage height, 2.38 ft (0.725 m); minimum daily discharge (including flow in canal), 38 ft^3/s (1.08 m^3/s) Sept. 24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft (8.90 m) June 1, 1889, discharge, about 89,000 ft^3/s (2,520 m^3/s). Flood of Mar. 29, 1924, reached a stage of 28.4 ft (8.66 m), discharge, about 82,000 ft^3/s (2,320 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft^3/s (371 m^3/s) Mar. 17, gage height, 11.89 ft (3.624 m), no other peak above base of 10,000 ft^3/s (280 m^3/s); minimum discharge, 150 ft^3/s (4.25 m^3/s) Oct. 25, gage height, 2.20 ft (0.671 m); minimum daily discharge, 160 ft^3/s (4.53 m^3/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	752	641	938	700	2020	1160	677	569	437	512	335
2	274	671	884	944	2700	2030	1050	637	496	382	466	338
3	267	459	1240	1070	2300	1970	1190	604	520	504	444	348
4	262	399	1140	2530	5090	1930	1850	573	673	1890	430	338
5	259	387	962	5150	4840	1790	1610	538	3020	1660	444	331
6	257	478	915	3180	2960	1890	1730	512	4480	1380	451	327
7	255	532	815	2990	2210	2040	1820	479	3410	1290	402	330
8	247	734	1050	3490	1720	1890	1570	682	2830	1240	458	307
9	245	686	1560	2590	1390	1720	1630	812	1900	1210	480	310
10	247	647	1210	1500	1260	1530	1620	638	1790	1160	437	309
11	244	593	1100	1100	1280	1760	1570	595	2470	910	444	351
12	244	540	1020	1000	1230	4380	1510	578	3540	961	458	347
13	242	516	956	900	1060	8400	1290	553	4690	746	430	343
14	209	504	931	800	981	8510	1290	528	4860	536	395	342
15	172	478	887	700	1080	6730	1150	488	4260	451	368	347
16	172	460	771	650	2610	6020	1420	458	3680	382	361	347
17	169	453	708	600	7570	11800	1470	444	2170	423	355	338
18	187	445	642	550	6700	10400	1530	416	1760	586	382	335
19	190	432	592	550	4940	7420	1390	402	1300	496	368	337
20	182	430	601	500	3920	7460	1300	395	1150	480	335	335
21	177	426	566	480	4620	7940	1060	409	971	444	402	338
22	173	404	473	440	5040	7060	916	520	812	423	395	420
23	180	379	1810	420	5110	4900	855	620	737	430	395	407
24	171	375	4270	450	4570	3670	805	612	647	423	375	431
25	160	379	2590	800	4050	2910	780	612	488	409	361	353
26	226	385	1940	500	3220	2450	886	553	388	402	355	357
27	1460	368	1970	400	2350	2010	901	544	361	402	330	440
28	3050	562	1240	369	2110	1800	790	803	395	1010	338	426
29	1530	670	989	385	---	1330	726	851	423	1220	324	373
30	1310	656	879	364	---	1210	688	709	458	709	332	357
31	898	---	835	365	---	1170	---	638	---	586	324	---
TOTAL	13923	15200	36187	36705	87611	128140	37557	17880	55248	23582	12351	10597
MEAN	449	507	1167	1184	3129	4134	1252	577	1842	761	398	353
MAX	3050	752	4270	5150	7570	11800	1850	851	4860	1890	512	440
MIN	160	368	473	364	700	1170	688	395	361	382	324	307

CAL YR 1981 TOTAL 422174 MEAN 1157 MAX 11600 MIN 141 CFSM 1.32 IN 17.95
WTR YR 1982 TOTAL 474981 MEAN 1301 MAX 11800 MIN 160 CFSM 1.49 IN 20.19

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to September 1982 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1964 to September 1982 (discontinued).

REMARKS.--Water temperatures were measured in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1965-81): Maximum daily, 33.0°C July 13, 14, 1966, July 16, 18, Aug. 19, 23, 1968, July 17, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,600 mg/L Feb. 13, 1966, July 4, 1978; minimum daily mean, 1 mg/L Jan. 17, 1975.
SEDIMENT LOADS: Maximum daily, 66,300 tons (59,800 tonnes) July 4, 1978; minimum daily, 2.0 tons (1.8 tonnes) Jan. 28, 1982.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 27.0°C Aug. 8; minimum daily, 0.0°C Jan. 11, 12, 15, 16, 22.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 529 mg/L Mar. 17; minimum daily mean, 2 mg/L Jan. 16, 17, 22-24, 27, 28.
SEDIMENT LOADS: Maximum daily, 17,300 tons (15,700 tonnes) Mar. 17; minimum daily, 2.0 tons (1.8 tonnes) Jan. 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
09...	1200	1560	268	7.3	-1.0	4.1	9	13.1	110	92	33	6.6
APR												
19...	1430	1380	316	7.9	20.0	12.6	6	7.5	140	110	39	9.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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)
DEC											
09...	11	18	.5	1.7	18	79	15	<.1	4.4	187	162
APR											
19...	16	20	.6	1.4	25	100	21	.1	4.9	233	208

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC											
09...	.25	788	.79	.080	.25	850	820	32	470	60	410
APR											
19...	.32	868	.82	.040	.12	510	450	57	430	20	410

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	11.0	4.0	---	3.0	5.0	10.0	14.0	21.0	21.0	22.0	17.0
2	15.0	13.0	6.0	7.0	3.0	6.0	10.0	18.0	19.0	26.0	21.0	22.0
3	13.0	12.0	6.0	8.0	4.0	5.0	10.0	14.0	18.0	20.0	21.0	20.0
4	12.0	13.0	8.0	3.0	---	5.0	11.0	14.0	19.0	19.0	24.0	22.0
5	15.0	11.0	9.0	4.0	4.0	6.0	8.0	16.0	17.0	20.0	25.0	23.0
6	15.0	10.0	5.0	4.0	5.0	---	9.0	17.0	15.0	20.0	25.0	22.0
7	15.0	10.0	5.0	5.0	4.0	---	7.0	16.0	16.0	22.0	25.0	20.0
8	15.0	9.0	6.0	3.0	5.0	8.0	7.0	18.0	15.0	23.0	27.0	18.0
9	15.0	9.0	4.0	5.0	4.0	6.0	9.0	18.0	20.0	23.0	25.0	20.0
10	11.0	9.0	3.0	2.0	4.0	5.0	9.0	14.0	20.0	23.0	---	20.0
11	14.0	10.0	6.0	.0	5.0	7.0	11.0	15.0	16.0	23.0	22.0	23.0
12	15.0	11.0	4.0	.0	4.0	8.0	10.0	17.0	16.0	22.0	19.0	---
13	16.0	7.0	6.0	1.0	6.0	10.0	10.0	18.0	---	21.0	18.0	20.0
14	15.0	7.0	3.0	2.0	8.0	10.0	11.0	19.0	16.0	23.0	21.0	20.0
15	14.0	6.0	4.0	.0	7.0	9.0	---	20.0	18.0	22.0	22.0	23.0
16	14.0	8.0	4.0	.0	6.0	7.0	11.0	20.0	17.0	24.0	---	23.0
17	14.0	8.0	3.0	---	3.0	6.0	13.0	19.0	19.0	25.0	---	20.0
18	14.0	---	3.0	---	---	9.0	16.0	20.0	17.0	---	20.0	20.0
19	11.0	9.0	3.0	4.0	4.0	9.0	13.0	20.0	21.0	23.0	21.0	19.0
20	12.0	8.0	---	4.0	8.0	9.0	13.0	---	19.0	24.0	20.0	17.0
21	11.0	8.0	---	---	8.0	8.0	13.0	20.0	19.0	26.0	22.0	18.0
22	10.0	8.0	3.0	.0	5.0	8.0	13.0	20.0	19.0	24.0	24.0	---
23	11.0	5.0	5.0	---	6.0	7.0	11.0	16.0	19.0	25.0	---	15.0
24	11.0	4.0	5.0	---	6.0	9.0	15.0	16.0	17.0	24.0	20.0	14.0
25	9.0	5.0	---	---	6.0	---	13.0	17.0	19.0	25.0	20.0	17.0
26	10.0	5.0	5.0	---	5.0	9.0	15.0	17.0	23.0	24.0	20.0	---
27	11.0	7.0	---	---	5.0	7.0	14.0	17.0	24.0	25.0	20.0	17.0
28	11.0	8.0	5.0	4.0	7.0	---	11.0	20.0	24.0	24.0	21.0	14.0
29	10.0	8.0	4.0	3.0	---	7.0	12.0	18.0	26.0	22.0	22.0	17.0
30	12.0	6.0	4.0	3.0	---	10.0	13.0	20.0	---	22.0	15.0	16.0
31	11.0	---	4.0	3.0	---	10.0	---	21.0	---	24.0	19.0	---
MEAN	13.0	8.5	4.5	3.0	5.0	7.5	11.5	17.5	19.0	23.0	21.5	19.0

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10	7.1	9	18	19	33	7	18	29	55	8	44
2	10	7.4	9	16	16	38	5	13	45	328	7	38
3	8	5.8	12	15	28	94	4	12	76	472	8	43
4	7	5.0	21	23	30	92	66	558	103	1420	9	47
5	8	5.6	24	25	15	39	66	972	48	627	8	39
6	8	5.6	14	18	10	25	18	155	33	264	8	41
7	6	4.1	20	29	10	22	30	242	22	131	9	50
8	6	4.0	11	22	14	40	20	188	12	56	9	46
9	8	5.3	9	17	18	76	9	63	14	53	10	46
10	8	5.3	9	16	10	33	22	89	11	37	7	29
11	7	4.6	11	18	6	18	16	48	11	38	10	48
12	8	5.3	9	13	6	17	8	22	9	30	131	1610
13	9	5.9	8	11	5	13	6	15	7	20	112	2540
14	7	4.0	8	11	5	13	6	13	6	16	150	3450
15	9	4.2	8	10	5	12	3	5.7	10	29	58	1050
16	10	4.6	9	11	4	8.3	2	3.5	64	521	81	1390
17	9	4.1	11	13	5	9.6	2	3.2	151	3110	529	17300
18	9	4.5	10	12	12	21	3	4.5	61	1100	176	5290
19	8	4.1	9	10	9	14	3	4.5	29	387	57	1140
20	7	3.4	8	9.3	8	13	5	6.8	25	265	55	1110
21	8	3.8	9	10	6	9.2	4	5.2	39	486	84	1800
22	10	4.7	10	11	5	6.4	2	2.4	40	544	34	648
23	9	4.4	9	9.2	76	470	2	2.3	24	331	26	344
24	7	3.2	8	8.1	74	904	2	2.4	20	247	21	208
25	6	2.6	8	8.2	19	133	4	8.6	13	142	14	110
26	26	16	9	9.4	10	52	3	4.1	10	87	13	86
27	134	458	8	7.9	8	43	2	2.2	16	102	11	60
28	104	856	9	14	7	23	2	2.0	12	68	9	44
29	20	83	9	16	5	13	3	3.1	---	---	8	29
30	14	50	10	18	4	9.5	4	3.9	---	---	8	26
31	8	19	---	---	7	16	5	4.9	---	---	8	25
TOTAL	---	1600.6	---	429.1	---	2310.0	---	2477.3	---	10966	---	38731

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9	28	6	11	24	37	10	12	20	28	18	16
2	10	28	6	10	19	25	7	7.2	20	25	17	16
3	22	71	7	11	17	24	38	52	21	25	17	16
4	22	110	6	9.3	21	38	30	153	22	26	16	15
5	12	52	7	10	230	2430	27	121	27	32	16	14
6	13	61	6	8.3	135	1630	16	60	26	32	16	14
7	10	49	5	6.5	31	285	12	42	16	17	16	14
8	7	30	22	41	23	176	14	47	15	19	16	13
9	8	35	12	26	18	92	13	42	27	35	16	13
10	7	31	8	14	42	203	14	44	18	21	16	13
11	8	34	7	11	59	393	16	39	25	30	15	14
12	7	29	6	9.4	53	507	29	75	27	33	15	14
13	10	35	7	10	57	722	20	40	25	29	15	14
14	9	31	7	10	45	590	16	23	17	18	15	14
15	10	31	7	9.2	28	322	15	18	15	15	15	14
16	10	38	5	6.2	30	298	14	14	19	19	15	14
17	10	40	6	7.2	42	246	12	14	18	17	14	13
18	9	37	6	6.7	15	71	16	25	19	20	14	13
19	8	30	11	12	10	35	40	54	18	18	14	13
20	8	28	13	14	9	28	19	25	17	15	14	13
21	8	23	15	17	9	24	19	23	16	17	14	13
22	6	15	19	27	10	22	16	18	14	15	14	16
23	5	12	15	25	9	18	17	20	15	16	14	15
24	5	11	14	23	8	14	14	16	18	18	17	20
25	6	13	23	38	7	9.2	14	15	19	19	17	16
26	10	24	15	22	6	6.3	13	14	14	13	18	17
27	8	19	10	15	5	4.9	13	14	13	12	19	23
28	8	17	47	102	6	6.4	85	232	12	11	19	22
29	7	14	30	69	6	6.9	80	264	12	10	15	15
30	5	9.3	20	38	13	16	34	65	14	13	18	17
31	---	---	17	29	---	---	19	30	15	13	---	---
TOTAL	---	985.3	---	647.8	---	8279.7	---	1618.2	---	631	---	454

TOTAL LOAD FOR YEAR: 69130.0 TONS.

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 mi^2 (78.2 km^2).

PERIOD OF RECORD.--September 1932 to September 1982 (discontinued). 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, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 32.4 ft^3/s (0.918 m^3/s), 14.57 in/yr (370 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,240 ft^3/s (148 m^3/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of slope-area measurements at gage heights 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum discharge, 0.70 ft^3/s (0.020 m^3/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.--Maximum discharge, 440 ft^3/s (12.5 m^3/s) Feb. 3, gage height, 2.86 ft (0.872 m), no other peak above base of 400 ft^3/s (11 m^3/s); minimum discharge, 3.2 ft^3/s (0.091 m^3/s) Sept. 17, 18, 19, 21, 22, 30, gage height, 1.11 ft (0.338 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	21	15	23	105	68	43	27	44	16	9.9	4.8
2	7.1	20	23	24	48	67	38	27	38	14	9.6	5.9
3	6.5	18	18	20	186	56	76	26	56	28	9.7	5.1
4	6.2	17	15	175	140	50	76	24	48	29	8.4	4.2
5	6.2	16	14	101	74	57	56	23	235	18	8.4	4.1
6	6.2	26	13	64	56	49	83	22	139	16	7.5	3.9
7	6.5	19	13	61	59	54	62	22	106	15	7.1	3.9
8	5.6	16	16	48	50	46	54	34	78	14	9.5	4.1
9	5.5	17	14	42	39	44	57	31	63	28	12	4.2
10	5.3	22	13	30	36	43	57	24	66	18	9.0	4.0
11	5.3	18	13	26	37	85	54	22	58	23	18	3.6
12	5.3	16	13	22	33	243	47	22	45	25	14	3.6
13	5.1	15	12	20	27	228	45	22	103	17	9.0	3.3
14	4.9	15	12	18	30	208	42	21	68	15	7.7	3.3
15	4.8	15	13	17	39	148	39	19	55	15	7.0	3.4
16	4.8	15	13	16	122	177	37	19	50	14	6.6	3.5
17	4.8	14	12	15	232	224	42	18	65	13	6.4	3.3
18	5.3	14	12	14	115	158	50	18	50	12	6.7	3.2
19	7.1	13	12	14	91	134	37	66	45	12	5.9	3.2
20	5.6	13	11	13	89	148	35	33	40	11	5.6	3.3
21	5.3	13	11	13	121	125	34	26	35	9.8	6.0	3.2
22	5.1	12	15	13	89	103	31	36	30	9.0	5.7	8.8
23	5.3	11	22	14	114	89	29	36	25	8.9	6.1	5.6
24	5.9	11	28	15	125	78	28	30	23	8.5	6.1	4.3
25	5.5	11	21	16	93	71	28	27	21	7.6	7.2	4.0
26	8.0	11	17	15	71	76	37	24	20	7.3	5.6	4.0
27	154	11	17	14	59	60	37	24	19	17	5.3	10
28	61	11	16	13	59	52	34	61	18	32	5.0	6.1
29	33	9.9	17	14	---	48	29	146	18	20	4.4	4.7
30	27	9.6	15	13	---	46	27	67	18	12	4.4	4.3
31	24	---	15	18	---	47	---	53	---	12	4.5	---
TOTAL	449.0	450.5	471	921	2339	3082	1344	1050	1679	497.1	238.3	132.9
MEAN	14.5	15.0	15.2	29.7	83.5	99.4	44.8	33.9	56.0	16.0	7.69	4.43
MAX	154	26	28	175	232	243	83	146	235	32	18	10
MIN	4.8	9.6	11	13	27	43	27	18	18	7.3	4.4	3.2
CFSM	.48	.50	.50	.98	2.77	3.29	1.48	1.12	1.85	.53	.26	.15
IN.	.55	.55	.58	1.13	2.88	3.80	1.66	1.29	2.07	.61	.29	.16

CAL YR 1981 TOTAL 11973.5 MEAN 32.8 MAX 518 MIN 3.4 CFSM 1.09 IN 14.75
WTR YR 1982 TOTAL 12653.8 MEAN 34.7 MAX 243 MIN 3.2 CFSM 1.15 IN 15.59

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

LOCATION.--Lat 39°26'49", long 78°39'16", Hampshire County, Hydrologic Unit 02070001, on left bank at highway bridge, 2.0 mi (3.2 km) east of Springfield, and at mile 13.4 (21.6 km).

DRAINAGE AREA.--1,471 mi^2 (3,810 km^2).

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

REVISED RECORDS.--WSP 1552: 1903-06, 1929-30(M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft (171.304 m) National Geodetic Vertical Datum of 1929. June 1894 to February 1896, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 mi (18.0 km) upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 mi (16.1 km) upstream at different datum. Aug. 28, 1903, to July 14, 1906, nonrecording gage at present site at different datum. Aug. 8 to Sept. 24, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good except those for January, which are poor. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1900-01, 1904-05, 1929-82), 1,296 ft^3/s (36.70 m^3/s), 11.96 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft^3/s (4,050 m^3/s) Mar. 18, 1936, gage height, 34.2 ft (10.42 m), from rating curve extended above 28,000 ft^3/s (793 m^3/s) on basis of measurement made about 10 mi (16 km) upstream from station, adjusted for storage and inflow and slope-area measurement at gage height 29.84 ft (9.095 m); minimum discharge, 29 ft^3/s (0.82 m^3/s) Jan. 28, 1956, result of freezeup, July 30, 1966, result of temporary dam; minimum gage height, 0.39 ft (0.119 m) July 30, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft (10.4 m), from flood-marks, discharge, 140,000 ft^3/s (3,960 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft^3/s (280 m^3/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)
Feb. 1	2300	10400	295	9.79	2.984	Mar. 21	1200	*25400	719	16.55	5.044
Feb. 4	1800	12200	346	10.79	3.289	June 14	0400	20500	581	14.69	4.478
Mar. 17	0900	14800	419	12.08	3.682						

Minimum discharge, 107 ft^3/s (3.03 m^3/s) Sept. 19, 20; minimum gage height, 1.60 ft (0.488 m) Oct. 17, 18, Sept. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	809	442	616	4960	1840	1490	1560	766	439	340	168
2	162	656	458	633	5860	1680	1550	1390	654	428	350	175
3	161	563	529	661	4530	1630	1530	1230	591	481	360	229
4	161	495	575	1040	9580	1610	2140	1090	626	647	317	197
5	166	446	551	4610	6800	1500	2120	961	1320	511	308	186
6	173	430	528	3930	4490	1450	1930	871	2750	612	286	175
7	167	407	498	2760	3270	1530	1870	790	2200	493	259	161
8	160	406	462	2440	2540	2680	1630	790	1680	481	451	151
9	155	405	471	2060	2190	3120	1530	817	1310	457	439	144
10	154	379	607	1620	2890	2910	1540	710	1340	457	817	137
11	157	368	565	767	2750	2640	1440	640	5380	668	605	137
12	154	359	524	710	2250	4020	1330	584	3420	1200	463	134
13	153	345	502	660	1900	5630	1250	544	8340	742	390	131
14	149	331	462	750	1650	4970	1220	518	16200	518	340	128
15	147	318	453	680	1510	4060	1170	487	7240	417	304	128
16	145	307	470	600	1910	4470	1060	457	4280	390	272	125
17	142	297	507	540	4030	13400	988	428	3380	390	250	116
18	145	290	473	500	8380	9680	1040	406	2400	619	246	113
19	151	281	463	540	6270	6350	1090	385	1810	808	229	110
20	148	274	386	580	6180	7110	988	390	1420	1090	216	110
21	145	267	320	610	6890	21200	943	423	1150	916	221	110
22	147	261	374	820	6120	13400	898	451	970	774	233	128
23	153	258	449	730	4410	7790	817	457	835	598	221	134
24	157	258	1940	1000	3500	5390	758	1390	734	505	242	154
25	157	256	2210	750	3050	3970	718	1170	654	493	212	189
26	167	255	1680	630	2730	3240	726	1350	584	439	197	186
27	331	259	1360	550	2360	2740	916	1070	524	380	193	193
28	4060	255	1130	490	2080	2280	1450	961	481	844	193	250
29	2680	442	961	520	---	1930	1910	790	469	531	189	417
30	1570	477	808	610	---	1720	1760	758	451	390	178	317
31	1090	---	683	1400	---	1560	---	758	---	360	175	---
TOTAL	13765	11154	21841	34807	115080	147500	39802	24626	73959	18078	9496	5033
MEAN	444	372	705	1123	4110	4758	1327	794	2465	583	306	168
MAX	4060	809	2210	4610	9580	21200	2140	1560	16200	1200	817	417
MIN	142	255	320	490	1510	1450	718	385	451	360	175	110
CFSM	.30	.25	.48	.76	2.79	3.24	.90	.54	1.68	.40	.21	.11
IN.	.35	.28	.55	.88	2.91	3.73	1.01	.62	1.87	.46	.24	.13

CAL YR 1981 TOTAL 306846 MEAN 841 MAX 6270 MIN 81 CFSM .57 IN 7.76
WTR YR 1982 TOTAL 515141 MEAN 1411 MAX 21200 MIN 110 CFSM .96 IN 13.03

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32'13", long 78°27'28", Allegany County, Md., Hydrologic Unit 02070003, on left bank 250 ft (76 m) upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi (5.3 km) downstream from Little Cacapon River, and at mile 277 (446 km).

DRAINAGE AREA.--3,109 mi^2 (8,052 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft (148.706 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft (76 m) downstream at same datum.

REMARKS.--Records good except those for January, which are fair. Low flow affected by Stony River Reservoir prior to July 1981 (see station 01595200); since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Bloomington Reservoir (see station 01595800). Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--44 years, 3,263 ft^3/s (92.41 m^3/s), 14.25 in/yr (362 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft^3/s (3,140 m^3/s) Oct. 16, 1942, gage height, 38.36 ft (11.692 m); minimum discharge, 164 ft^3/s (4.64 m^3/s) Sept. 10, 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 54.0 ft (16.46 m) Mar. 18, 1936, discharge, 240,000 ft^3/s (6,800 m^3/s), from rating curve extended above 85,000 ft^3/s (2,410 m^3/s) on basis of slope-area measurement of peak flow at site 5.0 mi (8.0 km) upstream at Okonoko, W. Va.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20,000 ft^3/s (566 m^3/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)
Feb. 4	2230	21100	598	15.94	4.859	Mar. 21	1715	*39000	1100	21.91	6.678
Feb. 17	2145	20200	572	15.60	4.755	June 14	0630	31600	895	19.53	5.953
Mar. 17	1615	35000	991	20.63	6.288						

Minimum discharge, 395 ft^3/s (11.2 m^3/s) Oct. 17, 18, gage height, 3.40 ft (1.036 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	598	2270	1390	2010	1600	5320	3670	3190	2000	1240	1260	610
2	539	1930	1970	2170	9000	5160	3500	2940	1770	1190	1140	614
3	533	1630	2320	2230	7600	4920	3890	2700	1610	1240	1140	639
4	527	1320	2390	4760	15700	4720	6370	2460	2230	3090	1050	678
5	522	1200	2160	11400	15900	4400	5490	2230	4710	3020	1010	632
6	522	1220	1960	9610	10200	4400	5170	2050	9490	2640	999	615
7	522	1310	1820	7060	7530	4520	5170	1910	7310	2370	903	604
8	498	1380	1740	6810	5920	5640	4640	2030	5790	2160	954	582
9	487	1430	2310	5820	5070	6260	4400	2780	4550	2160	1300	551
10	481	1410	2310	3600	5040	6180	4490	2290	4110	2080	1430	549
11	481	1320	2140	2400	5110	5860	4280	1990	7830	2050	1480	544
12	475	1250	1970	1850	4560	9360	4040	1810	8250	3240	1250	583
13	464	1170	1830	1800	3990	16800	3760	1700	12800	2550	1140	569
14	452	1110	1730	1700	3480	16100	3550	1590	27600	1850	1010	561
15	420	1080	1710	1500	3420	13200	3360	1480	14700	1420	900	553
16	400	1020	1660	1400	5600	12300	3240	1360	9830	1200	830	563
17	400	997	1560	1250	15900	30100	3330	1290	8250	1100	790	544
18	395	968	1520	1200	19700	26800	3570	1210	5950	1300	773	531
19	415	939	1270	1100	15100	17700	3400	1150	4670	1790	763	529
20	415	912	1220	1050	13100	15200	3170	1170	3830	2250	724	531
21	405	895	1210	1000	15800	33900	2890	1170	3250	2020	716	527
22	400	872	1160	950	15200	27800	2610	1280	2770	1770	759	596
23	400	824	1390	900	12600	16600	2390	1530	2400	1520	765	657
24	410	810	5390	1000	11700	11700	2250	2110	2160	1350	780	651
25	405	808	5740	1700	9950	8880	2140	2440	1850	1240	752	660
26	415	802	4490	1300	8330	7490	2220	2440	1540	1200	692	649
27	2410	808	3930	900	6660	6300	2770	2120	1380	1090	669	720
28	8420	804	3290	800	5790	5460	3060	2230	1260	2050	640	780
29	6360	1130	2670	740	---	4660	3570	2830	1270	2820	635	900
30	3950	1390	2270	720	---	4100	3440	2480	1270	1900	623	912
31	3010	---	2020	700	---	3820	---	2170	---	1450	619	---
TOTAL	36131	35009	70540	81430	259550	345650	109830	62130	166430	58350	28496	18634
MEAN	1166	1167	2275	2627	9270	11150	3661	2004	5548	1882	919	621
MAX	8420	2270	5740	11400	19700	33900	6370	3190	27600	3240	1480	912
MIN	395	802	1160	700	1600	3820	2140	1150	1260	1090	619	527

CAL YR 1981 TOTAL 923597 MEAN 2530 MAX 18900 MIN 280 CFSM .81 IN 11.05
WTR YR 1982 TOTAL 1272180 MEAN 3485 MAX 33900 MIN 395 CFSM 1.12 IN 15.22

01613000 POTOMAC RIVER AT HANCOCK, MD

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, Hydrologic Unit 02070004, on left bank 0.2 mi (0.3 km) downstream from Little Tonoloway Creek, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 522 at Hancock, 1.1 mi (1.8 km) upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239 (385 km).

DRAINAGE AREA.--4,073 mi^2 (10,549 km^2).

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of U.S. Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft (116.946 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Water-discharge records good except those for January, which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly (prior to July 1981) by Stony River Reservoir (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Bloomington Reservoir (see station 01595800). Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--50 years, 4,130 ft^3/s (117.0 m^3/s), 13.77 in/yr (350 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340,000 ft^3/s (9,630 m^3/s) Mar. 18, 1936, gage height, 47.6 ft (14.508 m), from rating curve extended above 120,000 ft^3/s (3,400 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge observed, 180 ft^3/s (5.10 m^3/s) Oct. 4, 1932, gage height, 2.01 ft (0.613 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1932, about 40 ft (12.2 m) in May 1889, discharge, about 220,000 ft^3/s (6,230 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 23,000 ft^3/s (650 m^3/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)
Feb. 4	2030	*47000	1330	19.40	5.913	Mar. 22	0145	41600	1180	18.15	5.532
Feb. 18	2000	23000	651	13.12	4.000	June 14	1115	42700	1210	18.42	5.614
Mar. 17	2145	43200	1220	18.54	5.651						

Minimum discharge, 491 ft^3/s (13.9 m^3/s) Oct. 19, 20, gage height, 2.65 ft (0.808 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	5120	1490	2360	1800	6790	4550	4390	2530	1450	1520	682
2	750	3850	1660	2310	6080	6380	4350	4040	2230	1390	1340	677
3	705	2860	2270	2470	17200	6160	4330	3710	2120	1380	1280	677
4	673	2130	2640	3010	23900	5810	7730	3370	2690	2050	1280	686
5	652	1780	2660	8340	24000	5500	8030	3060	3670	3670	1150	731
6	635	1600	2390	14100	14700	5140	6850	2790	9550	3130	1230	688
7	626	1480	2180	9910	10300	5220	6790	2570	10000	2830	1100	672
8	616	1560	2050	8070	7870	6010	6280	2460	7520	2500	1020	656
9	596	1650	1960	7490	6560	7380	5600	2930	6040	2400	1520	639
10	575	1690	2410	4000	5770	7840	5550	3330	4810	2360	1570	605
11	562	1640	2440	2700	6050	7610	5400	2770	5470	2290	1690	598
12	560	1540	2290	2100	5560	9570	5100	2450	10100	2770	1620	588
13	553	1450	2120	2000	4910	18400	4790	2240	10200	3400	1370	625
14	552	1360	1970	1900	4290	19900	4430	2070	35800	2460	1250	618
15	546	1290	1890	1700	3930	16800	4220	1920	22800	1870	1090	612
16	540	1250	1880	1600	4310	14000	3890	1790	13600	1510	982	603
17	511	1190	1820	1450	12100	27900	3910	1650	11400	1300	909	596
18	499	1140	1730	1350	21900	36400	4020	1550	8750	1210	867	585
19	497	1110	1670	1250	19900	23600	4220	1460	6570	1560	841	567
20	491	1070	1440	1200	15600	17600	3980	1380	5110	1950	827	562
21	498	1030	1330	1150	18100	30000	3690	1370	4280	2410	796	568
22	498	1010	1210	1100	20400	36200	3330	1390	3610	2110	801	601
23	498	982	1400	1050	16800	22200	3050	1490	3080	1880	833	649
24	505	946	1810	1000	15700	15600	2830	1720	2700	1590	839	706
25	511	929	4730	1200	13500	11700	2680	2200	2400	1430	843	699
26	511	920	5720	1700	11300	9620	2630	2660	2070	1390	809	728
27	699	914	4930	1200	9160	8350	2940	2710	1770	1370	764	778
28	2740	915	4360	900	7610	7100	3600	2370	1600	1440	738	794
29	10200	907	3610	850	---	6180	4490	3600	1480	2740	696	850
30	8000	1200	3030	800	---	5270	4750	3870	1480	2770	692	978
31	6420	---	2590	780	---	4840	---	2940	---	1870	680	---
TOTAL	42984	46513	75680	91040	329300	411070	138010	78250	205430	64480	32947	20018
MEAN	1387	1550	2441	2937	11760	13260	4600	2524	6848	2080	1063	667
MAX	10200	5120	5720	14100	24000	36400	8030	4390	35800	3670	1690	978
MIN	491	907	1210	780	1800	4840	2630	1370	1480	1210	680	562
CFSM	.34	.38	.60	.72	2.89	3.26	1.13	.62	1.68	.51	.26	.16
IN.	.39	.42	.69	.83	3.01	3.75	1.26	.71	1.88	.59	.30	.18

CAL YR 1981 TOTAL 1119427 MEAN 3067 MAX 27100 MIN 347 CFSM .75 IN 10.22
WTR YR 1982 TOTAL 1535722 MEAN 4207 MAX 36400 MIN 491 CFSM 1.03 IN 14.03

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, Hydrologic Unit 02070004, on right bank 0.7 mi (1.1 km) upstream from highway bridge in Fairview, 2.0 mi (3.2 km) upstream from Rockdale Run, 6.5 mi (10.5 km) northwest of Hagerstown, and 19.1 mi (30.7 km) upstream from mouth.

DRAINAGE AREA.--494 mi^2 (1,279 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft (119.436 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi (1.1 km) downstream at datum 2.93 ft (0.893 m) lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft (46 m) downstream from former site at datum 4.92 ft (1.500 m) lower than present datum.

REMARKS.--Water-discharge records good. Low flow partly regulated by small powerplants near Mercersburg, Pa. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years, 590 ft^3/s (16.71 m^3/s), 16.22 in/yr (412 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s (918 m^3/s) June 23, 1972, gage height, 24.5 ft (7.47 m), from floodmark, from rating curve extended above 15,000 ft^3/s (425 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 21 ft^3/s (0.59 m^3/s) Aug. 8, Sept. 12, 1966; minimum daily discharge, 25 ft^3/s (0.71 m^3/s) Nov. 28, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft (5.03 m), present datum, sometime in 1889, from information by local residents; discharge, about 22,000 ft^3/s (620 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,570 ft^3/s (129 m^3/s) June 13, gage height, 7.75 ft (2.362 m), no other peak above base of 4,300 ft^3/s (122 m^3/s); minimum discharge, 75 ft^3/s (2.12 m^3/s) Oct. 17, gage height, 1.22 ft (0.372 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	339	147	345	600	1040	603	502	317	394	181	110
2	94	292	337	670	1050	1170	543	485	336	343	176	108
3	111	258	339	574	1310	1000	765	463	296	346	184	108
4	91	231	299	1780	2130	951	1980	443	448	520	168	111
5	91	214	255	1990	1960	857	1310	418	1030	415	184	110
6	93	399	223	1220	1550	941	1360	399	1750	340	180	108
7	93	452	206	946	1200	926	1280	385	1100	310	168	101
8	89	349	205	765	1050	984	1100	382	806	361	156	99
9	93	289	194	615	850	914	1130	397	656	376	154	104
10	91	293	171	392	526	969	1150	362	616	314	153	112
11	88	269	175	240	442	935	1470	333	1020	282	151	109
12	84	244	167	260	394	1840	1300	315	798	331	161	104
13	84	224	159	270	381	2150	1160	302	2430	281	159	100
14	86	208	158	270	344	1920	1050	290	3090	248	150	101
15	84	201	163	270	341	1650	930	275	1700	236	139	105
16	84	194	190	270	610	1500	840	258	1370	225	133	105
17	81	188	176	230	2540	2510	784	252	2160	216	130	101
18	83	180	159	240	1750	1970	955	246	1480	205	131	96
19	98	172	139	260	1260	1630	839	242	1120	197	129	89
20	94	172	130	260	1120	1470	737	247	941	196	130	92
21	91	170	130	250	1620	1380	695	242	811	230	126	96
22	93	160	200	240	1890	1240	645	250	715	200	131	100
23	100	154	240	250	1870	1090	599	269	637	186	126	109
24	105	152	320	240	2330	980	566	283	571	179	127	107
25	105	153	370	230	1660	896	539	271	521	169	126	106
26	120	146	334	220	1310	850	561	252	481	167	135	105
27	934	145	307	220	1120	784	661	236	446	158	127	226
28	2030	143	282	220	986	695	669	432	420	249	128	280
29	912	142	275	220	---	642	602	599	400	272	115	179
30	560	140	241	220	---	608	532	403	413	225	111	139
31	414	---	227	250	---	593	---	331	---	188	111	---
TOTAL	7264	6673	6918	14427	34194	37085	27355	10564	28879	8359	4480	3520
MEAN	234	222	223	465	1221	1196	912	341	963	270	145	117
MAX	2030	452	370	1990	2540	2510	1980	599	3090	520	184	280
MIN	81	140	130	220	341	593	532	236	296	158	111	89
CFSM	.47	.45	.45	.94	2.47	2.42	1.85	.69	1.95	.55	.29	.24
IN.	.55	.50	.52	1.09	2.57	2.79	2.06	.80	2.17	.63	.34	.27

CAL YR 1981 TOTAL 152056 MEAN 417 MAX 6210 MIN 75 CFSM .84 IN 11.45
WTR YR 1982 TOTAL 189718 MEAN 520 MAX 3090 MIN 81 CFSM 1.05 IN 14.29

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
08...	1400	207	333	8.3	3.0	4.5	10	13.0	160	33	47	11
APR												
20...	1300	732	279	8.8	18.0	14.5	<1	13.1	140	29	40	9.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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)
DEC											
08...	9.7	11	.4	2.6	130	28	13	.1	1.5	214	191
APR											
20...	7.2	10	.3	1.5	110	19	9.6	.1	1.9	176	155

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC											
08...	.29	120	3.4	.240	.74	170	160	14	<10	--	5
APR											
20...	.24	348	2.8	.080	.25	300	270	30	20	10	7

01617800 MARSH RUN AT GRIMES, MD

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, Hydrologic Unit 02070004, on right bank 220 ft (67 m) upstream from bridge on Sprecher Road, 0.1 mi (0.2 km) downstream from unnamed tributary, 0.5 mi (0.8 km) southwest of Grimes, 1.5 mi (2.4 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of Fairplay.

DRAINAGE AREA.--18.9 mi^2 (49.0 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft (108.119 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--19 years, 13.0 ft^3/s (0.368 m^3/s), 9.34 in/yr (237 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft^3/s (12.7 m^3/s) Feb. 26, 1979, gage height, 4.41 ft (1.344 m); no flow Oct. 1, 1977, result of regulation caused by construction work above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65 ft^3/s (1.84 m^3/s) May 28, gage height, 1.98 ft (0.604 m), no other peak above base of 60 ft^3/s (1.7 m^3/s); minimum discharge, 2.2 ft^3/s (0.06 m^3/s) Oct. 9, 10, 14, 16, gage height, 0.87 ft (0.265 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	6.0	4.8	5.4	7.3	20	19	16	11	15	11	7.4
2	3.0	5.5	7.0	5.6	7.8	20	17	15	12	15	10	8.4
3	2.6	5.6	4.7	4.8	14	20	22	14	10	18	10	7.5
4	2.6	5.4	3.1	18	19	19	25	14	11	19	9.8	7.2
5	3.1	5.2	2.9	13	18	18	20	14	16	16	10	6.8
6	3.0	7.0	2.6	10	14	18	23	13	21	15	9.8	6.5
7	3.0	6.8	2.6	9.9	12	22	21	13	16	14	9.5	6.5
8	2.6	5.4	3.1	8.9	11	22	20	14	14	14	9.5	6.6
9	2.5	4.5	3.2	8.4	12	21	21	13	13	14	9.5	6.3
10	2.4	4.5	3.1	6.6	11	21	22	12	12	14	9.1	6.1
11	2.4	4.4	3.3	6.0	10	20	20	12	14	14	8.8	6.1
12	2.4	4.3	3.7	6.3	9.9	24	19	12	13	15	9.1	6.1
13	2.5	4.3	7.0	6.5	9.9	22	19	12	24	13	8.8	5.8
14	2.4	4.2	6.0	6.6	9.5	21	18	12	38	13	8.5	5.5
15	2.4	4.1	4.3	6.6	11	20	17	12	25	13	8.2	5.8
16	2.4	4.0	4.1	6.6	19	23	17	11	21	13	8.2	7.0
17	2.9	4.1	3.6	6.0	25	33	17	11	54	12	8.2	5.8
18	2.6	4.2	3.7	6.0	18	26	20	11	37	12	8.2	5.8
19	2.9	4.1	3.8	6.0	17	25	17	11	28	11	8.0	7.4
20	2.6	4.2	3.5	5.8	18	27	17	11	24	11	8.0	6.1
21	2.9	3.6	3.8	5.7	27	27	17	11	22	11	7.7	5.8
22	2.9	3.5	4.0	5.4	27	25	16	11	20	11	7.7	6.4
23	3.2	3.5	4.3	5.4	28	23	16	11	19	11	7.7	6.1
24	3.3	3.6	6.7	5.8	29	23	15	11	18	10	7.7	5.8
25	3.0	4.0	5.7	5.5	25	22	14	11	18	10	7.4	5.8
26	4.8	4.1	4.9	5.4	22	22	17	11	17	9.8	7.0	6.4
27	17	4.2	4.8	5.2	22	20	17	11	17	11	7.0	14
28	19	4.1	4.5	5.2	21	19	18	20	16	15	7.4	8.5
29	9.5	4.0	4.4	5.1	---	17	16	34	16	11	6.7	7.0
30	7.4	3.9	4.0	5.0	---	17	16	13	16	11	6.7	7.0
31	6.4	---	4.0	4.9	---	18	---	11	---	11	6.7	---
TOTAL	132.5	136.3	131.2	211.6	474.4	675	553	408	593	402.8	261.9	203.5
MEAN	4.27	4.54	4.23	6.83	16.9	21.8	18.4	13.2	19.8	13.0	8.45	6.78
MAX	19	7.0	7.0	18	29	33	25	34	54	19	11	14
MIN	2.4	3.5	2.6	4.8	7.3	17	14	11	10	9.8	6.7	5.5
CFSM	.23	.24	.22	.36	.89	1.15	.97	.70	1.05	.69	.45	.36
IN.	.26	.27	.26	.42	.93	1.33	1.09	.80	1.17	.79	.52	.40

CAL YR 1981 TOTAL 2189.1 MEAN 6.00 MAX 24 MIN 1.6 CFSM .32 IN 4.31
WTR YR 1982 TOTAL 4183.2 MEAN 11.5 MAX 54 MIN 2.4 CFSM .61 IN 8.23

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV

LOCATION.--Lat 39°26'04", long 77°48'07", Jefferson County, Hydrologic Unit 02070004, on right bank 0.1 mi (0.2 km) downstream from Rumsey Bridge at Shepherdstown, 3.3 mi (5.3 km) upstream from Antietam Creek, and at mile 184 (296 km).

DRAINAGE AREA.--5,936 mi² (15,374 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to September 1953. Annual maximums, water years 1954-64. July 1964 to current year. Gage-height record and estimated discharges October 1953 to June 1964 available in files of Maryland district office.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft (85.649 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for January, which are fair. Some regulation at low flow by power plants above station, prior to July 1981 by Stony River Reservoir (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Bloomington Reservoir (see station 01595800). Gage-height telemeter at station.

AVERAGE DISCHARGE.--43 years (water years 1929-53, 1965-82), 6,096 ft³/s (172.6 m³/s), 13.95 in/yr (354 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335,000 ft³/s (9,490 m³/s) Mar. 19, 1936, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 200,000 ft³/s (5,660 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 170 ft³/s (4.81 m³/s) Aug. 1, 1966; minimum daily discharge, 185 ft³/s (5.24 m³/s) July 31, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in June 1889 and May 1924 reached stages of 39.2 ft (11.95 m) and 29.8 ft (9.08 m) respectively, from floodmarks, discharges, about 290,000 ft³/s (8,210 m³/s) and 168,000 ft³/s (4,760 m³/s) respectively, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 23,000 ft³/s (650 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 5	0830	44700	1270	13.41	4.087	Mar. 18	0700	53900	1530	15.12	4.609
Feb. 18	1430	34000	963	11.26	3.432	Mar. 22	1100	48900	1380	14.20	4.328
Feb. 22	1130	30600	867	10.53	3.210	June 14	2030	*62700	1780	16.64	5.072
Mar. 14	0300	29200	827	10.23	3.118						

Minimum discharge, 618 ft³/s (17.5 m³/s) Oct. 19, gage height, 1.58 ft (0.482 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	992	4690	1520	3920	2400	10500	6610	6360	3870	2600	2480	939
2	980	3640	1930	4110	3840	9790	6210	5830	3760	2500	2080	857
3	940	3050	2500	4520	9000	9440	6000	5360	3510	2500	1950	917
4	900	2660	3120	5530	15900	8760	10400	4920	3660	2750	1780	992
5	880	2320	3330	13800	33700	8220	13700	4510	5260	3990	1830	1040
6	860	2070	3160	18800	23600	7730	11200	4120	14100	4720	1810	1030
7	840	2270	2870	15000	16200	7700	11000	3810	17000	3970	1890	1020
8	820	2430	2600	11300	12200	8480	10100	3620	12800	3620	1680	958
9	800	2350	2500	9870	9800	10100	9200	3670	9620	3470	1610	834
10	780	2320	2500	5400	8410	11100	8830	4360	7850	3380	2030	1010
11	760	2300	2930	3700	7760	11200	9020	4160	7730	3180	2100	1100
12	750	2210	2810	2900	7630	12700	8860	3600	11300	3520	2170	1060
13	740	2070	2580	2700	6810	22500	8140	3290	15300	4490	2130	816
14	730	1950	2410	2600	5880	27900	7550	3040	47600	4160	1890	798
15	720	1830	2300	2300	5440	24500	6870	2830	43000	3200	1740	821
16	723	1740	2200	2200	5570	20000	6360	2660	23400	2640	1620	992
17	696	1690	2150	2000	14800	27400	5860	2500	20600	2330	1530	971
18	738	1620	2100	1800	32300	50700	6160	2340	18000	2150	1310	912
19	686	1550	2000	1700	29700	36500	6540	2230	14200	2230	1250	912
20	699	1500	1800	1600	22800	26100	6160	2160	10700	2540	1240	925
21	687	1460	1700	1550	24700	28100	5770	2100	8040	3520	1260	873
22	648	1380	1600	1500	30100	46300	5290	2080	6860	3580	1240	885
23	703	1370	2030	1400	26800	34400	4810	2250	6180	3110	1270	993
24	735	1400	2970	1300	24500	23200	4450	2510	4780	2640	1330	812
25	771	1410	5150	1500	22600	17500	4190	2670	4210	2270	1300	880
26	838	1420	7920	2000	18300	14100	4120	3480	3790	2050	1180	919
27	1150	1300	6560	1500	15000	12400	4480	3390	3340	1980	1060	1360
28	5640	1250	5690	1200	12300	10500	5340	3390	3100	2050	1120	1620
29	13500	1250	5290	1050	---	9060	6190	4810	2780	2230	1140	1520
30	10100	1240	4560	1000	---	8020	6760	6730	2640	3410	1140	1280
31	6210	---	4030	950	---	7190	---	4810	---	3280	1110	---
TOTAL	57016	59740	96810	130700	448040	562090	216170	113590	338980	94060	49270	30046
MEAN	1839	1991	3123	4216	16000	18130	7206	3664	11300	3034	1589	1002
MAX	13500	4690	7920	18800	33700	50700	13700	6730	47600	4720	2480	1620
MIN	648	1240	1520	950	2400	7190	4120	2080	2640	1980	1060	798
CFSM	.31	.34	.53	.71	2.70	3.05	1.21	.62	1.90	.51	.27	.17
IN.	.36	.37	.61	.82	2.81	3.52	1.35	.71	2.12	.59	.31	.19

CAL YR 1981 TOTAL 1536788 MEAN 4210 MAX 40200 MIN 600 CFSM .71 IN 9.63
WTR YR 1982 TOTAL 2196512 MEAN 6018 MAX 50700 MIN 648 CFSM 1.01 IN 13.77

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV												
02...	1315	3560	258	7.6	22.0	13.0	9.0	10.1	68	430	110	52
JAN												
19...	1230	3490	320	8.0	-7.0	.0	18	14.6	K10	200	110	48
FEB												
08...	1345	11900	205	7.6	2.0	4.0	--	14.2	--	--	--	--
MAR												
15...	1230	24700	163	7.0	8.0	7.5	30	12.8	440	540	65	33
MAY												
10...	1230	4320	290	8.0	23.0	18.0	1.6	9.6	93	500	120	41
JUL												
13...	1330	4560	315	8.1	27.0	27.0	12	9.0	630	470	130	48
SEP												
20...	1015	920	445	7.9	18.5	22.0	2.3	10.4	K21	1900	200	84

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV												
02...	33	6.1	6.6	11	.3	2.5	56	37	8.1	<.1	6.8	150
JAN												
19...	34	6.7	9.4	15	.4	1.7	65	37	12	<.1	7.0	161
FEB												
08...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
15...	19	4.2	4.6	13	.3	1.3	32	28	6.4	<.1	5.8	102
MAY												
10...	37	7.1	7.6	12	.3	1.5	81	38	12	<.1	1.2	171
JUL												
13...	41	7.5	7.3	11	.3	1.6	85	38	10	.1	2.1	203
SEP												
20...	62	12	20	17	.6	2.3	120	65	31	.2	2.4	295

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV												
02...	134	.20	1440	1.3	.050	.06	.93	<.070	.21	.050	.030	.09
JAN												
19...	147	.22	1520	1.9	.090	.12	.50	<.100	.31	.040	.030	.09
FEB												
08...	--	--	--	1.6	.060	.08	.20	<.040	.12	.030	.040	.12
MAR												
15...	89	.14	6800	--	--	--	--	--	--	--	--	--
MAY												
10...	153	.23	2000	.73	.050	.06	.55	<.040	.12	.020	.020	.06
JUL												
13...	159	.28	2500	1.1	.040	.05	.60	<.080	.25	.030	.030	.09
SEP												
20...	267	.40	733	.98	.050	.06	.70	<.100	.31	.080	.070	.21

K Results based on colony count outside the acceptable range (non-ideal colony count).

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)
NOV										
02...	1	0	2	100	60	40	<1	<1	10	--
MAR										
15...	1	0	1	100	60	40	3	<1	20	0
MAY										
10...	1	0	1	<100	--	53	<1	<1	10	0
SEP										
20...	2	0	2	100	20	76	<1	2	10	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
NOV										
02...	<10	2	<1	7	5	2	390	330	59	5
MAR										
15...	20	6	<1	9	7	2	1700	1700	47	4
MAY										
10...	20	<1	1	4	0	4	220	210	9	4
SEP										
20...	<10	1	<1	14	5	9	130	120	10	7

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
NOV									
02...	--	<1	60	50	9	<.1	--	<.1	3
MAR									
15...	--	<1	180	150	31	<.1	--	<.1	9
MAY									
10...	2	2	60	50	6	<.1	--	<.1	5
SEP									
20...	4	3	50	50	4	.2	.0	.2	7

DATE	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL 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)
NOV									
02...	1	2	<1	<1	<1	<1	60	50	6
MAR									
15...	6	3	<1	<1	<1	<1	60	--	<4
MAY									
10...	1	4	<1	<1	<1	<1	20	10	6
SEP									
20...	4	3	<1	<1	<1	<1	30	--	<4

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV			
02...	100	40	384
JAN			
19...	90	21	198
MAR			
15...	95	77	5140
JUL			
13...	57	35	431
SEP			
20...	100	6	15

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, Hydrologic Unit 02070004, on left bank 400 ft (120 m) downstream from Burnside Bridge, 1.0 mi (1.6 km) southeast of Sharpsburg, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--281 mi^2 (728 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft (94.793 m) National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi (1.9 km) upstream at datum 12 ft (3.7 m) higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi (0.2 km) upstream at present datum.

REMARKS.--Water-discharge records good. Some diurnal fluctuation caused by powerplant above station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek above station as sewage.

AVERAGE DISCHARGE.--59 years (water years 1898-1903, 1905, 1931-82), 275 ft^3/s (7.788 m^3/s), 13.29 in/yr (338 mm/yr), adjusted for inflow since January 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s (357 m^3/s) July 20, 1956, gage height, 16.73 ft (5.099 m); minimum discharge, 9.4 ft^3/s (0.266 m^3/s) Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily discharge, 37 ft^3/s (1.05 m^3/s) Jan. 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,870 ft^3/s (52.9 m^3/s) June 17, gage height, 5.99 ft (1.826 m), no other peak above base of 1,500 ft^3/s (42 m^3/s); minimum daily discharge, 97 ft^3/s (2.75 m^3/s) Oct. 14, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	133	112	153	415	422	404	369	234	343	213	140
2	119	126	155	169	324	411	367	359	258	321	206	160
3	112	126	142	160	486	398	437	347	219	353	218	164
4	102	121	127	340	590	379	707	333	237	379	204	155
5	101	118	119	439	436	368	534	320	343	326	213	137
6	105	167	112	310	371	356	549	307	438	305	231	133
7	120	165	110	274	337	397	547	298	323	293	196	131
8	120	137	112	250	311	433	484	298	284	283	187	131
9	116	125	111	210	302	389	494	296	265	291	188	134
10	109	124	106	190	288	385	496	278	262	278	185	133
11	106	119	105	170	267	382	472	268	301	303	180	129
12	101	117	107	190	255	553	456	261	278	290	186	126
13	99	117	109	195	250	661	448	255	628	262	183	123
14	97	113	112	200	240	657	436	250	987	253	174	122
15	98	111	137	200	238	602	417	240	643	250	168	126
16	100	111	137	200	265	585	402	232	562	242	163	151
17	97	113	129	160	452	802	402	228	1420	235	162	126
18	97	114	120	165	462	710	477	250	964	225	187	122
19	104	112	120	182	396	649	422	231	745	272	170	119
20	103	115	115	180	413	645	390	238	642	237	159	121
21	98	117	115	179	532	618	383	229	569	230	158	125
22	98	109	112	171	595	578	368	236	521	215	156	133
23	103	106	126	165	566	541	357	228	483	210	154	138
24	116	109	159	174	593	510	350	240	448	207	159	125
25	106	111	161	165	548	486	340	225	422	201	154	122
26	115	108	143	160	492	469	390	217	402	199	151	119
27	324	107	137	155	466	443	434	211	383	292	148	263
28	422	106	135	155	440	417	450	222	370	407	147	231
29	214	103	133	156	---	399	409	374	358	319	141	153
30	166	103	127	153	---	386	382	259	351	235	137	133
31	146	---	125	168	---	388	---	240	---	223	138	---
TOTAL	4021	3563	3870	6138	11330	15419	13204	8339	14340	8479	5416	4225
MEAN	130	119	125	198	405	497	440	269	478	274	175	141
MAX	422	167	161	439	595	802	707	374	1420	407	231	263
MIN	97	103	105	153	238	356	340	211	219	199	137	119
(≠)	-12.6	-11.8	-9.9	-7.5	-7.9	-6.6	-5.5	-6.4	-8.0	-10.3	-12.7	-12.1
MEAN‡	117	107	115	190	397	490	434	263	470	264	162	129
CFSM‡	0.42	0.38	0.41	0.68	1.41	1.74	1.54	0.94	1.67	0.94	0.58	0.46
IN‡	0.48	0.42	0.47	0.78	1.47	2.01	1.72	1.08	1.86	1.08	0.67	0.51

CAL YR 1981 TOTAL 71521 MEAN 196 MAX 1070 MIN 80 MEAN‡ 186 CFSM‡ 0.66 IN‡ 8.99
WTR YR 1982 TOTAL 98344 MEAN 269 MAX 1420 MIN 97 MEAN‡ 260 CFSM‡ 0.93 IN‡ 12.57

≠ Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
‡ Adjusted for pumpage.

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
08...	1130	114	462	7.8	3.0	5.0	7	12.2	230	37	68	14
APR												
20...	1100	386	423	8.0	17.0	13.6	3	10.1	210	45	59	14

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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)
DEC											
08...	13	11	.4	3.7	190	35	21	.3	3.2	299	272
APR											
20...	12	11	.4	2.6	160	23	17	.2	4.8	258	229

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC											
08...	.41	92.0	3.7	.300	.92	130	120	7	10	0	12
APR											
20...	.35	269	4.3	.200	.61	440	410	31	50	30	21

01636500 SHENANDOAH RIVER AT MILLVILLE, WV

LOCATION.--Lat 39°16'55", long 77°47'22", Jefferson County, Hydrologic Unit 02070007, on left bank 0.4 mi (0.6 km) downstream from Cattail Run, 1.0 mi (1.6 km) upstream from Millville, 5.0 mi (8.0 km) upstream from Harpers Ferry, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--3,040 mi² (7,874 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

REVISED RECORDS.--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-02, 1905, 1907-08, 1932(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft (89.306 m) National Geodetic Vertical Datum of 1929. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi (1.3 km) downstream at datum 0.32 ft (0.098 m) higher.

REMARKS.--Water-discharge records good except those for January, which are poor. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mi (0.8 km) upstream from station. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--67 years (water years 1896-1908, 1929-82), 2,678 ft³/s (75.84 m³/s), 11.96 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 230,000 ft³/s (6,510 m³/s) Oct. 16, 1942, gage height, 32.4 ft (9.88 m), from floodmarks; minimum discharge, about 59 ft³/s (1.67 m³/s) Oct. 4, 1930, gage height, 0.39 ft (0.119 m); minimum daily discharge, 194 ft³/s (5.49 m³/s) July 24, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft (8.035 m), discharge, 151,000 ft³/s (4,280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (420 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 4	1415	20600	583	9.91	3.021	June 15	0330	*29400	833	11.77	3.587
Mar. 22	0030	24700	700	10.83	3.301						

Minimum discharge, 331 ft³/s (9.37 m³/s) Nov. 14, gage height, 1.12 ft (0.341 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	1530	561	1040	2640	3760	3530	4570	2210	1670	1350	800
2	449	1120	589	1050	4890	3500	3410	3880	2370	1550	1370	813
3	446	1080	630	1020	11200	3310	3240	3380	3030	1540	1670	850
4	418	976	607	1230	10300	3250	3080	3000	3130	1570	1520	776
5	423	893	592	1860	13200	3310	2980	2650	3990	1460	1300	764
6	432	865	617	2500	8870	3100	2960	2370	5630	1410	1200	726
7	427	788	616	4580	6350	3050	2790	2210	5500	1350	1260	716
8	422	794	659	3740	5090	3700	2600	2090	4880	1410	2120	720
9	427	771	561	2960	4290	5510	2540	1960	3910	1430	2810	666
10	427	721	586	2100	4190	5930	2470	1930	3180	1290	3460	630
11	418	681	572	1300	4940	5310	2430	1800	2950	1530	3020	656
12	416	670	557	1100	4370	4950	2360	1660	2860	2250	2260	681
13	374	665	551	1200	3770	5000	2180	1590	4480	2110	1840	632
14	423	616	547	1400	3300	5140	2170	1480	16600	1930	1650	645
15	414	622	632	1400	2980	4810	2030	1430	25400	1800	1510	578
16	371	630	710	1300	2780	4800	1890	1370	14000	1560	1250	647
17	440	603	720	1100	3090	7290	1910	1210	9790	1880	1400	680
18	396	606	792	1000	5610	8420	1900	1270	7710	2170	2310	598
19	392	565	828	1100	11200	7460	1870	1260	6410	1980	2000	562
20	394	621	709	1300	10300	6930	1910	1160	5080	1770	1630	573
21	423	552	586	1500	11500	14700	1940	1110	4130	1720	1510	562
22	414	554	618	1600	10800	21500	1840	1180	3500	2240	1240	618
23	400	584	856	1400	8760	13700	1800	1280	3040	2360	1050	638
24	464	556	931	1500	7060	9630	1690	1420	2650	2130	1030	579
25	443	569	994	1400	6000	7620	1590	1460	2430	3640	1030	661
26	555	571	1000	1300	5200	6440	1700	2540	2230	3560	896	688
27	621	564	1060	1200	4560	5760	2130	2340	2060	2410	900	799
28	1360	562	1170	1100	4060	5160	3150	2350	1900	1850	864	885
29	2410	556	1140	1100	---	4470	5770	2440	1780	1630	846	755
30	2800	562	1120	1300	---	3960	5570	2400	1780	1440	800	835
31	1990	---	1060	1660	---	3660	---	2160	---	1410	805	---
TOTAL	20238	21447	23171	49340	181300	195130	77430	62950	158610	58050	47901	20733
MEAN	653	715	747	1592	6475	6295	2581	2031	5287	1873	1545	691
MAX	2800	1530	1170	4580	13200	21500	5770	4570	25400	3640	3460	885
MIN	371	552	547	1000	2640	3050	1590	1110	1780	1290	800	562
CFSM	.22	.24	.25	.52	2.13	2.07	.85	.67	1.74	.62	.51	.23
IN.	.25	.26	.28	.60	2.22	2.39	.95	.77	1.94	.71	.59	.25

CAL YR 1981 TOTAL 408343 MEAN 1119 MAX 4950 MIN 371 CFSM .37 IN 5.00
WTR YR 1982 TOTAL 916300 MEAN 2510 MAX 25400 MIN 371 CFSM .83 IN 11.21

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1965, 1969-71, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to current year.
WATER TEMPERATURES: October 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to instrument malfunction.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 777 micromhos Oct. 27; minimum, 212 micromhos Jan. 17.
WATER TEMPERATURES: Maximum daily, 29°C July 18, 19; minimum daily, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV												
02...	1115	63	480	8.1	20.0	14.0	4.5	10.2	36	480	150	24
JAN												
19...	1045	1100	405	7.3	-6.0	.0	1.5	14.8	<1	K12	130	38
MAR												
15...	1030	4830	260	7.9	5.0	7.0	8.0	14.6	29	230	110	24
MAY												
10...	1045	1950	350	8.2	17.5	17.5	1.9	9.0	K46	530	120	19
JUL												
13...	1115	2260	405	8.5	28.0	26.0	3.2	7.8	170	K12000	160	17
SEP												
20...	1245	564	490	8.1	21.0	21.5	3.7	8.0	K16	380	190	34

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV												
02...	42	12	29	29	1.1	2.0	130	60	20	.1	3.1	262
JAN												
19...	38	8.7	29	32	1.2	2.2	93	65	10	<.1	5.0	222
MAR												
15...	30	7.4	9.2	16	.4	1.4	81	26	8.5	<.1	4.8	151
MAY												
10...	33	8.4	16	23	.7	1.5	98	40	9.3	.1	2.9	174
JUL												
13...	42	13	19	20	.7	2.1	141	36	12	.1	1.4	258
SEP												
20...	48	16	34	28	1.2	2.8	152	60	23	.2	2.1	295

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV												
02...	246	.36	44.6	1.6	.050	.06	1.20	E250	.77	.230	.210	.64
JAN												
19...	214	.30	659	1.5	.110	.14	.51	E100	.31	.090	.080	.25
MAR												
15...	136	.21	1970	--	--	--	--	--	--	--	--	--
MAY												
10...	170	.24	916	.88	.050	.06	.65	E090	.28	.070	.070	.21
JUL												
13...	210	.35	1570	1.2	.020	.03	.70	E100	.31	.060	.060	.18
SEP												
20...	278	.40	449	1.0	.050	.06	1.10	E200	.61	.130	.130	.40

K Results based on colony count outside the acceptable range (non-ideal colony count).

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, Hydrologic Unit 02070008, on right bank 300 ft (91 m) downstream from bridge on State Highway 17, 1.3 mi (2.1 km) south of Middletown, 2.2 mi (3.5 km) downstream from Little Catoctin Creek, and 14.8 mi (23.8 km) upstream from mouth.

DRAINAGE AREA.--66.9 mi^2 (173.3 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft (117.3 m), from topographic map.

REMARKS.--Water-discharge records good except those for January, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 75.6 ft^3/s (2.141 m^3/s), 15.35 in/yr (390 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) Oct. 9, 1976, gage height, 14.13 ft (4.307 m), from rating curve extended above 2,600 ft^3/s (73.6 m^3/s) on basis of slope-area measurement of peak flow; no flow Aug. 27 to Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft^3/s (39.4 m^3/s) July 27, gage height, 4.80 ft (1.463 m), no other peak above base of 1,200 ft^3/s (34 m^3/s); minimum daily discharge, 3.4 ft^3/s (0.096 m^3/s) Sept. 14, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	19	15	64	30	111	92	120	28	36	27	6.0
2	9.1	18	33	73	55	106	71	110	30	31	22	14
3	9.9	16	26	52	499	96	185	94	27	60	33	11
4	6.4	15	19	287	342	87	236	85	43	64	22	6.4
5	5.3	14	16	177	188	82	153	77	127	38	25	5.1
6	5.3	32	14	100	134	84	216	72	99	33	22	4.2
7	6.9	30	14	70	110	142	166	68	56	28	17	3.8
8	7.7	19	15	50	98	144	148	68	44	26	16	4.1
9	5.8	17	14	40	84	125	155	65	38	26	18	5.0
10	4.7	15	11	26	71	125	146	56	39	25	16	5.3
11	4.7	14	13	24	66	127	143	51	51	42	14	5.1
12	4.7	14	12	22	59	282	121	48	43	38	15	4.2
13	5.3	13	8.2	20	56	236	113	45	466	25	13	3.7
14	4.5	13	11	22	48	202	105	42	294	21	12	3.4
15	4.7	12	24	24	59	170	96	38	175	22	10	3.6
16	4.5	12	25	24	128	195	89	37	138	20	9.5	4.2
17	4.3	12	20	24	209	304	93	34	246	18	9.0	4.1
18	5.2	12	18	22	142	220	153	41	164	16	15	3.8
19	7.1	11	12	20	128	196	98	34	117	33	13	3.4
20	8.7	13	19	20	159	211	91	32	96	27	9.4	4.7
21	7.8	14	26	20	253	190	89	30	81	27	10	6.5
22	7.0	12	27	20	241	166	79	32	72	17	8.3	9.3
23	9.2	11	31	22	225	147	74	35	65	16	8.2	9.6
24	12	11	58	24	231	134	71	37	57	15	8.9	7.2
25	13	11	47	26	190	123	67	35	52	13	8.2	5.6
26	15	11	40	24	151	122	140	31	48	11	6.7	5.6
27	155	12	37	22	135	104	150	28	45	190	6.0	74
28	96	12	37	20	119	90	173	37	42	167	6.4	24
29	39	12	35	20	---	83	133	59	41	46	5.7	12
30	27	11	31	18	---	78	123	33	40	34	5.5	9.2
31	23	---	28	18	---	83	---	28	---	32	5.2	---
TOTAL	523.6	438	736.2	1395	4210	4565	3769	1602	2864	1197	417.0	268.1
MEAN	16.9	14.6	23.7	45.0	150	147	126	51.7	95.5	38.6	13.5	8.94
MAX	155	32	58	287	499	304	236	120	466	190	33	74
MIN	4.3	11	8.2	18	30	78	67	28	27	11	5.2	3.4
CFSM	.25	.22	.35	.67	2.24	2.20	1.88	.77	1.43	.58	.20	.13
IN.	.29	.24	.41	.78	2.34	2.54	2.10	.89	1.59	.67	.23	.15

CAL YR 1981 TOTAL 15369.9 MEAN 42.1 MAX 415 MIN 2.5 CFSM .63 IN 8.55
WTR YR 1982 TOTAL 21984.9 MEAN 60.2 MAX 499 MIN 3.4 CFSM .90 IN 12.22

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
08...	1730	137	175	8.2	5.8	5	12.1	56	31	15	4.5	9.1
AUG												
19...	1445	13	192	8.7	23.9	15	9.2	74	21	19	6.4	8.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
08...	25	.6	1.6	25	20	17	<.1	11	119	93	.16	44.0
AUG												
19...	19	.5	2.3	53	14	15	.2	11	135	108	.18	4.7

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
08...	2.1	.050	.15	--	490	460	31	40	20	23	2.3
AUG											
19...	.59	.380	1.2	.390	190	160	34	20	9	11	2.7

DATE	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)	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)	DBT, 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)
AUG										
19...	<1	<1.0	<.1	<1.0	<.1	<.1	.1	<.1	<.1	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
AUG									
19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG									
19...	<.1	<.1	<1.00	<10	<.1	<.1	<1.0	<1.0	<1.0

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi (0.5 km) downstream from Catoctin Creek (Virginia), 6 mi (9.7 km) upstream from Monocacy River, and at mile 159.5 (256.6 km).

DRAINAGE AREA.--9,651 mi² (24,996 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to current year.

REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

GAGE.--Water-stage recorder. Datum of gage is 200.63 ft (61.152 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft (0.317 m) higher.

REMARKS.--Water-discharge records good except those for January, which are fair. Low flow affected slightly since 1913 by Stony River Reservoir (see station 01595200), since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981, by Bloomington Reservoir (see station 01595800). Low flow affected extensively at times by run-of-the-river hydroelectric plants. Gage-height telemeter at station.

AVERAGE DISCHARGE.--87 years, 9,350 ft³/s (264.8 m³/s), 13.16 in/yr (334 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s (13,600 m³/s) Mar. 19, 1936, gage height, 41.03 ft (12.506 m) from rating curve extended above 300,000 ft³/s (8,500 m³/s) on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum discharge, 530 ft³/s (15.0 m³/s) Sept. 11, 12, 1966, gage height, 0.27 ft (0.082 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft (12.25 m), from floodmarks, discharge, about 460,000 ft³/s (13,000 m³/s) from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35,000 ft³/s (990 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 4	----	Unknown		Ice Jam		Mar. 18	1330	61400	1740	12.74	3.883
Feb. 5	----	Unknown		Ice Jam		Mar. 22	1400	69600	1970	13.85	4.221
Feb. 19	1630	39900	1130	9.48	2.890	June 15	0230	*92000	2610	16.66	5.078
Feb. 22	1600	41000	1160	9.67	2.947						

Minimum discharge, 1,170 ft³/s (33.1 m³/s) Oct. 17, 20, gage height, 0.70 ft (0.213 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	7090	2020	4710	5600	15000	11000	12000	7040	5030	4600	2080
2	1490	5550	2560	4650	8500	13900	10400	10700	6940	4780	4020	1960
3	1420	4590	3010	5020	17000	13300	10000	9690	7230	4750	4070	2070
4	1430	4080	3710	6280	37000	12600	12100	8830	7360	5260	3980	1960
5	1380	3640	4100	12500	47000	12100	17600	8060	10300	5330	3580	1970
6	1380	3380	4140	20600	37000	11400	15500	7360	16600	6870	3490	1960
7	1390	3220	3800	21000	25200	11400	14500	6820	23500	6280	3480	1950
8	1350	3290	3520	16200	18600	12300	13700	6440	19100	5790	3670	1880
9	1340	3290	3330	13500	15000	15100	12800	6220	14800	5450	5150	1760
10	1320	3150	3210	10000	13100	17300	12200	6560	12200	5430	5000	1710
11	1290	3120	3470	6000	12600	17000	12000	6810	10800	5210	5970	1840
12	1300	3120	3630	4300	12500	17100	12100	6040	12600	6170	4940	1940
13	1260	2970	3420	4000	11200	24600	11300	5550	21300	6740	4540	1860
14	1240	2850	3290	4000	10000	32600	10700	5140	53900	7080	4090	1570
15	1270	2750	3280	4100	8990	30100	9890	4860	76400	6060	3740	1560
16	1240	2600	3390	4400	8670	25900	9210	4600	41500	5110	3290	1650
17	1190	2500	3340	3800	13100	30000	8680	4310	33000	4530	3200	1790
18	1270	2400	3340	4300	32700	57100	8850	4210	28800	5030	3710	1750
19	1270	2300	3260	4500	39000	47500	9120	3980	21500	4620	3810	1600
20	1220	2400	2990	4800	35200	35300	9000	3920	16400	4490	3360	1630
21	1250	2310	2590	4500	34900	36200	8590	3780	13200	4740	3320	1630
22	1280	2170	2360	4300	40200	65600	8020	3690	11300	5390	2870	1590
23	1240	2130	2390	4000	37200	52400	7470	3880	9780	5850	2690	1770
24	1300	2120	3240	3800	32100	35800	6960	4280	8520	5270	2580	1670
25	1380	2070	4120	3500	29700	27300	6550	4470	7680	5540	2670	1550
26	1480	2070	8980	3400	24700	22100	6760	6000	7030	6520	2530	1740
27	2050	2050	8290	3300	20600	19000	7430	6330	6370	5050	2230	2560
28	3750	2000	7210	3100	17200	16700	9040	6480	5890	5050	2230	2700
29	14400	1960	6650	3200	---	14400	12100	7170	5500	4460	2180	2770
30	15000	1950	5720	3300	---	12800	13200	10100	5190	4680	2160	2340
31	9600	---	5030	3700	---	11600	---	8310	---	5500	2140	---
TOTAL	79170	89120	123390	198760	644560	765500	316770	196590	521730	168060	109290	56810
MEAN	2554	2971	3980	6412	23020	24690	10560	6342	17390	5421	3525	1894
MAX	15000	7090	8980	21000	47000	65600	17600	12000	76400	7080	5970	2770
MIN	1190	1950	2020	3100	5600	11400	6550	3690	5190	4460	2140	1550
CFSM	.27	.31	.41	.66	2.39	2.56	1.09	.66	1.80	.56	.37	.20
IN.	.31	.34	.48	.77	2.48	2.95	1.22	.76	2.01	.65	.42	.22

CAL YR 1981 TOTAL 2004490 MEAN 5492 MAX 40400 MIN 1180 CFSM .57 IN 7.73
WTR YR 1982 TOTAL 3269750 MEAN 8958 MAX 76400 MIN 1190 CFSM .93 IN 12.60

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 33.5°C Aug. 24, 1964, July 19, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,350 mg/L Apr. 3, 1970; minimum daily mean, 1 mg/L on many days most years.
SEDIMENT LOADS: Maximum daily, 689,000 tons (625,000 tonnes) June 23, 1972; minimum daily, 2.0 tons (1.8 tonnes) on many days during 1964, 1966-69.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 29.0°C July 18; minimum daily, 0.0°C Jan. 16.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 648 mg/L June 15; minimum daily mean, 1 mg/L Oct. 24, 25, Nov. 11-22, 27-30.
SEDIMENT LOADS: Maximum daily, 143,000 tons (130,000 tonnes) June 15; minimum daily, 3.5 tons (3.2 tonnes) Oct. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
NOV											
20...	1300	2400	470	8.8	10.0	4	150	54	46	9.6	22
APR											
19...	1315	9160	265	8.9	15.0	<1	110	33	33	7.4	8.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV											
20...	23	.8	2.2	100	58	16	.1	.1	242	214	.33
APR											
19...	13	.3	1.5	80	35	8.5	<.1	1.5	160	143	.22

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV										
20...	1570	.88	.050	.15	150	130	18	20	10	7
APR										
19...	3960	1.1	.040	.12	170	140	31	20	10	7

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (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
MAR							
18...	1720	60200	692	112000	37	47	59
22...	0920	67400	313	57000	38	47	57
22...	1610	69500	392	73600	39	52	60

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
MAR						
18...	71	83	93	98	100	--
22...	66	74	88	96	99	100
22...	70	79	90	97	100	--

DATE	TRITIUM IN WATER MOLE-CULES (TU)	TRITIUM WATER MOLE-CULES COUNT ERROR (TU)	DATE	TRITIUM IN WATER MOLE-CULES (TU)	TRITIUM WATER MOLE-CULES COUNT ERROR (TU)
OCT			DEC		
01-16	34.7	1.9	01-17	10.0	.5
17-20	33.8	1.3	18-31	32.7	1.5
21-31	30.5	1.2	JAN		
NOV			01-07	32.7	1.5
01-07	30.5	1.2	08-16	33.7	1.5
10-29	33.3	1.5	FEB		
30-30	10.0	.5	04-22	29.7	1.4

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	12.0	3.0	2.0	---	4.0	9.0	14.0	22.0	22.0	26.0	23.0
2	17.0	11.0	6.0	1.0	---	4.0	10.0	17.0	22.0	23.0	24.0	25.0
3	13.0	12.0	4.0	1.5	---	4.0	10.0	15.0	23.0	23.0	24.0	25.0
4	15.0	11.0	5.0	2.0	---	3.0	10.0	16.0	20.0	22.0	25.0	22.0
5	15.0	11.0	4.0	2.0	1.0	5.0	9.0	16.0	19.0	22.0	26.0	20.0
6	17.0	12.0	4.0	2.0	1.0	5.0	7.0	16.0	19.0	22.0	26.0	21.0
7	14.0	9.0	4.0	3.0	1.0	4.0	6.0	19.0	17.0	23.0	25.0	22.0
8	13.0	11.0	5.0	2.0	2.0	3.0	5.0	18.0	17.0	24.0	26.0	22.0
9	11.0	9.0	4.0	2.0	1.0	3.0	6.0	19.0	18.0	24.0	25.0	21.0
10	12.0	9.0	2.0	2.0	1.0	3.0	6.0	17.0	19.0	25.0	25.0	21.0
11	14.0	8.0	2.0	2.0	1.0	4.0	8.0	17.0	19.0	25.0	24.0	22.0
12	12.0	8.0	3.0	1.0	1.0	6.0	8.0	18.0	19.0	25.0	23.0	22.0
13	12.0	7.0	3.0	1.0	2.0	7.0	8.0	19.0	18.0	25.0	22.0	22.0
14	12.0	7.0	2.0	1.0	2.0	8.0	9.0	20.0	19.0	25.0	23.0	23.0
15	12.0	7.0	2.0	1.0	4.0	7.0	10.0	23.0	18.0	26.0	24.0	23.0
16	15.0	8.0	2.0	.0	4.0	7.0	12.0	23.0	19.0	27.0	23.0	23.0
17	12.0	8.0	1.0	---	3.0	7.0	14.0	21.0	19.0	28.0	25.0	21.0
18	13.0	8.0	3.0	---	2.0	7.0	15.0	22.0	20.0	29.0	24.0	21.0
19	10.0	7.0	1.0	---	2.0	7.0	14.0	23.0	22.0	27.0	23.0	22.0
20	9.0	8.0	1.0	---	3.0	8.0	14.0	22.0	20.0	27.0	25.0	20.0
21	9.0	6.0	2.0	---	4.0	8.0	14.0	22.0	20.0	26.0	24.0	20.0
22	12.0	5.0	2.0	---	5.0	8.0	13.0	22.0	20.0	25.0	22.0	19.0
23	13.0	4.0	2.0	---	5.0	8.0	13.0	19.0	20.0	27.0	23.0	17.0
24	10.0	4.0	2.0	---	5.0	8.0	14.0	18.0	20.0	26.0	23.0	19.0
25	9.0	4.0	2.0	---	4.0	10.0	17.0	19.0	20.0	26.0	24.0	17.0
26	9.0	4.0	1.0	---	3.0	8.0	15.0	20.0	---	27.0	21.0	18.0
27	13.0	4.0	2.0	---	4.0	7.0	15.0	20.0	---	27.0	22.0	18.0
28	13.0	4.0	2.0	---	4.0	8.0	14.0	20.0	---	26.0	21.0	18.0
29	11.0	5.0	2.0	---	---	7.0	14.0	21.0	---	24.0	19.0	17.0
30	11.0	3.0	1.0	---	---	8.0	14.0	23.0	25.0	24.0	20.0	---
31	11.0	---	1.0	---	---	9.0	---	22.0	---	25.0	20.0	---

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3	11	23	440	2	11	9	114	15	230	16	648
2	3	12	16	240	8	55	9	113	20	460	10	375
3	4	15	14	174	9	73	10	136	40	1850	10	359
4	5	19	9	99	12	120	12	203	100	10000	11	374
5	8	30	8	79	11	122	35	1180	300	38000	12	392
6	6	22	6	55	12	134	87	4840	260	26000	11	339
7	5	19	5	43	9	92	84	4760	165	11200	9	277
8	5	18	3	27	12	114	47	2060	78	3920	10	332
9	6	22	3	27	15	135	26	948	41	1660	14	571
10	6	21	2	17	12	104	15	405	24	849	18	841
11	5	17	1	8.4	10	94	10	162	18	612	18	826
12	4	14	1	8.4	10	98	9	104	12	405	22	1020
13	3	10	1	8.0	10	92	9	97	11	333	52	3580
14	3	10	1	7.7	10	89	9	97	10	270	121	10700
15	5	17	1	7.4	10	89	9	100	9	218	121	9830
16	3	10	1	7.0	10	92	8	95	10	234	86	6010
17	3	9.6	1	6.8	9	81	60	616	38	1740	78	6610
18	3	10	1	6.5	11	99	40	464	210	19600	581	91300
19	4	14	1	6.2	10	88	30	364	285	30000	465	61300
20	3	9.9	1	6.5	10	81	20	259	150	14300	150	14300
21	2	6.8	1	6.2	10	70	15	182	97	9140	97	9660
22	2	6.9	1	5.9	9	57	10	116	125	13600	336	60600
23	2	6.7	2	12	8	52	10	108	112	11200	384	57400
24	1	3.5	2	11	9	79	10	103	75	6500	155	15000
25	1	3.7	2	11	12	133	10	94	64	5130	75	5530
26	2	8.0	2	11	22	533	9	83	45	3000	49	2920
27	3	17	1	5.5	19	425	9	80	29	1610	37	1900
28	13	132	1	5.4	32	623	9	75	20	929	24	1080
29	72	2800	1	5.3	23	413	8	69	---	---	18	700
30	75	3040	1	5.3	13	201	8	71	---	---	19	657
31	42	1090	---	---	10	136	8	80	---	---	19	595
TOTAL	---	7425.1	---	1352.5	---	4585	---	18178	---	212990	---	366026
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	17	505	14	454	35	665	12	163	18	224	8	45
2	17	477	11	318	46	862	10	129	18	195	8	42
3	16	432	11	288	38	742	15	192	20	220	9	50
4	25	817	10	238	33	656	17	241	21	226	9	48
5	50	2380	8	174	51	1420	21	302	22	213	11	59
6	42	1760	8	159	72	3230	22	408	22	207	13	69
7	34	1330	7	129	122	7740	17	288	21	197	9	47
8	25	925	8	139	80	4130	16	250	16	159	8	41
9	15	518	9	151	55	2200	25	368	33	459	11	52
10	11	362	10	177	38	1250	27	396	30	405	12	55
11	10	324	13	239	35	1020	30	422	33	532	12	60
12	11	359	11	179	40	1360	32	533	27	360	12	63
13	10	305	8	120	100	5750	30	546	24	294	10	50
14	9	260	9	125	505	87600	32	612	21	232	9	38
15	8	214	11	144	648	143000	30	491	22	222	10	42
16	8	199	13	161	210	23500	30	414	21	187	10	45
17	7	164	14	163	160	14300	17	208	17	147	11	53
18	7	167	13	148	155	12100	18	244	17	170	9	43
19	7	172	13	140	85	4930	19	237	17	175	6	26
20	8	194	13	138	61	2700	20	242	16	145	8	35
21	13	302	11	112	42	1500	25	320	13	117	9	40
22	11	238	11	110	31	946	26	378	11	85	9	39
23	11	222	13	136	26	687	29	458	9	65	9	43
24	12	226	14	162	22	506	29	413	8	56	6	27
25	12	212	18	217	17	353	26	389	10	72	6	25
26	13	237	24	389	15	285	34	599	11	75	7	33
27	14	281	24	410	13	224	30	409	9	54	9	62
28	17	415	25	437	11	175	37	504	10	60	7	51
29	22	719	24	465	11	163	26	313	10	59	10	75
30	22	784	42	1150	10	140	26	329	9	52	10	63
31	---	---	35	785	---	---	28	416	9	52	---	---
TOTAL	---	15500	---	8157	---	324134	---	11214	---	5716	---	1421

TOTAL LOAD FOR YEAR: 976698.6 TONS.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, Hydrologic Unit 02070009, on right bank 60 ft (18 m) downstream from bridge on State Highway 97 at Bridgeport, 0.9 mi (1.4 km) upstream from Cattail Branch, 3.4 mi (5.5 km) northwest of Taneytown, 4.8 mi (7.7 km) downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 mi (83.7 km) upstream from mouth.

DRAINAGE AREA.--173 mi^2 (448 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1382: 1944(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft (103.885 m) Corps of Engineers datum. Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi (0.5 km) downstream at datum 0.98 ft (0.299 m) lower.

REMARKS.--Water-discharge records good. Occasional regulation at low flow from unknown source above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 201 ft^3/s (5.692 m^3/s), 15.78 in/yr (401 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft^3/s (603 m^3/s) June 22, 1972, gage height, 24.05 ft (7.330 m), from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of slope-conveyance study; no flow July 24-29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft (7.6 m) present site and datum, from floodmarks, discharge, about 23,000 ft^3/s (651 m^3/s). Stage exceeded that of June 1889, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,800 ft^3/s (130 m^3/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)
Jan. 1	1330	5750	163	11.08	3.377	June 13	1830	*6330	179	11.64	3.548

Minimum discharge, 3.9 ft^3/s (0.110 m^3/s) Oct. 18, Sept. 17, 18, 19, 20, gage height, 1.83 ft (0.558 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	40	32	474	90	277	119	140	49	54	22	13
2	5.3	32	133	512	395	312	92	122	78	43	22	16
3	5.1	32	112	198	1230	226	813	106	57	41	17	25
4	6.2	33	74	2730	2670	224	1420	94	75	93	16	22
5	7.2	35	56	783	1550	187	312	83	348	61	19	14
6	7.5	64	44	313	586	302	845	75	707	45	38	9.0
7	7.5	106	37	248	354	713	558	70	234	37	21	6.8
8	7.8	62	35	189	214	751	325	72	150	32	17	5.6
9	7.0	48	32	129	163	482	321	82	111	30	15	5.3
10	6.2	43	25	78	137	440	398	66	98	37	15	5.2
11	6.4	40	26	81	115	307	489	56	203	28	14	5.4
12	6.1	36	25	53	97	1190	265	48	133	26	13	5.7
13	5.6	34	20	52	92	635	215	44	2840	25	26	5.7
14	5.2	32	21	58	82	481	191	40	1310	22	18	5.4
15	5.0	31	33	63	102	311	159	35	395	20	14	5.2
16	5.2	30	56	60	604	341	142	32	254	19	13	5.0
17	4.7	29	53	52	1810	1200	136	30	1960	19	11	4.3
18	4.1	29	50	47	486	449	242	28	581	21	9.5	4.1
19	4.6	29	35	48	356	329	153	27	286	17	8.5	4.0
20	5.5	30	38	50	390	276	123	31	199	16	7.8	4.4
21	6.4	31	29	52	1000	249	114	32	152	19	7.8	4.9
22	6.2	32	29	51	1430	228	101	27	126	16	8.0	9.8
23	7.5	29	73	47	1320	182	90	33	106	14	8.5	16
24	17	29	413	55	1050	158	82	55	89	12	9.8	21
25	18	31	216	57	490	143	78	48	77	12	9.4	14
26	15	31	137	54	330	140	237	39	69	12	8.9	10
27	358	31	121	47	258	123	539	33	63	11	9.1	59
28	548	32	100	44	218	103	683	35	60	14	9.3	82
29	137	31	90	39	---	96	240	144	60	46	8.1	27
30	76	29	80	31	---	92	167	79	58	23	8.3	17
31	54	---	78	36	---	94	---	58	---	18	12	---
TOTAL	1360.6	1121	2303	6731	17619	11041	9649	1864	10928	883	436.0	431.8
MEAN	43.9	37.4	74.3	217	629	356	322	60.1	364	28.5	14.1	14.4
MAX	548	106	413	2730	2670	1200	1420	144	2840	93	38	82
MIN	4.1	29	20	31	82	92	78	27	49	11	7.8	4.0
CFSM	.25	.22	.43	1.25	3.64	2.06	1.86	.35	2.10	.17	.08	.08
IN.	.29	.24	.50	1.45	3.79	2.37	2.07	.40	2.35	.19	.09	.09

CAL YR 1981 TOTAL 42941.5 MEAN 118 MAX 3080 MIN 1.5 CFSM .68 IN 9.23
WTR YR 1982 TOTAL 64367.4 MEAN 176 MAX 2840 MIN 4.0 CFSM 1.02 IN 13.84

01639000 MONOCACY RIVER AT BRIDGEPORT, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-51, 1969-72, 1974-79, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
03...	0945	249	184	8.4	1.9	22	11.6	66	29	17	5.7	6.3
AUG												
10...	1200	16	262	8.2	26.1	15	8.2	86	14	24	6.4	15

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
03...	16	.4	2.8	37	23	10	<.1	7.7	124	95	.17	83.4
AUG												
10...	26	.8	4.0	72	22	21	.1	6.1	142	142	.19	6.1

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
03...	2.5	.77	3.3	14	.140	.43	.110	--	--	--	--	300
AUG												
10...	<.10	--	--	--	.300	.92	.250	<1	<1	7	3	260

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
03...	240	56	--	--	20	5	15	--	--	--	3.5
AUG											
10...	220	37	7200	10	100	80	22	380	<.01	23	4.7

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, Hydrologic Unit 02070009, on left bank 300 ft (91 m) downstream from bridge on State Highway 194, 800 ft (240 m) downstream from Bruceville, 3.5 mi (5.6 km) upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi^2 (264 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 340 ft (104 m), from topographic map.

REMARKS.--Water-discharge records good except those for January, which are fair. Occasional diversion for irrigation above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 111 ft^3/s (3.144 m^3/s), 14.78 in/yr (375 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s (793 m^3/s) Sept. 26, 1975, gage height, 18.98 ft (5.785 m), from rating curve extended above 3,900 ft^3/s (110 m^3/s) on the basis of contracted-opening measurement at gage height 17.86 ft (5.444 m); minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45 m^3/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)
Feb. 3	1430	*3130	88.6	8.05	2.454	June 13	1430	1980	56.1	5.86	1.786

Minimum discharge, 7.0 ft^3/s (0.20 m^3/s) Sept. 14, 18, 19, gage height, 0.75 ft (0.229 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	33	28	101	520	105	93	116	162	65	40	17
2	76	33	72	108	265	102	69	107	160	56	32	22
3	38	30	45	68	1700	100	162	97	65	57	96	51
4	29	30	36	572	854	90	202	90	80	79	38	29
5	27	28	33	219	267	91	112	83	162	59	34	21
6	27	41	31	120	179	88	322	79	159	55	32	20
7	27	41	29	103	133	212	182	76	132	50	31	20
8	27	32	30	82	132	213	142	74	87	47	28	18
9	23	29	30	70	111	151	154	79	72	45	31	20
10	25	29	30	50	98	127	157	67	75	42	31	21
11	24	29	30	46	96	125	127	61	80	39	28	19
12	24	28	27	45	88	172	111	59	72	41	31	18
13	24	27	35	45	77	137	106	57	969	37	30	18
14	23	27	57	60	79	123	102	54	370	34	26	16
15	24	27	66	58	106	105	91	51	175	40	25	15
16	22	26	60	52	184	147	87	49	135	38	23	18
17	23	26	55	50	244	265	90	48	467	35	21	15
18	24	26	46	50	160	156	154	45	172	33	27	14
19	25	25	40	50	150	136	95	44	131	74	29	14
20	26	28	34	52	245	133	86	48	110	130	21	17
21	24	32	32	52	377	123	83	44	98	68	24	22
22	24	27	36	58	371	110	75	45	88	41	21	45
23	25	26	111	54	301	99	71	51	84	37	22	61
24	44	25	170	64	247	93	69	57	74	37	24	31
25	33	27	86	60	174	89	67	52	69	34	25	26
26	33	27	100	56	135	90	230	49	67	32	19	24
27	125	27	57	54	120	79	234	45	65	31	20	57
28	120	26	56	52	110	70	267	49	68	36	18	42
29	52	25	51	50	---	71	152	78	86	34	20	29
30	40	24	46	48	---	69	129	56	67	30	16	27
31	35	---	49	80	---	79	---	57	---	31	17	---
TOTAL	1119	861	1608	2629	7523	3750	4021	1967	4601	1467	880	767
MEAN	36.1	28.7	51.9	84.8	269	121	134	63.5	153	47.3	28.4	25.6
MAX	125	41	170	572	1700	265	322	116	969	130	96	61
MIN	22	24	27	45	77	69	67	44	65	30	16	14
CFSM	.35	.28	.51	.83	2.64	1.19	1.31	.62	1.50	.46	.28	.25
IN.	.41	.31	.59	.96	2.74	1.37	1.47	.72	1.68	.54	.32	.28

CAL YR 1981 TOTAL 26940 MEAN 73.8 MAX 860 MIN 20 CFSM .72 IN 9.83
WTR YR 1982 TOTAL 31193 MEAN 85.5 MAX 1700 MIN 14 CFSM .84 IN 11.38

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
02...	1515	100	173	8.2	3.4	7	12.4	68	34	19
JUL										
19...	1330	31	193	8.3	28.7	8	8.6	83	22	25

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
02...	4.9	5.2	14	.3	1.9	34	14	10	<.1	5.8
JUL										
19...	4.9	4.7	11	.2	2.0	61	8.0	8.7	.1	4.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
02...	120	81	.16	32.4	3.9	.28	4.2	19	.030
JUL									
19...	125	95	.17	10.5	2.2	.30	2.5	11	.060

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
02...	.09	.020	200	160	42	40	8	32	1.4
JUL									
19...	.18	.030	220	210	15	20	7	13	2.1

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 19...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
JUL 19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 19...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

01640500 OWENS CREEK AT LANTZ, MD

LOCATION.--Lat 39°40'36", long 77°27'50", Frederick County, Hydrologic Unit 02070009, on right bank 0.5 mi (0.8 km) west of Lantz Post Office (Deerfield station on Western Maryland Railway), 1.5 mi (2.4 km) south of Sabillasville, 4.5 mi (7.2 km) northwest of Thurmont, and 14.2 mi (22.8 km) upstream from mouth.

DRAINAGE AREA.--5.93 mi^2 (15.36 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WSP 921: 1932(m). WSP 1202: 1935(M). WSP 1382: Drainage area. WSP 1432: 1937(M), 1943(M), 1949(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 965 ft (294 m), from topographic map.

REMARKS.--Water-discharge records good. Small diversions above station prior to 1959 water year by Victor Cullen State Hospital. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 9.31 ft^3/s (0.264 m^3/s), 21.32 in/yr (542 mm/yr), adjusted for diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,270 ft^3/s (92.6 m^3/s) Dec. 1, 1934, gage height, 8.4 ft (2.56 m), from rating curve extended above 750 ft^3/s (21.2 m^3/s) on basis of slope-area measurements at gage heights 5.11 ft (1.558 m) and 6.30 ft (1.920 m); no flow Sept. 2-11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft^3/s (3.4 m^3/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)
Apr. 3	1630	165	4.67	3.09	0.942	June 16	2245	*167	4.73	3.10	0.945
June 13	1100	158	4.47	3.06	0.933						

Minimum discharge, 0.43 ft^3/s (0.012 m^3/s) Sept. 19, gage height, 0.93 ft (0.283 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.8	2.7	8.7	19	10	10	13	4.7	6.1	2.6	.74
2	1.8	2.6	6.1	6.4	7.3	9.9	9.0	12	4.8	5.5	2.1	.96
3	1.1	2.5	3.9	5.3	17	9.4	40	11	5.3	7.5	1.8	.67
4	1.0	2.4	3.1	35	19	8.8	27	10	6.1	6.7	1.9	.56
5	.97	2.3	2.9	19	12	9.6	19	9.6	23	5.6	2.6	.56
6	1.7	7.4	2.7	14	10	9.3	23	9.1	13	5.1	1.9	.56
7	1.4	3.5	2.9	13	13	14	19	8.6	8.6	4.8	1.8	.53
8	1.0	2.9	2.9	11	9.0	11	18	9.0	7.3	4.7	1.8	.64
9	1.0	2.7	2.5	9.0	8.0	10	18	8.0	6.5	4.8	1.8	.81
10	1.0	2.6	2.1	8.0	8.0	9.7	19	7.4	7.2	4.3	1.5	.74
11	1.0	2.4	2.0	7.0	8.4	16	19	6.9	7.0	4.3	1.5	.64
12	1.1	1.9	2.2	6.4	7.8	46	17	6.6	8.1	4.4	2.1	.56
13	1.0	2.2	2.0	6.0	6.2	37	17	6.3	63	3.7	1.5	.51
14	1.0	2.3	2.2	5.8	6.2	32	15	6.0	27	3.7	1.3	.51
15	.99	2.2	3.1	5.7	7.3	26	14	5.7	18	3.8	1.2	.56
16	.95	2.2	2.8	5.4	15	30	13	5.5	27	3.5	1.1	.64
17	.99	2.2	2.6	4.6	22	35	16	6.7	39	3.2	1.4	.49
18	1.2	2.1	2.4	4.6	15	27	17	7.5	28	2.9	1.5	.45
19	1.7	2.0	2.3	4.6	14	24	13	5.8	20	2.8	1.1	.45
20	1.1	2.5	2.2	4.5	13	23	13	5.5	16	4.1	1.0	.74
21	1.1	2.5	2.1	4.6	15	20	12	5.2	14	3.3	1.1	.70
22	1.1	2.2	2.4	4.4	13	18	11	5.4	12	2.6	.96	1.5
23	1.8	2.0	6.9	4.6	14	16	10	6.8	11	2.6	1.0	.84
24	2.0	1.6	6.2	4.5	15	15	9.9	6.8	9.4	2.5	1.2	.64
25	1.4	2.0	4.6	4.1	13	14	9.4	5.9	8.4	2.2	.96	.61
26	5.7	2.0	3.9	3.9	12	14	19	5.3	8.0	2.0	.77	.74
27	25	2.6	3.8	3.9	11	12	17	4.9	7.6	4.9	.77	12
28	9.2	2.4	3.7	3.9	10	10	17	5.6	7.2	4.6	.88	1.5
29	4.2	2.1	3.7	3.9	---	10	14	6.1	7.0	3.1	.67	1.1
30	3.4	2.0	3.4	3.9	---	9.8	13	6.1	6.9	2.7	.67	.81
31	3.0	---	3.2	5.6	---	11	---	5.4	---	2.8	.74	---
TOTAL	81.00	75.1	99.5	231.3	340.2	547.5	488.3	223.7	431.1	124.8	43.22	32.76
MEAN	2.61	2.50	3.21	7.46	12.2	17.7	16.3	7.22	14.4	4.03	1.39	1.09
MAX	25	7.4	6.9	35	22	46	40	13	63	7.5	2.6	12
MIN	.95	1.6	2.0	3.9	6.2	8.8	9.0	4.9	4.7	2.0	.67	.45
CFSM	.44	.42	.54	1.26	2.06	2.99	2.75	1.22	2.43	.68	.23	.18
IN.	.51	.47	.62	1.45	2.13	3.43	3.06	1.40	2.70	.78	.27	.21

CAL YR 1981 TOTAL 2526.02 MEAN 6.92 MAX 213 MIN .60 CFSM 1.17 IN 15.84
WTR YR 1982 TOTAL 2718.48 MEAN 7.45 MAX 63 MIN .45 CFSM 1.26 IN 17.05

01640500 OWENS CREEK AT LANTZ, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB										
05...	0915	13	104	7.5	1.0	5	13.4	38	11	9.2
AUG										
10...	1410	1.5	104	8.0	23.2	3	8.3	43	5.0	11

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB										
05...	3.7	5.3	23	.4	.7	27	10	10	.0	12
AUG										
10...	3.7	3.9	16	.3	.8	38	5.0	5.8	<.1	19

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB									
05...	83	80	.11	2.9	1.5	1.30	2.8	12	.030
AUG									
10...	72	72	.10	.29	.52	--	--	--	.030

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
05...	.09	--	120	100	21	10	8	2	1.3
AUG									
10...	.09	.010	140	120	17	10	6	4	1.3

01641000 HUNTING CREEK AT JIMTOWN, MD

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, Hydrologic Unit 02070009, on right bank just downstream from highway bridge, 0.4 mi (0.6 km) southwest of Jimtown, about 2.2 mi (3.5 km) southeast of Thurmont, 2.2 mi (3.5 km) upstream from Little Hunting Creek, and 5.2 mi (8.4 km) upstream from mouth.

DRAINAGE AREA.--18.4 mi^2 (47.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1332: 1952.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 355 ft (108 m), from topographic map.

REMARKS.--Water-discharge records good except those for January, which are fair. Slight regulation at irregular intervals caused by pumpage at recreation camp near Foxville, and from occasional draining and refilling of pond near Thurmont by Maryland Game and Inland Fish Commission. Regulation since spring of 1970 at low flow by Hunting Creek Lake, 5.6 miles (9.0 km) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 26.5 ft^3/s (0.750 m^3/s), 19.56 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft^3/s (75.6 m^3/s) Oct. 9,, 1976, gage height, 6.32 ft (1.926 m); minimum discharge, 0.4 ft^3/s (0.011 m^3/s) Sept. 9, 1966, gage height, 1.48 ft (0.451 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 899 ft^3/s (25.5 m^3/s) June 13, gage height, 4.14 ft (1.262 m), no other peak above base of 350 ft^3/s (9.9 m^3/s); minimum discharge, 3.7 ft^3/s (0.10 m^3/s) Oct. 5, 6, Aug. 15, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	9.2	12	31	25	39	33	47	17	18	7.6	4.7
2	7.1	8.5	12	19	20	39	32	42	15	16	6.5	5.7
3	4.3	8.2	8.7	16	59	38	77	39	17	19	5.9	5.5
4	4.4	7.9	7.9	96	51	36	63	36	22	20	5.8	4.8
5	4.0	8.1	7.6	36	40	36	55	33	104	17	8.2	4.8
6	4.7	12	7.2	29	34	35	94	30	77	15	6.7	4.8
7	5.0	9.0	9.1	26	29	59	64	29	48	13	5.8	4.8
8	4.9	8.4	14	23	27	47	59	30	36	12	5.3	4.8
9	4.9	8.2	13	21	26	40	61	28	31	12	5.3	4.8
10	5.1	8.1	13	19	25	37	61	26	33	11	5.2	4.8
11	5.1	8.2	13	16	23	37	57	24	32	10	4.8	4.8
12	5.4	7.5	13	16	22	47	52	21	33	11	5.2	4.7
13	6.1	7.2	12	16	22	50	50	19	394	9.6	4.7	4.2
14	5.4	7.2	13	16	21	59	45	19	167	8.6	4.2	4.2
15	5.7	7.3	16	15	25	59	44	18	92	8.6	3.8	4.2
16	5.9	7.2	15	15	41	73	42	14	76	8.4	3.7	4.2
17	6.1	7.2	13	14	57	96	48	14	108	7.9	4.7	4.2
18	7.1	6.8	12	14	47	73	47	14	85	7.6	5.6	4.2
19	7.3	6.9	11	14	47	65	40	14	61	8.7	4.8	4.2
20	7.2	7.8	12	13	56	65	39	14	51	9.7	4.8	6.2
21	7.2	7.0	13	13	84	63	37	13	43	8.9	4.8	5.4
22	6.6	6.7	13	13	75	55	36	13	38	7.7	4.8	7.5
23	8.6	6.5	22	13	67	49	32	14	33	7.2	4.8	6.0
24	7.9	6.8	18	13	66	45	29	14	29	6.4	4.8	5.4
25	7.2	7.1	15	12	56	42	28	14	27	5.8	4.8	5.3
26	15	7.0	13	12	48	42	69	11	25	5.2	4.3	5.7
27	62	7.1	13	12	44	37	59	11	23	18	4.2	25
28	19	6.6	13	12	41	36	65	26	22	23	4.2	5.9
29	11	6.5	12	13	---	35	57	22	20	14	4.2	5.3
30	9.6	6.4	11	13	---	33	52	24	19	10	4.2	4.8
31	8.9	---	11	13	---	36	---	22	---	9.1	4.2	---
TOTAL	275.8	228.6	388.5	604	1178	1503	1527	695	1778	358.4	157.9	170.9
MEAN	8.90	7.62	12.5	19.5	42.1	48.5	50.9	22.4	59.3	11.6	5.09	5.70
MAX	62	12	22	96	84	96	94	47	394	23	8.2	25
MIN	4.0	6.4	7.2	12	20	33	28	11	15	5.2	3.7	4.2
CFSM	.48	.41	.68	1.06	2.29	2.64	2.77	1.22	3.22	.63	.28	.31
IN.	.56	.46	.79	1.22	2.38	3.04	3.09	1.41	3.59	.72	.32	.35

CAL YR 1981 TOTAL 7032.2 MEAN 19.3 MAX 640 MIN 2.2 CFSM 1.05 IN 14.22
WTR YR 1982 TOTAL 8865.1 MEAN 24.3 MAX 394 MIN 3.7 CFSM 1.32 IN 17.92

01641000 HUNTING CREEK AT JIMTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR											
08...	1045	42	135	8.8	2.4	6	13.3	42	16	12	2.8
AUG											
13...	0830	4.8	301	7.6	16.9	7	7.2	84	23	25	5.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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)
MAR											
08...	15	43	1.1	1.2	26	12	25	<.1	7.8	103	92
AUG											
13...	24	38	1.2	2.0	61	9.0	44	<.1	10	167	156

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR											
08...	.14	11.7	.96	.090	.28	--	--	--	--	--	210
AUG											
13...	.23	2.2	2.0	.520	1.6	.530	<1	<1	3	8	220

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
08...	160	54	--	--	30	10	18	--	--	--	2.6
AUG											
13...	140	85	1800	10	30	10	18	260	<.01	37	3.1

01641500 FISHING CREEK NEAR LEWISTOWN, MD

LOCATION.--Lat 39°31'35", long 77°28'00", Frederick County, Hydrologic Unit 02070009, on left bank immediately upstream from Fishing Creek Reservoir, 50 ft (15 m) downstream from Little Fishing Creek, 2.8 mi (4.5 km) west of Lewistown, and 9.9 mi (15.9 km) upstream from mouth.

DRAINAGE AREA.--7.29 mi^2 (18.88 km^2).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1432: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 735 ft (224 m), from topographic map.

REMARKS.--Water-discharge records good except those above 60 ft^3/s (1.7 m^3/s), which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 11.6 ft^3/s (0.329 m^3/s), 21.61 in/yr (549 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft^3/s (62.3 m^3/s) Oct. 9, 1976, gage height, 5.75 ft (1.753 m), from rating curve extended above 100 ft^3/s (2.83 m^3/s) on basis of slope-area measurement at gage height 3.73 ft (1.137 m), and computation of flow over dam at gage height, 5.75 ft (1.753 m); minimum discharge, 0.6 ft^3/s (0.017 m^3/s) Sept. 10, 11, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110 ft^3/s (3.12 m^3/s) June 13, gage height, 2.37 ft (0.722 m), no other peak above base of 100 ft^3/s (2.8 m^3/s); minimum discharge, 1.5 ft^3/s (0.042 m^3/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.2	2.5	5.5	10	18	17	27	6.8	10	3.9	2.5
2	2.3	2.1	3.7	4.9	6.9	18	14	25	6.7	9.3	4.0	3.3
3	1.8	2.0	2.9	4.6	13	16	24	24	7.2	12	3.9	2.4
4	1.8	2.0	2.5	20	18	17	24	22	8.3	11	3.8	2.2
5	1.7	2.0	2.4	18	16	16	22	20	22	9.2	4.5	2.2
6	1.8	2.7	2.3	16	16	16	28	19	14	8.5	3.7	2.1
7	1.8	2.2	2.3	15	16	19	24	18	11	7.8	3.6	2.1
8	1.7	2.2	2.3	13	15	17	24	18	11	7.4	3.5	2.2
9	1.7	2.2	2.3	12	15	15	25	17	10	7.2	3.7	2.2
10	1.7	2.2	2.3	10	13	15	25	15	11	7.0	3.4	2.1
11	1.7	2.2	2.3	9.5	12	16	24	14	12	6.9	3.2	2.0
12	1.7	2.2	2.3	9.2	11	24	23	13	11	6.9	3.4	1.9
13	1.7	2.2	2.3	8.9	11	27	22	13	61	6.1	3.0	1.8
14	1.7	2.2	2.4	8.8	10	29	21	12	56	5.9	3.0	1.9
15	1.7	2.2	2.9	8.4	10	29	21	11	44	5.8	2.9	2.0
16	1.7	2.2	2.9	8.0	13	31	20	11	38	5.6	2.9	2.0
17	1.7	2.1	2.7	6.9	18	34	21	11	38	5.4	3.3	1.8
18	1.9	2.0	2.6	7.5	18	31	23	11	30	5.1	3.5	1.7
19	2.2	2.0	2.5	6.8	18	31	19	10	26	4.9	2.9	1.8
20	2.0	2.1	2.3	6.5	19	30	19	9.8	23	5.3	2.9	2.4
21	2.0	2.2	2.3	6.5	22	30	19	9.1	21	5.0	2.8	2.1
22	2.0	2.2	2.4	6.2	22	27	18	9.1	19	4.6	2.8	2.7
23	2.2	2.2	3.5	6.6	22	24	17	10	17	4.6	2.8	2.2
24	2.5	2.2	3.8	6.6	21	22	17	9.6	15	4.5	2.8	2.0
25	2.2	2.2	3.3	6.1	21	22	16	9.0	14	4.3	2.6	2.0
26	3.2	2.2	3.1	5.8	20	21	28	8.4	13	4.1	2.4	2.1
27	11	2.2	3.1	5.8	19	19	27	7.9	12	6.5	2.5	11
28	4.1	2.2	3.1	5.8	19	18	30	10	12	7.6	2.4	2.0
29	2.5	2.2	3.1	5.5	---	16	30	11	12	4.9	2.2	1.7
30	2.2	2.2	3.1	5.4	---	16	29	7.8	11	4.6	2.2	1.5
31	2.2	---	3.0	6.1	---	17	---	7.0	---	4.5	2.2	---
TOTAL	72.1	65.2	84.5	265.9	444.9	681	671	419.7	593.0	202.5	96.7	71.9
MEAN	2.33	2.17	2.73	8.58	15.9	22.0	22.4	13.5	19.8	6.53	3.12	2.40
MAX	11	2.7	3.8	20	22	34	30	27	61	12	4.5	11
MIN	1.7	2.0	2.3	4.6	6.9	15	14	7.0	6.7	4.1	2.2	1.5
CFSM	.32	.30	.37	1.18	2.18	3.02	3.07	1.85	2.72	.90	.43	.33
IN.	.37	.33	.43	1.36	2.27	3.47	3.42	2.14	3.03	1.03	.49	.37

CAL YR 1981 TOTAL 2577.95 MEAN 7.06 MAX 74 MIN .80 CFSM .97 IN 13.15
WTR YR 1982 TOTAL 3668.40 MEAN 10.1 MAX 61 MIN 1.5 CFSM 1.39 IN 18.72

01641500 FISHING CREEK NEAR LEWISTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB										
04...	1500	17	25	6.4	3.4	<1	12.7	7	5.0	1.8
AUG										
11...	1700	2.7	19	7.6	16.9	3	8.9	7	2.0	1.7

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB										
04...	.7	.7	16	.1	.7	2.0	5.7	1.6	.0	3.9
AUG										
11...	.6	.7	18	.1	.3	5.0	2.0	.9	<.1	5.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB									
04...	24	16	.03	1.1	.14	.99	1.1	5.0	<.010
AUG									
11...	20	15	.03	.15	<.10	--	--	--	.010

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
04...	--	.010	50	30	16	10	4	6	1.5
AUG									
11...	.03	<.010	140	120	18	20	10	7	1.1

01641810 MONOCACY RIVER NEAR WALKERSVILLE, MD

LOCATION.--Lat 39°28'47", long 77°23'18", Frederick County, Hydrologic Unit 02070009, at Biggs Ford Bridge on Biggs Ford Road, 2.0 mi (3.2 km) west of Walkersville, 4.7 mi (7.6 km) north of Frederick, 9.3 mi (15.0 km) upstream from Linganore Creek, and 26.5 mi (42.6 km) upstream from mouth.

DRAINAGE AREA.--637 mi² (1,650 km²), approximately.

PERIOD OF RECORD.--Water years 1974-79, 1982.

REMARKS.--Records of discharge are based on records for station 01643000 Monocacy River at Jug Bridge near Frederick, adjusted on the basis of the drainage area ratio.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 19...	1215	124	265	8.8	22.7	12	9.0	110	22	34	6.6	9.4

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 19...	15	.4	2.4	90	14	14	.1	3.4	153	138	.21	51.2

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 19...	1.3	.130	.40	.110	510	490	16	70	70	2	3.3

DATE	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)	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)	DBT, 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)
AUG 19...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 19...	<.1	<.1	<1.00	<10	<.1	<.1	<1.0	<1.0	<1.0

01642500 LINGANORE CREEK NEAR FREDERICK, MD

LOCATION.--Lat 39°24'55", long 77°20'00", Frederick County, Hydrologic Unit 02070009, on left bank 2.4 mi (3.9 km) upstream from mouth and 4.0 mi (6.4 km) east of Frederick.

DRAINAGE AREA.--82.3 mi^2 (213.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1931 to March 1932. Annual maximums, water years 1933-34. September 1934 to September 1982 (discontinued).

REVISED RECORDS.--WSP 891: 1938-39. WSP 1432: 1934, 1936, 1937(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 23, 1946. Altitude of gage is 270 ft (82 m), from topographic map. Prior to Mar. 27, 1932, nonrecording gage at Frederick pumping station, 1.5 mi (2.4 km) downstream at datum about 20 ft (6.1 m) lower. Sept. 12, 1934, to Sept. 25, 1946, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. Occasional regulation by Linganore Reservoir 0.5 mi (0.8 km) upstream beginning September 1972, total capacity, 883,200,000 gal (3.343 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 85.6 ft^3/s (2.424 m^3/s), 14.12 in/yr (359 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft^3/s (569 m^3/s) June 22, 1972, gage height, 19.46 ft (5.931 m), from high-water mark in well, from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement at gage height 10.01 ft (3.051 m) and contracted-opening measurement at gage height 19.46 ft (5.931 m) at site 2.6 mi (4.2 km) upstream, adjusted for flow from intervening area; minimum discharge, 1.4 ft^3/s (0.040 m^3/s) Nov. 24, 1972, gage height, 1.10 ft (0.335 m), result of regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (39 m^3/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)
Feb. 3	1745	2730	77.3	8.66	2.640	June 13	Unknown	*Unknown		Unknown	

Minimum discharge, 13 ft^3/s (0.37 m^3/s) Sept. 18

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	22	21	50	361	70	61	90	59	60	36	16
2	25	21	36	57	139	65	52	81	126	55	34	20
3	20	21	29	40	1250	65	68	74	64	55	33	52
4	15	19	23	180	443	62	80	68	109	75	32	28
5	15	19	21	113	240	62	61	62	187	55	41	20
6	16	23	20	64	120	59	104	59	189	50	33	18
7	16	21	19	52	95	94	98	57	116	48	30	17
8	14	19	20	44	90	123	79	57	83	46	29	17
9	13	18	19	35	80	90	84	58	69	45	32	18
10	14	18	16	25	70	78	87	51	84	44	31	18
11	14	18	17	23	65	76	75	47	106	41	28	18
12	14	18	17	20	60	87	69	46	76	42	31	17
13	14	17	16	25	55	79	66	45	900	39	28	15
14	14	17	20	27	55	73	63	42	400	36	26	15
15	14	18	46	28	70	65	58	40	160	37	24	15
16	14	18	46	27	120	74	55	39	140	36	22	15
17	14	18	33	24	160	144	60	37	450	35	21	14
18	14	17	30	22	110	106	97	39	200	33	33	13
19	15	17	22	23	100	91	71	37	130	35	26	13
20	14	19	21	24	150	99	63	37	110	49	21	21
21	14	20	20	27	240	95	60	39	100	43	31	25
22	14	17	22	26	230	83	54	47	90	34	27	48
23	17	17	41	31	200	75	50	51	80	49	23	50
24	27	17	70	28	150	71	49	50	75	39	25	29
25	22	18	44	26	120	68	48	44	70	32	23	23
26	27	17	34	25	90	67	128	41	65	30	20	22
27	73	17	32	23	80	60	176	39	65	66	18	62
28	84	17	31	22	75	55	188	44	70	175	19	42
29	40	17	28	23	---	54	126	84	85	53	17	29
30	28	16	25	23	---	53	104	51	65	40	16	25
31	24	---	23	29	---	57	---	46	---	39	16	---
TOTAL	673	551	862	1186	5018	2400	2434	1602	4523	1516	826	735
MEAN	21.7	18.4	27.8	38.3	179	77.4	81.1	51.7	151	48.9	26.6	24.5
MAX	84	23	70	180	1250	144	188	90	900	175	41	62
MIN	13	16	16	20	55	53	48	37	59	30	16	13
CFSM	.26	.22	.34	.47	2.18	.94	.99	.63	1.84	.59	.32	.30
IN.	.30	.25	.39	.54	2.27	1.08	1.10	.72	2.04	.69	.37	.33

CAL YR 1981 TOTAL 15984 MEAN 43.8 MAX 320 MIN 12 CFSM .53 IN 7.22
WTR YR 1982 TOTAL 22326 MEAN 61.2 MAX 1250 MIN 13 CFSM .74 IN 10.09

01642500 LINGANORE CREEK NEAR FREDERICK, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
FEB										
02...	1400	112	172	7.5	2.0	5	15.4	73	18	21
AUG										
11...	1430	28	185	8.5	23.0	8	7.7	77	11	22

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
FEB										
02...	5.1	4.9	12	.3	3.4	55	11	10	.1	5.8
AUG										
11...	5.3	4.0	10	.2	4.6	66	9.0	9.5	.1	5.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB									
02...	118	95	.16	35.7	2.4	1.30	3.7	16	.080
AUG									
11...	121	101	.16	9.2	1.5	--	--	--	.090

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
FEB									
02...	.25	.060	550	480	74	130	50	77	2.9
AUG									
11...	.28	<.010	960	910	51	700	200	500	4.9

01642500 LINGANORE CREEK NEAR FREDERICK, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 11...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 11...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 11...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, Hydrologic Unit 02070009, on right bank 0.2 mi (0.3 km) upstream from Jug Bridge on U.S. Highway 40, 0.4 mi (0.6 km) downstream from Linganore Creek, 2.0 mi (3.2 km) east of Frederick, and 16.9 mi (27.2 km) upstream from mouth.

DRAINAGE AREA.--817 mi^2 (2,116 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile (0.3 km) downstream. Datum of gage is 231.92 ft (70.689 m) Corps of Engineers datum.

REMARKS.--Records good. Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--53 years, 923 ft^3/s (26.14 m^3/s), 15.34 in/yr (390 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft^3/s (2,310 m^3/s) June 23, 1972, gage height, 35.9 ft (10.94 m), from floodmark; minimum daily, 19 ft^3/s (0.54 m^3/s) Sept. 7-13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft (9.1 m), from floodmarks, discharge, 56,000 ft^3/s (1,590 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,800 ft^3/s (250 m^3/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)
Jan. 5	0030	9290	263	10.66	3.249	June 14	0430	*14600	413	13.81	4.209
Feb. 4	0630	12800	362	12.80	3.901						

Minimum discharge, 96 ft^3/s (2.72 m^3/s) Sept. 19, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	252	174	525	1110	1040	708	962	448	450	226	111
2	140	223	247	1570	1930	1080	629	860	909	409	221	129
3	169	205	434	805	4260	1010	754	775	573	456	219	197
4	138	191	336	3730	8720	904	4130	704	587	557	264	187
5	118	185	264	4820	3790	842	1520	640	1200	511	228	150
6	120	215	228	1410	1920	898	2240	592	2880	409	229	140
7	118	278	202	1010	1250	1170	2860	558	1360	362	233	124
8	112	304	197	835	1000	2990	1490	550	926	335	203	119
9	113	234	195	622	954	1680	1360	562	706	319	194	117
10	109	204	183	500	798	1410	1550	521	671	308	189	116
11	108	192	169	531	669	1150	1660	458	864	301	185	117
12	108	185	170	685	613	2130	1270	423	770	301	186	114
13	107	178	155	580	593	2310	1070	399	5530	277	178	110
14	108	172	143	536	523	1780	1000	378	9880	253	178	107
15	106	170	244	549	559	1380	876	355	2700	245	170	106
16	105	167	328	534	1240	1240	796	334	1670	246	154	106
17	109	165	305	500	3870	3340	773	318	4210	233	145	105
18	113	160	298	449	2530	2250	1120	320	2810	220	159	102
19	112	157	204	452	1640	1570	980	306	1640	232	173	99
20	115	170	210	458	1890	1460	760	458	1210	313	155	115
21	115	173	240	475	3520	1370	706	372	995	323	161	119
22	116	172	230	476	4130	1230	651	334	857	261	141	163
23	129	161	260	514	3980	1040	594	347	769	234	137	213
24	147	157	1010	517	3510	924	557	372	676	214	138	205
25	155	158	859	537	2190	850	533	382	606	195	139	163
26	190	160	557	518	1500	826	894	348	560	182	137	147
27	398	160	483	489	1240	770	2470	315	522	469	126	329
28	1740	159	443	451	1090	666	2430	361	495	786	122	393
29	768	159	423	444	---	618	1570	630	489	339	119	300
30	405	154	389	433	---	598	1120	601	478	279	117	193
31	302	---	310	404	---	609	---	462	---	248	112	---
TOTAL	6803	5620	9890	26359	61019	41135	39071	14997	47991	10267	5338	4696
MEAN	219	187	319	850	2179	1327	1302	484	1600	331	172	157
MAX	1740	304	1010	4820	8720	3340	4130	962	9880	786	264	393
MIN	105	154	143	404	523	598	533	306	448	182	112	99
CFSM	.27	.23	.39	1.04	2.67	1.62	1.59	.59	1.96	.41	.21	.19
IN.	.31	.26	.45	1.20	2.78	1.87	1.78	.68	2.19	.47	.24	.21

CAL YR 1981 TOTAL 200187 MEAN 548 MAX 12200 MIN 97 CFSM .67 IN 9.11
WTR YR 1982 TOTAL 273186 MEAN 748 MAX 9880 MIN 99 CFSM .92 IN 12.44

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, Hydrologic Unit 02070009, at Reich's Ford Bridge, 1.1 mi (1.8 km) downstream from U.S. Highway 40, 1.2 mi (1.9 km) downstream from gaging station, 2 mi (3.2 km) southeast of Frederick, and 15.0 mi (25.1 km), upstream from mouth.

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1960 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field at time of sample. Water-discharge records for Monocacy River at Jug Bridge near Frederick (station 01643000) are used for computation of sediment loads. Prior to 1970, published as Monocacy River at Jug Bridge near Frederick (station 01643000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1961-72, 1975, 1977, 1980-82): Maximum daily, 32.0°C July 21, 1980; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,000 mg/L July 10, 1970; minimum daily mean, 1 mg/L on many days in 1961-67, 1970, 1972, and 1982.
SEDIMENT LOADS: Maximum daily, 134,000 tons (122,000 tonnes) June 22, 1972; minimum daily, less than 0.50 ton (0.45 tonne) on many days in 1961-67.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES:--Maximum daily, 29°C July 13, 16, 18, 26; minimum daily, 0.0°C on many days during January.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 584 mg/L Apr. 4; minimum daily mean, 1 mg/L Dec. 10, 13, 14, Jan. 17, 18, 29-31.
SEDIMENT LOADS: Maximum daily, 12,500 tons (11,300 tonnes) June 13; minimum daily, 0.39 tons (0.35 tonne) Dec. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
14...	1100	109	410	7.6	15.0	12.5	14	6.5	150	26	46	7.5
MAR												
24...	0915	993	157	7.6	--	4.1	4	10.7	78	28	22	5.6
APR												
19...	1145	957	220	7.5	--	15.5	7	--	78	23	22	5.6
AUG												
12...	1030	182	316	8.0	--	21.1	8	7.0	130	28	42	6.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT												
14...	18	21	.7	4.2	120	21	26	.2	3.3	211	198	.29
MAR												
24...	7.4	17	.4	1.9	50	19	14	.1	6.0	123	106	.17
APR												
19...	8.3	18	.4	2.1	55	18	12	<.1	4.9	131	106	.18
AUG												
12...	15	19	.6	3.6	104	18	26	.1	4.7	193	179	.26

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)
OCT												
14...	62.1	1.7	--	--	--	.680	2.1	--	--	--	--	--
MAR												
24...	330	2.4	.47	2.9	13	.100	.31	>020	--	--	--	--
APR												
19...	338	1.8	--	--	--	.150	.46	--	--	--	--	--
AUG												
12...	94.8	2.3	--	--	--	.170	.52	>200	<1	<1	4	2

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT												
14...	760	740	25	--	--	110	20	86	--	--	--	--
MAR												
24...	270	240	32	--	--	40	10	26	--	--	--	1.6
APR												
19...	780	710	71	--	--	60	40	16	--	--	--	--
AUG												
12...	480	430	48	1600	10	110	70	44	460	<.01	13	4.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.0	6.0	3.0	---	5.0	12.0	---	23.0	24.0	25.0	21.0
2	16.0	14.0	5.0	2.0	---	5.0	12.0	---	21.0	23.0	24.0	21.0
3	15.0	13.0	6.0	1.0	2.0	5.0	13.0	---	21.0	21.0	24.0	25.0
4	15.0	13.0	6.0	3.0	2.0	3.0	8.0	---	19.0	23.0	24.0	22.0
5	20.0	12.0	6.0	3.0	2.0	6.0	7.0	---	19.0	23.0	25.0	23.0
6	16.0	11.0	5.0	2.0	2.0	4.0	8.0	---	17.0	25.0	25.0	24.0
7	15.0	10.0	5.0	4.0	2.0	4.0	5.0	---	19.0	26.0	26.0	22.0
8	13.0	11.0	7.0	2.0	3.0	4.0	6.0	---	19.0	26.0	26.0	20.0
9	13.0	10.0	4.0	1.0	1.0	4.0	7.0	---	19.0	27.0	26.0	22.0
10	13.0	9.0	3.0	1.0	2.0	4.0	8.0	19.0	19.0	27.0	25.0	22.0
11	13.0	10.0	2.0	1.0	1.0	7.0	9.0	17.0	19.0	26.0	22.0	23.0
12	15.0	9.0	3.0	1.0	3.0	9.0	8.0	19.0	17.0	28.0	20.0	24.0
13	11.0	8.0	2.0	.0	3.0	9.0	9.0	19.0	15.0	29.0	25.0	21.0
14	15.0	7.0	1.0	.0	3.0	9.0	12.0	23.0	16.0	25.0	24.0	21.0
15	11.0	9.0	2.0	1.0	3.0	8.0	12.0	24.0	17.0	27.0	25.0	---
16	17.0	11.0	3.0	1.0	5.0	7.0	12.0	26.0	21.0	29.0	26.0	23.0
17	15.0	8.0	1.0	.0	4.0	6.0	17.0	25.0	20.0	27.0	24.0	23.0
18	14.0	9.0	2.0	.0	3.0	7.0	17.0	25.0	21.0	29.0	23.0	20.0
19	11.0	9.0	1.0	.0	3.0	9.0	18.0	23.0	21.0	27.0	24.0	---
20	12.0	9.0	1.0	1.0	4.0	8.0	15.0	21.0	21.0	27.0	24.0	---
21	14.0	7.0	1.0	1.0	4.0	8.0	15.0	20.0	22.0	27.0	23.0	---
22	14.0	6.0	3.0	1.0	4.0	8.0	13.0	19.0	22.0	25.0	---	---
23	13.0	6.0	4.0	---	5.0	7.0	16.0	19.0	21.0	25.0	---	---
24	12.0	6.0	1.0	.0	5.0	10.0	16.0	18.0	21.0	25.0	---	19.0
25	9.0	4.0	1.0	---	3.0	11.0	16.0	17.0	22.0	27.0	---	16.0
26	10.0	5.0	2.0	---	4.0	9.0	16.0	18.0	23.0	29.0	---	17.0
27	15.0	7.0	1.0	---	5.0	7.0	15.0	19.0	24.0	27.0	21.0	17.0
28	14.0	5.0	2.0	---	5.0	6.0	---	20.0	25.0	24.0	24.0	17.0
29	12.0	5.0	3.0	---	---	9.0	---	22.0	24.0	26.0	22.0	15.0
30	10.0	6.0	3.0	---	---	8.0	---	21.0	24.0	22.0	21.0	17.0
31	16.0	---	2.0	---	---	10.0	---	21.0	---	26.0	21.0	---

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	28	8.3	27	18	6	2.8	60	85	133	459	13	37
2	34	13	28	17	7	4.7	140	593	364	1930	12	35
3	33	15	28	15	25	29	35	76	508	6750	14	38
4	23	8.6	20	10	14	13	513	7480	447	11500	11	27
5	26	8.3	18	9.0	8	5.7	353	6000	139	1510	11	25
6	22	7.1	24	14	4	2.5	75	286	55	285	26	63
7	20	6.4	31	23	6	3.3	23	63	21	71	36	116
8	17	5.1	24	20	5	2.7	12	27	19	51	102	858
9	15	4.6	17	11	2	1.1	8	13	20	52	37	168
10	16	4.7	13	7.2	1	.49	7	9.5	16	34	21	80
11	16	4.7	9	4.7	2	.91	6	8.6	15	27	17	53
12	15	4.4	8	4.0	2	.92	4	7.4	14	23	57	397
13	16	4.6	9	4.3	1	.42	3	4.7	11	18	89	556
14	14	4.1	9	4.2	1	.39	4	5.8	9	13	46	221
15	14	4.0	10	4.6	8	5.3	3	4.4	11	17	20	75
16	14	4.0	17	7.7	6	5.3	2	2.9	52	194	29	97
17	13	3.8	18	8.0	4	3.3	1	1.4	99	994	145	1360
18	12	3.7	15	6.5	8	6.4	1	1.2	28	201	66	428
19	10	3.0	10	4.2	7	3.9	3	3.7	22	97	32	136
20	9	2.8	8	3.7	4	2.3	8	9.9	25	128	26	102
21	14	4.3	7	3.3	6	3.9	6	7.7	95	953	23	85
22	17	5.3	6	2.8	8	5.0	3	3.9	129	1460	12	40
23	21	7.3	6	2.6	9	6.3	5	6.9	155	1720	9	25
24	23	9.1	5	2.1	54	147	6	8.4	99	953	11	27
25	18	7.5	6	2.6	59	137	5	7.2	37	219	13	30
26	24	12	6	2.6	24	36	4	5.6	14	57	17	38
27	259	351	5	2.2	15	20	3	4.0	11	37	10	21
28	345	1620	6	2.6	11	13	2	2.4	13	38	7	13
29	122	267	8	3.4	10	11	1	1.2	---	---	7	12
30	40	44	11	4.6	8	8.4	1	1.2	---	---	10	16
31	30	24	---	---	5	4.2	1	1.1	---	---	14	23
TOTAL	---	2471.7	---	224.9	---	486.23	---	14732.1	---	29791	---	5202
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	20	38	50	130	120	145	16	19	25	15	20	6.0
2	19	32	42	98	382	925	14	15	26	16	28	9.8
3	51	143	36	75	315	487	18	22	33	20	33	18
4	584	7170	32	61	150	238	22	33	38	27	29	15
5	150	616	30	52	200	697	23	32	33	20	24	9.7
6	129	917	26	42	416	3240	21	23	28	17	20	7.6
7	123	1060	24	36	140	514	17	17	33	21	19	6.4
8	35	141	22	33	85	213	16	14	27	15	20	6.4
9	22	81	22	33	70	133	15	13	23	12	20	6.3
10	21	88	20	28	85	154	24	20	25	13	20	6.3
11	29	130	20	25	92	215	19	15	31	15	19	6.0
12	33	113	18	21	70	146	35	28	29	15	22	6.8
13	32	92	21	23	567	12500	34	25	22	11	20	5.9
14	28	76	18	18	336	11500	19	13	19	9.1	20	5.8
15	22	52	16	15	90	656	20	13	19	8.7	22	6.3
16	20	43	15	14	60	271	36	24	17	7.1	25	7.2
17	26	54	14	12	225	3030	18	11	16	6.3	30	8.5
18	43	130	13	11	143	1160	13	7.7	18	7.7	25	6.9
19	30	79	17	14	72	319	16	10	17	7.9	20	5.3
20	26	53	32	40	58	189	24	20	15	6.3	15	4.7
21	23	44	58	58	42	113	25	22	25	11	15	4.8
22	22	39	51	46	36	83	30	21	20	7.6	25	11
23	16	26	49	46	32	66	22	14	18	6.7	30	17
24	11	17	52	52	30	55	13	7.5	16	6.0	35	19
25	10	14	50	52	18	29	14	7.4	14	5.3	30	13
26	77	254	42	39	18	27	12	5.9	13	4.8	25	9.9
27	175	1170	41	35	20	28	53	206	12	4.1	76	68
28	175	1150	52	51	15	20	166	375	11	3.6	57	60
29	75	318	135	230	16	21	96	88	14	4.5	57	46
30	55	166	120	195	17	22	66	50	14	4.4	41	21
31	---	---	85	106	---	---	35	23	14	4.2	---	---
TOTAL	---	14306	---	1691	---	37196	---	1194.5	---	332.3	---	424.6

TOTAL LOAD FOR YEAR: 108052.33 TONS.

01643500 BENNETT CREEK AT PARK MILLS, MD

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, Hydrologic Unit 02070009, on left bank 75 ft (23 m) downstream from highway bridge, 0.2 mi (0.3 km) south of Park Mills, 1.8 mi (2.9 km) upstream from mouth, and 3.7 mi (6.0 km) southwest of Urbana.

DRAINAGE AREA.--62.8 mi^2 (162.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 240 ft (73.2 m), from topographic map.

REMARKS.--Water-discharge records good except those for January, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years (water years 1949-58, 1967-82), 70.1 ft^3/s (1.985 m^3/s) 15.16 in/yr (385 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft^3/s (912 m^3/s) June 21, 1972, gage height, 22.1 ft (6.74 m), from floodmark, from rating curve extended above 2,700 ft^3/s (76.5 m^3/s) on basis of contracted-opening measurements at gage heights 11.15 ft (3.399 m), 14.33 ft (4.368 m), and 22.1 ft (6.74 m); minimum discharge, 0.30 ft^3/s (0.008 m^3/s) Sept. 8, 1966, gage height, 0.80 ft (0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34 m^3/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)
Feb. 3	1515	*1990	56.4	*a8.88	2.707	June 13	1515	1460	41.3	5.59	1.704

a Ice jam.

Minimum daily discharge, 7.1 ft^3/s (0.20 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	14	14	54	500	54	73	79	192	50	27	12
2	12	14	26	42	150	52	54	72	140	43	25	12
3	8.8	13	18	28	1000	50	132	65	96	80	25	17
4	7.7	12	14	186	245	46	128	60	146	84	24	13
5	7.9	12	14	78	128	45	80	56	323	52	51	12
6	8.1	18	13	46	96	42	105	53	194	46	70	12
7	8.9	14	12	38	72	79	81	51	126	42	32	11
8	7.5	12	13	31	64	83	72	55	96	39	28	12
9	7.5	12	12	25	62	66	83	61	80	38	27	14
10	7.6	12	11	21	56	58	81	48	91	37	27	13
11	8.2	12	12	15	49	57	69	43	89	36	24	12
12	8.4	12	11	15	45	71	64	42	75	36	35	11
13	8.2	12	11	19	43	63	61	39	639	32	25	10
14	7.8	12	14	20	40	58	58	36	257	31	22	10
15	8.4	16	49	20	41	53	54	35	151	33	21	11
16	8.7	12	35	20	60	84	52	35	126	30	20	12
17	8.3	12	26	20	93	198	57	32	268	28	19	10
18	8.6	13	20	20	86	105	109	31	127	26	18	9.9
19	9.5	11	17	19	131	88	67	29	103	26	18	10
20	9.1	12	15	19	190	99	62	30	88	27	17	15
21	9.1	13	13	19	207	96	59	40	78	27	26	15
22	9.7	12	17	19	143	82	54	81	74	25	19	53
23	13	11	48	19	109	72	51	54	70	34	18	26
24	25	12	53	18	93	67	49	50	62	27	20	17
25	13	12	29	18	77	63	47	42	58	24	17	15
26	24	12	24	17	65	65	143	39	57	22	14	15
27	85	13	22	17	61	57	137	35	54	47	14	71
28	66	12	21	19	58	52	163	59	52	78	16	24
29	24	11	19	18	---	50	104	134	51	33	13	19
30	18	11	17	18	---	49	88	57	54	30	12	17
31	16	---	17	28	---	58	---	51	---	33	12	---
TOTAL	471.1	376	637	946	3964	2162	2437	1594	4017	1196	736	510.9
MEAN	15.2	12.5	20.5	30.5	142	69.7	81.2	51.4	134	38.6	23.7	17.0
MAX	85	18	53	186	1000	198	163	134	639	84	70	71
MIN	7.1	11	11	15	40	42	47	29	51	22	12	9.9
CFSM	.24	.20	.33	.49	2.26	1.11	1.29	.82	2.13	.62	.38	.27
IN.	.28	.22	.38	.56	2.35	1.28	1.44	.94	2.38	.71	.44	.30

CAL YR 1981 TOTAL 11387.0 MEAN 31.2 MAX 442 MIN 6.8 CFSM .50 IN 6.75
WTR YR 1982 TOTAL 19047.0 MEAN 52.2 MAX 1000 MIN 7.1 CFSM .83 IN 11.28

01643500 BENNETT CREEK AT PARK MILLS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-71, 1975-76, 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
10...	1745	56	142	8.5	3.9	<1	13.3	49	22	13	3.9	8.3
AUG												
23...	1845	17	133	8.1	20.1	17	8.9	51	8.0	15	3.4	4.4

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
10...	26	.6	1.6	27	11	13	<.1	6.1	85	73	.12	12.9
AUG												
23...	15	.3	1.5	43	9.0	9.2	.2	7.0	92	76	.13	4.2

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
10...	2.0	.020	.06	--	170	110	58	60	20	42	1.4
AUG											
23...	1.5	.020	.06	.030	160	90	67	30	10	17	1.3

DATE	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)	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)
AUG										
23...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
AUG									
23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG									
23...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

01645000 SENECA CREEK AT DAWSONVILLE, MD

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, Hydrologic Unit 02070008, on right bank 60 ft (18 m) downstream from bridge on State Highway 28, 150 ft (46 m) downstream from mouth of Great Seneca Creek, 0.5 mi (0.8 km) east of Dawsonville, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--101 mi^2 (262 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M), 1941(M). WDR MD-DE-74-1: 1970(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft (65.233 m) National Geodetic Vertical Datum of 1929. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930, to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft (18 m) upstream at same datum.

REMARKS.--Water-discharge records good. Small diversion at times for irrigation above station.

AVERAGE DISCHARGE.--52 years, 102 ft^3/s (2.889 m^3/s), 13.71 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft^3/s (739 m^3/s) June 22, 1972, gage height, 16.4 ft (5.00 m), from high-water mark in gage house, from rating curve extended above 3,000 ft^3/s (850 m^3/s) on basis of contracted-opening and flow-over-road measurement at gage height 12.17 ft (3.709 m) at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft (4.974 m) at site 5.0 mi (8.0 km) downstream, adjusted for flow from intervening area; minimum discharge observed, 1.7 ft^3/s (0.048 m^3/s) Sept. 28, 29, 1930, gage height, 0.56 ft (0.171 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,300 ft^3/s (36 m^3/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)
Feb. 2	1800	3130	88.6	8.00	2.438	July 28	0045	1360	38.5	5.72	1.743
June 13	1445	*3160	89.5	8.02	2.444						

Minimum discharge, 17 ft^3/s (0.481 m^3/s) Oct. 1, gage height, 1.78 ft (0.543 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	35	32	119	724	72	113	100	109	76	70	33
2	33	34	60	79	146	71	81	92	142	64	59	39
3	25	33	39	57	1760	69	171	85	88	118	66	63
4	22	31	34	307	541	66	158	79	185	169	54	37
5	22	31	32	128	186	66	98	73	380	80	107	33
6	23	39	32	80	137	62	147	71	216	71	231	32
7	23	34	30	69	105	128	108	69	141	66	96	31
8	22	30	31	59	90	143	94	74	106	62	71	33
9	21	30	30	50	110	97	111	96	92	62	64	36
10	22	30	28	43	109	83	112	68	108	60	58	33
11	23	29	28	43	84	80	94	63	109	58	53	33
12	23	28	28	42	77	118	87	60	90	59	85	31
13	22	28	27	40	76	95	84	58	1460	52	58	30
14	22	28	33	39	70	85	81	57	496	50	51	30
15	23	28	138	37	69	74	75	55	190	55	49	30
16	22	29	77	40	86	135	73	53	171	50	46	30
17	22	29	56	40	128	400	75	51	502	48	45	28
18	22	29	47	39	144	151	144	50	174	45	44	27
19	27	28	38	40	190	122	87	50	137	64	42	28
20	24	29	36	40	253	130	80	56	116	98	42	35
21	23	28	33	39	224	141	77	52	105	58	69	37
22	23	28	40	39	150	116	66	79	98	46	49	167
23	28	28	86	40	119	99	66	68	94	67	43	68
24	50	28	78	39	106	93	65	67	85	53	45	45
25	30	29	54	37	93	89	64	62	81	44	41	40
26	58	28	48	37	82	98	236	58	80	41	37	39
27	190	28	45	37	79	83	220	54	76	227	36	171
28	118	28	43	37	77	74	230	120	72	434	38	63
29	52	27	40	36	---	73	129	283	71	82	34	50
30	44	27	37	37	---	73	109	106	81	122	33	45
31	39	---	36	74	---	88	---	77	---	121	34	---
TOTAL	1120	891	1396	1843	6015	3274	3335	2386	5855	2702	1850	1397
MEAN	36.1	29.7	45.0	59.5	215	106	111	77.0	195	87.2	59.7	46.6
MAX	190	39	138	307	1760	400	236	283	1460	434	231	171
MIN	21	27	27	36	69	62	64	50	71	41	33	27
CFSM	.36	.29	.45	.59	2.13	1.05	1.10	.76	1.93	.86	.59	.46
IN.	.41	.33	.51	.68	2.22	1.21	1.23	.88	2.16	1.00	.68	.51

CAL YR 1981 TOTAL 21575 MEAN 59.1 MAX 604 MIN 19 CFSM .59 IN 7.95
WTR YR 1982 TOTAL 32064 MEAN 87.8 MAX 1760 MIN 21 CFSM .87 IN 11.81

01645000 SENECA CREEK AT DAWSONVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
NOV											
20...	1145	28	268	7.8	10.0	5	68	31	19	5.1	16
APR											
19...	1430	86	182	8.0	16.0	6	50	20	13	4.3	12

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV											
20...	32	.9	3.5	37	15	23	.2	4.4	142	109	.19
APR											
19...	33	.8	2.1	30	11	21	<.1	6.1	100	88	.14

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV										
20...	10.7	5.1	.080	.25	310	230	83	50	7	43
APR										
19...	23.3	2.5	.040	.12	440	320	120	60	0	63

01645200 WATTS BRANCH AT ROCKVILLE, MD

LOCATION.--Lat 39°05'03", long 77°10'38", Montgomery County, Hydrologic Unit 02070008, on left bank 0.2 mi (0.3 km) south of State Highway 28, 1.3 mi (2.1 km) west of post office in Rockville, and 9.4 mi (15.0 km) upstream from mouth.

DRAINAGE AREA.--3.70 mi^2 (9.58 km^2).

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

REVISED RECORDS.--WSP 2103: 1965. WDR MD-DE-75-1: 1967-70.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (100 m), from topographic map.

REMARKS.--Records good except those above 250 ft^3/s (7.1 m^3/s), which are poor. Some regulation of low flow from unknown source above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 4.14 ft^3/s (0.117 m^3/s), 15.20 in/yr (386 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft^3/s (96.3 m^3/s) Sept. 26, 1975, gage height, 7.32 ft (2.231 m), from rating curve extended above 280 ft^3/s (7.93 m^3/s) on basis of combined computation of peak flow through culvert and slope-area measurement of tributary inflow at gage height 7.22 ft (2.201 m), 7.83 ft (2.387 m), from floodmarks; minimum discharge, 0.10 ft^3/s (0.003 m^3/s) Sept. 2, 1966, gage height, 1.10 ft (0.335 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft^3/s (6.2 m^3/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)
Feb. 2	2315	284	8.04	4.45	1.356	June 13	1230	421	11.9	5.29	1.612
Feb. 3	0945	315	8.92	4.66	1.420	July 27	2015	617	17.5	5.99	1.826
Apr. 26	1700	290	8.21	4.50	1.372	Sept. 2	1900	*641	18.2	6.04	1.841
May 28	2100	267	7.56	4.31	1.314						

Minimum discharge, 0.17 ft^3/s (0.005 m^3/s) Oct. 4, 5, 7, 8, gage height, 1.13 ft (0.344 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.65	5.1	8.7	14	2.3	1.9	2.4	2.5	1.0	.91	.60
2	2.6	.68	2.6	1.4	24	2.9	2.1	2.2	1.9	.88	4.2	50
3	.26	.81	.77	2.3	75	2.7	5.7	2.0	8.8	14	1.4	2.1
4	.35	.84	.66	28	6.2	1.7	1.7	2.0	2.8	1.8	.82	.67
5	.28	1.2	1.0	2.3	4.0	1.5	1.5	1.9	18	1.3	7.1	.68
6	.27	4.0	.58	1.7	2.9	1.4	7.9	1.9	3.5	1.2	8.9	.86
7	.24	.50	.57	1.6	2.3	20	1.7	1.8	2.8	1.2	1.2	1.0
8	.24	.52	.63	1.4	2.1	3.8	1.5	11	1.8	1.1	.94	.64
9	.35	.54	.46	1.2	12	2.3	5.5	2.4	1.7	1.1	.94	.65
10	.40	.74	.48	1.1	3.3	12	2.1	1.8	4.6	2.5	.87	.62
11	.50	.56	.52	.90	2.7	5.8	1.7	1.7	1.8	1.3	1.9	.60
12	.70	.54	.51	.98	2.3	11	1.5	1.8	1.5	1.3	11	.53
13	.29	.54	.48	1.1	3.1	3.1	1.5	1.6	90	1.0	.86	.65
14	.32	.54	14	1.1	2.7	1.9	1.5	1.5	4.3	1.2	.71	.63
15	.39	.55	7.5	1.1	2.9	1.7	1.4	1.4	2.6	1.2	.63	.63
16	.35	.54	3.4	1.2	3.5	32	1.4	1.4	4.7	1.1	.63	.54
17	.36	.63	1.6	1.2	17	8.2	6.1	1.7	6.4	.96	.67	.53
18	1.3	.61	1.3	1.1	6.9	2.9	2.4	1.3	2.1	.98	.60	.51
19	.56	.63	.88	.99	21	2.7	1.5	1.4	1.8	3.0	.60	4.0
20	.29	.60	.74	1.2	8.7	4.2	1.4	1.4	1.6	1.6	.76	.69
21	.32	.55	.71	1.2	5.8	4.0	1.4	1.3	1.6	.84	7.8	17
22	.35	.53	2.0	1.1	3.8	2.3	1.4	2.0	1.6	.74	.63	1.0
23	7.4	.67	5.0	1.1	3.5	1.9	1.2	2.0	1.5	2.0	.66	.75
24	1.2	.89	1.4	1.1	2.9	1.7	1.2	1.6	1.3	.79	.68	.66
25	1.2	.64	1.1	1.1	2.3	1.7	1.2	1.8	1.3	.60	.63	14
26	8.7	.49	.99	1.1	2.1	3.3	47	1.3	1.1	.62	.49	1.7
27	19	.51	1.1	2.4	2.1	1.5	17	1.3	1.1	42	.51	.54
28	1.8	1.0	.89	1.8	2.1	1.5	4.5	22	1.0	5.9	.51	.54
29	.75	.44	.80	1.9	---	1.5	2.9	5.8	1.2	4.9	.38	.54
30	.64	.44	.79	2.7	---	1.5	2.6	3.8	1.3	13	.40	.54
31	.62	---	4.2	27	---	5.5	---	3.1	---	1.9	.43	---
TOTAL	53.13	22.38	62.76	103.07	241.2	150.5	132.4	90.6	178.2	113.01	58.76	104.40
MEAN	1.71	.75	2.02	3.32	8.61	4.85	4.41	2.92	5.94	3.65	1.90	3.48
MAX	19	4.0	14	28	75	32	47	22	90	42	11	50
MIN	.24	.44	.46	.90	2.1	1.4	1.2	1.3	1.0	.60	.38	.51
CFSM	.46	.20	.55	.90	2.33	1.31	1.19	.79	1.61	.99	.51	.94
IN.	.53	.22	.63	1.04	2.42	1.51	1.33	.91	1.79	1.14	.59	1.05

CAL YR 1981 TOTAL 886.17 MEAN 2.43 MAX 39 MIN .20 CFSM .66 IN 8.91
WTR YR 1982 TOTAL 1310.41 MEAN 3.59 MAX 90 MIN .24 CFSM .97 IN 13.17

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Md., Hydrologic Unit 02070008, on left bank just above Little Falls Dam, 1 mi (1.6 km) upstream from District of Columbia boundary line, 1.2 mi (1.9 km) upstream from Chain Bridge, 1.8 mi (2.9 km) east of Langley, Fairfax County, Va., and at mile 117.4 (188.9 km).
DRAINAGE AREA.--11,560 mi^2 (29,940 km^2).
PERIOD OF RECORD.--March 1930 to current year.
REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).
GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft (11.567 m) National Geodetic Vertical Datum of 1929. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi (1.6 km) upstream on right bank at same datum.
REMARKS.--Records good except those for January, which are fair. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D. C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); and since April 1964, at Violets Lock to Chesapeake and Ohio Canal. Low flow affected slightly by Stony River Reservoir (see station 01595200), since December 1950, by Savage River Reservoir (see station 01597500), and since July 1981, by Bloomington Lake (see station 01595800). Gage-height telemeter at station.
AVERAGE DISCHARGE.--52 years, 11,390 ft^3/s (322.6 m^3/s), 13.38 in/yr (340 mm/yr), adjusted for diversions.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484,000 ft^3/s (13,700 m^3/s) Mar. 19, 1936, gage height, 28.1 ft (8.56 m) site then in use; minimum daily discharge observed at gaging station, 121 ft^3/s (3.43 m^3/s) Sept. 9, 1966, does not include diversion of 489 ft^3/s (13.8 m^3/s) for municipal use; minimum daily discharge (adjusted), 601 ft^3/s (17.0 m^3/s) Sept. 10, 1966, includes diversion of 449 ft^3/s (12.7 m^3/s) for municipal use.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 45,000 ft^3/s (1,200 m^3/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)
Feb. 5	2315	64600	1830	7.41	2.259	Mar. 18	2100	68800	1950	7.60	2.316
Feb. 19	2330	51000	1440	6.75	2.057	Mar. 22	2215	76400	2160	7.93	2.417
Feb. 22	1645	50200	1420	6.71	2.045	June 15	0945	*102000	2890	8.91	2.716

Minimum daily discharge, 955 ft^3/s (27.0 m^3/s) Oct. 22, does not include diversion for municipal use; minimum daily (adjusted) discharge, 1,460 ft^3/s (41.3 m^3/s) Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	9060	1950	5720	6500	19100	13800	16200	9060	5920	5550	2100
2	1280	6870	2080	5610	9000	17200	12800	14600	9350	5630	4610	2000
3	1290	5390	2450	6420	17900	16300	12300	13200	8730	5280	4090	3150
4	1290	4420	2990	7300	35700	15500	13700	12100	10100	6080	3950	2170
5	1250	3870	3760	14200	45600	14600	20400	11100	13200	6300	3950	1990
6	1200	3580	3940	21400	51000	14000	19700	10100	21100	6450	3990	1950
7	1180	3200	3960	24500	33700	13800	19300	9330	28100	7720	4720	1810
8	1100	3090	3680	20800	24600	16100	18100	8630	25600	6830	3950	1790
9	1160	3310	3150	16500	20200	17500	16400	8270	19700	6460	3950	1800
10	1160	3340	3040	13400	17700	20000	15700	7840	16000	6200	5030	1730
11	1140	3190	3020	7850	15400	20500	15200	8210	14300	6110	5250	1530
12	1140	3130	3250	5120	14900	20300	15100	8040	13600	5880	6230	1570
13	1120	3050	3410	4730	14200	24300	14400	6950	27400	6690	5070	1620
14	1120	2890	3380	4700	12700	35300	13400	6250	59800	7160	4560	1690
15	1050	2830	3770	4910	11300	36500	12600	5830	92700	7220	4050	1470
16	1070	2650	3720	5180	10700	32300	11700	5410	58100	6050	3670	1330
17	1050	2550	3630	4550	13200	35200	10900	5000	42600	5000	3290	1350
18	1000	2480	3530	5130	32700	56600	10900	4620	39500	4320	3140	1480
19	1070	2400	3400	5380	46800	61100	11300	4280	29500	4700	3450	1570
20	1010	2260	2700	5810	46800	45500	11200	4340	22200	4600	3660	1490
21	967	2310	2440	5330	42400	39000	10700	4290	17700	4410	3320	1530
22	955	2190	2620	5200	48400	63300	10000	4560	14700	4570	3320	2110
23	1090	2130	2860	4760	48100	67000	9280	4940	12800	5410	2870	1990
24	1270	2090	2850	4520	40700	46100	8670	4580	11100	5690	2550	1750
25	1190	2120	3990	4220	37500	34400	8090	4820	9660	5020	2400	1770
26	1390	2060	5860	4100	31500	27600	8630	5040	8720	5650	2450	1580
27	2000	2060	9950	4000	24300	23100	11700	6630	7930	5950	2380	2660
28	2910	2060	8620	3800	21600	20300	13800	7180	7000	6700	2150	3300
29	8890	1990	7560	3900	---	17800	14600	12800	6420	5680	2120	3040
30	17300	1940	6890	4000	---	15700	16600	10800	6140	4580	2080	2990
31	13200	---	5960	4500	---	14400	---	11900	---	5170	2100	---
TOTAL	74142	94510	124410	237540	775100	900400	400970	247840	662810	179430	113900	58310
MEAN	2392	3150	4013	7663	27680	29050	13370	7995	22090	5788	3674	1944
MAX	17300	9060	9950	24500	51000	67000	20400	16200	92700	7720	6230	3300
MIN	955	1940	1950	3800	6500	13800	8090	4280	6140	4320	2080	1330
(≠)	505	496	508	500	483	486	480	517	525	578	545	541
MEAN‡	2898	3647	4523	8162	28180	29540	13850	8511	22620	6366	4220	2485
CFSM‡	.25	.32	.39	.71	2.44	2.56	1.20	.74	1.96	.55	.37	.22
IN‡	.29	.35	.45	.81	2.54	2.95	1.34	.85	2.18	.64	.42	.24

CAL YR 1981 TOTAL 2330967 MEAN 6386 MAX 53400 MIN 844 MEAN‡ 6914 CFSM‡ .60 IN‡ 8.12
WTR YR 1982 TOTAL 3869362 MEAN 10600 MAX 92700 MIN 955 MEAN‡ 11120 CFSM‡ .96 IN‡ 13.06

≠ Diversion in cfs, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year); records furnished by Corps of Engineers, Washington Suburban Sanitary Commission, city of Rockville, and city of Fairfax.
‡ Adjusted for diversion.

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC
(National stream-quality accounting network station)

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9 (186.5 km).

DRAINAGE AREA.--11,570 mi² (29,970 km²).

PERIOD OF RECORD.--March 1973 to current year. Prior to October 1977, published as "at Great Falls."

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	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 CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)
NOV 10...	1130	3280	348	8.1	9.0	9.5	3.0	12.3	54	210	130	47
JAN 20...	1300	5940	410	8.3	2.5	.0	2.6	14.6	K2	220	120	45
MAR 16...	1030	32100	185	7.6	7.0	8.0	36	12.5	150	380	76	33
MAY 11...	1000	8250	280	8.4	19.0	19.0	3.9	9.7	70	1000	110	28
JUL 14...	1030	7050	350	8.2	26.0	29.0	5.0	8.4	26	540	140	43
SEP 21...	0945	1560	415	8.0	18.0	20.5	6.4	8.4	110	4600	150	53

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 10...	39	8.7	15	19	.6	3.0	86	48	13	.1	4.7	195
JAN 20...	36	7.3	15	21	.6	2.0	75	36	14	.1	6.7	185
MAR 16...	22	5.1	6.1	15	.3	1.4	43	26	7.8	<.1	5.9	118
MAY 11...	32	7.0	8.7	15	.4	3.5	81	32	9.6	.2	.9	153
JUL 14...	39	9.8	12	16	.5	2.0	95	37	15	.1	1.9	249
SEP 21...	39	13	23	24	.9	2.9	98	58	26	.2	.4	233

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
NOV 10...	183	.27	1730	1.3	.040	.05	.40	.040	.12	.070	.060	.18
JAN 20...	162	.25	2970	2.2	.150	.19	.40	.070	.21	.050	.050	.15
MAR 16...	100	.16	10200	--	--	--	--	--	--	--	--	--
MAY 11...	141	.21	3410	.71	.040	.05	.71	.060	.18	.020	<.010	--
JUL 14...	174	.34	4740	.83	.020	.03	.80	.070	.21	.010	<.010	--
SEP 21...	222	.32	981	.26	.050	.06	1.20	.080	.25	.020	<.010	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
NOV												
10...	1	0	1	100	60	36	1	<1	10	--	<10	<1
MAR												
16...	1	0	1	100	60	37	3	<1	40	10	30	6
MAY												
11...	1	0	1	<100	--	40	1	<1	20	10	10	3
SEP												
21...	2	0	2	100	40	59	1	<1	10	--	<10	<1

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
NOV												
10...	<1	14	10	4	310	280	27	13	--	<1	20	9
MAR												
16...	<1	12	10	2	2000	2000	45	16	15	1	180	170
MAY												
11...	<1	4	1	3	420	--	<3	7	5	2	50	50
SEP												
21...	<1	15	9	6	390	380	7	8	6	2	80	80

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)
NOV											
10...	11	<.1	--	<.1	4	3	1	<1	<1	<1	<1
MAR											
16...	6	.1	--	<.1	120	120	2	<1	<1	<1	<1
MAY											
11...	3	.2	.1	.1	5	0	5	<1	<1	<1	<1
SEP											
21...	2	.2	.0	.2	6	4	2	<1	<1	<1	<1

DATE	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	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 SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
NOV											
10...	40	<4	<4.8	<.4	--	<.4	3.4	<.4	3.3	.07	.24
MAR											
16...	40	<4	--	--	--	--	--	--	--	--	--
MAY											
11...	10	<3	<3.5	1.1	.7	<.6	<2.0	<.5	<2.0	.39	.13
SEP											
21...	20	<4	--	--	--	--	--	--	--	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV			
10...	100	6	53
JAN			
20...	100	3	48
MAR			
16...	95	97	8410
MAY			
11...	67	54	1200
JUL			
14...	96	15	286
SEP			
21...	85	21	88

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC

LOCATION.--Lat 38°58'21", long 77°02'25", District of Columbia, Hydrologic Unit 02070010, on left bank 125 ft (38 m) downstream from Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 mi (12 km) upstream from mouth.

DRAINAGE AREA.--62.2 mi^2 (161.1 km^2).

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft (45.376 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for January, which are fair. Flow affected by two upstream reservoirs which control flow from about 25 mi^2 (65 km^2), Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 62.1 ft^3/s (1.759 m^3/s), 13.56 in/yr (344 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) June 22, 1972, gage height, 16.2 ft (4.94 m), from floodmark, from rating curve extended above 5,640 ft^3/s (160 m^3/s) on basis of contracted-opening measurements at gage heights 13.19 ft (4.020 m) and 16.2 ft (4.94 m); minimum discharge, 0.5 ft^3/s (0.014 m^3/s) Oct. 1-7, 1930, gage height, 1.04 ft (0.317 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34 m^3/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)
Feb. 1	0500	Ice Jam		*a6.50	1.981	May 28	2315	1300	36.8	6.15	1.875
Feb. 3	1500	1210	34.3	5.89	1.795	June 13	1815	*1320	37.4	6.21	1.893

a Ice jam.

Minimum discharge, 6.0 ft^3/s (0.17 m^3/s) Oct. 8, 20, 21, gage height, 1.21 ft (0.369 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	11	29	128	520	31	65	54	60	26	30	9.2
2	32	11	70	43	220	31	36	48	48	24	29	14
3	10	11	22	35	813	30	139	43	64	50	46	225
4	7.0	12	19	246	213	30	57	40	89	66	23	27
5	7.9	13	20	92	157	30	41	37	185	30	23	20
6	8.3	76	18	59	129	30	120	34	64	27	56	17
7	11	18	15	44	104	122	53	33	49	25	29	15
8	6.8	14	15	34	80	88	45	83	38	23	22	14
9	6.5	14	14	30	159	54	68	68	33	25	37	14
10	6.6	16	14	25	73	44	51	36	43	45	26	12
11	6.7	15	14	26	49	39	43	32	36	24	18	12
12	6.6	15	15	26	41	98	40	31	30	22	114	11
13	6.7	14	13	24	42	55	38	29	645	20	25	9.9
14	7.1	14	68	24	35	51	36	28	144	26	21	9.9
15	8.2	13	178	25	32	39	34	27	104	22	19	9.9
16	10	13	73	24	38	147	33	26	99	19	17	9.9
17	8.6	16	45	24	131	227	48	25	118	18	18	9.2
18	16	14	33	24	100	87	88	24	75	17	25	8.6
19	27	13	28	24	164	65	42	36	59	18	14	8.6
20	7.8	13	23	22	106	76	38	28	50	37	14	50
21	6.2	12	20	20	86	66	35	24	45	24	35	18
22	7.2	12	25	18	67	52	33	31	43	24	17	219
23	50	12	41	18	54	47	31	25	55	32	13	30
24	49	13	33	20	51	43	30	26	34	20	13	18
25	15	15	26	18	41	40	30	33	31	16	12	15
26	87	13	24	17	35	61	248	26	30	15	11	18
27	160	14	23	17	34	38	211	25	28	41	11	110
28	55	14	23	18	32	34	124	192	27	251	9.9	21
29	23	14	20	20	---	34	79	190	27	33	9.2	17
30	16	14	18	30	---	32	64	72	28	52	9.2	15
31	14	---	26	122	---	81	---	41	---	59	9.2	---
TOTAL	691.3	469	1005	1297	3606	1902	2000	1447	2381	1131	755.5	987.2
MEAN	22.3	15.6	32.4	41.8	129	61.4	66.7	46.7	79.4	36.5	24.4	32.9
MAX	160	76	178	246	813	227	248	192	645	251	114	225
MIN	6.2	11	13	17	32	30	30	24	27	15	9.2	8.6
CFSM	.36	.25	.52	.67	2.07	.99	1.07	.75	1.28	.59	.39	.53
IN.	.41	.28	.60	.78	2.16	1.14	1.20	.87	1.42	.68	.45	.59

CAL YR 1981 TOTAL 14115.6 MEAN 38.7 MAX 523 MIN 6.2 CFSM .62 IN 8.44
WTR YR 1982 TOTAL 17672.0 MEAN 48.4 MAX 813 MIN 6.2 CFSM .78 IN 10.57

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, Hydrologic Unit 02070010, on right bank 200 ft (61 m) downstream from bridge on Riverdale Road, 1.8 mi (2.9 km) downstream from Indian Creek, and 1.8 mi (2.9 km) upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 mi^2 (188.6 km^2).

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

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 12.68 ft (3.865 m) Washington Suburban Sanitary Commission datum. Prior to June 12, 1942, nonrecording gage; June 12, 1942, to Mar. 22, 1966, and Apr. 12, 1967, to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft (4.267 m) above mean sea level. Mar. 23, 1966, to Apr. 11, 1967, nonrecording gage 600 ft (183 m) downstream from bridge at datum 9.25 ft (2.819 m) above mean sea level.

REMARKS.--Records fair. Some regulation at low flow by sand and gravel plants above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 84.3 ft^3/s (2.387 m^3/s), 15.72 in/yr (399 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s (340 m^3/s) June 22, 1972, gage height, 9.52 ft (2.902 m), from rating curve extended above 3,800 ft^3/s (108 m^3/s) on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft (2.902 m); maximum gage height, 12.93 ft (3.941 m) Oct. 16, 1942; minimum daily discharge, 1.4 ft^3/s (0.040 m^3/s) Sept. 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23 or 24, 1933, reached a stage of about 15.5 ft (4.72 m), at datum 14.00 ft (4.267 m) above mean sea level, from floodmarks, discharge, 10,500 ft^3/s (297 m^3/s), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s) June 1, gage height, 5.03 ft (1.533 m), no other peak above base of 2,000 ft^3/s (56 m^3/s); minimum daily discharge, 5.5 ft^3/s (0.16 m^3/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	40	202	440	38	91	54	288	20	23	7.9
2	29	17	74	48	161	36	49	48	134	15	19	13
3	13	17	25	30	1030	34	210	44	116	98	14	107
4	11	18	19	350	278	32	135	43	170	63	12	13
5	8.8	18	22	90	124	32	62	40	401	27	13	7.4
6	10	101	19	40	60	32	235	38	237	24	51	6.6
7	16	27	18	34	50	199	98	37	136	17	31	6.3
8	10	22	19	30	46	143	63	70	45	17	14	8.0
9	8.8	18	18	26	274	63	97	58	31	19	37	11
10	8.8	17	18	26	152	52	70	37	40	31	26	14
11	8.8	18	17	26	55	46	56	32	34	23	11	12
12	7.6	17	18	28	40	137	49	31	26	23	72	10
13	7.6	17	18	30	44	72	48	30	700	18	15	9.0
14	8.8	17	110	26	38	56	46	29	200	85	10	8.5
15	10	17	259	26	38	46	43	26	70	45	9.7	9.0
16	8.8	17	167	24	40	227	41	25	40	35	8.1	8.5
17	7.6	17	59	24	263	330	90	22	80	29	10	8.0
18	42	17	40	24	230	106	144	21	50	22	15	9.0
19	27	16	30	24	427	71	56	54	36	43	8.3	7.5
20	14	16	22	26	289	83	48	50	30	76	7.4	44
21	11	16	20	24	164	80	45	32	28	31	19	30
22	8.8	15	20	22	96	61	43	52	44	22	11	209
23	63	14	35	22	60	51	40	30	40	61	8.5	48
24	38	15	34	28	44	47	40	28	28	29	11	21
25	28	17	25	22	40	46	39	30	23	22	17	20
26	219	17	23	20	38	67	312	27	22	18	9.6	52
27	189	16	25	20	38	46	313	24	20	64	8.2	168
28	69	16	24	20	40	40	233	233	19	71	10	27
29	28	15	24	24	---	38	95	187	27	18	6.2	14
30	22	14	19	50	---	38	64	60	28	93	5.5	12
31	20	---	43	250	---	114	---	34	---	70	8.3	---
TOTAL	967.4	597	1304	1636	4599	2463	2955	1526	3143	1229	520.8	920.7
MEAN	31.2	19.9	42.1	52.8	164	79.5	98.5	49.2	105	39.6	16.8	30.7
MAX	219	101	259	350	1030	330	313	233	700	98	72	209
MIN	7.6	14	17	20	38	32	39	21	19	15	5.5	6.3
CFSM	.43	.27	.58	.73	2.25	1.09	1.35	.68	1.44	.54	.23	.42
IN.	.49	.31	.67	.84	2.35	1.26	1.51	.78	1.61	.63	.27	.47

CAL YR 1981 TOTAL 17175.9 MEAN 47.1 MAX 734 MIN 6.0 CFSM .65 IN 8.78
WTR YR 1982 TOTAL 21860.9 MEAN 59.9 MAX 1030 MIN 5.5 CFSM .82 IN 11.17

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, Hydrologic Unit 02070010, on right bank 400 ft (120 m) upstream from bridge on State Highway 183, 1.5 mi (2.4 km) southwest of Colesville, 3 mi (4.8 km) upstream from Burnt Mills, 10 mi (16.1 km) upstream from Sligo Creek, and 12.5 mi (20.1 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--21.1 mi^2 (54.6 km^2).

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1924(M), 1925-26, 1929-30(M), 1933(M), 1939(P), 1940(M), 1943-46, 1948-49(P). WSP 1903: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 264.75 ft (80.700 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1932, nonrecording gages in same general vicinity at different datums. Apr. 22, 1932, to Apr. 11, 1934, nonrecording gages at present site and datum.

REMARKS.--Records good. Diversions at low flow since 1962 for irrigation of golf courses above station. Records include pumpage from the Patuxent River to augment water supply for Washington Suburban Sanitary District Aug. 12, 1939, to Aug. 1960. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--59 years, 22.6 ft^3/s (0.640 m^3/s), 14.55 in/yr (370 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s (312 m^3/s) June 22, 1972, gage height, 15.89 ft (4.843 m), from high-water mark in well, from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of contracted-opening and flow-over-road measurement at gage height 10.99 ft (3.350 m) and computation of flow over Burnt Mills Dam, 3 miles (4.8 km) downstream, adjusted for flow from intervening area, at gage height 15.89 ft (4.843 m); no flow several days during August and September 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17 m^3/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)
Feb. 3	1400	*722	20.4	6.41	1.954	June 13	1430	712	20.2	6.36	1.939

Minimum discharge, 1.6 ft^3/s (0.045 m^3/s) Aug. 28, 29, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	4.8	7.8	46	220	10	24	15	10	6.6	6.8	2.3
2	4.7	5.0	14	13	35	10	17	13	9.1	5.5	5.5	12
3	2.9	4.9	6.6	9.3	393	12	44	12	13	23	5.2	38
4	2.6	4.7	5.5	105	52	9.5	27	11	16	16	4.8	5.0
5	2.5	4.9	5.5	20	25	9.6	19	11	41	7.1	4.6	4.2
6	2.2	19	5.5	12	18	9.2	58	10	23	6.4	7.1	4.1
7	2.4	5.9	5.2	9.8	14	39	26	10	20	5.9	5.7	4.0
8	2.3	4.8	5.5	8.4	13	27	16	26	10	5.6	4.9	4.2
9	2.4	5.2	5.2	7.8	39	16	30	16	8.8	14	6.5	5.0
10	2.1	5.3	4.8	6.8	24	13	20	10	10	17	4.9	4.4
11	2.3	5.3	5.2	7.1	15	13	16	9.4	9.9	6.7	4.2	4.2
12	2.7	4.8	5.2	7.6	13	27	14	9.0	8.7	6.3	18	3.6
13	2.8	4.8	4.8	7.5	13	17	14	8.4	240	5.2	5.1	3.3
14	2.6	4.5	17	7.0	12	14	13	7.9	39	4.9	4.3	3.6
15	3.0	4.8	45	7.0	12	12	12	7.7	17	6.0	4.2	3.2
16	3.4	5.2	19	7.0	14	75	12	7.6	21	5.1	3.8	3.2
17	3.1	5.2	9.8	7.0	39	90	24	7.3	31	4.7	3.7	2.7
18	4.1	4.8	7.7	7.0	31	24	38	6.9	14	4.2	3.4	2.9
19	4.5	4.8	6.6	6.5	70	18	18	9.9	11	22	3.0	2.5
20	3.3	4.8	5.7	6.3	51	21	14	9.1	9.5	11	2.8	9.6
21	3.4	4.5	5.1	6.2	32	23	13	7.9	8.9	5.4	8.1	5.3
22	3.6	4.5	6.6	5.9	20	18	12	7.8	8.2	5.9	4.0	45
23	11	4.6	19	6.1	16	15	11	8.9	8.5	6.1	3.4	8.2
24	8.2	5.2	10	6.6	15	14	10	9.0	7.1	5.5	3.6	5.1
25	5.0	5.3	7.2	6.0	12	14	10	13	6.8	4.4	3.0	4.9
26	17	4.5	6.3	6.5	11	19	74	8.7	6.7	4.0	2.4	5.7
27	35	4.8	6.6	6.5	11	14	62	7.8	6.6	17	2.2	20
28	12	4.7	6.1	7.0	11	13	42	15	6.5	60	2.4	6.1
29	6.2	4.5	5.7	8.0	---	13	20	17	6.4	6.6	1.9	5.1
30	5.3	4.5	5.2	11	---	13	16	11	6.6	18	1.8	4.8
31	5.1	---	7.4	64	---	26	---	8.0	---	13	1.9	---
TOTAL	170.1	160.6	276.8	441.9	1231	648.3	726	331.3	634.3	329.1	143.2	232.2
MEAN	5.49	5.35	8.93	14.3	44.0	20.9	24.2	10.7	21.1	10.6	4.62	7.74
MAX	35	19	45	105	393	90	74	26	240	60	18	45
MIN	2.1	4.5	4.8	5.9	11	9.2	10	6.9	6.4	4.0	1.8	2.3
CFSM	.26	.25	.42	.68	2.09	.99	1.15	.51	1.00	.50	.22	.37
IN.	.30	.28	.49	.78	2.17	1.14	1.28	.58	1.12	.58	.25	.41

CAL YR 1981 TOTAL 4152.1 MEAN 11.4 MAX 189 MIN 2.1 CFSM .54 IN 7.32
WTR YR 1982 TOTAL 5324.8 MEAN 14.6 MAX 393 MIN 1.8 CFSM .69 IN 9.39

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mi (1.3 km) downstream from Sligo Branch, 1.0 mi (1.6 km) west of Hyattsville, and 1.6 mi (2.6 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi^2 (127.9 km^2).

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft (5.273 m) National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938, to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951, to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--Records good except those for January, which are fair. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7.0 mi (11.3 km) above station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 46.3 ft^3/s (1.311 m^3/s), 12.73 in/yr (323 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s (510 m^3/s) June 22, 1972, gage height, 14.47 ft (4.410 m), from rating curve extended above 4,000 ft^3/s (113 m^3/s) on the basis of the average of slope-area and step-back-water measurements at gage height 14.47 ft (4.410 m); minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,470 ft^3/s (70.0 m^3/s) May 28, gage height, 4.34 ft (1.323 m), no other peak above base of 1,700 ft^3/s (48 m^3/s); minimum recorded discharge, 1.1 ft^3/s (0.031 m^3/s) Nov. 4, but may have been less during period of no gage-height record Oct. 1-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	10	33	130	260	21	48	29	119	15	15	7.5
2	9.0	9.6	61	33	94	21	27	28	36	14	37	11
3	6.0	11	16	26	716	23	158	26	72	59	15	122
4	5.0	10	12	243	106	21	58	24	70	45	10	13
5	4.8	10	12	49	50	20	34	24	176	16	20	7.9
6	4.4	95	11	26	36	20	138	23	109	15	46	6.5
7	3.8	15	9.3	21	30	121	39	22	73	14	15	8.0
8	4.0	10	9.4	18	26	60	30	69	26	13	10	6.5
9	4.0	9.6	9.3	16	148	30	56	42	23	15	29	7.2
10	3.6	9.6	8.6	16	53	28	39	22	31	36	17	8.7
11	3.8	9.6	8.8	16	29	23	29	21	25	18	9.5	7.5
12	4.0	9.5	10	16	25	86	26	20	21	14	75	7.0
13	4.8	9.6	8.8	18	30	36	25	20	527	13	15	6.5
14	4.8	10	84	16	24	29	24	17	95	40	9.4	6.5
15	5.5	9.6	158	16	23	24	23	17	38	18	8.3	6.5
16	7.0	13	79	16	28	153	22	16	29	13	8.5	6.1
17	6.5	11	30	15	151	193	70	16	58	11	12	6.0
18	7.0	11	20	15	85	44	72	16	29	11	17	6.5
19	11	11	15	15	189	32	28	23	24	15	9.0	4.6
20	7.0	11	16	17	94	51	25	26	21	38	8.0	18
21	6.5	9.5	13	15	59	46	24	17	20	15	14	13
22	7.5	9.2	15	14	37	33	23	23	23	26	12	188
23	30	8.4	31	14	33	28	22	19	32	40	9.3	24
24	20	9.8	31	15	29	26	22	17	18	14	8.5	12
25	12	13	17	14	24	25	22	19	16	10	15	8.9
26	40	10	15	13	23	44	265	15	15	9.7	7.4	21
27	120	9.6	16	13	24	25	188	16	15	89	6.5	85
28	50	9.6	16	14	25	22	94	225	15	111	5.5	14
29	15	9.6	14	18	---	22	40	84	19	16	5.3	11
30	12	9.6	13	27	---	22	32	70	16	45	5.5	10
31	11	---	35	100	---	95	---	26	---	39	5.2	---
TOTAL	435.0	393.4	827.2	995	2451	1424	1703	1032	1791	847.7	479.9	660.4
MEAN	14.0	13.1	26.7	32.1	87.5	45.9	56.8	33.3	59.7	27.3	15.5	22.0
MAX	120	95	158	243	716	193	265	225	527	111	75	188
MIN	3.6	8.4	8.6	13	23	20	22	15	15	9.7	5.2	4.6
CFSM	.28	.27	.54	.65	1.77	.93	1.15	.67	1.21	.55	.31	.45
IN.	.33	.30	.62	.75	1.85	1.07	1.28	.78	1.35	.64	.36	.50

CAL YR 1981 TOTAL 10578.8 MEAN 29.0 MAX 390 MIN 3.4 CFSM .59 IN 7.97
WTR YR 1982 TOTAL 13039.6 MEAN 35.7 MAX 716 MIN 3.6 CFSM .72 IN 9.82

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on left bank 75 ft (23 m) downstream from bridge on State Highway 223, at Piscataway, 0.4 mi (0.6 km) upstream from Tinker Creek, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 mi^2 (102.3 km^2).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (3 m), from topographic map.

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

AVERAGE DISCHARGE.--17 years, 46.7 ft^3/s (1.323 m^3/s), 16.06 in/yr (408 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft^3/s (242 m^3/s) Sept. 6, 1979, gage height, 11.21 ft (3.417 m), from rating curve extended above 1,700 ft^3/s (48.1 m^3/s) on basis of contracted-opening measurement of peak flow at bridge 100 ft (30 m) upstream; no flow at times in 1966, 1970, 1977, and 1980-82.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s (12 m^3/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)
May 31	0300	*1360	38.5	7.88	2.402	June 13	2030	533	15.1	6.14	1.871
June 2	0030	456	12.9	5.79	1.765						

Minimum discharge, no flow all or part of each day Oct. 1, 2, Sept. 4-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	7.8	4.6	48	205	45	57	37	160	14	10	.32
2	1.4	7.3	12	32	61	40	38	32	289	12	6.0	.31
3	4.0	6.7	9.1	20	160	34	50	28	80	18	4.0	.17
4	3.2	6.3	6.1	119	96	31	51	25	153	27	3.4	.03
5	2.2	6.2	6.5	75	51	32	37	24	158	14	3.0	.00
6	1.7	8.8	6.6	33	42	33	61	21	121	11	15	.00
7	2.0	9.7	6.2	26	33	101	47	18	127	9.4	8.0	.00
8	3.4	6.8	5.5	21	30	137	37	23	69	8.7	25	.00
9	5.0	6.1	4.8	20	76	58	43	45	55	9.2	40	.00
10	2.4	5.6	4.3	14	69	47	42	21	51	12	35	.00
11	2.0	5.5	4.4	13	41	44	34	15	52	13	12	.00
12	1.9	4.4	4.1	13	35	60	31	14	47	11	8.0	.00
13	1.8	3.5	4.2	15	34	50	30	12	248	7.9	5.5	.00
14	1.8	3.4	5.3	17	35	44	29	11	343	7.1	4.6	.00
15	2.2	4.1	74	18	32	41	27	9.6	83	8.1	3.8	.00
16	1.6	4.3	110	16	39	59	26	9.0	59	8.1	3.2	.00
17	2.4	4.9	40	14	102	86	28	8.4	50	6.4	4.0	.00
18	6.0	4.6	24	13	154	51	68	7.4	59	5.0	20	.00
19	12	4.4	17	12	172	45	37	7.5	44	4.3	7.0	.00
20	3.6	4.6	12	12	179	49	29	7.7	36	9.2	4.4	.00
21	3.0	4.4	11	12	89	68	28	14	30	8.3	3.6	.00
22	2.8	4.1	12	12	64	55	25	26	28	4.7	3.4	16
23	6.0	4.0	16	12	53	44	23	17	56	4.3	3.2	12
24	5.0	4.1	14	13	49	40	23	14	29	17	3.0	3.6
25	10	4.2	11	12	42	39	22	14	24	6.2	2.7	2.1
26	30	3.9	10	11	38	43	71	12	23	3.7	1.8	1.9
27	24	4.1	10	10	38	38	100	11	22	2.6	1.1	32
28	61	4.1	9.8	10	42	32	123	18	19	2.1	1.4	8.7
29	19	4.0	9.1	10	---	31	52	240	17	1.8	.86	4.2
30	11	3.9	8.7	13	---	31	42	106	16	20	.38	3.1
31	8.8	---	9.1	43	---	38	---	757	---	26	.30	---
TOTAL	241.20	155.8	481.4	709	2061	1546	1311	1604.6	2548	312.1	243.64	84.43
MEAN	7.78	5.19	15.5	22.9	73.6	49.9	43.7	51.8	84.9	10.1	7.86	2.81
MAX	61	9.7	110	119	205	137	123	757	343	27	40	32
MIN	.00	3.4	4.1	10	30	31	22	7.4	16	1.8	.30	.00
CFSM	.20	.13	.39	.58	1.86	1.26	1.11	1.31	2.15	.26	.20	.07
IN.	.23	.15	.45	.67	1.94	1.46	1.23	1.51	2.40	.29	.23	.08

CAL YR 1981 TOTAL 4912.42 MEAN 13.5 MAX 402 MIN .00 CFSM .34 IN 4.63
WTR YR 1982 TOTAL 11298.17 MEAN 31.0 MAX 757 MIN .00 CFSM .79 IN 10.64

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD

LOCATION.--Lat 38°20'00", long 76°43'31", St. Marys County, Hydrologic Unit 02070011, on left bank 60 ft (18 m) downstream from bridge on State Highway 242, 0.5 mi (0.8 km) north of Clements, 2.3 mi (3.7 km) upstream from mouth, and 5.7 mi (9.2 km) northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi^2 (47.9 km^2).

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

REVISED RECORDS.--WDR MD-DE-79-1: 1974(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Altitude of gage is 8 ft (2.4 m), from topographic map.

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

AVERAGE DISCHARGE.--14 years, 21.0 ft^3/s (0.595 m^3/s), 15.42 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s (127 m^3/s) Sept. 6, 1979, from rating curve extended above 480 ft^3/s (13.6 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow; maximum gage height, 6.96 ft (2.121 m) Sept. 6, 1979 (backwater from tide); maximum gage height unaffected by backwater, 6.55 ft (1.996 m) June 22, 1972; no flow at times in 1977, 1980, and 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft^3/s (6.2 m^3/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)
Mar. 7	2300	237	6.71	3.67	1.119	June 2	0330	245	6.94	3.73	1.137
Apr. 28	0200	*269	7.62	3.90	1.189	June 13	2400	248	7.02	3.75	1.143

Minimum discharge, 0.11 ft^3/s (0.003 m^3/s) Oct. 14, 15, gage height, 0.72 ft (0.219 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	3.3	3.2	21	81	20	15	21	40	4.3	11	.75
2	.22	2.7	6.8	17	30	23	13	19	136	3.3	5.6	.63
3	.30	2.6	7.4	11	76	22	18	16	22	2.4	3.4	.63
4	.26	2.4	5.6	36	41	18	26	14	104	3.7	2.5	.53
5	.18	2.4	4.9	26	21	17	16	13	68	4.9	2.3	.40
6	.13	6.0	5.2	14	16	99	18	12	36	3.3	12	.35
7	.21	7.3	4.5	10	13	109	16	11	22	2.7	6.3	.28
8	.29	4.9	4.2	8.6	11	30	14	10	17	2.3	26	.22
9	.43	3.7	4.4	7.6	15	29	17	10	14	2.2	32	.25
10	.30	3.4	4.2	5.4	18	21	20	9.1	11	4.0	30	.29
11	.22	2.9	3.7	3.5	13	19	16	8.2	12	14	12	.30
12	.21	2.6	3.4	3.0	11	25	14	7.3	11	7.4	6.4	.29
13	.19	2.3	3.1	3.0	11	23	13	7.3	88	4.2	4.5	.26
14	.17	2.4	4.1	4.0	11	19	13	7.3	131	3.3	3.5	.26
15	.17	2.2	20	5.2	13	24	12	6.6	25	5.4	3.1	.26
16	.19	2.6	34	6.7	16	43	11	6.0	15	13	2.5	.30
17	.14	3.7	18	7.3	40	51	13	5.8	17	7.0	3.1	.26
18	.25	3.2	11	6.7	74	26	68	5.6	83	3.9	19	.18
19	1.3	3.2	7.4	6.6	56	21	27	5.1	21	2.4	7.3	.18
20	1.1	3.1	5.5	6.6	43	25	19	5.0	17	3.2	3.8	.27
21	1.7	3.1	4.1	7.0	26	27	17	5.0	13	2.6	2.8	.72
22	1.5	3.5	5.5	7.3	19	21	15	5.0	9.9	2.2	2.4	2.8
23	1.4	3.0	9.5	8.6	14	18	13	6.6	9.2	2.0	2.2	5.6
24	2.6	2.9	8.7	12	14	16	13	7.4	7.3	2.0	2.2	3.5
25	4.9	2.8	7.8	12	13	16	12	8.2	6.5	2.0	2.2	2.1
26	11	2.8	8.4	9.8	11	15	25	8.4	5.7	1.7	1.9	1.8
27	10	2.8	7.7	8.2	11	14	97	7.5	5.4	1.3	1.5	8.8
28	26	3.3	6.8	8.9	15	13	168	8.4	5.1	.90	1.4	7.0
29	13	2.9	5.9	7.7	---	12	39	88	4.6	.79	1.1	3.2
30	5.7	2.8	5.0	8.3	---	12	25	27	5.5	15	.73	1.9
31	3.9	---	5.2	22	---	13	---	19	---	22	.83	---
TOTAL	88.11	96.8	235.2	321.0	733	841	803	389.8	962.2	149.39	215.56	44.31
MEAN	2.84	3.23	7.59	10.4	26.2	27.1	26.8	12.6	32.1	4.82	6.95	1.48
MAX	26	7.3	34	36	81	109	168	88	136	22	32	8.8
MIN	.13	2.2	3.1	3.0	11	12	11	5.0	4.6	.79	.73	.18
CFSM	.15	.18	.41	.56	1.42	1.47	1.45	.68	1.74	.26	.38	.08
IN.	.18	.19	.47	.65	1.47	1.69	1.61	.78	1.93	.30	.43	.09

CAL YR 1981 TOTAL 3165.73 MEAN 8.67 MAX 134 MIN .00 CFSM .47 IN 6.37
WTR YR 1982 TOTAL 4879.37 MEAN 13.4 MAX 168 MIN .13 CFSM .72 IN 9.81

01661500 ST. MARYS RIVER AT GREAT MILLS, MD

LOCATION.--Lat 38°14'36", long 76°30'13", St. Marys County, Hydrologic Unit 02070011, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mi (0.5 km) downstream from Western Branch, and 12.0 mi (19.3 km) upstream from mouth.

DRAINAGE AREA.--24.0 mi^2 (62.2 km^2).

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

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (3 m), from topographic map.

REMARKS.--Records excellent. Occasional regulation by reservoir on Western Branch of St. Marys River 2.0 mi (3.2 km) upstream since 1975, total capacity, 3,200 acre feet (3.95 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 23.6 ft^3/s (0.668 m^3/s), 13.35 in/yr (339 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,950 ft^3/s (225 m^3/s) Aug. 20, 1969, gage height, 13.34 ft (4.066 m), from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of contracted-opening measurement at gage height 12.08 ft (3.682 m); minimum discharge, 0.2 ft^3/s (0.006 m^3/s) Sept. 7, 1966, gage height, 1.13 ft (0.344 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 491 ft^3/s (13.9 m^3/s) June 5, gage height 5.15 ft (1.570 m), no other peak above base of 400 ft^3/s (11 m^3/s); minimum discharge, 1.7 ft^3/s (0.048 m^3/s) Sept. 13, gage height, 1.27 ft (0.387 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.1	4.7	52	70	23	15	20	40	7.2	13	2.2
2	2.6	4.1	6.9	20	26	27	13	17	125	5.2	9.2	2.3
3	2.6	3.9	5.4	14	79	28	16	15	38	4.8	7.1	2.3
4	2.3	3.6	4.8	59	42	28	24	13	208	8.8	6.0	2.1
5	2.4	3.5	5.5	30	22	41	16	12	316	6.4	5.0	2.0
6	2.1	8.6	5.3	15	16	34	20	11	158	5.1	6.0	1.9
7	2.1	5.6	4.7	11	12	156	16	10	68	4.4	7.1	2.0
8	2.0	4.4	5.9	9.2	11	185	14	9.7	42	4.2	20	2.1
9	1.9	3.9	5.0	8.3	12	86	19	12	28	4.2	14	2.1
10	2.0	3.8	4.5	6.6	13	53	19	9.5	21	4.3	13	2.0
11	2.1	3.8	4.3	4.9	10	39	16	8.2	19	4.1	9.2	2.1
12	2.1	3.8	4.1	5.0	9.4	36	15	7.8	16	4.1	8.3	2.1
13	2.1	3.7	3.9	5.6	10	30	14	7.0	42	3.8	6.7	2.1
14	2.1	6.2	4.9	7.1	10	26	13	7.0	59	3.8	5.6	2.2
15	2.3	5.5	29	7.2	14	33	12	6.6	32	4.9	5.0	2.3
16	2.4	4.3	39	6.8	23	53	12	6.3	22	5.4	4.4	2.3
17	2.4	4.1	17	6.6	82	70	16	5.6	17	4.2	4.1	2.2
18	2.5	4.3	11	6.9	215	45	164	5.2	14	3.6	18	2.0
19	5.6	3.7	7.7	6.4	146	35	60	5.4	13	5.8	9.2	2.2
20	3.6	4.0	6.1	6.3	106	35	39	7.5	12	31	6.3	3.0
21	10	3.7	4.8	6.6	66	37	30	6.3	9.7	8.3	5.3	3.0
22	4.4	3.4	7.1	6.3	45	32	24	6.1	8.7	5.6	5.0	13
23	3.3	3.3	8.9	12	34	26	19	6.9	8.4	4.7	4.1	8.5
24	4.9	3.3	7.1	17	26	22	17	7.1	7.2	4.4	3.8	4.7
25	9.0	3.7	8.1	11	22	21	15	9.9	6.3	3.8	3.6	3.6
26	14	5.3	8.3	8.5	18	19	17	8.5	5.6	3.6	4.7	4.8
27	7.3	5.0	7.5	7.5	17	17	27	7.2	5.4	3.1	3.3	118
28	10	4.3	6.6	7.7	21	15	47	7.9	5.3	3.4	2.6	15
29	5.9	3.9	5.8	7.1	---	14	31	44	4.7	4.7	2.1	8.5
30	4.8	3.8	5.4	8.4	---	14	24	22	9.9	31	2.2	6.6
31	4.2	---	5.9	34	---	14	---	84	---	24	2.2	---
TOTAL	127.0	128.6	255.2	414.0	1177.4	1294	784	405.7	1361.2	221.9	216.1	229.2
MEAN	4.10	4.29	8.23	13.4	42.1	41.7	26.1	13.1	45.4	7.16	6.97	7.64
MAX	14	8.6	39	59	215	185	164	84	316	31	20	118
MIN	1.9	3.3	3.9	4.9	9.4	14	12	5.2	4.7	3.1	2.1	1.9
CFSM	.17	.18	.34	.56	1.75	1.74	1.09	.55	1.89	.30	.29	.32
IN.	.20	.20	.40	.64	1.82	2.01	1.22	.63	2.11	.34	.33	.36

CAL YR 1981 TOTAL 4852.7 MEAN 13.3 MAX 130 MIN 1.7 CFSM .55 IN 7.52
WTR YR 1982 TOTAL 6614.3 MEAN 18.1 MAX 316 MIN 1.9 CFSM .75 IN 10.25

MONONGAHELA RIVER BASIN

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, Hydrologic Unit 05020006, on left bank 200 ft (61 m) downstream from Baltimore and Ohio Railroad bridge, 250 ft (76 m) downstream from Little Youghiogheny River, 1.2 mi (1.9 km) northwest of Oakland, and 1.5 mi (2.4 km) upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi^2 (347 km^2).

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

REVISED RECORDS.--WSP 1113: 1947(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft (717.380 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft (61 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Town of Oakland diverted an average of 0.4 ft^3/s (0.011 m^3/s) for water supply. The diversion is returned above station as sewage. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 298 ft^3/s (8.439 m^3/s), 30.20 in/yr (767 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s (334 m^3/s) Oct. 16, 1954, gage height, 12.16 ft (3.706 m); minimum daily discharge, 2.5 ft^3/s (0.071 m^3/s) Oct. 4, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 15.3 ft (4.66 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56 m^3/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. 23	1800	*3110	88.1	6.47	1.972	Mar. 12	0645	2130	60.3	5.50	1.676
Jan. 24	0300	2110	59.8	5.48	1.670	Mar. 17	0215	2990	84.7	6.36	1.939
Feb. 1	0145	2670	75.6	6.05	1.844	July 4	0430	2800	79.3	6.18	1.884
Feb. 3	1745	2090	59.2	5.46	1.664						

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Sept. 14, gage height, 1.95 ft (0.594 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	220	376	256	1900	247	386	100	90	60	138	31
2	69	185	581	247	849	239	308	98	105	49	109	40
3	61	157	400	216	1440	243	358	90	99	678	109	54
4	51	135	330	994	1720	227	463	81	107	2120	87	42
5	47	124	305	1010	960	334	353	76	454	766	75	31
6	49	262	248	634	692	287	476	72	528	423	67	28
7	62	275	221	809	478	360	436	68	483	280	59	27
8	51	221	616	675	399	339	392	76	355	829	123	24
9	48	201	529	504	399	296	430	74	264	730	173	23
10	41	194	427	327	384	273	377	63	311	390	117	23
11	38	171	350	325	315	478	345	58	817	279	85	22
12	37	152	300	280	256	1770	393	54	522	227	101	22
13	38	135	259	227	208	1170	592	51	762	170	74	21
14	35	125	240	205	193	908	594	54	671	137	60	21
15	33	117	220	171	223	683	453	50	441	118	52	27
16	33	109	200	151	573	1170	368	44	316	98	48	31
17	32	102	190	131	812	2500	313	41	409	83	45	24
18	42	95	180	128	657	1270	332	39	312	75	48	22
19	98	87	170	116	764	819	246	36	220	88	41	22
20	70	95	165	113	772	1120	213	47	183	161	37	22
21	53	104	155	133	1180	1290	195	68	145	132	41	22
22	45	95	501	154	760	983	167	55	119	78	43	84
23	48	90	2330	700	580	726	146	57	108	82	39	72
24	67	88	1840	1600	539	532	132	61	90	74	40	41
25	57	87	878	923	500	412	120	64	77	58	42	32
26	96	88	604	505	384	425	132	50	70	49	41	34
27	929	374	449	300	330	351	157	109	63	46	32	182
28	999	359	356	260	273	297	162	249	59	654	34	125
29	580	247	349	300	---	308	121	137	61	791	32	94
30	387	200	273	267	---	330	107	116	81	278	28	62
31	280	---	219	675	---	357	---	117	---	187	28	---
TOTAL	4524	4894	14261	13336	18540	20744	9267	2355	8322	10190	2048	1305
MEAN	146	163	460	430	662	669	309	76.0	277	329	66.1	43.5
MAX	999	374	2330	1600	1900	2500	594	249	817	2120	173	182
MIN	32	87	155	113	193	227	107	36	59	46	28	21
CFSM	1.09	1.22	3.43	3.21	4.94	4.99	2.31	.57	2.07	2.46	.49	.33
IN.	1.26	1.36	3.96	3.70	5.15	5.76	2.57	.65	2.31	2.83	.57	.36

CAL YR 1981 TOTAL 121132 MEAN 332 MAX 2700 MIN 31 CFSM 2.48 IN 33.63
WTR YR 1982 TOTAL 109786 MEAN 301 MAX 2500 MIN 21 CFSM 2.25 IN 30.48

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD

LOCATION.--Lat 39°30'34", long 79°23'28", Garrett County, Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi (2.9 km) upstream from mouth and 7.0 mi (11.3 km) north of Oakland.

DRAINAGE AREA.--64.7 mi^2 (167.6 km^2).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at mean sea level, unadjusted.

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft (115 hm^3) between elevations 2,425 ft (739.1 m), top of intake to outlet tunnel, and 2,462 ft (750.4 m), crest of spillway. Dead storage, 13,085 acre-ft (16.1 hm^3). Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Elevations and capacity table furnished by Pennsylvania Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,258 acre-ft (115 hm^3) July 24, 25, 1949, elevation, 2,462.075 ft (750.440 m); minimum observed, 11,763 acre-ft (14.5 hm^3) Sept. 30, 1925, elevation, 2,433.45 ft (741.716 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 86,300 acre-ft (106 hm^3) July 25, elevation, 2,460.20 ft (749.869 m); minimum, 67,000 acre-ft (82.6 hm^3) Jan. 29, elevation, 2,454.80 ft (748.223 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2456.2	71800	
Oct. 31	2456.0	71100	-700
Nov. 30	2455.1	68100	-3000
Dec. 31	2456.0	71100	+3000
CAL YR 1981			+1300
Jan. 31	2454.9	67400	-3700
Feb. 28	2455.7	70100	+2700
Mar. 31	2458.6	80400	+10300
Apr. 30	2458.7	80800	+400
May 31	2458.5	80000	-800
June 30	2459.6	84100	+4100
July 31	2459.8	84800	+700
Aug. 31	2458.5	80000	-4800
Sept. 30	2456.8	73900	-6100
WTR YR 1982			+2100

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi (1.1 km) upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi (2.4 km) upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2 (764 km^2).

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft (453.338 m) National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi (1.1 km) downstream at datum 16.24 ft (4.950 m) and 16.29 ft (4.965 m) lower, respectively.

REMARKS.--Records good except those for January which are fair. Low and medium flow regulated since July 1925 by Deep Creek Reservoir (see station 03076000). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years (water years 1899-1904, 1941-82), 642 ft^3/s (18.18 m^3/s), 29.55 in/yr (751 mm/yr), adjusted for storage since October 1940.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) Oct. 16, 1954, gage height, 8.99 ft (2.740 m), from rating curve extended above 5,800 ft^3/s (164 m^3/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 8.2 ft^3/s (0.23 m^3/s) Sept. 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1898, 14.2 ft (4.33 m) Mar. 29, 1924, from floodmarks, site and datum then in use or 10.2 ft (3.11 m), present site and datum; discharge, about 15,600 ft^3/s (440 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,950 ft^3/s (140 m^3/s) Mar. 17, gage height, 5.66 ft (1.725 m); minimum discharge, 32 ft^3/s (0.91 m^3/s) Sept. 12, 19, gage height, 1.90 ft (0.579 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	412	529	397	2690	628	813	203	221	203	221	154
2	112	451	1080	437	1400	685	686	195	208	164	272	168
3	126	449	767	445	1870	672	581	231	234	899	275	195
4	109	412	660	1410	3230	628	824	213	248	3580	207	101
5	99	394	512	1870	2100	778	785	201	625	1380	383	77
6	105	571	436	1170	1220	569	1000	203	874	816	229	67
7	112	575	473	1360	876	575	952	201	864	563	113	146
8	111	415	1120	1260	960	775	842	157	659	1380	131	148
9	98	500	1070	823	928	699	712	162	518	1550	494	143
10	93	501	862	619	972	641	634	196	480	692	312	134
11	85	473	727	700	796	830	577	171	1040	524	292	54
12	82	439	537	600	734	2960	766	166	724	556	298	47
13	78	387	466	500	415	2100	958	162	850	440	260	136
14	77	289	570	450	338	1680	1040	156	1000	389	138	179
15	234	262	562	400	636	1380	814	111	673	338	113	170
16	178	306	496	370	1060	1740	690	105	541	386	193	184
17	83	289	436	350	1650	4240	584	140	647	232	95	193
18	91	283	504	450	1410	2510	544	138	611	242	206	101
19	247	323	294	500	1370	1600	502	132	400	366	192	44
20	256	318	306	470	1450	1510	506	136	341	306	179	142
21	220	262	407	420	2230	1960	486	202	339	349	105	206
22	205	216	579	400	1570	1920	382	142	292	310	95	270
23	223	256	3370	409	1180	1350	371	126	267	248	180	318
24	123	323	3350	1900	1140	1030	309	178	250	173	184	248
25	127	312	1470	1070	1080	951	251	167	215	137	250	125
26	230	189	987	680	890	1000	288	160	158	205	192	67
27	1280	342	757	550	609	609	327	149	143	195	170	360
28	1780	605	717	450	515	509	334	318	175	311	77	395
29	1090	407	707	370	---	801	288	244	193	1350	70	339
30	795	436	605	249	---	839	254	189	227	502	153	290
31	512	---	534	533	---	858	---	198	---	279	153	---
TOTAL	9063	11397	25890	21612	35319	39027	18100	5452	14017	19065	5232	5201
MEAN	292	380	835	697	1261	1259	603	176	467	615	201	173
MAX	1780	605	3370	1900	3230	4240	1040	318	1040	3580	494	395
MIN	77	189	294	249	338	509	251	105	143	137	70	44
(≠)	-11.4	-50.4	+48.8	-60.0	+48.6	+167	+6.7	-13.0	+69.1	+11.4	-78.1	-102
MEAN#	281	330	884	637	1310	1426	610	163	536	626	123	71
CFSM#	0.95	1.12	3.00	2.16	4.44	4.83	2.07	0.55	1.82	2.12	0.42	0.24
IN#	1.10	1.25	3.46	2.49	4.62	5.57	2.31	0.63	2.03	2.44	0.48	0.27

CAL YR 1981 TOTAL 236983 MEAN 649 MAX 4200 MIN 77 MEAN# 651 CFSM# 2.21 IN# 29.96
WTR YR 1982 TOTAL 210375 MEAN 576 MAX 4240 MIN 44 MEAN# 579 CFSM# 1.96 IN# 26.65

≠ Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir furnished by Pennsylvania Electric Co.
Adjusted for change in contents.

03076600 BEAR CREEK AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39'22", long 79°23'41", Garrett County, Hydrologic Unit 05020006, on right bank 0.2 mi (0.3 km) downstream from bridge on Accident-Friendsville Road, 0.6 mi (1.0 km) downstream from South Branch Bear Creek, 0.8 mi (1.3 km) southeast of Friendsville, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--48.9 mi^2 (126.7 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft (472.848 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--18 years, 88.5 ft^3/s (2.506 m^3/s), 24.58 in/yr (624 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft^3/s (132 m^3/s) Sept. 14, 1971, gage height, 9.6 ft (2.93 m), from floodmarks, from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft^3/s (0.042 m^3/s) Sept. 12, 1966, gage height, 0.42 ft (0.128 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s (17 m^3/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. 23	1030	1120	31.7	4.16	1.268	Mar. 11	2300	770	21.8	3.60	1.097
Feb. 1	0045	*1290	36.5	4.43	1.350	Mar. 17	0015	1200	34.0	4.29	1.308
Feb. 3	2400	866	24.5	3.75	1.143						

Minimum discharge, 5.6 ft^3/s (0.16 m^3/s) Sept. 18, 21, gage height, 0.70 ft (0.213 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	53	69	71	645	93	87	31	23	20	11	14
2	24	48	97	63	292	95	83	30	23	17	11	9.8
3	17	43	88	58	497	88	152	29	24	131	12	28
4	15	38	80	317	651	79	191	27	24	241	11	14
5	15	36	77	299	363	152	156	26	147	95	40	10
6	19	52	67	192	259	122	179	25	145	64	17	8.9
7	17	49	64	265	164	125	140	25	122	49	12	8.2
8	14	45	263	223	116	103	129	31	100	46	14	7.8
9	13	44	258	162	102	91	134	26	81	39	17	7.6
10	12	47	173	100	85	83	114	22	72	34	12	7.2
11	12	45	124	78	75	207	106	22	66	48	29	7.0
12	12	44	100	70	65	545	115	21	51	41	32	6.9
13	11	42	85	65	60	491	157	20	66	31	18	6.3
14	11	40	79	60	56	410	158	19	57	27	14	6.2
15	11	39	73	57	90	314	132	18	48	24	12	6.3
16	11	37	67	54	266	426	110	17	62	22	11	6.5
17	11	36	62	50	383	802	96	16	82	20	11	6.2
18	13	33	57	49	313	472	84	16	61	20	13	5.8
19	17	32	52	47	253	350	73	15	52	20	10	6.3
20	13	34	48	46	242	325	66	16	49	25	8.9	6.0
21	12	33	46	45	405	300	59	33	42	19	17	6.5
22	11	31	90	44	299	250	52	32	37	15	12	20
23	12	29	790	61	248	203	48	27	36	18	11	12
24	13	29	540	118	251	144	45	23	30	15	12	8.2
25	11	29	338	63	214	117	43	23	27	13	18	7.2
26	18	29	216	57	151	111	43	20	25	12	13	8.2
27	204	55	139	59	122	92	42	20	23	12	9.8	34
28	237	53	106	46	101	83	38	22	21	19	9.8	16
29	113	49	93	37	---	80	34	22	25	20	8.2	14
30	82	46	74	39	---	82	32	22	28	13	8.0	11
31	65	---	67	325	---	91	---	34	---	12	8.4	---
TOTAL	1063	1220	4482	3220	6768	6926	2898	730	1649	1182	443.1	316.1
MEAN	34.3	40.7	145	104	242	223	96.6	23.5	55.0	38.1	14.3	10.5
MAX	237	55	790	325	651	802	191	34	147	241	40	34
MIN	11	29	46	37	56	79	32	15	21	12	8.0	5.8
CFSM	.70	.83	2.97	2.13	4.95	4.56	1.98	.48	1.13	.78	.29	.22
IN.	.81	.93	3.41	2.45	5.15	5.27	2.20	.56	1.25	.90	.34	.24

CAL YR 1981 TOTAL 33164.0 MEAN 90.9 MAX 1030 MIN 10 CFSM 1.86 IN 25.23
WTR YR 1982 TOTAL 30897.2 MEAN 84.6 MAX 802 MIN 5.8 CFSM 1.73 IN 23.50

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi (0.5 km) upstream from Slaubaugh Run, 0.7 mi (1.1 km) downstream from U.S. Highway 40, and 1.0 mi (1.6 km) northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2 (161.9 km^2).

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

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft (636.718 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--35 years, 119 ft^3/s (3.370 m^3/s), 25.86 in/yr (657 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft^3/s (238 m^3/s) Oct. 15, 1954, gage height, 10.70 ft (3.261 m), from rating curve extended above 1,600 ft^3/s (73.6 m^3/s) on basis of contracted-opening measurement at gage height 8.13 ft (2.478 m); no flow Aug. 31, 1962, result of regulation from unknown source.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/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)
Feb. 1	0600	1270	36.0	4.04	1.231	Mar. 13	2300	1020	28.9	3.71	1.131
Feb. 3	2345	1140	32.3	3.88	1.183	Mar. 17	0300	*1310	37.1	4.09	1.247

Minimum discharge, 3.7 ft^3/s (0.10 m^3/s) Sept. 14, 15, 21, gage height, 1.00 ft (0.305 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	80	120	100	710	134	134	44	58	28	11	9.4
2	37	72	180	103	228	162	107	42	46	23	9.3	10
3	31	66	160	89	482	147	200	40	62	120	10	24
4	27	59	130	332	761	122	246	38	84	328	9.3	26
5	24	56	110	285	342	207	162	34	472	101	107	13
6	27	97	100	175	252	154	239	33	404	70	31	11
7	29	97	90	388	188	165	196	31	269	52	16	8.7
8	25	76	400	234	175	138	165	56	184	50	12	8.7
9	23	69	300	190	139	120	177	49	139	50	15	7.7
10	21	83	220	149	120	107	154	38	125	40	12	6.9
11	20	74	155	122	119	231	154	33	162	41	24	5.9
12	19	66	142	105	108	738	165	31	112	50	74	5.3
13	18	59	120	100	96	729	210	28	184	35	26	4.8
14	18	52	132	95	99	637	190	27	174	28	16	4.4
15	18	49	107	90	135	407	142	24	116	25	12	4.9
16	17	48	103	85	370	518	120	21	127	24	11	5.2
17	17	46	110	80	515	1080	112	20	207	22	9.7	4.7
18	19	44	93	78	278	677	107	19	118	20	17	4.3
19	29	43	75	76	245	500	91	18	87	29	11	4.3
20	25	45	78	74	251	541	82	19	80	22	9.0	4.3
21	21	43	99	72	515	483	76	85	67	21	12	3.9
22	19	41	187	70	268	360	68	105	58	18	14	17
23	19	39	689	121	242	265	62	87	58	15	11	16
24	20	39	409	204	262	228	59	70	49	18	12	10
25	19	39	239	151	235	196	58	82	42	16	20	8.1
26	30	40	177	108	175	200	58	58	38	14	24	7.9
27	505	100	149	97	151	174	64	46	33	11	13	40
28	468	85	130	105	133	147	59	62	31	17	11	26
29	175	75	125	105	---	139	50	65	29	29	9.8	23
30	118	70	95	123	---	137	46	52	34	17	8.0	16
31	94	---	85	343	---	142	---	84	---	13	7.1	---
TOTAL	1956	1852	5309	4449	7594	9985	3753	1441	3649	1347	584.2	341.4
MEAN	63.1	61.7	171	144	271	322	125	46.5	122	43.5	18.8	11.4
MAX	505	100	689	388	761	1080	246	105	472	328	107	40
MIN	17	39	75	70	96	107	46	18	29	11	7.1	3.9
CFSM	1.01	.99	2.74	2.30	4.34	5.15	2.00	.74	1.95	.70	.30	.18
IN.	1.16	1.10	3.16	2.65	4.52	5.94	2.23	.86	2.17	.80	.35	.20

CAL YR 1981 TOTAL 43330.3 MEAN 119 MAX 1340 MIN 5.7 CFSM 1.90 IN 25.79
WTR YR 1982 TOTAL 42260.6 MEAN 116 MAX 1080 MIN 3.9 CFSM 1.86 IN 25.15

DELAWARE RIVER BASIN

01477800 - SHELLPOT C AT WILMINGTON DE (LAT 39 45 39 LONG 075 31 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1981				
02...	1150	15	9.0	9.0
30...	1130	2.1	1.0	1.5
FEB , 1982				
16...	1515	6.1	15.0	9.0
MAR				
12...	1100	8.9	14.0	9.0
APR				
19...	1215	6.1	17.5	15.5
MAY , 1982				
18...	1020	4.0	18.0	16.0
JUN				
08...	1400	2.7	19.0	18.0
JUL				
12...	1105	2.2	28.0	24.5
27...	1400	1.2	26.0	27.0
AUG				
18...	1215	2.1	23.5	21.5

01478000 - CHRISTINA R AT COOCHS BRIDGE DE (LAT 39 38 16 LONG 075 43 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
05...	1205	3.6	18.0	14.5
23...	1500	1.2	16.0	13.0
DEC				
09...	1400	8.0	2.0	4.5
31...	1430	3.8	--	2.5
FEB , 1982				
03...	1205	780	6.0	1.0
MAR				
11...	1045	17	7.0	5.0
APR				
21...	1430	14	18.0	16.5
MAY , 1982				
24...	1055	24	12.5	14.5
JUN				
07...	1130	25	18.5	18.0
JUL				
08...	1405	6.9	28.5	24.5
AUG				
09...	1410	11	29.0	24.5
11...	1030	5.5	21.5	23.0
SEP				
13...	1100	3.9	24.5	20.0
22...	1220	4.3	15.0	16.5

01478040 - CHRISTINA R NR BEAR DE (LAT 39 38 12 LONG 075 40 53)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
05...	1400	6.0	23.0	15.5
NOV				
04...	1240	8.3	22.5	11.5
DEC				
03...	1410	32	7.5	7.0
29...	1110	20	5.0	4.0
FEB , 1982				
16...	1210	44	15.0	5.0
APR				
23...	1400	24	19.5	15.0
JUN , 1982				
04...	1510	33	19.5	19.5
JUL				
08...	1040	11	26.5	23.0
AUG				
09...	1110	46	26.0	24.5
SEP				
14...	1040	4.2	21.5	20.5

01479000 - WHITE CLAY C NR NEWARK DE (LAT 39 42 00 LONG 075 41 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
23...	1315	28	15.0	12.5
DEC				
02...	1450	202	12.5	6.5
30...	1430	49	3.0	1.0
FEB , 1982				
10...	1245	111	1.5	2.5
MAR				
11...	1310	86	11.5	7.0
APR				
21...	1200	83	16.5	14.5
MAY , 1982				
18...	1205	57	20.5	18.5
JUN				
07...	1400	116	20.5	18.0
23...	1130	70	22.5	20.5
JUL				
13...	1045	48	28.5	25.0
AUG				
10...	1230	46	29.5	26.5
SEP				
13...	1245	34	24.5	21.0

01480000 - RED CLAY C AT WOODDALE DE (LAT 39 45 52 LONG 075 38 08)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
09...	1400	18	15.5	12.5
NOV				
05...	1145	22	15.5	10.0
DEC				
09...	1030	30	1.0	4.0
31...	1120	30	2.0	1.0
FEB , 1982				
11...	1100	49	-1.0	2.0
MAR				
08...	1055	88	-1.0	3.0
APR , 1982				
23...	1200	47	18.0	13.5
JUN				
08...	1545	42	21.0	17.5
JUL				
13...	1300	33	29.5	25.5
AUG				
12...	1225	47	23.5	21.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DELAWARE RIVER BASIN--CONTINUED									
01481500 - BRANDYWINE C AT WILMINGTON DE (LAT 39 46 09 LONG 075 34 25)									
OCT , 1981					SEP , 1982				
01...	1150	114	19.0	17.0	01...	1130	159	24.0	21.5
NOV					30...	1145	165	20.5	19.0
02...	1120	139	18.0	15.5					
DEC									
01...	1320	138	1.0	2.5					
01483200 - BLACKBIRD C AT BLACKBIRD DE (LAT 39 21 58 LONG 075 40 10)									
OCT , 1981					MAY , 1982				
01...	1415	.14	23.0	19.5	07...	1025	4.4	22.0	19.0
28...	1250	3.7	18.5	14.0	JUN				
DEC					04...	1055	5.1	18.0	20.0
04...	1215	1.1	8.0	6.5	JUL				
JAN , 1982					12...	1315	5.3	28.5	28.0
04...	1500	13	16.0	6.0	AUG				
FEB					10...	1515	.86	28.5	29.5
02...	1445	7.3	3.0	2.0	SEP				
MAR					14...	1215	.24	23.0	24.5
10...	1320	5.1	5.0	5.5					
APR									
19...	1520	5.9	17.5	18.0					
ST. JONES RIVER BASIN									
01483700 - ST JONES R AT DOVER DE (LAT 39 09 49 LONG 075 31 10)									
OCT , 1981					APR , 1982				
01...	1110	7.3	21.0	19.5	01...	0930	49	5.5	11.0
NOV					MAY				
03...	1120	14	16.5	14.0	03...	0935	33	19.5	18.0
DEC					JUN				
01...	1145	9.1	2.5	6.5	01...	1005	23	20.5	24.0
JAN , 1982					JUL				
04...	1025	90	14.0	7.0	01...	0920	11	21.0	25.0
FEB					AUG				
01...	1045	93	5.0	4.0	02...	0930	5.2	26.0	25.5
MAR					SEP				
01...	1105	39	5.5	7.5	01...	0900	2.1	23.5	22.5
MURDERKILL RIVER BASIN									
01484000 - MURDERKILL R NR FELTON DE (LAT 38 58 33 LONG 075 34 03)									
OCT , 1981					APR , 1982				
22...	1355	3.7	22.0	13.0	19...	1330	24	21.0	15.0
DEC					JUN				
02...	1440	8.1	11.0	9.5	08...	1410	8.6	19.5	15.5
04...	1030	5.4	7.5	7.0	JUL				
15...	1410	19	3.5	4.5	14...	1425	4.5	25.5	20.0
16...	1400	34	4.5	4.0	AUG				
FEB , 1982					16...	1430	2.4	28.5	20.0
11...	1350	28	4.5	4.0	SEP				
MAR					14...	1430	1.9	26.5	20.5
22...	1300	22	12.0	10.0					
MISPILLION RIVER BASIN									
01484100 - BEAVERDAM B AT HOUSTON DE (LAT 38 54 20 LONG 075 30 49)									
OCT , 1981					JUN , 1982				
22...	1220	.73	22.5	12.5	08...	1115	2.5	18.0	15.0
DEC					JUL				
03...	1410	.72	9.5	9.5	14...	1300	1.3	29.5	17.5
FEB , 1982					AUG				
18...	1405	6.6	4.5	7.0	16...	1240	1.2	31.0	18.0
MAR					SEP				
22...	1055	4.6	13.5	11.0	14...	1045	.45	24.0	17.5
APR									
19...	1145	4.6	18.0	14.5					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
INDIAN RIVER BASIN									
01484500 - STOCKLEY B AT STOCKLEY DE (LAT 38 38 19 LONG 075 20 31)									
OCT , 1981					APR , 1982				
27...	1435	1.1	23.0	16.5	26...	1040	7.0	16.0	14.5
NOV					JUN				
30...	1400	.98	8.5	5.5	10...	1535	4.3	20.0	18.0
FEB , 1982					JUL				
23...	1130	9.2	11.0	7.5	19...	1320	2.4	28.5	21.5
MAR									
23...	1015	9.0	16.0	10.0					
POCOMOKE RIVER BASIN									
01485000 - POCOMOKE R NR WILLARDS, MD (LAT 38 23 20 LONG 075 19 30)									
OCT , 1981					APR , 1982				
16...	1400	5.2	20.5	12.0	27...	1410	192	21.0	14.0
NOV					JUN				
23...	1320	6.6	5.0	6.0	09...	1235	51	22.0	16.5
DEC					JUL				
28...	1155	25	5.0	6.5	22...	1200	13	27.0	22.0
FEB , 1982					AUG				
10...	1350	53	--	7.0	19...	1055	29	27.5	20.0
MAR									
23...	1325	71	13.5	11.0					
01485500 - NASSAWANGO C NR SNOW HILL, MD (LAT 38 13 44 LONG 075 28 19)									
OCT , 1981					APR , 1982				
21...	1350	4.2	15.0	10.0	21...	1340	29	18.0	15.0
NOV					JUN				
25...	1415	5.7	5.0	5.0	09...	1020	46	23.0	16.0
JAN , 1982					JUL				
06...	1450	116	8.5	5.0	21...	1235	5.4	26.5	22.0
FEB					AUG				
25...	1130	83	1.0	4.5	18...	1350	8.1	25.5	21.0
MAR					SEP				
25...	1115	48	17.5	10.0	09...	1230	2.6	22.0	16.5
MANOKIN RIVER BASIN									
01486000 - MANOKIN B NR PRINCESS ANNE, MD (LAT 38 12 50 LONG 075 40 18)									
OCT , 1981					APR , 1982				
21...	1130	.29	13.5	14.5	21...	1110	2.9	23.0	15.5
NOV					JUN				
25...	1130	.28	6.0	8.0	07...	1120	2.4	18.5	19.0
JAN , 1982					JUL				
06...	1235	6.1	8.0	5.5	13...	1150	1.1	29.0	24.5
FEB					AUG				
17...	1130	16	4.0	8.0	18...	1100	.53	27.0	22.0
MAR									
18...	1355	13	13.5	12.0					
NANTICOKE RIVER BASIN									
01487000 - NANTICOKE R NR BRIDGEVILLE, DE (LAT 38 43 45 LONG 075 33 41)									
OCT , 1981					MAY , 1982				
02...	1120	26	17.5	17.5	19...	1200	70	30.0	19.0
NOV					JUN				
03...	1315	28	19.0	14.5	10...	1035	73	22.0	18.5
DEC					JUL				
02...	1300	33	9.0	11.0	19...	1100	43	28.0	24.5
31...	1145	40	6.0	4.0	AUG				
FEB , 1982					12...	0955	39	17.5	21.0
22...	1105	172	7.0	8.5					
MAR									
24...	1305	111	15.0	12.0					
01488500 - MARSHYHOPE C NR ADAMSVILLE DE (LAT 38 50 59 LONG 075 40 24)									
OCT , 1981					APR , 1982				
23...	1205	10	20.5	14.5	22...	1420	50	23.0	16.0
NOV					JUN				
27...	1430	9.9	20.5	11.5	03...	1320	20	26.0	23.5
DEC					JUL				
30...	1355	19	2.0	3.5	14...	1125	15	28.5	24.0
MAR , 1982					AUG				
17...	1240	144	11.0	8.5	16...	1020	12	27.0	20.0

NANTICOKE RIVER BASIN--CONTINUED

01489000 - FAULKNER B AT FEDERALSBURG, MD (LAT 38 42 44 LONG 075 47 34)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981					APR , 1982				
23...	0955	1.9	21.5	14.0	22...	1055	10	18.0	11.0
NOV					JUN				
27...	1210	1.9	19.0	8.0	03...	1110	6.5	22.5	17.5
DEC					JUL				
30...	1145	3.0	1.0	3.0	14...	0945	3.3	25.0	21.5
FEB , 1982					AUG				
09...	1055	16	5.5	5.0	19...	1415	1.6	25.0	19.5
MAR									
24...	1010	13	14.0	8.0					

CHOPTANK RIVER BASIN

01491000 - CHOPTANK R NR GREENSBORO, MD (LAT 38 59 50 LONG 075 47 10)

OCT , 1981					APR , 1982				
27...	1230	48	21.5	14.5	27...	1140	156	16.0	16.5
NOV					MAY				
23...	1235	31	6.5	6.0	27...	1045	55	19.5	18.5
DEC					JUL				
28...	1055	89	4.5	5.0	28...	0955	26	28.0	26.0
JAN , 1982					28...	1515	27	30.5	26.5
27...	1055	108	--	.0	AUG				
28...	1115	111	2.5	.5	26...	1015	20	20.5	21.5
FEB					30...	1145	9.5	20.5	18.5
04...	1030	651	9.0	5.0	31...	1135	12	25.5	19.0
26...	1105	222	-3.0	2.5	SEP				
MAR					27...	0940	21	18.5	18.0
15...	1300	178	8.0	9.0					
17...	0925	229	12.0	7.0					

CHESTER RIVER BASIN

01493000 - UNICORN B NR MILLINGTON, MD (LAT 39 14 59 LONG 075 51 40)

OCT , 1981					APR , 1982				
29...	0935	11	12.0	13.5	29...	1355	93	17.5	14.0
DEC					MAY				
07...	1250	7.2	7.0	4.0	05...	0955	24	19.0	19.5
JAN , 1982					JUN				
08...	1120	16	-1.0	4.0	02...	1030	20	20.5	21.5
FEB					14...	0945	87	17.5	16.5
16...	1220	27	17.0	5.5					
MAR									
29...	1300	22	12.0	9.5					

01493500 - MORGAN C NR KENNEDYVILLE, MD (LAT 39 16 48 LONG 076 00 54)

OCT , 1981					APR , 1982				
29...	1100	6.0	11.0	11.0	29...	1215	8.9	18.5	12.0
DEC					JUN				
07...	1015	3.9	6.5	3.0	02...	1315	6.6	23.0	20.5
JAN , 1982					AUG				
07...	1505	5.5	7.5	5.0	17...	1300	3.3	33.0	21.0
FEB					SEP				
16...	1030	7.2	15.0	7.0	15...	1210	3.4	28.5	18.5
MAR									
29...	1050	5.0	11.0	6.5					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
ELK RIVER BASIN									
01495000 - BIG ELK C AT ELK MILLS, MD (LAT 39 39 26 LONG 075 49 20)									
DEC , 1981					JUN , 1982				
07...	1230	26	4.0	4.5	02...	1150	125	22.0	20.0
FEB , 1982					JUL				
09...	1135	54	1.5	1.0	14...	1040	29	27.5	23.5
MAR					AUG				
17...	1300	61	6.5	6.5	19...	1130	22	27.0	20.5
APR					SEP				
28...	1110	148	9.5	12.0	13...	1405	17	30.0	21.5
NORTHEAST RIVER BASIN									
01496000 - NORTHEAST C AT LESLIE, MD (LAT 39 37 40 LONG 075 56 40)									
OCT , 1981					JUN , 1982				
26...	1455	15	15.5	11.5	02...	1415	83	23.5	20.5
DEC					JUL				
09...	1500	13	1.5	4.5	07...	1115	11	26.0	21.0
JAN , 1982					15...	1145	12	25.0	23.0
05...	1410	64	6.5	5.0	AUG				
FEB					16...	1400	8.4	28.0	22.5
09...	1405	28	1.0	2.0	SEP				
MAR					13...	1225	9.0	25.5	20.5
17...	1055	40	5.0	6.5					
APR									
22...	1355	18	19.5	15.5					
PRINCIPIO CREEK BASIN									
01496200 - PRINCIPIO C NR PRINCIPIO FURNACE, MD (LAT 39 37 34 LONG 076 02 27)									
OCT , 1981					APR , 1982				
05...	1020	2.7	19.0	13.5	22...	1200	6.8	14.5	13.5
26...	1100	4.4	16.0	11.5	JUN				
DEC					03...	1325	9.4	25.5	20.0
09...	1240	3.8	2.0	4.5	JUL				
JAN , 1982					07...	1320	5.9	24.5	23.0
05...	1130	15	5.0	4.5	AUG				
FEB					11...	1330	4.3	22.0	22.0
12...	1445	7.3	1.0	3.0	SEP				
MAR					13...	1045	2.5	26.5	19.0
12...	1500	10	17.5	13.0					
SUSQUEHANNA RIVER BASIN									
01580000 - DEER C AT ROCKS, MD (LAT 39 37 49 LONG 076 24 13)									
NOV , 1981					DEC , 1981				
19...	1030	33	10.0	5.0	16...	1150	72	-2.0	.0
BUSH RIVER BASIN									
01581700 - WINTERS RN NR BENSON, MD (LAT 39 31 12 LONG 076 22 24)									
OCT , 1981					NOV , 1981				
14...	1500	9.1	12.0	10.0	18...	1100	11	13.0	7.0
GUNPOWDER RIVER BASIN									
01582000 - LITTLE FALLS AT BLUE MOUNT, MD (LAT 39 36 16 LONG 076 37 16)									
NOV , 1981					DEC , 1981				
17...	1530	22	10.0	6.0	15...	1330	52	-2.0	.0
01583500 - WESTERN RN AT WESTERN RUN, MD (LAT 39 30 38 LONG 076 40 37)									
OCT , 1981					DEC , 1981				
19...	1510	24	13.0	10.0	14...	0950	26	-4.0	-2.0
NOV									
17...	1000	24	6.0	6.0					

GUNPOWDER RIVER BASIN--CONTINUED

01584050 - LONG GREEN C AT GLEN ARM, MD (LAT 39 27 17 LONG 076 28 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
16...	1120	2.5	20.0	11.0
NOV				
18...	1500	2.8	11.0	8.0
JAN , 1982				
05...	0900	9.3	.0	1.0

01585100 - WHITEMARSH RN AT WHITE MARSH, MD (LAT 39 22 15 LONG 076 26 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
13...	1430	1.3	18.0	14.0
NOV				
19...	1530	1.5	10.0	9.0
DEC , 1981				
17...	1330	7.3	-1.0	1.0

BACK RIVER BASIN

01585200 - WB HERRING RN AT IDLEWYLDE, MD (LAT 39 22 25 LONG 076 35 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	1215	.69	18.0	16.0
NOV				
13...	0915	.21	.0	5.0
JAN , 1982				
04...	0940	22	5.0	3.5

01585300 - STEMMERS RN AT ROSSVILLE, MD (LAT 39 20 28 LONG 076 29 17)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	1530	.81	20.0	19.0
NOV				
20...	1045	.88	12.0	8.0
DEC , 1981				
23...	1050	1.8	11.5	1.0

01585400 - BRIEN RN AT STEMMERS RUN, MD (LAT 39 20 01 LONG 076 28 23)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1981				
20...	0830	.53	8.0	7.0
DEC , 1981				
23...	0845	.62	8.0	4.0

PATAPSCO RIVER BASIN

01585500 - CRANBERRY B NR WESTMINSTER, MD (LAT 39 35 35 LONG 076 58 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
05...	1515	1.2	24.0	15.5
NOV				
12...	1130	.51	8.0	6.0
DEC				
14...	1250	1.4	.5	1.0
JAN , 1982				
25...	1435	1.9	-6.0	.0
MAR				
01...	1230	.59	6.5	4.5
APR , 1982				
12...	1240	.79	9.5	11.5
MAY				
17...	1215	2.5	30.0	16.0
JUL				
06...	1340	.56	28.0	20.0
AUG				
23...	1240	1.5	24.0	18.0

01586000 - NB PATAPSCO R AT CEDARHURST, MD (LAT 39 30 00 LONG 076 53 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
05...	1340	19	21.5	14.0
NOV				
12...	1305	18	12.0	7.0
DEC				
14...	1100	18	.0	1.0
MAR , 1982				
01...	1055	50	7.0	2.5
APR , 1982				
12...	1100	53	9.0	7.0
MAY				
17...	1050	33	25.0	18.0
AUG				
23...	1045	16	20.0	19.0

01589000 - PATAPSCO R AT HOLLOFIELD, MD (LAT 39 18 36 LONG 076 47 34)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	1130	34	18.0	14.5
NOV				
16...	1045	40	12.0	6.0
DEC , 1981				
22...	1540	49	-2.0	.0

01589100 - EB HERBERT RN AT ARBUTUS, MD (LAT 39 14 24 LONG 076 41 33)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
06...	1505	1.3	20.5	16.5
08...	0940	.50	16.0	13.0
NOV				
02...	1110	.43	17.0	12.0
30...	1155	.35	3.0	3.5
DEC , 1981				
22...	1050	.92	1.0	-1.0
JAN , 1982				
21...	1220	.71	-5.0	-2.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
PATAPSCO RIVER BASIN--CONTINUED									
01589300 - GWYNNS FALLS AT VILLA NOVA, MD (LAT 39 20 45 LONG 076 44 01)									
NOV , 1981					DEC , 1981				
13...	1230	9.5	6.0	4.0	24...	1320	22	5.0	1.0
01589330 - DEAD RN AT FRANKLINTOWN, MD (LAT 39 18 40 LONG 076 43 02)									
OCT , 1981					DEC , 1981				
06...	1330	5.1	19.0	15.0	24...	1545	1.6	3.0	2.0
NOV									
12...	1315	.91	8.0	6.0					
01589440 - JONES FALLS AT SORRENTO, MD (LAT 39 23 30 LONG 076 39 42)									
OCT , 1981					JAN , 1982				
07...	1430	7.5	15.0	13.0	04...	1220	205	7.0	4.0
NOV									
16...	1300	9.2	11.0	6.0					
SOUTH RIVER BASIN									
01590500 - BACON RIDGE B AT CHESTERFIELD, MD (LAT 39 00 07 LONG 076 36 53)									
NOV , 1981					JAN , 1982				
12...	1205	3.2	16.0	17.5	25...	1425	4.3	--	.0
DEC									
17...	1120	8.2	3.5	3.0					
PATUXENT RIVER BASIN									
01591000 - PATUXENT R NR UNITY, MD (LAT 39 14 18 LONG 077 03 23)									
OCT , 1981					APR , 1982				
15...	1240	5.6	14.0	10.0	15...	1110	33	15.5	10.5
NOV					MAY				
09...	0915	8.5	9.0	6.0	19...	1315	20	25.0	20.0
MAR , 1982					AUG				
04...	1250	26	1.5	2.5	26...	1105	8.4	20.0	19.0
01591400 - CATTAIL C AT ROXBURY MILLS RD AT ROXBURY MILLS (LAT 39 15 27 LONG 077 03 13)									
OCT , 1981					APR , 1982				
15...	1415	4.2	17.0	10.0	15...	0940	16	16.5	9.5
15...	1420	4.2	17.0	10.0	MAY				
NOV					19...	1420	11	22.0	21.0
19...	1040	6.0	10.5	7.0	JUL				
19...	1050	6.0	10.5	7.0	09...	0845	12	22.0	21.0
DEC					AUG				
16...	1440	14	1.0	2.0	26...	0935	5.4	17.0	18.0
MAR , 1982									
04...	1410	14	1.0	3.0					
01591610 - PATUXENT R BL BRIGHTOM DAM NR BRIGHTON,MD (LAT 39 11 31 LONG 077 00 16)									
NOV , 1981					JUL , 1982				
13...	0940	11	4.0	10.0	12...	1315	99	27.5	19.0
APR , 1982					AUG				
15...	1435	34	18.5	10.0	26...	1305	97	24.5	21.0
MAY									
14...	1335	37	23.5	15.0					

PATUXENT RIVER BASIN--CONTINUED

01591700 - HAWLINGS R NR SANDY SPRING, MD (LAT 39 10 29 LONG 077 01 22)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
16...	1250	4.1	19.0	11.0
NOV				
13...	1105	6.7	7.0	5.0
DEC				
16...	1215	21	1.0	1.0
JAN , 1982				
29...	1300	11	6.0	.4
MAR				
05...	1210	19	13.0	5.5
APR , 1982				
15...	1305	20	16.0	12.0
MAY				
14...	1200	16	22.0	17.0
JUL				
09...	1025	11	25.0	21.0
AUG				
26...	1420	5.0	25.0	21.0

01593500 - L PATUXENT R AT GUILFORD, MD (LAT 39 10 04 LONG 076 51 07)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
16...	0955	6.1	15.0	11.0
NOV				
13...	1353	9.3	10.0	6.0
MAR , 1982				
05...	0950	23	7.0	4.5
APR				
16...	0950	25	15.0	12.0
MAY , 1982				
14...	0930	20	20.0	18.0
JUL				
12...	1035	13	31.0	24.0
AUG				
27...	1145	7.0	25.0	21.0

POTOMAC RIVER BASIN

01594930 - LAUREL RN AT DOBBIN RD NR WILSON, MD (LAT 39 14 37 LONG 079 25 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
09...	1230	6.5	10.0	8.5
DEC				
02...	1100	32	1.0	4.5
FEB , 1982				
05...	1300	62	4.0	3.8
MAR				
02...	1450	20	7.0	4.0
30...	1205	28	9.0	5.5
APR				
28...	1355	21	14.5	11.0
MAY , 1982				
20...	1245	12	--	16.0
JUN				
04...	1110	15	21.0	15.0
11...	1155	154	24.0	15.0
JUL				
14...	0945	9.9	21.0	19.0
AUG				
26...	1045	3.7	16.0	17.5
SEP				
20...	1240	5.5	--	14.0

01594934 - SF SAND RN NR WILSON, MD (LAT 39 15 31 LONG 079 24 40)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1981				
02...	1200	5.9	2.0	3.0
30...	1415	5.0	-2.0	2.5
FEB , 1982				
02...	1450	7.8	3.0	1.8
MAR				
02...	1355	3.2	7.0	4.0
12...	0915	16	9.0	4.0
30...	1405	4.0	9.0	7.5
APR , 1982				
29...	1520	3.8	13.0	12.5
JUN				
08...	1240	6.2	26.0	14.2
JUL				
14...	1130	2.6	24.0	20.0
AUG				
26...	1320	3.5	23.0	21.5

01594936 - NF SAND RN NR WILSON, MD (LAT 39 15 36 LONG 079 24 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1981				
02...	1355	5.7	2.0	4.0
17...	1130	--	-3.0	.5
30...	1500	4.0	-3.0	2.0
FEB , 1982				
12...	0935	4.5	-7.0	.2
MAR				
02...	1400	3.3	8.0	4.0
31...	1205	5.9	9.0	6.0
MAY , 1982				
20...	1100	1.4	16.0	18.0
JUN				
11...	1020	12	23.0	14.5
JUL				
14...	1245	2.1	24.0	19.0
AUG				
30...	1310	.26	24.0	15.5

01595000 - NB POTOMAC R AT STEYER, MD (LAT 39 18 07 LONG 079 18 26)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
08...	0920	30	3.0	7.0
NOV				
16...	1410	66	--	7.0
DEC				
30...	1415	148	-4.0	5.0
FEB , 1982				
12...	1255	164	.0	.5
MAR , 1982				
23...	1100	381	3.0	4.5
APR				
30...	0950	132	12.0	10.0
JUN				
23...	1210	66	18.0	17.0
JUL				
26...	1130	29	25.5	22.5

POTOMAC RIVER BASIN--CONTINUED

01595500 - NB POTOMAC R AT KITZMILLER, MD (LAT 39 23 38 LONG 079 10 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1981				
02...	1220	148	3.0	12.8
NOV				
03...	1035	228	21.0	11.7
DEC				
02...	1200	464	2.0	3.7
21...	1100	182	-15.0	.2
JAN , 1982				
08...	0935	1020	-7.0	.2
15...	1230	351	-6.0	.1
29...	1330	282	3.0	.5
FEB				
08...	1100	706	-1.0	1.4
APR				
05...	1100	583	1.0	4.8
APR , 1982				
20...	1005	337	15.0	10.5
MAY				
26...	1455	124	24.0	20.5
JUN				
03...	0925	281	10.0	19.0
04...	0930	547	8.0	15.0
JUL				
02...	1315	127	24.0	21.0
AUG				
03...	0910	92	17.0	20.0
SEP				
02...	1040	64	25.0	20.0

01595800 - NB POTOMAC R AT BARNUM, WV (LAT 39 26 44 LONG 079 06 39)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1981				
03...	1300	400	1.0	5.4
23...	1115	216	10.0	3.6
JAN , 1982				
08...	1300	882	-9.0	2.6
14...	1100	65	-4.0	2.8
FEB				
01...	1130	507	-3.0	2.5
08...	1410	311	1.0	1.8
17...	1230	213	-2.0	2.0
MAR				
02...	1000	548	-2.0	3.0
APR , 1982				
02...	1145	291	12.0	6.5
MAY				
26...	1320	122	22.0	15.0
JUN				
03...	1045	54	9.0	13.0
JUL				
01...	1410	216	24.0	18.0
AUG				
03...	1300	263	23.0	21.0
SEP				
02...	1240	223	27.0	21.0

01596500 - SAVAGE R NR BARTON, MD (LAT 39 34 05 LONG 079 06 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1981				
12...	1030	34	3.0	3.6
DEC				
28...	1515	83	4.0	.0
FEB , 1982				
17...	0900	453	-3.0	3.0
MAR				
24...	1545	174	12.0	6.0
MAY , 1982				
03...	1545	25	16.0	11.0
JUN				
21...	1700	34	22.0	17.0
JUL				
28...	0900	5.6	21.5	20.5
SEP				
08...	1305	3.3	22.0	16.5

01597500 - SAVAGE R BL SAVAGE R DAM NR BLOOMINGTON, MD (LAT 39 30 05 LONG 079 07 25)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
JAN , 1982				
05...	1025	508	3.0	-2.0
MAR				
03...	1100	247	-1.0	3.0
APR				
06...	0950	20	-4.0	5.0
MAY				
06...	1100	27	22.0	8.0
JUN , 1982				
01...	1120	103	21.0	20.0
JUL				
01...	1125	30	16.0	9.5
AUG				
02...	1045	47	20.0	9.0

POTOMAC RIVER BASIN--CONTINUED

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
01598500 - NB POTOMAC R AT LUKE, MD (LAT 39 28 45 LONG 079 03 55)				
OCT , 1981				
01...	1445	172	26.0	18.0
02...	1415	150	15.0	15.5
03...	1405	146	18.0	15.5
NOV				
03...	1200	162	6.0	6.0
04...	1115	178	22.0	9.0
DEC				
01...	1340	424	2.0	4.5
JAN , 1982				
06...	1330	1500	2.0	2.5
FEB				
04...	1015	3300	2.0	1.5
MAR , 1982				
02...	1445	903	10.0	4.0
APR				
05...	1500	530	9.0	9.0
MAY				
04...	1145	182	21.0	12.0
JUN				
01...	1340	168	23.0	20.0
AUG				
02...	1110	332	24.0	20.0
SEP				
02...	1100	289	22.0	19.5
01599000 - GEORGES C AT FRANKLIN, MD (LAT 39 29 38 LONG 079 02 42)				
OCT , 1981				
02...	1000	19	4.0	11.0
DEC				
01...	1000	25	2.0	3.0
JAN , 1982				
05...	1245	173	.0	.5
FEB				
04...	1330	327	3.0	2.0
09...	0905	97	-1.0	1.4
MAR				
03...	1310	160	1.0	4.0
APR , 1982				
06...	1300	172	-5.0	4.0
19...	1425	78	18.0	14.0
JUN				
01...	1440	47	24.0	20.0
JUL				
01...	1330	24	22.0	20.0
AUG				
02...	1305	16	25.0	21.0
SEP				
02...	1255	10	24.0	22.0
01600000 - NB POTOMAC R AT PINTO, MD (LAT 39 33 59 LONG 078 50 25)				
OCT , 1981				
01...	1335	194	21.0	15.0
JAN , 1982				
06...	0930	1840	-2.0	2.1
FEB				
02...	0930	1690	-4.0	1.6
10...	0850	884	-8.0	1.6
23...	1415	3500	1.2	5.0
MAY , 1982				
26...	1105	272	17.0	19.0
JUN				
01...	1435	261	27.0	24.0
AUG				
02...	1430	378	28.0	24.0
SEP				
03...	1010	303	21.0	21.0
01601500 - WILLS C NR CUMBERLAND, MD (LAT 39 40 07 LONG 078 47 18)				
NOV , 1981				
19...	1240	95	11.0	7.0
JAN , 1982				
07...	1215	991	4.0	4.0
13...	1430	--	-4.0	.0
26...	1230	131	-9.0	.0
FEB				
10...	1040	379	-7.0	.2
12...	1530	249	-1.0	1.0
MAR , 1982				
24...	1345	868	10.0	8.0
MAY				
13...	0945	220	17.0	16.0
JUN				
23...	1310	200	21.0	19.0
SEP				
10...	1115	30	20.0	17.0
01603000 - NB POTOMAC R NR CUMBERLAND, MD (LAT 39 37 16 LONG 078 46 24)				
OCT , 1981				
01...	1110	256	19.0	1.6
26...	0900	210	8.0	9.0
JAN , 1982				
07...	1110	3070	3.0	3.7
25...	1500	800	-9.0	.0
FEB				
10...	1155	1260	-6.0	.9
24...	1155	4390	3.0	5.0
APR , 1982				
01...	0930	1190	11.0	9.0
JUN				
01...	1210	559	24.0	20.0
30...	1330	452	26.0	23.0
AUG				
02...	1015	431	22.0	23.0
SEP				
01...	0930	334	21.5	22.0
01603500 - EVITTS C NR CENTERVILLE, PA (LAT 39 47 23 LONG 078 38 48)				
NOV , 1981				
19...	1005	13	4.0	5.0
JAN , 1982				
26...	1530	19	-13.0	.0
28...	0930	14	-9.0	.0
FEB				
10...	1325	35	-5.0	.5
MAR				
24...	1105	81	6.0	5.0
MAY , 1982				
12...	1430	23	23.0	17.0
JUN				
23...	1200	28	18.0	15.0
JUL				
28...	0920	20	24.0	20.0
SEP				
10...	0945	4.0	16.0	16.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
POTOMAC RIVER BASIN--CONTINUED									
01610000 - POTOMAC R AT PAW PAW, WV (LAT 39 32 13 LONG 078 27 28)									
OCT , 1981					FEB , 1982				
19...	1100	418	7.5	11.5	09...	1500	4940	-1.0	1.4
JAN , 1982					22...	1500	15100	3.0	4.0
27...	1250	--	-7.0	.0	25...	1025	10100	-3.0	2.0
01613000 - POTOMAC R AT HANCOCK, MD (LAT 39 41 49 LONG 078 10 39)									
JAN , 1982					MAR , 1982				
06...	1500	14100	6.0	5.0	23...	1345	22000	11.0	10.0
27...	1020	--	-14.0	.0	AUG				
FEB					05...	1010	1190	28.0	24.0
25...	0845	13800	-5.0	1.5					
01614500 - CONOCOCHEAGUE C AT FAIRVIEW, MD (LAT 39 42 29 LONG 077 50 00)									
NOV , 1981					MAY , 1982				
20...	1045	171	9.5	8.5	12...	1125	324	20.0	16.0
JAN , 1982					JUN				
06...	1205	1210	5.0	4.0	22...	1050	738	24.0	19.0
FEB					JUL				
22...	1120	1940	2.0	4.5	26...	1105	171	28.0	23.0
MAR					SEP				
23...	1040	1110	9.0	8.0	09...	1100	104	20.0	19.0
01617800 - MARSH RUN AT GRIMES, MD (LAT 39 30 53 LONG 077 46 38)									
OCT , 1981					MAY , 1982				
05...	1455	3.1	23.0	21.0	11...	1450	12	22.0	19.0
NOV					JUN				
20...	1345	3.7	10.0	8.0	21...	1450	22	24.0	20.0
JAN , 1982					JUL				
05...	1130	13	4.5	3.0	26...	1250	9.8	29.0	24.0
FEB					SEP				
17...	1035	24	1.0	4.0	09...	1250	6.4	21.0	17.0
MAR									
22...	1345	24	8.0	9.0					
01618000 - POTOMAC R AT SHEPHERDSTOWN, WV (LAT 39 26 04 LONG 077 48 07)									
OCT , 1981					FEB , 1982				
05...	1200	865	20.0	18.0	17...	1205	13700	1.0	3.0
NOV					MAR				
20...	1250	2440	10.5	9.5	18...	1515	50400	10.0	7.0
JAN , 1982					22...	1235	48800	10.0	9.5
05...	1420	16000	7.0	3.0					
01619500 - ANTIETAM C NR SHARPSBURG, MD (LAT 39 27 01 LONG 077 43 52)									
OCT , 1981					APR , 1982				
05...	1335	101	23.0	20.0	20...	1130	420	17.0	13.6
JAN , 1982					MAY				
05...	1315	415	6.0	4.5	11...	1340	269	18.0	16.0
FEB					JUL				
17...	1430	501	-2.0	3.5	26...	1410	206	31.0	23.0
MAR					SEP				
22...	1145	583	8.0	9.0	09...	1405	135	22.0	19.0

POTOMAC RIVER BASIN--CONTINUED

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
01637500 - CATOCTIN C NR MIDDLETOWN, MD (LAT 39 25 35 LONG 077 33 25)									
OCT , 1981					APR , 1982				
14...	1340	4.7	16.0	10.0	14...	0920	112	8.5	8.5
NOV					JUL				
17...	1550	11	10.0	8.0	08...	0855	28	28.0	23.0
MAR , 1982					AUG				
03...	1130	101	2.0	3.5	24...	1700	9.6	27.0	25.0
01639000 - MONOCACY R AT BRIDGEPORT, MD (LAT 39 40 43 LONG 077 14 06)									
OCT , 1981					MAY , 1982				
06...	1540	7.0	19.0	16.0	17...	1420	33	28.0	22.0
NOV					JUL				
16...	1415	27	15.0	9.0	07...	1320	40	28.0	25.0
MAR , 1982					AUG				
01...	1435	243	6.0	3.0	23...	1510	7.4	21.0	22.0
APR									
12...	1505	261	14.0	10.0					
01639500 - B PIPE C AT BRUCEVILLE, MD (LAT 39 36 45 LONG 077 14 10)									
OCT , 1981					JUL , 1982				
06...	1215	26	19.0	14.0	07...	1110	45	28.0	23.5
MAR , 1982					AUG				
02...	1330	97	6.5	4.0	24...	1130	27	26.0	22.0
APR									
13...	1150	105	17.0	10.0					
01640500 - OWENS C AT LANTZ, MD (LAT 39 40 36 LONG 077 27 50)									
NOV , 1981					MAY , 1982				
17...	0905	2.1	7.5	6.0	17...	1620	5.2	26.0	18.0
DEC					JUL				
17...	1400	2.6	-1.5	.0	06...	1605	4.9	23.0	20.0
MAR , 1982					AUG				
02...	1535	9.7	6.0	3.5	23...	1710	1.2	19.0	19.0
APR									
13...	1425	17	18.0	10.0					
01641000 - HUNTING C AT JIMTOWN, MD (LAT 39 35 40 LONG 077 23 50)									
OCT , 1981					JUL , 1982				
06...	0900	3.9	14.0	14.0	07...	0900	13	21.0	19.0
NOV					AUG				
17...	1110	7.0	12.0	7.0	24...	0915	5.0	20.0	19.0
MAR , 1982									
02...	0930	37	7.0	3.0					
01641500 - FISHING C NR LEWISTOWN, MD (LAT 39 31 35 LONG 077 28 00)									
OCT , 1981					APR , 1982				
14...	1125	1.6	12.0	9.0	13...	1620	23	20.0	9.5
NOV					JUL				
17...	1345	2.2	9.0	7.0	07...	1520	7.2	24.0	17.0
MAR , 1982					AUG				
03...	0935	18	-2.5	4.0	24...	1520	2.8	23.0	17.0

POTOMAC RIVER BASIN--CONTINUED

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
01642500 - LINGANORE C NR FREDERICK, MD (LAT 39 24 55 LONG 077 20 00)									
OCT , 1981					APR , 1982				
15...	0950	14	10.0	13.0	14...	1625	63	12.5	10.0
NOV					MAY				
18...	0810	18	9.0	8.5	19...	1045	38	25.0	22.0
FEB , 1982					JUL				
02...	1110	127	-.5	2.0	08...	1520	46	30.0	25.0
MAR					AUG				
04...	0950	64	.0	4.0	25...	1205	24	28.0	24.0
01643000 - MONOCACY R AT JUG BRIDGE NR FREDERICK, MD (LAT 39 23 16 LONG 077 22 48)									
OCT , 1981					AUG , 1982				
14...	1355	105	--	12.5	25...	1015	135	26.0	23.0
NOV									
18...	1110	156	11.0	9.0					
01643500 - BENNETT C AT PARK MILLS, MD (LAT 39 17 40 LONG 077 24 30)									
OCT , 1981					APR , 1982				
14...	1700	7.7	13.0	11.0	14...	1315	58	13.0	12.0
NOV					JUL				
18...	1400	13	10.0	8.0	08...	1220	40	29.5	24.0
DEC					AUG				
18...	1250	21	.0	1.0	25...	1420	18	28.0	24.0
MAR , 1982									
03...	1505	50	2.0	4.5					
01645000 - SENECA C AT DAWSONVILLE, MD (LAT 39 07 41 LONG 077 20 13)									
NOV , 1981					JUL , 1982				
23...	1155	29	4.0	5.0	27...	1130	39	29.0	25.0
APR , 1982					SEP				
27...	1045	168	17.5	14.0	27...	1010	310	17.0	17.0
01645200 - WATTS B AT ROCKVILLE, MD (LAT 39 05 03 LONG 077 10 38)									
NOV , 1981					MAR , 1982				
13...	1305	.59	10.5	9.0	09...	1500	2.5	9.0	8.0
01648000 - ROCK C AT SHERRILL DR WASH, DC (LAT 38 58 21 LONG 077 02 25)									
NOV , 1981					DEC , 1981				
18...	1405	13	11.0	9.5	16...	1320	66	3.0	3.0
18...	1408	13	11.0	9.5	16...	1325	66	3.0	3.0
01649500 - NE B ANACOSTIA R AT RIVERDALE, MD (LAT 38 57 37 LONG 076 55 34)									
NOV , 1981									
20...	0830	16	11.0	10.0					
01650500 - NW B ANACOSTIA R NR COLESVILLE, MD (LAT 39 03 55 LONG 077 01 48)									
NOV , 1981					MAR , 1982				
13...	1045	3.9	8.0	6.0	09...	1210	15	--	5.0
DEC									
16...	1055	17	3.0	2.0					
01651000 - NW B ANACOSTIA R NR HYATTSVILLE, MD (LAT 38 57 09; LONG 076 58 00)									
DEC , 1981									
14...	1050	7.0	1.0	1.5					
01653600 - PISCATAWAY C AT PISCATAWAY, MD (LAT 38 42 20 LONG 076 58 00)									
NOV , 1981					DEC , 1981				
18...	0855	4.5	11.0	9.0	11...	1100	4.1	2.0	2.5
18...	1410	4.5	11.0	9.0	11...	1104	4.1	2.0	2.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
POTOMAC RIVER BASIN--CONTINUED									
01661050 - ST CLEMENT C NR CLEMENTS, MD (LAT 38 20 00 LONG 076 43 31)									
NOV , 1981					DEC , 1981				
17...	0945	3.7	8.5	9.0	15...	1115	15	3.0	2.5
01661500 - ST MARYS R AT GREAT MILLS, MD (LAT 38 14 36 LONG 076 30 13)									
NOV , 1981									
17...	1225	4.3	9.5	9.0					
MONONGAHELA RIVER BASIN									
03075500 - YOUGHIOGHENY R NR OAKLAND, MD (LAT 39 25 19 LONG 079 25 32)									
NOV , 1981					MAR , 1982				
16...	1020	103	10.5	6.0	23...	1450	719	5.0	4.0
DEC					JUN				
30...	1100	239	-3.5	1.0	23...	1415	105	22.0	17.0
FEB , 1982					JUL				
16...	1100	577	8.5	4.0	26...	1400	48	25.0	22.0
03076500 - YOUGHIOGHENY R AT FRIENDSVILLE, MD (LAT 39 39 13 LONG 079 24 31)									
OCT , 1981					MAR , 1982				
07...	1115	112	5.0	9.0	25...	0955	721	5.0	5.0
NOV					MAY				
13...	0930	282	-2.0	5.5	07...	0925	138	17.0	14.0
DEC					JUN				
29...	0925	609	-5.0	2.0	22...	0930	257	19.0	17.0
FEB , 1982					JUL				
11...	0915	456	-9.0	.0	27...	0930	96	23.0	20.5
MAR									
24...	0915	884	6.0	5.0					
03076600 - BEAR C AT FRIENDSVILLE, MD (LAT 39 39 22 LONG 079 23 41)									
OCT , 1981					MAR , 1982				
07...	1230	16	4.0	8.0	25...	1120	122	11.0	6.0
NOV					MAY				
13...	1230	40	7.0	3.0	02...	1230	29	15.0	10.0
DEC					JUN				
29...	1330	99	-5.0	1.0	22...	1400	35	21.0	16.0
FEB , 1982					JUL				
11...	1320	102	-6.0	.0	27...	1250	12	27.5	20.5
MAR									
24...	1115	147	11.0	7.0					
03078000 - CASSELMAN R AT GRANTSVILLE, MD (LAT 39 42 08 LONG 079 08 12)									
NOV , 1981					MAR , 1982				
13...	1445	57	6.5	5.0	25...	1220	187	16.0	7.0
DEC					MAY				
29...	1350	118	-4.0	1.0	03...	1440	39	16.0	11.0
30...	0930	82	-7.0	.0	JUL				
FEB , 1982					27...	1640	11	28.0	24.0
16...	1445	392	6.0	3.5					

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 where continuous records are available, will give a picture of the low-flow potentiality of a 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 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Susquehanna River basin				
01580170	Stout Bottle Branch near Ady, MD	Lat 39°37'14", long 76°20'01", Harford County, at bridge on Walters Mill Road, 150 ft upstream from mouth, and 1.4 mi southwest of Ady.	7.13	1980-82	5-18-82 9-15-82	4.8 2.7
		Gunpowder River basin				
01581830	Grave Run near Beckleysville, MD	Lat 39°39'17", long 76°46'47", Baltimore County, at bridge on Upper Beckleysville Road, 0.9 mi north of Beckleysville, and 1.7 mi downstream from Indian Run.	7.68	1977-82	5-17-82 9-14-82	6.5 2.2
01581870	Georges Run near Beckleysville, MD	Lat 39°37'33", long 76°46'23", Baltimore County, at bridge on Georges Creek Road, 0.6 mi upstream from mouth, and 1.2 mi south of Beckleysville.	15.8	1977-82	5-17-82 9-14-82	8.6 4.1
		Patapsco River basin				
01585700	Deep Run at Lawndale, MD	Lat 39°32'06", long 76°52'33", Carroll County, at bridge on county highway, 0.9 mi upstream from mouth, and 1.0 mi north of Lawndale.	6.70	1975-82	5-17-82 9-14-82	3.3 1.6
01589345	Gwynns Falls at Baltimore, MD	Lat 39°18'08", long 76°40'20", Baltimore City, at bridge on Hilton Street, 0.8 mi downstream from Dead Run, and 2.0 mi east of Franklintown.	50.7	1980-82	5-18-82 9-14-82	18 9.1
		Patuxent River basin				
01591375	Cattail Creek tributary at Daisy, MD	Lat 39°17'58", long 77°03'52", Howard County, at bridge on Daisy Road, 0.3 mi upstream from mouth, and 0.5 mi north of Daisy.	3.12	1977-82	5-17-82 9-14-82	1.6 .52
01591650	Hawlings River near Unity, MD	Lat 39°13'03", long 77°06'21", Montgomery County, at bridge on Sundown Road, 2.2 mi southwest of Unity, and 5.0 mi upstream from Reddy Branch.	5.08	1977-82	5-17-82 9-14-82	2.7 .70
01593650	Middle Patuxent River tributary near Dayton, MD	Lat 39°14'12", long 76°56'27", Howard County, at bridge on Sheppard Road, 1.6 mi upstream from mouth, and 2.5 mi east of Dayton.	4.25	1977-82	5-17-82 9-14-82	2.1 .34
01593700	Middle Patuxent River tributary near Clarksville, MD	Lat 39°12'00", long 76°55'12", Howard County, 0.1 mi upstream from bridge on Trotter Road, 0.8 mi upstream from mouth, and 1.3 mi southeast of Clarksville.	6.24	1977-82	5-17-82 9-14-82	3.1 1.4
01594535	Mataponi Creek near Naylor, MD	Lat 38°43'47", long 76°45'18", Prince Georges County, at bridge on State Highway 382, 1.3 miles northwest of Naylor.	a14	1964-66 1982	5-17-82 9-16-82	6.0 .25

a Approximately.

Discharge measurements made at low-flow partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Potomac River basin				
01594975	Glade Run at Steyer, MD	Lat 39°18'08", long 79°19'33", Garrett County, on Steyer Gorman Road, 0.1 mi upstream from mouth, and 0.7 mi west of Steyer.	8.86	1977-82	5-18-82 9- 7-82	4.1 .83
01596200	Little Savage River near Avilton, MD	Lat 39°36'59", long 79°01'29", Garrett County, at bridge on Avilton-Lonaconing Road, 1.7 mi north of Mt. Zion, and 2.7 mi upstream from mouth.	1.95	1979-82	5-17-82 9- 8-82	.31 .04
01596600	Big Run near Swanton, MD	Lat 39°32'45", long 79°08'31", Garrett County, on Big Run Road, 0.3 mi downstream from Monroe Run, and 7.5 mi northeast of Swanton.	13.4	1977-82	5-17-82 9- 8-82	4.9 .35
01597100	Middle Fork near Swanton, MD	Lat 39°30'46", long 79°09'17", Garrett County, on Savage River Road, 1.0 mi downstream from Toms Spring Run, and 5.5 mi northeast of Swanton.	10.8	1977-82	5-17-82 9- 8-82	13 .51
01598770	Georges Creek near Midland, MD	Lat 39°37'11", long 78°56'46", Allegany County, at bridge on county highway at Ocean, and 1.0 mi downstream from Vale Run.	13.1	1979-82	5-18-82 9- 8-82	2.0 0
01598775	Woodland Creek at Ocean, MD	Lat 39°36'12", long 78°56'46", Allegany County, at bridge on county highway, 0.1 mi northwest of Ocean, and 0.6 mi downstream from Staub Run.	5.49	1979-82	5-18-82 9- 8-82	.01 0
01598980	Mill Run at Morrison, MD	Lat 39°31'03", long 79°01'44", Allegany County, at bridge on county highway, 0.5 mi upstream from mouth, and 0.5 mi northwest of Morrison.	7.35	1979-82	5-18-82 9- 8-82	3.6 .74
01599800	Mill Run at Rawlings, MD	Lat 39°32'01", long 78°53'11", Allegany County, at bridge on U.S. Highway 220, 5.0 mi south of Cresaptown.	2.84	1979-82	5-18-82 9- 8-82	1.9 .23
01601100	Wills Creek at Ellerslie, MD	Lat 39°43'04", long 78°46'17", Allegany County, at bridge on county highway, 0.3 mi southeast of Ellerslie, and 2.0 mi north of Corriganville.	185	1979-82	5-18-82 9- 7-82	81 9.8
01605475	Seven Springs Run at Oldtown, MD	Lat 39°32'29", long 78°36'28", Allegany County, at bridge on county highway at Oldtown, and 1.4 mi downstream from mouth of Trading Run.	9.16	1975-82	5-17-82 9- 7-82	2.0 .78
01608950	Murley Branch near Flintstone, MD	Lat 39°41'07", long 78°34'37", Allegany County, on Town Creek Road, 0.7 mi upstream from mouth, and 1.1 mi south of Flintstone.	11.9	1977-78, 1980-82	5-17-82 9- 7-82	16 5.0
01608975	Maple Run near Town Creek, MD	Lat 39°36'46", long 78°31'52", Allegany County, on Jacobs Road, 2.7 mi upstream from mouth, and 6.0 mi north of Town Creek.	7.10	1977-78, 1980-82	5-17-82 9- 7-82	1.3 0
01613540	Lanes Run near Forsythe, MD	Lat 39°39'50", long 78°00'08", Washington County, at bridge on Little Cove Road, 1.2 mi north of Indian Springs, and 2.4 mi upstream from mouth.	9.98	1980-82	5-17-82 9- 7-82	2.8 .34
01614525	Rockdale Run at Fairview, MD	Lat 39°42'07", long 77°50'45", Washington County, at bridge on Rockdale Road, 0.7 mi south of Fairview, and 1.7 mi upstream from mouth.	9.67	1976-79, 1981-82	5-17-82 9- 7-82	8.0 3.6
01614575	Rush Run near Huyett, MD	Lat 39°40'23", long 77°47'37", Washington County, at bridge on State Highway 63, 1.5 mi north of Huyett, and 1.9 mi upstream from mouth.	5.20	1976-79, 1981-82	5-17-82 9- 7-82	6.6 2.6
01614625	Meadow Brook at Conococheague, MD	Lat 39°38'55", long 77°51'19", Washington County, at bridge on Ridge Road, 0.7 mi southwest of Conococheague, and 2.1 mi upstream from mouth.	6.77	1976-79, 1981-82	5-17-82 9- 7-82	3.0 1.1

Discharge measurements made at low-flow partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Potomac River basin--Continued				
01614675	Conococheague Creek tributary near Huyett, MD	Lat 39°37'39", long 77°48'43", Washington County, at bridge on light-duty road, 0.4 mi upstream from mouth, and 1.9 mi south of Huyett.	7.94	1977-79, 1981-82	5-17-82 9- 7-82	3.7 .99
01617600	Downey Branch near Downsville, MD	Lat 39°32'19", long 77°49'11", Washington County, at bridge on Dellinger Road, 0.6 mi upstream from mouth, and 1.1 mi southwest of Downsville.	3.00	1976-79, 1981-82	5-18-82 9- 8-82	2.7 1.2
01617780	St. James Run at Spielman, MD	Lat 39°33'03", long 77°45'52", Washington County, at bridge on Jordon Road, 0.9 mi north of Spielman, and 1.0 mi upstream from Marsh Run.	7.14	1977-79, 1981-82	5-17-82 9- 7-82	3.5 2.8
01619050	Little Antietam Creek at Leitersburg, MD	Lat 39°40'57", long 77°37'44", Washington County, at bridge on State Highway 62, 0.4 mi upstream from mouth, and 0.8 mi southwest of Leitersburg.	24.5	1976-79, 1981-82	5-17-82 9- 7-82	18 8.8
01619145	West Branch at Paramount, MD	Lat 39°41'25", long 77°41'25", Washington County, at bridge on Marsh Pike, 0.3 mi upstream from mouth, and 0.6 mi north of Paramount.	5.07	1977-79, 1981-82	5-17-82 9- 7-82	5.2 2.7
01619275	Landis Spring Branch near Benevola, MD	Lat 39°34'17", long 77°41'23", Washington County, at bridge on Alternate U.S. Highway 40, 100 ft upstream from mouth, and 1.9 mi northwest of Benevola.	6.60	1976-79, 1981-82	5-18-82 9- 8-82	3.5 1.5
01619525	Sharmans Branch near Antietam, MD	Lat 39°25'42", long 77°43'26", Washington County, at bridge on Mills Road, 0.7 mi upstream from mouth, and 1.3 mi northeast of Antietam.	4.62	1977-79, 1981-82	5-18-82 9- 8-82	1.7 .27
01636850	Little Catoctin Creek near Brunswick, MD	Lat 39°19'25", long 77°35'35", Frederick County, at bridge on State Highway 464, 1.4 mi northeast of Brunswick, and 2.4 mi upstream from mouth.	8.64	1977-82	5-17-82 9-14-82	2.4 .30
01636975	Middle Creek at Ellerton, MD	Lat 39°31'33", long 77°32'15", Frederick County, at bridge on Crow Rock Road, 0.4 mi east of Ellerton, and 0.4 mi upstream from West Branch.	22.7	1977-82	5-18-82 9-14-82	17 1.2
01639325	Friends Creek near Emmitsburg, MD	Lat 39°43'03", long 77°23'35", Frederick County, at concrete ford on Hornets Nest Road, 2.1 mi upstream from mouth, and 3.5 mi northwest of Emmitsburg.	12.2	1977-82	5-18-82 9-14-82	7.4 .32
01639440	Silver Run near Silver Run, MD	Lat 39°40'38", long 77°05'37", Carroll County, at bridge on light-duty road, 1.0 mi upstream from mouth, and 2.6 mi west of Silver Run.	8.77	1975-82	5-17-82 9-14-82	3.9 1.0
01639465	Bear Branch near Mayberry, MD	Lat 39°38'07", long 77°07'41", Carroll County, at bridge on State Highway 32, 0.8 mi upstream from mouth, and 1.6 mi west of Mayberry.	13.9	1975-82	5-17-82 9-14-82	5.6 3.3
01640160	Beaver Dam Creek near Union Bridge, MD	Lat 39°34'11", long 77°12'53", Frederick County, at bridge on Good Intent Road, 0.4 mi upstream from mouth, and 1.9 mi west of Union Bridge.	7.04	1977-82	5-17-82 9-14-82	2.7 1.3
01640720	Beaver Branch at Rocky Ridge, MD	Lat 39°36'20", long 77°19'50", Frederick County, at bridge on State Highway 77, 0.6 mi west of Rocky Ridge, and 0.8 mi upstream from mouth.	6.53	1977-82	5-17-82 9-14-82	1.4 0
01642430	Linganore Creek near New London, MD	Lat 39°26'51", long 77°14'49", Frederick County, at bridge on State Route 75, 100 ft downstream from Dollyhyde Creek, and 2.0 mi northeast of New London.	45.2	1980-82	5-17-82 9-15-82	27 11
01642450	Bens Branch near New Market, MD	Lat 39°24'58", long 77°16'45", Frederick County, at bridge on light-duty road, 1.1 mi upstream from mouth, and 2.3 mi north of New Market.	11.8	1975-82	5-17-82 9-14-82	5.5 2.7

Discharge measurements made at low-flow partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		Potomac River basin--Continued				
01643125	Ballenger Creek near Lime Kiln, MD	Lat 39°21'52", long 77°25'01", Frederick County, at bridge on State Highway 85, 0.5 mi upstream from mouth, and 1.2 mi northeast of Lime Kiln.	20.2	1977-82	5-17-82 9-14-82	11 4.3
01643615	Broad Run at Elmer, MD	Lat 39°07'22", long 77°28'52", Montgomery County, at bridge on River Road, 0.5 mi upstream from mouth, and 1.2 mi south of Elmer.	14.0	1975-82	5-17-82 9-14-82	3.1 .25
01644425	Bucklodge Branch near Dawsonville, MD	Lat 39°09'11", long 77°20'30", Montgomery County, at bridge on light-duty road, 0.7 mi upstream from mouth, and 1.7 mi north of Dawsonville.	8.47	1975-82	5-17-82 9-14-82	4.1 1.6
01645050	Dry Seneca Creek near Seneca, MD	Lat 39°05'38", long 77°20'50", Montgomery County, at bridge on Montevideo Road, 0.4 mi upstream from mouth, and 1.1 mi northwest of Seneca.	19.2	1975-82	5-17-82 9-14-82	4.2 1.1
01647620 (revised)	Rock Creek at Redland, MD	Lat 39°08'14", long 77°07'46", Montgomery County, at bridge on State Highway 115, 0.6 mi upstream from Mill Creek and 1.0 mi southeast of Redland.	7.45	1977-82	5-17-82 9-14-82	4.5 1.1
01649200	Paint Branch at College Park, MD	Lat 39°01'16", long 76°56'45", Prince Georges County, at culvert under eastbound lane of Interstate Highway 495, 1.6 mi northwest of College Park, and 2.5 mi southwest of Beltsville.	17.3	1980-82	5-17-82 9-17-82	7.2 1.7
01652580	Oxon Run at Washington, DC	Lat 38°50'20", long 76°59'20", District of Columbia, at bridge on 13th Street, 2.2 mi north of Forest Heights, and 3.5 mi west of Suitland.	6.84	1980-82	5-18-82 9-17-82	1.7 .37
01653625	Tinkers Creek at Piscataway, MD	Lat 38°42'50", long 76°58'16", Prince Georges County, at bridge on Gallahan Road, 0.5 mi upstream from mouth, and 0.8 mi north of Piscataway.	15.9	1975-82	5-18-82	4.2
01657900	Mattawoman Creek near Waldorf, MD	Lat 38°39'10", long 76°51'55", Charles County, at bridge on Acton Lane/ Gardner Road, 1.9 mi west of Mattawoman, and 2.0 mi north of Waldorf.	16.9	1980-82	5-17-82 9-17-82	1.6 0
01660650	Mill Run at Welcome, MD	Lat 38°28'58", long 77°05'04", Charles County, at bridge on State Highway 6, 0.8 mi east of Welcome, and 2.3 mi upstream from mouth.	9.89	1980-82	5-17-82 9-16-82	2.4 0
01660740	Port Tobacco Creek near Marshalls Corner, MD	Lat 38°32'34", long 77°01'04" Charles County, at bridge on State Highway 225, 0.25 mi downstream from Jennie Run, and 1.4 mi southeast of Marshalls Corner.	15.8	1977-82	5-17-82 9-17-82	3.0 0
01660905	Zekiah Swamp Run near Malcolm, MD	Lat 38°36'52", long 76°49'59", Charles County, at bridge on State Highway 382, 0.4 mi downstream from Wolf Den Branch, and 2.4 mi west of Malcolm.	12.1	1975-82	5-17-82 9-16-82	3.6 .38
01661200	Brooks Run near Hollywood, MD	Lat 38°19'57", long 76°35'55", St. Marys County, at culvert on State Highway 245, 0.3 mi downstream from Lows Run, and 1.7 mi southwest of Hollywood.	5.76	1980-82	5-18-82 9-16-82	1.4 .28
01661300	McIntosh Run at Tintop Hill, MD	Lat 38°20'02", long 76°37'57", St. Marys County, at bridge on McIntosh Road, 1.0 mile northwest of Tintop Hill.	12.1	1964-66 1982	5-18-82 9-16-82	2.2 .16
01661410	Glebe Run at Leonardtown, MD	Lat 38°17'05", long 76°37'07", St. Marys County, at culvert on State Highway 5 0.5 mi downstream from Gravely Run, and 1.1 mi southeast of Leonardtown.	5.81	1980-82	5-18-82 9-16-82	2.2 .78

Discharge measurements made at low-flow partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Monongahela River basin				
03075350	Cherry Creek near Crellin, MD	Lat 39°22'06", long 79°27'16", Garrett County, at bridge on Underwood Road 0.4 mi upstream from mouth, and 1.5 mi south of Crellin.	16.7	1977-82	5-18-82 9- 7-82	7.5 4.6
03075700	Muddy Creek at Swallow Falls State Park, MD	Lat 39°30'10", long 79°25'08", Garrett County, at bridge in Swallow Falls State Park, 0.1 mi upstream from mouth, and 6.7 mi north of Oakland.	17.8	1979-82	5-18-82 9- 7-82	15 3.3

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
		Susquehanna River basin					
01577940	Broad Creek tributary at Whiteford, MD	Lat 39°42'14", long 76°21'49", Harford County, at upstream side of culvert on State Highway 165, 0.8 mi upstream from mouth, and 1.0 mi southwest of Whiteford.	.77	1971-82	2- 3-82	5.48	100
		Gunpowder River basin					
01584500	Little Gunpowder Falls at Laurel Brook, MD	Lat 39°30'18", long 76°25'56", Baltimore County, 750 ft upstream from bridge on Bottom Road, 5 mi southwest of Bel Air, and 10.5 mi upstream from mouth.	36.1	1927-70‡, 1971-82	2- 3-82	6.60	3,450
		Patapsco River basin					
01589240	Gwynns Falls at McDonogh, MD	Lat 39°23'28", long 76°45'56", Baltimore County, at bridge on McDonogh Road at McDonogh, and 0.3 mi upstream from Horsehead Branch.	19.3	1958-82	6-13-82	6.34	622
		Potomac River basin					
01596005	Savage River near Frostburg, MD	Lat 39°40'56", long 78°57'54", Garrett County, at upstream side of culvert on U.S. Highway 40, 1.9 mi northwest of Frostburg city limits, and about 26 mi upstream from mouth.	a1.5	1971-82	7- 4-82	19.28	34
01601000	Wills Creek below Hyndman, PA	Lat 39°48'43", long 78°43'00", Bedford County, 150 ft above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mi downstream from Little Wills Creek, and 0.5 mi south of Hyndman.	146	1951-67‡, 1968-82	3-13-82	6.57	3,830
01610105	Pratt Hollow tributary at Pratt, MD	Lat 39°41'35", long 78°30'18", Allegany County, at upstream side of culvert on U.S. Highway 40, 0.2 mi northeast of Pratt, and 1.0 mi upstream from Kifer Hollow.	.70	1971-82	6-13-82	11.34	38
01610150	Bear Creek at Forest Park, MD	Lat 39°42'07", long 78°19'02", Washington County, at upstream side of culvert on U.S. Highway 40, 0.2 mi upstream from mouth, and 0.9 mi west of Forest Park.	10.4	1965-69, 1971-82	6-13-82	6.0	480

‡ Operated as a continuous-record station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations during water year 1982

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft^3/s)
01613150	Ditch Run near Hancock, MD	Lat 39°41'30", long 78°07'57", Washington County, at upstream side of culvert on U.S. Highway 40, 0.3 mi upstream from mouth, and 2.7 mi east of Hancock.	a4.8	1965-82	6-13-82	4.9	143
01646550	Little Falls Branch near Bethesda, MD	Lat 38°57'27", long 77°06'31", Montgomery County, on left bank at downstream side of bridge on Massachusetts Avenue, 1.7 mi upstream from mouth, and 2.0 mi southwest of Bethesda.	a4.1	1944-59‡, 1960-61, 1962-78‡, 1979-82	5-28-82	2.51	208
01658000	Mattawoman Creek near Pomonkey MD	Lat 38°35'45", long 77°03'25", Charles County, at downstream side of bridge on State Highway 227, 1.2 mi southeast of Pomonkey, and 12.6 mi upstream from mouth.	54.8	1949-72‡, 1973-82	5-31-82	6.31	4,290
		Monongahela River basin					
03075600	Toliver Run tributary near Hoyes Run, MD	Lat 39°29'39", long 79°25'14", Garrett County, at upstream side of culvert on Swallow Falls Road, 100 ft upstream from mouth, and 2.4 mi south of Hoyes Run.	.53	1965-82	7- 4-82	5.53	49
03078500	Big Piney Run near Salisbury, PA	Lat 39°43'34", long 79°02'55", Somerset County, 660 ft upstream from Little Piney Run, and 2.5 mi southeast of Salisbury.	24.5	1932-70‡, 1974-82	3-13-82	3.47	360

‡ Operated as a continuous-record station.
a Approximately.

Annual maximum discharge at crest-stage partial-record stations during water year 1982

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The information is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929. Only the maximum stage is given. Information on some other high stages 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 stage at tidal crest-stage partial-record stations during water year 1982

Station No.	Station name	Location	Period of Record	Annual maximum Date	Annual maximum Elevation, in feet NGVD
		Smyrna River basin			
01483335	Duck Creek at Smyrna, DE	Lat 39°18'31", long 75°36'34", Kent County, at bridge on U.S. Highway 13, at north edge of Smyrna, 2 mi north of intersection of State Highway 300 and U.S. Highway 13 on downstream right wingwall of bridge.	1966-82	11-15-81	3.98
		Murderkill River basin			
01484085	Murderkill River at Bowers, DE	Lat 39°03'30", long 75°23'51", Kent County, at Faulkner's Landing in Bowers, on left bank 10 ft southeast of southeast corner of restaurant on Faulkner's Pier.	1966-82	11-15-81	6.24
		Cedar Creek basin			
01484235	Cedar Creek near Slaughter Beach, DE	Lat 38°56'06", long 75°19'26", Sussex County, at bridge No. S-164 on State Highway 36, 1.8 mi northwest of Slaughter Beach.	1966-82	11-15-81	4.94
		Indian River basin			
01484595	Indian River at Oak Orchard, DE	Lat 38°35'45", long 75°10'24", Sussex County, at Hanes Landing 2.0 mi southeast of intersection of State Highways 24 and 5, at Oak Orchard.	1966-82	11-15-81	4.34

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. All measurements in this table were made during periods of base flow, except as otherwise noted.

Discharge measurements made at miscellaneous sites during water year 1982

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Gunpowder River basin				
01581955 Gunpowder Falls	Gunpowder River	Lat 39°36'32", long 76°38'08", Baltimore County, at bridge on Big Falls Road, 2.0 mi northeast of Hereford, Md.	91.6	1975-81	12- 3-81 12-15-81	197 193
		Potomac River basin				
Potomac Blue Spring	North Branch Potomac	Lat 39°34'26", long 78°43'50", Allegany County, 200 ft below abandoned C&O Canal lock, 1.1 mi northwest of Spring Gap, Md.	-	1958-78 1980-81	5-17-82 9- 7-82	18 9.1
Murley Branch	Murley Branch	Lat 39°39'38", long 78°37'08", Allegany County, below dam at spring house of farm on Williams Road, 4.0 mi southwest of Flintstone, Md.	-	1958-78 1980-81	5-17-82 9- 7-82	2.3 .98
01601420 Hoffman Drainage Tunnel	Braddock Run	Lat 39°38'18", long 78°53'35", Allegany County, upstream from State Highway 55, 0.5 mi southwest of Clarysville, and 2.1 mi southeast of Frostburg, Md.	-	1944, 1958-59, 1964, 1965, 1967-81	5-17-82 9- 8-82	36 16
01601490 Braddock Run	Wills Creek	Lat 39°40'12", long 78°47'37", Allegany County, 0.2 mi upstream from mouth, and 2.0 mi northwest of Cumberland, Md.	17.5	1975-81	5-18-82 9- 7-82	43 16
01643580 Monocacy River	Potomac River	Lat 39°14'11", long 77°26'25", Frederick County, at bridge on State Highway 28, 1.9 mi northwest of Dickerson, Md., and 2.0 mi upstream from mouth.	968	1975-77 1979-81	8-23-82	189
01645080 Seneca Creek	Potomac River	Lat 39°05'28", long 77°19'47", Montgomery County, 50 ft upstream from Hooker Branch, 1.0 mi northeast of Seneca, Md., and 1.9 mi upstream from mouth.	128	1975-81	7-27-82	45

STREAMS IN CECIL COUNTY, MD

Cecil County low-flow investigations

Five series of base-flow discharge measurements were made throughout Cecil County as part of a water-availability study in cooperation with Cecil County and the Maryland Geological Survey. The series were made Oct. 21-22, Nov. 3-5, Mar. 29-30, Apr. 13, and Aug. 16-18. All measurements were made under base-flow conditions unless otherwise noted.

Weather records at Conowingo Dam in the western portion of the area and Newark University Farm in the eastern portion of the area show that no precipitation occurred for 3 days prior to Oct. 21, 6 days prior to Nov. 3, 3 days prior to Mar. 29, 4 days prior to Apr. 13, and 4 days prior to Aug. 16.

The measurements on each stream are listed in order proceeding downstream and each tributary is inserted in the order in which it enters the main stream. Drainage areas were determined from recent U.S. Geological Survey topographic maps of a scale of 1:24,000 and contour interval of 20 ft. Previous series of measurements were made at indicated sites as noted.

Discharge measurements of streams and tributaries in Cecil County, MD

Stream	Location	Drainage area (mi^2)	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile
			Oct. 21, 22, 1981		Nov. 3, 4, 5, 1981		Mar. 29, 30, 1982		Apr. 13, 1982		Aug. 16, 17, 18, 1982	
	Susquehanna River Basin											
Conowingo Creek	Lat 39°42'01", long 76°11'22", Cecil County, at bridge on Pilot Town Road, 0.5 mi west of Oakwood.	34.4	8.44	0.245			19.5	0.567			11.5	0.334
Stone Run	Lat 39°42'21", long 76°04'40", Cecil County, at culvert on U.S. Highway 1, 1.25 mi west of Rising Sun.	6.71			2.35	0.350	0.15	0.022			1.70	0.253
Stone Run	Lat 39°42'38", long 76°03'29", Cecil County, at culvert on U.S. Highway 1, 0.95 mi northwest of Rising Sun.	2.24					2.75	1.228			0.25	0.112
Love Run	Lat 39°41'23", long 76°07'38", Cecil County, at bridge on Colora Road at Richardsmere.	3.55	0.94	0.265			1.22	0.344			1.35	0.380
Octoraro River tributary	Lat 39°41'09", long 76°08'32", Cecil County, at bridge on Colora Road at Richardsmere.	3.27	0.68	0.208			1.87	0.572			0.76	0.232
	Mill Creek Basin											
Mill Creek	Lat 39°34'29", long 76°03'22", Cecil County, at culvert on U.S. Highway 40, 0.95 mi southwest of Jackson.	3.73			1.61	0.432			3.78	1.013	1.86	0.499
	Principio Creek Basin											
Principio Creek tributary	Lat 39°35'39", long 76°01'19", Cecil County, at culvert on Belvedere Road at Belvedere, 0.8 mi north of U.S. Highway 40.	2.08							1.56	0.750	1.31	0.630

	Northeast River Basin								
West Branch Little Northeast Creek	Lat 39°40'52", long 75°57'07", Cecil County, at culvert on Dr. Miller Road, 0.7 mi northeast of Zion.	3.32		0.76	0.229	1.46	0.440	0.57	0.172
Northeast River tributary	Lat 39°35'43", long 75°56'36", Cecil County, at culvert on State Highway 272, 0.4 mi south of State Highway 7 at Northeast.	1.55						0.12	0.077
Stony Run	Lat 39°36'24", long 75°57'33", Cecil County, at wooden bridge on Razor Strap Road, 0.5 mi west of State Police Barracks, 0.9 mi northwest of Northeast.	8.23		2.17	0.264			1.58	0.192
Northeast tributary	Lat 39°34'50", long 75°59'51", Cecil County, at culvert on State Highway 7, at northeast city limits of Charlestown.	1.03		0.40	0.388			0.09	0.087
	Elk River Basin								
Gramies Run	Lat 39°40'31", long 75°50'32", Cecil County, at wooden bridge on Booth Road, 0.8 mi north of Elk Mills.	3.05		1.62	0.531				
Little Elk Creek	Lat 39°42'03", long 75°53'12" Cecil County, at bridge on State Highway 273, at Rock Church.	17.8		5.57	0.313				
Laurel Run	Lat 39°37'45", long 75°52'29", Cecil County, at culvert on Zeitler Road, 0.87 mi west of State Highway 545, 2.3 mi northwest of Elkton.	3.87				1.55	0.401		
Dogwood Run	Lat 39°37'00", long 75°50'58", Cecil County, at culvert on State Highway 545, 1.5 mi northwest of Elkton.	1.62				0.32	0.198		
Mill Creek	Lat 39°36'03", long 75°51'47", Cecil County, at culvert on Old Elk Neck Road, 0.5 mi south of State Highway 7, 1.5 mi west of Elkton.	4.12				a1.66	0.403	1.05	0.255
Perch Creek	Lat 39°24'16", long 75°48'53", Cecil County, at culvert on State Highway 213, 2.5 mi south of Elkton.	5.46				b3.16	0.579		

a Previously measured 1968-70.
b Previously measured 1964-75, 1978-80.

Discharge measurements of streams and tributaries in Cecil County, MD

Stream	Location	Drainage area (mi^2)	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile	Measured discharge (ft^3/s)	Cfs per square mile
			Oct. 21, 22, 1981		Nov. 3, 4, 5, 1981		Mar. 29, 30, 1982		Apr. 13, 1982		Aug. 16, 17, 18, 1982	
	Elk River Basin--Continued											
Herring Creek tributary	Lat 39°30'20", long 75°49'57", Cecil County, at culvert on State Highway 213, 1.8 mi southwest of Chesapeake City.	1.96					0.70	0.358				
Sandy Branch	Lat 39°27'36", long 75°46'28", Cecil County, at bridge on Old Telegraph Road, 0.4 mi south of Bohemia Mills.	2.58					c2.31	0.895			1.98	0.767
Scotchman Creek tributary	Lat 39°25'15", long 75°53'15", Cecil County, at wooden bridge on New Cut Road, 1.5 mi northwest of Cecilton.	1.40					0.43	0.307			0.28	0.200
	Delaware River Basin											
Christina River	Lat 39°42'02", long 75°47'18", New Castle County, DE, at bridge on Wedgewood Road, 0.5 mi north of State Highway 273, 2.0 mi northwest of Newark.	3.76			1.42	0.378						
West Branch Christina River	Lat 39°39'20", long 75°47'00", New Castle County, DE, at bridge on Ott's Chapel Road, 0.15 mi south of Delaware State Highway 2, 2.0 mi southwest of Newark.	4.20			1.04	0.248						
	Sassafras River Basin											
Sassafras River tributary	Lat 39°23'23", long 75°46'47" Cecil County, at culvert on Edgar Price Road, 0.7 mi east of Ginns Corner.	3.81					2.14	0.562				
Duffy Creek	Lat 39°23'45", long 75°49'32", Cecil County, at culvert on Wards Hill Road, 2.3 mi east of Cecilton.	1.45					c0.88	0.607			1.47	1.014

c Previously measured 1968-71.

Potomac River basin low-flow investigations

Several series of base-flow discharge measurements were made throughout Frederick County as part of a water-availability study in cooperation with Frederick County and the Maryland Geological Survey. The series were made Mar. 3-4, 9-12, 18, July 22-23, 27, 29, and Aug. 11-12, 19, 23.

Weather records at Frederick, in the central portion of the area, and Emmitsburg, in the northern part of the area, were used to check periods prior to measurements for rainfall. Measurements are considered to represent base flow except as indicated.

The measurements on each stream are listed in order proceeding downstream, and each tributary is inserted in the order in which it enters the main stream. Drainage areas were determined from recent U.S. Geological Survey topographic maps of a scale of 1:24,000 and contour interval of 10 to 20 ft. Previous series of measurements were made at several sites as indicated.

Discharge measurements of tributaries to the Potomac River in Frederick County, MD

Station No.	Station name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
01636850	Little Catoctin Creek near Brunswick, MD	Lat 39°19'25", long 77°35'35", Frederick County, at bridge on Highway 464, 1.4 mi northeast of Brunswick.	8.64	1977-1981	3-10-82 8-19-82	10 .55	1.157 0.064
01638050	Catoctin Creek at Olive, MD	Lat 39°59'56", long 77°34'45", Frederick County, at bridge on State Highway 464, 0.4 mi northeast of Olive.	112	-	3-10-82 8-19-82	193 22	1.723 0.196
01638520	Potomac River tributary at Point of Rocks, MD	Lat 39°16'23", long 77°31'31", Frederick County, at bridge on Rock Hall Road, 0.2 mi from State Highway 28 and 0.5 mi upstream from mouth.	3.04	-	3- 9-82 7-29-82	.93 .35	0.306 0.115
01638600	Tuscarora Creek at Tuscarora, MD	Lat 39°15'06", long 77°28'49", Frederick County, at bridge on New Design Road, 0.7 mi southwest of Tuscarora.	20.3	1975-1979	3-10-82 8-23-82	18 5.0	0.887 0.246
01639150	Piney Creek near Keysville, MD	Lat 39°39'19", long 77°15'54", Carroll County, 300 ft upstream from bridge on Baumgardner Road, 1.6 mi northwest of Keysville.	34.4	-	3- 3-82 7-23-82	35 1.4	1.017 0.041
01639325	Friends Creek near Emmitsburg, MD	Lat 39°43'03", long 77°23'35", Frederick County, at concrete ford on Hornets Nest Road, 3.5 mi northwest of Emmitsburg.	12.2	1977-1981	3- 4-82 7-22-82	20 2.2	1.639 0.180
01639390	Toms Creek near Keysville, MD	Lat 39°38'23", long 77°16'55", Frederick County, at abandoned bridge site on Sixes Road, 1.3 mi west of Keysville.	88.1	-	3- 3-82 7-27-82	135 13	1.532 0.148
01640200	Little Pipe Creek at Keymar, MD	Lat 39°35'28", long 77°14'35" Frederick County, at bridge on State Highway 194, 0.6 mi southwest of Keymar.	80.0	-	3-11-82 7-27-82	84 33	1.050 0.413
01640750	Owens Creek near Rocky Ridge, MD	Lat 39°35'07", long 77°20'08", Frederick County, at bridge on Longs Mill Road, 1.6 mi southwest of Rocky Ridge.	38.8	-	3- 8-82 7-22-82	92 8.3	2.371 0.214
01641600	Fishing Creek near Utica, MD	Lat 39°30'41", long 77°23'07", Frederick County, at bridge on Lenhart Road, 1.0 mi southeast of Utica.	17.9	-	3-12-82 7-23-82	48 3.8	2.682 0.212
01641810	Monocacy River near Walkersville, MD	Lat 39°28'47", long 77°23'18", Frederick County, at Biggs Ford Bridge on Biggs Ford Road, 2.0 mi west of Walkersville.	637	1974-1979	8-19-82	124	0.195

Discharge measurements of tributaries to the Potomac River in Frederick County, MD

Station No.	Station name	Location	Drainage area (mi^2)	Measured previously(water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
01641900	Tuscarora Creek near Frederick, MD	Lat 39°27'52", long 77°24'11", Frederick County, 0.1 mi upstream from U.S. Highway 15 bridge, 2.0 mi north of Frederick.	16.5	1974-1979	3- 9-82 7-23-82	20 4.7	1.212 0.285
01642050	Israel Creek near Walkersville, MD	Lat 39°28'27", long 77°20'26", Frederick County, at bridge on Crum Road, 1.1 mi southeast of Walkersville.	28.4	1964-1966 1975-1979	3-11-82 8-11-82	29 2.9	1.021 0.102
01643110	Bush Creek at Reels Mill, MD	Lat 39°21'37", long 77°22'08", Frederick County, at Reels Mill bridge on Reels Mill Road, 3.5 mi southeast of Frederick.	29.7	-	3-18-82 8-12-82	43 14	1.448 0.471
01643125	Ballenger Creek near Lime Kiln, MD	Lat 39°21'52", long 77°25'01", Frederick County, at bridge on State Highway 85, 1.2 mi northeast of Lime Kiln.	20.2	1977-1981	3-18-82 8-12-82	26 8.9	1.287 0.441
01643580	Monocacy River at Dickerson, MD	Lat 39°14'11", long 77°26'25" Frederick County, at bridge on State Highway 28, 1.9 mi northwest of Dickerson.	968	1975-1977 1979-1981	8-23-82	189	0.195

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 1981 TO SEPTEMBER 1982

DELAWARE RIVER BASIN

01477850 - CHRISTINA R NR NEWARK DEL

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
AUG 18...	0900	118	6.9	18.2	<1	1	5

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 18...	16	4200	80	220	<.01	60

01477860 - WB CHRISTINA R NR NEWARK DEL

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)
AUG 18...	0950	87	6.7	19.6	<1	<1	2

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 18...	1	580	<10	130	<.01	7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SASSAFRAS RIVER BASIN

01494480 - DUFFY C NR CECILTON MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1125	1.5	150	6.9	17.5	18	54	23	11	6.5	5.0	16

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
AUG 17...	.3	2.1	31	15	9.7	.1	17	117	85	.16	.46	4.3

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)
AUG 17...	<.10	.030	.09	.030	<1	<1	2	1	550	350	200	2700

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L 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)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	<10	70	20	48	100	<.01	7	.8	<1	<1.0	<.1	<1.0

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	2.4	1.1	2.7	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (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)	PER-THANE IN BOTTOM MATERIL (UG/KG)	SILVEX, 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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	<.1	<.1	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN

01495050 - BIG ELK C AT ELKTON MD

DATE	TIME	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
AUG 18...	1035	6.7	20.0	<1	<1	2	1	1200	<10	190

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.01	5	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 18...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495530 - L ELK C NR ELKTON MD

DATE	TIME	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
AUG 18...	1140	6.7	20.9	<1	<1	5	<1	1800	10	200

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.01	17	58	<1.0	<.1	4.0	5.8	<.1	12	<.1

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 18...	.3	.1	.3	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495540 - MILL C NR ELKTON MD

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
AUG 16...	1600	95	5.8	17.5	6	18	7.0	4.4	1.8	9.2	50	1.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
AUG 16...	1.4	11	8.0	13	<.1	8.2	66	53	.09	.65	.10	.010

DATE	PHOSPHORUS TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
AUG 16...	.03	<.010	<1	<1	3	2	760	410	350	790	<10	30

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 16...	0	32	27	<.01	5	2.3	<1	<1.0	<.1	<1.0	.7	.3

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)
AUG 16...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 16...	<.1	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495550 - PERCH CR NR ELTON MD

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
AUG 18...	1200	102	6.6	19.4	<1	<1	1	<1	690	<10	27

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.01	7	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1

DATE	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 18...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495800 - LONG C NR CHESAPEAKE CITY, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1650	.27	100	7.1	27.0	45	33	8.0	6.3	4.2	5.0	23

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
AUG 17...	.4	3.0	25	7.0	9.3	.1	7.8	82	60	.11	.06	.98

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	1.80	.040	.12	.060	5900	4100	1800	440	120	320	7.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495925 - SANDY B AT BOHEMIA MILLS MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 17...	1340	2.0	160	6.9	22.5	11	62	26	16	5.4	5.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 17...	14	.3	2.5	36	12	11	.1	13	107	87	.15

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV, FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
AUG 17...	.57	2.6	.10	.020	.06	.020	<1	<1	2	1	650

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	470	180	2900	<10	50	7	43	120	<.01	7	1.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

ELK RIVER BASIN--CONTINUED

01495950 - SCOTCHMAN C TR NR CECILTON MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 17...	0930	.28	230	7.4	18.0	10	99	22	35	2.7	4.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 17...	8	.2	1.7	77	16	9.3	.3	18	146	134	.20

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
AUG 17...	.11	1.2	<.10	.040	.12	.050	<1	<1	6	1	740

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	510	230	3700	<10	60	10	47	70	<.01	10	1.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NORTHEAST RIVER BASIN

01496030 - WB L NORTHEAST C AT ZION MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1545	.57	134	8.1	29.3	20	39	6.0	9.0	3.9	9.1	31

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
AUG 17...	.7	4.2	33	7.0	8.4	.2	21	109	83	.15	.17	2.1

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	.20	.160	.49	.180	6800	6400	360	530	380	150	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NORTHEAST RIVER BASIN--CONTINUED

01496053 - NORTHEAST C AT NORTH EAST MD

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 18...	0900	<1	<1	4	5	2400	50	190	<.01	12

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<1	<1.0	<.1	3.0	<.1	<.1	.4	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 18...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

01496055 - NORTHEAST R TR AT NORTH EAST MD

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 18...	0945	<1	<1	1	2	650	10	6	<.01	5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NORTHEAST RIVER BASIN--CONTINUED

01496060 - STONY RN NR NORTH EAST MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 18...	1115	1.6	127	7.7	19.5	15	36	3.0	7.4	4.2	8.8

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 18...	34	.7	1.6	33	8.0	9.5	.1	13	96	73	.13

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
AUG 18...	.41	2.7	.220	.67	.220	<1	<1	1	1	260	90

DATE	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 18...	170	430	<10	10	6	4	90	<.01	5	3.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NORTHEAST RIVER BASIN--CONTINUED

01496085 - NORTHEAST R TR AT CHARLESTOWN MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 16...	1430	.09	100	6.4	23.0	50	26	6.0	6.6	2.3	6.8

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 16...	35	.6	1.6	20	8.0	8.0	<.1	6.0	69	52	.09

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 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)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 16...	.02	.15	<.010	<.010	2100	1500	610	20	3	17	7.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

PRINCIPIO CREEK BASIN

01496225 - PRINCIPIO C TR AT BELVEDERE MD

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 16...	1530	53	7.6	25.5	52	8	2.0	1.8	1.0	5.1

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
AUG 16...	.8	<.1	6.0	3.0	9.5	<.1	6.0	39	30	.05

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
AUG 16...	<.10	<.010	<.010	<1	<1	1	1	2300	2200	71

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 16...	820	10	160	10	150	87	<.01	6	5.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

PRINCIPIO CREEK BASIN--CONTINUED

01496230 - PRINCIPIO C AT JACKSON MD

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 18...	1200	<1	<1	7	1	2500	<10	200	<.01	9

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 18...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 18...	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MILL CREEK BASIN

01496250 - MILL C AT JACKSON MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 16...	1645	1.9	100	6.7	22.0	25	26	11	5.4	3.0	7.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 16...	37	.7	.7	15	5.0	12	<.1	12	76	55	.10

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
AUG 16...	.38	1.0	<.010	<.010	<1	<1	5	4	440	130

DATE	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 16...	310	940	10	10	3	7	230	<.01	16	2.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSQUEHANNA RIVER BASIN

01578300 - CONOWINGO C AT OAKWOOD MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	0915	12	162	7.6	21.1	17	59	13	12	7.1	5.6	16

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
AUG 17...	.4	3.4	46	8.0	10	<.1	8.2	100	82	.14	3.2	4.0

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
AUG 17...	.050	.15	.040	<1	<1	30	2	540	430	110	2700	<10

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L 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)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	60	40	25	460	<.01	9	2.7	<1	<1.0	<.1	<1.0	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
AUG 17...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	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)	PER-THANE IN BOTTOM MATERIL (UG/KG)	SILVEX, 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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	<.1	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSQUEHANNA RIVER BASIN--CONTINUED

01578480 - STONE RN AT RISING SUN MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1345	1.7	157	9.1	25.6	18	63	12	13	7.5	5.7	16

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
AUG 17...	.3	1.1	51	8.0	8.0	.1	17	104	91	.14	.48	1.9

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
AUG 17...	.040	.12	.020	<1	<1	9	2	230	140	89	1400	10

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L 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)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	30	10	16	96	<.01	8	2.5	<1	<1.0	<.1	<1.0	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)
AUG 17...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	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)	PER-THANE IN BOTTOM MATERIL (UG/KG)	SILVEX, 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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 17...	<.1	<.1	<.1	<.1	<1.00	<.1	<10	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSQUEHANNA RIVER BASIN--CONTINUED

01578485 - STONE RN NR RISING SUN MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1445	.25	192	7.9	19.6	16	85	15	11	14	2.4	6

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 17...	.1	.5	70	6.0	8.0	<.1	21	118	105	.16	.08

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	1.8	.020	.06	.010	120	90	31	20	20	4	2.4

01578490 - LOVE RN AT RICHARDSMERE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 17...	1230	1.4	158	8.0	20.0	12	55	21	14	4.8	7.1	22

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 17...	.5	1.3	34	19	9.4	<.1	21	118	97	.16	.45

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	2.3	.030	.09	.030	330	300	30	40	40	5	5.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSQUEHANNA RIVER BASIN--CONTINUED

01578500 - OCTORARO C NR RISING SUN, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 17...	1200	49	191	8.1	22.7	16	72	20	16	7.8	6.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 17...	15	.4	4.1	52	13	11	.1	7.3	124	97	.17

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
AUG 17...	16.4	2.3	.040	.12	.030	<1	<1	6	3	440	400

DATE	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	40	2700	10	70	40	32	150	<.01	12	3.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSQUEHANNA RIVER BASIN--CONTINUED

01578515 - OCTARARO C TR AT RICHARDSMERE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
AUG 17...	1030	.76	151	7.9	19.3	18	64	18	13	7.6	4.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
AUG 17...	12	.2	.7	46	12	8.3	<.1	18	89	91	.12

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
AUG 17...	.18	1.6	.020	.06	.010	<1	<1	20	7	390	360

DATE	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 17...	29	3500	<10	30	30	4	290	<.01	10	1.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN

01636850 - L CATOCTIN C NR BRUNSWICK MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
10...	0900	10	257	7.7	1.5	12	13.7	92	54	25
AUG										
19...	1700	.55	261	8.3	25.2	19	8.7	93	26	25

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
10...	7.1	15	25	.7	4.4	38	29	30	.1	14
AUG										
19...	7.4	11	19	.5	5.2	67	14	24	.2	18

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
10...	172	148	.23	4.7	3.0	.48	3.5	15	.100
AUG									
19...	169	145	.23	.25	.99	--	--	--	.120

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
10...	.31	.080	510	400	110	120	10	110	4.0
AUG									
19...	.37	.100	620	470	150	100	30	72	3.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01636850 - L CATOCTIN C NR BRUNSWICK MD - - CONTINUED

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 19...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 19...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 19...	<.1	<.1	<1.00	<10	<.1	<.1	<1.0	<1.0	<1.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01638050 - CATOCTIN C AT OLIVE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
10...	1215	193	194	7.9	2.8	5	12.8	68	40	17	6.3	10
AUG												
19...	1945	22	214	8.6	23.7	16	8.0	84	24	22	7.1	8.1

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
10...	23	.6	2.0	28	22	22	<.1	13	132	109	.18	68.8
AUG												
19...	17	.4	2.9	60	15	15	<.1	9.4	130	116	.18	7.8

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
10...	2.4	.57	3.0	13	.050	.15	.050	--	--	--	--	490
AUG												
19...	.47	--	--	--	.110	.34	.090	<1	<1	2	4	360

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
10...	450	36	--	--	50	30	23	--	--	--	2.1
AUG											
19...	320	38	2400	10	30	10	17	330	<.01	10	2.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01638520 - POTOMAC R TR AT POINT OF ROCKS MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR 09...	1600	.93	313	8.9	10.0	8	12.3	160	38	40

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR 09...	14	6.3	8	.2	2.2	120	20	11	<.1	6.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR 09...	196	172	.27	.49	5.0	.56	5.6	25	.030

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 09...	.09	.020	190	170	16	30	1	29	2.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01638600 - TUSCARORA C AT TUSCARORA MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR 10...	1545	18	375	8.9	5.5	5	16.0	160	52	50	9.1	14
AUG 23...	1215	5.0	492	8.0	18.1	15	8.4	220	38	68	11	12

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR 10...	16	.5	2.7	110	36	21	.3	4.9	238	204	.32	11.4
AUG 23...	11	.4	3.0	177	28	16	.5	6.8	316	252	.43	4.3

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 10...	5.7	.34	6.0	27	.040	.12	.030	--	--	--	--	260
AUG 23...	4.8	--	--	--	.080	.25	.060	<1	<1	2	1	250

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 10...	240	23	--	--	90	10	79	--	--	--	2.0
AUG 23...	240	13	1300	10	70	20	53	320	<.01	5	2.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

01639150 - PINEY C NR KEYSVILLE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
03...	1330	35	235	7.9	4.6	6	12.3	83	51	22
JUL										
23...	1245	1.4	327	8.1	26.4	17	7.7	110	13	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
03...	6.7	9.0	19	.5	2.8	32	26	15	<.1	6.6
JUL										
23...	7.8	17	25	.8	4.4	94	17	29	.1	3.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
03...	159	107	.22	15.0	5.1	.12	5.2	23	.100
JUL									
23...	212	165	.29	.80	.82	.70	1.5	6.7	.410

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
03...	.31	.080	130	110	25	20	0	20	2.3
JUL									
23...	1.3	.390	180	150	26	60	40	19	4.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01639150 - PINEY C NR KEYSVILLE MD - - CONTINUED

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DBT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 23...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
JUL 23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 23...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01639325 - FRIENDS C NR EMMITSBURG MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
04...	1030	20	131	8.0	1.2	4	13.5	53	26	12
JUL										
22...	1220	7.9	182	8.4	23.5	7	8.1	71	20	17

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
MAR									
04...	5.6	4.4	15	.3	.6	27	16	11	<.1
JUL									
22...	6.9	6.1	16	.3	.9	51	14	10	.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
MAR									
04...	9.4	94	75	.13	5.1	1.5	.20	1.7	7.5
JUL									
22...	15	120	101	.16	2.6	.73	.80	1.5	6.8

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED 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)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
04...	<.010	--	<.010	40	40	5	<10	3	1.1
JUL									
22...	.040	.12	.030	170	150	16	<10	4	2.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01639325 - FRIENDS C NR EMMITSBURG MD - - CONTINUED

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 22...	<1	<1.0	<.1	<1.0	<.1	.3	.3	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
JUL 22...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 22...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01639390 - TOMS C NR KEYSVILLE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
03...	1620	135	161	7.9	4.5	18	12.6	63	28	17	5.0	5.0
JUL												
23...	0945	13	196	7.6	25.6	8	5.6	77	12	22	5.4	6.7

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
03...	14	.3	1.2	35	19	10	<.1	10	109	88	.15	39.7
JUL												
23...	16	.4	1.4	65	15	8.8	<.1	9.5	136	108	.18	4.6

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
03...	1.5	.33	1.8	8.1	.040	.12	.040	--	--	--	--	120
JUL												
23...	.59	.80	1.4	6.2	.160	.49	.140	<1	<1	10	7	190

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
03...	80	40	--	--	20	7	13	--	--	--	7.9
JUL											
23...	140	50	13000	10	30	10	20	550	<.01	28	2.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01640200 - L PIPE C AT KEYMAR MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
11...	1300	84	353	8.5	5.7	<1	13.0	150	51	47
JUL										
27...	1500	33	383	8.0	26.0	8	7.9	160	29	51

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
11...	8.2	10	12	.4	2.4	100	27	23	.2	5.2
JUL										
27...	7.5	9.2	11	.3	3.1	129	19	17	.1	6.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
11...	223	183	.30	50.5	5.4	.81	6.2	28	.140
JUL									
27...	242	191	.33	21.4	3.6	.30	3.9	17	.280

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
11...	.43	.120	280	270	14	80	10	70	1.7
JUL									
27...	.86	.230	580	550	27	80	50	34	2.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01640750 - OWENS C NR ROCKY RIDGE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
08...	1330	92	159	7.8	3.2	10	13.6	47	19	14	2.8	10
JUL												
22...	1000	8.3	155	7.7	20.9	8	7.3	59	8.0	17	4.0	4.9

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
08...	31	.7	1.6	28	19	12	<.1	7.0	104	83	.14	25.8
JUL												
22...	15	.3	1.5	51	10	7.3	<.1	9.1	101	84	.14	2.3

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
08...	1.9	.35	2.2	10	.040	.12	.020	--	--	--	--	190
JUL												
22...	.68	.70	1.4	6.1	.030	.09	.020	<1	<1	8	6	390

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
08...	140	52	--	--	30	8	22	--	--	--	3.2
JUL											
22...	370	25	9500	10	20	20	1	420	<.01	27	1.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01641600 - FISHING C NR UTICA MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
12...	1145	48	104	8.4	7.8	5	12.6	36	15	9.9	2.7	4.7
JUL												
23...	1200	3.8	97	7.5	23.5	12	6.9	41	4.0	12	2.7	2.4

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
12...	21	.4	1.4	21	12	10	<.1	4.2	68	58	.09	8.8
JUL												
23...	11	.2	1.2	37	4.0	3.5	<.1	5.5	62	54	.08	.64

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
12...	.69	.43	1.1	5.0	.040	.12	.020	--	--	--	--	270
JUL												
23...	.53	1.00	1.5	6.8	.060	.18	.040	<1	<1	7	6	290

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
12...	230	39	--	--	20	4	16	--	--	--	2.6
JUL											
23...	200	88	6400	10	20	3	17	280	<.01	26	2.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01641900 - TUSCARORA C NR FREDERICK MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
09...	0915	20	196	7.9	3.0	3	13.4	79	25	25
JUL										
23...	1530	4.7	290	7.8	24.0	12	7.5	120	24	40

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
09...	4.0	6.6	15	.3	2.1	54	17	8.9	<.1	6.4
JUL										
23...	5.5	5.2	8	.2	3.4	99	11	9.6	<.1	9.2

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
09...	121	103	.16	6.4	2.6	.43	3.0	13	.040
JUL									
23...	170	144	.23	2.1	4.4	1.60	6.0	27	.180

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
09...	.12	.040	230	170	57	50	7	43	2.1
JUL									
23...	.55	.120	750	680	72	90	30	63	2.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01641900 - TUSCARORA C NR FREDERICK MD - - CONTINUED

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 23...	<1	<1.0	<.1	<1.0	<.1	.4	.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
JUL 23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 23...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01642050 - ISRAEL C NR WALKERSVILLE MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
11...	1530	29	230	8.1	9.1	8	11.7	98	42	30
AUG										
11...	1130	2.9	382	7.9	21.8	5	8.0	170	53	54

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
MAR										
11...	5.6	5.5	11	.3	2.3	56	26	11	<.1	5.4
AUG										
11...	8.6	7.2	8	.3	3.9	117	33	15	.1	6.1

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
MAR									
11...	145	120	.20	11.2	2.8	.74	3.5	16	.030
AUG									
11...	245	198	.33	1.9	2.2	--	--	--	.060

DATE	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR									
11...	.09	.020	290	260	31	60	10	46	1.6
AUG									
11...	.18	.040	300	270	29	60	20	44	2.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01642050 - ISRAEL C NR WALKERSVILLE MD - - CONTINUED

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 11...	<1	<1.0	<.1	<1.0	.2	<.1	<.1	<.1	<.1	<.1

DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 11...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 11...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01643110 - BUSH C AT REELS MILL MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR												
18...	1015	43	277	7.5	7.2	5	--	69	31	19	5.3	16
AUG												
12...	1330	14	212	8.1	20.7	9	8.3	75	19	22	4.8	10

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR												
18...	33	.9	2.1	38	7.1	31	<.1	5.2	137	109	.19	16.0
AUG												
12...	22	.5	2.3	56	7.0	21	<.1	7.5	137	108	.19	5.1

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR												
18...	.49	.61	1.1	4.9	.050	.15	.020	--	--	--	--	300
AUG												
12...	1.8	--	--	--	.020	.06	.010	<1	<1	4	2	440

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR											
18...	220	76	--	--	60	0	62	--	--	--	1.2
AUG											
12...	360	77	2300	10	70	30	41	570	<.01	8	2.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01643125 - BALLENGER C NR LIME KILN MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)
MAR 23...	1430	26	406	8.3	10.0	3	13.8	170	53	51	11	11
AUG 12...	1645	8.9	515	7.6	18.2	7	8.5	230	59	71	12	9.0

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR 23...	12	.4	2.1	120	28	29	<.1	5.8	242	210	.33	16.8
AUG 12...	8	.3	2.4	168	23	27	<.1	7.3	282	253	.38	6.8

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR 23...	2.3	.31	2.6	12	.030	.09	.060	--	--	--	--	160
AUG 12...	6.5	--	--	--	.040	.12	.030	<1	<1	4	1	320

DATE	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
MAR 23...	150	10	--	--	30	6	24	--	--	--	.9
AUG 12...	290	34	1600	10	30	10	19	260	<.01	7	1.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

POTOMAC RIVER BASIN--CONTINUED

01643580 - MONOCACY R NR DICKERSON, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (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)	PERCENT SODIUM
AUG 23...	1645	189	296	9.2	22.1	17	130	32	41	6.8	13	17

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
AUG 23...	.5	3.0	98	18	24	.2	1.3	199	166	.27	102

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG 23...	1.0	.130	.40	.090	290	280	12	110	110	4	5.2

DATE	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)	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)
AUG 23...	<1	<1.0	<.1	<1.0	<.1	<.1	<.1	<.1	<.1	<.1

DATE	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)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)
AUG 23...	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1

DATE	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PER-THANE IN BOTTOM MATERIL (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-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
AUG 23...	<.1	<.1	<1.00	<10	<.1	<.1	<.1	<.1	<.1

GROUND-WATER LEVELS

DELAWARE

KENT COUNTY

391026075304901. Local number, Id 55-1.
LOCATION.--Lat 39°10'26", long 75°30'49", Hydrologic Unit 02040207, White Oak Road at Dover.
Owner: City of Dover.
AQUIFER.--Piney Point.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2.5 in (0.06 m), depth 349 ft (106 m), cased to 329 ft (100 m), screened 329 to 349 ft (100 to 106 m).
DATUM.--Altitude of land-surface datum is 20 ft (6.1 m). Measuring point: Top of casing 1.0 ft (0.30 m) above land-surface datum.
REMARKS.--Water level affected by pumping in the Dover area. Equipped with water-stage recorder Aug. 26, 1969, to current year.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 67.40 ft (20.54 m) below land-surface datum, May 5, 1970; lowest recorded, 143.9 ft (43.86 m) below land-surface datum, July 25, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.0	134.2	129.6	127.5	132.5	129.4	130.0	121.9	120.8	121.2	121.9	123.3
10	136.5	133.9	129.3	128.5	132.2	129.8	128.0	120.2	120.9	121.8	122.5	122.1
15	135.3	132.6	129.8	129.4	132.1	130.2	126.0	119.2	120.5	121.7	123.8	122.3
20	135.5	132.0	130.4	130.6	131.8	130.4	125.2	119.6	120.7	122.6	123.5	124.5
25	135.9	131.7	129.9	132.0	130.2	130.5	124.7	119.3	120.9	123.2	122.6	124.0
EOM	134.1	130.2	129.0	132.5	129.8	130.3	123.5	119.5	121.1	123.2	122.7	122.9

WTR YEAR 1982 MAX 118.8 MAY 27, 1982 MIN 139.1 OCT 1, 1981

390935075320001. Local number, Jd 14-1.
LOCATION.--Lat 39°09'35", long 75°32'00", Hydrologic Unit 02040207, Division Street at Dover.
Owner: City of Dover.
AQUIFER.--Cheswold.
WELL CHARACTERISTICS.--Drilled former public supply well, diameter 12 in (0.30 m), depth 227 ft (69.2 m) cased to 195 ft (59.4 m), screened 195 to 227 ft (59.4 to 69.2 m).
DATUM.--Altitude of land-surface datum is 35 ft (10.7 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--Water level affected by pumping in the Dover area. Equipped with water-stage recorder Aug. 7, 1972, to Feb. 11, 1982.
PERIOD OF RECORD.--August 1972 to February 1982 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 81.47 ft (24.83 m) below land-surface datum, Apr. 8, 1980; lowest recorded, 131.4 ft (40.05 m) below land-surface datum, Sept. 2, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB
5	.....	109.7	112.5	102.9	106.2
10	111.8	109.0	112.0	103.0	106.6
15	112.4	108.9	109.9	105.5	.....
20	112.9	109.6	106.9	105.9	.....
25	112.1	109.9	105.5	105.5	.....
EOM	110.9	111.9	103.8	105.6	.....

WTR YEAR 1982 MAX *99.93 JAN 2, 1982 MIN *113.2 OCT 23, 1981

* Maximum and minimum water levels recorded for period Oct. 6, 1981, to Feb. 11, 1982.

390607075331501. Local number, Jd 42-3.
LOCATION.--Lat 39°06'07", long 75°33'15", Hydrologic Unit 02040207, 1 mi (1.6 km) south of Camden.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1.25 in (0.03 m), depth 11 ft (3.4 m), well point 8.5 to 11 ft (2.6 to 3.4 m).
DATUM.--Altitude of land-surface datum is about 44 ft (13.4 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located 2 ft (0.6 m) north of the original well. The measurements published in WSP 1782, for the years 1958-61 for the original well, are doubtful.
PERIOD OF RECORD.--October 1950 to December 1961, August 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft (0.82 m) below land-surface datum, July 18, 1975; lowest measured, 9.64 ft (2.94 m) below land-surface datum, Dec. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	9.21	DEC 28	9.64	FEB 25	7.42	APR 27	6.96	JUN 24	7.38	AUG 26	8.22
NOV 23	9.48	JAN 28	8.90	MAR 26	6.90	MAY 27	7.19	JUL 28	8.04	SEP 27	8.70

385041075395601. Local number, Mc 51-1.
LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi (2.1 km) northeast of Adamsville.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 2 in (0.05 m), depth 19 ft (5.8 m), well point 15 to 19 ft (4.6 to 5.8 m).
DATUM.--Altitude of land-surface datum is about 55 ft (16.8 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located about 60 ft (18.3 m) north of original well.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.52 ft (1.38 m) below land-surface datum, July 16, 1975; lowest measured, 15.74 ft (4.80 m) below land-surface datum, Sept. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	15.06	DEC 30	15.64	MAR 16	12.16	JUN 3	12.03	AUG 11	13.29		
NOV 27	15.53	FEB 9	14.55	APR 20	11.96	JUL 14	12.76	SEP 20	14.02		

385310075331301. Local number, Md 22-1.
LOCATION.--Lat 38°53'10", long 75°33'13", Hydrologic Unit 02040207, 2.4 mi (3.9 km) west of Williamsville.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (0.03 m), depth 17 ft (5.2 m), well point 14 to 17 ft (4.3 to 5.2 m).
DATUM.--Altitude of land-surface datum is about 58 ft (17.7 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft (0.33 m) below land-surface datum, July 14, 1975; lowest measured, 11.14 ft (3.40 m) below land-surface datum, Jan. 6, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	8.86	FEB 18	3.07	MAR 31	3.70	MAY 27	5.15	JUL 13	7.10	AUG 30	8.53
NOV 3	9.40	MAR 2	2.85	APR 19	3.07	JUN 8	5.27	JUL 26	7.45	SEP 20	9.08
DEC 2	9.63	MAR 16	2.87	APR 30	2.81	JUN 30	6.28	AUG 11	7.59	SEP 28	9.33
DEC 31	8.30										

NEW CASTLE COUNTY

393854075415401. Local number, Db 24-10.
LOCATION.--Lat 39°38'54", long 75°41'54", Hydrologic Unit 02040205, 2 mi (3.2 km) south of Ogletown.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (0.03 m), depth 24 ft (7.3 m), well point 21 to 24 ft (6.4 to 7.3 m).
DATUM.--Altitude of land-surface datum is about 77 ft (23.5 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--August 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.33 ft (1.32 m) below land-surface datum, Oct. 6, 1978; lowest measured, 17.43 ft (5.31 m) below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	14.70	DEC 3	15.15	FEB 2	13.60	APR 2	10.92	JUL 7	9.63	AUG 27	11.09
OCT 30	14.75	DEC 29	15.15	MAR 1	12.70	JUN 1	9.55	JUL 26	10.43	SEP 30	12.60

393755075364802. Local number, Dc 34-6.
LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, at Delaware National Guard Rifle Range, New Castle.
Owner: Delaware Geological Survey.
AQUIFER.--Upper Potomac.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in (0.15 m) to 43 ft (13.1 m), 2 in (0.05 m) to 190 ft (57.9 m), depth 190 ft (57.9 m), screened 183 to 188 ft (55.8 to 57.3 m).
REMARKS.--Water level subject to tidal fluctuation. Equipped with water-stage recorder Nov. 11, 1975, to Nov. 13, 1981.
DATUM.--Altitude of land-surface datum is 28 ft (8.5 m). Measuring point: Top of casing, 2.0 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--November 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.30 ft (11.98 m) below land-surface datum, Feb. 2, 1976; lowest measured, 61.17 ft (18.64 m) below land-surface datum, Sept. 24, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	59.80	OCT 31	59.87	NOV 10	59.70	APR 20	60.27				

391949075410701. Local number, Hb 14-1.
LOCATION.--Lat 39°19'49", long 75°41'07", Hydrologic Unit 02040205, at Prices Corners.
Owner: Delaware Department of Highways and Transporation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (0.03 m), depth 19 ft (5.8 m), well point 16 to 19 ft (4.9 to 5.8 m).
DATUM.--Altitude of land-surface datum is about 72 ft (21.9 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft (0.45 m) below land-surface datum, Apr. 7, 1958; lowest measured, 11.95 ft (3.64 m) below land-surface datum, Aug. 31, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	10.09	FEB 8	8.80	MAR 31	7.25	MAY 27	6.50	JUL 7	5.73	AUG 30	7.80
NOV 2	10.35	MAR 3	8.18	APR 22	6.18	JUN 4	5.77	JUL 26	6.55	SEP 28	9.33
DEC 1	10.53	MAR 9	7.68	APR 30	5.50	JUN 30	5.56	AUG 10	7.07	SEP 29	8.49
JAN 4	10.16										

SUSSEX COUNTY

384930075370201. Local number, Nc 13-3.
LOCATION.--Lat 38°49'30", long 75°37'02", Hydrologic Unit 02060008, 2.0 mi (3.2 km) northwest of Greenwood.
Owner: University of Delaware.
AQUIFER.--Piney Point.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (0.15 m), depth 630 ft (192 m), cased to 620 ft (189 m), screened 620 to 630 ft (189 to 192 m).
DATUM.--Land surface datum is 62.5 ft (19.1 m) above mean sea level. Measuring point: Top of casing, 3.0 ft (0.9 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Dec. 2, 1970, to current year.
PERIOD OF RECORD.--December 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.70 ft (21.24 m) below land-surface datum, Jan. 1, 1971; lowest recorded, 81.38 ft (24.80 m) below land-surface datum, Sep. 13, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	80.62	80.74	80.75	80.68	80.85	80.59	80.76	80.88	80.77	81.06	.....	81.31
10	80.71	80.78	80.65	80.63	80.74	80.86	80.77	80.80	80.87	81.00	.....	81.31
15	80.74	80.63	80.66	80.61	80.75	80.80	80.86	80.88	80.85	81.10	81.13	81.29
20	80.81	80.59	80.81	80.79	80.56	80.68	80.81	80.82	80.84	.....	81.08	81.22
25	.....	80.80	80.81	80.66	80.85	80.70	80.87	80.82	80.95	.....	80.97	81.28
EOM	.....	80.85	80.90	80.67	80.78	80.78	80.83	80.80	80.82	.....	81.29	81.35

WTR YEAR 1982 MAX *80.34 APR 6, 1982 MIN *81.38 SEP 13, 1982

* Maximum and minimum water levels recorded; no record Oct. 23 to Nov. 3, 1981, and July 16 to Aug. 11, 1982.

384639075353101. Local number, Nc 45-1.
LOCATION.--Lat 38°46'39", long 75°35'31", Hydrologic Unit 02060008, 2.0 mi (3.2 km) south of Greenwood.
Owner: P. H. Cannon.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 in (0.03 m), depth 15 ft (4.6 m), screened 14 to 15 ft (4.3 to 4.6 m).
DATUM.--Altitude of land-surface datum is about 43 ft (13.1 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--October 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.67 ft (2.03 m) below land-surface datum, Jan. 30, 1952; lowest measured, 14.66 ft (4.47 m) below land-surface datum, Dec. 11, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	13.27	DEC 2	13.50	FEB 22	11.46	APR 19	11.62	JUL 13	12.37	SEP 20	13.25
OCT 20	13.37	DEC 28	12.74	MAR 16	10.96	JUN 15	12.02	AUG 11	12.79		

384955075192801. Local number, Ng 11-1.
LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi (1.9 km) east of Jefferson Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (0.03 m), depth 19 ft (5.8 m), well point 16 to 19 ft (4.9 to 5.8 m).
DATUM.--Altitude of land-surface datum is 24 ft (7.3 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.12 ft (2.17 m) below land-surface datum, Mar. 7, 1979; lowest measured, 14.64 ft (4.46 m) below land-surface datum, Jan. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	13.55	DEC 28	13.50	MAR 25	10.90	MAY 27	11.37	JUL 6	11.47	SEP 22	12.68
NOV 30	14.61	FEB 22	12.20	APR 26	11.12	JUN 24	11.27	AUG 9	11.80		

383730075213501. Local number, Pf 24-2.
LOCATION.--Lat 38°37'30", long 75°21'35", Hydrologic Unit 02060010, 1.5 mi (2.4 km) southwest of Stockley.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in (0.10 m), depth 49 ft (14.9 m), cased to 46 ft (14.0 m), screened 46 to 49 ft (14.0 to 14.9 m).
DATUM.--Altitude of land-surface datum is about 50 ft (15.2 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Jan. 27, 1970, to Jan. 18, 1982.
PERIOD OF RECORD.--January 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.01 ft (1.53 m) below land-surface datum, Mar. 7, 1979; lowest measured, 11.98 ft (3.65 m) below land-surface datum, Sept. 5, 6, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	11.31	NOV 15	11.43	DEC 15	11.41	JAN 15	10.02	SEP 30	10.64		
OCT 31	11.36	NOV 30	11.52	DEC 31	10.72	APR 15	9.04				

383138075260201. Local number, Qe 44-1.
LOCATION.--Lat 38°31'38", long 75°26'02", Hydrologic Unit 02060008, 1.0 mi (1.6 km) east of Whaleys Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (0.03 m), depth 25 ft (7.6 m), well point 22 to 25 ft (6.7 to 7.6 m).
DATUM.--Altitude of land-surface datum is about 50 ft (15.2 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.98 ft (1.52 m) below land-surface datum, Mar. 16, 1979; lowest measured, 12.22 ft (3.72 m) below land-surface datum, Dec. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	11.63	FEB 23	7.65	MAR 31	7.19	MAY 27	8.67	JUL 6	9.66	AUG 30	10.23
NOV 3	11.93	MAR 2	6.94	APR 26	7.46	MAY 27	8.60	JUL 26	10.36	SEP 22	10.95
DEC 2	12.22	MAR 25	6.78	APR 30	6.44	JUN 30	9.25	AUG 12	9.53	SEP 28	11.00
DEC 31	11.39										

MARYLAND

ALLEGANY COUNTY

394024078273401. Local number, AL-Ah 1.
LOCATION.--Lat 39°40'24", long 78°27'34", Hydrologic Unit 02070003, on Fifteen Mile Creek, 2.8 mi (4.5 km) southeast of Pratt.
Owner: Green Ridge State Forest.
AQUIFER.--Jennings Formation.
WELL CHARACTERISTICS.--Drilled unused artesian (?) well, diameter 8 in (0.20 m), reported depth 300 ft (91.4 m), measured depth 113 ft (34.4 m), cased to unknown depth, open hole.
DATUM.--Altitude of land-surface datum is 720 ft (219 m). Measuring point: Top of sanitary seal in casing, 0.3 ft (0.09 m) above land-surface datum.
REMARKS.--Water level was deeper than 40 ft (12 m) below land-surface datum on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped.
PERIOD OF RECORD.--December 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft (0.55 m) below land-surface datum, May 18, 1978; lowest measured, 22.80 ft (6.95 m) below land-surface datum, July 16, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	5.22	FEB 17	2.61	MAY 11	3.86	JUL 26	4.95				
JAN 5	2.85	MAR 22	3.24	JUN 21	3.88	SEP 9	5.54				

ANNE ARUNDEL COUNTY

390303076463201. Local number, AA-Cb 1.
LOCATION.--Lat 39°03'03", long 76°46'32", Hydrologic Unit 02060006, on Duvall Bridge Rd., Fort George G. Meade.
Owner: U.S. Army.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), depth 505 ft (153.9 m), cased to 485 ft (147.8 m), screened 485 to 505 ft (147.8 to 153.9 m).
DATUM.--Altitude of land-surface datum is 126 ft (38 m). Measuring point: Top lip of 3-in (0.08 m) extension pipe, 3.35 ft (1.02 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder during many periods.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.60 ft (12.37 m) below land-surface datum, May 1, 1962; lowest measured, 79.81 ft (24.3 m) below land-surface datum, Oct. 15, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	77.13	JAN 12	74.14	MAR 17	73.72	MAY 3	75.13	JUL 30	78.81		
NOV 25	75.95	FEB 11	74.55	APR 6	73.67	JUN 14	76.46	AUG 31	77.19		

390423076432001. Local number, AA-Cc 40.
LOCATION.--Lat 39°04'23", long 76°43'20", Hydrologic Unit 02060006, on Rifle Range Rd., Fort George G. Meade.
Owner: U.S. Army.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (0.15 m), depth 238 ft (72.5 m), cased to 208 ft (63.4 m), screened 208 to 238 ft (63.4 to 72.5 m).
DATUM.--Altitude of land-surface datum is 137 ft (42 m) (incorrectly reported as 148 ft (45 m) in 1978 report). Measuring point: Top of recorder platform, 1.0 ft (0.30 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Dec. 4, 1959, to July 21, 1960.
PERIOD OF RECORD.--December 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft (12.98 m) below land-surface datum, Mar. 25, 1961; lowest measured, 50.09 ft (15.27 m), Oct. 15, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	50.09	JAN 12	49.56	MAR 17	48.67	MAY 3	48.00	JUL 30	48.16		
NOV 25	49.92	FEB 11	49.59	APR 6	48.28	JUN 14	47.57	AUG 31	49.36		

MARYLAND--Continued

BALTIMORE CITY

391617076322001. Local number, 2S5E-1.
LOCATION.--Lat 39°16'17", long 76°32'20", Hydrologic Unit 02060003, near Holabird Avenue and Pumphrey Street, at Fort Holabird, Baltimore.
Owner: City of Baltimore.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (0.30 m), depth 290 ft (88.4 m), length of casing and position of screen unknown.
DATUM.--Altitude of land-surface datum is 30 ft (9.1 m). Measuring point: April 1943 to Nov. 22, 1979, and after July 31, 1981, top of casing, 1.8 ft (0.55 m) above land-surface datum; Nov. 23, 1979, to July 31, 1981, lower lip of discharge pipe, 3.6 ft (1.1 m) above land-surface datum.
PERIOD OF RECORD.--1934, April 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.15 ft (13.15 m) below land-surface datum, Sept. 27, 1976; lowest measured, 103.70 ft (31.61 m), Oct. 15, 1948.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	63.91	APR 23	63.40	JUL 20	67.00	SEP 21	65.67				
FEB 5	62.39	JUN 3	61.62	AUG 12	67.84						

BALTIMORE COUNTY

393102076341801. Local number, BA-Ce 21.
LOCATION.--Lat 39°31'02", long 76°34'18", Hydrologic Unit 02060003, on Paper Mill Rd, about 0.6 mi (1.0 km) west of Jacksonville.
Owner: Baltimore County.
AQUIFER.--Loch Raven Schist (Wissahickon Group), revised.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 to 6 in (0.25 to 0.15 m), depth 350 ft (106.7 m), cased to 33 ft (10.1 m), open hole.
DATUM.--Altitude of land-surface datum is 536 ft (163 m). Measuring point: Top of casing, 2 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft (3.84 m) below land-surface datum, June 23, 1972; lowest measured, 21.54 ft (6.57 m) below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	20.42	DEC 15	20.84	MAR 2	18.62	JUN 2	17.69	AUG 25	18.36		
NOV 19	20.69	JAN 19	20.62	APR 13	18.11	JUL 14	16.73				

CALVERT COUNTY

381952076270901. Local number, CA-Gd 6.
LOCATION.--Lat 38°19'52", long 76°27'09", Hydrologic Unit 02060006, at the Lord Calvert Yacht Club, about 0.5 mi (0.8 km) northeast of Solomons.
Owner: Calvert Marina.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 to 6 in (0.20 to 0.15 m), depth 493 ft (150.3 m), cased to 472 ft (143.9 m), screened 469 to 493 ft (143.0 to 150.3 m).
DATUM.--Altitude of land-surface datum is 10 ft (3.0 m). Measuring point: Top of pump base, 10 ft (3.0 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Oct. 19, 1949, to Feb. 25, 1960.
PERIOD OF RECORD.--1942, January 1944, October 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, at land-surface datum, 1942; lowest measured, 58.9 ft (17.95 m) below land-surface datum, Jan. 13, 1944.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	56.43	DEC 10	54.30	MAR 11	54.33	MAY 25	54.27	AUG 30	58.33		
NOV 19	55.14	FEB 2	55.56	APR 28	54.77	JUL 27	58.07				

MARYLAND--Continued

CARROLL COUNTY

393638076510001. Local number, CL-Bf 1.
LOCATION.--Lat 39°36'38", long 76°51'00", Hydrologic Unit 02060003, on Hillcrest Street, Hampstead.
Owner: Town of Hampstead.
AQUIFER.--Prettyboy Schist (Wissahickon Group).
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 407 ft (124.1 m), cased to about 65 ft (19.8 m), open hole.
DATUM.--Altitude of land-surface datum is 933 ft (284 m). Measuring point: Top of 2-in casing extension, 2.35 ft (0.72 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Apr. 15, 1952, to Nov. 7, 1962.
PERIOD OF RECORD.--September and December 1946, April and September 1947, February 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.30 ft (15.94 m) below land-surface datum, May 13, 1952; lowest measured, 76.26 ft (23.24 m) below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	70.39	DEC 14	73.53	JAN 25	74.10	APR 12	69.33	JUL 6	67.23		
NOV 12	72.25	JAN 25	74.10	MAR 1	71.85	MAY 17	67.83	AUG 23	69.09		

CHARLES COUNTY

383422077114601. Local number, CH-Cb 7.
LOCATION.--Lat 38°34'22", long 77°11'46", Hydrologic Unit 02070011, at Caffee and Greenslade Roads, about 2.5 mi (4.0 km) southwest of Indian Head.
Owner: U.S. Navy: Naval Ordnance Station.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 to 6 in (0.20 to 0.15 m), depth 400 ft (121.9 m), cased to 400 ft (121.9 m), screened 154 to 167 ft (46.9 to 50.9 m).
DATUM.--Altitude of land-surface datum is 36 ft (11 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--Equipped with water-stage recorder Sept. 21, 1953, to July 8, 1965.
PERIOD OF RECORD.--March and April 1952, August 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.35 ft (17.48 m) below land-surface datum, Apr. 18, 1952; lowest measured, 88.58 ft (27.00 m) below land-surface datum, Oct. 22, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	70.45	DEC 15	72.29	MAR 12	76.67	JUN 9	74.26	AUG 24	81.55		
NOV 17	71.47	JAN 29	74.18	APR 23	76.38	JUL 8	77.40				

DORCHESTER COUNTY

383346076030301. Local number, DO-Ce 21.
LOCATION.--Lat 38°33'46", long 76°03'03", Hydrologic Unit 02060005, on Shoal Creek about 1.5 mi (2.4 km) southeast of Cambridge.
Owner: Eastern Shore State Hospital.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 to 4.5 in (0.20 to 0.11 m), depth 368 ft (112.2 m), cased to 368 ft (112.2 m).
DATUM.--Altitude of land-surface datum is 12 ft (3.7 m). Measuring point: Top of casing at land-surface datum.
REMARKS.--Equipped with water-stage recorder Aug. 23, 1956, to Nov. 6, 1958, and Sept. 11, 1965, to Oct. 13, 1966.
PERIOD OF RECORD.--August 1914, February 1952, August 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 14 ft (4.3 m) below land-surface datum, August 1914; lowest measured, 137.49 ft (41.91 m) below land-surface datum, Feb. 8, 1962, affected by pumpage of nearby well.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	25.77	DEC 29	72.24	MAR 16	74.05	MAY 28	75.75	AUG 11	69.70		
NOV 24	73.81	FEB 2	72.06	APR 20	73.34	JUL 12	73.51	SEP 20	74.74		

MARYLAND--Continued

GARRETT COUNTY

394016078581601. Local number, GA-Ag 1.
LOCATION.--Lat 39°40'16", long 78°58'16", Hydrologic Unit 02070002, in the Savage River valley, 2.5 mi (4.0 km) northwest of Frostburg.
Owner: Town of Frostburg.
AQUIFER.--Pocono Sandstone or Greenbrier Limestone.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 30 ft (9.1 m), cased to unknown depth, open hole.
DATUM.--Altitude of land-surface datum is 2,530 ft (771 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.71 ft (1.74 m) below land-surface datum, Jan. 14, 1950; lowest measured, 10.04 ft (3.06 m) below land-surface datum, Oct. 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	10.04	DEC 28	7.74	FEB 25	7.51	APR 27	7.37	JUN 25	7.29	AUG 26	7.75
NOV 23	9.80	JAN 27	7.62	MAR 26	7.25	MAY 26	7.30	JUL 27	7.42		

HARFORD COUNTY

392343076161901. Local number, HA-Ed 24.
LOCATION.--Lat 39°23'43", long 76°16'19", Hydrologic Unit 02060003, at Bush River Road and 29th Street, about 2 mi (3.2 km) southeast of Edgewood.
Owner: U.S. Army: Edgewood Arsenal.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 10 in (0.46 to 0.25 m), depth 149 ft (45.4 m), cased to 120 ft (36.6 m), screened 120 to 135 ft (36.6 to 41.1 m).
DATUM.--Altitude of land-surface datum is 13 ft (4.0 m). Measuring point: Top of casing, 1.15 ft (0.35 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Jan. 24, 1950, to June 6, 1961.
PERIOD OF RECORD.--April 1944, September 1949, January 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.24 ft (2.51 m) below land-surface datum, Apr. 13, 1944; lowest measured, 38.40 ft (11.70 m) below land-surface datum, Apr. 23, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	10.06	NOV 19	10.26	JAN 5	10.33						

MONTGOMERY COUNTY

390434076573002. Local number, MO-Eh 20.
LOCATION.--Lat 39°04'34", long 76°57'30", Hydrologic Unit 02070010, at State Highway 196 and Fairland Road, Fairland.
Owner: Cities Service Oil Co.
AQUIFER.--Wissahickon Group.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5.6 in (0.14 m), depth 103 ft (31.4 m), cased to 50 ft (15.2 m), open hole.
DATUM.--Altitude of land-surface datum is 410 ft (125 m). Measuring point: West side of bell housing at inside of lip at land-surface datum.
PERIOD OF RECORD.--March 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft (1.34 m) below land-surface datum, June 25, 1972; lowest measured, 15.56 ft (4.74 m) below land-surface datum, Nov. 23, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	15.02	JAN 27	14.99	FEB 26	12.32	APR 26	13.28	JUN 28	13.44	AUG 26	15.20
NOV 23	15.56	28	14.66	MAR 29	12.47	JUN 8	13.17	JUL 27	14.42	SEP 27	15.35
DEC 28	14.99										

MARYLAND--Continued

WASHINGTON COUNTY

393638078001301. Local number, WA-Be 2.
LOCATION.--Lat 39°36'38", long 78°00'13", Hydrologic Unit 02070004, about 1.2 mi (1.9 km) southeast of Big Pool.
Owner: Fort Frederick State Park.
AQUIFER.--Romney Shale.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 42 in (1.07 m), depth 43 ft (13.1 m), cribbed with stone.
DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of stone sill, 0.8 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--December 1949, June 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.90 ft (5.46 m) below land-surface datum, May 15, 1972; lowest measured, 36.92 ft (11.25 m) below land-surface datum, Jan. 11, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	35.00	JAN 5	33.48	FEB 25	26.99	APR 27	25.75	JUN 25	27.68	AUG 26	34.34
NOV 20	33.81	27	33.12	MAR 26	24.15	MAY 26	30.09	JUL 27	31.25		

WICOMICO COUNTY

382037075310801. Local number, WI-Cf 3.
LOCATION.--Lat 38°20'37", long 75°31'08", Hydrologic Unit 02060007, on Airport Road, about 5 mi (8.0 km) southeast of Salisbury.
Owner: Salisbury Wicomico Airport.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 109 ft (33.2 m), cased to 90 ft (27.4 m), screened 90 to 108 ft (27.4 to 32.9 m).
DATUM.--Altitude of land-surface datum is 45 ft (14 m). Measuring point: Top of casing, 2.0 ft (0.61 m) above land-surface datum.
REMARKS.--Equipped with water-stage recorder Aug. 2, 1949, to Apr. 11, 1960, and Aug. 29, 1963, to Aug. 20, 1968.
PERIOD OF RECORD.--October 1942, September 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft (0.58 m) below land-surface datum, May 7, 1958; lowest measured, 13.44 ft (4.10 m) below land-surface datum, Sept. 18, 1947.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	9.31	DEC 28	8.66	FEB 25	5.98	APR 27	6.35	JUN 24	7.70	AUG 26	8.04
NOV 23	9.60	JAN 27	6.78	MAR 25	6.08	MAY 27	7.76	JUL 28	8.63	SEP 27	8.78

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	LOCAL IDENTIFIER	STATION NUMBER	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)
				ALLEGANY COUNTY, MARYLAND						
BF 1	(SPRING)	393939078370901	81-08-27	385	8.0	11.0	.20	--	200	19
				CARROLL						
BF 183	(SPRING)	393938076533501	81-08-14	33	6.1	14.0	.50	8.8	84	35
				FREDERICK						
BD 49	71 428	393734077262601	81-08-21	21	5.9	15.0	.50	--	1	.00
				QUEEN ANNES						
BF 15	(SPRING)	391050075585701	81-05-06	276	6.7	13.7	--	--	140	.00
				WASHINGTON						
BI 36	(SPRING)	393807077435301	81-08-27	680	7.7	12.0	.20	--	370	130

	LOCAL IDENTIFIER	DATE OF SAMPLE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	POTASSIUM 40 DISSOLVED (PCI/L AS K40)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
					ALLEGANY						
BF 1	(SPRING)	81-08-27	63	10	.9	1	.0	.7	--	180	17
					CARROLL						
BF 183	(SPRING)	81-08-14	21	7.7	19	33	.9	1.4	1.0	49	1.2
					FREDERICK						
BD 49	71 428	81-08-21	.2	.1	.9	47	.4	1.0	.70	3.0	2.2
					QUEEN ANNES						
BF 15	(SPRING)	81-05-06	52	2.2	2.2	3	.1	1.6	1.2	140	4.7
					WASHINGTON						
BI 36	(SPRING)	81-08-27	130	10	10	6	.2	2.4	--	240	40

	LOCAL IDENTIFIER	DATE OF SAMPLE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS TOTAL (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
					ALLEGANY						
BF 1	(SPRING)	81-08-27	2.3	.1	7.0	225	209	--	--	--	200
					CARROLL						
BF 183	(SPRING)	81-08-14	52	<.1	10	216	142	--	--	--	100
					FREDERICK						
BD 49	71 428	81-08-21	1.1	<.1	6.5	16	14	--	--	--	200
					QUEEN ANNES						
BF 15	(SPRING)	81-05-06	2.6	.2	24	188	175	.05	.270	.83	--
					WASHINGTON						
BI 36	(SPRING)	81-08-27	23	.1	8.8	412	369	--	--	--	200

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (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)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
ALLEGANY COUNTY, MARYLAND--CONTINUED										
BF 1 (SPRING)	81-08-27	100	<1	4	5	630	620	10	1	<10
CARROLL										
BF 183 (SPRING)	81-08-14	<100	2	10	5	270	--	<10	7	10
FREDERICK										
BD 49 71 428	81-08-21	200	2	18	2	190	170	20	7	10
QUEEN ANNES										
BF 15 (SPRING)	81-05-06	--	--	--	--	1400	400	1000	--	70
WASHINGTON										
BI 36 (SPRING)	81-08-27	<100	<1	8	7	320	300	20	1	10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
ALLEGANY							
BF 1 (SPRING)	81-08-27	--	<10	<.1	1	<1	20
CARROLL							
BF 183 (SPRING)	81-08-14	6	4	<.1	7	<1	60
FREDERICK							
BD 49 71 428	81-08-21	--	<10	<.1	5	2	10
QUEEN ANNES							
BF 15 (SPRING)	81-05-06	0	70	--	--	--	--
WASHINGTON							
BI 36 (SPRING)	81-08-27	--	<10	.1	1	<1	20

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
	KENT COUNTY,DELAWARE								
JB45 2	390633075403101	112CLMB	82-06-29	3.22	18	18	13	61.00	40
JB45 3	390635075403001	112CLMB	82-06-28	3.78	26	26	21	61.00	60
LC51 1	385550075394501	112CLMB	82-08-17	--	73	63	33	161.00	25

LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
JB45 2	82-06-29	3.0	170	4.7	13.5	7.5	53	51	49	10
JB45 3	82-06-28	3.0	74	5.6	14.4	7.4	6	0	.00	1.5
LC51 1	82-08-17	--	93	5.3	13.4	6.7	17	15	9.0	3.6

LOCAL IDENTIFIER	DATE OF SAMPLE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JB45 2	82-06-29	6.8	6.1	18	.4	5.3	4.0	36	27	.2
JB45 3	82-06-28	.6	12	77	2.3	1.1	6.0	7.0	15	<.1
LC51 1	82-08-17	1.9	11	57	1.3	1.1	8.0	2.0	8.1	<.1

LOCAL IDENTIFIER	DATE OF SAMPLE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)
JB45 2	82-06-29	13	134	109	3.7	.030	.04	.47	.50	4.2
JB45 3	82-06-28	25	74	69	.46	.030	.04	.17	.20	.66
LC51 1	82-08-17	25	90	58	6.0	.020	.03	1.9	1.9	7.9

LOCAL IDENTIFIER	DATE OF SAMPLE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
JB45 2	82-06-29	<.010	1400	150	2	<1	10	<10	110	10
JB45 3	82-06-28	.020	1000	61	<1	<1	<3	<10	2400	<10
LC51 1	82-08-17	<.010	<100	120	<1	<1	4	<10	<3	30

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
JB45 2	82-06-29	57	<10	200	<6.0	290	2.2
JB45 3	82-06-28	16	<10	27	<6.0	27	.8
LC51 1	82-08-17	9	<10	93	<6.0	13	11

Geologic unit (aquifer): 112CLMB - Columbia Group

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
				SUSSEX COUNTY,DELAWARE						
OC25 4		384311075355301	112CLMB	82-09-13	96	96	56	45.00	>60	86
PB35 2		383728075402601	112CLMB	82-08-24	89	89	33	30.00	>60	123
PD25 3	37222	383831075305501	112CLMB	82-09-16	106	106	56	32.00	>60	88
PD45 3	39116	383615075301201	112CLMB	82-09-09	100	100	50	40.00	>60	226
QC14 9		383422075364101	112CLMB	82-08-31	90	90	20	30.00	>60	150
QC42 4		383133075381301	112CLMB	82-08-26	109	109	--	40.00	60	93
QC52 6		383053075385601	112CLMB	82-09-08	120	120	60	42.00	>60	43
QD31 2		383242075343401	112CLMB	82-09-14	140	140	30	30.00	>60	143

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OC25 4		82-09-13	6.0	16.0	11.2	18	11	11	--	--	4.1
PB35 2		82-08-24	4.2	15.5	9.2	35	34	31	.2	3.0	5.6
PD25 3	37222	82-09-16	6.2	15.8	12.7	18	13	12	--	--	3.2
PD45 3	39116	82-09-09	6.1	14.3	11.9	65	58	59	--	--	17
QC14 9		82-08-31	5.8	15.1	7.9	46	39	44	--	--	5.8
QC42 4		82-08-26	6.1	15.7	11.5	26	19	20	--	--	4.6
QC52 6		82-09-08	5.4	14.7	7.4	11	0	2.0	--	--	2.6
QD31 2		82-09-14	5.2	14.7	6.8	35	32	30	--	--	8.6

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OC25 4		82-09-13	1.8	8.5	46	1.0	3.1	7.0	<1.0	8.8	<.1
PB35 2		82-08-24	5.0	5.7	25	.5	2.8	4.0	2.0	9.3	<.1
PD25 3	37222	82-09-16	2.3	5.2	36	.6	2.1	6.0	<1.0	6.6	<.1
PD45 3	39116	82-09-09	5.3	11	26	.6	3.4	6.0	1.0	18	<.1
QC14 9		82-08-31	7.4	6.1	21	.5	4.1	2.0	40	2.7	<.1
QC42 4		82-08-26	3.3	6.7	33	.7	3.2	6.0	<1.0	9.2	<.1
QC52 6		82-09-08	1.0	4.8	45	.7	1.6	9.0	2.0	6.0	<.1
QD31 2		82-09-14	3.2	8.4	33	.7	1.8	5.0	12	9.6	<.1

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	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, 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, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
OC25 4		82-09-13	18	109	--	--	6.5	.110	.14	1.2	1.3
PB35 2		82-08-24	14	91	48	--	10	.670	.86	.53	1.2
PD25 3	37222	82-09-16	15	60	--	--	4.3	.080	.10	1.3	1.4
PD45 3	39116	82-09-09	17	188	77	--	19	.040	.05	.26	.30
QC14 9		82-08-31	11	48	80	--	13	.030	.04	.47	.50
QC42 4		82-08-26	17	110	--	--	<.10	<.010	.01	--	.40
QC52 6		82-09-08	16	48	40	--	2.4	.020	.03	.68	.70
QD31 2		82-09-14	23	115	71	<.010	7.6	.030	.04	.97	1.0

Geologic unit (aquifer): 112CLMB - Columbia Group

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)
				SUSSEX COUNTY,DELAWARE--CONTINUED						
OC25 4	82-09-13	7.8	.020	--	<100	190	<1	4	<3	<10
PB35 2	82-08-24	11	.010	--	<100	370	<1	3	<3	20
PD25 3 37222	82-09-16	5.7	<.010	--	<100	110	<1	<1	<3	<10
PD45 3 39116	82-09-09	19	<.010	--	<100	300	<1	2	<3	<10
QC14 9	82-08-31	14	<.010	--	200	630	2	1	11	20
QC42 4	82-08-26	--	<.010	--	300	400	<1	<1	<3	<10
QC52 6	82-09-08	3.1	<.010	--	<100	130	<1	<1	<3	<10
QD31 2	82-09-14	8.6	.010	<.010	100	140	<1	<1	3	<10

LOCAL IDENTIFIER	DATE OF SAMPLE	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OC25 4	82-09-13	48	10	11	<10	94	<6.0	180	1.2
PB35 2	82-08-24	27	<10	59	<10	150	<6.0	46	1.0
PD25 3 37222	82-09-16	17	<10	78	<10	78	<6.0	54	.7
PD45 3 39116	82-09-09	<3	10	17	<10	430	<6.0	49	2.8
QC14 9	82-08-31	46	10	65	10	170	8.0	95	.8
QC42 4	82-08-26	45	<10	100	<10	150	<6.0	87	--
QC52 6	82-09-08	<3	<10	12	<10	73	<6.0	30	.8
QD31 2	82-09-14	450	10	31	<10	150	<6.0	31	.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
			ANNE ARUNDEL COUNTY, MARYLAND								
AD	41	001630	391013076375001	217PPSC	81-11-19	--	146	146	126	39.00	--
				217PPSC	82-04-07	--	--	--	--	39.00	--
				217PPSC	82-07-15	--	146	146	126	39.00	--
AD	74	028580	391000076384401	217PPSC	82-05-17	--	186	186	171	90.00	--
AD	76	029134	391009076384502	217PTXN	81-11-18	--	474	474	449	75.00	--
				217PTXN	82-07-15	--	474	474	449	75.00	--
AD	99	734665	391215076350301	217PTXN	81-12-09	--	371	361	361	12.00	--
				217PTXN	82-07-14	--	371	361	361	12.00	--
AE	36	46091	391150076335201	217PTXN	82-04-07	--	555	555	450	30.00	--
BD	64	028059	390951076390201	217PPSC	82-05-17	--	181	181	161	73.00	--
BD	66	028416	390949076392002	217PTXN	82-05-11	--	517	517	497	85.00	--
BD	92	042472	390948076392501	217PPSC	82-05-12	--	157	157	132	85.00	--
BD	95	050489	390927076391601	217PPSC	82-05-11	--	178	178	150	70.00	--
BD	97	049554	390921076393202	217PTXN	82-05-12	--	534	534	504	75.00	--
BD	98	057226	390907076390701	217PTXN	82-05-10	--	625	591	552	75.00	--
CC	118	810360	390437076432301	217PTXN	82-05-20	110.00	673	670	560	140.00	2875
DE	88		385915076335301	211MGTY	82-06-24	120.00	347	345	287	120.00	1440
FE	50	740004	384850076344301	125AQUI	81-10-23	--	332	327	298	80.00	470

		LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DENSITY (GM/ML AT 20 C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)
AD	41	001630	81-11-19	--	120	4.4	14.0	--	.997	6.7	25	--
			82-04-07	--	--	--	--	--	--	--	--	--
			82-07-15	--	--	--	--	--	--	--	--	--
AD	74	028580	82-05-17	--	500	5.1	13.5	--	1.001	8.4	34	31
AD	76	029134	81-11-18	--	35	4.3	15.0	--	.999	.5	3	.00
			82-07-15	--	--	--	--	--	--	--	--	--
AD	99	734665	81-12-09	--	55	6.0	11.0	--	.999	.2	7	2.0
			82-07-14	--	--	--	--	--	--	--	--	--
AE	36	46091	82-04-07	--	39	5.8	15.0	--	1.001	.1	5	.00
BD	64	028059	82-05-17	--	52	4.9	13.0	--	1.001	8.1	--	--
BD	66	028416	82-05-11	200	32	4.6	16.0	--	1.000	.2	3	2.0
BD	92	042472	82-05-12	200	46	4.9	13.5	--	1.001	7.7	9	7.0
BD	95	050489	82-05-11	--	53	4.8	12.5	--	1.001	9.3	43	41
BD	97	049554	82-05-12	--	37	4.5	14.5	--	1.001	.3	2	2.0
BD	98	057226	82-05-10	--	33	4.9	14.5	--	1.000	.0	3	.00
CC	118	810360	82-05-20	517	38	6.2	15.5	<1	--	--	4	3.0
DE	88		82-06-24	300	134	6.3	15.0	--	.998	.0	37	.00
FE	50	740004	81-10-23	50	290	8.0	15.5	3	--	--	140	40

Geologic unit (aquifer):

125AQUI - Aquia Formation
211MGTY - Magothy Formation
217PPSC - Patapsco Formation
217PTXN - Patuxent Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
						ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED						
AD	41	001630	81-11-19	.1	31	6.2	2.4	8.1	39	.8	1.9	<1.0
			82-04-07	--	--	--	--	--	--	--	--	10
			82-07-15	--	--	--	--	--	--	--	--	--
AD	74	028580	82-05-17	--	47	8.5	3.1	60	78	4.9	1.8	3.0
AD	76	029134	81-11-18	.2	10	.5	.3	1.0	40	.3	.5	3.0
			82-07-15	--	--	--	--	--	--	--	--	--
AD	99	734665	81-12-09	--	--	1.3	.8	1.5	30	.3	.9	8.0
			82-07-14	--	--	--	--	--	--	--	--	--
AE	36	46091	82-04-07	--	--	1.1	.6	1.5	35	.3	.8	10
BD	64	028059	82-05-17	--	34	--	--	--	--	--	--	2.0
BD	66	028416	82-05-11	--	34	.4	.4	.8	35	.3	.6	1.0
BD	92	042472	82-05-12	--	43	2.1	1.0	2.2	32	.3	.8	2.0
BD	95	050489	82-05-11	--	61	14	1.9	5.1	20	.4	.8	2.0
BD	97	049554	82-05-12	--	34	.4	.3	.7	36	.2	.4	<1.0
BD	98	057226	82-05-10	--	31	.5	.3	1.1	42	.3	.6	2.0
CC	118	810360	82-05-20	--	--	.9	.4	1.0	31	.2	.6	1.0
DE	88		82-06-24	--	63	11	2.4	1.7	9	.1	1.9	39
FE	50	740004	81-10-23	--	--	46	6.2	2.3	3	.1	4.3	100

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	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)
AD	41	001630	81-11-19	8.7	15	<.1	9.1	83	--
			82-04-07	--	--	--	--	--	--
			82-07-15	--	--	--	--	--	--
AD	74	028580	82-05-17	9.0	120	<.1	7.8	260	212
AD	76	029134	81-11-18	7.5	1.4	<.1	9.7	22	23
			82-07-15	--	--	--	--	--	--
AD	99	734665	81-12-09	12	2.5	<.1	9.5	52	37
			82-07-14	--	--	--	--	--	--
AE	36	46091	82-04-07	8.1	3.4	<.1	9.0	24	32
BD	64	028059	82-05-17	--	--	--	--	--	--
BD	66	028416	82-05-11	5.0	1.1	<.1	8.9	19	18
BD	92	042472	82-05-12	2.0	4.1	<.1	8.0	36	22
BD	95	050489	82-05-11	1.0	4.2	<.1	8.6	44	37
BD	97	049554	82-05-12	6.0	1.1	<.1	8.6	19	18
BD	98	057226	82-05-10	7.0	1.1	<.1	9.0	20	23
CC	118	810360	82-05-20	8.0	1.0	<.1	8.5	24	24
DE	88		82-06-24	16	1.8	.3	13	67	80
FE	50	740004	81-10-23	34	.7	.2	20	194	174

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	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, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)
AD	99	734665	81-12-09	<.010	--	.06	--	.13	.19	.84	--	--
AE	36	46091	82-04-07	--	<.010	--	<.10	--	--	--	--	--
CC	118	810360	82-05-20	--	--	<.10	--	--	--	--	.010	.03
FE	50	740004	81-10-23	--	--	1.5	--	--	--	--	<.010	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENTIFIER	DATE OF SAMPLE	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
					ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED						
AD 41	001630	81-11-19	<.010	<10	<1	1	40	<1	<10	<1	<1
AD 74	028580	82-05-17	<.010	30	<1	<1	100	<1	<20	1	5
AD 76	029134	81-11-18	<.010	140	<1	1	15	<1	<10	1	5
AD 99	734665	81-12-09	--	<100	1	0	20	<1	<10	2	<1
AE 36	46091	82-04-07	.100	<100	<1	1	18	<1	<20	<1	4
BD 64	028059	82-05-17	--	--	--	--	--	--	<20	--	--
BD 66	028416	82-05-11	<.010	110	<1	<1	11	<1	<20	<1	<1
BD 92	042472	82-05-12	.040	40	<1	1	21	<1	<20	<1	<1
BD 95	050489	82-05-11	<.010	20	<1	<1	20	<1	<20	<1	<1
BD 97	049554	82-05-12	<.010	170	<1	<1	11	<1	<20	<1	<1
BD 98	057226	82-05-10	<.010	100	<1	<1	13	<1	<20	<1	<1
CC 118	810360	82-05-20	--	--	--	--	--	--	--	--	--
DE 88		82-06-24	.670	<10	<1	1	26	<1	20	<1	<1
FE 50	740004	81-10-23	--	--	--	--	--	--	--	--	--

	LOCAL IDENTIFIER	DATE OF SAMPLE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)
AD 41	001630	81-11-19	4	24	80	60	19	1	6	30	2
AD 74	028580	82-05-17	5	9	250	190	58	4	4	50	5
AD 76	029134	81-11-18	8	19	570	540	30	3	8	20	0
AD 99	734665	81-12-09	2	<1	5100	0	5100	<1	13	80	4
AE 36	46091	82-04-07	3	<1	3500	0	3600	4	12	70	0
BD 64	028059	82-05-17	--	--	60	--	--	--	10	20	--
BD 66	028416	82-05-11	5	5	530	70	460	4	5	20	1
BD 92	042472	82-05-12	6	27	40	--	<9	<1	<4	20	4
BD 95	050489	82-05-11	3	8	70	--	<3	1	4	20	--
BD 97	049554	82-05-12	7	13	270	100	170	8	5	30	10
BD 98	057226	82-05-10	4	7	1300	100	1200	3	6	30	0
CC 118	810360	82-05-20	--	--	2000	0	2400	--	--	60	6
DE 88		82-06-24	--	--	8100	0	8200	--	<4	150	30
FE 50	740004	81-10-23	--	--	310	40	270	--	--	40	10

	LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
AD 41	001630	81-11-19	28	.1	<1	<1	<1	25	9
AD 74	028580	82-05-17	45	.2	<1	<1	<1	52	53
AD 76	029134	81-11-18	23	<.1	<1	<1	<1	4	54
AD 99	734665	81-12-09	76	.1	1	<1	<1	11	13
AE 36	46091	82-04-07	75	.2	<1	<1	<1	9	9
BD 64	028059	82-05-17	--	--	--	--	--	--	--
BD 66	028416	82-05-11	19	.1	<1	<1	<1	3	28
BD 92	042472	82-05-12	16	.3	<1	<1	<1	9	37
BD 95	050489	82-05-11	<3	.3	<1	<1	<1	69	<12
BD 97	049554	82-05-12	16	.1	<1	<1	<1	2	22
BD 98	057226	82-05-10	35	.1	<1	<1	<1	4	16
CC 118	810360	82-05-20	54	--	--	--	--	--	--
DE 88		82-06-24	120	<.1	<1	<1	<1	55	12
FE 50	740004	81-10-23	28	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	BENZENE TOTAL (UG/L)	BROM-OFORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-ETHYL-ENE TOTAL (UG/L)	CHLORO-OFORM TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)
							ANNE ARUNDEL COUNTY,MARYLAND--CONTINUED					
AD	41	001630	82-07-15	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	76	029134	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	99	734665	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLOURO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
AD	41	001630	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	76	029134	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	99	734665	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

		LOCAL IDENT-I-FIER	DATE OF SAMPLE	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,3-DI-CHLORO-PROPANE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)
AD	41	001630	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	76	029134	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
AD	99	734665	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
			BALTIMORE COUNTY, MARYLAND						
EG 150 731990	392029076213201	217PPSC	82-04-21	--	255	255	245	5.00	15
EG 154 810618	392323076233201	217PTXN	82-08-24	47.50	104	104	94	52.00	30
FC 51 730292	391528076403301	217PTXN	82-04-28	92.78	180	180	180	220.00	--
FE 59 670369	391800076303201	217PTXN	82-04-21	--	338	314	292	40.00	--
		217PTXN	82-07-15	--	338	314	292	40.00	--
FE 64 733000	391804076304901	217PTXN	82-04-21	--	307	307	271	40.00	--
FE 66 733002	391810076303801	217PTXN	82-04-21	--	303	303	214	40.00	--
		217PTXN	82-07-15	--	303	303	214	40.00	--
FE 68 736533	391537076300701	217PPSC	82-07-26	--	185	185	170	20.00	10
FE 69 005896	391555076311301	217PTXN	82-07-22	--	475	475	395	35.00	15
FF 85 690373	391617076273201	217PTXN	82-04-19	--	615	615	438	15.00	--
		217PTXN	82-07-13	--	615	615	438	15.00	--
FG 69 700507	391526076245601	217PTXN	82-04-19	--	788	788	737	20.00	--
		217PTXN	82-07-13	--	788	788	737	20.00	--
GF 210 023182	391326076281401	217PTXN	81-12-02	--	692	692	546	18.00	--
		217PTXN	82-07-14	--	692	692	546	18.00	--
GF 220 690276	391257076282601	217PTXN	81-11-30	--	742	742	691	10.00	--
		217PTXN	82-07-14	--	742	742	691	10.00	--

LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DENSITY (GM/ML AT 20 C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)
EG 150 731990	82-04-21	--	34	5.5	15.0	1.001	.2	4	.00	47
EG 154 810618	82-08-24	150	62	5.3	16.0	.999	11.1	14	9.0	43
FC 51 730292	82-04-28	--	93	5.4	13.0	1.001	5.8	21	14	40
FE 59 670369	82-04-21	--	300	5.7	14.0	1.002	8.6	6	.00	27
	82-07-15	--	--	--	--	--	--	--	--	--
FE 64 733000	82-04-21	--	550	5.2	14.0	1.001	2.0	160	150	--
FE 66 733002	82-04-21	--	740	5.2	15.0	1.001	.5	170	160	--
	82-07-15	--	--	--	--	--	--	--	--	--
FE 68 736533	82-07-26	50	20	5.4	15.0	1.006	.1	3	.00	38
FE 69 005896	82-07-22	405	26	5.4	15.0	1.006	7.7	4	.00	67
FF 85 690373	82-04-19	--	62	5.4	16.0	1.000	1.1	10	3.0	34
	82-07-13	--	--	--	--	--	--	--	--	--
FG 69 700507	82-04-19	350	98	6.2	16.5	1.001	.1	16	2.0	--
	82-07-13	--	--	--	--	--	--	--	--	--
GF 210 023182	81-12-02	--	132	6.4	14.5	.999	.2	22	.00	48
	82-07-14	--	--	--	--	--	--	--	--	--
GF 220 690276	81-11-30	--	122	6.4	18.0	.998	.0	23	.00	112
	82-07-14	--	--	--	--	--	--	--	--	--

Geologic unit (aquifer):

217PPSC - Patapsco Formation
217PTXN - Patuxent Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	DATE OF SAMPLE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ABSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
BALTIMORE COUNTY, MARYLAND--CONTINUED										
EG 150 731990	82-04-21	.5	.6	1.2	38	.3	.4	8.0	5.0	1.8
EG 154 810618	82-08-24	3.0	1.5	3.8	35	.5	1.3	5.0	1.0	7.8
FC 51 730292	82-04-28	5.4	1.9	8.2	44	.8	1.0	7.0	2.0	14
FE 59 670369	82-04-21	1.2	.7	2.4	45	.5	.5	7.0	2.0	3.0
	82-07-15	--	--	--	--	--	--	--	--	--
FE 64 733000	82-04-21	32	19	33	31	1.3	2.3	8.0	130	61
FE 66 733002	82-04-21	32	21	50	39	1.9	3.6	11	110	110
	82-07-15	--	--	--	--	--	--	--	--	--
FE 68 736533	82-07-26	.5	.3	1.6	55	.5	.2	5.0	1.0	1.7
FE 69 005896	82-07-22	.7	.4	2.1	54	.5	.3	8.0	3.0	2.2
FF 85 690373	82-04-19	1.7	1.3	6.2	55	1.0	1.1	7.0	9.0	7.1
	82-07-13	--	--	--	--	--	--	--	--	--
FG 69 700507	82-04-19	2.8	2.2	7.3	46	.9	2.0	21	11	6.9
	82-07-13	--	--	--	--	--	--	--	--	--
GF 210 023182	81-12-02	5.0	2.3	3.8	25	.4	2.3	35	11	5.7
	82-07-14	--	--	--	--	--	--	--	--	--
GF 220 690276	81-11-30	4.7	2.7	6.1	34	.6	2.2	2.0	11	5.9
	82-07-14	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE OF SAMPLE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
EG 150 731990	82-04-21	<.1	7.6	22	25
EG 154 810618	82-08-24	<.1	6.7	--	28
FC 51 730292	82-04-28	--	8.3	86	46
FE 59 670369	82-04-21	<.1	8.1	22	22
	82-07-15	--	--	--	--
FE 64 733000	82-04-21	.2	12	355	304
FE 66 733002	82-04-21	.3	11	412	380
	82-07-15	--	--	--	--
FE 68 736533	82-07-26	<.1	7.0	18	16
FE 69 005896	82-07-22	<.1	7.3	28	22
FF 85 690373	82-04-19	<.1	8.6	37	40
	82-07-13	--	--	--	--
FG 69 700507	82-04-19	<.1	8.9	50	55
	82-07-13	--	--	--	--
GF 210 023182	81-12-02	.1	9.7	26	63
	82-07-14	--	--	--	--
GF 220 690276	81-11-30	.1	11	53	68
	82-07-14	--	--	--	--

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)
EG 150 731990	82-04-21	--	<.010	--	<.10	--	.27	--	--	--
FE 59 670369	82-04-21	--	<.010	--	.38	--	.29	--	.67	3.0
FE 64 733000	82-04-21	--	<.010	--	2.6	--	.53	--	3.1	14
FE 66 733002	82-04-21	1.3	.020	--	1.3	--	.93	--	2.2	9.9
FE 68 736533	82-07-26	--	--	<.010	--	<.10	--	.30	--	--
FE 69 005896	82-07-22	--	--	<.010	--	<.10	--	.50	--	--
FF 85 690373	82-04-19	--	.020	--	<.10	--	.41	--	--	--
FG 69 700507	82-04-19	--	.020	--	<.10	--	.26	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
					BALTIMORE COUNTY, MARYLAND--CONTINUED						
EG 150	731990	82-04-21	<.010	<100	<1	1	25	<1	20	<1	<1
EG 154	810618	82-08-24	.010	--	--	--	30	1	--	1	--
FC 51	730292	82-04-28	.020	20	<1	1	41	<1	<20	<1	2
FE 59	670369	82-04-21	.010	20	<1	1	16	<1	<20	<1	<1
FE 64	733000	82-04-21	<.010	300	<1	1	100	2	140	1	3
FE 66	733002	82-04-21	<.010	500	<1	1	130	2	220	<1	1
FE 68	736533	82-07-26	<.010	20	<1	<1	10	<1	<10	<1	<1
FE 69	005896	82-07-22	.020	30	<1	<1	14	<1	<10	<1	<1
FF 85	690373	82-04-19	<.010	30	<1	1	21	<1	<20	<3	<1
FG 69	700507	82-04-19	.030	200	<1	1	31	1	<20	<3	<1
GF 210	023182	81-12-02	.020	200	<1	0	26	<1	<10	<1	5
GF 220	690276	81-11-30	.020	100	<1	0	27	1	<10	1	3

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)
EG 150	731990	82-04-21	10	2	3200	0	3300	<1	16	90	0
EG 154	810618	82-08-24	3	4	140	--	<3	22	<4	10	1
FC 51	730292	82-04-28	8	560	100	70	27	6	5	50	0
FE 59	670369	82-04-21	2	15	20	10	6	<1	7	20	9
FE 64	733000	82-04-21	250	33	3100	0	3500	1	27	3900	0
FE 66	733002	82-04-21	390	26	9400	0	9700	3	41	5000	100
FE 68	736533	82-07-26	4	9	140	70	75	3	<4	--	--
FE 69	005896	82-07-22	6	460	510	290	220	5	5	--	--
FF 85	690373	82-04-19	5	2	250	70	180	1	<10	100	10
FG 69	700507	82-04-19	<1	2	6100	800	5300	1	<10	150	10
GF 210	023182	81-12-02	1	5	8900	0	9100	2	9	200	0
GF 220	690276	81-11-30	<1	1	8000	0	8400	4	12	200	0

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
EG 150	731990	82-04-21	91	.6	<1	<1	<1	3	58
EG 154	810618	82-08-24	9	--	8	--	--	18	14
FC 51	730292	82-04-28	53	<.1	<1	<1	<1	23	50
FE 59	670369	82-04-21	11	.2	<1	<1	<1	7	20
FE 64	733000	82-04-21	3900	3.4	<1	1	<1	160	1300
FE 66	733002	82-04-21	4900	.6	<1	1	<1	190	19000
FE 68	736533	82-07-26	7	<.1	<1	<1	<1	2	94
FE 69	005896	82-07-22	37	<.1	<1	<1	<1	4	23
FF 85	690373	82-04-19	89	1.0	<1	<1	<1	17	<3
FG 69	700507	82-04-19	140	.5	<1	<1	<1	35	<3
GF 210	023182	81-12-02	210	.1	2	<1	<1	65	5
GF 220	690276	81-11-30	210	<.1	2	<1	<1	67	4

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	DATE OF SAMPLE	BENZENE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)
BALTIMORE COUNTY,MARYLAND--CONTINUED										
FE 59 670369	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FE 68 736533	82-07-26	--	--	--	--	--	--	--	--	--
FE 69 005896	82-07-22	--	--	--	--	--	--	--	--	--
FF 85 690373	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FG 69 700507	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GF 210 023182	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER	DATE OF SAMPLE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	ETHYLBENZENE TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)
FE 59 670369	82-07-15	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FE 68 736533	82-07-26	--	--	<.01	--	--	--	--	--	--
FE 69 005896	82-07-22	--	--	<.01	--	--	--	--	--	--
FF 85 690373	82-07-13	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FG 69 700507	82-07-13	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GF 210 023182	82-07-14	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER	DATE OF SAMPLE	VINYL CHLORIDE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
FE 59 670369	82-07-15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FE 68 736533	82-07-26	--	--	--	--	--	--
FE 69 005896	82-07-22	--	--	--	--	--	--
FF 85 690373	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
FG 69 700507	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GF 210 023182	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER	DATE OF SAMPLE	1,2-DICHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)
FE 59 670369	82-07-15	<1.0	<1.0	<1.0	<1.0
FE 68 736533	82-07-26	--	--	--	--
FE 69 005896	82-07-22	--	--	--	--
FF 85 690373	82-07-13	<1.0	<1.0	<1.0	<1.0
FG 69 700507	82-07-13	<1.0	<1.0	<1.0	<1.0
GF 210 023182	82-07-14	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
			BALTIMORE CITY						
1N5E04 730002	391802076320301	217PTXN	81-12-07	--	115	115	110	20.00	--
1N3E09 690001	391805076334401	217PTXN	82-05-03	--	155	155	150	100.00	--
1N3E11 700003	391805076334403	217PTXN	82-05-03	--	100	100	90	100.00	--
1S1W35	391719076371001	400BLMR	82-04-28	16.49	182	182	182	50.00	85
1S3E46 710003	391732076335401	217PTXN	81-12-04	--	210	210	198	70.00	--
		217PTXN	82-07-16	--	210	210	198	70.00	--
1S3E47 730029	391737076335001	217PTXN	82-07-16	--	160	160	140	55.00	--
3S3E36 730040	391548076341301	217PTXN	82-04-06	--	230	230	225	15.57	1
3S3E38 730049	391546076341303	217PTXN	82-04-06	--	114	114	109	15.57	--
3S4E15 730019	391557076332001	217PTXN	81-10-01	34.88	260	260	190	20.00	--
3S5E35 690003	391556076322201	217PTXN	82-04-16	--	396	370	270	15.00	--
		217PTXN	82-07-13	--	396	370	270	15.00	--
3S5E39 680002	391553076321401	217PTXN	82-04-16	--	391	391	281	15.00	--
		217PTXN	82-07-13	--	391	391	281	15.00	--
3S5E41 710002	391554076322201	217PTXN	82-04-16	--	396	396	272	15.00	--
		217PTXN	82-07-13	--	396	396	272	15.00	--
3S5E42 730004	391552076321801	217PTXN	82-04-19	--	396	396	284	15.00	50
		217PTXN	82-04-23	--	396	396	284	15.00	--
		217PTXN	82-07-13	--	396	396	284	15.00	--
3S5E43 730012	391556076322101	217PTXN	82-04-16	--	389	389	290	15.00	--
		217PTXN	82-07-13	--	389	389	290	15.00	--
5S2E20	391353076345301	217PTXN	82-04-23	--	262	262	222	5.00	--
		217PTXN	82-07-14	--	262	262	222	5.00	--
5S2E23 018470	391344076351901	217PPSC	82-05-03	--	80	80	75	43.00	20
		217PPSC	82-07-14	--	80	80	75	43.00	--
7S4E 2 730038	391232076330101	217PPSC	82-04-07	20.00	125	125	115	23.00	30
		217PPSC	82-07-16	20.00	125	125	115	23.00	--

LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DENSITY (GM/ML AT 20 C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	ACIDITY (MG/L AS H)
1N5F04 730002	81-12-07	--	835	6.1	14.5	1.000	1.1	250	110	--
1N3F09 690001	82-05-03	15	52	5.0	16.0	1.001	2.1	120	120	--
1N3E11 700003	82-05-03	35	56	4.9	15.5	1.001	1.2	140	130	--
1S1W35	82-04-28	--	745	8.2	18.0	1.001	2.9	70	.00	--
1S3F46 710003	81-12-04	--	840	4.8	14.5	.999	1.4	110	100	--
	82-07-16	--	--	--	--	--	--	--	--	--
1S3E47 730029	82-07-16	--	--	--	--	--	--	--	--	--
3S3E36 730040	82-04-06	20	13640	6.3	15.0	1.006	.8	1400	1000	--
3S3E38 730049	82-04-06	3.0	9072	3.6	14.5	1.006	.3	1000	1000	3.9
3S4E15 730019	81-10-01	--	1200	5.7	15.5	.998	1.2	270	240	--
3S5E35 690003	82-04-16	--	1450	4.6	14.0	1.002	3.4	180	170	--
	82-07-13	--	--	--	--	--	--	--	--	--
3S5E39 680002	82-04-16	--	52	5.1	14.0	1.001	6.8	9	5.0	--
	82-07-13	--	--	--	--	--	--	--	--	--
3S5E41 710002	82-04-16	400	1440	4.8	15.0	1.002	4.4	180	170	--
	82-07-13	--	--	--	15.0	--	--	--	--	--
3S5E42 730004	82-04-19	--	1180	4.9	15.0	1.001	4.5	120	110	--
	82-04-23	300	5300	5.2	15.0	1.003	1.5	550	530	--
	82-07-13	--	--	--	--	--	--	--	--	--
3S5E43 730012	82-04-16	--	2050	4.9	14.0	1.001	5.2	63	60	--
	82-07-13	--	--	--	--	--	--	--	--	--
5S2E20	82-04-23	300	330	4.8	13.5	1.001	7.7	41	39	--
	82-07-14	--	--	--	--	--	--	--	--	--
5S2E23 018470	82-05-03	10	8	5.3	14.5	1.001	9.8	21	14	--
	82-07-14	--	--	--	--	--	--	--	--	--
7S4E 2 730038	82-04-07	--	73	4.2	14.5	1.001	.8	3	.00	.4
	82-07-16	--	--	--	--	--	--	--	--	--

Geologic Unit (aquifer): 217PPSC - Patapsco Formation
217PTXN - Patuxent Formation
400BLMR - Baltimore Gneiss

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	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)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
					BALTIMORE CITY--CONTINUED						
1N5E04	730002	81-12-07	159	63	22	74	38	2.2	14	140	180
1N3E09	690001	82-05-03	94	27	13	39	41	1.7	2.9	6.0	97
1N3E11	700003	82-05-03	105	30	15	48	43	2.0	2.8	7.0	130
1S1W35		82-04-28	--	18	6.0	150	81	8.4	4.4	.12	68
1S3E46	710003	81-12-04	144	23	12	80	61	3.7	3.4	5.0	37
		82-07-16	--	--	--	--	--	--	--	--	--
1S3E47	730029	82-07-16	108	--	--	--	--	--	--	--	--
3S3E36	730040	82-04-06	--	150	240	2000	75	24	61	349	230
3S3E38	730049	82-04-06	--	140	160	1600	77	22	21	.00	110
3S4E15	730019	81-10-01	--	74	21	170	57	4.8	5.8	28	150
3S5E35	690003	82-04-16	90	29	25	220	73	8.2	3.6	2.0	74
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E39	680002	82-04-16	45	1.8	1.1	6.1	58	1.0	.4	4.0	3.0
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E41	710002	82-04-16	99	29	25	210	72	7.9	3.6	3.0	74
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E42	730004	82-04-19	87	19	17	140	72	6.4	2.5	3.0	33
		82-04-23	105	85	83	760	74	14	13	20	130
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E43	730012	82-04-16	--	13	7.3	36	55	2.2	1.5	3.0	36
		82-07-13	--	--	--	--	--	--	--	--	--
5S2E20		82-04-23	29	7.9	5.1	37	66	2.8	1.3	2.0	19
		82-07-14	--	--	--	--	--	--	--	--	--
5S2E23	018470	82-05-03	43	5.1	2.1	5.7	35	.6	1.3	7.0	1.0
		82-07-14	--	--	--	--	--	--	--	--	--
7S4E 2	730038	82-04-07	38	.8	.4	2.7	59	.7	.5	<1.0	13
		82-07-16	--	--	--	--	--	--	--	--	--

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	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)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)
1N5E04	730002	81-12-07	94	<.1	6.3	666	540	--	10	<1	0
1N3E09	690001	82-05-03	66	.1	8.6	311	259	.050	220	<1	1
1N3E11	700003	82-05-03	73	.1	8.1	345	313	<.010	220	<1	1
1S1W35		82-04-28	140	<.1	33	495	493	.030	20	<1	1
1S3E46	710003	81-12-04	94	.2	7.4	463	260	--	340	<1	0
		82-07-16	--	--	--	--	--	--	--	--	--
1S3E47	730029	82-07-16	--	--	--	--	--	--	--	--	--
3S3E36	730040	82-04-06	4400	.1	5.7	7510	7310	.090	<10	<1	1
3S3E38	730049	82-04-06	3600	.6	33	5780	5750	.030	2700	<1	1
3S4E15	730019	81-10-01	290	.4	14	763	745	.010	300	2	2
3S5E35	690003	82-04-16	360	.4	11	705	731	<.010	100	<1	1
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E39	680002	82-04-16	8.5	<.1	7.8	36	31	<.010	40	<1	1
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E41	710002	82-04-16	400	.4	11	846	763	<.010	1200	<1	1
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E42	730004	82-04-19	260	.2	9.4	530	447	<.010	670	<1	1
		82-04-23	1600	.5	6.6	3010	2700	<.010	1500	<1	1
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E43	730012	82-04-16	53	.2	10	174	162	<.010	280	<1	1
		82-07-13	--	--	--	--	--	--	--	--	--
5S2E20		82-04-23	81	<.1	7.4	172	161	.010	560	<1	1
		82-07-14	--	--	--	--	--	--	--	--	--
5S2E23	018470	82-05-03	9.2	<.1	8.6	72	38	<.010	10	<1	1
		82-07-14	--	--	--	--	--	--	--	--	--
7S4E 2	730038	82-04-07	10	<.1	9.8	34	62	.020	940	<1	1
		82-07-16	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER		DATE OF SAMPLE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
					BALTIMORE CITY--CONTINUED						
1N5E04	730002	81-12-07	34	<1	260	2	<1	12	15	180	60
1N3E09	690001	82-05-03	76	<1	<10	<1	<1	33	22	110	80
1N3E11	700003	82-05-03	60	<1	70	<1	<1	40	24	80	--
1S1W35		82-04-28	50	<1	670	1	<1	1	4	5500	5500
1S3E46	710003	81-12-04	130	<1	60	3	1	120	70	60	50
		82-07-16	--	--	--	--	--	--	--	--	--
1S3E47	730029	82-07-16	--	--	--	--	--	--	--	--	--
3S3E36	730040	82-04-06	100	<10	230	1	2	36	<1	810	20
3S3E38	730049	82-04-06	300	10	40	3	<1	400	91	44000	0
3S4E15	730019	81-10-01	80	2	60	5	<1	82	59	3200	3100
3S5E35	690003	82-04-16	85	4	60	4	<1	170	1800	1300	0
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E39	680002	82-04-16	22	1	<20	<3	<1	19	3	50	40
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E41	710002	82-04-16	85	4	70	<3	<1	160	1900	1400	0
		82-07-13	--	--	--	--	--	--	--	--	--
3S5F42	730004	82-04-19	58	<3	30	<3	<1	95	1100	1100	100
		82-04-23	100	<10	70	11	<1	270	3100	40	0
		82-07-13	--	--	--	--	--	--	--	--	--
3S5E43	730012	82-04-16	49	3	960	<3	<1	43	1100	100	60
		82-07-13	--	--	--	--	--	--	--	--	--
5S2E20		82-04-23	33	<3	<20	<1	1	12	33	480	350
		82-07-14	--	--	--	--	--	--	--	--	--
5S2E23	018470	82-05-03	35	<1	<20	<1	<1	1	19	390	340
		82-07-14	--	--	--	--	--	--	--	--	--
7S4E 2	730038	82-04-07	14	<1	<20	<1	12	8	24	300	60
		82-07-16	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER		DATE OF SAMPLE	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)
1N5E04	730002	81-12-07	120	<1	<4	--	--	1300	.2	1
1N3E09	690001	82-05-03	34	2	5	610	40	570	.7	<1
1N3E11	700003	82-05-03	<9	3	5	820	60	760	.4	<1
1S1W35		82-04-28	9	<1	33	130	60	71	<.1	<1
1S3E46	710003	81-12-04	12	<1	11	--	--	470	1.4	1
		82-07-16	--	--	--	--	--	--	--	--
1S3E47	730029	82-07-16	--	--	--	--	--	--	--	--
3S3E36	730040	82-04-06	790	10	<10	2900	0	3200	.3	<1
3S3E38	730049	82-04-06	52000	73	40	12000	0	18000	.4	<1
3S4E15	730019	81-10-01	77	3	12	860	0	880	.5	<1
3S5E35	690003	82-04-16	1600	2	12	1700	100	1600	2.3	<1
		82-07-13	--	--	--	--	--	--	--	--
3S5E39	680002	82-04-16	12	1	16	70	0	--	2.5	<1
		82-07-13	--	--	--	--	--	--	--	--
3S5E41	710002	82-04-16	1500	2	<10	1800	100	1700	2.2	<1
		82-07-13	--	--	--	--	--	--	--	--
3S5F42	730004	82-04-19	1000	2	<10	1100	120	980	1.9	<1
		82-04-23	50	2	10	3100	0	3300	.9	<1
		82-07-13	--	--	--	--	--	--	--	--
3S5E43	730012	82-04-16	41	2	<10	360	10	350	1.0	<1
		82-07-13	--	--	--	--	--	--	--	--
5S2E20		82-04-23	130	2	<12	90	5	85	.2	<1
		82-07-14	--	--	--	--	--	--	--	--
5S2E23	018470	82-05-03	54	11	<4	10	1	9	<.1	<1
		82-07-14	--	--	--	--	--	--	--	--
7S4E 2	730038	82-04-07	240	5	4	10	0	17	.2	<1
		82-07-16	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENTIFIER	DATE OF SAMPLE	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
			BALTIMORE CITY--CONTINUED			
1N5E04	730002	81-12-07	2	<1	340	36
1N3E09	690001	82-05-03	6	<1	140	280
1N3E11	700003	82-05-03	13	<1	160	470
1S1W35		82-04-28	<1	<1	95	11
1S3E46	710003	81-12-04	1	<1	92	190
		82-07-16	--	--	--	--
1S3E47	730029	82-07-16	--	--	--	--
3S3E36	730040	82-04-06	<1	<1	3300	30
3S3E38	730049	82-04-06	2	<1	3700	880
3S4E15	730019	81-10-01	4	1	360	240
3S5E35	690003	82-04-16	2	<1	180	760
		82-07-13	--	--	--	--
3S5E39	680002	82-04-16	<1	<1	8	<3
		82-07-13	--	--	--	--
3S5E41	710002	82-04-16	2	<1	180	750
		82-07-13	--	--	--	--
3S5E42	730004	82-04-19	1	<1	110	<3
		82-04-23	2	<1	490	490
		82-07-13	--	--	--	--
3S5E43	730012	82-04-16	1	<1	61	<3
		82-07-13	--	--	--	--
5S2E20		82-04-23	1	<1	41	33
		82-07-14	--	--	--	--
5S2E23	018470	82-05-03	<1	<1	25	850
		82-07-14	--	--	--	--
7S4E 2	730038	82-04-07	<1	<1	<6	77
		82-07-16	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER		DATE OF SAMPLE	BENZENE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROETHYLENE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)
						BALTIMORE CITY--CONTINUED					
1N3E11	700003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1S3E46	710003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1S3E47	730029	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E35	690003	82-07-13	220	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E39	680002	82-07-13	43	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E41	710002	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E42	730004	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E43	730012	82-07-13	230	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5S2E20		82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5S2E23	018470	82-07-14	3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
7S4E 2	730038	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER		DATE OF SAMPLE	DICHLORODIFLUOROMETHANE TOTAL (UG/L)	ETHYLBENZENE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	TRICHLOROFLOUROMETHANE TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
1N3E11	700003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1S3E46	710003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10.0	<1.0	<1.0
1S3E47	730029	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	68.0	<1.0	<1.0
3S5E35	690003	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	14	<1.0	<1.0	<1.0
3S5E39	680002	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E41	710002	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E42	730004	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E43	730012	82-07-13	<1.0	15	<1.0	<1.0	<1.0	18	<1.0	<1.0	<1.0
5S2E20		82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5S2E23	018470	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	11.0	<1.0	<1.0
7S4E 2	730038	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

LOCAL IDENTIFIER		DATE OF SAMPLE	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,3-DICHLOROPROPANE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)
1N3E11	700003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1S3E46	710003	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1S3E47	730029	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E35	690003	82-07-13	<1.0	7.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E39	680002	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E41	710002	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E42	730004	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
3S5E43	730012	82-07-13	<1.0	<1.0	<1.0	<1.0	<1.0	4.0	<1.0	<1.0	<1.0
5S2E20		82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
5S2E23	018470	82-07-14	<1.0	<1.0	<1.0	<1.0	<1.0	9.0	<1.0	<1.0	<1.0
7S4E 2	730038	82-07-16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)
			CAROLINE COUNTY, MARYLAND						
CC 60	385505075595301	112PCPC	82-02-10	4.32	20	20	10	50.00	5
		112PCPC	82-05-11	4.70	20	10	10	50.00	5
CC 63	385605075534001	112PCPC	82-02-11	4.11	26	21	11	58.00	10
		112PCPC	82-05-11	2.64	26	21	11	58.00	10
CC 70	385800075535801	112PCPC	81-12-21	4.10	60	20	10	50.00	50
CC 80	385847075534001	112PCPC	81-12-22	12.24	85	85	60	62.00	60
CC 84	385523075520702	112PCPC	82-05-12	7.94	46	46	39	50.00	10
CD 56	385745075455001	112PCPC	82-02-11	1.72	13	20	10	57.00	--
CE 8	385723075440101	112PCPC	82-02-23	1.15	35	30	20	65.00	--
		112PCPC	82-05-10	3.96	35	30	20	65.00	--
DC 142	385412075544101	112PCPC	82-09-30	--	60	60	50	45.00	25
DD 48	385252075491701	112PCPC	82-02-10	1.70	35	30	20	45.00	5
		112PCPC	82-05-11	2.29	35	30	20	45.00	5
DD 49	385104075485601	112PCPC	82-02-22	5.38	35	25	15	42.00	20
		112PCPC	82-05-05	5.77	35	25	15	42.00	--
EC 25	384630075524801	112PCPC	82-02-23	7.91	28	28	18	50.00	45
EC 16	384630075524802	112PCPC	82-02-11	10.25	25	25	18	50.00	60
		112PCPC	82-05-05	5.12	25	25	18	50.00	60
EC 18	384607075504001	112PCPC	82-02-23	68.50	21	21	11	53.00	45
ED 26	384603075491501	112PCPC	82-02-11	3.32	25	20	10	50.00	60
		112PCPC	82-05-05	2.67	25	20	10	50.00	45
ED 27	384941075455601	112PCPC	82-05-05	7.03	25	25	15	60.00	--
EE 17	384817075440601	112PCPC	82-05-11	3.41	35	30	20	49.00	10
FC 32	384215075510701	112PCPC	82-02-11	1.73	25	25	15	50.00	--
FD 31	384453075473701	112PCPC	82-02-11	4.90	30	30	20	50.00	--
		112PCPC	82-05-05	5.09	30	30	20	50.00	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
CC 60	82-02-10	--	460	6.4	-.1	6.6
	82-05-11	--	386	6.4	--	12.0
CC 63	82-02-11	--	504	6.8	-.1	10.4
	82-05-11	--	367	6.7	--	12.3
CC 70	81-12-21	41	100	4.1	--	13.6
CC 80	81-12-22	39	114	5.9	6.0	14.0
CC 84	82-05-12	--	86	6.7	--	12.0
CD 56	82-02-11	--	282	6.8	2.0	9.7
CE 8	82-02-23	--	331	6.6	5.5	.2
	82-05-10	--	375	6.5	--	18.0
DC 142	82-09-30	7.5	85	5.1	--	14.1
DD 48	82-02-10	--	404	6.0	-1.0	8.6
	82-05-11	--	357	6.7	--	15.7
DD 49	82-02-22	2.0	460	7.4	--	15.3
	82-05-05	--	358	7.3	--	15.0
EC 25	82-02-23	2.0	--	5.9	11.0	15.5
EC 16	82-02-11	--	97	5.7	--	--
	82-05-05	--	122	6.2	--	36.7
EC 18	82-02-23	--	716	7.1	--	14.4
ED 26	82-02-11	1.0	175	6.4	--	13.7
	82-05-05	1.0	235	6.4	--	15.6
ED 27	82-05-05	--	404	6.7	--	17.0
EE 17	82-05-11	--	236	6.6	--	14.0
FC 32	82-02-11	--	226	6.3	--	9.4
FD 31	82-02-11	--	395	6.5	--	10.0
	82-05-05	--	308	6.6	--	15.1

Geologic unit (aquifer):

112PCPC - Pleistocene-Pliocene Series

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENT-I-FIER	DATE OF SAMPLE	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	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)
CAROLINE COUNTY, MARYLAND--CONTINUED										
CC 70	81-12-21	1	31	16	14	.3	15	8.2	2.5	6.2
CC 80	81-12-22	1	38	21	21	--	--	8.2	4.2	6.4
DC 142	82-09-30	--	23	--	20	--	--	4.9	2.5	5.8

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	ALKA-LINITY LAB (MG/L AS CACO3)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
CC 70	81-12-21	29	.5	1.9	19	15	17	--	2.7
CC 80	81-12-22	25	.5	2.7	20	17	17	--	1.7
DC 142	82-09-30	33	.6	2.0	5.0	--	3.0	4	2.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	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)
CC 70	81-12-21	<.1	19	105	58
CC 80	81-12-22	<.1	14	102	57
DC 142	82-09-30	--	16	--	48

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2)	NITRO-GEN, NO2+NO3 TOTAL (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, AMMONIA DIS-SOLVED (MG/L AS NH4)
CC 60	82-02-10	75	.38	1.7	.020	.07	--	.40	.130	.17
	82-05-11	32	--	--	<.010	--	--	.15	.030	.04
CC 63	82-02-11	37	.65	2.9	.020	.07	--	.67	.300	.39
	82-05-11	30	5.20	23	.030	.10	--	5.2	.220	.28
CC 70	81-12-21	7.3	--	--	<.010	--	8.5	8.1	.020	.03
CC 80	81-12-22	9.1	9.20	41	.100	.33	9.3	9.3	.020	.03
CC 84	82-05-12	3.6	--	--	<.010	--	--	<.10	.030	.04
CD 56	82-02-11	13	6.90	31	.070	.23	--	7.0	.400	.52
CE 8	82-02-23	11	.05	.20	.020	.07	--	.07	.420	.54
	82-05-10	8.8	--	--	.020	.07	--	<.10	.500	.64
DC 142	82-09-30	9.0	--	--	<.010	--	--	6.5	<.010	.01
DD 48	82-02-10	22	.10	.40	.040	.13	--	.14	.880	1.1
	82-05-11	17	--	--	<.010	--	--	.12	1.30	1.7
DD 49	82-02-22	5.1	.25	1.1	.020	.07	--	.27	.130	.17
	82-05-05	--	.18	.80	.020	.07	--	.20	.120	.15
EC 25	82-02-23	8.2	--	--	<.010	--	--	6.0	.070	.09
EC 16	82-02-11	8.0	4.30	19	.010	.03	--	4.3	.070	.09
	82-05-05	8.8	--	--	<.010	--	--	7.3	.060	.08
EC 18	82-02-23	--	.15	.70	.020	.07	--	.17	.230	.30
ED 26	82-02-11	9.2	4.10	18	.030	.10	--	4.1	.170	.22
	82-05-05	13	--	--	<.010	--	--	11	.100	.13
ED 27	82-05-05	--	.17	.80	.010	.03	--	.18	.330	.43
EE 17	82-05-11	8.1	--	--	.010	.03	--	<.10	.220	.28
FC 32	82-02-11	12	14.0	62	.030	.10	--	14	.290	.37
FD 31	82-02-11	20	24.0	106	.010	.03	--	24	.170	.22
	82-05-05	20	16.0	71	.060	.20	--	16	.230	.30

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)
		CAROLINE COUNTY, MARYLAND--CONTINUED		
CC 60	82-02-10	1.0	.47	.60
	82-05-11	.80	.62	.65
CC 63	82-02-11	1.5	.52	.82
	82-05-11	5.8	.37	.59
CC 70	81-12-21	8.3	.16	.18
CC 80	81-12-22	9.6	.25	.27
CC 84	82-05-12	--	.21	.24
CD 56	82-02-11	7.8	.42	.82
CE 8	82-02-23	5.7	5.2	5.6
	82-05-10	--	2.3	2.8
DC 142	82-09-30	--	--	<.10
DD 48	82-02-10	2.1	1.1	2.0
	82-05-11	1.7	.30	1.6
DD 49	82-02-22	.99	.59	.72
	82-05-05	.58	.26	.38
EC 25	82-02-23	8.4	2.3	2.4
EC 16	82-02-11	5.0	.58	.65
	82-05-05	7.6	.22	.28
EC 18	82-02-23	2.8	2.4	2.6
ED 26	82-02-11	4.7	.46	.63
	82-05-05	11	.17	.27
ED 27	82-05-05	.78	.27	.60
EE 17	82-05-11	--	1.5	1.7
FC 32	82-02-11	15	.52	.81
FD 31	82-02-11	25	.54	.71
	82-05-05	16	.19	.42

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS TOTAL (MG/L AS PO4)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
CC 70	81-12-21	.010	.03	60	40	19	20	7	13
CC 80	81-12-22	.010	.03	210	190	20	230	10	220
DC 142	82-09-30	--	--	--	--	5	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
			DORCHESTER COUNTY, MARYLAND						
AG 8	384027075533301	112PCPC	82-02-10	15.50	55	45	38	30.00	--
AG 10	384053075535001	112PCPC	82-02-11	5.02	30	20	10	15.00	--
		112PCPC	82-05-04	4.86	30	20	10	15.00	--
BG 65	383540075524802	112PCPC	82-02-11	11.15	110	100	93	44.00	45
		112PCPC	82-05-04	6.95	110	100	93	44.00	15
BG 66	383944075514901	112PCPC	82-02-23	8.96	62	62	52	48.00	60
		112PCPC	82-05-04	4.98	62	62	52	48.00	60
BH 15	383703075453902	112PCPC	82-02-22	0.00	21	16	10	50.00	15
		112PCPC	82-05-04	0.00	21	16	10	50.00	--
CF 34	383356075530301	112PCPC	82-02-22	1.60	35	35	28	25.00	--
		112PCPC	82-05-04	2.21	35	35	28	25.00	60

LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
AG 8	82-02-10	--	124	5.2	--	14.0	9.0	9.00	40	.010
AG 10	82-02-11	--	342	6.4	--	10.7	8.2	.17	.80	.010
	82-05-04	--	347	6.6	--	14.5	9.1	--	--	<.010
BG 65	82-02-11	6.0	30	5.6	--	9.1	3.2	2.00	8.9	.010
	82-05-04	6.0	26	5.6	--	14.4	2.8	--	--	--
BG 66	82-02-23	.5	207	7.1	9.0	16.0	8.0	--	--	<.010
	82-05-04	3.0	62	6.2	--	16.2	5.3	2.50	11	.010
BH 15	82-02-22	--	238	6.6	7.5	13.7	13	8.60	38	.020
	82-05-04	--	159	6.1	--	17.5	14	12.0	53	.010
CF 34	82-02-22	--	123	5.1	--	14.0	10	--	--	<.010
	82-05-04	2.0	104	6.3	--	17.0	7.4	--	--	<.010

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
AG 8	82-02-10	.03	9.0	.170	≥.22	9.4	.23	.40
AG 10	82-02-11	.03	.18	.980	1.3	1.8	.62	1.6
	82-05-04	--	<.10	.480	≥.62	--	.43	.91
BG 65	82-02-11	.03	2.0	.030	≥.04	2.5	.47	.50
	82-05-04	--	--	--	--	--	--	--
BG 66	82-02-23	--	.06	.140	≥.18	4.9	4.7	4.8
	82-05-04	.03	2.5	.030	≥.04	2.8	.23	.26
BH 15	82-02-22	.07	8.6	<.010	≥.01	9.4	--	.82
	82-05-04	.03	12	.080	≥.10	13	.50	.58
CF 34	82-02-22	--	.11	.150	≥.19	1.1	.82	.97
	82-05-04	--	<.10	.110	≥.14	--	.21	.32

Geologic unit (aquifer):

112PCPC - Pleistocene-Pliocene Series

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	STATION NUMBER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (GPM)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)
				FREDERICK COUNTY, MARYLAND						
AD 12		394215077273601	400CTCN	82-06-11	5.00	200	1110.00	60	10	248
AD 36		394043077280801	400MTRL	82-06-08	--	SP	995.00	--	1.5	151
AE 50		394256077241101	400CTCN	82-06-11	15.00	85	660.00	15	5.0	95
AE 52		394129077242001	400CTCN	82-06-11	45.00	335	1060.00	240	10	79
AE 53		394136077233801	400CTCN	82-06-15	6.00	400	910.00	15	70	116
AF 38		394231077174201	231DIBS	82-06-15	20.00	100	395.00	15	4.0	293
AG 2		394235077144901	231GBRG	82-06-16	40.00	135	445.00	15	5.0	432
BD 105		393832077293001	400MTRL	82-06-08	--	--	1485.00	15	5.0	66
BE 91		393634077235001	231GBRG	82-06-08	29.00	200	445.00	15	5.0	292
CB 19		393038077350401	400CTCN	82-07-28	40.00	302	820.00	10	.5	233
CD 43		393433077253901	231GBRG	82-06-16	20.00	325	425.00	9000	100	279
CD 71	730726	393131077254401	231GBRG	82-06-16	30.00	100	470.00	15	10	72
CD 38		393218077271001	--	82-05-11	--	SP	--	--	--	--
CE 89		393143077233401	231GBRG	82-06-17	25.00	200	390.00	15	3.0	420
CF 48		393151077183901	377FDCK	82-07-22	15.00	70	338.00	15	5.0	620
CF 52		393408077171701	231NOXF	82-07-21	16.45	176	490.00	20	10	309
CG 5		393436077134301	231NOXF	82-09-01	22.00	81	410.00	15	3.0	438
CG 29	738152	393100077123501	300IJMV	82-07-21	25.00	220	540.00	20	5.0	252
DC 39		392650077305201	400CTCN	82-09-03	10.00	160	640.00	180	60	260
DC 65		392721077333401	400CTCN	82-07-28	13.04	32	460.00	20	2.5	538
DD 188		392501077264001	377FDCK	82-06-16	100.00	205	375.00	15	20	614
DE 83		392843077214201	367GROV	82-06-15	13.00	300	290.00	240	450	552
DF 20		392932077184601	377FDCK	82-09-03	20.00	95	330.00	15	4.0	473
DG 21		392900077144301	300IJMV	82-09-01	30.00	114	500.00	15	3.0	739
EB 33	680108	392410077363402	400PCMB	82-09-02	20.00	87	530.00	15	.5	275
EB 34		392054077370201	400PCMB	82-09-02	50.00	203	530.00	15	2.0	800
ED 9	021637	392228077271601	377FDCK	82-09-02	25.00	115	300.00	15	3.0	436
ED 99	735603	392431077282401	231NOXF	82-09-03	49.00	525	420.00	15	3.0	432
EE 126	737186	392354077221201	377FDCK	82-07-20	18.00	125	260.00	15	20	295
EF 1		392253077161501	300SMCK	82-07-28	15.00	75	550.00	20	3.0	575
EF 36	732439	392310077175201	300URBN	82-07-28	30.00	180	570.00	25	5.0	427
EF 40	670495	392056077162901	300URBN	82-07-28	45.00	77	565.00	15	2.0	94
EG 33	730148	392113077101901	300MRBG	82-07-20	45.00	120	840.00	20	25	124
FC 31	720029	391641077315601	377HRPR	82-07-29	70.00	583	310.00	120	23	307
FD 91		391832077282801	377FDCK	82-09-01	40.00	225	315.00	15	2.0	576
FF 13	733238	391842077175401	300SMCK	82-09-03	14.00	145	420.00	15	4.0	76

Geologic unit (aquifer):
- 231DIBS - Diabase Dikes and Sills
- 231GBRG - Gettysburg Shale
- 231NOXF - New Oxford Formation
- 300IJMV - Ijamsville Formation
- 300MRBG - Marburg Formation
- 300SMCK - Sams Creek Metabasalt
- 300URBN - Urbana Formation
- 367GROV - Grove Limestone
- 377FDCK - Frederick Limestone
- 377HRPR - Harpers Formation
- 400CTCN - Catoctin Metabasalt
- 400MTRL - Metarhyolite and Associated Pyroclastic Sediments
- 400PCMB - Precambrian Evathem

SP - Spring

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENTIFIER	DATE OF SAMPLE	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
					FREDERICK COUNTY, MARYLAND--CONTINUED						
AD 12		82-06-11	7.3	12.0	--	98	40	16	14	6.0	12
AD 36		82-06-08	6.6	11.0	--	58	11	14	5.6	5.1	16
AE 50		82-06-11	5.9	12.0	--	42	15	7.8	5.4	2.7	12
AE 52		82-06-11	6.5	13.0	--	33	3≥0	6.8	3.8	2.3	13
AE 53		82-06-15	7.3	11.8	--	59	≥00	12	7.1	5.7	17
AF 38		82-06-15	7.0	11.4	--	140	27	27	17	4.4	7
AG 2		82-06-16	7.8	13.2	--	200	59	63	9.2	13	13
BD 105		82-06-08	6.8	11.0	--	21	4≥0	5.2	2.0	2.7	21
BE 91		82-06-08	8.2	14.0	--	130	≥00	35	10	5.3	8
CB 19		82-07-28	7.4	15.4	--	100	12	30	6.6	4.4	--
CD 43		82-06-16	7.9	12.3	--	130	9≥0	35	11	4.5	7
CD 71	730726	82-06-16	6.1	14.5	--	40	≥00	9.1	4.1	3.5	16
CD 38		82-05-11	6.7	12.0	<1.0	4	≥00	.6	.6	.9	28
CE 89		82-06-17	7.8	14.2	--	190	66	62	8.8	8.4	9
CF 48		82-07-22	7.2	12.8	--	280	69	95	10	6.6	5
CF 52		82-07-21	7.7	16.0	--	130	25	38	8.1	9.7	14
CG 5		82-09-01	7.3	13.7	--	190	60	55	12	11	11
CG 29	738152	82-07-21	8.0	13.5	--	120	11	40	4.4	3.6	6
DC 39		82-09-03	6.8	12.0	--	100	64	21	12	6.1	11
DC 65		82-07-28	6.8	13.1	--	200	97	50	18	17	16
DD 188		82-06-16	7.3	13.8	--	300	54	96	15	8.8	6
DE 83		82-06-15	7.6	12.3	--	260	46	84	11	9.1	7
DF 20		82-09-03	7.3	13.3	--	210	53	78	3.7	5.9	6
DG 21		82-09-01	6.3	14.4	--	180	71	43	17	59	41
EB 33	680108	82-09-02	6.5	16.6	--	100	58	23	11	11	18
EB 34		82-09-02	6.6	17.9	--	380	150	78	45	23	12
ED 9	021637	82-09-02	7.5	14.5	--	--	--	--	--	--	--
ED 99	735603	82-09-03	7.5	15.5	--	240	≥00	44	32	14	11
EE 126	737186	82-07-20	7.2	20.0	--	130	20	46	3.4	6.7	10
EF 1		82-07-28	7.0	14.5	--	250	29	73	16	17	13
EF 36	732439	82-07-28	6.8	15.9	--	190	≥00	51	16	7.5	--
EF 40	670495	82-07-28	6.4	14.3	--	35	15	9.0	3.0	2.2	12
EG 33	730148	82-07-20	5.6	14.5	--	37	25	6.9	4.7	7.8	31
FC 31	720029	82-07-29	8.1	13.5	--	--	--	--	--	--	--
FD 91		82-09-01	7.2	13.9	--	290	37	65	30	7.3	5
FF 13	733238	82-09-03	7.5	13.7	--	34	3≥0	7.7	3.5	3.3	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	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)
					FREDERICK COUNTY, MARYLAND--CONTINUED						
AD 12		82-06-11	.3	.2	58	23	24	<.1	19	147	143
AD 36		82-06-08	.3	.9	47	12	9.0	<.1	22	117	103
AE 50		82-06-11	.2	.1	27	23	2.9	<.1	17	77	77
AE 52		82-06-11	.2	.1	30	14	1.9	<.1	18	84	66
AE 53		82-06-15	.4	.1	66	3.0	1.1	<.1	20	85	91
AF 3A		82-06-15	.2	.4	110	31	4.3	<.1	44	220	197
AG 2		82-06-16	.4	.2	136	24	20	.1	20	313	280
BD 105		82-06-08	.3	.8	17	3.0	3.6	<.1	19	72	62
BE 91		82-06-08	.2	1.2	133	7.0	5.0	.2	24	186	179
CB 19		82-07-28	.2	<.1	90	19	2.6	<.1	19	166	139
CD 43		82-06-16	.2	.5	124	10	7.9	<.1	18	172	167
CD 71	730726	82-06-16	.3	.5	40	2.0	1.4	.1	17	72	72
CD 3A		82-05-11	.2	.8	5.0	3.0	1.3	<.1	6.3	16	17
CE 89		82-06-17	.3	.5	125	28	36	<.1	19	297	249
CF 48		82-07-22	.2	.9	210	22	44	.1	12	446	347
CF 52		82-07-21	.4	.5	103	13	12	.1	27	206	195
CG 5		82-09-01	.4	1.6	127	28	16	.2	22	256	258
CG 29	738152	82-07-21	.1	1.0	107	8.0	3.6	.1	12	157	147
DC 39		82-09-03	.3	.9	38	13	30	<.1	24	159	130
DC 65		82-07-28	.6	.5	102	25	81	.1	19	344	282
DD 188		82-06-16	.2	1.8	248	31	12	.1	6.1	400	347
DE 83		82-06-15	.3	2.5	209	15	21	<.1	8.2	333	316
DF 20		82-09-03	.2	2.6	157	16	24	<.1	8.9	278	267
DG 21		82-09-01	2.1	5.2	107	58	100	<.1	14	406	361
EB 33	680108	82-09-02	.5	2.9	45	27	35	.2	39	182	179
EB 34		82-09-02	.6	1.1	229	36	84	.2	33	468	462
ED 9	021637	82-09-02	--	--	--	--	--	--	--	--	--
ED 99	735603	82-09-03	.4	2.0	255	13	8.2	.3	12	278	279
EE 126	737186	82-07-20	.3	3.5	109	12	4.9	.1	12	201	180
EF 1		82-07-28	.5	.3	219	35	20	.2	14	374	336
EF 36	732439	82-07-28	.3	<.1	205	6.0	8.9	<.1	30	261	248
EF 40	670495	82-07-28	.2	.3	20	2.0	4.0	<.1	7.5	80	61
FG 33	730148	82-07-20	.6	.5	12	<1.0	10	<.1	6.7	112	--
FC 31	720029	82-07-29	--	--	--	--	--	--	--	--	--
FD 91		82-09-01	.2	.7	249	40	13	.4	15	300	321
FF 13	733238	82-09-03	.3	<.1	31	<1.0	2.0	<.1	17	49	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
						FREDERICK COUNTY, MARYLAND--CONTINUED					
AD 12		82-06-11	--	1.2	--	--	--	.06	.020	--	200
AD 36		82-06-08	--	1.3	.80	2.1	.050	.18	.060	--	<100
AE 50		82-06-11	--	.26	--	--	--	--	<.010	--	300
AE 52		82-06-11	--	.15	--	--	--	.09	.030	--	100
AE 53		82-06-15	--	.40	--	--	--	.09	.030	--	100
AF 38		82-06-15	--	.61	--	--	--	--	<.010	--	100
AG 2		82-06-16	--	11	.40	11	.050	.09	.030	--	100
BD 105		82-06-08	--	3.5	--	--	--	.03	.010	--	100
BE 91		82-06-08	--	2.5	.30	2.8	.070	.21	.070	--	<100
CB 19		82-07-28	--	.77	--	--	--	--	<.010	--	<100
CD 43		82-06-16	--	1.2	.20	1.4	.050	.12	.040	--	200
CD 71	730726	82-06-16	--	2.3	.20	2.5	.040	.12	.040	--	100
CD 38		82-05-11	--	--	--	--	--	--	--	<100	<100
CE 89		82-06-17	--	2.6	--	--	--	.15	.050	--	<100
CF 48		82-07-22	--	6.7	.30	7.0	<.010	--	<.010	--	200
CF 52		82-07-21	--	5.5	--	--	--	.15	.050	--	200
CG 5		82-09-01	--	8.1	--	--	--	.15	.050	--	100
CG 29	738152	82-07-21	--	2.3	.40	2.7	.070	.15	.050	--	200
DC 39		82-09-03	--	<2.6	.90	--	.070	.09	.030	--	<100
DC 65		82-07-28	--	2.3	.30	2.6	.080	.21	.070	--	<100
DD 188		82-06-16	--	6.1	.20	6.3	.090	.09	.030	--	100
DE 83		82-06-15	--	8.8	.30	9.1	.050	.03	.010	--	200
DF 20		82-09-03	--	7.5	--	--	--	--	<.010	--	<100
DG 21		82-09-01	--	<.10	--	--	--	--	<.010	--	400
EB 33	680108	82-09-02	--	.51	--	--	--	--	<.010	--	300
EB 34		82-09-02	--	5.3	.70	6.0	.020	--	<.010	--	200
ED 9	021637	82-09-02	--	--	--	--	--	--	--	--	--
ED 99	735603	82-09-03	--	<.10	--	--	--	--	<.010	--	300
EE 126	737186	82-07-20	--	5.8	5.0	11	.210	.64	.210	--	300
EF 1		82-07-28	--	6.4	--	--	--	--	<.010	--	<100
EF 36	732439	82-07-28	.35	.94	--	--	--	.15	.050	--	<100
EF 40	670495	82-07-28	--	4.8	--	--	--	.03	.010	--	100
EG 33	730148	82-07-20	--	7.1	<.10	--	.020	.06	.020	--	100
FC 31	720029	82-07-29	--	--	--	--	--	--	--	--	--
FD 91		82-09-01	--	<.10	--	--	--	--	<.010	--	<100
FF 13	733238	82-09-03	--	1.8	.80	2.6	.060	.09	.030	--	200

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENTIFIER	DATE OF SAMPLE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FREDERICK COUNTY, MARYLAND--CONTINUED											
AD 12		82-06-11	--	--	--	14	--	--	<1	--	--
AD 36		82-06-08	--	--	--	<3	--	--	3	--	--
AE 50		82-06-11	--	--	--	60	--	--	3	--	--
AE 52		82-06-11	--	--	--	10	--	--	3	--	--
AE 53		82-06-15	--	--	--	6	--	--	33	--	--
AF 38		82-06-15	--	--	--	74	--	--	86	--	--
AG 2		82-06-16	--	--	--	6	--	--	1	--	--
BD 105		82-06-08	--	--	--	<3	--	--	<1	--	--
BE 91		82-06-08	--	--	--	<3	--	--	<1	--	--
CB 19		82-07-28	--	--	--	12	--	--	2	--	--
CD 43		82-06-16	--	--	--	<3	--	--	<1	--	--
CD 71	730726	82-06-16	--	--	--	8	--	--	2	--	--
CD 38		82-05-11	8	180	170	15	20	20	2	<1	40
CE 89		82-06-17	--	--	--	<3	--	--	<1	--	--
CF 48		82-07-22	--	--	--	14	--	--	2	--	--
CF 52		82-07-21	--	--	--	10	--	--	1	--	--
CG 5		82-09-01	--	--	--	<3	--	--	<1	--	--
CG 29	738152	82-07-21	--	--	--	9	--	--	2	--	--
DC 39		82-09-03	--	--	--	<3	--	--	<1	--	--
DC 65		82-07-28	--	--	--	13	--	--	1	--	--
DD 188		82-06-16	--	--	--	8	--	--	<1	--	--
DE 83		82-06-15	--	--	--	<3	--	--	<1	--	--
DF 20		82-09-03	--	--	--	3	--	--	1	--	--
DG 21		82-09-01	--	--	--	160	--	--	350	--	--
EB 33	680108	82-09-02	--	--	--	400	--	--	15	--	--
EB 34		82-09-02	--	--	--	50	--	--	320	--	--
ED 9	021637	82-09-02	--	--	--	--	--	--	--	--	--
ED 99	735603	82-09-03	--	--	--	6	--	--	2	--	--
EE 126	737186	82-07-20	--	--	--	5	--	--	26	--	--
EF 1		82-07-28	--	--	--	7	--	--	1	--	--
EF 36	732439	82-07-28	--	--	--	10	--	--	1200	--	--
EF 40	670495	82-07-28	--	--	--	14	--	--	5	--	--
FG 33	730148	82-07-20	--	--	--	<3	--	--	10	--	--
FC 31	720029	82-07-29	--	--	--	--	--	--	--	--	--
FD 91		82-09-01	--	--	--	180	--	--	2	--	--
FF 13	733238	82-09-03	--	--	--	<3	--	--	<1	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (FTU)
		GARRETT COUNTY, MARYLAND								
EB 33		392156079211301	337POCN	81-10-29	2600.00	--	6.7	11.0	--	.50
EC 1		392403079182201	331GRBR	81-10-30	2510.00	--	6.6	10.0	--	.30
FA 39		391537079254601	324ALGN	81-12-18	2125.00	330	--	8.0	3	--
GA 1		391232079285001	321CNMG	81-10-29	2860.00	86	6.9	11.0	--	.70
GA 3		391316079284301	324ALGN	81-10-29	--	803	3.2	10.5	--	--
GA 4		391433079265801	321CNMG	81-10-29	2660.00	21	5.1	9.1	--	--
GA 5		391415079270601	321CNMG	81-10-29	2660.00	26	6.3	10.0	--	--

	LOCAL IDENTIFIER	DATE OF SAMPLE	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	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)	PERCENT SODIUM
EB 33		81-10-29	--	34	11	--	--	11	1.5	1.2	7
EC 1		81-10-30	--	69	1.0	--	--	24	2.1	1.0	3
FA 39		81-12-18	--	160	62	--	--	48	9.6	2.7	4
GA 1		81-10-29	--	31	10	--	--	8.8	2.1	.6	4
GA 3		81-10-29	--	190	--	4.8	238	47	18	4.5	5
GA 4		81-10-29	9.1	--	--	--	--	--	--	--	--
GA 5		81-10-29	9.0	--	--	--	--	--	--	--	--

	LOCAL IDENTIFIER	DATE OF SAMPLE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
EB 33		81-10-29	.1	.1	23	7.6	1.3	.0	5.9	46	42
EC 1		81-10-30	.1	.4	68	1.3	.7	.0	7.3	76	78
FA 39		81-12-18	.1	2.2	97	68	.9	.2	6.8	222	198
GA 1		81-10-29	.1	.6	21	6.5	.7	.1	4.7	45	37
GA 3		81-10-29	.2	2.8	<1.0	440	2.6	.4	33	604	--
GA 4		81-10-29	--	--	--	--	--	--	--	--	--
GA 5		81-10-29	--	--	--	--	--	--	--	--	--

Geologic unit (aquifer):

321CNMG - Conemaugh Formation
324ALGN - Allegheny Formation
331GRBR - Greenbrier Formation
337POCN - Pocono Group

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
GARRETT COUNTY, MARYLAND--CONTINUED										
EB 33	81-10-29	--	--	--	--	100	--	<100	<1	10
EC 1	81-10-30	--	--	--	--	200	--	<100	<1	10
FA 39	81-12-18	.41	--	<.010	--	--	--	--	--	--
GA 1	81-10-29	--	--	--	--	200	100	100	<1	8
GA 3	81-10-29	--	<.01	--	.070	--	--	--	--	--
GA 4	81-10-29	--	--	--	--	--	--	--	--	--
GA 5	81-10-29	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE OF SAMPLE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
EB 33	81-10-29	6	40	--	<3	1	<10	--	<1
EC 1	81-10-30	3	40	--	<3	1	<10	--	<1
FA 39	81-12-18	--	2300	1600	750	--	120	0	120
GA 1	81-10-29	10	80	40	36	1	<10	--	2
GA 3	81-10-29	--	52000	2000	50000	--	1800	100	1700
GA 4	81-10-29	--	--	--	--	--	--	--	--
GA 5	81-10-29	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE OF SAMPLE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
EB 33	81-10-29	<.1	1	<1	40
EC 1	81-10-30	<.1	<1	<1	40
FA 39	81-12-18	--	--	--	--
GA 1	81-10-29	<.1	2	<1	70
GA 3	81-10-29	--	--	--	--
GA 4	81-10-29	--	--	--	--
GA 5	81-10-29	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

LOCAL IDENTIFIER	STATION NUMBER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)	DEPTH TO TOP OF SAMPLE INTERVAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)
			WICOMICO COUNTY, MARYLAND						
BF 69	382517075334901	112CLMB	82-02-23	13.50	84	74	64	43.00	30
		112CLMB	82-05-03	12.67	84	74	64	43.00	45
BF 70	382517075334902	112CLMB	82-02-23	13.62	30	25	15	43.00	30
		112CLMB	82-05-03	12.81	30	25	15	43.00	--
DE 75	381855075372801	112PCPC	82-05-04	3.67	--	--	--	45.00	--

LOCAL IDENTIFIER	DATE OF SAMPLE	FLOW RATE, INSTANTANEOUS (GPM)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)
BF 69	82-02-23	.5	156	7.6	14.5	5.0	--	--	<.010	--
	82-05-03	1.0	103	6.7	22.0	4.5	--	--	<.010	--
BF 70	82-02-23	1.0	230	6.1	14.3	24	.13	.60	.010	.03
	82-05-03	--	141	5.9	--	23	--	--	<.010	--
DE 75	82-05-04	--	118	5.0	17.1	6.9	--	--	.050	.16

LOCAL IDENTIFIER	DATE OF SAMPLE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
BF 69	82-02-23	.05	.070	.09	1.8	1.6	1.7
	82-05-03	<.10	.060	.08	--	.23	.29
BF 70	82-02-23	.14	.090	.12	1.9	1.7	1.8
	82-05-03	.64	.050	.06	.90	.21	.26
DE 75	82-05-04	<.10	.080	.10	--	.48	.56

Geologic unit (aquifer):

112CLMB - Columbia Group
112PCPC - Pleistocene-Pliocene Series

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

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