



Water Resources Data Maryland and Delaware Water Year 1981

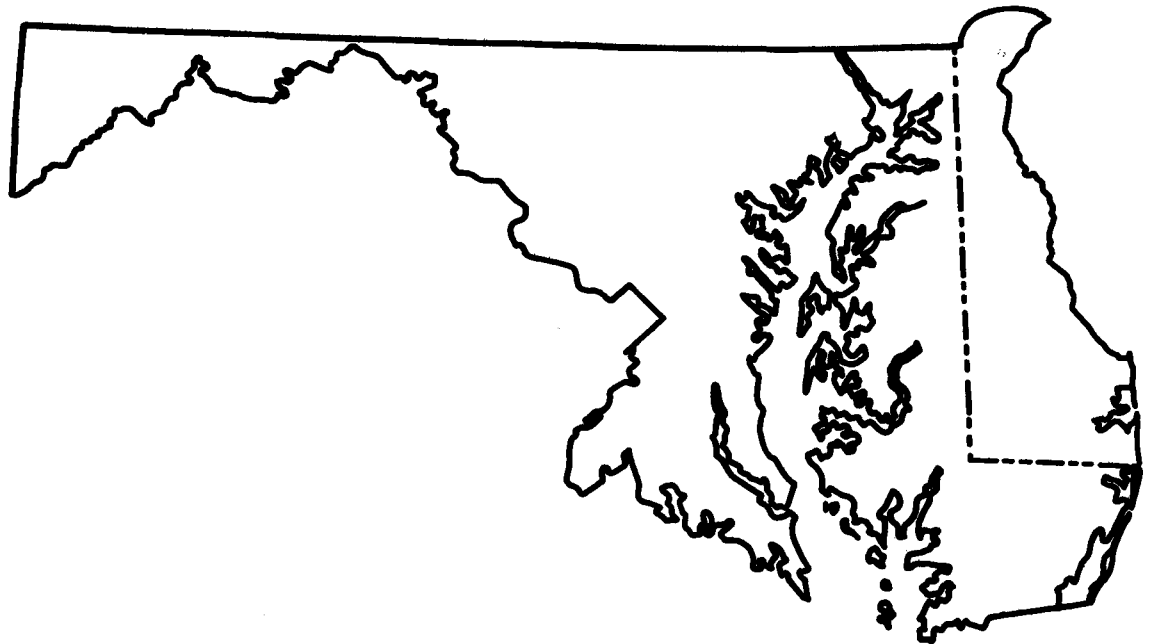


U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-81-1
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

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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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PREFACE

This report was prepared by personnel of the Maryland, Delaware, District of Columbia district of the Water Resources Division of the U.S. Geological Survey under the supervision of Herbert J. Freiburger, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the States of Maryland and Delaware and with other agencies.

This report is one of a series issued by state. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1981

INTRODUCTION

Water resources data for the 1981 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 120 gaging stations; stage and contents at 1 reservoir; water quality at 48 gaging stations and 74 wells; and water levels at 27 observation wells. Also included are data for 13 crest-stage, 62 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-81-1." 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 21 gaging stations; by Regional Planning Council, for 7 gaging stations; by the Water Quality Office, Environmental Protection Agency, for 2 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.

ACKNOWLEDGMENT

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The data were collected, computed, and processed by other personnel as follows:

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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow was in the normal range throughout the bistate area as the 1981 water year began and continued in the normal range until December, when flow dropped into the deficient range (lower 25 percent of record) following several months of deficient rainfall. January 1981 was the driest January for both Maryland and Delaware, based on records dating back to 1895. Rainfall for January in both states averaged 16% of the long-term January average precipitation (1931-77). Flow generally remained in the deficient range until April when spring rains brought flows back into the normal range. Heavy rains (± 2 inches above normal) in Delaware brought flows into the excessive range (upper 25 percent of record) during the month of May and severe thunder showers (± 2 to 5 inches of precipitation above normal) in June brought flows into the excessive range throughout western and northern-central Maryland and the eastern shore of Maryland. Flows for the remainder of the year remained in the normal range.

During the 1981 water year, two of the four index stations, Potomac River near Washington, D.C., in central Maryland, and North Branch Potomac River at Paw Paw, W. Va., in western Maryland, had deficient runoff for the year (66% and 80% respectively, of normal; reference period 1941-70). The other two index stations, 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 1941-70) 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 mi² (293 km²) area, of which 21.6 mi² (34.8 km²) is in Delaware in the central part of the Delmarva peninsula.

Average fresh-water inflow to the Chesapeake Bay was estimated at 49,600 ft³/s (1,400 m³/s) based on flows of the James, Potomac, and Susquehanna Rivers. This is 65 percent of the long-term average, reference period 1952-81, and is the lowest inflow in the Bay since 1966 when inflow was 48,600 ft³/s (1,380 m³/s). Inflow to the Bay during March set a new record low for the reference period. Deficient rainfall through the fall and winter and sparse snowfall were the major factors contributing to the new low.

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 hm³), declined from 86 percent of capacity in September 1980, to 75 percent of capacity at the end of September 1981.

Although some months of 1981 were deficient in precipitation and the total precipitation for the year was lower than normal for most stations, the water table as reflected in the statewide network of observation wells was not uniformly lower than it had been at the end of the previous water year. This was probably related to the distribution of the precipitation and also to the fact that some weather stations actually recorded above-normal precipitation for 1981.

In three of the four ground-water areas being measured (Appalachian region, Eastern Shore, western shore part of the Coastal Plain), it was found that water levels were about the same or higher than they had been at the end of September 1981. In the fourth (Piedmont province), water levels were lower at the end of the water year than they had been the year before. No new all-time lows, however, were recorded.

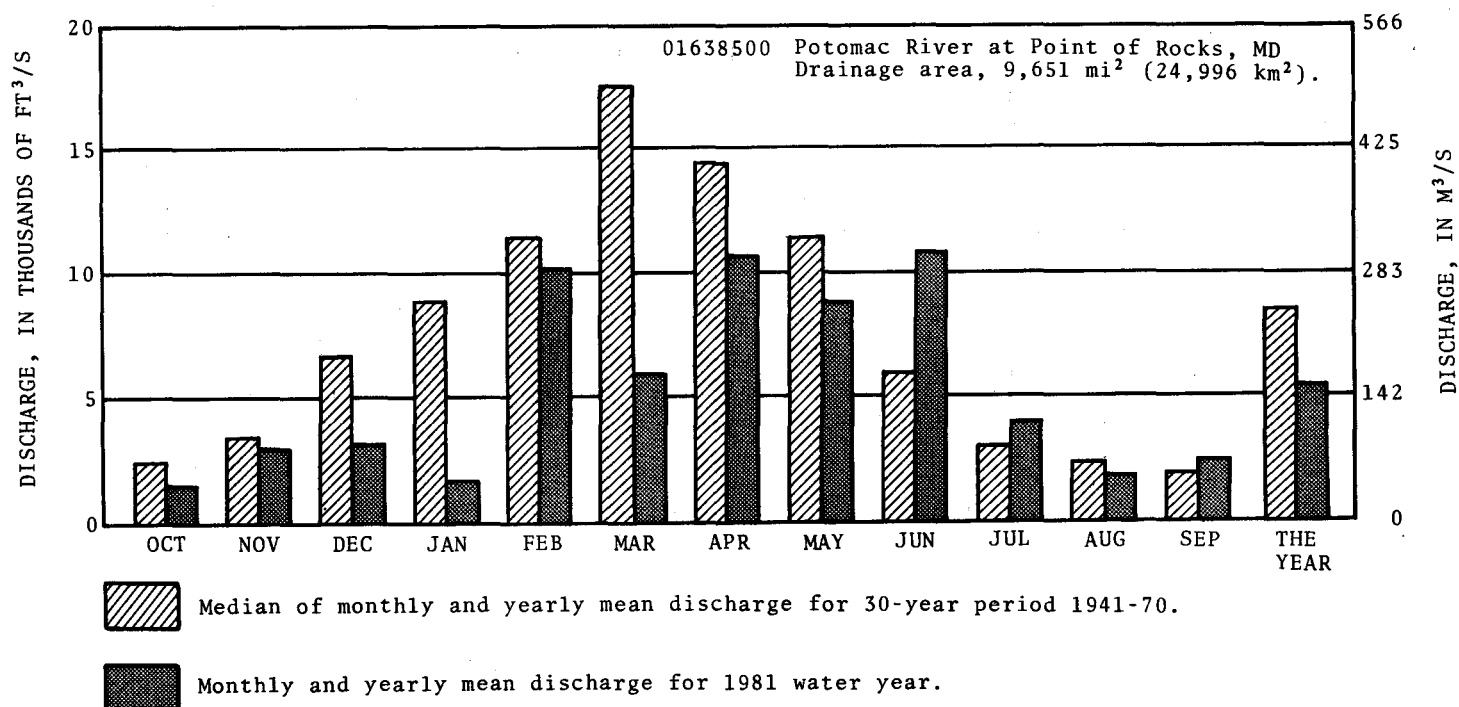
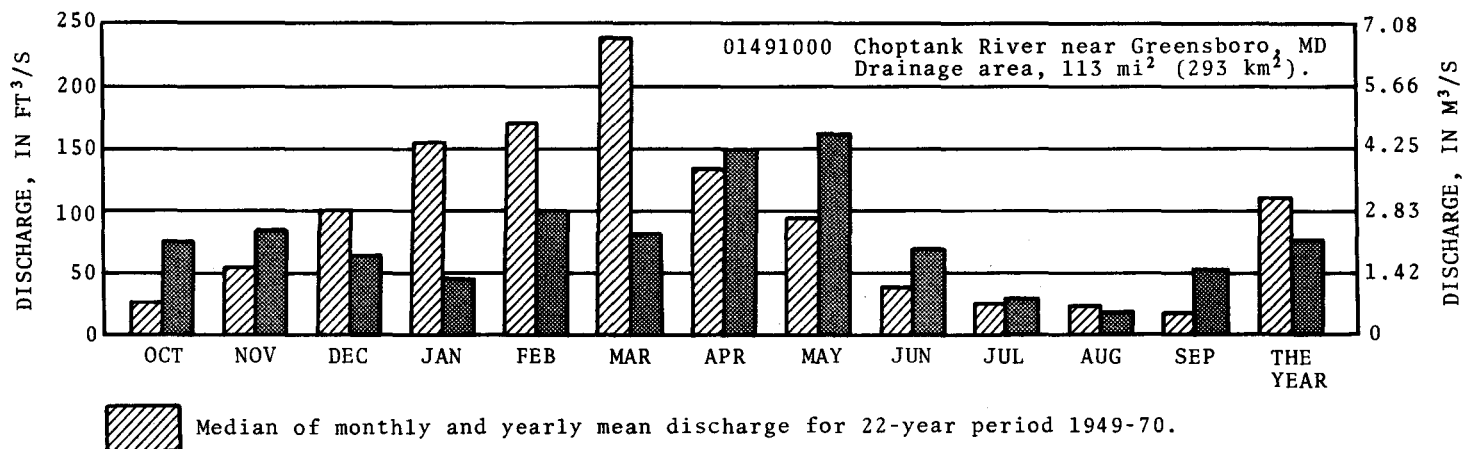


FIGURE 1.--COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1981 WATER YEAR WITH MEDIAN DISCHARGE FOR THE INDICATED PERIODS.

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-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by 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/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

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

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

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

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

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

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

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

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

Dissolved constitutes that material in a representative water sample which passes through a 0.45 μ m 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 ($\mu\text{g/g}$) 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, $\mu\text{g/L}$) 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 [$\text{mg C}/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3 \cdot \text{time})$ 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 [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ 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 μ m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

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

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

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

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

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

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

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

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

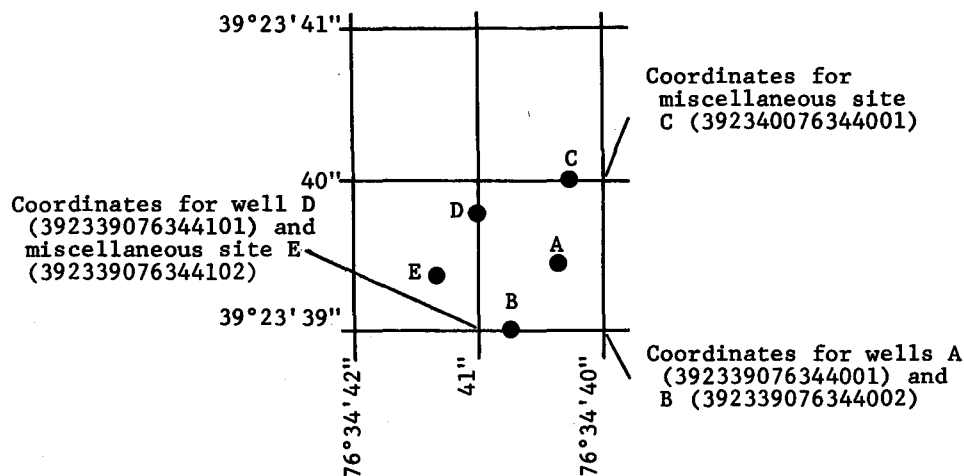


Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

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 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/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-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, 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-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-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.
- 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.

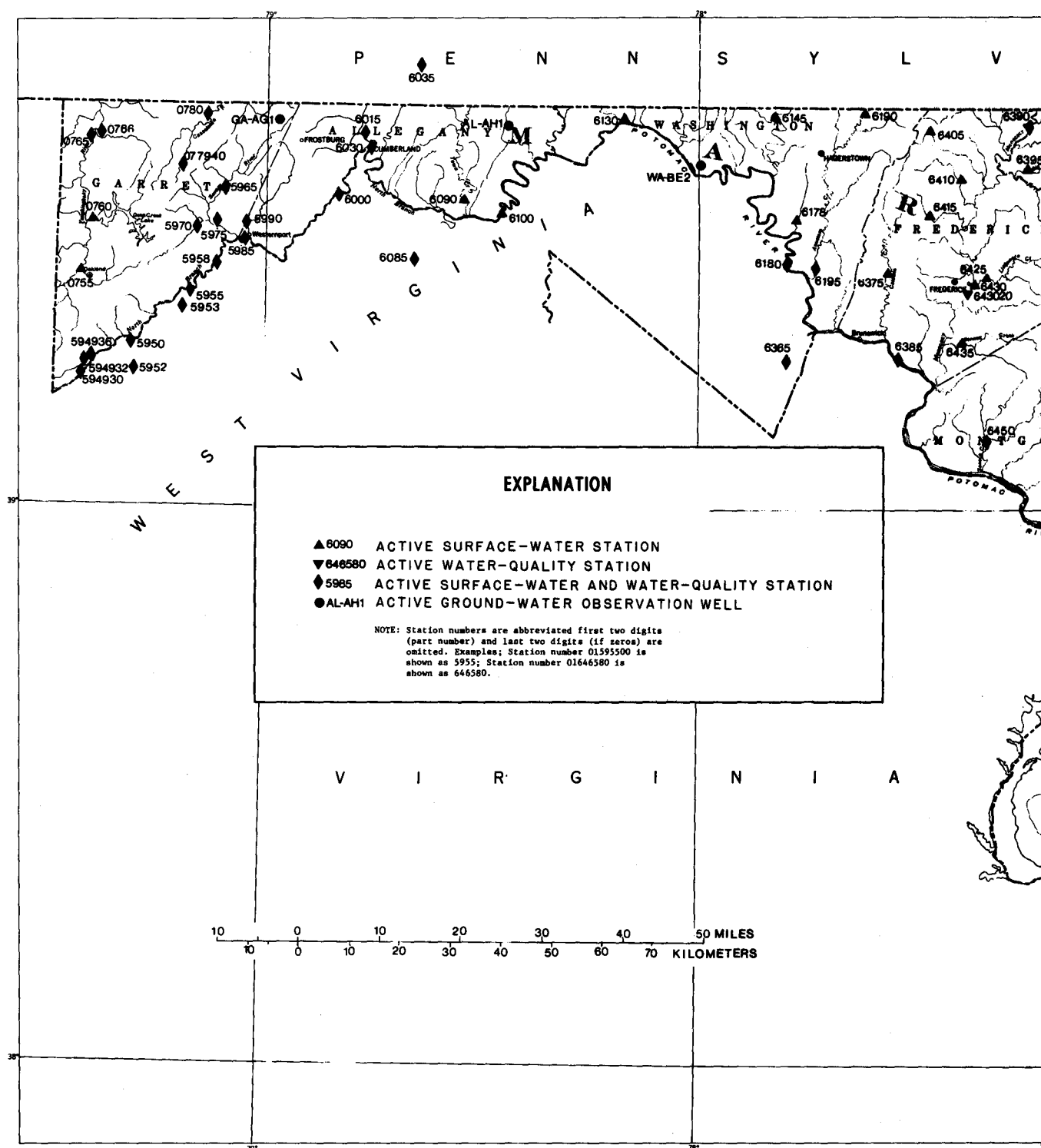
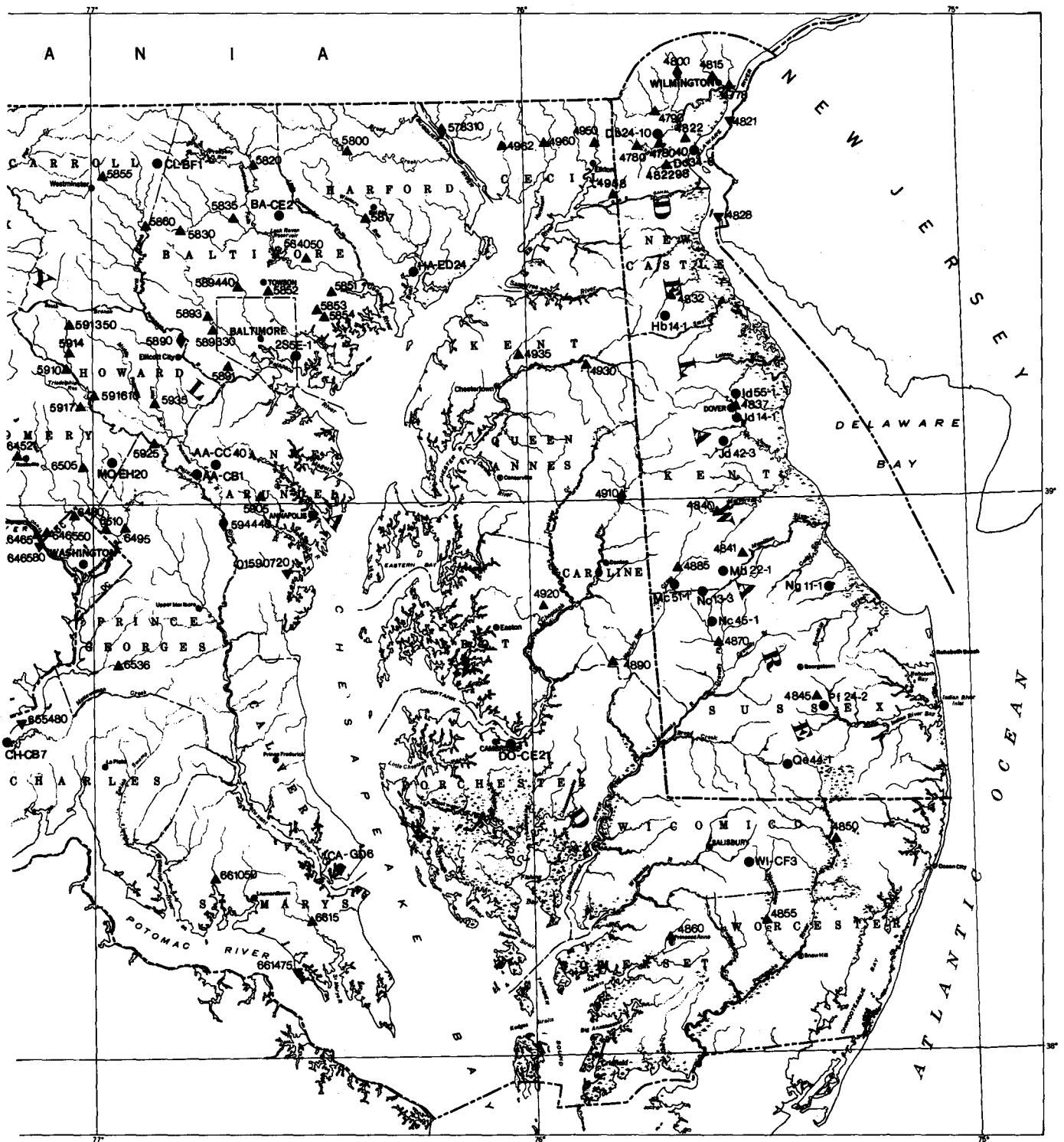


Figure 3. Location of surface-water and water-quality stations and ground-water observation wells in Maryland and Delaware.



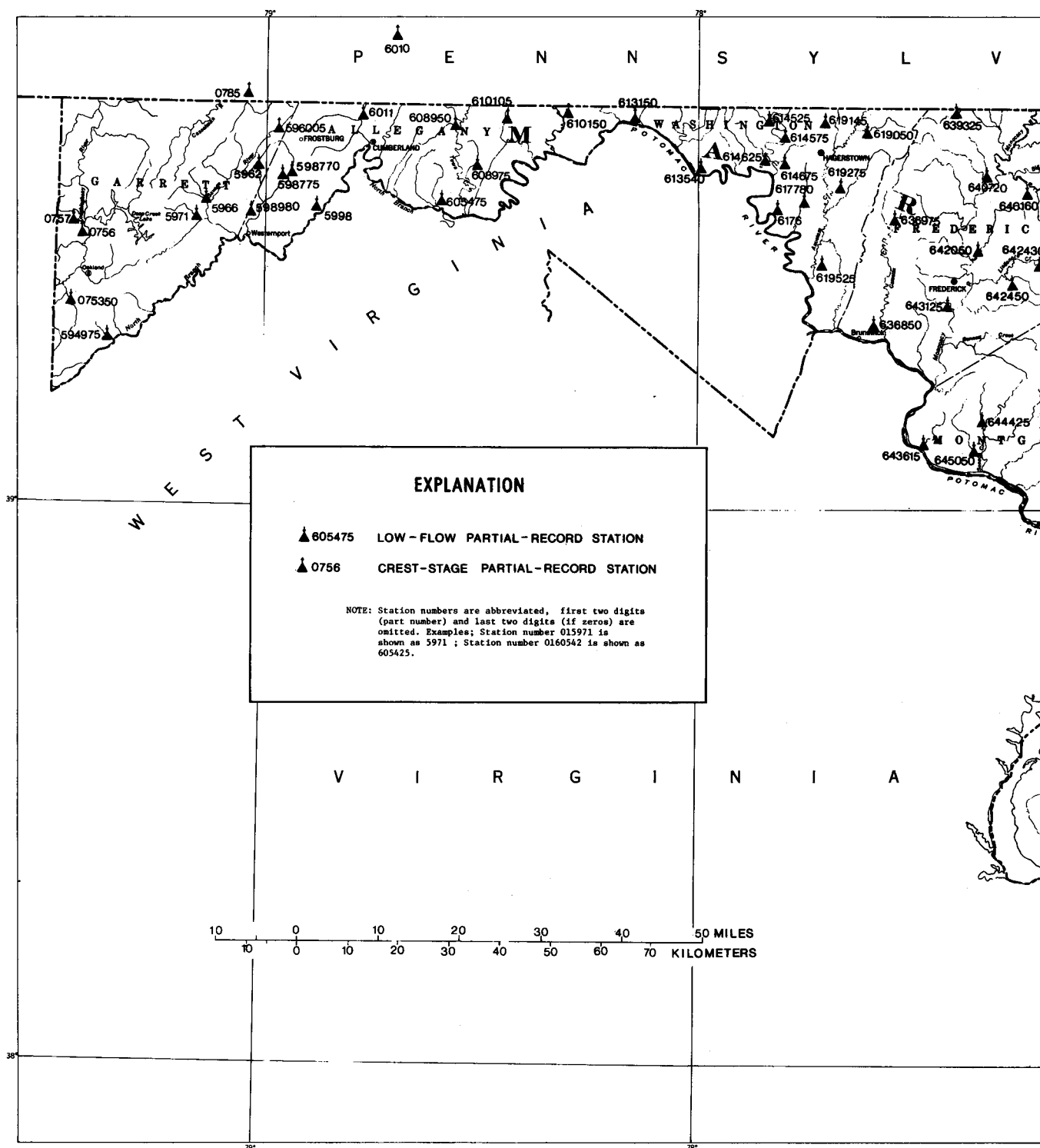
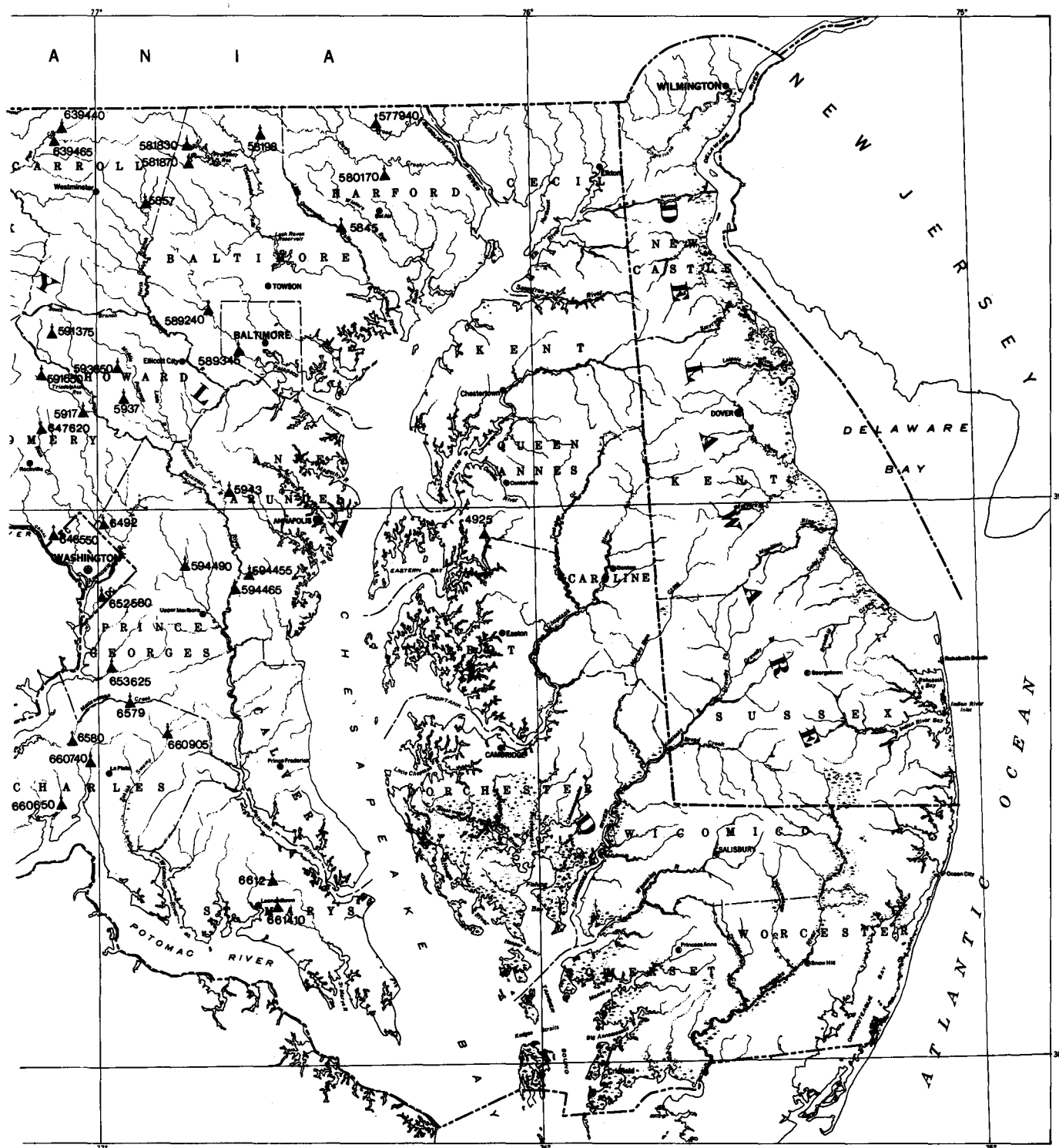


Figure 4. Location of low-flow and crest-stage partial record stations in Maryland and Delaware.



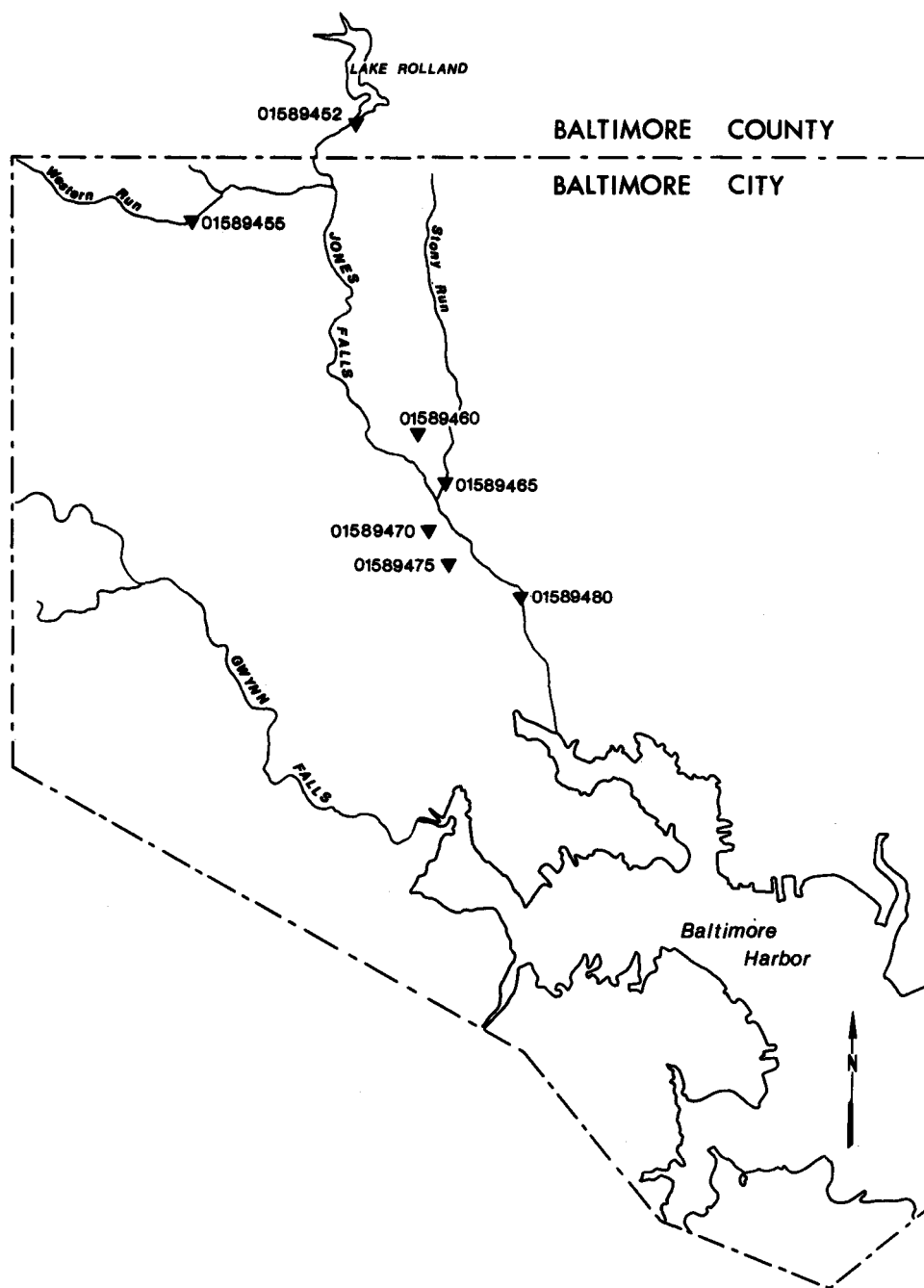


Figure 5. Location of water-quality stations in Baltimore City.

HYDROLOGIC-DATA STATION RECORDS

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 mi² (19.32 km²).

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years (water years 1947-81), 9.61 ft³/s (0.272 m³/s), 17.49 in/yr (444 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,850 ft³/s (194 m³/s) Sept. 13, 1971, gage height, 11.91 ft (3.630 m), from rating curve extended above 620 ft³/s (17.6 m³/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 ft³/s (0.003 m³/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 ft³/s (15 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1030	687 19.5	3.83 1.167	July 21	0130	1220 34.6	4.77 1.454
May 11	1610	790 22.4	4.00 1.219	Aug. 8	0955	*1500 42.5	5.31 1.618

Minimum daily discharge, 0.34 ft³/s (0.010 m³/s) Sept. 13, 14.

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	.50	.55	1.3	1.0	1.0	3.1	22	19	1.2	1.6	.92	.60
2	1.4	.50	1.3	1.1	.43	1.9	9.9	23	12	8.6	.78	.60
3	21	.50	1.2	.96	7.8	1.5	2.8	3.5	2.6	2.5	18	.60
4	5.3	5.3	.86	.74	1.7	1.5	2.1	2.4	1.9	29	2.9	.46
5	.92	1.9	.87	.64	.99	6.6	8.3	1.9	1.5	5.8	1.8	.42
6	.71	.71	.91	.82	.84	9.1	10	1.9	1.3	2.0	1.5	.42
7	.78	.61	.92	1.6	.78	4.7	2.5	1.5	1.1	1.4	1.4	.42
8	.66	.56	.96	1.2	6.7	6.1	2.2	1.4	.96	1.2	267	3.9
9	.66	2.9	1.3	.84	8.6	5.0	3.7	1.6	1.7	1.1	4.6	2.2
10	.66	2.0	1.7	.92	1.9	2.9	2.7	1.3	2.1	1.1	2.0	.50
11	1.1	.57	1.0	.66	54	3.9	4.9	163	1.9	.85	1.3	.38
12	1.3	.53	.85	.76	9.7	3.8	6.7	26	.89	.74	1.4	.38
13	.66	.67	.84	.60	3.1	2.3	3.9	5.8	.84	.82	1.2	.34
14	.50	.61	.81	.70	2.2	1.8	61	3.4	7.0	.78	1.3	.34
15	.50	.60	.74	.80	1.7	1.7	9.2	51	17	.66	1.4	6.3
16	.50	.60	2.7	.90	1.6	4.1	3.9	22	1.8	.60	3.1	37
17	.55	4.2	1.5	.97	1.6	2.4	3.1	4.6	2.8	.71	1.1	7.3
18	5.0	27	.91	.90	1.7	1.7	2.8	3.0	1.1	.66	.78	64
19	2.5	2.1	.88	1.1	1.7	1.6	2.2	2.9	.89	.60	.71	6.3
20	.71	1.3	.70	1.4	42	1.5	2.5	2.7	32	3.8	.60	1.6
21	.55	1.1	.64	1.7	8.6	1.5	1.9	2.0	3.7	76	.55	1.2
22	.50	.93	.72	1.6	5.2	1.5	1.7	1.8	4.6	1.7	.55	.92
23	.46	.84	1.3	1.8	30	1.6	4.7	1.6	1.5	.99	.60	.71
24	.46	52	2.3	2.8	18	1.6	9.0	1.4	1.1	.78	.60	.66
25	129	10	.85	1.6	4.4	1.7	2.1	1.4	23	.78	.55	.66
26	7.6	2.3	.80	1.6	2.8	1.6	1.9	1.5	5.9	.71	.55	.60
27	1.5	1.6	.94	1.9	2.2	1.7	1.6	1.2	1.3	.71	.50	.71
28	1.7	6.4	1.6	1.8	2.4	1.6	1.6	22	1.1	2.2	.50	.60
29	1.3	2.3	3.6	1.3	---	1.6	1.5	7.0	.95	3.8	.92	.50
30	.78	1.5	2.2	1.0	---	6.2	1.4	2.4	.89	1.4	.60	.50
31	.60	---	1.2	.93	---	3.5	---	1.6	---	1.2	.66	---
TOTAL	190.36	132.68	38.40	36.64	266.21	91.3	193.8	385.8	136.62	154.79	320.37	141.12
MEAN	6.14	4.42	1.24	1.18	9.51	2.95	6.46	12.4	4.55	4.99	10.3	4.70
MAX	129	52	3.6	2.8	54	9.1	61	163	32	76	267	64
MIN	.46	.50	.64	.60	.78	1.5	1.4	1.2	.84	.60	.50	.34
CFSM	.82	.59	.17	.16	1.28	.40	.87	1.66	.61	.67	1.38	.63
IN.	.95	.66	.19	.18	1.33	.46	.97	1.92	.68	.77	1.60	.70

CAL YR 1980	TOTAL	2425.76	MEAN	6.63	MAX	129	MIN	.10	CFSM	.89	IN	12.09
WTR YR 1981	TOTAL	2088.09	MEAN	5.72	MAX	267	MIN	.34	CFSM	.77	IN	10.41

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 Belltown 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.--38 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 (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	2015	1070 30.3	9.74 2.969	May 15	2145	*1340 37.9	10.04 3.060

Minimum daily discharge, 1.2 ft³/s (0.034 m³/s) July 23, Aug. 2.

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	2.7	4.7	7.6	4.1	4.1	9.7	42	20	5.7	3.7	1.3	4.8
2	3.4	3.0	5.7	7.1	40	6.1	49	61	17	9.6	1.2	5.7
3	16	7.3	7.5	4.6	17	6.1	12	14	8.4	5.5	4.1	2.3
4	12	7.7	5.2	3.8	8.3	7.4	8.5	9.1	6.9	15	5.6	4.9
5	3.9	9.6	3.7	5.3	5.9	13	10	6.9	6.3	11	5.8	3.5
6	4.8	3.6	6.8	4.8	5.0	16	19	6.7	4.8	7.3	2.1	1.5
7	2.2	6.7	4.9	4.5	4.7	14	8.5	6.0	4.1	3.4	2.9	4.9
8	2.7	4.7	7.2	5.3	14	13	8.3	6.0	6.3	3.7	284	9.9
9	2.5	3.2	4.3	5.3	18	12	6.7	4.5	4.6	3.6	19	11
10	2.9	7.7	8.9	4.0	9.7	10	7.9	4.9	9.4	3.2	9.3	5.5
11	3.2	2.8	5.4	3.9	190	9.9	6.2	240	5.9	2.7	9.2	2.5
12	3.5	5.6	5.0	5.2	49	9.9	25	98	7.9	2.5	26	3.3
13	5.9	4.2	5.4	3.7	11	8.3	14	20	2.5	4.7	8.5	1.8
14	2.7	4.3	4.5	3.8	12	7.3	128	13	24	1.3	6.4	4.0
15	1.8	2.9	7.3	3.8	9.1	6.4	41	271	7.7	3.1	6.3	20
16	1.7	3.1	6.9	4.3	7.3	9.1	16	113	7.4	2.7	51	121
17	3.5	9.2	4.2	6.0	7.7	8.5	14	19	6.7	2.2	6.3	12
18	7.0	56	7.2	5.0	9.2	7.9	12	13	4.8	3.2	4.0	216
19	7.9	10	3.8	5.6	7.8	5.8	9.9	12	6.4	1.3	4.4	32
20	4.4	8.1	8.4	6.5	19	6.4	11	12	165	5.7	3.1	12
21	3.2	5.0	4.2	6.9	18	6.3	6.5	7.5	39	13	5.5	7.6
22	2.5	6.5	4.3	6.2	14	6.0	7.7	7.7	16	6.9	1.8	8.6
23	3.7	4.3	5.0	7.7	38	7.2	10	6.6	7.8	1.2	3.5	3.6
24	2.2	67	9.4	6.9	58	4.8	30	6.0	6.8	4.2	6.2	7.8
25	216	46	9.0	6.2	15	6.9	12	5.7	20	1.3	1.6	2.3
26	26	11	4.3	6.9	11	5.5	8.7	6.4	22	1.4	5.1	6.3
27	8.8	6.5	3.8	5.9	10	4.4	7.7	3.9	5.9	5.2	1.7	2.6
28	5.4	13	3.4	7.0	9.3	5.5	6.8	11	4.8	3.6	5.0	6.2
29	6.4	9.8	7.5	5.7	---	5.4	12	9.8	5.3	7.6	5.7	5.2
30	5.6	6.1	5.7	5.3	---	10	6.8	5.5	2.9	2.2	15	2.8
31	6.1	---	7.4	4.4	---	10	---	5.1	---	3.9	15	---
TOTAL	380.6	339.6	183.9	165.7	622.1	258.8	557.2	1025.3	442.3	145.9	526.6	531.6
MEAN	12.3	11.3	5.93	5.35	22.2	8.35	18.6	33.1	14.7	4.71	17.0	17.7
MAX	216	67	9.4	7.7	190	16	128	271	165	15	284	216
MIN	1.7	2.8	3.4	3.7	4.1	4.4	6.2	3.9	2.5	1.2	1.2	1.5
CFSM	.60	.55	.29	.26	1.08	.41	.91	1.62	.72	.23	.83	.86
IN.	.69	.62	.33	.30	1.13	.47	1.01	1.86	.80	.26	.96	.96

CAL YR 1980 TOTAL 8814.95 MEAN 24.1 MAX 375 MIN .65 CFSM 1:18 IN 16.00
WTR YR 1981 TOTAL 5179.60 MEAN 14.2 MAX 284 MIN 1.2 CFSM .69 IN 9.40

DELAWARE RIVER BASIN

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 mi² (105.2 km²).

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft³/s (95.2 m³/s) Feb. 25, 1979, gage height, 10.95 ft (3.338 m); minimum daily discharge, 1.8 ft³/s (0.051 m³/s) Sept. 6, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s (32.3 m³/s) Aug. 8, gage height, 7.4 ft (2.26 m), no peak above base of 1,500 ft³/s (42 m³/s); minimum daily discharge, 2.5 ft³/s (0.071 m³/s) Aug. 2.

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	3.7	7.1	13	8.3	6.0	17	20	24	13	6.8	3.6	7.4
2	3.7	5.8	9.7	11	41	14	103	180	30	13	2.5	7.1
3	11	7.7	12	9.0	56	12	32	61	28	12	4.6	4.8
4	18	7.1	8.0	6.2	22	13	19	29	18	17	7.8	5.0
5	7.5	15	6.9	7.2	11	21	14	16	16	28	8.2	5.3
6	6.0	6.8	9.7	6.5	9.0	42	55	15	13	16	4.0	2.9
7	4.6	8.7	7.6	8.3	8.5	42	24	12	9.7	7.9	6.0	3.3
8	3.5	6.3	8.9	8.5	14	29	19	12	13	7.8	370	5.5
9	3.6	5.3	7.0	7.8	45	26	13	9.9	9.0	7.1	290	22
10	3.8	8.0	13	6.9	20	19	17	9.4	15	6.7	15	9.0
11	4.0	7.7	9.1	6.6	138	18	14	90	10	5.7	10	6.5
12	4.7	6.8	8.0	6.3	269	19	54	488	11	5.3	33	4.2
13	5.6	7.8	9.7	6.7	38	16	51	72	7.0	6.2	13	4.8
14	4.9	6.8	6.5	5.8	26	14	151	34	48	4.8	10	3.3
15	3.4	7.0	10	6.1	19	12	154	89	25	3.2	6.7	5.3
16	2.8	5.2	11	7.1	18	13	45	632	15	3.8	72	137
17	3.1	8.3	9.1	8.4	15	17	29	75	13	4.1	14	52
18	5.1	78	10	9.2	18	15	23	36	7.7	3.9	7.7	383
19	14	29	7.7	9.0	14	11	19	27	9.2	2.9	7.4	91
20	5.9	14	8.9	9.9	34	11	19	31	243	6.5	4.6	33
21	3.9	11	8.5	11	45	11	13	19	168	13	6.3	19
22	4.5	9.9	5.5	11	32	11	14	19	38	13	4.8	14
23	3.8	7.9	7.6	13	44	12	12	17	17	4.8	4.4	7.1
24	4.8	40	12	13	111	9.9	51	14	13	4.4	6.8	9.4
25	244	120	16	10	43	12	24	12	15	3.9	4.0	6.3
26	204	30	9.6	12	24	11	17	13	93	2.6	5.0	7.6
27	27	14	6.7	10	21	7.2	15	9.0	23	5.0	3.4	5.0
28	12	26	5.9	12	17	11	11	14	12	4.6	4.4	7.7
29	13	21	13	9.2	---	11	36	29	10	14	9.7	4.8
30	10	12	10	8.9	---	14	23	17	7.0	5.7	18	6.3
31	9.4	---	12	7.4	---	20	---	13	---	5.8	18	---
TOTAL	655.3	540.2	292.6	272.3	1158.5	511.1	1091	2118.3	949.6	245.5	974.9	879.6
MEAN	21.1	18.0	9.44	8.78	41.4	16.5	36.4	68.3	31.7	7.92	31.4	29.3
MAX	244	120	16	13	269	42	154	632	243	28	370	383
MIN	2.8	5.2	5.5	5.8	6.0	7.2	11	9.0	7.0	2.6	2.5	2.9
CFSM	.52	.44	.23	.22	1.02	.41	.90	1.68	.78	.20	.77	.72
IN.	.60	.49	.27	.25	1.06	.47	1.00	1.94	.87	.22	.89	.81
CAL YR 1980	TOTAL	14360.2	MEAN	39.2	MAX	599	MIN	1.8	CFSM	197	IN	13.16
WTR YR 1981	TOTAL	9688.9	MEAN	26.5	MAX	632	MIN	2.5	CFSM	165	IN	8.88

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 mi² (230.8 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records 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.--41 years (water years 1932-36, 1944-57, 1960-81), 114 ft³/s (3.228 m³/s), 17.38 in/yr (441 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft³/s (257 m³/s) June 22, 1972, gage height, 15.91 ft (4.849 m), present datum, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 4.7 ft³/s (0.13 m³/s) Sept. 11, 1966; minimum daily discharge, 5.0 ft³/s (0.14 m³/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 ft³/s (56 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1145	2090 59.2	10.73 3.271	Aug. 8	1515	*4570 129	13.32 4.060
Feb. 11	1800	2760 78.2	11.55 3.520				

Minimum daily discharge, 20 ft³/s (0.57 m³/s) Aug. 1, 2.

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	26	54	46	40	26	69	89	65	42	33	20	32
2	26	54	43	39	255	61	117	148	69	50	20	28
3	43	52	41	36	130	58	62	64	59	43	43	26
4	48	62	38	33	141	55	54	52	50	56	47	28
5	32	68	38	31	87	73	59	48	47	66	28	26
6	29	57	40	33	70	71	75	47	42	43	24	26
7	28	54	42	34	69	66	56	45	40	37	23	25
8	28	54	40	32	91	66	51	42	37	33	1550	36
9	27	54	41	32	125	77	53	42	41	30	150	80
10	27	57	43	32	75	69	54	43	43	28	65	33
11	28	51	40	30	733	65	53	479	43	27	50	26
12	30	51	38	31	245	67	74	347	38	25	65	25
13	28	51	38	28	125	60	62	104	34	25	50	24
14	27	53	38	32	110	56	225	78	59	24	40	23
15	28	52	37	38	87	54	129	425	51	23	39	48
16	28	53	44	43	76	60	73	360	42	22	72	184
17	28	58	43	47	73	60	66	102	51	23	37	64
18	34	138	42	46	73	53	62	78	39	23	31	408
19	41	80	40	45	75	53	56	72	34	22	28	104
20	31	60	36	49	129	51	56	68	168	29	27	60
21	28	55	30	51	124	51	52	61	102	130	26	45
22	28	53	34	48	104	50	50	57	53	40	26	38
23	28	51	44	49	129	50	57	54	42	29	28	41
24	28	139	49	50	262	49	82	51	36	25	25	37
25	640	217	46	46	96	47	56	48	67	25	24	32
26	172	65	42	43	77	47	51	47	108	26	25	31
27	75	55	46	43	68	46	48	45	43	25	24	31
28	66	64	43	43	65	45	46	52	37	30	25	29
29	60	57	43	37	---	45	48	58	34	33	48	27
30	56	49	45	31	---	52	44	48	32	24	37	26
31	54	---	42	28	---	56	---	45	---	21	50	---
TOTAL	1852	2018	1272	1200	3720	1782	2060	3275	1583	1070	2747	1643
MEAN	59.7	67.3	41.0	38.7	133	57.5	68.7	106	52.8	34.5	88.6	54.8
MAX	640	217	49	51	733	77	225	479	168	130	1550	408
MIN	26	49	30	28	26	45	44	42	32	21	20	23
CFSM	.67	.76	.46	.43	1.49	.65	.77	1.19	.59	.39	.99	.62
IN.	.77	.84	.53	.50	1.55	.74	.86	1.37	.66	.45	1.15	.69

CAL YR 1980	TOTAL	34484	MEAN 94.2	MAX 803	MIN 24	CFSM 1.06	IN 14.40
WTR YR 1981	TOTAL	24222	MEAN 66.4	MAX 1550	MIN 20	CFSM .75	IN 10.11

DELAWARE RIVER BASIN

01479000 WHITE CLAY CREEK NEAR NEWARK, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 18...	1000	152	197	7.2	5.0	3.7	12.1	68	29	17	6.3	6.0

DATE	PENCT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 SI02)	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)
NOV 18...	15	.3	4.6	29	9.7	.1	8.6	155	106	.21	63.6

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS P04)
NOV 18...	2.1	.020	2.1	.080	.10	.27	.35	2.5	11	.120	.21

DATE	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 18...	.37	.070	2	0	3	3	160	0	90	15	1100

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980

DATE TIME	NOV 18,80 1000
TOTAL COUNT	5
DIVERSITY: PHYLUM	0.0
..CLASS	0.0
...ORDER	0.7
....FAMILY	0.7
.....GENUS	0.7
.....GENUS-INSECTA	0.7

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
..INSECTA	
...DIPTERA	
....CHIRONOMIDAE	
.....PARATRICHOCALDIUS	4
...TRICHOPTERA	
....HYDROPSYCHIDAE	
.....SYMPHITOPSYCHE	1

DELAWARE RIVER BASIN

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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 mi² (121.7 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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.--38 years, 64.6 ft³/s (1.829 m³/s), 18.67 in/yr (474 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft³/s (142 m³/s) July 21, 1975, gage height, 10.32 ft (3.146 m); minimum discharge, 2.9 ft³/s (0.082 m³/s) Sept. 4, 1966; minimum daily discharge, 4.5 ft³/s (0.13 m³/s) Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft³/s (66.0 m³/s) Aug. 8, gage height, 6.49 ft (1.978 m), no other peak above base of 1,200 ft³/s (34 m³/s); minimum discharge 3.2 ft³/s (0.091 m³/s) Jan. 26, Feb. 16, gage height, 2.16 ft (0.658 m), result of regulation; minimum daily discharge, 10 ft³/s (0.28 m³/s) Jan. 18.

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	15	20	25	20	15	32	32	29	28	19	15	16
2	15	20	25	20	119	27	78	93	47	50	14	21
3	25	19	23	19	42	26	33	36	39	35	24	16
4	32	20	21	16	19	23	28	28	35	53	28	16
5	18	31	22	24	16	31	28	26	31	64	17	19
6	16	22	23	28	16	31	47	26	29	34	16	19
7	16	20	21	42	17	29	30	25	27	29	15	18
8	16	20	22	31	27	31	27	23	25	25	668	28
9	16	19	23	26	34	42	27	23	27	23	77	39
10	15	21	24	23	18	36	28	22	27	21	39	20
11	16	20	22	19	203	32	28	154	30	19	32	18
12	16	19	21	15	88	35	36	161	24	18	33	16
13	15	17	22	13	29	31	33	60	22	18	31	17
14	15	18	21	12	24	27	114	45	35	18	26	16
15	15	19	20	11	23	24	73	108	49	16	25	18
16	15	18	23	12	17	29	42	151	32	17	33	92
17	16	18	25	12	19	31	36	58	47	17	23	35
18	17	56	21	10	20	26	34	47	28	16	21	100
19	27	34	22	11	22	26	30	43	25	14	20	58
20	17	26	18	12	91	24	29	42	46	17	20	34
21	16	23	17	12	61	24	30	38	65	141	19	27
22	15	22	17	12	49	23	23	36	35	29	18	26
23	15	21	20	13	68	23	28	33	28	21	19	27
24	15	44	22	15	140	23	44	32	25	20	20	21
25	184	97	21	12	49	22	29	33	38	19	18	21
26	78	36	34	12	37	22	27	28	68	19	14	21
27	30	31	39	14	31	22	28	29	29	18	17	20
28	26	35	34	16	29	21	25	36	25	18	18	18
29	25	31	26	15	---	21	22	44	21	22	20	18
30	22	27	23	13	---	23	24	32	23	17	18	19
31	20	---	20	12	---	20	---	31	---	16	26	---
TOTAL	799	824	717	522	1323	846	1093	1572	1010	863	1384	834
MEAN	25.8	27.5	23.1	16.8	47.3	27.3	36.4	50.7	33.7	27.8	44.6	27.8
MAX	184	97	39	42	203	42	114	161	68	141	668	100
MIN	15	17	17	10	15	21	22	22	21	14	14	16
CFSM	.55	.59	.49	.36	1.01	.58	.77	1.08	.72	.59	.95	.59
IN.	.63	.65	.57	.41	1.05	.67	.87	1.24	.80	.68	1.10	.66

CAL YR 1980 TOTAL 18336 MEAN 50.1 MAX 354 MIN 12 CFSM 1.07 IN 14.51
WTR YR 1981 TOTAL 11787 MEAN 32.3 MAX 668 MIN 10 CFSM .69 IN 9.33

DELAWARE RIVER BASIN

01480000 RED CLAY CREEK AT WOODDALE, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1953 to September 1981 (discontinued).

INSTRUMENTATION.--Temperature recorder since April 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.5°C July 17, Aug. 2, 6, 1955, July 19, 1963; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.5°C July 10; minimum, 0°C on many days during winter periods.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01480000 RED CLAY CREEK AT WOODDALE, DE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.0	12.5	16.5	14.5	21.0	19.0	23.5	21.5	25.0	21.0	23.0	21.5
2	14.0	12.0	14.5	13.5	20.0	18.5	23.5	22.0	25.0	21.0	23.5	22.0
3	14.5	11.0	16.0	12.5	18.5	17.5	23.5	22.0	23.0	21.5	23.0	22.0
4	17.0	14.0	17.5	13.5	20.5	17.5	23.0	22.0	24.5	22.0	22.0	20.5
5	16.0	15.5	18.0	16.0	22.0	19.5	22.0	21.0	25.5	23.0	21.0	20.5
6	15.5	11.5	17.5	16.5	22.0	20.5	23.5	21.0	24.0	22.5	21.5	20.5
7	13.0	9.5	17.5	14.0	24.0	21.0	25.5	22.0	25.0	21.5	21.5	20.5
8	14.5	10.5	18.0	13.5	23.5	19.5	26.5	23.5	23.5	21.0	21.5	20.5
9	14.0	12.5	18.0	13.5	24.0	21.5	28.0	24.5	23.0	21.5	21.0	19.0
10	15.5	12.0	17.5	16.0	23.0	21.0	28.5	25.5	24.5	22.5	20.0	17.5
11	15.0	13.0	17.0	16.0	22.5	19.5	27.5	24.5	24.5	23.0	21.0	18.0
12	14.5	13.0	16.0	15.5	23.0	20.5	28.0	24.0	24.0	23.0	22.5	19.5
13	13.0	12.0	16.5	13.5	24.5	21.5	27.0	24.5	23.0	22.0	22.5	20.0
14	12.0	10.5	18.5	15.0	23.0	21.5	27.0	25.0	24.5	21.5	23.0	20.5
15	12.0	9.5	20.5	17.5	22.0	20.0	25.5	22.5	24.5	22.5	22.0	21.0
16	12.5	9.0	17.5	16.0	25.5	21.5	24.0	22.0	25.0	23.0	21.0	19.0
17	12.5	12.0	17.5	14.5	25.0	24.0	25.5	22.0	23.5	21.0	19.0	18.0
18	16.5	12.5	17.0	15.0	24.0	21.5	26.5	22.5	22.0	19.0	18.5	18.0
19	16.0	13.5	15.0	13.5	23.0	21.0	28.0	23.5	21.0	18.5	18.0	17.0
20	15.5	13.0	16.0	13.0	22.5	21.5	26.5	25.0	21.5	19.0	17.5	16.5
21	14.0	11.0	17.0	14.5	23.5	21.5	25.5	23.5	21.0	18.5	17.5	16.0
22	14.0	10.5	19.0	15.5	25.0	22.5	25.0	23.5	19.5	19.0	18.5	16.5
23	13.5	12.5	20.0	16.5	24.5	22.5	24.5	21.5	21.5	19.0	18.5	16.0
24	16.0	13.5	20.5	17.0	23.5	21.5	23.5	21.0	21.0	19.0	16.0	15.0
25	14.5	12.0	21.0	18.0	24.5	22.5	23.0	21.5	21.0	19.0	16.0	14.5
26	14.5	11.0	21.5	19.0	23.5	21.5	25.0	22.0	21.5	19.0	17.0	15.0
27	17.0	13.0	22.5	20.0	22.0	19.5	26.0	23.5	22.0	19.5	18.0	15.5
28	18.0	14.0	21.5	20.5	23.0	19.0	25.0	23.5	23.0	20.5	17.5	16.0
29	20.0	16.5	21.5	20.0	23.5	19.5	25.0	23.0	22.5	21.5	16.0	14.5
30	18.5	16.0	23.0	20.0	23.5	20.5	24.5	21.0	22.5	21.5	15.0	13.5
31	---	---	22.5	21.0	---	---	25.0	21.0	22.5	22.0	---	---
MONTH	20.0	9.0	23.0	12.5	25.5	17.5	28.5	21.0	25.5	18.5	23.5	13.5

DELAWARE RIVER BASIN

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 mi² (813 km²).

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 hm³), 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.--35 years, 479 ft³/s (13.57 m³/s), 20.72 in/yr (526 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s (821 m³/s) June 23, 1972, gage height, 15.49 ft (4.721 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum discharge, about 30 ft³/s (0.85 m³/s) Dec. 26, 1948, during period of ice effect; minimum daily discharge, 56 ft³/s (1.59 m³/s) Aug. 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,680 ft³/s (104 m³/s) Aug. 8, gage height, 6.62 ft (2.018 m), no peak above base of 4,000 ft³/s (110 m³/s); minimum daily discharge, 92 ft³/s (2.61 m³/s) Oct. 15, July 17, 19.

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	101	120	180	138	112	305	214	220	198	138	119	118
2	107	118	166	130	540	267	370	543	262	265	113	106
3	141	118	162	119	806	244	238	328	311	286	135	103
4	190	129	146	112	234	225	192	246	259	241	149	100
5	147	160	141	101	195	255	189	214	236	462	129	104
6	116	136	144	113	168	278	406	201	204	265	118	103
7	109	121	140	120	156	260	297	191	186	204	113	101
8	101	120	146	115	175	259	226	176	172	168	1490	118
9	98	123	147	115	287	313	209	168	164	152	444	344
10	103	122	152	112	199	336	220	162	177	141	226	164
11	98	119	146	103	905	305	218	881	225	121	172	119
12	101	114	138	101	1310	310	280	1260	181	115	185	104
13	103	114	137	95	326	297	308	491	160	109	242	102
14	97	114	136	95	255	264	550	355	214	109	172	105
15	92	117	131	106	222	228	796	484	372	101	160	104
16	95	115	143	111	204	226	403	1950	270	98	167	295
17	95	119	156	113	217	265	332	659	225	92	144	242
18	106	310	137	113	217	227	308	470	181	95	125	617
19	150	313	140	118	223	205	276	402	160	92	119	401
20	134	197	123	118	444	197	262	408	220	95	116	236
21	109	151	93	127	564	186	238	359	220	1860	114	165
22	98	148	112	121	403	180	222	304	253	360	113	147
23	98	134	148	124	434	176	230	256	327	213	117	178
24	95	258	177	134	1260	172	346	236	209	172	113	151
25	721	811	164	134	546	165	288	230	204	153	115	126
26	730	323	142	138	373	161	236	213	303	150	125	124
27	244	225	159	141	317	157	219	209	225	271	110	120
28	173	221	148	148	290	161	211	236	164	188	110	125
29	154	238	148	141	---	152	213	304	145	158	119	118
30	137	203	159	127	---	160	205	262	141	145	115	114
31	125	---	145	109	---	205	---	216	---	128	117	---
TOTAL	4968	5611	4506	3692	11382	7141	8702	12634	6568	7147	5906	5054
MEAN	160	187	145	119	407	230	290	408	219	231	191	168
MAX	730	811	180	148	1310	336	796	1950	372	1860	1490	617
MIN	92	114	93	95	112	152	189	162	141	92	110	100
(*)	5.3	8.6	-12.1	-1.6	18.2	-2.3	0.2	-0.2	-0.2	-1.1	-3.2	-0.4
MEAN*	165	196	133	117	425	228	290	408	219	230	188	168
CFSM*	0.53	0.62	0.42	0.37	1.35	0.73	0.92	1.30	0.70	0.73	0.60	0.54
IN*	0.61	0.70	0.49	0.43	1.41	0.84	1.03	1.50	0.78	0.84	0.69	0.60
CAL YR 1980 TOTAL	148474			MEAN 406	MAX 2790	MIN 91						
WTR YR 1981 TOTAL	83311			MEAN 228	MAX 1950	MIN 92	MEAN* 407	CFSM* 1.30	IN* 17.64			
							MEAN* 229	CFSM* 0.73	IN* 9.90			

* 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.

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Hydrologic Unit 02040205, at tidal-gaging station located on channel side of west tower of south bridge between Pigeon Point, Del., and Deepwater Point, N. J.

DRAINAGE AREA.--11,030 mi² (28,600 km²).

PERIOD OF RECORD.--July 1955 to March 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to March 1981 (discontinued).

pH: January 1968 to March 1981 (discontinued).

WATER TEMPERATURES: October 1956 to March 1981 (discontinued).

DISSOLVED OXYGEN: November 1962 to March 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 12,700 micromhos Nov. 13, 1966; minimum, 100 micromhos on many days.

pH: Maximum, 9.3 Nov. 10-11, 13, 1970; minimum, 4.2 Nov. 6, 1969.

WATER TEMPERATURES: Maximum, 31.0°C Aug. 9, 1968; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L Feb. 8, 9, 1980; minimum, 0.0 mg/L on many days during summer periods.

EXTREMES FOR PERIOD OCTOBER 1979 TO MARCH 1981.--

SPECIFIC CONDUCTANCE: Maximum, 10,800 micromhos Nov. 23, 1980; minimum, 150 micromhos Oct. 12, 13, 1979, and Apr. 21, 24, 1980.

pH: Maximum, 7.8 units Mar. 13, 1981; minimum, 5.6 units Feb. 23, 24, 1981.

WATER TEMPERATURES: Maximum, 29.5°C July 20-23, 26, 27, Aug. 13-15, 1980; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L Feb. 8, 9, 1980; minimum, 0.5 mg/L Oct. 3, 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	BICARBONATE FET-FLD (MG/L AS HC03)	ALKALINITY FIELD (MG/L AS CAC03)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)
MAY 22...	0855	413	6.4	81	51	17	9.4	52	57	37	30	24
SEP 03...	0845	6800	6.9	--	--	--	--	--	--	60	49	12
DATE	AS SO4	SULFATE DIS-SOLVED (MG/L AS CL)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	PERYLLIUM, DIS-SOLVED (UG/L AS BF)
MAY 22...	41	77	.3	250	220	.34	.42	.000	.00	4	30	<1
SEP 03...	390	2200	--	--	--	--	2.5	--	--	--	--	--
DATE	AS CD	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY 22...	<1	<10	<10	<3	30	<10	20	28	23000	60	6	25
SEP 03...	--	--	--	--	--	--	--	--	--	--	--	--
DATE	UG/G	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY, RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 22...	940	.00	29	0	99	<6.0	13	91	2.8	42	.0	
SEP 03...	--	--	--	--	--	--	--	--	3.9	--	--	

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

[illegible][illegible]

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1580	390	755	1450	350	751	370	280	312	1070	300	568
2	1080	360	578	1490	350	805	360	260	298	1060	290	562
3	740	390	495	1600	350	733	400	210	295	1130	300	583
4	---	---	---	1600	370	754	430	250	315	1230	320	615
5	---	---	---	1570	390	720	460	210	307	1240	330	630
6	---	---	---	1390	370	670	390	240	302	1300	330	749
7	---	---	---	1160	400	632	340	220	265	1300	290	776
8	---	---	---	1090	330	560	330	210	248	750	280	470
9	---	---	---	1070	290	524	290	240	268	1020	300	588
10	---	---	---	740	270	467	290	240	266	1090	320	629
11	---	---	---	630	270	394	300	220	260	1250	330	774
12	280	150	203	590	260	401	270	200	233	830	300	461
13	270	150	190	660	300	441	280	200	233	600	210	388
14	---	---	---	470	320	375	310	190	225	830	300	510
15	---	---	---	990	330	447	340	170	227	1130	240	545
16	---	---	---	710	290	406	460	170	245	1650	250	698
17	---	---	---	1040	240	460	420	170	199	2290	270	910
18	370	230	262	890	230	424	740	180	299	2230	270	986
19	660	220	304	1150	240	569	1050	170	420	1920	250	766
20	650	210	325	1420	240	610	1250	180	544	1570	250	655
21	670	210	320	1390	240	648	1140	190	579	1690	250	705
22	760	210	381	1590	250	746	1480	190	637	1620	260	715
23	1320	260	547	1480	250	771	1500	210	711	1930	290	886
24	1010	280	535	1630	260	802	1530	220	791	1090	270	603
25	860	310	484	1670	270	877	1520	260	926	1110	300	632
26	800	310	487	2720	240	1140	1270	210	659	970	310	581
27	980	320	534	1280	250	599	990	210	512	1070	300	626
28	950	320	551	710	260	391	800	270	408	1140	330	667
29	1000	330	566	370	270	303	630	270	372	1250	320	633
30	1300	360	627	360	290	315	790	280	448	880	310	523
31	1260	350	646	---	---	---	1050	290	534	1260	330	644
MONTH	1580	150	463	2720	230	591	1530	170	398	2290	210	648

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1040	320	564	4130	1510	2820	230	210	219	---	---	---
2	1240	330	585	4370	1650	3060	250	210	228	---	---	---
3	1400	330	711	4470	1820	3260	320	230	248	---	---	---
4	2520	360	1060	6200	2350	4070	270	230	249	---	---	---
5	2550	370	1290	6760	2810	4630	260	240	248	---	---	---
6	3230	540	1740	6910	2320	4450	350	240	270	---	---	---
7	4380	900	2370	6540	2720	4570	860	260	310	---	---	---
8	5030	1000	2770	7460	3250	---	300	260	280	---	---	---
9	5860	1170	3410	---	---	---	380	180	269	---	---	---
10	5950	1490	3450	---	---	---	230	170	184	---	---	---
11	6710	1570	4060	---	---	---	180	160	170	---	---	---
12	6360	1540	3870	---	---	---	260	170	178	---	---	---
13	6390	1800	3950	---	---	---	310	180	197	410	190	246
14	6290	1810	3870	---	---	---	580	170	195	590	180	253
15	6010	1650	3710	---	---	---	230	170	189	500	190	246
16	7340	2190	4320	---	---	---	190	170	176	560	190	276
17	6030	1830	3820	---	---	---	190	170	174	600	200	291
18	6230	1840	3900	---	---	---	210	160	179	700	210	350
19	6190	2000	3970	---	---	---	190	160	171	630	210	310
20	6260	2100	4190	---	---	---	190	160	167	480	210	297
21	6710	2530	4710	---	---	---	230	150	174	600	210	329
22	6770	2610	4530	---	---	---	190	160	173	560	210	305
23	6350	2830	4480	---	---	---	190	160	173	440	210	284
24	6220	2520	4270	300	230	264	200	150	176	620	220	346
25	6180	2480	4230	280	220	253	210	170	177	780	220	374
26	5940	1940	3900	240	200	221	240	170	187	810	210	394
27	6460	2270	4140	260	190	217	270	180	201	960	230	434
28	5300	1830	3540	330	200	231	280	180	197	1110	230	524
29	5050	1670	3300	340	190	216	---	---	---	1550	240	645
30	---	---	---	280	200	229	---	---	---	1870	260	814
31	---	---	---	330	210	225	---	---	---	2280	260	891
MONTH	7340	320	3270	7460	190	1910	860	150	206	2280	180	400

DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	2220	280	982	4870	1300	2820	---	---	---	8190	4260	6160
2	2380	310	1100	4930	1390	2900	---	---	---	8600	4300	6200
3	2340	350	1250	4700	1370	2830	---	---	---	10100	4140	5950
4	2700	380	1250	4500	1370	2860	---	---	---	7930	4270	6000
5	2560	400	1340	4860	1530	3070	---	---	---	7330	4430	5850
6	2610	460	1410	4430	1330	2940	---	---	---	10000	4360	5840
7	2790	450	1510	4750	1450	2920	---	---	---	8280	4230	5870
8	2830	540	1580	4840	1500	3030	---	---	---	10300	4450	6310
9	2860	360	1400	5310	1530	2950	---	---	---	10000	4510	6500
10	3180	560	1570	5360	1670	3050	---	---	---	10100	4560	6440
11	3080	580	1600	4970	1750	3220	---	---	---	10100	4320	6280
12	2950	590	1650	5730	1770	3340	---	---	---	7730	4290	5960
13	3430	660	1810	5710	1870	3480	5720	2510	4050	8420	4650	6310
14	3340	720	1870	5490	1830	3530	7230	2580	4590	10100	4880	6620
15	3660	740	2090	5890	2120	3670	6280	2600	4360	10000	4770	6610
16	3630	840	2020	5200	1870	3510	6110	2550	4320	10000	5130	6980
17	3340	860	1990	4720	1820	3310	6640	2810	4580	10400	5100	7250
18	3800	1030	2190	4350	1900	3270	6710	3140	4790	10100	4080	6190
19	3190	970	2120	4450	1980	3340	7230	3080	4860	10000	4050	6000
20	3470	1120	2250	4320	2050	3260	7460	2890	4980	10000	4230	6040
21	3740	1150	2480	4340	1880	3110	8700	3380	5450	10300	4420	6170
22	4120	1170	2420	4150	1890	3000	8960	3520	5900	10300	4160	6390
23	3960	1210	2410	3940	1760	2920	10100	3360	5890	10400	4540	6950
24	3940	1200	2360	4910	1730	2910	10400	3540	6050	10500	4650	7260
25	3610	1180	2350	5090	1940	3260	9640	3570	6130	10600	5160	7910
26	3930	1260	2390	5030	1980	3370	10200	3670	6540	10600	4550	7470
27	4080	1330	2630	6000	2030	3590	10400	3840	6790	10100	4360	6840
28	4200	1260	2670	6220	2170	---	10500	4000	7420	10500	4490	7320
29	4650	1400	2800	---	---	---	10400	4240	7000	10500	4390	7130
30	4900	1220	2770	---	---	---	9800	4330	7270	10600	4900	7500
31	---	---	---	---	---	---	10300	4010	6620	---	---	---
MONTH	4900	280	1940	6220	1300	3170	10500	2510	5660	10600	4050	6540

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.6	6.2	6.4	6.7	6.2	6.4	6.5	6.3	6.4	6.9	6.5	6.7
2	6.5	6.2	6.3	6.6	6.2	6.4	6.4	6.3	6.3	6.9	6.5	6.7
3	6.4	6.1	6.2	6.6	6.2	6.4	6.5	6.3	6.4	6.9	6.5	6.7
4	6.4	6.1	6.2	6.7	6.2	6.4	6.5	6.4	6.4	6.7	6.4	6.5
5	6.4	6.1	6.2	6.6	6.2	6.4	6.6	6.4	6.5	6.8	6.5	6.6
6	6.3	6.2	6.2	6.6	6.2	6.3	6.6	6.5	6.5	7.1	6.5	6.8
7	6.4	6.2	6.3	6.5	6.2	6.3	6.6	6.4	6.5	6.9	6.5	6.7
8	6.4	6.2	6.3	6.5	6.2	6.3	6.6	6.3	6.5	7.1	6.6	6.9
9	6.4	6.3	6.4	6.5	6.2	6.3	6.6	6.3	6.5	7.0	6.6	6.8
10	6.4	6.3	6.3	6.5	6.2	6.3	6.6	6.3	6.5	7.0	6.6	6.8
11	6.3	6.2	6.3	6.4	6.2	6.3	6.6	6.4	6.5	7.1	6.5	6.9
12	6.5	6.3	6.4	6.5	6.3	6.4	6.6	6.3	6.4	7.1	6.6	6.8
13	6.5	6.3	6.4	6.5	6.3	6.4	6.6	6.3	6.4	6.8	6.5	6.6
14	---	---	---	6.5	6.3	6.4	6.6	6.3	6.5	7.2	6.5	6.8
15	---	---	---	6.6	6.3	6.4	6.6	6.3	6.5	7.0	6.7	---
16	---	---	---	6.6	6.4	6.5	6.8	6.3	6.6	7.2	6.6	6.8
17	---	---	---	6.7	6.4	6.5	6.8	6.2	6.4	7.1	6.5	6.8
18	6.4	6.3	6.3	6.7	6.4	6.5	6.8	6.2	6.5	7.0	6.5	6.8
19	6.4	6.2	6.3	6.7	6.4	6.5	6.8	6.3	6.6	7.1	6.5	6.8
20	6.5	6.2	6.3	6.7	6.4	6.5	6.9	6.3	6.6	7.1	6.4	6.7
21	6.5	6.1	6.3	6.7	6.3	6.5	6.9	6.4	6.7	6.9	6.3	6.6
22	6.5	6.1	6.3	6.8	6.3	6.5	7.3	6.4	6.8	6.8	6.3	6.6
23	6.6	6.1	6.3	6.7	6.3	6.5	7.4	6.6	7.0	7.0	6.3	6.8
24	6.5	6.2	6.3	6.8	6.3	6.5	7.3	6.5	7.0	6.7	6.3	6.5
25	6.6	6.2	6.3	6.8	6.3	6.6	7.3	6.5	6.9	6.7	6.3	6.5
26	6.5	6.2	6.3	7.0	6.4	6.7	7.0	6.5	6.8	6.8	6.4	6.6
27	6.6	6.2	6.4	6.8	6.4	6.6	6.9	6.4	6.7	6.8	6.3	6.6
28	6.6	6.2	6.4	6.6	6.3	6.5	6.9	6.4	6.7	6.8	6.4	6.7
29	6.6	6.2	6.4	6.4	6.3	6.3	6.9	6.5	6.7	6.9	6.4	6.6
30	6.6	6.2	6.4	6.4	6.2	6.3	7.2	6.5	6.9	6.7	6.3	6.5
31	6.6	6.2	6.4	---	---	---	7.1	6.5	6.8	6.8	6.3	6.6
MONTH	6.6	6.1	6.3	7.0	6.2	6.4	7.4	6.2	6.6	7.2	6.3	6.7

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.8	6.3	6.5	7.1	6.6	6.9	6.8	6.2	6.4	---	---	---
2	6.9	6.4	6.6	7.1	6.7	6.9	7.0	6.3	6.6	---	---	---
3	7.0	6.4	6.7	7.3	6.8	7.1	6.8	6.4	6.6	---	---	---
4	7.2	6.5	6.8	7.4	7.0	7.3	6.8	6.4	6.7	---	---	---
5	7.3	6.6	6.9	7.4	7.0	7.2	6.8	6.5	6.7	---	---	---
6	7.1	6.6	6.8	7.5	7.0	7.3	6.9	6.6	6.7	---	---	---
7	7.2	6.7	7.0	7.5	7.0	7.2	6.7	6.5	6.6	---	---	---
8	7.4	6.8	7.1	7.5	7.1	---	6.8	6.5	6.6	---	---	---
9	7.2	6.9	7.1	---	---	---	6.6	6.5	6.6	---	---	---
10	7.3	6.8	7.1	---	---	---	6.6	6.4	6.5	---	---	---
11	7.2	6.8	7.1	---	---	---	6.6	6.4	6.5	---	---	---
12	7.2	6.9	7.1	---	---	---	6.6	6.4	6.5	---	---	---
13	7.3	6.8	7.1	---	---	---	6.5	6.4	6.5	6.7	6.4	6.6
14	7.4	6.8	7.1	---	---	---	6.7	6.4	6.4	6.7	6.2	6.4
15	7.3	6.9	7.1	---	---	---	6.7	6.4	6.5	6.5	6.1	6.3
16	7.4	6.9	7.1	---	---	---	6.5	6.4	6.4	6.6	6.1	6.4
17	7.2	6.8	7.0	---	---	---	6.5	6.3	6.4	6.6	6.2	6.4
18	7.2	6.8	7.0	---	---	---	6.5	6.3	6.4	6.7	6.2	6.4
19	7.3	6.8	7.1	---	---	---	6.5	6.3	6.4	6.7	6.3	6.4
20	7.4	6.9	7.2	---	---	---	6.5	6.3	6.4	6.5	6.2	6.4
21	7.5	6.9	7.2	---	---	---	6.5	6.3	6.4	6.5	6.3	6.4
22	7.2	6.9	7.1	---	---	---	6.5	6.3	6.3	6.8	6.3	6.5
23	7.4	7.0	7.2	---	---	---	6.4	6.3	6.4	6.7	6.4	6.5
24	7.3	7.0	7.2	6.6	6.5	6.6	6.4	6.3	6.4	6.7	6.4	6.6
25	7.2	6.8	7.0	6.6	6.4	6.5	6.5	6.3	6.4	6.7	6.4	6.5
26	7.1	6.7	6.9	6.5	6.4	6.5	6.4	6.3	6.4	6.6	6.3	6.5
27	7.1	6.8	7.0	6.5	6.3	6.4	6.4	6.2	6.3	6.6	6.3	6.5
28	7.2	6.7	7.0	6.5	6.2	6.4	6.4	6.3	6.3	6.7	6.3	6.5
29	7.1	6.7	6.9	6.6	6.2	6.4	---	---	---	6.8	6.3	6.5
30	---	---	---	6.7	6.3	6.5	---	---	---	6.8	6.3	6.5
31	---	---	---	6.3	6.2	6.2	---	---	---	6.8	6.3	6.5
MONTH	7.5	6.3	7.0	7.5	6.2	6.8	7.0	6.2	6.5	6.8	6.1	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	6.8	6.4	6.6	6.8	6.4	6.6	---	---	---	7.0	6.8	6.9
2	6.9	6.4	6.6	6.8	6.4	6.6	---	---	---	7.1	6.8	6.9
3	6.8	6.1	6.5	6.8	6.4	6.6	---	---	---	7.0	6.8	6.9
4	6.6	6.1	6.3	6.8	6.4	6.6	---	---	---	7.1	6.8	6.9
5	6.7	6.1	6.4	6.8	6.4	6.6	---	---	---	7.0	6.8	6.9
6	6.6	6.2	6.4	6.7	6.4	6.6	---	---	---	7.0	6.8	6.9
7	6.8	6.2	6.5	6.8	6.4	6.6	---	---	---	7.0	6.7	6.9
8	6.7	6.2	6.5	6.7	6.4	6.6	---	---	---	7.0	6.7	6.9
9	6.8	6.0	6.4	6.8	6.4	6.6	---	---	---	7.0	6.7	6.8
10	6.9	6.2	6.5	6.8	6.4	6.6	---	---	---	6.9	6.7	6.8
11	6.8	6.2	6.5	6.7	6.4	6.6	---	---	---	6.9	6.7	6.8
12	6.7	6.2	6.5	6.7	6.4	6.6	---	---	---	6.8	6.7	6.8
13	6.7	6.3	6.5	6.7	6.4	6.6	6.6	6.5	6.6	6.8	6.7	6.7
14	6.8	6.3	6.5	6.7	6.4	6.6	6.9	6.5	6.7	6.9	6.7	6.8
15	6.8	6.3	6.6	6.7	6.5	6.6	6.9	6.6	6.8	6.9	6.7	6.8
16	6.7	6.2	6.5	6.8	6.6	6.7	6.8	6.6	6.7	7.0	6.8	6.9
17	6.7	6.2	6.5	6.8	6.6	6.7	7.0	6.6	6.8	7.2	6.8	7.0
18	6.7	6.3	6.5	6.8	6.6	6.7	6.9	6.7	6.8	7.0	6.8	6.9
19	6.7	6.3	6.5	6.8	6.6	6.7	6.9	6.7	6.8	7.0	6.8	6.9
20	6.7	6.3	6.5	6.8	6.6	6.7	7.0	6.7	6.8	7.1	6.8	6.9
21	6.8	6.3	6.6	6.8	6.6	6.7	7.0	6.7	6.8	7.1	6.8	6.9
22	6.8	6.4	6.6	6.8	6.5	6.7	7.0	6.7	6.9	7.1	6.8	6.9
23	6.8	6.4	6.6	6.7	6.5	6.6	7.0	6.7	6.9	7.0	6.8	6.9
24	6.8	6.4	6.6	6.9	6.5	6.7	7.0	6.7	6.8	7.0	6.7	6.9
25	6.8	6.4	6.6	6.9	6.6	6.7	7.0	6.6	6.8	7.0	6.7	6.9
26	6.8	6.4	6.6	6.9	6.6	6.8	7.0	6.7	6.8	7.0	6.7	6.8
27	6.8	6.4	6.6	6.9	6.6	6.8	7.0	6.7	6.8	7.0	6.6	6.8
28	6.8	6.4	6.6	6.9	6.6	---	6.9	6.7	6.8	7.0	6.7	6.9
29	6.9	6.4	6.7	---	---	---	7.0	6.7	6.8	7.0	6.7	6.9
30	6.8	6.4	6.6	---	---	---	7.0	6.7	6.9	7.0	6.8	6.9
31	---	---	---	---	---	---	7.0	6.8	6.9	---	---	---
MONTH	6.9	6.0	6.5	6.9	6.4	6.7	7.0	6.5	6.8	7.2	6.6	6.9

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4.3	2.7	3.6	7.8	5.9	6.8	8.5	6.6	7.3	10.6	9.0	9.7
2	3.8	1.8	2.9	7.7	5.8	6.8	8.2	6.8	7.4	10.4	8.9	9.5
3	4.6	.5	2.6	7.7	5.5	6.7	8.9	7.5	8.0	10.2	8.9	9.5
4	4.4	1.6	3.2	8.0	5.3	6.6	9.1	7.9	8.4	10.2	9.0	9.5
5	4.4	2.4	3.5	7.8	5.3	6.5	9.5	8.1	8.5	11.1	9.7	10.2
6	4.9	3.2	4.0	7.2	5.0	6.1	9.4	8.2	8.8	11.0	9.9	10.4
7	5.2	2.9	4.5	6.9	4.8	5.9	9.4	8.1	8.8	11.4	10.1	10.7
8	5.7	4.8	5.3	7.2	5.0	6.0	9.6	8.3	8.9	10.9	10.1	10.5
9	6.4	5.4	5.9	7.1	5.0	6.0	10.2	8.6	9.3	10.9	10.1	10.5
10	6.7	5.8	6.1	6.8	5.2	6.1	10.2	8.9	9.6	10.9	10.1	10.5
11	6.6	5.9	6.3	6.9	5.1	6.0	10.6	9.1	9.7	11.1	10.0	10.6
12	6.7	6.2	6.5	7.4	5.3	6.5	10.3	8.9	9.6	11.0	10.2	10.6
13	---	---	---	7.8	6.1	7.1	10.3	8.7	9.6	11.1	10.2	10.6
14	---	---	---	7.8	6.3	7.2	10.4	8.9	9.7	11.6	10.4	10.9
15	---	---	---	8.5	6.4	7.5	10.4	9.1	9.8	11.9	10.3	11.1
16	---	---	---	8.5	7.0	7.8	10.3	8.7	9.7	12.2	10.6	11.4
17	---	---	---	8.9	7.3	8.1	10.6	8.7	9.5	12.1	10.4	11.3
18	6.5	6.2	6.4	8.9	7.4	8.1	11.2	9.0	10.0	11.7	10.0	11.0
19	6.6	6.1	6.3	9.1	7.4	8.2	11.2	9.2	10.3	11.8	9.8	10.6
20	6.7	5.9	6.2	8.8	7.1	8.1	11.9	10.0	10.9	11.4	9.8	10.5
21	6.4	5.5	5.9	8.6	6.9	7.9	11.9	10.1	11.2	11.5	9.7	10.5
22	6.0	5.2	5.5	8.5	6.6	7.8	11.6	9.9	11.0	11.4	9.7	10.5
23	6.5	5.0	5.5	8.2	6.4	7.5	11.4	9.6	10.8	11.5	9.7	10.6
24	6.8	5.5	6.0	8.4	6.4	7.5	11.3	9.5	10.5	11.4	9.6	10.6
25	7.4	5.7	6.3	8.2	6.3	7.5	11.1	9.5	10.6	11.5	9.9	10.7
26	7.6	5.7	6.5	9.3	6.5	8.1	10.8	9.1	10.1	11.3	9.9	10.6
27	7.9	5.8	6.7	8.6	6.6	7.7	10.7	8.8	9.8	11.6	9.8	10.7
28	7.8	5.8	6.9	8.2	6.4	7.4	10.5	8.8	9.7	11.6	9.8	10.7
29	7.7	5.9	6.7	8.0	6.3	7.1	10.5	8.9	9.7	11.6	9.8	10.6
30	7.7	5.8	6.7	8.2	6.4	7.2	10.7	9.1	9.8	11.6	9.8	10.6
31	7.7	5.9	6.8	---	---	---	10.9	9.1	9.8	12.4	10.2	11.2
MONTH	7.9	.5	5.5	9.3	4.8	7.1	11.9	6.6	9.6	12.4	8.9	10.6

DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.4	10.2	11.3	12.5	10.8	11.8	9.6	9.2	9.4	---	---	---
2	13.0	10.9	11.9	13.0	11.2	12.2	9.6	9.2	9.3	---	---	---
3	13.3	11.1	12.3	13.2	11.8	12.6	9.3	9.0	9.1	---	---	---
4	13.6	11.6	12.6	13.5	12.1	12.9	9.1	8.8	8.9	---	---	---
5	13.5	11.6	12.7	13.4	12.1	12.8	9.1	8.8	8.9	---	---	---
6	13.4	11.7	12.7	13.3	11.8	12.6	9.1	8.6	8.8	---	---	---
7	13.6	12.1	13.0	13.2	11.8	12.6	9.0	8.5	8.7	---	---	---
8	13.7	12.3	13.1	13.3	11.8	---	8.9	8.3	8.6	---	---	---
9	13.7	12.3	13.1	---	---	---	8.9	8.4	8.6	---	---	---
10	13.5	12.1	13.0	---	---	---	8.6	8.1	8.3	---	---	---
11	13.6	12.1	13.0	---	---	---	8.3	7.6	8.0	---	---	---
12	13.5	11.8	12.8	---	---	---	7.9	7.1	7.6	---	---	---
13	13.3	11.9	12.7	---	---	---	7.6	7.0	7.3	7.8	6.3	7.1
14	13.2	11.8	12.6	---	---	---	8.0	7.0	7.4	7.7	5.7	6.9
15	13.2	11.5	12.4	---	---	---	8.0	7.0	7.4	7.5	5.7	6.9
16	13.4	11.7	12.5	---	---	---	7.7	7.0	7.3	7.8	5.8	7.0
17	13.1	11.4	12.4	---	---	---	7.8	7.0	7.4	7.8	6.1	7.1
18	13.2	11.6	12.5	---	---	---	7.8	6.9	7.2	7.7	6.7	7.3
19	13.1	11.6	12.4	---	---	---	7.5	6.7	7.0	7.6	6.5	7.1
20	13.0	11.5	12.4	---	---	---	7.2	6.5	6.8	7.4	6.3	7.0
21	13.0	11.4	12.3	---	---	---	7.1	6.7	6.9	7.4	6.7	7.1
22	12.9	11.5	12.3	---	---	---	7.2	6.6	6.9	7.6	6.7	7.1
23	12.8	11.5	12.2	---	---	---	7.3	6.8	7.1	7.7	6.8	7.1
24	12.6	11.2	11.9	9.2	8.6	8.8	7.3	6.8	7.1	7.4	6.7	7.0
25	12.5	10.9	11.8	9.3	8.6	8.9	7.4	6.8	7.1	7.2	6.4	6.7
26	12.3	10.6	11.7	9.6	9.0	9.3	7.3	6.7	7.1	6.8	6.2	6.5
27	12.8	11.1	12.0	9.8	9.3	9.5	7.3	6.6	7.0	6.6	6.1	6.3
28	12.5	10.9	11.8	9.7	9.2	9.4	7.5	7.0	7.3	6.6	5.8	6.1
29	12.4	10.8	11.7	9.6	9.3	9.4	---	---	---	6.4	5.3	5.8
30	---	---	---	9.5	9.2	9.3	---	---	---	6.3	5.1	5.7
31	---	---	---	9.6	9.3	9.5	---	---	---	6.2	4.7	5.4
MONTH	13.7	10.2	12.4	13.5	8.6	10.8	9.6	6.5	7.8	7.8	4.7	6.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	5.8	4.3	5.1	5.3	3.2	4.4	---	---	---	5.2	4.2	4.8
2	5.6	4.1	4.9	5.3	3.3	4.4	---	---	---	5.3	4.2	4.8
3	5.7	3.9	4.9	4.9	2.9	4.0	---	---	---	5.3	4.2	4.7
4	5.7	3.7	4.9	4.5	2.5	3.7	---	---	---	5.5	4.2	4.8
5	5.9	3.7	5.0	4.7	2.5	3.7	---	---	---	5.3	4.3	4.8
6	5.8	3.6	4.9	4.8	2.7	3.8	---	---	---	5.3	4.3	4.8
7	5.7	3.3	4.8	5.0	3.2	4.1	---	---	---	5.4	4.2	4.8
8	6.0	3.6	4.8	5.0	3.4	4.3	---	---	---	5.7	4.3	5.0
9	6.7	3.2	5.2	5.2	3.3	4.2	---	---	---	5.6	4.3	5.1
10	6.7	4.3	5.5	5.1	3.1	4.0	---	---	---	5.8	4.6	5.3
11	6.4	4.1	5.4	4.9	2.9	3.8	---	---	---	6.3	4.6	5.4
12	6.3	3.9	5.3	4.8	2.8	3.8	---	---	---	6.2	4.7	5.5
13	6.1	3.7	5.1	4.8	3.0	3.9	6.4	4.3	4.7	6.2	4.9	5.6
14	6.1	3.7	5.1	4.9	2.9	4.0	5.3	4.1	4.7	6.3	5.1	5.6
15	5.8	3.7	4.8	4.9	3.3	4.3	5.1	4.0	4.6	6.0	4.9	5.5
16	5.5	3.5	4.7	5.0	3.6	4.4	5.3	4.0	4.7	6.1	5.1	5.7
17	5.3	3.4	4.6	4.8	3.5	4.3	5.8	4.5	5.1	6.4	5.3	5.8
18	5.6	3.7	4.7	4.8	3.4	4.2	5.6	4.6	5.1	6.1	5.1	5.7
19	5.7	3.5	4.8	4.8	3.2	4.0	5.4	4.4	5.0	6.0	5.0	5.5
20	6.0	4.1	5.1	4.7	3.2	4.0	5.6	4.3	4.9	6.1	4.9	5.5
21	6.4	3.9	5.4	4.6	3.2	4.0	5.7	4.5	5.1	5.9	4.9	5.5
22	6.3	4.1	5.4	4.7	3.3	4.0	5.7	4.6	5.2	5.8	4.7	5.3
23	6.2	4.1	5.2	4.6	3.4	4.1	5.5	4.2	5.0	5.7	4.6	5.2
24	5.9	4.0	5.1	5.2	3.3	4.2	5.5	4.0	4.8	6.0	4.6	5.4
25	5.7	4.0	5.0	5.1	3.8	4.4	5.3	4.0	4.7	5.9	4.9	5.5
26	5.8	3.8	4.8	5.0	3.8	4.4	5.5	4.0	4.8	5.8	4.7	5.3
27	5.6	3.5	4.6	5.2	3.8	4.5	5.4	3.9	4.7	6.1	4.7	5.5
28	5.4	3.3	4.6	5.2	3.9	---	5.3	3.9	4.7	6.2	5.0	5.7
29	5.6	3.4	4.6	---	---	---	5.2	4.0	4.7	6.5	5.2	5.8
30	5.4	3.2	4.4	---	---	---	5.2	4.0	4.7	6.4	5.5	6.0
31	---	---	---	---	---	---	5.3	4.1	4.8	---	---	---
MONTH	6.7	3.2	5.0	5.3	2.5	4.1	6.4	3.9	4.8	6.5	4.2	5.3

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10400	5010	7420	5680	3120	4420	6000	2420	4210	7240	3580	5300
2	10600	5380	7890	5970	2910	4420	6480	2820	4610	7580	3480	5280
3	10500	5380	7480	6380	3220	4770	5640	1200	3190	6940	2960	4910
4	10500	5480	7970	6180	3350	4750	3800	1680	2750	6600	2820	4560
5	10600	5040	7110	6130	3050	4600	4080	2020	3100	6080	2640	4440
6	10400	5040	7380	6980	2350	5100	4800	2420	3470	7080	3480	5180
7	10600	5470	7740	7400	3680	5480	5960	2380	3740	7200	3740	5370
8	10600	5360	7560	7020	3700	5370	6400	2460	4190	6520	3160	4720
9	---	---	---	6860	3780	5310	6540	2620	4160	6880	3460	5070
10	---	---	---	6660	3020	5120	6700	2540	4380	6760	3440	5230
11	---	---	---	4980	2700	3920	5960	2500	4070	6660	3740	5110
12	---	---	---	5940	3020	4180	5840	2520	4100	6200	3480	4840
13	---	---	---	7680	3540	5170	5440	2480	3920	7260	3640	5640
14	---	---	---	8040	3500	5310	5260	2400	3910	7520	4140	5890
15	---	---	---	8380	3460	5750	4960	2040	3440	7360	3800	5560
16	10500	5660	8240	8200	3920	5970	5400	2380	3850	7980	4360	6120
17	10500	5070	7620	8500	3780	6090	5360	2500	3900	7740	3820	5730
18	10500	5610	8070	8500	4260	6100	6840	2700	4270	8480	3760	5990
19	9440	5050	7030	8600	3640	5940	5740	2360	3820	8220	4360	6310
20	10400	4970	6870	9040	4260	6570	5560	2100	3570	8380	4460	6290
21	10200	4950	7000	9620	4420	6760	5520	2180	3580	8640	4580	6570
22	9110	4880	6800	9260	4220	6500	5680	2260	3690	8860	5240	6940
23	10400	4940	7250	10800	4540	7350	6040	2440	3990	9200	5120	6990
24	10400	4890	7230	10500	5180	7780	6220	2800	4380	9280	5300	7150
25	10600	5810	8420	9420	3780	6530	4360	1680	3060	8660	4860	6790
26	8250	2820	5580	7180	3180	5120	5440	2580	3860	8340	5040	6450
27	6430	2560	4310	7140	3060	5000	5360	2840	3960	7860	4780	6350
28	6510	2630	4510	7840	3620	5690	5840	3040	4360	7880	4660	6390
29	6850	2750	4480	6960	3620	5310	6560	3060	4800	8200	4920	6450
30	6490	2980	4720	5860	2640	4270	7280	3620	5490	7720	4280	6060
31	6420	3150	4720	---	---	---	6960	3500	5230	7720	4220	6080
MONTH	10600	2560	6810	10800	2350	5490	7280	1200	3970	9280	2640	5800
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8160	4880	6500	1820	300	628						
2	9320	5280	6950	2680	320	818						
3	6880	3540	5290	1080	340	550						
4	6600	3360	4870	1740	340	734						
5	5840	2900	4320	2760	360	986						
6	6560	3060	4470	2180	340	1000						
7	5820	2900	4260	1820	340	778						
8	6140	2860	4440	3580	380	1330						
9	4980	2440	3740	3080	380	1520						
10	4820	2260	3660	3060	380	1340						
11	5680	2900	4570	3560	400	1450						
12	280	0	267	2720	400	1340						
13	---	---	---	3020	420	1430						
14	---	---	---	2160	380	944						
15	---	---	---	2900	420	1250						
16	---	---	---	2400	460	1140						
17	6460	4760	6330	3220	400	1380						
18	6520	5340	6390	2220	480	1270						
19	6460	6380	6420	---	---	---						
20	6440	5020	6370	---	---	---						
21	6400	40	5340	---	---	---						
22	19500	180	8210	---	---	---						
23	19800	320	9930	---	---	---						
24	300	260	295	---	---	---						
25	340	320	336	---	---	---						
26	340	320	338	---	---	---						
27	580	320	372	---	---	---						
28	1900	320	662	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	19800	0	4350	3580	300	1100						

DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.1	6.8	6.9	6.9	6.6	6.8	6.9	6.4	6.7	6.6	6.4	6.5
2	7.0	6.8	6.9	6.9	6.6	6.7	6.9	6.5	6.7	6.6	6.4	6.5
3	6.9	6.8	6.9	6.9	6.6	6.8	6.8	6.3	6.6	6.6	6.3	6.5
4	6.9	6.8	6.9	6.9	6.7	6.8	6.8	6.4	6.6	6.4	6.1	6.3
5	6.9	6.7	6.8	6.9	6.6	6.8	6.9	6.5	6.7	6.5	6.1	6.3
6	6.9	6.7	6.8	6.9	6.6	6.7	7.0	6.5	6.7	6.6	6.2	6.4
7	7.0	6.7	6.9	6.9	6.6	6.8	7.0	6.6	6.8	6.6	6.3	6.4
8	6.9	6.7	6.8	7.1	6.7	6.8	7.0	6.6	6.8	6.4	6.0	6.3
9	---	---	---	6.9	6.6	6.8	6.9	6.5	6.7	6.5	6.2	6.3
10	---	---	---	6.9	6.5	6.8	6.9	6.5	6.7	6.4	6.1	6.3
11	---	---	---	6.8	6.5	6.7	6.8	6.5	6.6	6.3	6.1	6.2
12	---	---	---	7.0	6.6	6.8	6.8	6.5	6.6	6.3	6.1	6.2
13	---	---	---	7.2	6.7	6.9	6.8	6.5	6.7	6.4	6.0	6.2
14	---	---	---	7.2	6.7	6.9	6.8	6.5	6.6	6.5	6.2	6.3
15	---	---	---	7.0	6.7	6.9	6.7	6.4	6.5	6.4	6.1	6.3
16	7.1	6.8	7.0	7.0	6.7	6.8	6.8	6.4	6.6	6.5	6.2	6.4
17	7.1	6.8	6.9	6.9	6.6	6.8	6.7	6.5	6.6	6.4	6.1	6.2
18	7.0	6.8	6.9	7.0	6.7	6.9	6.8	6.5	6.6	6.4	6.1	6.2
19	7.0	6.8	6.9	7.0	6.7	6.9	6.8	6.4	6.6	6.5	6.2	6.4
20	7.0	6.7	6.9	7.1	6.7	6.9	6.7	6.4	6.5	6.6	6.3	6.4
21	7.0	6.7	6.9	7.0	6.7	6.9	6.7	6.3	6.5	6.5	6.1	6.3
22	7.0	6.7	6.9	7.0	6.7	6.8	6.7	6.3	6.5	6.5	6.2	6.4
23	7.0	6.7	6.9	7.0	6.6	6.8	6.7	6.4	6.5	6.6	6.3	6.4
24	7.0	6.6	6.9	7.0	6.7	6.9	6.7	6.4	6.6	6.6	6.3	6.4
25	7.1	6.8	7.0	7.0	6.5	6.8	6.5	6.0	6.3	6.6	6.3	6.4
26	6.9	6.6	6.8	6.8	6.5	6.6	6.6	6.3	6.4	6.6	6.3	6.4
27	7.0	6.5	6.7	6.8	6.4	6.6	6.5	6.2	6.3	6.7	6.4	6.5
28	6.9	6.6	6.8	6.9	6.5	6.7	6.6	6.3	6.4	6.6	6.3	6.5
29	6.9	6.6	6.7	6.8	6.6	6.7	6.7	6.4	6.6	6.5	6.3	6.4
30	7.0	6.6	6.8	6.8	6.5	6.7	6.7	6.5	6.7	6.4	6.1	6.3
31	6.9	6.6	6.8	---	---	---	6.6	6.4	6.5	6.5	6.1	6.3
MONTH	7.1	6.5	6.9	7.2	6.4	6.8	7.0	6.0	6.6	6.7	6.0	6.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.6	6.2	6.4	6.7	6.2	6.5						
2	6.8	6.4	6.6	6.8	6.3	6.5						
3	6.4	6.1	6.3	6.6	6.1	6.4						
4	6.4	6.0	6.2	6.7	6.1	6.3						
5	6.3	5.9	6.2	6.6	6.0	6.3						
6	6.4	5.9	6.2	6.7	6.0	6.4						
7	6.7	6.2	6.4	6.8	6.0	6.4						
8	6.6	6.2	6.4	7.3	6.3	6.8						
9	6.4	6.0	6.2	7.2	6.4	6.9						
10	6.5	6.1	6.3	7.3	6.5	6.9						
11	6.8	6.4	6.6	7.2	6.5	6.8						
12	2.1	.0	.9	7.4	6.4	6.9						
13	---	---	---	7.8	6.8	7.3						
14	---	---	---	7.1	6.4	6.7						
15	---	---	---	7.4	6.4	7.0						
16	---	---	---	7.4	6.6	7.0						
17	7.2	6.5	6.7	7.2	6.3	6.8						
18	7.2	6.2	6.6	7.1	6.2	6.6						
19	6.7	6.2	6.4	---	---	---						
20	6.5	6.2	6.4	---	---	---						
21	6.4	6.0	6.2	---	---	---						
22	6.2	5.7	6.0	---	---	---						
23	6.1	5.6	5.9	---	---	---						
24	6.1	5.6	5.8	---	---	---						
25	6.2	5.9	6.1	---	---	---						
26	6.5	6.2	6.3	---	---	---						
27	6.7	6.1	6.4	---	---	---						
28	6.8	6.3	6.5	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	7.2	.0	6.1	7.8	6.0	6.7						

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	6.5	5.7	6.1	8.0	7.1	7.5	9.4	8.3	8.9	11.2	10.4	10.9
2	6.5	5.8	6.1	8.2	7.0	7.6	9.5	8.3	9.0	11.2	10.4	10.8
3	6.3	5.7	6.0	8.3	7.2	7.8	9.3	7.9	8.8	11.2	10.2	10.8
4	6.4	5.5	6.0	8.3	7.3	7.9	9.9	8.5	9.2	11.2	10.2	10.8
5	6.4	5.4	6.0	8.2	7.3	7.8	10.2	8.9	9.6	11.4	10.3	11.0
6	6.5	5.5	6.1	8.3	7.4	7.9	10.3	9.2	9.8	11.5	10.7	11.1
7	6.7	5.7	6.3	8.3	7.4	8.0	10.3	9.0	9.7	11.4	10.6	11.0
8	6.6	5.7	6.2	8.3	7.4	8.0	10.1	8.9	9.6	11.3	10.4	10.9
9	---	---	---	8.5	7.5	8.0	9.9	8.7	9.3	11.3	10.6	11.0
10	---	---	---	8.4	7.2	7.9	9.8	8.6	9.3	11.3	10.5	10.9
11	---	---	---	8.7	7.3	8.0	9.8	8.5	9.2	11.3	10.5	10.9
12	---	---	---	9.4	8.0	8.7	9.7	8.5	9.2	11.1	10.4	10.8
13	---	---	---	9.5	8.5	9.1	9.7	8.5	9.2	11.2	10.4	10.9
14	---	---	---	9.4	8.4	9.0	9.8	8.5	9.3	11.2	10.4	10.9
15	---	---	---	9.3	8.4	8.9	9.9	8.4	9.3	11.0	10.2	10.7
16	7.4	6.6	7.1	9.3	8.5	9.0	9.9	8.8	9.5	11.0	10.3	10.7
17	7.4	6.4	6.9	9.3	8.4	9.0	10.0	8.9	9.5	10.9	10.1	10.6
18	7.5	6.5	7.1	9.4	8.7	9.1	10.1	9.1	9.6	11.1	10.2	10.7
19	7.4	6.4	7.0	9.6	8.5	9.2	9.9	8.8	9.4	11.1	10.3	10.7
20	7.5	6.3	6.9	9.7	8.8	9.3	10.2	8.9	9.6	11.0	10.2	10.6
21	7.5	6.4	7.1	9.6	8.7	9.2	10.5	9.1	9.8	10.8	10.0	10.5
22	7.5	6.4	7.1	9.6	8.5	9.1	10.6	9.2	9.9	10.8	10.1	10.5
23	7.5	6.5	7.1	9.7	8.6	9.2	10.6	9.3	10.0	10.8	10.0	10.5
24	7.8	6.5	7.2	9.6	8.6	9.2	10.5	9.4	10.0	10.8	10.0	10.5
25	8.2	7.1	7.6	9.4	8.2	8.9	11.9	8.9	10.0	10.8	10.0	10.4
26	7.9	6.8	7.4	9.3	8.1	8.8	11.1	9.9	10.5	10.7	9.9	10.4
27	8.0	6.8	7.4	9.3	8.0	8.8	11.0	10.1	10.6	10.6	9.8	10.2
28	8.0	7.0	7.5	9.6	8.5	9.1	11.2	10.3	10.9	10.5	9.7	10.2
29	8.0	6.9	7.4	9.4	8.6	9.1	11.3	10.4	11.0	10.5	9.6	10.1
30	8.0	6.9	7.5	9.4	8.2	8.9	11.3	10.6	11.1	10.5	9.4	10.1
31	8.0	6.9	7.5	---	---	---	11.3	10.5	11.0	10.6	9.4	10.1
MONTH	8.2	5.4	6.9	9.7	7.0	8.6	11.9	7.9	9.7	11.5	9.4	10.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.8	9.7	10.3	9.3	9.0	9.1						
2	11.1	10.1	10.6	9.3	8.9	9.1						
3	10.7	9.4	10.2	9.2	8.9	9.0						
4	10.7	9.4	10.1	9.6	8.8	9.1						
5	10.6	9.3	10.0	9.4	8.2	9.1						
6	11.0	9.6	10.2	9.4	8.7	9.1						
7	10.7	9.4	10.1	9.5	8.7	9.1						
8	10.7	9.3	10.1	9.7	8.9	9.3						
9	10.5	9.0	9.9	9.7	8.8	9.3						
10	10.5	9.1	9.9	9.6	8.7	9.2						
11	11.1	9.5	10.5	9.6	8.5	9.1						
12	12.2	.0	11.2	9.4	8.5	9.0						
13	---	---	---	9.4	8.6	9.0						
14	---	---	---	9.3	8.5	8.9						
15	---	---	---	9.6	8.8	9.2						
16	---	---	---	9.6	8.7	9.2						
17	8.0	3.8	7.0	9.8	8.6	9.3						
18	8.1	7.6	7.8	9.8	8.7	9.3						
19	8.3	7.5	7.8	---	---	---						
20	8.2	7.6	7.8	---	---	---						
21	8.3	7.6	7.9	---	---	---						
22	8.6	7.8	8.2	---	---	---						
23	8.7	8.2	8.5	---	---	---						
24	9.2	8.5	8.7	---	---	---						
25	9.2	8.6	9.0	---	---	---						
26	9.5	9.1	9.3	---	---	---						
27	9.5	9.2	9.3	---	---	---						
28	9.5	9.0	9.2	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	12.2	.0	9.3	9.8	8.2	9.1						

01482200 ARMY CREEK AT STATE ROAD, DE

LOCATION.--Lat 39°38'56", long 75°37'18", New Castle County, Hydrologic Unit 02040205, on left bank at downstream end of culvert on U.S. Highway 13, 0.2 mi (0.3 km) south of State Road, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--2.42 mi² (6.27 km²).

PERIOD OF RECORD.--October 1978 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Concrete control since Sept. 24, 1979. Altitude of gage is 10 ft (3.0 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge known, 184 ft³/s (5.21 m³/s) Jan. 21, 1979, gage height, 4.09 ft (1.247 m); minimum daily discharge, 0.01 ft³/s (<0.001 m³/s) many days during August, September, October 1980, and August, September 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 65 ft³/s (1.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 15	1615	129 3.65	3.81 1.161	July 21	Unknown	Unknown	Unknown
June 20	1415	79 2.24	3.25 0.991	Aug. 8	Unknown	*Unknown	Unknown

Minimum daily discharge, 0.01 ft³/s (<0.001 m³/s) many days during October, August, and September.

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	.02	.09	.11	.12	.07	.19	2.4	.80	.06	.10	.02	.01
2	.05	.08	.11	.13	3.6	.14	.80	4.2	1.6	.40	.02	.01
3	.84	.06	.09	.10	.46	.11	.27	.54	.19	.15	.10	.02
4	.65	.53	.06	.07	.14	.09	.21	.30	.16	1.5	.06	.02
5	.06	.20	.06	.04	.08	1.2	1.4	.21	.15	.50	.04	.02
6	.03	.07	.06	.04	.07	.78	.68	.16	.08	.10	.03	.02
7	.02	.07	.07	.09	.09	.41	.27	.14	.06	.05	.03	.02
8	.02	.08	.07	.07	1.0	.27	.21	.09	.04	.03	35	.21
9	.02	.14	.19	.04	.33	.21	.36	.09	.16	.03	3.0	.13
10	.02	.07	.20	.04	.17	.17	.21	.09	.27	.03	2.0	.01
11	.06	.06	.11	.04	9.1	.34	.21	17	.07	.03	.15	.01
12	.02	.06	.16	.04	1.5	.21	1.7	2.7	.04	.03	.10	.09
13	.01	.06	.09	.04	.28	.16	.51	.57	.46	.03	.05	.16
14	.02	.06	.09	.03	.21	.12	5.4	.30	.53	.05	.06	.17
15	.02	.08	.11	.05	.18	.12	1.1	23	.08	.02	.28	1.2
16	.02	.06	.26	.07	.18	.28	.38	1.8	.03	.02	4.7	5.4
17	.02	.84	.14	.07	.21	.15	.34	.43	3.1	.02	.08	.26
18	.48	2.8	.08	.07	.22	.10	.22	.27	.18	.02	.03	9.9
19	.40	.25	.09	.16	.22	.09	.22	.54	.07	.30	.02	1.4
20	.06	.17	.06	.26	1.3	.09	.34	.24	3.0	1.2	.01	.19
21	.04	.14	.04	.28	.70	.09	.19	.19	.50	25	.01	.10
22	.02	.13	.03	.32	.36	.08	.17	.17	.30	.20	.01	.06
23	.02	.10	.22	.31	1.4	.10	.31	.12	.20	.02	.01	.04
24	.02	3.9	.51	.28	1.1	.08	.72	.10	.14	.02	.01	.03
25	15	1.4	.23	.24	.28	.07	.21	.09	1.8	.02	.01	.02
26	1.6	.20	.06	.22	.20	.08	.18	.08	.15	.02	.01	.03
27	.24	.16	.06	.23	.16	.09	.17	.07	.10	.02	.01	.05
28	.22	.76	.12	.19	.18	.09	.91	.62	.07	.04	.01	.02
29	.18	.20	.24	.16	---	.09	.90	.19	.05	.08	.01	.02
30	.10	.13	.21	.10	---	.71	.28	.12	.04	.04	.01	.01
31	.09	---	.13	.07	---	.25	---	.08	---	.03	.01	---
TOTAL	20.37	12.95	4.06	3.97	23.79	6.96	21.27	55.30	13.68	30.10	45.89	19.63
MEAN	.66	.43	.13	.13	.85	.22	.71	1.78	.46	.97	1.48	.65
MAX	15	3.9	.51	.32	9.1	1.2	5.4	23	3.1	25	35	9.9
MIN	.01	.06	.03	.03	.07	.07	.17	.07	.03	.02	.01	.01
CFSM	.27	.18	.05	.05	.35	.09	.29	.74	.19	.40	.61	.27
IN.	.31	.20	.06	.06	.37	.11	.33	.85	.21	.46	.71	.30

CAL YR 1980 TOTAL 300.95 MEAN .82 MAX 16 MIN .01 CFSM .34 IN 4.62
WTR YR 1981 TOTAL 257.97 MEAN .71 MAX 35 MIN .01 CFSM .29 IN 3.96

DELAWARE RIVER BASIN

01482298 RED LION CREEK NEAR RED LION, DE

LOCATION.--Lat 39°36'16", long 75°40'06", New Castle County, Hydrologic Unit 02040205, on left bank at downstream side of culvert on U.S. Highway 301S, 0.2 mi (0.3 km) southwest of Red lion, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--3.08 mi² (7.98 km²).

PERIOD OF RECORD.--October 1978 to September 1981 (discontinued).

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

REMARKS.--Records poor. Several observations of water temperature were made during the period October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 425 ft³/s (12.0 m³/s) Feb. 26, 1979, gage height, 6.51 ft (1.984 m); minimum daily discharge, 0.04 ft³/s (0.001 m³/s) Sept. 13, 14, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1100	119 3.37	5.45 1.661	June 20	0730	165 4.67	5.99 1.826
May 15	1930	*171 4.84	6.05 1.844				

Minimum daily discharge, 0.04 ft³/s (0.001 m³/s) Sept. 13, 14.

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	.15	.32	.21	.62	.50	1.3	5.7	5.3	.73	.80	.15	.08
2	.15	.29	.26	.62	4.5	1.1	5.9	21	3.2	1.7	.13	.05
3	.45	.34	.56	.59	.86	.89	1.9	3.8	1.7	1.0	.32	.05
4	.36	.47	.65	.56	.59	.81	1.5	2.0	1.4	2.8	.45	.05
5	.26	.47	.81	.59	.52	4.0	2.5	1.5	.98	2.8	.42	.05
6	.21	.45	.82	.69	.49	5.4	6.2	1.5	.72	1.6	.19	.05
7	.21	.53	.85	.76	.48	3.3	1.7	1.3	.54	.89	.21	.06
8	.15	.62	.81	.73	1.3	2.0	1.4	1.1	.43	.59	3.6	.13
9	.13	.80	.82	.70	.67	1.5	1.4	1.0	.52	.45	1.1	.26
10	.13	.56	.83	.60	.47	1.3	1.3	.94	.59	.34	.73	.12
11	.19	.36	.81	.50	23	1.5	1.3	24	.54	.23	.53	.10
12	.19	.36	.81	.40	6.6	1.5	8.7	17	.40	.21	.42	.07
13	.13	.40	.85	.35	1.4	1.4	2.9	4.3	.34	.19	.34	.04
14	.12	.42	.85	.40	1.1	1.2	25	2.5	3.5	.19	.19	.04
15	.13	.42	.81	.70	.85	1.1	12	37	.98	.13	.29	.38
16	.14	.47	.89	.90	.84	1.5	4.5	27	.69	.15	2.3	3.8
17	.14	.56	.89	.75	.88	1.4	3.4	6.5	.42	.19	.62	.62
18	.23	4.0	.82	.75	.90	1.3	2.7	3.6	.36	.15	.36	11
19	.36	.42	.85	.80	.89	1.1	2.2	3.3	.34	.13	.23	2.5
20	.23	.34	.69	1.1	3.0	1.1	2.2	3.2	37	1.2	.17	.85
21	.17	.29	.65	1.2	3.6	.94	1.6	2.0	7.7	1.2	.11	.62
22	.17	.29	.65	1.6	2.0	.87	1.5	1.5	3.4	.47	.08	.47
23	.17	.23	.85	1.5	4.9	.89	1.7	1.2	2.0	.36	.11	.32
24	.19	4.7	1.0	.94	5.4	.88	3.2	1.0	1.3	.32	.07	.31
25	25	1.7	.76	.69	2.0	.83	1.5	.98	12	.29	.06	.28
26	1.7	.29	.53	.65	1.5	.81	1.3	.80	15	.26	.06	.21
27	.45	.19	.62	.69	1.2	.82	1.2	.69	2.9	.26	.06	.21
28	.45	.62	.80	.62	1.2	.76	.98	1.2	1.7	.65	.05	.18
29	.36	.34	1.0	.59	---	.76	6.0	2.9	1.2	.94	.05	.14
30	.36	.23	.80	.53	---	1.5	1.5	1.7	.85	.34	.06	.17
31	.32	---	.62	.50	---	1.5	---	.98	---	.23	.09	---
TOTAL	33.40	21.48	23.17	22.62	71.64	45.26	114.88	182.79	103.43	21.06	13.55	23.21
MEAN	1.08	.72	.75	.73	2.56	1.46	3.83	5.90	3.45	.68	.44	.77
MAX	25	4.7	1.0	1.6	23	5.4	25	37	37	2.8	3.6	11
MIN	.12	.19	.21	.35	.47	.76	.98	.69	.34	.13	.05	.04
CFSM	.35	.23	.24	.24	.83	.47	1.24	1.92	1.12	.22	.14	.25
IN.	.40	.26	.28	.27	.86	.55	1.39	2.21	1.25	.25	.16	.28

CAL YR 1980 TOTAL 1037.68 MEAN 2.84 MAX 34 MIN .09 CFSM .92 IN 12.53
WTR YR 1981 TOTAL 676.49 MEAN 1.85 MAX 37 MIN .04 CFSM .60 IN 8.17

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 mi² (29,000 km²), 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.

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; 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 PERIOD OCTOBER 1979 TO SEPTEMBER 1981.--

SPECIFIC CONDUCTANCE: Maximum, 26,400 micromhos Feb. 1, 1981; minimum, 160 micromhos Apr. 20, 1980.

pH: Maximum, 8.3 units Feb. 27, 28, 1980; minimum, 6.3 units Apr. 11, 12, 13, 14, 1980.

WATER TEMPERATURES: Maximum, 30.5°C Aug. 6, 7, 8, 1980; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 13.6 mg/L Dec. 17, 1979, Dec. 25, 1980; minimum, 4.4 mg/L July 27, 1980.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	10400	3400	5880	---	---	---	8560	2320	4220
2	---	---	---	9800	3400	5450	---	---	---	8360	2560	4290
3	9600	2760	5400	8360	2720	4600	---	---	---	7960	2400	4250
4	7920	2160	4220	8720	2720	4680	---	---	---	7000	2600	3870
5	8400	2040	4000	8320	2720	4320	10400	1800	3920	9240	3200	5100
6	6320	1560	2860	7120	2320	4070	8040	1600	3470	10000	3760	6620
7	4200	1200	2180	5560	2160	3280	8400	1960	3460	9640	3600	6700
8	2160	800	1510	7560	2200	3700	6560	600	2180	5600	2720	3680
9	1560	800	1110	5960	2200	3420	7520	800	2050	5960	2760	4040
10	2600	760	1140	5920	1920	3090	7000	800	2210	6400	2760	4290
11	3520	560	1440	5400	1800	3090	9640	1000	4050	7400	2960	5140
12	2200	400	971	7000	2600	4620	10000	800	2990	6160	1760	3480
13	2000	400	713	10600	2600	6160	5400	800	2440	4560	1400	2740
14	4720	400	1480	11200	3200	6570	7640	1160	4180	8000	2200	4790
15	8040	400	4040	11200	2840	7450	8440	2040	5160	8720	3000	5660
16	9560	840	4070	10400	2800	6030	9560	2600	5190	10200	3200	6230
17	10000	1600	5280	10400	2160	5540	6600	1920	3510	7400	3640	5130
18	10000	2440	5570	8800	2200	4510	8840	2000	4360	5520	4200	4700
19	9160	2800	5200	9920	2800	5480	10200	2440	5150	4840	4000	4470
20	9520	2960	5440	9960	3200	5460	11100	3960	6460	4840	4000	4320
21	8800	2800	4960	10200	3200	5690	10600	3760	6670	9360	3800	5100
22	7560	2760	4450	10000	3600	5600	9360	3960	6180	9120	3800	5270
23	8440	2720	4960	9120	3640	5370	9360	4000	5950	10200	3800	5970
24	8800	2800	4990	7760	3400	4930	9160	4000	5960	6600	3520	4430
25	7800	2360	4080	7920	3200	4750	8440	4560	6140	7200	2960	4100
26	7640	2000	3880	8800	3520	5650	7120	4000	5150	6400	2840	3980
27	11200	2040	5310	4840	2040	3420	7520	3000	4240	8440	2400	4270
28	10200	2800	6070	4400	800	2580	5920	2720	3500	10300	2840	5310
29	10000	2800	5410	---	---	---	5160	2000	3060	10600	2960	5100
30	10400	2840	5640	---	---	---	6800	2040	3310	8720	2560	4250
31	12000	3240	5970	---	---	---	8440	2200	3930	10800	2720	5620
MONTH	12000	400	3870	11200	800	4840	11100	600	4250	10800	1400	4750

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10700	3600	6050	16000	10200	11800	---	---	---	4440	960	2170
2	---	---	---	14700	11400	---	---	---	---	6000	760	2400
3	---	---	---	---	---	---	---	---	---	6320	800	2520
4	---	---	---	18600	10400	---	---	---	---	5520	800	1840
5	---	---	---	20600	11600	17000	---	---	---	5000	800	2110
6	---	---	---	19200	9240	13500	---	---	---	6160	840	2560
7	---	---	---	20000	8840	14800	---	---	---	6000	1000	2740
8	---	---	---	19600	9520	13900	---	---	---	5640	1160	2870
9	---	---	---	17600	10000	12300	---	---	---	6360	1240	3010
10	---	---	---	18800	10400	13900	840	360	---	8160	1360	3600
11	---	---	---	20600	9960	14300	840	320	476	7160	1600	3360
12	---	---	---	14800	7760	10500	440	320	377	7240	1520	2890
13	---	---	---	17400	7800	11600	440	320	378	6040	1400	2990
14	---	---	---	18600	9600	13600	800	320	415	6960	1360	2910
15	---	---	---	12000	8040	9780	1120	200	443	5760	1240	2680
16	---	---	---	11600	7200	8730	440	320	408	6040	1360	2780
17	---	---	---	12000	6840	---	720	200	---	6800	1400	2740
18	---	---	---	---	---	---	440	200	344	5960	1640	2920
19	---	---	---	9200	5600	---	360	200	284	4840	1600	2570
20	---	---	---	12000	4800	6720	560	160	292	5400	1560	2530
21	---	---	---	11200	5600	7750	320	200	301	5120	1800	3140
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	5200	840	---	---	---	---
26	16000	11400	---	---	---	---	6200	960	2750	---	---	---
27	20400	11100	15200	---	---	---	5760	1360	3130	11600	3800	7200
28	17800	11200	13500	---	---	---	6840	1400	3780	11800	3800	6900
29	16600	10400	12700	---	---	---	6840	1400	3840	12700	4400	7160
30	---	---	---	---	---	---	5560	1400	2870	13000	4720	7730
31	---	---	---	---	---	---	---	---	---	12600	5120	7680
MONTH	20400	3600	11900	20600	4800	12000	6840	160	1340	13000	760	3620

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12600	4960	7710	15100	7600	10100	15200	8160	10700	16800	10400	12700
2	12800	5120	7730	15400	7640	10500	14000	7960	10200	15800	9120	11900
3	12000	5360	7800	14000	7400	9650	13100	7800	9700	16000	9200	11400
4	12400	4800	7460	14000	7360	9800	16300	7760	10600	17000	9240	12100
5	12400	5000	8220	14400	7640	10500	16000	8720	11100	16800	10000	12600
6	13600	5600	8880	13500	7600	9790	15400	8400	10700	17000	10200	12500
7	13000	5760	8870	14700	7400	10000	16000	8000	10200	16200	10000	12400
8	14400	5800	8780	13000	8000	10100	15800	8000	10700	17000	10600	13100
9	13400	5120	8320	15200	7160	9610	16000	7600	10300	17200	10800	13200
10	13100	5520	8120	15200	7200	9970	16200	7760	10500	16800	9600	12400
11	12800	5600	7850	15500	7760	10400	16400	8160	11200	16000	9640	12400
12	12800	5520	7870	15900	8200	10600	16000	8320	10800	16200	9920	12300
13	13200	5600	7920	15100	8320	10700	15600	8200	11000	16200	10200	12800
14	13600	5800	8310	15600	8320	11000	16000	8760	11600	16400	10800	13200
15	13900	6160	9190	15800	8800	11200	15600	8400	11100	15100	11100	12700
16	13400	6160	8310	14300	7800	10200	15200	8040	10500	21000	11800	15700
17	12800	6000	8450	---	---	---	15800	8160	12000	19900	14400	17000
18	14300	6600	9520	---	---	---	17600	9560	13000	18800	12300	14800
19	13200	6800	9550	---	---	---	17200	9360	12700	18800	11900	14600
20	14000	7200	9820	---	---	---	17800	9200	12800	19900	11800	15000
21	13200	6160	9050	13600	6720	---	18600	10600	13900	19000	12000	14500
22	13600	6160	9430	14200	6840	9800	19600	11500	15200	19400	11200	14000
23	15200	6400	9780	15000	6600	9810	19400	11400	14700	19200	11400	14300
24	14400	6560	9590	15800	6800	9540	18400	11400	13900	20400	11800	15000
25	14000	6000	9000	17000	7160	10500	18700	11200	13800	21200	13100	16400
26	14700	6000	9000	16200	7600	10500	18800	11200	13900	19600	12400	15900
27	15200	6560	9950	16000	7800	10400	18800	11200	14100	17800	11900	14100
28	14400	6800	9560	15200	7800	10500	18600	11200	14000	19200	12000	14300
29	16400	7240	10400	16000	8000	10800	18200	11600	14200	20400	12000	15000
30	15000	7560	10200	15600	7920	10900	17800	11600	14300	20000	13600	16300
31	---	---	---	14800	7960	10500	17000	11800	14100	---	---	---
MONTH	16400	4800	8820	17000	6600	10300	19600	7600	12200	21200	9120	13800

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	7.3	6.8	7.1	---	---	---	7.4	6.9	7.1
2	---	---	---	7.4	6.8	7.1	---	---	---	7.4	6.9	7.1
3	7.2	6.7	6.9	7.3	6.9	7.0	---	---	---	7.4	6.9	7.1
4	7.2	6.7	6.9	7.4	6.8	7.1	---	---	---	7.3	6.9	7.0
5	7.2	6.7	6.9	7.3	6.8	7.0	7.2	6.7	---	7.4	7.0	7.2
6	7.1	6.7	6.9	7.3	6.7	7.0	7.0	6.6	6.8	7.5	7.1	7.3
7	7.0	6.7	6.8	7.1	6.7	6.9	7.1	6.6	6.8	7.5	7.1	7.3
8	6.9	6.6	6.8	7.3	6.6	6.9	6.9	6.6	6.8	7.2	7.0	7.1
9	6.9	6.6	6.8	7.2	6.7	6.9	7.1	6.6	6.8	7.3	7.0	7.1
10	7.0	6.7	6.8	7.1	6.6	6.9	7.1	6.7	6.8	7.3	7.0	7.1
11	7.0	6.6	6.8	7.1	6.7	6.9	7.2	6.7	6.9	7.4	7.0	7.2
12	6.9	6.6	6.7	7.3	6.8	7.0	7.1	6.7	6.9	7.3	7.0	7.1
13	6.8	6.5	6.6	7.3	6.9	7.1	7.2	6.7	6.9	7.2	6.9	7.1
14	7.1	6.5	6.7	7.4	6.9	7.1	7.3	6.7	7.1	7.5	7.0	7.2
15	7.2	6.6	6.9	7.4	6.9	7.2	7.3	6.9	7.1	7.5	7.1	7.3
16	7.2	6.6	6.9	7.3	6.9	7.1	7.4	6.9	7.1	7.6	7.1	7.3
17	7.2	6.7	7.0	7.4	6.9	7.1	7.3	6.9	7.0	7.5	7.1	7.3
18	7.2	6.7	7.0	7.3	6.9	7.1	7.4	6.9	7.1	7.5	7.1	7.3
19	7.1	6.7	6.9	7.4	6.9	7.1	7.5	7.0	7.2	7.3	7.0	7.2
20	7.1	6.7	6.9	7.4	6.9	7.1	7.5	7.1	7.3	7.3	7.0	7.1
21	7.1	6.7	6.9	7.3	6.9	7.1	7.5	7.1	7.3	7.3	6.9	7.1
22	7.0	6.7	6.8	7.3	6.9	7.1	7.5	7.1	7.3	7.2	6.9	7.0
23	7.1	6.7	6.9	7.3	6.9	7.0	7.5	7.1	7.3	7.3	6.9	7.1
24	7.1	6.7	6.9	7.2	6.9	7.0	7.4	7.1	7.2	7.2	6.9	7.1
25	7.1	6.7	6.9	7.2	6.9	7.0	7.4	7.1	7.3	7.3	7.0	7.1
26	7.2	6.8	6.9	7.3	7.0	7.1	7.3	7.1	7.2	7.2	7.0	7.1
27	7.3	6.8	7.0	7.1	6.9	7.0	7.4	7.0	7.1	7.3	6.9	7.1
28	7.3	6.8	7.0	7.1	6.7	6.9	7.3	7.0	7.1	7.4	7.0	7.1
29	7.2	6.8	7.0	---	---	---	7.2	6.9	7.1	7.4	7.0	7.1
30	7.3	6.8	7.0	---	---	---	7.4	6.9	7.1	7.3	6.9	7.1
31	7.3	6.8	7.0	---	---	---	7.4	6.9	7.1	7.4	7.0	7.2
MONTH	7.3	6.5	6.9	7.4	6.6	7.0	7.5	6.6	7.1	7.6	6.9	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.1	7.3	8.2	7.8	8.0	---	---	---	7.0	6.6	6.8
2	---	---	---	8.1	7.9	---	---	---	---	7.1	6.5	6.8
3	---	---	---	---	---	---	---	---	---	7.1	6.5	6.8
4	---	---	---	8.9	8.1	---	---	---	---	7.0	6.5	6.7
5	---	---	---	8.5	8.1	8.3	---	---	---	7.0	6.5	6.7
6	---	---	---	8.5	8.1	8.3	---	---	---	7.1	6.6	6.8
7	---	---	---	8.5	8.1	8.3	---	---	---	7.1	6.6	6.8
8	---	---	---	8.6	8.1	8.3	---	---	---	7.1	6.6	6.8
9	---	---	---	8.5	8.1	8.3	---	---	---	7.2	6.6	6.9
10	---	---	---	8.6	8.1	8.3	6.6	6.4	---	7.3	6.7	6.9
11	---	---	---	8.4	7.9	8.1	6.5	6.3	6.4	7.3	6.8	7.0
12	---	---	---	8.2	7.8	8.0	6.5	6.3	6.4	7.3	6.8	6.9
13	---	---	---	8.4	7.8	8.0	6.5	6.3	6.4	7.2	6.8	7.0
14	---	---	---	8.4	7.9	8.2	6.5	6.3	6.4	7.3	6.8	7.0
15	---	---	---	8.2	7.8	8.0	6.6	6.4	6.5	7.2	6.8	7.0
16	---	---	---	8.2	7.8	7.9	6.5	6.4	6.5	7.3	6.9	7.1
17	---	---	---	8.3	7.8	---	6.5	6.3	6.4	7.3	6.9	7.1
18	---	---	---	---	---	---	6.5	6.4	6.4	7.3	7.0	7.1
19	7.6	7.4	---	7.9	7.5	---	6.5	6.4	6.4	7.2	6.9	7.1
20	8.0	7.4	7.7	8.1	7.5	7.7	6.5	6.4	6.4	7.2	6.9	7.0
21	8.0	7.7	7.8	8.1	7.6	7.8	6.4	6.4	6.4	7.2	7.0	7.1
22	8.0	7.7	7.8	---	---	---	---	---	---	---	---	---
23	8.0	7.7	7.8	---	---	---	---	---	---	---	---	---
24	8.0	7.7	7.8	---	---	---	---	---	---	---	---	---
25	8.0	7.6	7.8	---	---	---	7.0	6.6	---	---	---	---
26	8.1	7.7	7.9	---	---	---	7.1	6.6	6.8	---	---	---
27	8.3	7.8	8.1	---	---	---	7.1	6.6	6.8	7.6	7.2	7.4
28	8.3	7.9	8.0	---	---	---	7.2	6.7	6.9	7.6	7.1	7.3
29	8.2	7.8	8.0	---	---	---	7.1	6.7	6.9	7.6	7.1	7.3
30	---	---	---	---	---	---	7.0	6.7	6.8	7.6	7.1	7.4
31	---	---	---	---	---	---	---	---	---	7.6	7.2	7.4
MONTH	8.3	7.1	7.8	8.9	7.5	8.1	7.2	6.3	6.6	7.6	6.5	7.0

DELAWARE RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	.5	1.0	1.5	.0	1.0	---	---	---	15.0	14.0	14.5
2	---	---	---	1.0	.0	---	---	---	---	15.5	14.5	15.0
3	---	---	---	---	---	---	---	---	---	16.0	14.5	15.5
4	---	---	---	2.0	1.0	---	---	---	---	16.5	15.0	16.0
5	---	---	---	2.0	1.0	1.5	---	---	---	17.0	15.5	16.5
6	---	---	---	2.5	1.5	2.0	---	---	---	18.0	16.0	17.0
7	---	---	---	3.0	1.5	2.0	---	---	---	18.5	16.5	17.5
8	---	---	---	3.5	2.5	3.0	---	---	---	17.5	16.5	17.0
9	---	---	---	4.5	3.0	3.5	---	---	---	17.5	16.5	17.0
10	---	---	---	4.5	3.0	3.5	13.0	11.5	---	18.0	16.5	17.0
11	---	---	---	5.0	3.5	4.0	13.5	11.5	12.5	17.5	16.5	17.0
12	---	---	---	5.0	3.5	4.0	13.5	12.0	12.5	18.5	17.0	17.5
13	---	---	---	4.0	3.0	3.5	14.0	12.5	13.0	19.0	17.5	18.0
14	---	---	---	4.0	3.5	3.5	13.5	12.5	13.0	19.0	18.0	18.5
15	---	---	---	6.5	3.0	4.0	13.5	13.0	13.5	19.5	18.0	18.5
16	---	---	---	5.0	3.5	4.0	13.0	12.0	12.5	19.5	17.5	18.5
17	---	---	---	5.0	4.0	---	13.0	11.5	---	20.0	18.5	19.0
18	---	---	---	---	---	---	13.5	12.0	12.5	19.0	18.0	18.5
19	---	---	---	6.5	5.5	---	14.0	12.5	13.0	20.0	18.5	19.0
20	2.0	1.5	---	6.5	5.5	6.0	14.5	13.0	14.0	19.5	19.0	19.0
21	3.0	1.5	2.0	7.0	6.0	6.5	14.5	13.5	14.0	19.0	18.5	19.0
22	2.5	1.5	2.0	---	---	---	---	---	---	---	---	---
23	3.5	2.0	2.5	---	---	---	---	---	---	---	---	---
24	4.0	2.5	3.0	---	---	---	---	---	---	---	---	---
25	3.5	2.5	3.0	---	---	---	17.0	15.0	---	---	---	---
26	3.5	2.5	3.0	---	---	---	16.0	15.0	15.5	---	---	---
27	3.0	2.0	2.5	---	---	---	15.5	14.5	15.0	21.0	20.0	20.5
28	3.0	2.0	2.5	---	---	---	15.0	14.5	15.0	21.5	19.5	20.5
29	2.5	1.5	2.0	---	---	---	15.0	14.5	14.5	21.5	20.0	21.0
30	---	---	---	---	---	---	14.5	14.0	14.5	21.5	20.0	21.0
31	---	---	---	---	---	---	---	---	---	22.0	20.5	21.0
MONTH	4.0	.5	2.5	7.0	.0	3.5	17.0	11.5	13.5	22.0	14.0	18.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	22.5	21.0	22.0	26.0	24.5	25.0	29.5	28.0	28.5	28.5	27.0	27.5
2	23.0	21.5	22.5	26.0	24.5	25.5	29.5	28.0	28.5	29.0	27.5	28.0
3	23.5	22.0	22.5	25.5	25.0	25.5	29.5	28.0	28.5	29.0	27.5	28.0
4	23.5	22.0	22.5	27.0	25.0	26.0	30.0	28.5	29.0	29.0	27.0	28.0
5	23.0	22.0	22.5	27.0	25.5	26.0	30.0	28.5	29.0	28.0	27.0	27.5
6	22.5	22.0	22.5	27.0	25.5	26.5	30.5	29.0	29.5	28.5	27.0	27.5
7	24.0	22.0	22.5	27.0	25.5	26.0	30.5	29.0	29.5	28.0	27.0	27.5
8	23.5	22.0	23.0	26.0	25.0	25.5	30.5	29.0	29.5	28.0	26.0	27.0
9	22.5	21.5	22.0	27.0	25.0	26.0	30.0	29.0	29.5	27.0	26.5	26.5
10	22.0	21.0	21.5	27.5	25.5	26.0	30.0	29.0	29.5	27.0	26.0	26.5
11	22.5	20.5	21.5	27.5	26.0	26.5	30.0	29.0	29.5	26.5	25.0	26.0
12	22.5	21.0	21.5	27.0	26.0	26.5	29.5	28.5	29.5	26.5	25.0	25.5
13	22.5	21.0	22.0	27.5	25.5	26.5	29.5	28.5	29.0	26.0	25.0	25.5
14	23.5	21.5	22.0	28.0	26.0	27.0	29.0	28.5	29.0	26.5	25.0	25.5
15	23.0	21.5	22.5	27.5	26.0	27.0	29.0	28.0	28.5	26.0	24.5	25.5
16	22.5	22.0	22.5	28.0	26.5	27.0	28.5	27.0	28.0	25.5	24.0	24.5
17	23.0	21.5	22.5	---	---	---	28.0	26.5	27.0	25.0	24.0	24.5
18	23.0	21.5	22.0	---	---	---	27.0	26.0	26.5	25.0	24.0	24.5
19	23.5	22.0	22.5	---	---	---	26.5	26.0	26.0	25.5	24.0	24.5
20	23.0	22.0	22.0	---	---	---	27.0	26.0	26.5	24.5	24.0	24.5
21	23.0	22.0	22.5	29.0	28.5	---	26.5	25.5	26.0	25.5	24.0	24.5
22	24.0	22.0	22.5	30.0	28.0	29.0	26.0	25.0	25.5	26.0	24.5	25.0
23	25.0	22.5	23.0	29.0	28.0	28.5	26.5	25.0	25.5	25.5	24.5	25.0
24	24.5	23.0	23.5	29.0	28.0	28.5	27.5	25.0	26.0	25.0	24.0	24.5
25	25.0	23.5	24.0	29.5	27.5	28.5	27.0	25.5	26.0	24.0	23.5	24.0
26	24.5	23.5	24.0	29.5	27.5	28.5	27.5	25.5	26.5	24.0	23.0	23.5
27	25.5	23.5	24.5	29.0	28.0	28.5	27.5	26.0	26.5	23.0	22.0	22.5
28	25.5	24.0	25.0	28.5	27.5	28.0	28.0	26.5	27.0	22.5	21.5	22.0
29	25.5	23.5	25.0	28.5	27.5	28.0	27.5	26.5	27.0	22.0	21.0	22.0
30	25.5	24.5	25.0	29.0	28.0	28.5	27.5	26.5	27.0	22.0	21.0	21.5
31	---	---	---	29.0	28.0	28.5	28.0	27.0	27.5	---	---	---
MONTH	25.5	20.5	23.0	30.0	24.5	27.0	30.5	25.0	28.0	29.0	21.0	25.5

DELAWARE RIVER BASIN

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	8.8	7.8	8.4	---	---	---	11.6	10.8	11.2
2	---	---	---	8.8	8.0	8.5	---	---	---	11.5	10.8	11.1
3	6.8	5.9	6.4	8.8	8.2	8.5	---	---	---	11.6	10.8	11.2
4	6.5	5.6	6.1	9.0	8.1	8.6	---	---	---	11.6	11.0	11.3
5	6.7	5.6	6.3	9.0	8.0	8.5	9.8	9.4	---	11.9	11.4	11.7
6	6.7	5.8	6.4	8.8	7.7	8.3	9.7	9.3	9.5	12.1	11.5	11.8
7	6.9	6.0	6.6	8.6	7.7	8.1	9.7	9.3	9.5	12.0	11.6	11.9
8	7.4	6.4	6.9	8.7	7.6	8.3	11.0	9.5	10.1	11.9	11.6	11.7
9	7.8	6.5	7.2	8.8	7.7	8.2	10.7	9.8	10.3	11.9	11.6	11.7
10	7.8	7.0	7.6	8.6	7.6	8.1	10.8	10.0	10.3	12.0	11.5	11.8
11	7.7	7.0	7.4	8.8	7.8	8.3	10.6	10.2	10.3	12.1	11.6	11.9
12	7.6	6.8	7.3	9.2	8.3	8.7	10.9	10.2	10.5	12.4	11.6	11.9
13	7.4	6.8	7.2	9.2	8.4	8.9	11.0	10.6	10.8	12.4	11.5	11.9
14	7.6	6.6	7.3	9.2	8.4	8.8	11.2	10.7	10.9	12.2	11.7	12.0
15	7.9	7.2	7.6	9.2	8.6	9.0	11.2	10.8	11.0	12.2	11.8	12.0
16	8.0	7.4	7.7	9.3	8.8	9.0	11.2	10.5	10.9	12.2	11.6	12.0
17	7.8	7.3	7.6	9.4	8.9	9.1	13.6	10.7	11.3	12.2	11.6	11.9
18	7.6	7.0	7.3	9.4	8.8	9.1	11.6	11.0	11.4	12.1	11.5	11.8
19	7.5	6.8	7.2	9.3	8.8	9.1	11.7	11.2	11.5	11.9	11.4	11.7
20	7.5	6.8	7.2	9.3	8.7	9.0	12.0	11.6	11.8	11.9	11.4	11.6
21	7.4	6.6	7.0	9.2	8.5	8.9	12.1	11.8	12.0	11.9	11.3	11.6
22	7.2	6.4	6.8	9.2	8.4	8.8	12.1	11.6	11.9	11.7	11.3	11.5
23	7.4	6.6	6.9	9.0	8.4	8.7	12.0	11.4	11.8	11.7	11.3	11.5
24	7.6	6.8	7.3	8.9	8.4	8.7	11.9	11.3	11.7	11.7	11.2	11.5
25	7.8	7.2	7.6	9.0	8.4	8.7	11.9	11.4	11.7	11.8	11.4	11.5
26	8.0	7.5	7.8	9.2	8.6	9.0	11.8	11.4	11.6	11.6	11.4	11.5
27	8.4	7.8	8.1	9.0	8.6	8.8	11.8	11.4	11.5	11.8	11.4	11.6
28	8.5	7.8	8.2	9.4	8.5	8.8	11.9	11.3	11.6	11.8	11.4	11.6
29	8.4	7.8	8.1	---	---	---	12.2	11.4	11.7	11.9	11.4	11.7
30	8.6	7.8	8.1	---	---	---	11.8	11.2	11.4	12.1	11.6	11.9
31	8.6	7.8	8.2	---	---	---	11.6	11.0	11.3	12.3	11.8	12.1
MONTH	8.6	5.6	7.3	9.4	7.6	8.7	13.6	9.3	11.1	12.4	10.8	11.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.7	12.1	12.4	---	---	---	---	---	---	7.2	6.7	6.9
2	---	---	---	---	---	---	---	---	---	7.2	6.8	7.0
3	---	---	---	---	---	---	---	---	---	7.1	6.7	6.9
4	---	---	---	---	---	---	---	---	---	7.2	6.6	6.9
5	---	---	---	---	---	---	---	---	---	7.0	6.5	6.8
6	---	---	---	---	---	---	---	---	---	8.0	6.9	7.4
7	---	---	---	---	---	---	---	---	---	7.6	7.0	7.3
8	---	---	---	---	---	---	---	---	---	7.3	6.6	6.9
9	---	---	---	---	---	---	---	---	---	7.5	6.4	7.0
10	---	---	---	13.3	12.4	---	9.8	9.4	---	7.8	6.8	7.3
11	---	---	---	13.2	11.8	12.4	9.4	9.0	9.2	7.9	7.3	7.5
12	---	---	---	12.2	11.6	11.9	9.2	8.8	8.9	8.8	7.3	7.8
13	---	---	---	12.3	11.6	11.9	8.9	8.6	8.8	8.4	7.9	8.1
14	---	---	---	12.3	11.6	12.0	8.8	8.5	8.7	8.3	7.8	8.0
15	---	---	---	12.6	10.6	11.7	8.9	8.5	8.7	8.6	7.8	8.1
16	---	---	---	12.7	11.4	11.7	9.2	8.6	8.9	8.5	7.8	8.1
17	---	---	---	12.0	11.4	---	9.1	8.0	---	8.4	7.7	8.1
18	---	---	---	---	---	---	8.9	8.5	8.7	8.4	7.9	8.2
19	---	---	---	12.0	11.3	---	8.6	8.1	8.4	8.4	7.8	8.1
20	---	---	---	12.1	11.1	11.5	8.2	7.5	7.9	8.2	7.6	7.8
21	---	---	---	11.9	10.9	11.3	7.8	7.6	7.7	7.9	7.6	7.7
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	7.8	7.4	---	---	---	---
26	---	---	---	---	---	---	7.7	7.2	7.4	---	---	---
27	---	---	---	---	---	---	7.9	7.1	7.4	7.8	7.2	7.6
28	---	---	---	---	---	---	8.1	7.5	7.8	8.0	7.2	7.5
29	---	---	---	---	---	---	8.0	6.8	7.4	8.0	7.3	7.6
30	---	---	---	---	---	---	6.9	6.5	6.7	8.2	7.2	7.6
31	---	---	---	---	---	---	---	---	---	7.9	7.1	7.5
MONTH	12.7	12.1	12.4	13.3	10.6	11.8	9.8	6.5	8.2	8.8	6.4	7.5

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued
 OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.7	6.9	7.3	7.1	6.2	6.5	6.0	5.4	5.7	6.1	5.4	5.7
2	7.6	6.8	7.2	6.8	6.2	6.4	6.2	5.4	5.7	6.2	5.4	5.7
3	7.4	6.7	7.0	6.4	5.8	6.2	6.0	5.5	5.8	6.0	5.3	5.7
4	7.2	6.5	6.8	6.3	5.7	6.0	6.3	5.5	5.9	6.6	5.3	5.8
5	6.8	6.2	6.5	6.2	5.6	5.9	6.4	5.6	5.9	6.3	5.5	5.9
6	6.5	5.9	6.2	6.4	5.6	6.0	6.4	5.5	5.9	6.8	5.5	6.0
7	6.3	5.7	6.1	6.4	5.8	6.0	6.4	5.5	5.9	6.5	5.7	6.1
8	6.1	5.0	5.7	6.4	5.7	6.0	6.2	5.4	5.9	7.2	5.8	6.2
9	6.6	5.2	6.1	6.4	5.6	6.0	6.2	5.4	5.8	6.9	5.8	6.2
10	7.6	6.6	7.1	6.4	5.8	6.1	6.8	5.4	5.9	6.6	5.7	6.1
11	8.0	6.9	7.4	6.3	5.6	5.9	6.6	5.4	5.9	6.6	5.8	6.1
12	7.9	7.1	7.4	6.4	5.7	6.0	6.3	5.4	5.8	6.8	5.8	6.1
13	7.8	7.0	7.4	6.6	5.8	6.1	6.6	5.5	5.9	6.6	5.9	6.2
14	8.0	7.0	7.3	6.8	5.8	6.1	7.2	5.7	6.2	6.5	5.9	6.1
15	7.4	6.8	7.2	6.6	5.9	6.2	6.7	5.6	6.0	6.3	5.8	6.0
16	7.2	7.0	---	6.6	6.0	6.2	6.6	5.5	6.0	6.7	5.9	6.2
17	---	---	---	---	---	---	6.9	5.8	6.2	6.9	6.1	6.5
18	---	---	---	---	---	---	6.4	5.8	6.0	6.9	6.2	6.5
19	---	---	---	---	---	---	6.2	5.7	5.9	7.0	6.2	6.5
20	---	---	---	---	---	---	6.4	5.6	6.0	6.9	6.2	6.5
21	---	---	---	6.5	5.4	---	6.6	5.7	6.1	6.6	6.3	6.5
22	---	---	---	6.3	5.1	5.7	6.7	5.8	6.2	6.6	6.1	6.4
23	7.9	7.0	---	6.1	5.6	5.8	6.6	5.8	6.2	6.6	6.2	6.3
24	7.4	6.9	7.2	6.6	5.6	6.0	6.8	5.9	6.2	6.9	6.2	6.5
25	7.2	6.7	6.9	6.6	5.6	6.0	6.7	5.9	6.1	6.7	6.2	6.5
26	7.0	6.5	6.7	6.6	5.1	5.9	6.9	5.8	6.1	7.0	6.3	6.5
27	6.8	6.2	6.5	6.4	4.4	5.9	6.2	4.7	5.5	7.1	6.4	6.8
28	7.0	6.2	6.5	6.6	6.0	6.2	5.9	4.6	5.0	7.2	6.6	6.8
29	6.6	6.1	6.4	6.4	5.6	6.1	6.4	5.6	5.9	7.0	6.2	6.7
30	6.7	6.2	6.4	6.2	5.7	5.9	6.2	5.6	5.8	6.9	6.4	6.7
31	---	---	---	6.0	5.5	5.7	6.0	5.6	5.7	---	---	---
MONTH	8.0	5.0	6.8	7.1	4.4	6.0	7.2	4.6	5.9	7.2	5.3	6.3

DELAWARE RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	22200	13600	16700	13000	8440	10300	18600	12200	15000	23200	15800	20000
2	21000	14700	17800	15000	8000	11100	21400	12000	16200	25000	17200	20000
3	20800	14600	16900	15200	7200	11000	18200	8600	12600	23000	15200	18200
4	22000	14800	17800	13200	9360	11000	14000	7800	10000	21600	14800	17100
5	20000	14000	16200	12800	9200	11000	19000	7640	12700	21600	10800	16900
6	21400	14000	17000	16400	9600	12200	22000	11000	15900	25400	16000	19500
7	21600	14400	17800	15400	9760	11800	22200	11200	16200	23800	16000	19500
8	21900	14700	17300	14800	8840	11700	21500	12200	16000	22800	9600	16900
9	20200	14200	16600	17000	9640	12100	20600	12000	15300	23500	16200	18700
10	21000	14400	16800	16000	9800	12700	20400	12200	15700	22700	10800	18800
11	20400	14400	17300	11500	7240	9090	19200	11200	14900	24400	16200	19300
12	20000	14200	16800	15900	7560	10800	19600	11600	15000	21000	10200	16500
13	19600	13600	16200	24400	13400	17400	18000	10800	13700	22600	14000	18000
14	20400	13900	16300	22600	13400	18000	19400	9640	13700	22200	15600	18700
15	21800	12800	16800	23600	13200	18000	16600	10000	12200	21000	15200	17600
16	21200	13800	16800	22800	14800	18700	20000	10400	14700	22000	15500	18400
17	21600	14000	17100	21600	14700	18200	20000	12000	15600	19400	14800	17000
18	20400	14800	17100	23600	16200	19300	21800	11600	15500	22200	13200	18100
19	20700	12800	15600	24000	15000	19200	18400	11200	13700	23000	12800	18100
20	20800	13000	15900	25200	15500	19500	18600	10800	13300	21600	14600	17400
21	20300	13400	16400	25600	16000	19500	19400	11200	13900	21800	15200	17900
22	18800	13100	15400	23600	15400	18700	20000	11600	14200	22000	15200	18600
23	19200	13000	15400	26000	16200	19600	20600	11800	14900	21400	15600	18000
24	20800	13400	16100	25600	16400	20500	21600	12800	16000	21200	15200	17900
25	25500	15600	19300	22400	15800	19300	15400	7800	12700	20000	15400	17300
26	17200	11400	14600	20600	14400	16900	22600	12200	16600	20000	15400	17200
27	14400	10200	11800	20000	14600	16400	20400	12400	16400	19200	14000	16300
28	15600	10400	12200	23400	14700	19000	21600	13600	17800	19600	14200	16900
29	17200	10400	12600	20000	14800	17800	23800	15000	19200	21200	15000	18300
30	17500	10000	13000	18200	13400	15400	24400	15800	20600	22200	16600	19400
31	13900	5920	10600	---	---	---	24600	16000	19900	23600	15600	20000
MONTH	25500	5920	15900	26000	7200	15500	24600	7640	15200	25400	9600	18100

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	26400	18000	21400	14800	5680	10200	15900	7600	11500	15800	5840	9290
2	26200	18400	21500	15300	6120	10600	15200	8680	11600	15600	5640	9480
3	20800	14400	17200	13600	5120	9080	15000	7960	10300	16700	5840	9610
4	22200	14000	16700	15200	4360	9410	12600	7880	9900	17100	6720	10600
5	18800	13200	15500	15300	6000	9980	12900	6880	9350	18800	6720	10800
6	22000	13200	16800	16100	6600	10500	10800	6080	7990	15700	6600	9920
7	19800	13400	16000	13200	5920	8490	12100	5560	7690	12800	6440	8860
8	21600	14000	17400	16400	6560	10500	13200	5600	7900	16100	6080	9800
9	18600	12600	15100	16200	6720	11100	12200	5200	7540	13900	6440	9350
10	16300	12200	13900	14400	7000	9850	9840	4680	6270	13200	6400	8980
11	20500	13200	16700	12600	6720	9210	10600	4880	6600	13800	7000	9730
12	13700	9200	11200	12500	6520	---	11000	4440	6710	11900	5400	7960
13	13400	7520	9470	11100	6520	8410	12000	5400	8130	10400	3880	6240
14	14000	5680	8650	12000	5160	7560	---	---	---	7200	3120	4390
15	12500	5400	7500	13900	5200	8690	---	---	---	6080	2560	3750
16	12600	4960	7350	13800	4920	8060	8440	3920	5910	4360	1560	2850
17	12200	4520	6840	16800	5000	11000	8000	3720	5130	4520	1000	1750
18	10900	4520	6370	15000	6120	9100	8240	3520	4990	4320	880	1520
19	11100	4640	6860	16000	5840	10100	9200	3080	4670	5560	760	1600
20	12600	4600	7700	17500	7200	11900	10400	3280	5150	6360	680	1790
21	11100	4640	7300	16600	7840	11200	8320	3240	5130	7160	800	2230
22	9080	2920	5680	16800	8000	11800	10900	3440	5670	7560	1000	3050
23	7200	1920	4260	18600	9080	12900	9080	3360	5090	8600	1600	3970
24	5560	1640	2870	17400	8800	12700	10600	3640	6440	8960	1560	4630
25	3360	1440	1980	16400	8680	12100	9920	3360	5590	9600	1960	4440
26	8040	1840	4050	16700	9160	12400	12500	3920	8310	8400	2000	4240
27	11900	4000	8540	16500	8800	12000	13600	4280	8510	9520	2160	4970
28	13600	6680	10300	15300	7880	11000	14500	4560	9460	9000	2680	5220
29	---	---	---	16900	8920	12000	15500	5680	9640	9600	2800	5080
30	---	---	---	15000	8720	11000	14600	5560	9280	10600	3000	5160
31	---	---	---	15200	7640	10600	---	---	---	10300	3080	5090
MONTH	26400	1440	10900	18600	4360	10400	15900	3080	7520	18800	680	6010

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10200	3000	4900	14200	5560	8630	18400	9840	12800	---	---	---
2	11100	3360	5280	14600	5880	8510	18000	10100	12900	---	---	---
3	10600	3600	5820	14400	5760	8390	---	---	---	---	---	---
4	11600	3840	6160	14300	6120	8780	15900	10300	---	---	---	---
5	11200	3840	5880	12600	5600	8140	17600	10400	13200	---	---	---
6	11400	4280	6600	13400	5400	7920	17500	9920	13000	---	---	---
7	10600	4280	6140	12400	5440	7730	17100	9520	13000	---	---	---
8	10900	4160	6630	11800	5320	7810	17000	10500	13300	---	---	---
9	11500	4800	6520	13100	5440	8280	16000	8440	11800	---	---	---
10	10400	3960	6250	14700	5720	9280	16200	8400	11700	---	---	---
11	11000	4120	6690	15900	6080	10500	18400	8200	12300	---	---	---
12	14000	4280	7940	17400	6400	11300	18300	8800	12100	---	---	---
13	14600	4760	8250	17900	7760	12500	18000	8800	12200	---	---	---
14	14400	5640	8790	17600	7240	12000	18300	9160	12300	---	---	---
15	13900	5560	8580	19700	7440	12700	19000	9520	13200	---	---	---
16	14000	5440	8210	20200	8360	13200	18700	9800	12600	---	---	---
17	13500	5280	7710	19500	8840	13300	18200	9560	12600	---	---	---
18	13400	5120	7700	20000	9200	13700	18000	10000	13300	---	---	---
19	14200	5800	8440	20200	9640	14000	18800	10500	13900	---	---	---
20	13200	5520	8080	19900	10900	14200	18400	11800	14800	---	---	---
21	12800	5320	7830	18000	9240	13000	17600	12800	---	---	---	---
22	13100	5160	8320	17300	8840	11900	---	---	---	---	---	---
23	11600	4480	6660	17000	9040	12100	---	---	---	---	---	---
24	12300	4480	7320	17000	8960	12600	---	---	---	---	---	---
25	12800	4640	7510	17200	9680	12400	---	---	---	---	---	---
26	10100	3760	5890	18000	9680	12400	---	---	---	---	---	---
27	12200	3400	5850	17300	9760	12000	---	---	---	---	---	---
28	14100	3840	6540	19200	9480	12300	---	---	---	---	---	---
29	14100	4280	7200	16400	9600	12300	---	---	---	19600	12800	---
30	14500	4840	7770	17400	9200	12100	---	---	---	19500	12300	15200
31	---	---	---	19300	9640	12800	---	---	---	---	---	---
MONTH	14600	3000	7050	20200	5320	11200	19000	8200	12800	19600	12300	15200

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DELAWARE RIVER BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

DELAWARE RIVER BASIN

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.4	6.6	7.1	9.3	8.8	9.1	10.7	10.4	10.5	12.9	12.6	12.7
2	7.3	7.0	7.1	9.4	9.0	9.2	10.6	10.4	10.5	12.9	12.6	12.7
3	7.3	7.0	7.1	9.6	9.0	9.4	12.7	10.5	10.9	12.9	12.6	12.7
4	7.4	7.0	7.2	9.6	9.3	9.4	11.1	10.8	11.0	13.0	12.6	12.8
5	7.5	7.0	7.2	9.6	9.2	9.4	11.2	10.8	11.0	13.1	12.8	12.9
6	7.8	7.2	7.5	9.8	9.1	9.5	11.2	11.0	11.1	13.1	12.6	12.9
7	7.8	7.2	7.5	9.8	9.6	9.7	11.2	10.8	11.0	13.0	12.6	12.8
8	7.9	7.2	7.6	9.7	9.5	9.6	11.1	10.6	10.9	13.1	12.6	12.8
9	7.9	7.4	7.6	9.8	9.6	9.7	11.1	10.6	10.9	13.1	12.6	12.9
10	7.8	7.5	7.6	10.0	9.6	9.7	11.0	10.6	10.9	13.0	12.6	12.8
11	7.8	7.5	7.6	10.5	9.7	10.1	11.0	10.6	10.8	13.2	12.8	13.0
12	7.8	7.4	7.6	11.1	10.1	10.5	11.0	10.6	10.8	14.4	10.8	12.4
13	8.1	7.5	7.8	10.7	10.3	10.5	10.8	10.6	10.7	13.0	11.3	12.2
14	8.4	7.8	8.0	10.5	10.1	10.3	11.0	10.6	10.8	12.5	10.2	11.7
15	8.5	8.0	8.3	10.4	10.1	10.2	11.0	10.6	10.8	12.0	10.6	11.6
16	8.5	8.1	8.3	10.4	10.2	10.3	11.0	10.8	10.9	11.5	9.6	10.5
17	8.4	8.2	8.3	10.6	10.2	10.4	11.1	10.6	10.9	11.9	11.0	11.5
18	8.5	8.2	8.3	10.7	10.4	10.5	11.1	10.8	10.9	14.3	10.6	12.1
19	8.5	8.1	8.3	10.7	10.5	10.6	11.1	10.7	10.9	13.9	10.4	11.3
20	8.4	8.0	8.2	10.6	10.4	10.6	11.4	10.8	11.1	11.1	9.7	10.5
21	8.5	8.0	8.3	10.6	10.4	10.5	11.5	11.2	11.3	11.4	10.0	10.8
22	8.6	8.2	8.3	10.6	10.4	10.5	11.8	11.2	11.4	11.5	9.6	10.7
23	8.6	8.2	8.4	10.6	10.4	10.5	11.7	11.4	11.6	10.3	8.0	9.1
24	8.7	8.3	8.4	10.5	10.3	10.4	11.7	11.4	11.6	9.7	7.9	8.7
25	8.9	8.5	8.7	10.5	10.2	10.4	13.6	11.4	11.9	9.7	8.0	8.6
26	9.0	8.4	8.7	10.4	10.3	10.4	12.2	11.8	12.0	9.5	7.6	8.3
27	9.0	8.6	8.8	10.5	10.3	10.4	12.2	11.8	12.0	9.2	7.2	7.8
28	9.1	8.8	8.9	10.6	10.4	10.5	12.3	12.0	12.2	8.7	7.4	8.0
29	9.1	8.8	8.9	10.6	10.4	10.5	12.8	12.0	12.3	12.6	12.2	10.0
30	9.2	8.7	8.9	10.7	10.4	10.5	12.9	12.6	12.8	12.6	12.2	12.4
31	9.2	8.7	9.0	---	---	---	13.0	12.6	12.8	12.8	12.2	12.6
MONTH	9.2	6.6	8.1	11.1	8.8	10.1	13.6	10.4	11.3	14.4	7.2	11.4

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	13.0	12.4	12.7	11.2	10.6	10.9	12.2	11.0	11.6	8.4	6.8	7.5
2	13.0	12.4	12.7	11.2	10.6	10.9	11.9	10.8	11.3	8.5	6.7	7.5
3	12.7	12.2	12.5	11.0	10.5	10.8	11.9	10.7	11.2	8.7	7.0	7.8
4	12.7	12.2	12.5	11.2	10.6	10.9	11.4	10.5	10.9	8.9	7.0	7.9
5	12.7	12.2	12.5	11.1	10.6	10.9	11.1	9.9	10.4	9.1	7.2	7.9
6	12.9	12.4	12.6	11.2	10.8	11.0	10.3	9.6	9.9	8.5	6.9	7.5
7	12.7	12.0	12.5	11.3	10.9	11.1	10.4	9.5	9.8	8.2	7.2	7.8
8	12.8	12.2	12.6	11.7	11.0	11.3	10.2	9.3	9.7	8.4	7.3	8.0
9	12.8	12.2	12.5	11.7	11.0	11.2	9.9	9.0	9.4	8.5	7.6	8.0
10	12.7	12.4	12.5	11.5	10.9	11.2	9.3	8.8	9.0	8.3	7.5	7.9
11	13.0	12.6	12.8	11.4	10.9	11.1	9.1	8.4	8.7	8.6	7.9	8.2
12	12.7	12.5	12.6	11.2	10.9	---	8.8	8.3	8.5	8.4	7.7	8.1
13	12.6	12.2	12.4	11.2	10.9	11.0	8.9	8.2	8.5	8.1	7.3	7.7
14	12.7	11.5	12.1	11.2	10.8	11.0	---	---	---	7.8	6.9	7.3
15	12.5	11.2	11.7	11.4	10.9	11.2	---	---	---	8.0	6.8	7.5
16	12.4	10.9	11.5	11.3	10.9	11.1	8.5	8.1	8.3	7.8	6.6	7.3
17	12.3	10.6	11.3	11.7	11.0	11.3	8.3	7.7	8.0	7.8	6.2	7.0
18	12.0	10.5	11.1	11.5	11.1	11.3	8.1	7.6	7.9	7.5	6.1	6.9
19	11.9	10.5	11.1	11.6	11.0	11.3	8.2	7.6	7.8	7.2	5.9	6.5
20	12.0	10.1	11.1	11.7	11.2	11.4	8.3	7.3	7.7	7.0	5.7	6.4
21	11.7	10.1	10.8	11.7	11.2	11.4	8.8	7.7	8.2	7.0	5.8	6.4
22	11.2	9.6	10.4	12.0	11.3	11.6	8.9	7.8	8.3	7.2	5.9	6.5
23	10.8	9.3	10.0	12.2	11.4	11.8	8.8	7.5	8.0	7.2	6.0	6.7
24	10.1	9.2	9.6	12.2	11.4	11.8	8.8	7.2	8.0	7.3	6.3	6.8
25	10.7	9.4	9.9	12.2	11.5	11.8	8.5	7.4	8.1	7.0	6.3	6.6
26	11.1	10.4	10.8	12.4	11.6	12.0	9.1	7.9	8.5	6.8	6.0	6.5
27	11.3	10.9	11.2	12.5	11.5	11.9	8.9	7.7	8.2	7.2	6.1	6.7
28	11.4	10.8	11.1	12.5	11.4	11.8	9.0	7.5	8.2	7.4	6.6	7.0
29	---	---	---	12.5	11.4	11.9	8.8	7.3	8.0	7.2	6.5	6.9
30	---	---	---	12.0	11.3	11.6	8.5	7.2	7.7	6.9	6.3	6.6
31	---	---	---	12.2	10.9	11.5	---	---	---	6.7	5.5	6.3
MONTH	13.0	9.2	11.7	12.5	10.5	11.3	12.2	7.2	8.9	9.1	5.5	7.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	6.5	5.7	6.2	6.7	6.0	6.5	7.0	6.5	6.7			
2	6.6	5.7	6.2	6.7	6.0	6.4	7.3	6.1	6.6			
3	6.4	5.6	6.1	6.7	5.8	6.4	---	---	---			
4	6.4	5.6	6.1	6.5	5.9	6.2	6.9	6.4	---			
5	6.3	5.7	6.1	6.3	5.8	6.1	6.7	6.2	6.4			
6	6.4	5.7	6.1	6.6	5.7	6.2	6.8	6.3	6.5			
7	6.6	5.9	6.3	6.5	5.9	6.2	7.0	6.1	6.5			
8	7.0	6.1	6.5	6.5	5.8	6.1	6.6	5.9	6.4			
9	6.8	6.4	6.5	6.4	5.9	6.2	6.6	5.7	6.2			
10	6.6	6.2	6.4	6.4	5.7	6.1	6.7	5.6	6.2			
11	6.8	6.1	6.4	6.8	5.7	6.2	6.8	5.5	6.2			
12	6.7	6.1	6.5	6.6	5.7	6.1	6.4	5.7	6.1			
13	7.0	6.2	6.5	6.3	5.5	6.0	6.5	5.5	6.0			
14	6.9	6.4	6.6	6.5	5.5	6.1	6.8	5.7	6.1			
15	6.8	6.2	6.5	6.9	6.0	6.4	6.6	5.6	6.1			
16	6.8	6.1	6.5	6.9	5.9	6.3	6.6	5.9	6.2			
17	6.6	5.9	6.3	6.8	5.7	6.2	8.9	6.0	6.5			
18	6.4	5.8	6.1	6.9	5.7	6.2	7.6	6.4	6.8			
19	6.1	5.6	5.9	6.6	5.7	6.2	7.3	6.5	6.8			
20	5.9	5.3	5.6	6.6	5.8	6.2	7.5	6.7	7.1			
21	5.6	5.1	5.4	6.4	5.9	6.2	7.2	6.7	---			
22	6.0	5.3	5.6	6.5	5.8	6.2	---	---	---			
23	5.9	5.3	5.7	6.9	6.0	6.4	---	---	---			
24	5.9	5.3	5.6	6.7	6.1	6.4	---	---	---			
25	6.0	5.5	5.7	6.7	6.2	6.5	---	---	---			
26	5.9	5.4	5.6	6.8	6.1	6.4	---	---	---			
27	6.3	5.4	5.9	6.8	6.0	6.5	---	---	---			
28	6.4	5.7	6.0	6.8	6.1	6.5	---	---	---			
29	6.5	5.5	6.1	6.8	6.1	6.6	---	---	---			
30	6.6	5.7	6.2	7.1	6.3	6.7	---	---	---			
31	---	---	---	7.2	6.2	6.7	---	---	---			
MONTH	7.0	5.1	6.1	7.2	5.5	6.3	8.9	5.5	6.4			

DELAWARE RIVER BASIN

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 mi² (9.97 km²).

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 4.75 ft³/s (0.135 m³/s), 16.75 in/yr (425 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 712 ft³/s (20.2 m³/s) June 22, 1972, gage height, 5.04 ft (1.536 m), from rating curve extended above 200 ft³/s (5.66 m³/s) on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 85 ft³/s (2.41 m³/s) Oct. 25, gage height, 2.48 ft (0.756 m), no other peak above base of 50 ft³/s (1.4 m³/s); minimum discharge, 0.05 ft³/s (0.001 m³/s) Sept. 10, gage height, 0.56 ft (0.171 m).

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	.53	1.4	1.6	1.7	1.3	2.1	3.5	3.7	1.5	.61	.21	.11
2	.50	1.3	1.7	1.7	5.9	2.0	6.5	14	2.8	1.5	.20	.09
3	1.5	1.2	1.6	1.6	6.0	1.9	2.9	5.0	2.7	1.3	.37	.09
4	3.0	1.8	1.5	1.4	2.2	1.9	2.4	3.2	2.4	2.2	2.4	.10
5	1.1	2.1	1.5	1.1	1.6	6.5	2.6	2.7	2.1	2.8	.67	.07
6	.72	1.5	1.5	1.1	1.4	5.8	4.5	2.7	1.8	1.6	.39	.07
7	.65	1.4	1.6	1.7	1.6	3.4	2.6	2.5	1.5	1.2	.35	.08
8	.60	1.3	1.7	1.5	2.5	2.7	2.3	2.1	1.2	.85	1.0	.07
9	.52	1.4	1.8	1.1	2.8	2.5	2.4	2.0	1.3	.65	.86	.07
10	.49	1.5	2.0	1.1	1.9	2.4	2.3	2.2	1.7	.50	.45	.06
11	.67	1.2	1.7	.92	10	2.5	2.8	15	1.6	.53	.33	.06
12	.75	1.2	1.6	.74	11	2.6	8.6	25	1.2	.61	.31	.06
13	.47	1.2	1.6	.58	3.6	2.4	5.2	6.3	.98	.61	.31	.07
14	.40	1.2	1.5	.79	2.3	2.2	11	4.1	3.9	.61	.32	.08
15	.37	1.3	1.5	1.1	2.2	2.1	9.2	4.4	2.1	.61	.26	.11
16	.52	1.2	1.7	1.3	2.2	2.7	4.3	8.5	1.6	.55	.24	.10
17	.48	1.5	1.7	1.5	2.5	2.6	3.7	3.9	1.1	.48	.24	.50
18	.55	5.2	1.5	1.3	2.5	2.2	3.5	3.0	.90	.45	.23	8.1
19	1.4	3.2	1.6	1.3	2.5	2.2	2.9	3.5	.81	.43	.21	5.2
20	.77	1.7	1.3	1.5	3.2	2.2	3.2	3.7	1.6	.27	.18	1.1
21	.54	1.6	1.0	2.0	3.2	2.1	2.7	2.8	1.4	.19	.15	.51
22	.47	1.5	.97	2.1	2.9	2.0	2.6	2.4	1.1	.21	.13	.45
23	.42	1.4	1.4	2.5	4.0	2.0	2.9	2.1	.58	.23	.13	.61
24	.47	2.7	2.2	2.2	5.2	2.0	5.2	1.9	.61	.23	.13	.33
25	35	4.5	2.4	2.0	3.0	2.0	3.0	1.8	2.7	.23	.13	.24
26	17	2.1	1.1	1.9	2.4	2.0	2.6	1.7	15	.23	.14	.19
27	3.3	1.8	1.1	2.2	2.1	2.0	2.5	1.6	2.2	.20	.12	.27
28	2.0	2.5	1.4	2.1	2.1	1.9	2.4	2.5	1.1	.20	.12	.15
29	1.8	2.1	2.0	1.8	---	1.9	2.7	2.8	.81	.17	.13	.14
30	1.6	1.7	2.2	1.6	---	2.9	2.8	2.0	.69	.20	.13	.14
31	1.5	---	1.8	1.3	---	3.8	---	1.7	---	.21	.12	---
TOTAL	80.09	55.7	49.77	46.73	94.1	79.5	115.8	140.8	60.98	20.66	10.96	19.22
MEAN	2.58	1.86	1.61	1.51	3.36	2.56	3.86	4.54	2.03	.67	.35	.64
MAX	35	5.2	2.4	2.5	11	6.5	11	25	15	2.8	2.4	8.1
MIN	.37	1.2	.97	.58	1.3	1.9	2.3	1.6	.58	.17	.12	.06
CFSM	.67	.48	.42	.39	.87	.67	1.00	1.18	.53	.17	.09	.17
IN.	.77	.54	.48	.45	.91	.77	1.12	1.36	.59	.20	.11	.19
CAL YR 1980	TOTAL	1587.71	MEAN 4.34	MAX 84	MIN .15	CFSM 1.13	IN 15.34					
WTR YR 1981	TOTAL	774.31	MEAN 2.12	MAX 35	MIN .06	CFSM .55	IN 7.48					

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 mi² (82.6 km²).

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.--23 years, 37.1 ft³/s (1.051 m³/s), 15.79 in/yr (401 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s (53.8 m³/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, 461 ft³/s (13.1 m³/s) Sept. 19, gage height, 5.34 ft (1.628 m); minimum daily discharge, 2.1 ft³/s (0.059 m³/s) Aug. 22, Sept. 14.

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	12	24	27	19	14	22	33	26	10	6.3	4.3	8.0
2	12	20	25	18	38	21	52	58	27	9.5	3.9	4.8
3	12	18	24	16	52	19	48	68	42	9.6	11	3.8
4	19	23	18	15	44	17	27	37	26	15	17	3.4
5	16	27	19	12	26	45	32	25	19	17	8.6	3.1
6	12	27	18	11	17	70	62	22	45	13	4.7	2.9
7	10	23	19	15	15	59	63	18	39	9.9	4.1	2.5
8	9.2	20	20	16	22	35	34	15	17	8.0	21	8.2
9	9.2	20	22	14	26	28	28	14	14	7.2	51	9.9
10	8.2	21	23	12	22	25	27	16	17	6.0	22	4.5
11	11	19	23	10	37	24	25	56	18	4.5	8.7	3.3
12	9.8	16	21	8.8	57	24	37	127	12	3.7	7.2	3.6
13	6.4	15	20	7.1	50	23	50	139	9.9	3.7	6.9	2.4
14	5.9	16	19	7.1	33	23	59	83	26	4.0	5.4	2.1
15	5.9	16	18	10	25	17	74	46	28	2.6	4.4	2.8
16	6.8	16	19	11	23	24	61	77	18	2.3	8.9	42
17	7.3	18	19	13	24	22	38	90	13	2.9	5.1	33
18	9.2	43	17	13	25	20	32	52	8.8	3.0	2.8	185
19	24	50	18	13	26	20	26	34	14	3.4	2.7	404
20	18	50	16	13	32	20	24	35	20	2.6	2.5	189
21	12	35	13	17	36	20	21	30	14	4.4	2.2	77
22	8.7	26	12	19	33	17	19	24	13	7.3	2.1	28
23	7.7	23	15	20	36	18	21	19	14	5.4	2.9	17
24	6.8	28	20	20	46	18	70	16	9.6	3.3	2.6	11
25	129	37	23	19	46	17	88	14	15	4.8	3.0	8.8
26	236	41	18	20	33	16	49	13	57	7.8	2.5	8.4
27	183	34	13	22	23	18	29	11	44	5.1	2.6	8.3
28	106	34	13	24	21	15	23	17	16	7.4	2.2	8.6
29	57	35	18	21	---	15	22	23	9.1	22	2.2	7.2
30	37	31	24	18	---	19	21	17	7.1	11	6.5	7.2
31	27	---	22	14	---	32	---	13	---	5.5	16	---
TOTAL	1034.1	806	596	468.0	882	763	1195	1235	622.5	218.2	247.0	1099.8
MEAN	33.4	26.9	19.2	15.1	31.5	24.6	39.8	39.8	20.8	7.04	7.97	36.7
MAX	236	50	27	24	57	70	88	139	57	22	51	404
MIN	5.9	15	12	7.1	14	15	19	11	7.1	2.3	2.1	2.1
CFSM	1.05	.84	.60	.47	.99	.77	1.25	1.25	.65	.22	.25	1.15
IN.	1.21	.94	.70	.55	1.03	.89	1.39	1.44	.73	.25	.29	1.28
CAL YR 1980	TOTAL	14821.4	MEAN	40.5	MAX	422	MIN	3.7	CFSM	1.27	IN	17.28
WTR YR 1981	TOTAL	9166.6	MEAN	25.1	MAX	404	MIN	2.1	CFSM	.79	IN	10.69

MURDERKILL RIVER BASIN

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 mi² (35.2 km²).

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.--23 years (water years 1932-33, 1961-81), 18.6 ft³/s (0.527 m³/s), 18.57 in/yr (472 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft³/s (59.2 m³/s) Aug. 4, 1967, gage height, 8.83 ft (2.691 m); minimum discharge, 0.80 ft³/s (0.023 m³/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, 162 ft³/s (4.59 m³/s) Oct. 25, gage height, 5.01 ft (1.527 m), no other peak above base of 130 ft³/s (3.6 m³/s); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Oct. 8, 9.

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	3.5	7.7	11	7.6	5.5	10	12	10	6.0	4.5	3.7	3.7
2	3.4	7.3	10	7.7	18	9.8	28	29	17	4.9	3.6	3.5
3	3.5	6.9	10	7.2	17	9.3	14	17	15	4.8	3.5	3.4
4	4.9	13	9.6	6.5	9.3	8.8	11	13	11	6.9	3.6	3.4
5	3.6	15	9.4	6.0	7.3	25	17	11	9.2	8.7	3.4	3.4
6	3.2	10	9.3	5.9	6.7	24	56	11	10	5.9	3.5	3.4
7	3.1	9.5	9.4	8.0	7.0	16	25	9.7	8.6	5.0	3.6	3.4
8	3.0	9.1	9.3	7.0	12	13	17	8.9	6.7	4.3	3.6	4.0
9	3.0	9.1	9.7	6.1	13	12	14	8.6	6.2	4.1	3.6	5.2
10	3.1	9.3	10	5.5	9.3	11	13	9.5	8.0	3.8	3.3	3.5
11	3.2	9.4	9.2	5.1	32	11	13	19	7.7	3.9	3.3	3.3
12	3.5	9.8	8.9	4.7	34	10	28	32	6.0	3.6	11	3.1
13	3.2	9.9	8.8	4.9	15	9.7	29	17	5.6	3.5	6.1	3.1
14	3.2	10	8.5	5.4	12	8.9	27	13	12	3.5	4.1	3.1
15	3.2	10	8.2	5.8	12	8.6	26	13	9.2	3.4	3.8	3.2
16	3.2	9.9	8.7	6.4	11	10	17	23	7.1	3.5	6.9	11
17	3.1	10	8.6	6.5	11	11	15	14	5.8	3.5	4.0	5.1
18	3.3	40	7.9	5.9	11	9.7	14	11	5.1	3.4	3.6	41
19	12	21	8.1	5.7	11	9.7	12	14	6.2	3.2	3.6	63
20	4.9	13	7.0	6.3	14	9.5	12	16	7.2	3.2	3.5	12
21	3.9	11	6.4	8.0	20	9.1	11	12	7.1	4.4	3.4	7.2
22	3.6	11	6.3	8.6	17	8.3	10	10	7.2	5.6	3.5	5.9
23	3.5	9.9	8.1	7.8	16	8.3	10	8.9	5.9	3.8	3.6	5.1
24	3.7	12	10	7.4	22	7.9	18	8.0	5.0	3.6	3.4	4.7
25	79	16	9.3	7.0	16	7.7	12	7.5	5.7	4.3	3.5	4.5
26	87	12	6.5	7.1	13	7.4	9.9	6.8	20	4.3	3.4	4.4
27	19	11	6.6	7.8	11	7.5	9.4	6.3	6.9	3.8	3.3	4.2
28	14	14	7.7	7.3	10	7.2	8.8	9.2	5.6	4.3	3.2	4.0
29	12	13	9.5	6.6	---	7.0	10	10	4.9	12	3.1	4.0
30	9.5	11	9.2	6.1	---	10	8.7	7.8	4.6	4.3	3.9	4.0
31	8.3	---	7.9	5.6	---	11	---	6.7	---	3.8	4.3	---
TOTAL	320.6	360.8	269.1	203.5	393.1	328.4	507.8	392.9	242.5	141.8	123.9	232.8
MEAN	10.3	12.0	8.68	6.56	14.0	10.6	16.9	12.7	8.08	4.57	4.00	7.76
MAX	87	40	11	8.6	34	25	56	32	20	12	11	63
MIN	3.0	6.9	6.3	4.7	5.5	7.0	8.7	6.3	4.6	3.2	3.1	3.1
CFSM	.76	.88	.64	.48	1.03	.78	1.24	.93	.59	.34	.29	.57
IN.	.88	.99	.74	.56	1.08	.90	1.39	1.07	.66	.39	.34	.64

CAL YR 1980 TOTAL 5763.4 MEAN 15.7 MAX 120 MIN 2.3 CFSM 1.15 IN 15.76
WTR YR 1981 TOTAL 3517.2 MEAN 9.64 MAX 87 MIN 3.0 CFSM .71 IN 9.62

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 mi² (7.33 km²).

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 hm²) above station during some years. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 3.76 ft³/s (0.106 m³/s), 18.04 in/yr (458 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft³/s (4.98 m³/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, 48 ft³/s (1.36 m³/s) Oct. 25, gage height, 3.28 ft (1.000 m), no other peak above base of 30 ft³/s (0.84 m³/s); minimum discharge, 0.31 ft³/s (0.009 m³/s) July 22, 23, gage height, 2.34 ft (0.713 m).

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	.90	2.1	2.1	1.8	1.7	2.8	2.6	3.8	2.9	2.1	1.3	1.0
2	.90	1.9	2.1	1.8	2.6	2.7	5.0	4.5	6.0	2.2	1.0	.96
3	1.1	1.9	2.1	1.8	2.3	2.7	3.1	3.8	4.5	2.2	.84	.94
4	1.3	2.3	2.0	1.7	1.9	2.7	3.0	3.6	3.8	2.5	1.0	.94
5	.98	2.5	2.1	1.6	1.5	4.1	3.0	3.5	3.5	2.5	1.3	.95
6	.90	2.1	2.1	1.6	1.4	3.6	7.5	3.5	3.4	2.3	1.3	.92
7	.83	2.1	2.1	1.7	1.4	3.2	3.7	3.5	3.3	2.1	1.3	.92
8	.83	2.0	2.1	1.6	2.5	3.0	3.7	3.1	3.0	2.0	1.4	.95
9	.83	2.0	2.2	1.5	2.2	2.9	3.7	3.0	2.9	1.9	1.4	.93
10	.75	1.9	2.1	1.5	1.8	2.9	3.5	3.2	3.1	1.9	1.3	.86
11	.83	1.9	2.0	1.4	3.2	2.9	4.5	4.3	2.9	1.7	1.5	.84
12	.83	1.9	2.0	1.4	2.6	2.8	13	3.9	2.7	1.5	2.1	.80
13	.75	1.9	2.0	1.4	2.0	2.7	7.5	3.4	2.7	1.4	1.7	.75
14	.75	1.9	2.0	1.4	2.0	2.6	6.4	3.2	3.3	1.4	1.4	.73
15	.75	1.9	2.0	1.5	2.0	2.6	5.4	5.0	3.0	1.3	1.3	.78
16	.75	1.9	2.0	1.5	2.0	2.7	4.8	8.3	2.8	1.4	1.7	2.3
17	.75	1.9	2.0	1.5	2.1	2.7	4.8	4.4	2.6	.97	1.3	1.4
18	.98	4.0	1.9	1.4	2.0	2.6	4.6	4.0	2.5	.76	1.2	1.6
19	3.7	2.5	1.9	1.4	2.1	2.6	4.3	4.8	2.7	.53	1.2	1.8
20	1.4	2.3	1.8	1.4	2.8	2.4	4.3	4.7	2.7	.66	1.2	1.2
21	1.1	2.3	1.8	1.6	3.5	2.4	4.1	4.1	2.6	1.0	1.1	1.1
22	.98	2.1	1.8	1.7	2.9	2.2	4.1	3.9	2.6	.67	1.2	1.0
23	.90	2.1	2.0	1.7	3.1	2.2	4.1	3.7	2.4	.53	1.3	.94
24	.83	2.3	2.1	1.7	3.7	2.1	4.9	3.5	2.3	.76	1.2	.93
25	17	2.4	2.0	1.7	3.0	2.0	4.1	3.4	2.4	1.3	1.3	1.0
26	7.3	2.2	1.7	1.7	2.9	2.0	3.9	3.2	2.8	1.5	1.1	.96
27	2.5	2.2	1.8	1.8	2.7	2.0	3.8	3.2	2.3	1.2	.98	.85
28	2.5	2.5	1.8	1.8	2.8	2.0	3.7	3.6	2.2	1.1	.98	.80
29	2.3	2.3	1.9	1.7	---	2.0	3.6	3.4	2.1	1.5	.98	.79
30	2.1	2.2	1.9	1.7	---	2.2	3.5	3.2	2.1	1.3	.98	.80
31	2.1	---	1.8	1.6	---	2.8	---	3.0	---	1.3	.98	---
TOTAL	60.42	65.5	61.2	49.6	66.7	81.1	138.2	119.7	88.1	45.48	38.84	30.74
MEAN	1.95	2.18	1.97	1.60	2.38	2.62	4.61	3.86	2.94	1.47	1.25	1.02
MAX	17	4.0	2.2	1.8	3.7	4.1	13	8.3	6.0	2.5	2.1	2.3
MIN	.75	1.9	1.7	1.4	1.4	2.0	2.6	3.0	2.1	.53	.84	.73
CFSM	.69	.77	.70	.57	.84	.93	1.63	1.36	1.04	.52	.44	.36
IN.	.79	.86	.80	.65	.88	1.07	1.82	1.57	1.16	.60	.51	.40
CAL YR 1980	TOTAL	1357.00	MEAN	3.71	MAX	24	MIN	.55	CFSM	1.31	IN	17.83
WTR YR 1981	TOTAL	845.58	MEAN	2.32	MAX	17	MIN	.53	CFSM	.82	IN	11.11

INDIAN RIVER BASIN

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 mi² (13.57 km²).

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.--38 years, 6.95 ft³/s (0.197 m³/s), 18.01 in/yr (457 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 217 ft³/s (6.15 m³/s) Feb. 26, 1979, gage height, 5.01 ft (1.53 m); minimum discharge observed, 0.13 ft³/s (0.004 m³/s) Sept. 1-11, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55 ft³/s (1.56 m³/s) May 16, gage height, 3.20 ft (0.975 m), no other peak above base of 45 ft³/s (1.2 m³/s); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Oct. 16, 17, 18.

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	1.4	2.2	2.6	2.4	2.0	5.8	5.1	5.5	5.7	2.5	1.3	1.5
2	1.4	2.1	2.6	2.4	3.1	5.4	8.7	8.1	6.5	2.6	1.3	1.5
3	1.6	2.0	2.6	2.3	2.6	5.2	5.6	6.5	6.3	2.5	1.3	1.5
4	2.1	2.4	2.6	2.2	2.1	5.1	5.3	5.9	6.0	2.8	1.4	1.5
5	1.5	2.7	2.4	2.0	1.9	7.7	6.1	5.6	5.5	2.8	1.3	1.5
6	1.4	2.3	2.4	2.1	1.8	6.8	12	5.6	5.3	2.6	1.3	1.5
7	1.4	2.4	2.4	2.5	1.9	6.6	8.0	5.3	5.0	2.4	1.3	1.4
8	1.4	2.2	2.6	2.1	3.0	6.0	7.2	5.0	4.2	2.3	1.4	1.4
9	1.3	2.3	2.6	2.0	2.6	5.9	7.0	4.9	4.4	2.2	1.4	1.4
10	1.3	2.3	2.6	1.9	3.0	5.9	6.6	4.8	4.9	2.1	1.3	1.3
11	1.4	1.9	2.6	1.7	3.8	5.7	6.6	6.6	4.8	2.0	1.2	1.3
12	1.4	1.9	2.6	1.7	3.5	5.6	7.4	6.5	4.2	1.9	2.2	1.2
13	1.1	1.9	2.6	1.6	2.7	5.6	8.0	5.2	4.2	1.8	1.7	1.2
14	1.1	1.9	2.6	1.7	2.5	5.4	7.6	5.2	5.1	1.8	1.5	1.2
15	1.1	1.9	2.4	1.9	2.2	5.1	7.5	8.5	4.7	1.7	1.4	1.2
16	1.0	1.9	2.6	2.0	2.5	5.6	6.8	28	4.2	1.8	14	2.0
17	1.0	2.1	2.2	2.1	2.6	5.5	6.6	10	3.9	1.7	2.7	1.5
18	1.0	5.4	2.2	2.1	2.6	5.1	6.6	8.2	3.7	1.5	2.1	7.2
19	4.0	2.8	2.4	2.0	2.6	5.1	5.8	11	3.7	1.4	2.0	5.6
20	1.7	2.4	2.2	1.9	6.1	4.9	6.2	11	3.8	1.4	1.9	2.4
21	1.4	2.4	2.2	1.9	9.6	4.8	5.8	9.1	4.3	1.4	1.8	2.0
22	1.3	2.2	2.7	2.2	6.2	4.6	5.6	8.3	3.7	1.3	1.9	1.8
23	1.2	2.2	2.8	2.3	5.9	4.6	5.6	7.6	3.5	1.3	2.0	1.6
24	1.2	2.6	2.8	2.3	7.2	4.4	8.9	7.2	3.2	1.2	1.8	1.5
25	16	2.8	2.6	2.2	6.2	3.5	6.4	6.7	3.2	1.5	1.8	1.5
26	4.9	2.6	2.2	2.3	5.8	4.5	6.3	6.1	3.1	1.6	1.7	1.5
27	2.6	2.4	2.3	2.5	5.3	4.3	5.8	6.1	2.9	1.5	1.7	1.4
28	2.6	3.5	2.5	2.7	5.0	4.0	5.6	7.4	2.8	1.5	1.6	1.4
29	2.4	3.0	2.8	2.5	---	4.0	5.5	7.1	2.6	1.8	1.7	1.2
30	2.2	2.6	2.7	2.3	---	4.5	5.4	6.4	2.5	1.5	1.6	1.3
31	2.2	---	2.5	2.2	---	4.7	---	6.0	---	1.3	1.5	---
TOTAL	67.6	73.3	77.9	66.0	106.3	161.9	201.6	235.4	127.9	57.7	63.1	54.5
MEAN	2.18	2.44	2.51	2.13	3.80	5.22	6.72	7.59	4.26	1.86	2.04	1.82
MAX	16	5.4	2.8	2.7	9.6	7.7	12	28	6.5	2.8	14	7.2
MIN	1.0	1.9	2.2	1.6	1.8	3.5	5.1	4.8	2.5	1.2	1.2	1.2
CFSM	.42	.47	.48	.41	.73	1.00	1.28	1.45	.81	.36	.39	.35
IN.	.48	.52	.55	.47	.75	1.15	1.43	1.67	.91	.41	.45	.39

CAL YR 1980 TOTAL 2386.5 MEAN 6.52 MAX 40 MIN 1.0 CFSM 1.24 IN 16.94
WTR YR 1981 TOTAL 1293.2 MEAN 3.54 MAX 28 MIN 1.0 CFSM .68 IN 9.18

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	12	30	17	13	61	34	31	27	15	6.7	11
2	5.0	12	29	17	17	57	49	34	26	14	6.5	11
3	4.8	11	28	16	20	54	47	35	25	14	6.6	10
4	5.9	12	26	15	17	50	43	30	25	14	6.7	10
5	5.3	14	24	19	17	72	41	30	23	16	6.4	10
6	4.9	13	22	17	17	98	85	30	22	15	6.1	9.9
7	4.4	13	21	16	15	82	81	30	22	14	6.2	9.7
8	4.4	13	19	15	21	72	69	28	21	12	7.5	9.8
9	4.4	13	19	17	23	64	62	26	21	12	7.4	11
10	4.3	13	19	15	22	59	56	26	19	12	6.4	10
11	4.5	12	18	14	28	56	52	31	20	11	5.9	9.5
12	4.7	12	17	13	41	53	50	39	19	10	29	9.4
13	4.5	12	17	12	34	49	50	34	18	10	80	9.1
14	4.4	11	17	11	32	46	50	31	19	9.7	34	9.1
15	4.5	11	16	12	31	43	49	32	18	9.4	21	9.0
16	4.5	11	16	12	30	44	45	60	17	9.1	17	9.8
17	4.4	12	16	13	30	51	43	47	17	9.4	15	10
18	4.4	22	15	13	29	50	41	39	14	9.0	14	14
19	10	22	15	13	30	47	38	44	14	8.5	14	31
20	8.1	20	15	14	42	44	39	54	21	8.2	15	25
21	6.6	19	15	15	180	41	38	50	80	8.3	13	18
22	6.3	19	16	16	148	38	36	44	47	9.6	14	15
23	6.1	18	16	17	111	37	35	38	36	8.5	15	13
24	6.1	19	16	17	130	37	42	34	27	7.8	14	11
25	16	21	15	14	102	36	43	32	22	7.7	14	9.8
26	27	19	19	18	83	34	39	29	26	8.4	13	8.8
27	17	19	17	19	72	34	36	27	24	8.3	12	8.2
28	14	31	16	20	65	32	34	29	19	7.8	12	7.4
29	14	34	16	18	---	31	33	33	17	9.3	11	6.9
30	13	32	18	17	---	33	31	32	15	7.8	11	6.8
31	12	---	17	15	---	35	---	30	---	7.3	11	---
TOTAL	240.1	502	580	481	1400	1540	1391	1089	721	323.1	451.4	343.2
MEAN	7.75	16.7	18.7	15.5	50.0	49.7	46.4	35.1	24.0	10.4	14.6	11.4
MAX	27	34	30	20	180	98	85	60	80	16	80	31
MIN	4.3	11	15	11	13	31	31	26	14	7.3	5.9	6.8
CFSM	.13	.28	.31	.26	.83	.82	.77	.58	.40	.17	.24	.19
IN.	.15	.31	.36	.30	.86	.95	.86	.67	.44	.20	.29	.21
CAL YR 1980	TOTAL	21143.8	MEAN	57.8	MAX	630	MIN	4.0	CFSM	.96	IN	13.00
WTR YR 1981	TOTAL	9061.8	MEAN	24.8	MAX	180	MIN	4.3	CFSM	.41	IN	5.57

POCOMOKE RIVER BASIN

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 mi² (116.3 km²).

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.--31 years (water years 1951-81), 54.3 ft³/s (1.538 m³/s), 16.42 in/yr (417 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) Feb. 26, 1979, gage height, 7.95 ft (2.423 m); minimum discharge, 0.80 ft³/s (0.023 m³/s) Sept. 8, 9, 10, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 181 ft³/s (5.13 m³/s) Feb. 23, gage height, 4.49 ft (1.369 m), no peak above base of 280 ft³/s (7.9 m³/s); minimum discharge, 1.8 ft³/s (0.051 m³/s) Oct. 11, gage height, 1.45 ft (0.442 m).

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	2.1	16	25	20	9.8	45	23	20	19	7.6	6.4	4.3
2	2.3	13	24	19	16	37	29	21	18	7.1	5.1	4.3
3	2.6	12	22	18	23	33	29	20	17	6.6	4.4	4.0
4	3.6	12	20	17	18	30	28	18	16	10	4.3	3.9
5	2.9	15	18	16	16	47	28	16	22	14	4.3	3.8
6	2.4	15	17	13	13	62	61	16	15	11	3.7	3.7
7	2.1	14	16	14	12	72	70	14	12	9.1	3.6	3.6
8	2.1	13	15	15	22	70	74	13	9.4	7.0	38	4.2
9	2.0	12	15	13	25	57	63	12	7.8	5.4	35	12
10	2.0	11	16	12	24	46	50	12	9.6	4.4	23	11
11	2.3	11	15	10	33	37	39	23	17	3.8	14	7.7
12	2.9	9.3	14	9.6	38	33	34	29	13	3.3	37	5.7
13	2.3	8.7	14	6.9	33	31	40	26	10	3.0	76	4.5
14	2.1	8.8	14	7.3	30	28	44	22	42	2.8	106	3.9
15	2.0	8.6	13	9.1	28	26	50	19	31	2.6	81	3.5
16	2.0	8.2	13	11	26	28	44	22	19	2.6	50	11
17	2.1	8.4	13	13	25	34	37	19	13	2.9	28	13
18	2.1	27	12	12	24	35	33	16	9.7	3.7	18	14
19	15	23	12	10	23	35	30	26	8.2	3.3	14	28
20	7.8	21	12	9.0	32	32	31	32	9.2	2.8	14	17
21	5.1	20	11	11	68	29	30	30	22	3.1	12	12
22	3.8	18	9.7	12	129	26	28	26	23	4.0	9.8	9.0
23	3.1	17	13	12	170	25	25	21	27	3.3	11	6.9
24	2.9	17	17	13	130	23	34	17	25	2.8	9.3	5.8
25	94	20	18	13	101	22	35	14	19	2.8	7.9	5.1
26	63	18	15	13	86	21	34	12	19	9.7	7.1	4.4
27	73	17	12	14	69	20	31	11	28	36	6.6	4.1
28	65	26	14	16	55	19	27	15	21	45	5.7	3.7
29	39	26	21	14	---	18	24	29	13	23	5.0	3.4
30	26	26	23	13	---	19	21	33	9.3	15	4.8	3.4
31	19	---	21	11	---	23	---	26	---	9.3	4.7	---
TOTAL	458.6	472.0	494.7	396.9	1278.8	1063	1126	630	524.2	267.0	649.7	220.9
MEAN	14.8	15.7	16.0	12.8	45.7	34.3	37.5	20.3	17.5	8.61	21.0	7.36
MAX	94	27	25	20	170	72	74	33	42	45	106	28
MIN	2.0	8.2	9.7	6.9	9.8	18	21	11	7.8	2.6	3.6	3.4
CFSM	.33	.35	.36	.29	1.02	.76	.84	.45	.39	.19	.47	.16
IN.	.38	.39	.41	.33	1.06	.88	.93	.52	.43	.22	.54	.18

CAL YR 1980 TOTAL 16765.6 MEAN 45.8 MAX 579 MIN 1.3 CFSM 1.02 IN 13.89
WTR YR 1981 TOTAL 7581.8 MEAN 20.8 MAX 170 MIN 2.0 CFSM .46 IN 6.28

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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.

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

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 non-recording 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.

AVERAGE DISCHARGE.--27 years (water years 1952-71, 1975-81), 4.58 ft³/s (0.130 m³/s), 12.96 in/yr (329 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 547 ft³/s (15.5 m³/s) Aug. 20, 1969, gage height, 5.44 ft (1.658 m), from rating curve extended above 27 ft³/s (0.76 m³/s) on basis of channel-conveyance study; no flow at times in 1954, 1963, 1964, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s (0.37 m³/s) Apr. 6, gage height, 2.65 ft (0.808 m), no peak above base of 50 ft³/s (1.4 m³/s); minimum daily discharge, 0.22 ft³/s (0.006 m³/s) Oct. 24 (result of unknown regulation).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.45	.81	.85	.55	2.9	2.2	2.3	2.0	.70	.31	.45
2	.25	.41	.79	.84	.89	2.8	2.7	2.5	1.8	.69	.30	.44
3	.29	.40	.75	.79	.95	2.5	2.4	2.2	2.0	.66	.31	.42
4	.32	.45	.70	.74	.83	2.5	2.1	2.0	1.8	.80	.32	.42
5	.27	.51	.72	.62	.76	4.2	2.6	1.8	2.2	.81	.31	.42
6	.25	.45	.69	.65	.74	5.0	10	1.6	2.3	.73	.29	.40
7	.32	.44	.68	.84	.78	3.9	5.9	1.5	1.9	.67	.30	.41
8	.32	.43	.68	.72	1.3	3.4	4.5	1.4	1.5	.61	3.8	.62
9	.32	.44	.71	.64	1.3	3.1	4.1	1.4	1.3	.57	3.4	1.1
10	.41	.46	.75	.65	1.2	2.9	3.8	1.5	1.4	.54	.99	.64
11	.41	.41	.68	.59	2.0	2.8	3.5	3.1	2.4	.51	.55	.49
12	.39	.40	.65	.54	2.7	2.7	3.2	4.0	2.0	.49	4.0	.45
13	.37	.40	.66	.51	2.0	2.5	4.5	3.0	1.5	.48	3.8	.42
14	.37	.41	.65	.58	1.8	2.4	4.3	2.4	2.2	.45	2.1	.40
15	.41	.41	.62	.62	1.7	2.3	3.8	2.2	2.9	.40	1.3	.39
16	.44	.40	.63	.63	1.6	2.6	3.3	3.2	2.1	.39	1.1	.62
17	.49	.40	.60	.62	1.6	3.2	3.1	2.8	1.6	.45	.89	.53
18	.51	.96	.58	.57	1.6	3.0	3.0	2.3	1.3	.43	.77	.48
19	.97	.77	.57	.58	1.6	2.8	2.7	4.1	1.3	.40	.73	.47
20	.79	.70	.52	.60	2.2	2.6	3.1	5.6	1.2	.38	.72	.45
21	.61	.66	.50	.68	5.9	2.4	3.1	4.0	1.2	.39	.67	.43
22	.58	.63	.49	.66	5.0	2.2	2.8	3.2	1.2	.40	.63	.40
23	.49	.61	.68	.65	4.7	2.2	2.7	2.6	1.2	.37	.64	.36
24	.22	.66	.73	.65	7.9	2.1	4.2	2.3	1.0	.35	.61	.35
25	2.1	.72	.66	.62	5.0	2.0	3.7	2.0	.94	.39	.57	.34
26	1.7	.66	.53	.64	4.0	1.8	3.0	1.8	.87	.43	.53	.34
27	.90	.69	.54	.68	3.4	1.8	2.7	1.7	.80	.43	.52	.34
28	.64	.84	.66	.67	3.1	1.6	2.5	1.8	.75	.38	.50	.34
29	.53	.89	.85	.63	---	1.6	2.4	2.9	.72	.39	.48	.33
30	.48	.85	.89	.59	---	1.9	2.3	2.9	.70	.35	.47	.33
31	.45	---	.84	.56	---	2.1	---	2.5	---	.32	.46	---
TOTAL	16.85	16.91	20.81	20.21	67.10	81.8	104.2	78.6	46.08	15.36	32.37	13.58
MEAN	.54	.56	.67	.65	2.40	2.64	3.47	2.54	1.54	.50	1.04	.45
MAX	2.1	.96	.89	.85	7.9	5.0	10	5.6	2.9	.81	4.0	1.1
MIN	.22	.40	.49	.51	.55	1.6	2.1	1.4	.70	.32	.29	.33
CFSM	.11	.12	.14	.14	.50	.55	.72	.53	.32	.10	.22	.09
IN.	.13	.13	.16	.16	.52	.63	.81	.61	.36	.12	.25	.11

CAL YR 1980	TOTAL	1725.99	MEAN 4.72	MAX 118	MIN .15	CFSM .98	IN 13.37
WTR YR 1981	TOTAL	513.87	MEAN 1.41	MAX 10	MIN .22	CFSM .29	IN 3.98

NANTICOKE RIVER BASIN

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 mi² (195.3 km²).

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 fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 92.5 ft³/s (2.620 m³/s), 16.66 in/yr (423 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s (85.5 m³/s) Feb. 26, 1979, gage height, 10.31 ft (3.142 m); minimum discharge observed, 6.3 ft³/s (0.18 m³/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.--Peak discharges above base of 360 ft³/s (10 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	2300	*637 18.0	7.25 2.210	May 16	0500	497 14.1	6.92 2.109

Minimum daily discharge, 25 ft³/s (0.71 m³/s) Sept. 30.

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	39	77	72	52	37	89	77	84	86	55	28	38
2	39	74	72	51	52	87	113	92	96	54	26	40
3	41	71	71	50	58	85	90	84	114	53	27	36
4	48	76	68	49	46	83	83	81	100	58	31	35
5	40	84	68	46	44	98	86	80	94	58	30	34
6	38	78	67	47	44	100	141	80	88	56	29	33
7	37	76	67	51	45	93	116	78	84	52	29	31
8	36	75	66	47	67	90	105	75	78	49	29	32
9	36	73	68	45	70	88	102	74	76	47	31	33
10	35	73	66	45	57	87	98	75	77	46	28	31
11	35	70	63	43	76	87	97	88	73	43	32	29
12	36	69	62	42	93	85	113	90	68	40	38	28
13	34	68	63	41	71	85	117	82	66	41	48	28
14	33	68	61	42	68	83	113	80	85	40	35	28
15	32	67	60	43	67	81	110	109	74	37	31	28
16	32	65	61	43	66	86	103	351	67	37	111	41
17	31	65	60	42	66	85	103	160	64	38	80	38
18	31	101	58	41	66	82	102	130	61	37	53	42
19	88	89	58	41	65	81	96	134	62	36	48	51
20	57	80	56	41	76	80	96	140	63	35	46	40
21	43	77	54	42	116	78	92	130	64	31	43	35
22	39	76	54	42	95	75	89	121	84	31	43	33
23	38	73	59	41	92	75	89	114	71	31	44	32
24	37	76	59	40	105	74	108	108	62	31	42	30
25	246	79	57	40	98	73	98	101	62	32	42	29
26	334	74	52	40	93	71	90	99	92	34	39	29
27	128	73	52	41	90	72	87	95	73	33	38	28
28	100	78	53	40	89	69	85	99	63	33	37	27
29	91	76	55	39	---	68	85	103	59	35	35	27
30	83	73	55	38	---	75	84	94	57	32	35	25
31	80	---	52	37	---	81	---	90	---	30	38	---
TOTAL	2017	2254	1889	1342	2012	2546	2968	3321	2263	1265	1246	991
MEAN	65.1	75.1	60.9	43.3	71.9	82.1	98.9	107	75.4	40.8	40.2	33.0
MAX	334	101	72	52	116	100	141	351	114	58	111	51
MIN	31	65	52	37	37	68	77	74	57	30	26	25
CFSM	.86	1.00	.81	.57	.95	1.09	1.31	1.42	1.00	.54	.53	.44
IN.	1.00	1.11	.93	.66	.99	1.26	1.46	1.64	1.12	.62	.61	.49

CAL YR 1980	TOTAL	34615	MEAN 94.6	MAX 334	MIN 31	CFSM 1.26	IN 17.08
WTR YR 1981	TOTAL	24114	MEAN 66.1	MAX 351	MIN 25	CFSM .88	IN 11.90

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.

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.

EXTREMES FOR PERIOD OF RECORD:--Maximum discharge, 3,700 ft³/s (105 m³/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 ft³/s (0.028 m³/s) Sept. 9. 10. 1964. Aug. 20. 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 538 ft³/s (15.2 m³/s) Oct. 25, gage height, 4.90 ft (1.494 m), no other peak above base of 450 ft³/s (12 m³/s); minimum daily discharge, 9.0 ft³/s (0.255 m³/s) Oct. 14, 15, 16, 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	19	26	18	16	48	38	44	27	20	13	18
2	10	18	26	18	24	46	83	55	47	20	12	13
3	11	17	25	18	34	43	53	52	58	19	13	12
4	11	19	24	15	23	40	47	47	44	20	13	11
5	10	23	24	17	21	61	52	43	40	24	13	11
6	10	21	24	17	21	72	151	42	37	22	13	11
7	9.9	20	23	19	21	59	84	40	34	20	12	11
8	9.9	20	23	16	28	52	68	37	31	19	12	11
9	9.9	19	23	17	34	49	62	34	29	18	12	11
10	9.7	19	24	16	25	46	56	34	30	18	12	11
11	10	18	23	15	85	45	54	41	28	17	12	10
12	9.6	18	22	15	74	43	156	66	26	16	15	10
13	9.2	17	21	15	42	42	150	52	25	16	27	10
14	9.0	17	21	16	38	41	127	45	31	16	20	9.9
15	9.0	17	21	17	36	38	120	44	29	16	14	10
16	9.0	17	21	17	35	41	90	69	28	15	14	16
17	9.0	17	21	16	34	41	81	53	26	15	13	15
18	9.6	50	20	16	34	39	75	48	24	15	12	18
19	18	39	20	16	33	38	65	49	26	14	12	92
20	16	29	19	16	50	37	62	56	27	15	12	42
21	11	27	18	19	122	35	56	50	27	14	11	25
22	10	26	19	21	74	33	52	44	26	14	11	18
23	9.8	24	20	18	65	34	51	40	25	14	11	16
24	9.6	25	20	17	83	33	68	36	23	14	11	15
25	211	27	18	16	67	32	61	34	22	14	11	14
26	126	26	19	16	58	31	52	32	48	14	11	13
27	40	25	19	17	53	31	49	31	38	13	11	13
28	27	27	20	17	49	30	46	32	27	14	11	13
29	24	28	20	16	---	29	46	33	23	15	10	12
30	21	27	20	16	---	33	44	31	21	14	11	12
31	20	---	19	16	---	36	---	29	---	13	28	---
TOTAL	719.1	696	663	519	1279	1278	2199	1343	927	508	413	503.9
MEAN	23.2	23.2	21.4	16.7	45.7	41.2	73.3	43.3	30.9	16.4	13.3	16.8
MAX	211	50	26	21	122	72	156	69	58	24	28	92
MIN	9.0	17	18	15	16	29	38	29	21	13	10	9.9
CFSM	.53	.53	.49	.38	1.04	.94	1.67	.99	.70	.37	.30	.38
IN.	.61	.59	.56	.44	1.08	1.08	1.86	1.14	.79	.43	.35	.43
CAL YR 1980	TOTAL	18048.9	MEAN	49.3	MAX	364	MIN	9.0	CFSM	1.12	IN	15.29
WTR YR 1981	TOTAL	11048.0	MEAN	30.3	MAX	211	MIN	9.0	CFSM	.69	IN	9.36

NANTICOKE RIVER BASIN

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 Nichols Road, 0.9 mi (1.4 km) upstream from mouth, and 1.6 mi (2.6 km) northwest of Federalsburg.

DRAINAGE AREA.--7.10 mi² (18.39 km²).

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 hm²) above station during some years. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 9.02 ft³/s (0.255 m³/s), 17.25 in/yr (438 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s (47.6 m³/s) July 13, 1975, gage height, 5.98 ft (1.823 m), from rating curve extended above 210 ft³/s (5.95 m³/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 ft³/s (1.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1300	*95 2.69	2.71 0.826	June 22	0500	84 2.38	2.60 0.792
May 15	2300	82 2.32	2.58 0.786				

Minimum discharge, 1.2 ft³/s (0.034 m³/s) July 21, gage height, 1.14 ft (0.347 m); minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Sept. 13, 14, 15.

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	3.4	11	9.1	5.5	3.5	10	12	7.7	6.3	5.1	3.0	2.2
2	3.1	10	8.6	5.4	6.1	9.6	16	8.5	7.9	5.0	2.9	2.3
3	3.8	9.7	8.3	5.2	5.2	9.2	9.8	7.2	7.6	4.8	2.9	2.1
4	4.5	13	7.8	4.9	4.7	8.8	9.0	6.8	6.8	6.1	2.9	2.1
5	3.6	13	7.8	4.6	4.2	12	13	6.7	6.5	6.1	2.6	2.0
6	3.4	11	7.5	4.7	4.5	10	20	7.1	6.2	5.3	2.6	1.9
7	3.3	11	7.4	5.3	4.5	9.6	13	6.4	5.9	4.8	2.6	1.9
8	3.2	10	7.4	4.8	6.4	9.2	13	6.1	5.5	4.5	2.9	2.0
9	3.2	10	7.6	4.4	5.5	8.8	12	6.1	5.4	4.2	2.6	2.1
10	3.0	9.9	7.3	4.6	5.0	8.7	11	6.4	5.5	4.0	2.4	2.0
11	3.4	9.0	6.8	4.4	18	8.5	11	8.2	5.4	3.8	3.8	1.8
12	3.5	8.6	6.7	4.2	10	8.3	12	8.2	5.0	3.7	3.5	1.8
13	3.2	8.4	6.7	3.5	8.5	8.3	12	7.5	4.9	3.6	3.4	1.6
14	3.0	8.2	6.4	4.0	8.5	7.9	12	6.7	9.1	3.5	2.8	1.6
15	3.0	8.0	6.4	3.9	8.5	7.6	11	18	6.1	3.0	2.6	1.6
16	3.0	7.7	6.4	3.9	8.2	8.8	10	24	5.3	3.2	28	2.3
17	2.9	7.8	6.2	3.9	7.8	8.2	10	11	5.0	3.2	9.3	2.2
18	3.7	24	6.1	3.5	7.8	7.7	9.7	9.7	4.7	3.2	5.2	2.9
19	28	12	6.0	3.5	7.8	7.6	9.3	12	4.8	2.9	4.2	4.0
20	8.2	11	5.6	3.7	14	7.3	9.3	12	8.7	3.0	3.8	3.2
21	6.1	11	5.4	5.0	18	7.2	8.6	10	9.6	2.9	3.5	2.4
22	5.5	10	5.3	4.6	13	6.8	8.3	9.3	37	3.9	3.5	2.2
23	5.0	9.4	6.0	4.1	13	7.0	8.4	8.9	11	3.2	3.5	2.2
24	4.9	10	6.1	4.0	13	6.9	11	8.2	7.9	3.0	3.2	2.1
25	4.1	11	5.5	4.1	12	6.9	8.7	7.8	7.3	3.5	3.0	2.1
26	23	9.5	5.0	4.4	11	6.6	7.9	7.5	7.3	3.7	2.8	2.1
27	14	9.6	5.2	4.0	11	6.7	7.6	7.1	6.4	3.2	2.7	2.1
28	14	11	5.4	3.9	10	6.5	7.5	10	5.9	3.7	2.6	2.2
29	13	10	5.6	3.7	---	6.3	7.5	8.4	5.6	5.0	2.5	2.2
30	12	9.3	5.7	3.5	---	7.6	7.3	7.2	5.4	3.5	2.4	2.0
31	12	---	5.5	3.5	---	7.3	---	6.7	---	3.0	2.3	---
TOTAL	246.9	314.1	202.8	132.7	249.7	251.9	317.9	277.4	226.0	121.6	126.0	65.2
MEAN	7.96	10.5	6.54	4.28	8.92	8.13	10.6	8.95	7.53	3.92	4.06	2.17
MAX	41	24	9.1	5.5	18	12	20	24	37	6.1	28	4.0
MIN	2.9	7.7	5.0	3.5	3.5	6.3	7.3	6.1	4.7	2.9	2.3	1.6
CFSM	1.12	1.48	.92	.60	1.26	1.15	1.49	1.26	1.06	.55	.57	.31
IN.	1.29	1.65	1.06	.70	1.31	1.32	1.67	1.45	1.18	.64	.66	.34

CAL YR 1980 TOTAL 3455.5 MEAN 9.44 MAX 45 MIN 1.7 CFSM 1.33 IN 18.10
WTR YR 1981 TOTAL 2532.2 MEAN 6.94 MAX 41 MIN 1.6 CFSM .98 IN 13.27

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.

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 131 ft³/s (3.710 m³/s), 15.74 in/yr (400 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft³/s (197 m³/s) Aug. 4, 1967, gage height, 14.47 ft (4.410 m), from rating curve extended above 3,600 ft³/s (102 m³/s); minimum discharge, 1.2 ft³/s (0.034 m³/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, 638 ft³/s (18.1 m³/s) Oct. 26, gage height, 5.48 ft (1.670 m), no peak above base of 1,000 ft³/s (28 m³/s); minimum daily discharge, 12 ft³/s (0.34 m³/s) Aug. 27, Sept. 7.

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	40	89	95	54	42	91	74	95	73	40	26	15
2	41	82	87	54	60	87	102	135	79	40	24	15
3	40	76	84	52	107	82	137	197	113	39	23	15
4	44	73	79	43	99	77	110	161	105	43	22	15
5	43	83	74	40	76	87	98	124	92	50	19	14
6	37	87	71	44	67	139	161	108	93	44	18	13
7	33	80	71	49	66	160	237	99	111	39	21	12
8	30	75	69	45	67	132	193	89	88	35	21	14
9	29	71	70	40	75	113	148	81	74	33	25	32
10	28	68	74	38	77	97	135	77	73	30	29	23
11	27	65	72	35	99	90	126	118	75	25	16	16
12	29	60	68	35	163	86	464	464	67	27	18	15
13	28	58	66	33	189	82	212	520	61	23	31	14
14	27	57	65	32	124	80	241	295	73	19	25	13
15	25	57	62	36	104	75	266	220	77	15	21	13
16	25	56	61	39	96	76	256	301	70	18	35	35
17	24	55	62	41	94	80	201	329	59	22	29	50
18	24	86	58	35	94	78	170	221	51	14	22	113
19	46	135	57	39	94	74	149	170	50	18	19	372
20	44	128	55	42	95	73	131	163	69	17	19	309
21	32	101	43	50	105	72	119	157	61	19	18	152
22	28	88	48	57	113	69	107	134	58	25	16	76
23	26	82	53	58	113	66	100	117	51	25	18	58
24	25	79	59	55	124	65	119	105	45	16	16	50
25	66	94	56	53	146	64	188	94	43	16	15	45
26	408	116	50	52	126	62	150	85	75	27	14	42
27	446	104	52	56	109	61	120	80	113	25	12	40
28	222	99	53	57	96	61	108	81	57	25	13	38
29	143	107	59	55	---	59	100	94	45	70	14	36
30	119	108	63	51	---	61	97	88	42	62	14	35
31	104	---	59	45	---	71	---	79	---	33	16	---
TOTAL	2283	2519	1995	1415	2820	2570	4501	5081	2143	934	629	1690
MEAN	73.6	84.0	64.4	45.6	101	82.9	150	164	71.4	30.1	20.3	56.3
MAX	446	135	95	58	189	160	266	520	113	70	35	372
MIN	24	55	43	32	42	59	74	77	42	14	12	12
CFSM	.65	.74	.57	.40	.89	.73	1.33	1.45	.63	.27	.18	.50
IN.	.75	.83	.66	.47	.93	.85	1.48	1.67	.71	.31	.21	.56
CAL YR 1980	TOTAL	46807	MEAN	128	MAX 836	MIN 16	CFSM 1.13	IN 15.41				
WTR YR 1981	TOTAL	28580	MEAN	78.3	MAX 520	MIN 12	CFSM .69	IN 9.41				

CHOPTANK RIVER BASIN

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.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981 (discontinued).

WATER TEMPERATURES: October 1974 to current year.

SUSPENDED SEDIMENT: October 1980 to September 1981.

REMARKS.--Daily samples collected by local observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 184 micromhos Sept. 23, 1976; minimum daily, 40 micromhos January 31, 1980.
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, 2 mg/L Nov. 9, 10, 15, 17, 1980.

SEDIMENT LOADS: Maximum daily, 101 tons (91.6 tonnes) May 12, 1981; minimum daily, 0.13 tons (0.12 tonnes) Aug. 27, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 158 micromhos Sept. 17; minimum daily, 51 micromhos Feb. 3.

WATER TEMPERATURE: Maximum daily, 27.0°C July 10; minimum daily, 0.0°C Dec. 25-28.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 77 mg/L May 12; minimum daily mean, 2 mg/L Nov. 9, 10, 15, 17.

SEDIMENT LOADS: Maximum daily, 101 tons (91.6 tonnes) May 12; minimum daily, 0.13 tons (0.12 tonnes) Aug. 27.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
DEC 21...	1130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 25...	1315	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY 27...	1110	--	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL 28...	1030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP 28...	1030	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	AROCLOR 1254 PCB TOTAL (UG/L)
DEC 21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
FEB 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
MAY 27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	.1
JUL 28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
SEP 28...	--	--	--	--	--	--	--	--	--	.3

ND NOT DETECTED

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	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)
OCT												
29...	1045	145	109	6.1	9.5	10.0	8.7	8.5	440	380	30	18
NOV												
26...	1000	130	124	6.4	4.0	5.8	1.9	9.5	310	230	35	14
DEC												
17...	1030	63	125	6.8	1.5	3.0	.70	8.7	--	--	36	--
JAN												
27...	1050	53	117	6.5	9.0	3.0	3.9	6.8	--	--	35	16
FEB												
26...	1120	120	121	6.2	--	6.3	2.9	5.9	520	110	37	--
APR												
01...	1130	76	122	6.7	21.5	15.0	5.4	--	43	57	38	17
29...	1045	100	107	6.4	23.0	17.5	12	--	K1200	K25	33	14
MAY												
20...	1030	160	109	5.7	16.5	12.6	20	13.7	540	980	29	22
JUN												
23...	1045	56	127	6.4	24.0	23.5	10	6.1	180	320	36	18
JUL												
14...	1100	17	145	6.6	27.0	25.2	5.0	5.7	220	370	43	17
AUG												
27...	0950	9.0	143	6.4	20.5	19.0	5.5	6.8	150	130	39	15
SEP												
29...	0950	37	124	--	16.5	15.3	3.1	8.5	80	1000	48	24

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	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...	7.8	2.6	5.2	24	.4	3.7	--	12	17	9.1	.1
NOV											
26...	9.2	2.8	7.5	30	.6	2.7	2.0	21	18	11	.1
DEC											
17...	9.5	3.0	8.3	32	.6	1.7	--	17	16	11	.1
JAN											
27...	10	2.5	7.4	30	.5	1.9	1.4	19	17	12	<.1
FEB											
26...	9.0	3.6	6.9	27	.5	2.1	1.6	17	21	11	<.1
APR											
01...	11	2.6	7.4	28	.5	2.1	1.6	21	17	12	<.1
29...	9.1	2.4	7.0	30	.5	1.9	1.4	19	16	10	<.1
MAY											
20...	7.7	2.3	7.1	33	.6	2.2	1.6	7.0	16	9.9	<.1
JUN											
23...	10	2.6	6.8	28	.5	2.2	1.6	18	14	10	<.1
JUL											
14...	12	3.1	10	32	.7	2.2	1.6	26	14	13	<.1
AUG											
27...	13	1.7	8.9	31	.6	2.2	1.6	24	15	16	<.1
SEP											
29...	13	3.7	8.3	26	.5	2.6	--	24	24	14	<.1

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

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
OCT 29...	16	85	71	.12	33.3	.61	.62	.060	.050	.07	.06
NOV 26...	20	92	88	.13	32.3	.80	.81	.130	.060	.00	.08
DEC 17...	21	92	86	.13	15.7	1.1	1.1	.000	.040	.00	.05
JAN 27...	17	86	85	.12	12.3	1.3	1.3	.080	.070	.10	.09
FEB 26...	17	95	84	.13	30.8	.75	.82	.040	.030	--	.04
APR 01...	15	84	83	.11	17.2	.61	.60	.020	.040	--	.05
29...	16	99	77	.13	26.7	.69	.69	.060	.090	--	.12
MAY 20...	18	84	72	.11	36.3	1.0	.98	.150	.110	--	.14
JUN 23...	18	101	79	.14	15.3	.96	.94	.080	.090	--	.12
JUL 14...	15	97	89	.13	4.5	.86	.88	.020	.040	--	.05
AUG 27...	13	110	90	.15	2.7	1.2	1.3	.040	.070	--	.09
SEP 29...	17	117	103	.16	11.7	1.2	1.2	.050	.040	--	.05

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + 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)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 29...	.27	.23	.33	.05	.28	.94	.99	4.2	.070	.21	.020
NOV 26...	.20	.36	.33	.00	.42	1.1	1.2	5.0	.040	.12	.010
DEC 17...	.37	.22	.37	.11	.26	1.5	1.4	6.5	.020	.06	.000
JAN 27...	.22	.16	.30	.07	.23	1.6	1.5	7.1	.040	.12	.020
FEB 26...	.48	.53	.52	.00	.56	1.3	1.4	5.6	.090	.28	.030
APR 01...	.64	.69	.66	.00	.73	1.3	1.3	5.6	.040	.12	.020
29...	.47	.28	.53	.16	.37	1.2	1.1	5.4	.070	.21	.030
MAY 20...	.43	.60	.58	.00	.71	1.6	1.7	7.0	.050	.15	.090
JUN 23...	.55	.46	.63	.08	.55	1.6	1.5	7.0	.090	.28	.030
JUL 14...	.40	.47	.42	.00	.51	1.3	1.4	5.7	.020	.06	.050
AUG 27...	.35	.36	.39	.00	.43	1.6	1.7	7.0	.050	.15	.080
SEP 29...	.22	.84	.27	.00	.88	1.5	2.1	6.5	.200	.61	.040

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
DEC 17...	2	0	2	100	30	70	0	0	2
APR 01...	0	0	0	200	0	200	0	0	0
JUN 23...	0	0	0	100	40	60	1	0	3
SEP 29...	--	--	3	--	--	100	--	--	--

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 17...	20	10	10	1	0	2	3	1	2
APR 01...	30	10	20	2	2	0	4	0	4
JUN 23...	10	0	10	2	2	0	1	0	6
SEP 29...	--	--	10	--	--	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01034)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01031)	IRON, DIS- SOLVED (UG/L AS FE) (01030)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01037)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB) (01036)	LEAD, DIS- SOLVED (UG/L AS PB) (01035)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01042)	MANGA- NESE, SUS- PENDE RECOV- ERABLE (UG/L AS MN) (01041)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01040)
DEC 17...	800	660	140	2	0	3	30	0	30
APR 01...	1400	1200	210	13	13	0	70	20	50
JUN 23...	2000	1400	560	7	3	4	70	20	50
SEP 29...	--	--	50	--	--	--	--	--	20

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL 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, SUS- PENDED TOTAL (UG/L AS SE)
DEC 17...	<.1	<.1	5	2	3	0	0
APR 01...	<.1	<.1	27	27	0	0	0
JUN 23...	.3	<.1	5	0	6	0	0
SEP 29...	--	.5	--	--	--	--	--

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 17...	0	0	0	0	10	7	3
APR 01...	0	0	0	0	--	--	10
JUN 23...	0	0	0	0	20	10	10
SEP 29...	<1	--	--	<1	--	--	<10

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
NOV 26...	5.3	--
DEC 17...	--	14
JAN 27...	3.4	--
FEB 26...	5.2	--
APR 29...	6.1	--
MAY 20...	9.2	--
JUN 23...	--	4.8
JUL 14...	4.0	--
AUG 27...	2.8	--
SEP 29...	--	4.2

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)
NOV 26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
NOV 26...	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND NOT DETECTED

CHOPTANK RIVER BASIN

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01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
NOV 26...	39	--	--	JUL 14...	130	--	--
APR 01...	400	--	--	AUG 27...	1800	--	--
MAY 20...	100	--	--	SEP 29...	300	--	--
JUN 23...	270	--	--				

DATE	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM; % FINER THAN .062 MM
OCT 29...	11	4.3	69
NOV 26...	7	2.5	87
DEC 17...	3	.51	100
JAN 27...	2	.29	100
FEB 26...	11	3.6	98
APR 01...	12	2.5	65
29...	11	3.0	85
MAY 20...	26	11	98
JUN 23...	9	1.4	100
JUL 14...	11	.50	92
AUG 27...	1	.02	100
SEP 29...	4	.40	100

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	117	123	69	130	121	124	111	122	136	117	146
2	141	118	125	79	127	122	115	111	121	136	126	---
3	142	118	128	112	51	122	105	100	116	139	132	149
4	140	121	124	68	97	122	107	100	111	132	137	149
5	141	120	125	118	127	119	115	107	113	136	138	150
6	144	119	128	114	131	121	107	110	113	136	140	150
7	142	117	125	124	---	114	90	111	123	134	139	149
8	142	119	128	76	125	119	95	117	115	136	139	149
9	142	120	126	89	121	115	99	118	118	---	141	139
10	145	121	128	86	121	115	101	118	119	140	157	143
11	144	121	126	98	118	117	102	118	122	143	121	150
12	143	121	126	---	113	119	103	96	121	144	112	148
13	146	123	128	---	101	118	97	88	122	144	125	149
14	144	123	128	---	116	121	96	90	121	145	133	146
15	143	127	125	---	120	121	98	103	121	134	136	149
16	144	122	125	---	120	122	102	100	118	132	131	141
17	146	122	126	---	120	121	96	89	120	133	143	158
18	147	119	126	---	120	121	100	97	125	134	138	124
19	140	110	128	---	120	121	102	107	125	136	139	95
20	142	103	128	124	120	121	104	109	125	135	136	77
21	142	108	125	122	119	121	107	104	---	135	141	100
22	143	110	120	120	120	121	107	106	124	136	144	129
23	144	115	86	120	121	121	114	111	127	140	144	140
24	144	114	81	119	122	122	---	114	129	131	144	145
25	133	114	90	116	125	123	99	116	130	125	137	150
26	85	112	92	117	121	124	98	117	129	---	142	145
27	71	118	79	116	121	123	104	119	131	134	143	---
28	91	123	118	112	121	123	107	117	134	134	145	144
29	108	123	96	99	---	124	110	120	136	120	148	124
30	118	122	110	115	---	126	114	---	136	127	149	148
31	120	---	108	116	---	125	---	119	---	110	149	---
MEAN	134	118	117	106	117	121	104	108	123	134	138	139

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	10.0	6.0	2.0	.5	10.5	15.0	16.0	20.5	22.5	23.0	22.0
2	19.5	9.0	6.5	2.0	4.5	9.0	15.0	14.0	19.5	23.5	22.0	---
3	19.5	8.0	8.0	1.0	1.0	8.0	17.0	15.5	18.5	23.0	23.0	22.0
4	17.0	9.5	7.0	.5	.5	7.0	16.5	14.0	19.5	23.5	23.0	21.0
5	15.5	10.5	4.5	.5	.5	6.5	17.5	17.0	21.5	23.0	24.5	20.5
6	15.0	9.0	3.0	.5	.5	4.5	14.5	16.5	22.0	22.5	23.5	19.5
7	13.5	9.5	2.5	.5	---	4.0	13.0	16.0	22.5	25.0	22.5	20.0
8	13.0	12.5	5.5	.5	3.0	7.0	13.5	16.0	21.5	26.5	23.0	19.5
9	15.5	12.5	6.5	.5	2.0	7.0	15.0	14.5	23.0	---	22.5	18.0
10	15.5	12.5	10.0	.5	2.0	8.5	15.5	17.5	22.5	27.0	24.5	18.5
11	17.0	9.5	10.0	.5	2.0	7.0	14.5	17.5	21.5	26.0	24.5	19.0
12	15.5	6.5	7.5	---	3.5	6.5	16.0	16.5	22.5	24.5	24.5	21.5
13	13.5	7.5	5.5	---	1.0	7.0	12.5	15.0	22.5	25.5	23.0	21.5
14	12.0	8.0	5.5	---	1.5	8.0	12.0	16.5	23.0	25.5	22.5	21.5
15	12.5	9.5	3.5	---	3.5	6.0	11.5	17.0	22.0	23.5	24.0	22.5
16	12.0	9.0	3.5	---	4.0	8.0	10.5	18.5	23.0	22.5	24.0	22.0
17	15.0	6.5	3.0	---	5.0	5.5	13.5	16.5	25.0	23.5	23.0	19.5
18	17.5	6.5	2.5	---	9.5	4.5	16.5	16.5	23.5	23.5	20.5	19.0
19	17.5	5.5	3.0	---	10.5	5.0	17.5	14.0	22.5	24.0	19.5	17.5
20	16.0	4.5	1.5	.5	13.0	5.5	15.5	13.5	24.0	25.0	20.5	17.0
21	16.0	3.5	.5	.5	12.0	5.0	14.5	14.0	---	26.5	19.5	17.0
22	14.0	4.5	.5	.5	11.5	5.0	11.5	16.0	24.0	25.5	19.0	19.0
23	12.5	5.0	.5	.5	11.5	8.5	15.5	18.0	24.0	23.5	19.0	18.0
24	11.0	6.5	.5	1.0	11.0	9.0	---	20.0	24.0	23.0	19.5	16.0
25	13.0	8.0	.0	1.0	8.5	8.0	14.5	20.5	26.5	21.5	19.5	16.0
26	11.5	6.5	.0	2.5	6.0	7.5	14.0	21.0	24.5	---	19.5	---
27	10.5	6.0	.0	3.0	8.5	11.0	14.5	20.5	21.0	23.5	19.5	18.0
28	10.5	7.0	.0	3.5	8.5	9.0	18.5	22.0	22.5	24.5	21.0	18.0
29	11.0	7.0	1.5	4.0	---	13.0	18.0	20.5	20.0	24.0	21.5	16.0
30	9.5	6.0	2.5	2.5	---	12.5	18.5	23.0	22.5	22.0	21.5	15.5
31	9.0	---	1.0	1.5	---	16.0	---	23.0	---	22.0	---	---
MEAN	14.0	8.0	3.5	1.5	5.5	7.5	15.0	17.5	22.5	24.0	22.0	19.0

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	4	.43	8	1.9	7	1.8	8	1.2	5	.57	8	2.0				
2	5	.55	7	1.5	4	.94	6	.87	6	.97	8	1.9				
3	5	.54	6	1.2	4	.91	4	.56	20	6.2	8	1.8				
4	6	.71	6	1.2	6	1.3	5	.58	39	10	14	2.9				
5	5	.58	4	.90	6	1.2	4	.43	25	5.1	30	6.9				
6	4	.40	5	1.2	6	1.2	7	.83	12	2.2	15	5.6				
7	4	.36	6	1.3	7	1.3	11	1.5	6	1.1	15	6.5				
8	4	.32	13	2.6	4	.75	9	1.1	3	.54	9	3.2				
9	4	.31	2	.38	3	.57	6	.65	4	.81	6	1.8				
10	4	.30	2	.37	3	.60	5	.51	5	1.0	5	1.3				
11	4	.29	3	.53	4	.78	5	.47	12	3.2	5	1.2				
12	5	.39	3	.49	4	.73	5	.47	52	22	6	1.4				
13	4	.30	3	.47	5	.89	5	.45	51	24	6	1.3				
14	4	.29	3	.46	6	1.1	5	.43	27	9.0	6	1.3				
15	4	.27	2	.31	11	1.8	4	.39	14	3.9	6	1.2				
16	4	.27	3	.45	11	1.8	4	.42	10	2.6	6	1.2				
17	4	.26	2	.30	5	.84	4	.44	9	2.3	7	1.5				
18	4	.26	7	1.6	5	.78	4	.38	9	2.3	6	1.3				
19	7	.87	15	5.5	4	.62	4	.42	11	2.8	6	1.2				
20	5	.59	13	4.5	6	.89	4	.45	11	2.8	5	.99				
21	4	.35	10	2.7	7	.81	5	.68	10	2.8	6	1.2				
22	4	.30	8	1.9	6	.78	7	1.1	12	3.7	10	1.9				
23	4	.28	6	1.3	6	.86	7	1.1	12	3.7	11	2.0				
24	5	.34	4	.85	6	.96	8	1.2	12	4.0	10	1.8				
25	9	1.7	7	1.8	6	.91	10	1.4	14	5.5	10	1.7				
26	72	85	8	2.5	6	.81	6	.84	10	3.4	11	1.8				
27	42	53	10	2.8	6	.84	5	.76	7	2.1	7	1.2				
28	17	10	10	2.7	7	1.0	5	.77	8	2.1	7	1.2				
29	11	4.2	8	2.3	6	.96	7	1.0	---	---	6	.96				
30	8	2.6	9	2.6	6	1.0	5	.69	---	---	6	.99				
31	8	2.2	---	---	7	1.1	4	.49	---	---	8	1.5				
TOTAL	---	168.26	---	48.61	---	30.83	---	22.58	---	130.69	---	62.74				
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER						
1	7	1.4	13	3.3	17	3.4	19	2.1	15	1.1	8	.32				
2	8	2.2	18	6.6	18	3.8	17	1.8	13	.84	9	.36				
3	22	8.1	19	10	31	9.5	14	1.5	13	.81	8	.32				
4	15	4.5	16	7.0	26	7.4	13	1.5	12	.71	7	.28				
5	12	3.2	10	3.3	20	5.0	10	1.4	13	.67	6	.23				
6	17	7.4	10	2.9	21	5.3	12	1.4	12	.58	7	.25				
7	21	13	14	3.7	29	8.7	9	.95	8	.45	7	.23				
8	15	7.8	15	3.6	25	5.9	8	.76	9	.51	6	.23				
9	13	5.2	14	3.1	21	4.2	9	.80	10	.68	14	1.2				
10	18	6.6	14	2.9	19	3.7	9	.73	9	.70	6	.37				
11	21	7.1	17	6.1	17	3.4	8	.54	11	.48	4	.17				
12	13	5.1	77	101	18	3.3	13	.95	9	.44	5	.20				
13	24	14	46	67	23	3.8	13	.81	8	.67	7	.26				
14	20	13	20	16	17	3.4	10	.51	9	.61	7	.25				
15	21	15	11	6.5	17	3.5	10	.41	7	.40	8	.28				
16	16	11	55	44	23	4.3	9	.44	10	.95	11	1.1				
17	9	4.9	64	58	18	2.9	7	.42	8	.63	15	2.0				
18	14	6.4	27	16	18	2.5	9	.34	7	.42	31	12				
19	13	5.2	17	7.8	17	2.3	9	.44	7	.36	40	40				
20	13	4.6	21	9.2	17	3.2	8	.37	6	.31	29	25				
21	12	3.9	21	8.9	16	2.6	5	.26	7	.34	14	5.7				
22	14	4.0	23	8.3	14	2.2	5	.34	7	.30	10	2.1				
23	12	3.2	23	7.3	10	1.4	9	.61	6	.29	12	1.9				
24	15	4.8	23	6.5	11	1.3	8	.35	4	.17	8	1.1				
25	23	12	21	5.3	12	1.4	9	.39	9	.36	6	.73				
26	17	6.9	16	3.7	17	3.5	9	.66	4	.15	6	.68				
27	14	4.5	18	3.9	41	12	8	.54	4	.13	6	.65				
28	12	3.5	15	3.3	28	4.3	10	.68	6	.21	5	.51				
29	11	3.0	18	4.6	17	2.1	28	5.4	9	.34	8	.78				
30	12	3.1	19	4.5	14	1.6	34	5.7	8	.30	9	.85				
31	---	---	18	3.8	---	---	22	2.0	7	.30	---	---				
TOTAL	---	194.6	---	438.1	---	121.9	---	35.10	---	15.21	---	100.05				
TOTAL LOAD FOR YEAR:		1368.67		TONS.												

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 26,80 0000	APR 1,81 1130	MAY 20,81 1030	JUN 23,81 1045
TOTAL CELLS/ML	39	400	100	270
DIVERSITY: DIVISION	0.0	1.7	1.1	1.4
..CLASS	0.0	1.7	1.1	1.4
...ORDER	0.0	2.4	1.8	1.6
...FAMILY	0.9	3.0	2.0	2.4
....GENUS	0.9	3.3	2.0	2.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	--	-	--	4	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	4	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	4	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	4	--	-	110#	40
...KIRCHNERIELLA	--	-	--	-	--	-	--	-
...WESTELLA	--	-	--	4	--	-	--	-
...SCENEDESMACEAE								
...SCENEDESMUS	--	-	77#	19	--	-	27	10
...VOLVOCELES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	26	6	13	13	14	5
...VOLVOCEAE								
...GONIUM	--	-	52	13	--	-	--	-
...ZYGNEMATALES								
...DESMIDIACEAE								
....STAUSTRUM	--	-	--	4	--	-	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCEAE								
....CYCLOTELLA	--	-	26	6	--	-	--	-
....MELOSIRA	--	-	--	4	52#	50	--	-
...PENNALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	39	10	--	-	--	-
...FRAGILARIA	26#	67	--	4	--	-	--	-
...SYNEDRA	--	-	13	3	13	13	27	10
...NAVICULACEAE								
....GYROSIGMA	--	-	--	4	--	-	14	5
...NAVICULA	--	-	26	6	--	-	--	-
...NITZSCHACEAE								
....NITZSCHIA	13#	33	52	13	13	13	41	15
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	26	6	--	-	--	-
...HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	4	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	39	10	--	-	--	-
...TRACHELOMONAS	--	-	26	6	13	13	41	15
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	4	--	-	--	-

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

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 14,81 1100	AUG 27,81 0950	SEP 29,81 0950
TOTAL CELLS/ML	130	1800	300
DIVERSITY: DIVISION	1.7	1.5	0.0
..CLASS	1.7	1.5	0.0
...ORDER	1.7	2.1	0.9
...FAMILY	1.7	2.8	1.4
....GENUS	2.0	3.0	1.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....COELASTRACEAE						
.....COELASTRUM	--	-	55	3	--	-
....MICRACTINIACEAE						
.....MICRACTINIUM	--	-	55	3	--	-
....OOCYSTACEAE						
.....ANKISTRODESMUS	--	-	14	1	--	-
.....DICTYOSPHAERIUM	--	-	110	6	--	-
.....KIRCHNERIELLA	--	-	28	2	--	-
.....WESTELLA	--	-	110	6	--	-
....SCENEDESMACEAE						
.....SCENEDESMUS	--	-	360#	20	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	14	1	--	-
...VOLVOCAEEAE						
....GONIUM	--	-	--	-	--	-
..ZYGNEMATALES						
...DESMIDIOACEAE						
....STAUSTRUM	13	10	41	2	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
....COSCINODISCEAE						
.....CYCLOTELLA	--	-	69	4	--	-
.....MELOSIRA	--	-	14	1	200#	68
...PENNALES						
....FRAGILARIACEAE						
.....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	27	9
...NAVICULACEAE						
....GYROSIGMA	13	10	--	-	--	-
....NAVICULA	--	-	41	2	27	9
...NITZSCHACEAE						
....NITZSCHIA	--	-	41	2	41	14
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE						
.....ANACYSTIS	64#	50	120	7	--	-
...HORMOGONALES						
....OSCILLATORIAEAE						
.....OSCILLATORIA	--	-	670#	38	--	-
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
.....EUGLENA	13	10	--	-	--	-
....TRACHELOMONAS	26#	20	28	2	--	-
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
....PERIDINIACEAE						
.....PERIDINIUM	--	-	14	1	--	-

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

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

CHOPTANK RIVER BASIN

01492000 BEAVERDAM BRANCH AT MATTHEWS, MD

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, Hydrologic Unit 01060005, on left bank 50 ft (15 m) upstream from bridge on State Highway 328, 1.0 mi (1.6 km) west of Matthews, 1.2 mi (1.9 km) upstream from mouth, and 6.0 mi (9.7 km) northeast of Easton.

DRAINAGE AREA.--5.85 mi² (15.15 km²).

PERIOD OF RECORD.--July 1950 to September 1981 (discontinued).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2.33 ft (0.710 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--31 years, 6.79 ft³/s (0.192 m³/s), 15.76 in/yr (400 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Sept. 12, 1960, gage height, 10.24 ft (3.121 m), from high-water mark in gage shelter, from rating curve extended above 440 ft³/s (12.5 m³/s) on basis of contracted-opening measurement at gage height 7.15 ft (2.179 m); no flow at times during many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 120 ft³/s (3.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
May 11	2400	*190 5.38	3.40 1.036	Aug. 3	1915	142 4.02	2.97 0.905

Minimum discharge, 0.19 ft³/s (0.005 m³/s) Aug. 1, 2, 3, gage height, 1.07 ft (0.326 m).

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	.26	1.4	2.7	1.7	1.3	3.5	11	6.1	2.0	.68	.23	.39
2	.29	1.2	2.6	1.7	5.3	3.2	21	14	9.2	.85	.23	.35
3	.51	1.1	2.4	1.6	4.2	2.9	5.3	5.4	5.7	.73	16	.30
4	.85	2.3	2.0	1.3	2.1	2.7	4.0	3.6	4.4	7.8	1.6	.28
5	.48	3.2	1.9	.93	1.5	7.7	10	3.0	5.3	4.6	.61	.29
6	.31	1.8	1.9	.98	1.4	6.0	21	2.9	2.7	2.0	.51	.29
7	.27	1.5	1.9	1.7	1.6	4.2	5.8	2.4	2.2	1.3	.50	.29
8	.28	1.4	1.9	1.9	3.3	3.5	4.6	1.9	1.6	.97	.47	7.9
9	.26	1.3	2.1	1.2	3.1	3.2	5.3	1.8	1.5	.79	.42	19
10	.26	1.5	2.7	1.2	2.4	3.1	5.8	2.3	2.5	.64	.33	1.4
11	.31	1.4	2.0	.94	20	3.0	4.8	64	1.9	.49	.32	.71
12	.40	1.2	1.8	.75	8.7	2.8	15	72	1.3	.41	.90	.43
13	.34	1.2	1.8	.55	3.7	2.8	13	9.6	1.2	.38	.83	.35
14	.40	1.2	1.8	.77	3.2	2.6	8.4	6.0	12	.38	.49	.32
15	.50	1.1	1.7	.96	3.1	2.4	7.8	12	3.2	.30	.35	.35
16	.54	1.1	1.8	1.2	3.1	3.5	5.5	15	2.0	.29	2.0	4.1
17	.57	1.5	1.7	1.3	3.2	4.1	5.3	5.2	1.4	.31	.61	1.8
18	1.1	32	1.6	1.1	3.0	3.0	5.1	3.9	1.1	.28	.36	53
19	5.9	5.1	1.7	1.2	3.0	2.7	3.9	13	4.2	.25	.32	31
20	1.2	2.9	1.4	1.7	4.6	2.5	4.2	9.8	2.4	.23	.33	3.9
21	.68	2.4	1.2	3.4	10	2.3	3.5	5.5	1.9	.49	.29	2.0
22	.56	2.0	1.1	3.1	5.6	2.0	3.2	4.0	3.3	.32	.39	1.5
23	.42	1.8	1.5	2.6	7.7	2.1	3.3	3.1	3.1	.25	.41	1.3
24	.42	3.9	2.5	2.3	10	2.0	8.5	2.6	1.3	.23	.30	.98
25	39	7.1	2.4	2.0	5.4	1.9	4.2	2.2	2.2	.49	.30	.87
26	12	3.5	1.3	2.2	4.2	1.8	3.2	1.9	4.2	.48	.30	.81
27	2.6	2.8	1.2	2.5	3.7	1.9	2.9	1.7	1.2	.35	.26	.76
28	3.0	6.8	1.6	2.2	3.5	1.8	2.7	23	.97	.41	.24	.66
29	2.9	4.5	2.2	1.9	---	1.8	3.6	7.2	.80	.60	2.3	.55
30	1.8	3.1	2.2	1.5	---	2.9	2.6	3.8	.70	.30	2.1	.54
31	1.6	---	1.8	1.3	---	3.9	---	2.6	---	.25	.65	---
TOTAL	80.01	103.3	58.4	50.08	131.9	93.8	204.5	311.5	87.47	27.85	34.95	136.42
MEAN	2.58	3.44	1.88	1.62	4.71	3.03	6.82	10.0	2.92	.90	1.13	4.55
MAX	39	32	2.7	3.8	20	7.7	21	72	12	7.8	16	53
MIN	.26	1.1	1.1	.55	1.3	1.9	2.6	1.7	.70	.23	.23	.28
CFSM	.44	.59	.32	.28	.81	.52	1.17	1.71	.50	.15	.19	.78
IN.	.51	.66	.37	.32	.84	.60	1.30	1.98	.56	.18	.22	.87

CAL YR 1980	TOTAL	1792.97	MEAN 4.90	MAX 71	MIN .08	CFSM .84	IN 11.40
WTR YR 1981	TOTAL	1320.18	MEAN 3.62	MAX 72	MIN .23	CFSM .62	IN 8.39

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 mi² (57.8 km²).

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.--33 years, 24.7 ft³/s (0.700 m³/s), 15.04 in/yr (382 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft³/s (30.0 m³/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, 61 ft³/s (1.73 m³/s) May 12, gage height, 2.79 ft (0.850 m), no peak above base of 180 ft³/s (5.1 m³/s); minimum discharge, 0.16 ft³/s (0.005 m³/s) Dec. 10.

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	11	14	16	13	11	17	17	17	12	9.0	8.0	7.0
2	12	13	16	12	18	16	26	36	19	11	8.6	6.8
3	15	13	14	12	23	16	22	37	20	9.2	8.0	6.0
4	16	14	29	11	16	15	20	22	17	16	8.9	6.3
5	13	15	31	10	13	22	19	18	16	16	8.2	6.7
6	12	14	21	9.5	12	29	27	16	19	12	7.9	6.4
7	12	13	20	13	12	23	24	15	15	11	8.3	6.7
8	11	12	21	12	15	20	21	14	13	9.8	9.4	6.8
9	11	12	12	10	16	19	19	13	12	9.4	11	7.5
10	10	12	.16	10	14	18	19	13	14	8.5	8.8	6.1
11	12	11	.40	8.9	27	18	19	23	13	8.1	8.6	5.5
12	11	12	.89	8.9	44	18	22	53	12	7.9	8.6	5.6
13	10	12	7.2	8.9	23	17	27	41	11	8.3	9.0	5.2
14	10	12	13	9.5	19	16	30	24	19	7.7	8.7	4.9
15	10	12	12	10	19	16	41	22	16	7.6	7.3	5.4
16	9.5	12	13	11	18	15	26	43	14	7.3	9.0	17
17	9.5	13	13	11	19	16	21	26	12	7.9	7.8	12
18	10	26	12	11	19	16	19	19	11	7.9	7.4	19
19	12	22	12	11	19	16	17	19	10	7.7	6.7	19
20	9.5	17	12	11	20	16	17	19	12	8.2	7.2	13
21	9.2	15	11	12	21	15	16	17	11	14	6.6	8.8
22	8.9	14	11	13	21	14	15	16	9.5	13	6.7	8.9
23	8.4	14	13	14	21	14	15	14	10	8.9	7.6	8.9
24	9.1	18	15	13	24	14	29	14	9.4	7.3	7.1	7.7
25	32	22	15	13	21	14	31	13	12	8.6	6.7	7.7
26	44	19	12	13	19	14	21	12	20	9.8	6.5	7.2
27	20	17	12	14	18	13	18	11	13	8.7	6.7	6.9
28	15	19	12	14	18	13	17	13	10	9.5	6.2	6.9
29	14	19	13	13	---	13	16	14	9.6	24	6.1	6.4
30	15	17	14	12	---	15	16	13	9.0	12	6.8	7.0
31	15	---	13	11	---	17	---	12	---	8.5	7.5	---
TOTAL	417.1	455	416.65	355.7	540	515	647	639	400.5	314.8	241.9	249.3
MEAN	13.5	15.2	13.4	11.5	19.3	16.6	21.6	20.6	13.4	10.2	7.80	8.31
MAX	44	26	31	14	44	29	41	53	20	24	11	19
MIN	8.4	11	.16	8.9	11	13	15	11	9.0	7.3	6.1	4.9
CFSM	.61	.68	.60	.52	.87	.74	.97	.92	.60	.46	.35	.37
IN.	.70	.76	.70	.59	.90	.86	1.08	1.07	.67	.53	.40	.42

CAL YR 1980 TOTAL 9210.15 MEAN 25.2 MAX 238 MIN .16 CFSM 1.13 IN 15.36
WTR YR 1981 TOTAL 5191.95 MEAN 14.2 MAX 53 MIN .16 CFSM .64 IN 8.66

CHESTER RIVER BASIN

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 mi² (32.9 km²).

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. Altitude of gage is 15 ft (4.6 m).

REMARKS.--Records good below 50 ft³/s (1.42 m³/s) and fair above. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 10.6 ft³/s (0.300 m³/s), 11.33 in/yr (288 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft³/s (212 m³/s) June 22, 1972, gage height, 13.07 ft (3.984 m), from rating curve extended above 590 ft³/s (16.7 m³/s) on basis of Type IV culvert and flow-over-road measurement of peak flow; minimum discharge, 0.60 ft³/s (0.017 m³/s) Aug. 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 440 ft³/s (12.5 m³/s) June 26, gage height, 6.10 ft (1.859 m), no other peak above base of 200 ft³/s (5.6 m³/s); minimum discharge, 2.0 ft³/s (0.057 m³/s) Aug. 21, gage height, 1.29 ft (0.393 m).

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	4.3	4.8	5.3	5.8	4.4	4.8	6.9	7.5	3.4	3.2	3.2	4.9
2	4.5	4.8	5.4	5.3	15	4.8	12	18	7.5	10	2.9	5.3
3	7.9	4.6	5.6	4.9	13	4.2	5.3	6.3	7.6	6.4	2.9	4.0
4	8.8	5.6	4.9	4.4	4.8	4.1	4.4	4.4	5.5	21	2.9	4.0
5	5.1	6.9	4.8	4.4	4.0	10	5.3	4.0	5.7	49	3.1	4.0
6	4.5	5.1	5.1	4.4	3.8	8.8	9.4	4.0	6.8	11	3.2	4.0
7	4.4	4.8	5.3	4.9	4.3	5.1	4.9	4.4	4.6	6.2	3.2	4.0
8	4.4	4.8	5.3	4.4	7.1	4.4	4.4	3.2	3.4	4.6	14	6.3
9	4.4	4.9	6.0	4.0	7.3	4.4	4.4	3.2	3.4	3.9	21	13
10	4.3	5.3	7.5	4.0	5.0	4.4	4.6	3.2	5.2	3.6	5.3	5.8
11	4.4	4.8	6.3	3.6	20	4.4	4.3	18	4.6	3.5	4.0	4.4
12	4.7	4.4	5.8	2.9	25	4.6	9.6	40	3.6	3.2	4.0	4.0
13	4.2	4.4	5.8	2.6	6.9	4.4	8.4	8.7	3.2	3.2	4.0	3.6
14	4.0	4.8	5.8	2.9	5.6	4.1	13	4.9	21	3.2	3.2	3.6
15	4.0	4.8	5.3	3.2	6.0	3.6	11	13	9.9	3.2	3.2	3.6
16	4.3	4.8	5.8	4.4	5.8	4.5	5.5	84	4.8	3.2	3.2	17
17	4.4	5.6	5.3	4.9	6.0	4.6	5.3	12	3.5	3.2	3.2	6.9
18	4.8	17	4.9	5.8	6.3	3.9	5.2	5.3	2.9	3.2	2.9	20
19	8.5	8.9	5.3	4.9	6.3	4.0	4.5	5.8	2.9	3.2	2.9	18
20	5.2	5.8	4.4	5.3	7.6	4.0	4.6	6.3	30	3.5	2.4	7.2
21	4.0	5.4	3.6	7.5	7.7	4.0	4.1	4.9	20	5.0	2.2	5.2
22	4.0	5.3	3.6	8.1	7.0	3.7	4.0	4.0	5.6	3.5	2.9	4.5
23	4.0	5.3	4.9	8.7	9.4	4.0	4.2	3.6	3.6	3.2	2.9	3.9
24	4.0	9.9	8.1	7.5	12	4.0	8.2	3.2	2.9	3.2	2.9	3.6
25	27	15	6.9	6.3	6.6	4.0	5.0	3.2	21	3.2	2.9	3.6
26	27	7.1	4.4	6.3	5.4	4.0	4.4	3.2	230	3.2	2.6	3.6
27	6.8	5.8	4.4	7.5	4.9	4.0	4.4	3.2	16	3.2	2.9	3.6
28	5.6	7.2	4.9	6.3	4.8	3.7	4.4	5.2	4.9	3.9	2.9	3.5
29	5.6	6.6	7.5	5.8	---	3.6	5.3	5.6	3.6	7.7	2.9	3.2
30	5.0	5.7	7.5	4.9	---	5.7	5.3	4.2	3.6	4.0	4.0	3.2
31	4.8	---	5.8	4.0	---	6.3	---	3.9	---	3.2	11	---
TOTAL	198.9	190.2	171.5	159.9	222.0	144.1	182.3	300.4	450.7	194.8	134.8	181.5
MEAN	6.42	6.34	5.53	5.16	7.93	4.65	6.08	9.69	15.0	6.28	4.35	6.05
MAX	27	17	8.1	8.7	25	10	13	84	230	49	21	20
MIN	4.0	4.4	3.6	2.6	3.8	3.6	4.0	3.2	2.9	3.2	2.2	3.2
CFSM	.51	.50	.44	.41	.62	.37	.48	.76	1.18	.49	.34	.48
IN.	.58	.56	.50	.47	.65	.42	.53	.88	1.32	.57	.39	.53

CAL YR 1980 TOTAL 3332.0 MEAN 9.10 MAX 121 MIN 2.6 CFSM .72 IN 9.76
WTR YR 1981 TOTAL 2531.1 MEAN 6.93 MAX 230 MIN 2.2 CFSM .55 IN 7.41

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 mi² (136.2 km²).

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 and February, which are fair. Slight diurnal fluctuation caused by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 69.5 ft³/s (1.968 m³/s), 17.94 in/yr (456 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s (300 m³/s) July 5, 1937, gage height, 14.5 ft (4.42 m), from floodmarks, from rating curve extended above 1,700 ft³/s (48.1 m³/s) on basis of velocity-area and conveyance studies; minimum discharge, 4.5 ft³/s (0.13 m³/s) Jan. 21, 1955, (result of freezeup); minimum daily discharge, 4.8 ft³/s (0.14 m³/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.--Maximum stage known, about 19 ft (5.8 m) in June 1884, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,030 ft³/s (57.5 m³/s) Aug. 8, gage height, 6.78 ft (2.067 m), no other peak above base of 1,700 ft³/s (48 m³/s); minimum discharge, 11 ft³/s (0.31 m³/s) Aug. 2.

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	18	19	24	27	27	44	44	31	22	22	12	18
2	18	19	24	25	212	39	71	80	33	38	11	16
3	28	18	24	23	139	37	38	39	36	32	20	15
4	41	22	24	22	51	33	33	32	28	37	42	14
5	23	29	24	25	45	42	34	29	26	61	19	15
6	19	22	25	27	37	41	48	28	23	35	15	14
7	18	21	26	27	31	40	35	28	22	29	14	14
8	18	20	26	27	28	41	32	26	20	25	514	19
9	18	20	27	26	167	53	32	25	23	22	68	37
10	17	23	29	25	32	47	34	26	26	20	34	16
11	19	22	26	23	424	42	32	135	26	18	27	13
12	19	22	25	21	128	44	45	121	22	17	34	13
13	17	22	25	21	53	38	41	58	20	16	29	12
14	17	22	24	23	42	35	108	44	31	16	23	12
15	17	22	25	24	38	32	84	173	29	14	22	16
16	18	23	27	25	35	36	46	313	25	14	39	55
17	17	23	28	26	35	39	42	59	35	15	22	27
18	20	68	28	26	37	34	41	44	25	14	20	63
19	35	39	26	27	38	33	35	39	21	14	19	44
20	21	25	22	28	70	32	36	38	90	15	18	24
21	19	23	21	28	80	31	33	33	46	84	17	20
22	18	21	22	29	59	29	32	30	37	26	17	18
23	18	21	27	29	72	29	34	28	32	17	18	22
24	18	43	29	30	128	29	50	26	26	16	17	18
25	150	127	23	31	59	28	36	25	28	15	17	16
26	60	36	22	31	46	28	32	24	108	16	17	16
27	24	29	31	32	42	28	31	23	33	15	16	15
28	21	31	34	32	41	27	29	25	26	16	16	15
29	20	31	36	30	---	26	29	28	23	19	15	14
30	19	26	35	26	---	30	28	25	22	15	33	14
31	18	---	26	25	---	37	---	24	---	12	23	---
TOTAL	803	889	815	821	2196	1104	1245	1659	964	725	1208	625
MEAN	25.9	29.6	26.3	26.5	78.4	35.6	41.5	53.5	32.1	23.4	39.0	20.8
MAX	150	127	36	32	424	53	108	313	108	84	514	63
MIN	17	18	21	21	27	26	28	23	20	12	11	12
CFSM	.49	.56	.50	.50	1.49	.68	.79	1.02	.61	.45	.74	.40
IN.	.57	.63	.58	.58	1.55	.78	.88	1.17	.68	.51	.85	.44
CAL YR 1980	TOTAL	19373	MEAN	52.9	MAX	354	MIN	15	CFSM	1.01	IN	13.70
WTR YR 1981	TOTAL	13054	MEAN	35.8	MAX	514	MIN	11	CFSM	.68	IN	9.23

ELK RIVER BASIN

01495800 LONG CREEK NEAR CHESAPEAKE CITY, MD

LOCATION.--Lat 39°33'15", long 75°47'18", Cecil County, Hydrologic Unit 02060002, on left bank, 10 ft (3 m) downstream from culvert on farm road, 2.0 mi (3.2 km) northeast of Chesapeake City, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--4.36 mi² (11.3 km²).

PERIOD OF RECORD.--October 1978 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 17 ft (5 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 245 ft³/s (6.94 m³/s) Feb. 25, 1979, gage height, 4.12 ft (1.256 m); minimum daily discharge, 0.09 ft³/s (0.003 m³/s) July 15, 16, 18, 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft³/s (1.76 m³/s) May 16, gage height, 3.06 ft (0.933 m), no peak above base of 70 ft³/s (1.9 m³/s); minimum daily discharge, 0.09 ft³/s (0.003 m³/s) July 15, 16, 18, 19.

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	.17	.50	.95	.68	.52	1.5	1.9	3.4	.83	.39	.14	.30
2	.17	.44	.92	.69	2.4	1.4	4.1	19	1.4	1.8	.12	.26
3	.33	.44	.87	.64	2.1	1.3	2.0	6.0	1.7	.67	.27	.22
4	.43	.50	.78	.53	1.1	1.2	1.6	3.3	1.5	1.1	.35	.23
5	.28	.60	.78	.41	.73	2.5	1.7	2.3	1.2	1.2	.52	.26
6	.25	.52	.74	.38	.61	3.3	4.6	2.1	1.0	.92	.26	.25
7	.25	.50	.72	.56	.67	2.9	2.4	1.8	.92	.61	.23	.22
8	.24	.50	.72	.57	1.3	2.2	1.8	1.5	.75	.44	.95	.24
9	.21	.50	.76	.39	1.5	1.8	1.7	1.4	.73	.32	.58	.30
10	.22	.50	.92	.45	1.0	1.6	1.7	1.3	.86	.25	.42	.25
11	.33	.50	.92	.39	8.7	1.5	1.8	13	.99	.19	.25	.22
12	.32	.51	.86	.31	7.9	1.7	11	29	.74	.14	.25	.22
13	.27	.50	.85	.38	3.1	1.6	6.1	8.1	.63	.11	.30	.20
14	.22	.50	.85	.40	2.2	1.4	15	4.1	6.2	.10	.22	.19
15	.21	.50	.85	.50	2.0	1.3	11	14	2.5	.09	.26	.38
16	.24	.54	.92	.54	2.0	1.4	4.8	35	1.7	.09	1.7	3.6
17	.34	.64	1.0	.50	1.9	1.4	3.6	8.6	1.2	.10	.45	1.3
18	.43	2.1	.87	.54	1.8	1.3	3.0	4.2	.82	.09	.25	18
19	.56	1.2	.83	.60	1.7	1.3	2.3	3.3	.66	.09	.16	7.9
20	.37	.92	.72	.67	2.3	1.1	2.2	3.4	17	.15	.14	2.9
21	.33	.75	.58	.96	3.3	1.0	1.9	2.7	5.0	.30	.10	1.5
22	.40	.72	.48	1.2	2.6	1.0	1.7	2.1	1.8	.21	.10	1.1
23	.44	.67	.56	1.2	3.2	1.0	1.6	1.8	1.1	.15	.10	.94
24	.92	1.9	.82	1.0	4.4	.92	2.5	1.8	.73	.11	.10	.80
25	8.8	2.8	.87	.94	2.8	.85	2.0	1.8	4.9	.10	.10	.68
26	3.6	1.7	.43	.92	2.2	.85	1.6	1.1	8.0	.11	.11	.53
27	1.6	1.2	.44	.99	1.7	.87	1.4	.93	1.9	.10	.12	.37
28	1.1	1.4	.63	.95	1.5	.78	1.3	1.0	.97	.17	.11	.32
29	.78	1.3	.97	.88	---	.75	5.1	1.1	.60	.40	.19	.27
30	.66	1.1	1.1	.69	---	1.0	2.7	1.0	.46	.29	1.1	.25
31	.55	---	.81	.57	---	1.7	---	.90	---	.20	.42	---
TOTAL	25.02	26.45	24.52	20.43	67.23	44.42	106.1	181.03	68.79	10.99	10.37	44.20
MEAN	.81	.88	.79	.66	2.40	1.43	3.54	5.84	2.29	.35	.33	1.47
MAX	8.8	2.8	1.1	1.2	8.7	3.3	15	35	17	1.8	1.7	18
MIN	.17	.44	.43	.31	.52	.75	1.3	.90	.46	.09	.10	.19
CFSM	.19	.20	.18	.15	.55	.33	.81	1.34	.53	.08	.08	.34
IN.	.21	.23	.21	.17	.57	.38	.91	1.54	.59	.09	.09	.38
CAL YR 1980	TOTAL	1492.43	MEAN	4.08	MAX	49	MIN	.12	CFSM	.94	IN	12.73
WTR YR 1981	TOTAL	629.55	MEAN	1.72	MAX	35	MIN	.09	CFSM	.39	IN	5.37

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 mi² (62.9 km²).

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.--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.--33 years, 35.7 ft³/s (1.011 m³/s), 19.95 in/yr (507 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s (136 m³/s) June 22, 1972, gage height, 8.41 ft (2.563 m), from rating curve extended above 2,300 ft³/s (65.1 m³/s) on basis of contracted-opening measurement at gage height 7.74 ft (2.359 m); minimum discharge, 1.2 ft³/s (0.034 m³/s) Sept. 8, 9, 10, 11, 12, 13, 14, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 930 ft³/s (26.3 m³/s) Aug. 8, gage height, 4.09 ft (1.247 m), no other peak above base of 800 ft³/s (22 m³/s); minimum discharge, 1.4 ft³/s (0.040 m³/s) July 18, 24, Aug. 2, gage height, 1.31 ft (0.399 m); minimum daily discharge, 4.1 ft³/s (0.12 m³/s) Oct. 1, July 25.

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	4.1	6.0	11	8.9	8.0	16	18	13	9.5	6.4	4.6	6.6
2	4.4	5.9	11	9.1	85	14	41	39	13	9.0	4.4	6.7
3	6.3	5.5	9.6	9.5	74	13	18	19	16	8.4	5.1	5.9
4	10	6.9	8.6	8.9	28	11	14	15	12	23	14	5.5
5	6.0	11	9.3	7.9	16	16	14	13	11	33	8.4	6.1
6	5.1	7.1	9.0	11	12	17	24	12	9.4	12	6.3	5.7
7	4.6	6.8	9.1	11	10	18	16	12	8.4	9.2	4.9	5.7
8	4.6	6.2	9.7	9.3	17	20	14	10	7.9	7.7	554	10
9	4.6	6.6	9.9	10	64	31	13	10	8.2	7.1	97	14
10	4.6	6.6	10	10	14	22	14	10	11	6.4	17	7.0
11	5.4	6.4	9.6	9.0	183	18	13	54	11	5.8	11	5.6
12	4.9	6.0	8.8	9.0	145	18	33	65	7.8	5.7	23	5.5
13	4.9	6.1	8.9	8.0	22	15	26	26	7.8	5.7	20	5.1
14	4.9	6.3	8.6	8.0	16	14	130	17	14	4.8	12	5.6
15	4.6	6.4	8.4	9.0	13	12	64	46	12	5.6	11	6.2
16	4.6	6.4	9.5	9.4	12	14	26	144	9.7	5.1	48	26
17	4.6	7.3	10	10	12	17	21	29	12	5.1	14	13
18	5.1	37	9.8	10	14	13	20	20	10	4.9	11	48
19	15	16	8.9	9.9	15	12	16	18	7.2	5.1	8.9	23
20	6.0	9.3	8.4	11	30	12	16	17	29	6.3	8.9	11
21	4.9	7.8	8.0	13	42	11	15	15	17	15	8.4	7.8
22	4.9	7.4	8.4	11	26	11	14	13	14	7.7	7.4	7.4
23	4.9	7.0	9.8	14	42	11	15	13	10	6.0	7.7	7.5
24	4.9	36	13	13	98	11	28	11	7.5	5.4	6.3	6.9
25	55	88	13	10	29	10	18	10	7.6	4.1	7.4	6.1
26	26	18	15	9.9	20	10	14	10	27	6.0	5.8	6.0
27	9.3	13	14	11	16	11	13	10	9.5	4.6	6.3	6.4
28	7.0	15	13	11	14	9.4	13	11	7.5	6.3	6.6	6.5
29	6.8	15	11	9.2	---	9.3	13	13	7.1	7.0	6.2	5.6
30	6.5	12	11	8.3	---	11	12	11	6.8	5.4	6.0	5.9
31	6.1	---	9.9	8.1	---	15	---	9.8	---	4.6	7.3	---
TOTAL	250.6	395.0	314.2	307.4	1077.0	442.7	706	715.8	340.9	248.4	958.9	288.3
MEAN	8.08	13.2	10.1	9.92	38.5	14.3	23.5	23.1	11.4	8.01	30.9	9.61
MAX	55	88	15	14	183	31	130	144	29	33	554	48
MIN	4.1	5.5	8.0	7.9	8.0	9.3	12	9.8	6.8	4.1	4.4	5.1
CFSM	.33	.54	.42	.41	1.58	.59	.97	.95	.47	.33	1.27	.40
IN.	.38	.60	.48	.47	1.65	.68	1.08	1.10	.52	.38	1.47	.44

CAL YR 1980 TOTAL 9921.9 MEAN 27.1 MAX 363 MIN 3.3 CFSM 1.12 IN 15.19
WTR YR 1981 TOTAL 6045.2 MEAN 16.6 MAX 554 MIN 4.1 CFSM .68 IN 9.25

PRINCIPIO CREEK BASIN

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 mi² (23.39 km²).

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

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

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

AVERAGE DISCHARGE.--14 years, 13.4 ft³/s (0.379 m³/s), 20.15 in/yr (512 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,060 ft³/s (200 m³/s) Aug. 4, 1969, gage height, 9.26 ft (2.822 m), from rating curve extended above 170 ft³/s (4.81 m³/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 ft³/s (0.034 m³/s) Aug. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 11	1430	388 11.0	4.47 1.362	Aug. 8	0745	*1270 36.0	6.85 2.088

Minimum discharge, 1.2 ft³/s (0.034 m³/s) Aug. 2.

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	2.4	3.2	4.2	4.6	4.0	6.2	7.1	6.1	3.8	2.2	1.3	1.9
2	2.6	3.2	4.2	4.5	18	5.4	9.8	11	6.2	3.7	1.3	2.7
3	4.4	3.4	4.2	4.6	6.3	5.0	5.8	6.0	4.8	2.7	3.3	1.8
4	4.5	4.6	4.4	4.8	4.0	4.8	5.1	5.0	4.7	9.2	2.9	1.7
5	2.7	4.6	4.6	4.4	3.4	6.8	5.7	4.8	4.2	6.2	1.8	1.8
6	2.4	3.7	4.6	4.8	3.1	6.6	7.5	4.6	3.8	3.5	1.5	1.8
7	2.4	3.6	4.9	4.8	2.7	6.7	5.2	4.4	3.6	2.8	1.5	1.7
8	2.4	3.8	5.1	4.7	8.1	8.3	4.8	4.2	3.4	2.3	189	5.8
9	2.4	3.8	5.3	4.5	7.8	8.7	5.1	4.1	3.9	2.1	8.0	3.3
10	2.4	3.8	5.3	4.2	3.1	6.9	5.0	4.4	4.5	2.0	3.7	1.8
11	2.8	4.0	5.1	4.0	75	6.8	5.2	14	4.0	1.8	3.0	1.6
12	2.8	4.2	4.9	4.0	11	6.6	13	11	3.4	1.7	4.4	1.5
13	2.7	4.2	4.7	4.0	6.4	5.9	8.2	7.1	3.2	1.6	3.6	1.4
14	2.7	4.6	4.6	4.2	5.6	5.2	33	5.5	5.6	1.6	2.7	1.4
15	2.8	4.6	4.5	4.5	5.1	5.2	13	26	4.1	1.5	4.4	2.2
16	2.9	4.6	5.4	4.6	4.9	6.6	8.5	19	3.6	1.5	8.4	11
17	3.0	4.9	5.0	4.7	5.1	5.9	7.7	8.3	3.7	1.6	2.9	3.4
18	3.8	13	5.1	4.9	5.3	5.2	7.0	6.7	3.1	1.5	2.4	23
19	4.4	4.9	4.8	4.9	5.7	5.0	5.9	6.6	2.8	1.4	2.2	7.5
20	3.4	3.9	4.6	5.0	12	4.9	6.4	6.3	18	2.2	2.1	4.0
21	3.5	3.6	4.6	5.1	11	4.8	5.4	5.4	6.1	6.5	2.0	3.1
22	3.7	3.6	4.7	5.0	8.0	4.6	5.3	5.0	8.5	1.9	2.0	2.8
23	3.9	3.5	5.4	5.0	26	4.6	6.2	4.6	3.5	1.6	2.0	2.6
24	4.2	21	5.7	5.0	19	4.6	10	4.4	3.0	1.5	1.8	2.4
25	18	11	5.7	5.0	9.1	4.6	6.2	4.3	2.9	1.6	1.8	2.4
26	5.3	5.6	5.3	5.0	7.2	4.5	5.4	4.1	4.3	1.7	1.8	2.4
27	3.1	4.8	6.1	5.2	6.3	4.5	5.2	4.1	2.6	1.6	1.7	2.4
28	3.0	5.7	6.0	4.9	6.0	4.4	5.1	4.6	2.3	2.9	1.7	2.2
29	2.9	5.0	6.1	4.5	---	4.4	5.0	4.7	2.2	2.9	1.6	2.1
30	2.9	4.4	5.2	4.6	---	5.7	4.8	4.1	2.1	1.6	1.9	2.2
31	3.1	---	5.5	4.4	---	5.7	---	4.1	---	1.4	1.9	---
TOTAL	113.5	158.8	155.8	144.4	289.2	175.1	227.6	214.5	131.9	78.3	270.6	105.9
MEAN	3.66	5.29	5.03	4.66	10.3	5.65	7.59	6.92	4.40	2.53	8.73	3.53
MAX	18	21	6.1	5.2	75	8.7	33	26	18	9.2	189	23
MIN	2.4	3.2	4.2	4.0	2.7	4.4	4.8	4.1	2.1	1.4	1.3	1.4
CFSM	.41	.59	.56	.52	1.14	.63	.84	.77	.49	.28	.97	.39
IN.	.47	.65	.64	.59	1.19	.72	.94	.88	.54	.32	1.11	.44

CAL YR 1980	TOTAL	3483.8	MEAN	9.52	MAX	109	MIN	1.4	CFSM	1.05	IN	14.35
WTR YR 1981	TOTAL	2065.6	MEAN	5.66	MAX	189	MIN	1.3	CFSM	.63	IN	8.51

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 mi² (70,190 km²).

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 hm³); dead storage, 45,290,000,000 gal (171.4 hm³). 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.--14 years, 43,000 ft³/s (1,218 m³/s), 21.55 in/yr (547 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130,000 ft³/s (32,000 m³/s) June 24, 1972, gage height, 36.83 ft (11.226 m); minimum discharge, 144 ft³/s (4.08 m³/s) Mar. 2, 1969, gage height, 6.28 ft (1.914 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 355,000 ft³/s (10,100 m³/s) Feb. 25, gage height, 25.18 ft (7.675 m); minimum, 637 ft³/s (18.0 m³/s) Nov. 2, gage height, 7.12 ft (2.170 m).

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	7910	850	30600	816	1440	103000	18600	66300	26600	24200	7610	7810
2	7680	719	25000	16800	4370	92600	25000	83700	19200	26000	6520	8770
3	8590	18600	25900	4340	21200	81400	33200	63300	20300	21700	23900	13200
4	1210	20300	26200	4680	22100	69100	20800	68900	23900	17600	20700	7170
5	882	14700	36400	12800	22200	68900	11900	56200	30300	15900	25000	2680
6	1110	9530	12000	9690	24500	59000	32100	55500	19100	28200	12300	2660
7	5540	2790	9730	5460	12200	51900	28400	41800	11800	26100	11800	2640
8	8030	840	26200	13100	6030	20100	29400	35700	29200	23700	2870	6090
9	9520	801	25200	9080	20100	43100	26000	26500	29300	27500	2610	14800
10	6530	799	25500	751	32600	35500	27900	17100	21900	24600	11200	15700
11	813	1840	26300	726	29400	34100	19200	31600	27300	8520	13500	17300
12	785	10200	31800	7880	111000	34400	13800	41700	32500	5440	9810	3330
13	767	11400	9960	7480	165000	35600	36100	49600	17900	21700	13400	2620
14	4030	14000	10500	7440	122000	29700	44900	62600	10500	16400	17100	22200
15	4980	892	24700	10700	94200	16300	60600	74000	34900	3710	2730	10600
16	8430	829	22000	13100	82200	28900	73700	66000	47600	15300	2440	13700
17	7760	6020	21800	873	76600	25800	68000	55200	40800	16800	5050	13000
18	819	11500	20300	830	66000	26600	56900	68900	47900	2720	6890	12400
19	825	13300	18800	6050	63800	27000	42900	66900	52400	3190	9580	2780
20	1590	14000	3800	7040	90300	25000	53100	59800	32300	7470	11400	2730
21	7340	14000	777	8330	209000	15500	48200	52100	31100	21600	10700	8680
22	6410	828	15700	11700	252000	6150	39000	47000	42100	12800	2950	9840
23	830	802	18000	10100	251000	25400	37500	26800	36700	14900	3400	10500
24	9530	18800	7840	774	295000	23000	35100	20800	36600	19000	8640	14500
25	3060	27000	1170	787	301000	19000	25900	17100	38600	9460	7260	10800
26	813	31700	4940	7880	231000	20000	23300	30400	41600	2550	3640	2670
27	6890	832	7340	7520	172000	21400	38200	23400	27600	24100	9280	2690
28	13000	25500	786	9200	132000	11700	41500	23800	18500	18500	5250	2900
29	14500	13000	7830	10900	---	6040	38800	27000	31200	18700	2690	15000
30	17400	7730	16200	14400	---	23200	53500	15500	30100	14700	3200	14900
31	19200	---	6690	857	---	20200	---	8340	---	15600	3720	---
TOTAL	194324	294102	519963	222084	2910240	1099590	1103500	1383540	909800	508660	277140	274660
MEAN	6269	9803	16770	7164	103900	35470	36780	44630	30330	16410	8940	9155
MAX	19200	31700	36400	16800	301000	103000	73700	83700	52400	28200	25000	22200
MIN	767	719	777	726	1440	6040	11900	8340	10500	2550	2440	2620
CFSM	.23	.36	.62	.26	3.83	1.31	1.36	1.65	1.12	.61	.33	.34
IN.	.27	.40	.71	.30	3.99	1.51	1.51	1.90	1.25	.70	.38	.38

CAL YR 1980 TOTAL 10405422 MEAN 28430 MAX 215000 MIN 719 CFSM 1.05 IN 14.28
WTR YR 1981 TOTAL 9697603 MEAN 26570 MAX 301000 MIN 719 CFSM .98 IN 13.31

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1979 to April 1981 (discontinued).

WATER TEMPERATURES: June 1979 to April 1981 (discontinued).

SUSPENDED SEDIMENT: October 1979 to April 1981 (discontinued).

REMARKS.--Daily samples collected by a local observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 475 micromhos Nov. 13-15, 1981; minimum, 115 micromhos Apr. 3, 1980.

WATER TEMPERATURES (water year 1980): Maximum, 29.5°C Aug. 8, 1980; minimum, 1.0°C Feb. 5, 6, 9, 1980.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 171 mg/L Feb. 13, 1981; minimum daily mean, 2 mg/L on many days during winter periods.

SEDIMENT LOADS: Maximum daily, 137,000 tons (124,000 tonnes) Feb. 25, 1981; minimum daily, 7.7 tons (7.0 tonnes) Feb. 2, 3, 1980.

EXTREMES FOR PERIOD OCTOBER 1980 TO APRIL 1981.--

SPECIFIC CONDUCTANCE: Maximum, 475 micromhos Nov. 13-15; minimum, 120 micromhos Feb. 26, 27.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 171 mg/L Feb. 13; minimum daily mean, 2 mg/L Dec. 7, 8.

SEDIMENT LOADS: Maximum daily, 137,000 tons (124,000 tonnes) Feb. 25; minimum daily, 8.5 tons (7.7 tonnes) Dec. 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
OCT												
23...	1030	32400	380	7.9	13.0	19.0	2.0	8.0	200	K2	150	89
NOV												
04...	1045	60200	420	8.0	--	--	--	--	--	--	150	87
24...	1100	31400	--	8.8	--	8.0	.30	--	K13	30	150	89
DEC												
10...	1100	51000	290	7.9	--	--	--	--	--	--	110	65
30...	1100	31000	245	7.9	--	3.0	.40	--	--	--	85	52
JAN												
29...	1100	22200	330	8.0	--	--	.50	--	--	--	120	70
FEB												
13...	1200	185000	210	7.6	--	--	--	--	--	--	74	48
13...	1500	164000	215	7.7	--	--	--	--	--	--	65	41
13...	1700	139000	210	7.6	--	--	--	--	--	--	73	50
14...	1100	146000	160	7.2	--	--	--	--	--	--	48	32
20...	1400	85500	--	--	--	--	--	--	--	--	55	42
20...	1900	87500	--	--	--	--	--	--	--	--	55	41
21...	0200	138000	--	--	--	--	--	--	--	--	58	33
21...	1030	234000	--	--	--	--	--	--	--	--	49	29
21...	1445	242000	--	--	--	--	--	--	--	--	56	39
21...	1830	255000	--	--	--	--	--	--	--	--	39	23
21...	2230	264000	--	--	--	--	--	--	--	--	54	--
22...	0300	193000	--	--	--	--	--	--	--	--	42	25
22...	0830	240000	--	--	--	--	--	--	--	--	38	--
22...	1030	280000	150	7.6	--	4.0	--	13.2	--	--	43	--
22...	1100	272000	--	--	--	--	--	--	--	--	37	20
22...	1730	272000	--	--	--	--	--	--	--	--	30	13
23...	0300	238000	121	7.8	--	--	--	--	--	--	42	--
23...	1400	271000	118	7.6	--	5.0	--	13.5	--	--	39	--
24...	1300	305000	130	8.0	9.0	13.0	--	13.7	--	--	42	--
24...	1930	339000	128	7.8	--	7.0	--	14.3	--	--	43	--
24...	2200	304000	128	7.8	--	7.0	--	14.3	--	--	43	--
25...	0300	272000	124	7.5	--	--	--	--	--	--	40	--
25...	1030	354000	120	7.6	--	7.0	--	13.7	--	--	42	--
25...	1500	293000	116	7.4	--	7.0	--	13.2	--	--	39	--
25...	1830	287000	114	7.5	--	6.0	--	13.2	--	--	39	--
27...	1200	163000	131	7.5	--	5.0	1.2	12.2	--	--	42	--
MAR												
12...	1000	72800	200	8.1	--	5.0	--	13.1	--	--	68	42
25...	1000	34900	255	--	12.0	5.7	2.0	15.4	--	--	87	49
APR												
15...	1200	81800	215	8.0	11.0	14.0	--	10.2	--	--	81	45
29...	1045	76700	180	8.4	21.0	14.0	5.0	12.0	K3	<1	69	43
MAY												
27...	1100	34300	168	7.5	24.5	23.5	6.0	8.9	<1	140	62	35
JUN												
22...	1130	68900	232	7.8	32.0	26.0	5.6	5.5	K5	22	73	41
JUL												
28...	1130	31700	260	7.4	27.5	27.2	3.3	5.1	780	K32	100	55
SEP												
09...	1145	39900	330	7.5	24.0	25.0	2.6	5.0	--	--	110	57
29...	1215	32700	370	7.5	21.0	21.0	3.2	6.6	47	K4	140	89

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 1980 TO SEPTEMBER 1981

	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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)
OCT												
23...	37	13	16	19	.6	2.8	--	57	88	24	.1	.8
NOV												
04...	38	14	21	23	.7	3.0	--	66	98	27	.1	.2
24...	38	13	17	20	.6	3.0	2.2	59	91	22	.2	1.0
DEC												
10...	30	7.8	9.4	16	.4	1.9	--	42	51	16	.1	3.1
30...	24	6.2	8.4	17	.4	1.6	--	33	41	13	.1	2.8
JAN												
29...	33	9.2	13	19	.5	1.9	1.4	--	60	18	<.1	.8
FEB												
13...	20	5.8	9.4	21	.5	3.3	2.5	26	34	18	<.1	2.5
13...	18	4.9	9.0	22	.5	3.3	2.5	24	35	17	<.1	2.6
13...	20	5.6	9.2	21	.5	3.3	2.5	23	35	17	<.1	2.6
14...	14	3.2	6.6	22	.4	2.4	1.8	16	25	13	<.1	2.7
20...	14	4.9	5.9	18	.3	1.6	1.2	13	32	10	<.1	3.4
20...	15	4.2	6.0	19	.4	1.6	1.2	14	33	10	<.1	3.5
21...	15	4.9	6.0	18	.3	1.5	1.1	25	35	7.3	<.1	3.6
21...	14	3.5	5.6	19	.3	1.4	1.0	20	29	9.5	<.1	3.8
21...	16	3.8	5.7	18	.3	1.4	1.0	17	31	9.9	<.1	3.9
21...	13	1.6	5.5	23	.4	1.4	1.0	16	28	9.8	<.1	4.0
21...	15	4.0	5.8	18	.3	1.4	1.0	18	27	9.7	.1	4.3
22...	14	1.6	5.2	21	.4	1.4	1.0	17	28	9.5	<.1	4.0
22...	13	1.4	5.2	22	.4	1.6	1.2	--	27	9.4	<.1	3.9
22...	12	3.1	4.0	16	.3	1.7	1.3	10	22	7.5	<.1	4.1
22...	13	1.2	4.7	21	.3	1.4	1.0	17	25	9.0	<.1	3.9
22...	11	.7	4.1	22	.3	1.4	1.0	17	22	7.8	<.1	3.7
23...	12	2.8	3.8	16	.3	1.7	1.3	21	21	7.4	<.1	4.0
23...	11	2.8	3.7	16	.3	1.6	1.2	15	21	7.1	<.1	3.9
24...	12	3.0	4.0	16	.3	1.6	1.2	20	21	7.7	<.1	4.2
24...	12	3.1	4.0	16	.3	1.7	1.3	17	22	7.8	<.1	4.3
24...	12	3.2	3.9	16	.3	1.8	1.3	16	21	7.7	<.1	4.4
25...	11	3.0	4.1	17	.3	1.9	1.4	19	20	7.9	<.1	4.3
25...	12	3.0	3.5	15	.2	1.9	1.4	18	21	6.6	<.1	4.3
25...	11	2.8	3.4	15	.2	1.8	1.3	8.0	20	6.3	<.1	4.1
25...	11	2.9	3.3	15	.2	1.8	1.3	17	21	6.3	<.1	4.1
27...	12	3.0	3.3	14	.2	1.6	1.2	19	21	6.1	<.1	4.3
MAR												
12...	19	5.0	5.8	15	.3	1.4	1.0	26	39	9.5	<.1	5.9
25...	24	6.5	8.1	17	.4	1.5	1.1	38	45	12	<.1	4.3
APR												
15...	22	6.4	8.5	18	.4	1.5	1.1	36	42	12	.1	<.1
29...	19	5.2	5.8	15	.3	1.4	1.0	26	36	9.2	<.1	.5
MAY												
27...	17	4.8	5.2	15	.3	1.4	1.0	27	32	7.5	<.1	2.3
JUN												
22...	20	5.5	5.1	13	.3	1.9	1.4	32	39	9.0	<.1	3.3
JUL												
28...	27	7.9	8.5	15	.4	2.0	1.5	45	39	10	.1	1.5
	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 CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	
SEP												
09...	27	9.5	12	19	.5	2.2	50	63	15	.1	1.6	
29...	36	12	14	18	.6	2.4	50	83	17	.1	1.9	

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	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)
OCT												
23...	233	221	.32	20400	--	.98	.98	4.3	.020	.020	.07	1.0
NOV												
04...	--	245	.33	39800	292	.93	.94	4.2	.050	.050	.16	.98
24...	254	225	.35	21500	--	.98	.98	4.3	.020	.020	.07	1.0
DEC												
10...	--	150	.20	20700	170	1.2	1.20	5.2	.020	.020	.07	1.2
30...	129	122	.18	10800	--	1.1	1.10	4.8	.010	.010	.03	1.1
JAN												
29...	184	173	.25	11000	--	1.6	1.50	6.6	.010	.020	.07	1.6
FEB												
13...	--	117	.16	58400	142	1.7	1.70	7.5	.040	.020	.07	1.7
13...	--	113	.15	50000	141	1.6	1.70	7.5	.070	.030	.10	1.7
13...	--	115	.16	43200	134	1.7	1.70	7.5	.050	.020	.07	1.7
14...	--	84	.11	33100	103	1.5	1.50	6.6	.040	.010	.03	1.5
20...	--	85	.12	19600	129	1.1	--	--	.010	<.010	--	1.1
20...	--	88	.12	20800	137	1.1	--	--	.020	<.010	--	1.1
21...	--	94	.13	35000	153	1.1	1.10	4.9	.010	.010	.03	1.1
21...	--	85	.12	53700	178	1.2	1.20	5.3	.010	.010	.03	1.2
21...	--	88	.12	57500	184	1.2	1.20	5.3	.020	.010	.03	1.2
21...	--	79	.11	54400	208	1.2	1.20	5.3	.020	.010	.03	1.2
21...	--	85	.12	60600	190	1.4	1.50	6.6	.030	.030	.10	1.4
22...	--	81	.11	42200	244	1.4	1.50	6.6	.020	.010	.03	1.4
22...	--	70	.10	45400	217	1.3	1.40	6.2	.010	.010	.03	1.3
22...	--	68	.09	51400	226	1.4	1.60	7.1	.020	.010	.03	1.4
22...	--	76	.10	55800	226	1.5	1.60	7.1	.020	.010	.03	1.5
22...	--	68	.09	49900	194	1.4	--	--	.020	<.010	--	1.4
23...	--	72	.10	46300	189	1.4	1.40	6.2	.020	.020	.07	1.4
23...	--	65	.09	47600	178	--	--	--	<.010	<.010	--	1.1
24...	--	71	.10	58500	197	1.1	--	--	.010	<.010	--	1.1
24...	--	71	.10	65000	216	1.3	1.30	5.8	.010	.010	.03	1.3
24...	--	70	.10	57500	216	1.4	--	--	.010	<.010	--	1.4
25...	--	71	.10	52100	97	1.5	1.50	6.6	.020	.010	.03	1.5
25...	--	71	.10	67900	262	1.6	1.60	7.1	.020	.010	.03	1.6
25...	--	62	.08	49000	241	1.5	--	--	.030	<.010	--	1.5
25...	--	68	.09	52700	236	1.5	1.50	6.6	.020	.010	.03	1.5
27...	82	68	.11	36100	--	1.3	--	--	.020	<.010	--	1.3
MAR												
12...	--	107	.15	21000	133	1.3	1.30	5.8	.010	.010	.03	1.3
25...	142	131	.19	13400	--	1.4	1.40	6.2	.010	.020	.07	1.4
APR												
15...	--	118	.16	26100	152	.65	.66	2.9	.020	.020	.07	.67
29...	123	96	.17	25500	--	.62	.62	2.7	.010	.010	.03	.63
MAY												
27...	87	112	.12	8060	--	.54	.62	2.7	.010	.010	.03	.55
JUN												
22...	132	108	.18	24600	--	.96	1.10	4.9	.040	.030	.10	1.0
JUL												
28...	163	126	.22	14000	--	.52	.60	2.7	.040	.030	.10	.56
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	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)	
SEP												
09...	184	163	.25	19800	.53	.53	2.3	.040	.030	.10	.57	
29...	232	200	.32	20500	.74	.71	3.1	.020	.020	.07	.76	

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	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)
OCT												
23...	1.0	.020	.020	.02	.03	.39	.33	.41	.06	.35	1.4	1.4
NOV												
04...	.99	.120	.130	.15	.17	.61	.25	.73	.35	.38	1.7	1.4
24...	1.0	.130	.170	.16	.22	.21	.14	.34	.03	.31	1.3	1.3
DEC												
10...	1.2	.170	.170	.21	.22	.30	.26	.47	.04	.43	1.7	1.6
30...	1.1	.090	.090	.11	.12	.27	.25	.36	.02	.34	1.5	1.4
JAN												
29...	1.5	.080	.070	.07	.09	.29	.33	.37	.00	.40	2.0	1.9
FEB												
13...	1.7	.550	.510	--	.66	1.5	.39	2.00	1.1	.90	3.7	2.6
13...	1.7	.610	.520	--	.67	2.0	.28	2.60	1.8	.80	4.3	2.5
13...	1.7	.580	.540	--	.70	1.6	.96	2.20	.70	1.5	3.9	3.2
14...	1.5	.400	.350	--	.45	1.1	.26	1.50	.89	.61	3.0	2.1
20...	1.1	.190	.160	--	.21	.37	.27	.56	.13	.43	1.7	1.5
20...	1.2	.220	.160	--	.21	.33	.31	.55	.08	.47	1.7	1.7
21...	1.1	.190	.170	--	.22	.55	.22	.74	.35	.39	1.8	1.5
21...	1.2	.210	.140	--	.18	.32	.36	.53	.03	.50	1.7	1.7
21...	1.2	.190	.150	--	.19	.60	.25	.79	.39	.40	2.0	1.6
21...	1.2	.180	.130	--	.17	.52	.12	.70	.45	.25	1.9	1.5
21...	1.5	.390	.400	--	.52	.20	.16	.59	.03	.56	2.0	2.1
22...	1.5	.220	.150	--	.19	.58	.41	.80	.24	.56	2.2	2.1
22...	1.4	.170	.130	--	.17	.36	.29	.53	.11	.42	1.8	1.8
22...	1.6	.110	.110	--	.14	.64	.18	.75	.46	.29	2.2	1.9
22...	1.6	.160	.110	--	.14	.70	.61	.86	.14	.72	2.4	2.3
22...	1.4	.170	.100	--	.13	.61	.32	.78	.36	.42	2.2	1.8
23...	1.4	.100	.130	--	.17	.51	.22	.61	.26	.35	2.0	1.8
23...	1.1	.080	.090	--	.12	.30	.17	.38	.12	.26	1.5	1.4
24...	1.2	.070	.160	--	.21	.45	.18	.52	.18	.34	1.6	1.5
24...	1.3	.100	.090	--	.12	.55	.28	.65	.28	.37	2.0	1.7
24...	1.4	.110	.100	--	.13	.42	.44	.53	.00	.54	1.9	1.9
25...	1.5	.140	.130	--	.17	.62	.34	.76	.29	.47	2.3	2.0
25...	1.6	.140	.130	--	.17	.57	.22	.71	.36	.35	2.3	2.0
25...	1.5	.130	.140	--	.18	.78	.62	.91	.15	.76	2.4	2.3
25...	1.5	.080	.160	--	.21	.37	.39	.45	.00	.55	2.0	2.1
27...	1.2	.120	.090	--	.12	.33	.34	.45	.02	.43	1.8	1.6
MAR												
12...	1.3	.120	.120	--	.15	.28	.19	.40	.09	.31	1.7	1.6
25...	1.4	.020	.030	--	.04	.46	.39	.48	.06	.42	1.9	1.8
APR												
15...	.68	.110	.100	--	.13	.41	.32	.52	.10	.42	1.2	1.1
29...	.63	.030	.030	--	.04	.38	.13	.41	.25	.16	1.0	.79
MAY												
27...	.63	.060	.060	--	.08	.46	.39	.52	.07	.45	1.1	1.1
JUN												
22...	1.1	.120	.130	--	.17	.41	.36	.53	.04	.49	1.5	1.6
JUL												
28...	.63	.040	.050	--	.06	.45	.28	.49	.16	.33	1.1	.96
SEP												
09...	.56	.080	.040	.05	.03	--	.11	--	<.10	.68	--	--
29...	.73	.040	.030	.04	.46	.33	.50	.14	.36	1.3	1.1	--

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT											
23...	6.2	.050	.03	.15	.010	.010	.000	.00	200	0	200
NOV											
04...	7.6	.050	.06	.15	.020	.020	.000	.00	210	200	10
24...	5.9	.070	.12	.21	.040	.040	.040	.12	200	100	100
DEC											
10...	7.4	.040	.06	.12	.060	.020	.030	.09	300	100	200
30...	6.5	.070	.00	.21	.010	.000	.000	.00	200	100	100
JAN											
29...	8.7	.060	.12	.18	.020	.040	.020	.06	200	0	200
FEB											
13...	16	.370	--	1.1	.020	.100	.020	.06	2700	2600	100
13...	19	.400	--	1.2	.030	.200	.010	.03	3800	3700	100
13...	17	.360	--	1.1	.010	.150	.010	.03	3500	3400	100
14...	13	.270	--	.83	.010	.120	.010	.03	3100	3100	10
20...	7.3	.090	--	.28	.030	.040	.010	.03	700	600	100
20...	7.3	.140	--	.43	.060	.060	.050	.15	800	500	300
21...	8.1	.110	--	.34	.030	.060	.020	.06	900	800	100
21...	7.7	.130	--	.40	.020	.050	.010	.03	800	700	100
21...	8.8	.130	--	.40	.030	.050	<.010	--	1000	900	100
21...	8.4	.110	--	.34	.020	.040	.010	.03	1000	900	100
21...	8.8	.130	--	.40	.010	.090	<.010	--	1400	1300	100
22...	9.7	.150	--	.46	.020	.090	<.010	--	1900	1800	100
22...	8.1	.210	--	.64	.030	.030	.010	.03	1800	1700	100
22...	9.5	.280	--	.86	.010	<.010	.010	.03	2800	2700	100
22...	10	.160	--	.49	.020	.080	.010	.03	1800	1500	300
22...	9.7	.200	--	.61	.020	.060	.020	.06	2100	1900	200
23...	8.9	.030	--	.09	.010	<.010	<.010	--	2900	2800	100
23...	6.6	.240	--	.74	.010	<.010	<.010	--	2100	2000	100
24...	7.2	.350	--	1.1	.020	<.010	.030	.09	1800	1700	100
24...	8.6	.230	--	.71	.020	<.010	.020	.06	2500	2500	0
24...	8.5	.120	--	.37	.020	<.010	.020	.06	2300	2200	100
25...	10	.080	--	.25	.020	.080	.020	.06	--	--	200
25...	10	.280	--	.86	.020	.050	.020	.06	3000	2900	100
25...	11	.080	--	.25	.020	.070	.030	.09	2500	2100	400
25...	8.6	.060	--	.18	.020	<.010	.040	.12	1900	1900	0
27...	7.7	.230	--	.71	.020	.040	<.010	--	1600	1400	200
MAR											
12...	7.5	.020	--	.06	.010	.030	.020	.06	300	200	100
25...	8.3	.050	--	.15	.020	.020	<.010	--	200	100	100
APR											
15...	5.3	.060	--	.18	.010	<.010	<.010	--	500	300	200
29...	4.6	.040	--	.12	<.010	<.010	<.010	--	200	0	200
MAY											
27...	4.7	.020	--	.06	<.010	<.010	<.010	--	100	100	0
JUN											
22...	6.8	.060	--	.18	<.010	<.010	<.010	--	400	400	0
JUL											
28...	4.6	.030	--	.09	<.010	.010	<.010	--	300	100	200
SEP											
09...	3.0	.030	.09	<.010	<.010	<.010	--	300	200	100	
29...	5.6	.040	.12	<.010	.010	.070	.21	230	130	100	

SUSQUEHANNA RIVER BASIN

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01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT									
23...	--	--	--	--	--	--	0	--	--
NOV									
24...	--	--	--	--	--	--	1	--	--
DEC									
30...	1	0	1	100	70	30	1	0	2
JAN									
29...	--	--	--	--	--	--	1	--	--
FEB									
27...	--	--	--	--	--	--	0	--	--
MAR									
25...	0	0	0	100	0	100	1	1	0
APR									
29...	--	--	--	--	--	--	1	--	--
MAY									
27...	--	--	--	--	--	--	1	--	--
JUN									
22...	1	1	0	100	70	30	1	0	4
JUL									
28...	--	--	--	--	--	--	2	--	--
SEP									
09...	--	--	--	--	--	--	1	--	--
29...	1	0	2	100	60	40	1	0	2

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
OCT									
23...	12	--	--	--	--	--	4	--	--
NOV									
24...	10	--	--	--	--	--	5	--	--
DEC									
30...	20	10	10	0	0	0	4	4	0
JAN									
29...	8	--	--	--	--	--	2	--	--
FEB									
27...	17	--	--	--	--	--	5	--	--
MAR									
25...	10	0	10	0	0	0	2	1	1
APR									
29...	8	--	--	--	--	--	3	--	--
MAY									
27...	4	--	--	--	--	--	2	--	--
JUN									
22...	10	0	10	1	0	1	3	2	1
JUL									
28...	3	--	--	--	--	--	13	--	--
SEP									
09...	9	--	--	--	--	--	4	--	--
29...	10	--	<10	3	0	3	15	14	1

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE D 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- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT									
23...	420	410	10	3	--	--	90	80	9
NOV									
04...	420	420	0	--	--	--	70	70	0
24...	300	300	0	9	--	--	70	60	7
DEC									
10...	490	320	170	--	--	--	50	20	30
30...	290	170	120	7	0	13	60	0	60
JAN									
29...	440	390	50	1	--	--	70	0	70
FEB									
13...	4800	4600	170	--	--	--	720	270	450
13...	7000	6800	230	--	--	--	910	340	570
13...	7700	7500	200	--	--	--	1000	330	670
14...	6200	6100	150	--	--	--	710	290	420
20...	1100	990	110	--	--	--	290	90	200
20...	1100	1000	100	--	--	--	300	100	200
21...	1300	1200	110	--	--	--	340	120	220
21...	1700	1600	100	--	--	--	360	180	180
21...	1900	1800	130	--	--	--	410	140	270
21...	2000	1900	120	--	--	--	500	180	320
21...	2700	2600	100	--	--	--	650	260	390
22...	2700	2600	100	--	--	--	720	220	500
22...	3200	3100	100	--	--	--	670	230	440
22...	5500	5400	130	--	--	--	620	320	300
22...	3000	3000	50	--	--	--	660	270	390
22...	3700	3600	140	--	--	--	610	280	330
23...	4300	4200	140	--	--	--	540	260	200
23...	4000	3900	100	--	--	--	450	220	230
24...	3800	3700	90	--	--	--	410	200	210
24...	4900	4800	140	--	--	--	470	180	290
24...	4500	4400	120	--	--	--	490	180	310
25...	--	--	90	--	--	--	--	--	40
25...	4800	4700	140	--	--	--	510	270	240
25...	4900	4800	100	--	--	--	540	250	290
25...	5800	5700	90	--	--	--	490	240	250
27...	3100	3000	60	13	--	--	270	180	90
MAR									
12...	530	390	140	--	--	--	260	30	230
25...	540	430	110	26	26	0	200	0	230
APR									
15...	620	610	10	--	--	--	220	100	120
29...	450	440	10	21	--	--	190	80	110
MAY									
27...	240	--	<10	2	--	--	110	80	30
JUN									
22...	600	--	<10	8	8	0	310	150	160
JUL									
28...	430	--	<10	7	--	--	160	150	10
SEP									
09...	460	440	20	7	--	--	110	90	20
29...	400	--	<3	5	<4	<1	90	90	3

SUSQUEHANNA RIVER BASIN

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01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)
OCT 23...	<.1	--	--	4	--	--	--	--
NOV 24...	.2	--	--	9	--	--	--	--
DEC 30...	.3	.2	.1	7	0	8	0	0
JAN 29...	<.1	--	--	4	--	--	--	--
FEB 27...	<.1	--	--	15	--	--	--	--
MAR 25...	<.1	--	<.1	6	0	7	0	0
APR 29...	<.1	--	--	4	--	--	--	--
MAY 27...	.7	--	--	3	--	--	--	--
JUN 22...	.1	.0	.1	7	6	1	0	0
JUL 28...	.3	--	--	49	--	--	--	--
SEP 09...	.1	--	--	4	--	--	--	--
29...	.3	.0	.3	3	0	3	<1	--

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 23...	--	--	--	--	20	--	--
NOV 24...	--	0	--	--	10	--	--
DEC 30...	0	0	0	0	30	30	3
JAN 29...	--	--	--	--	20	--	--
FEB 27...	--	0	--	--	40	--	--
MAR 25...	0	0	0	0	170	160	10
APR 29...	--	--	--	--	20	--	--
MAY 27...	--	0	--	--	30	--	--
JUN 22...	0	0	0	0	20	20	5
JUL 28...	--	--	--	--	20	--	--
SEP 09...	--	<1	--	--	30	--	--
29...	<1	<1	--	<1	30	--	<4

DATE	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
OCT 23...	<2.7	<.3	<3.9	<.4	.4	3.0	<.4	.08	.33

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CARBON, TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, INOR- GANIC, TOTAL (MG/L AS C)	CARBON, INOR- GANIC, DIS- SOLVED (MG/L AS C)
OCT					
23...	--	--	7.1	14	12
NOV					
04...	25	2.9	2.9	22	17
24...	19	3.6	2.6	15	13
DEC					
10...	17	3.0	2.8	14	14
30...	12	2.1	2.2	10	9.5
JAN					
29...	--	2.4	2.2	17	15
FEB					
13...	--	8.8	5.5	11	9.0
13...	--	12	3.8	7.3	8.8
13...	--	12	--	18	--
14...	--	7.9	--	12	--
20...	--	3.9	3.3	6.0	5.4
20...	--	3.5	3.1	6.7	6.8
21...	--	3.7	--	7.2	--
21...	--	3.3	2.6	7.6	6.4
21...	--	4.0	2.6	7.0	4.3
21...	--	4.0	2.1	10	6.6
21...	--	3.9	--	8.2	--
22...	--	4.4	--	6.8	--
22...	--	5.3	2.4	5.6	4.1
22...	--	8.1	--	5.9	--
22...	--	4.9	3.3	7.2	5.4
22...	--	5.3	2.2	5.8	5.4
23...	--	4.2	--	8.4	--
23...	--	5.4	4.8	5.3	3.9
24...	--	5.7	--	5.7	--
24...	--	6.1	--	6.6	--
24...	--	6.4	--	4.7	--
25...	--	5.4	--	--	--
25...	--	7.1	2.8	4.6	4.8
25...	--	12	3.3	7.1	4.7
25...	--	5.4	--	6.5	--
27...	--	3.8	--	5.6	--
MAR					
12...	--	2.2	--	7.2	--
25...	--	--	1.9	10	9.4
APR					
29...	--	2.6	1.2	8.9	8.4
MAY					
27...	--	2.9	1.4	6.2	7.0
JUN					
22...	--	--	2.2	10	10
JUL					
28...	--	3.8	2.8	11	10
SEP					
09...	--	2.2	2.7	--	--

SUSQUEHANNA RIVER BASIN

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01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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- ETHYL- ENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	2- CHLORO- ETHYL- ETHER TOTAL (UG/L)	CHLORO- OFORM TOTAL (UG/L)
DEC 30...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 10...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,3-DI- CHLORO- PROPANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
DEC 30...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 10...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLOURO- METHANE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
DEC 30...	.00	.00	.00	.00	.00	.00	.0	.00	.00
JUL 10...	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	AME- TRYNE TOTAL	ATRA- TONE TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	CYPRA- ZINE TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
OCT 23...	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
NOV 24...	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
DEC 30...	.00	--	--	--	--	--	--	--	--	--	--
JAN 29...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
FEB 13...	<.10	<.01	<.10	<.10	.20	<.10	<.10	<.10	<.01	<.01	<.01
FEB 27...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
MAR 25...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
APR 15...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
APR 29...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
MAY 27...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
JUN 22...	<.10	<.01	<.10	<.10	1.2	<.10	<.10	<.10	<.01	<.01	<.01
JUL 28...	--	--	<.10	<.10	.30	--	<.10	<.10	--	--	--
SEP 09...	<.10	<.01	<.00	<.00	.20	<.10	<.00	<.00	<.01	<.01	<.01
SEP 29...	<.10	<.01	<.10	<.10	.10	<.10	<.10	<.10	<.01	<.01	<.01

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)
OCT											
23...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
NOV											
24...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
DEC											
30...	--	--	--	--	--	--	--	--	--	--	--
JAN											
29...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
FEB											
13...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
27...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
MAR											
25...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
APR											
15...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
29...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
MAY											
27...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
JUN											
22...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
JUL											
28...	--	--	--	--	--	--	--	--	--	--	<.1
SEP											
09...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	.0
29...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1

DATE	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TONE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-OP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT										
23...	.0	.00	.05	.00	.0	.00	.21	.00	.00	.00
NOV										
24...	.0	.00	.05	.00	.0	.00	.24	.00	.00	.00
DEC										
30...	.0	--	.04	--	--	--	--	--	--	--
JAN										
29...	.0	<.10	.04	<.10	<.1	<.10	.30	.00	.00	.00
FEB										
13...	.0	<.10	.10	<.10	<.1	<.10	.08	<.01	.01	<.01
27...	.0	<.10	.02	<.10	<.1	<.10	.01	<.01	<.01	<.01
MAR										
25...	.0	<.10	.01	<.10	<.1	<.10	.19	.01	<.01	<.01
APR										
15...	.0	<.10	.03	<.10	<.1	<.10	.14	<.01	<.01	<.01
29...	<.1	<.10	<.10	<.10	<.1	<.10	.03	<.01	<.01	<.01
MAY										
27...	.0	<.10	.04	<.10	<.1	<.10	<.01	<.01	<.01	<.01
JUN										
22...	<.1	<.10	.20	<.10	<.1	<.10	.05	<.01	<.01	<.01
JUL										
28...	<.1	<.10	.10	<.10	<.1	--	.05	<.01	<.01	<.01
SEP										
09...	<.0	<.00	.10	<.00	<.0	<.10	.11	<.01	<.01	<.01
29...	<.1	<.10	<.10	<.10	<.1	<.10	.08	<.01	<.01	<.01

SUSQUEHANNA RIVER BASIN

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01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
OCT				FEB			
23...	--	12.0	.000	24...	--	5.81	.000
NOV				24...	--	3.64	.000
04...	--	8.42	.000	24...	--	5.74	.000
24...	8800	5.58	.000	25...	--	6.48	.000
DEC				25...	--	4.54	.000
10...	--	1.79	.000	25...	--	3.65	.610
30...	--	1.65	.000	27...	--	.940	.000
JAN				MAR			
15...	--	3.78	.000	12...	--	.000	.000
29...	--	11.8	.240	25...	36000	23.3	.000
FEB				APR			
13...	--	54.3	6.99	15...	--	16.2	1.21
13...	--	52.8	.000	29...	--	23.4	.000
20...	--	7.74	.000	MAY			
20...	--	4.26	.000	27...	5100	--	--
21...	--	5.91	.000	JUN			
21...	--	3.69	.000	22...	9400	10.1	.850
21...	--	21.0	.180	JUL			
22...	--	11.0	.000	28...	5800	2.65	.000
22...	--	8.32	.000	SEP			
22...	--	8.55	.000	09...	1700	6.75	1.59
22...	--	5.54	.000	29...	43000	7.57	2.30
23...	--	6.80	.000				

DATE	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM; % FINER THAN .062 MM
APR			
15...	421	93000	92
29...	11	2280	100
MAY			
27...	9	833	88
JUN			
22...	12	2230	98
JUL			
28...	7	599	100
SEP			
09...	6	646	100
29...	7	618	100

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	10	875	87
NOV 04...	8	1300	97
24...	6	509	93
DEC 10...	5	688	--
JAN 15...	2	238	79
29...	3	180	100
FEB 13...	173	86400	--
13...	183	81000	100
13...	194	72800	100
14...	144	56800	--
20...	40	9230	--
20...	40	9450	--
21...	65	41100	--
21...	70	45700	--
21...	75	49000	--
21...	72	49600	--
21...	86	61300	100
22...	101	52600	99
22...	101	65400	--
22...	113	85400	--

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 22...	113	83000	--
22...	124	91100	--
22...	113	83600	--
23...	118	75800	100
23...	101	73900	--
24...	102	84000	99
24...	127	116000	98
24...	136	112000	99
25...	21	15400	90
25...	169	162000	99
25...	165	131000	98
25...	196	152000	79
27...	84	37000	99
MAR 12...	11	2160	76
25...	13	1230	73
APR 15...	421	93000	92
29...	11	2280	100
MAY 27...	9	833	88
JUN 22...	12	2230	98

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUL 28...	7	599	100
SEP 09...	6	646	100

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
SEP 29...	7	618	100

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (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	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 13...	1200	185000	173	86400	83	100	--	--	--
13...	1500	164000	183	81000	79	94	97	98	100
13...	1700	139000	194	72800	78	92	97	99	100
14...	1100	146000	144	56800	79	97	100	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	420	310	260	375	170	260					
2	375	440	310	260	375	175	270					
3	330	460	310	290	375	170	265					
4	375	465	310	280	380	170	280					
5	375	470	300	280	390	170	275					
6	375	455	290	280	400	180	275					
7	375	455	290	280	410	185	275					
8	375	460	290	280	410	190	280					
9	375	460	290	280	400	200	280					
10	375	470	290	280	405	200	275					
11	380	470	250	280	405	210	265					
12	385	470	300	280	325	220	250					
13	390	475	280	290	220	230	250					
14	395	475	300	305	175	240	230					
15	380	475	280	325	160	220	---					
16	370	470	270	330	170	200	---					
17	370	470	250	330	195	230	---					
18	370	470	240	335	190	255	---					
19	370	450	260	340	195	205	---					
20	375	460	265	350	190	220	---					
21	375	450	265	340	170	230	---					
22	330	440	265	350	150	260	---					
23	340	430	265	350	135	265	---					
24	380	420	265	355	145	240	---					
25	310	400	265	355	135	275	---					
26	320	380	265	360	120	275	---					
27	325	360	265	380	120	250	---					
28	340	340	265	375	145	270	---					
29	380	320	260	370	---	240	---					
30	360	310	260	375	---	280	---					
31	400	---	260	375	---	260	---					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	---	7.5	---	---	6.0	10.0					
2	---	---	8.0	2.0	4.0	6.0	10.0					
3	23.0	13.0	---	2.0	3.5	5.0	11.0					
4	---	---	---	2.0	3.5	6.0	12.0					
5	---	13.0	---	2.0	2.5	5.0	13.0					
6	---	12.5	5.0	2.0	3.0	5.0	13.0					
7	22.0	---	5.0	---	3.0	5.0	13.5					
8	21.0	---	5.0	1.0	3.0	4.5	14.0					
9	22.0	---	5.0	---	3.0	5.0	14.0					
10	---	---	---	---	3.0	5.0	14.0					
11	---	---	5.0	---	4.0	5.0	14.5					
12	---	10.0	5.0	2.0	1.0	5.0	13.5					
13	---	---	5.0	---	.0	5.5	14.0					
14	19.0	11.0	4.5	2.0	.5	5.0	14.0					
15	---	---	4.5	2.5	.5	6.0	---					
16	19.0	---	5.0	---	.5	6.0	---					
17	---	---	5.0	---	.5	5.0	---					
18	---	10.0	5.0	---	1.0	5.0	---					
19	---	10.0	4.0	3.0	1.0	5.0	---					
20	19.0	9.0	3.0	3.5	1.0	5.0	---					
21	19.0	9.0	---	3.0	4.0	4.0	---					
22	18.5	---	3.0	3.5	---	4.5	---					
23	18.5	---	2.5	4.0	6.0	5.0	---					
24	18.0	8.5	---	---	6.0	5.0	---					
25	18.0	8.5	---	---	6.5	6.0	---					
26	---	8.5	---	4.0	6.0	6.0	---					
27	16.0	---	---	4.0	6.0	6.5	---					
28	16.0	8.0	---	4.0	6.0	6.5	---					
29	15.5	8.0	---	4.0	---	7.0	---					
30	14.0	---	2.0	4.0	---	8.0	---					
31	14.0	---	---	---	---	10.0	---					

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)	
	LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)	
OCTOBER												
1	25	2710	10	651	52	12800	23	3390	3	141	5	121
2	25	3830	10	732	52	10700	22	2960	3	7.7	5	12
3	25	3590	8	715	49	9250	19	2240	3	7.7	7	261
4	25	3910	8	1280	33	5190	18	2310	3	99	6	190
5	25	5240	8	1450	16	2180	15	1380	3	108	5	150
NOVEMBER												
6	23	4610	13	2470	12	1790	13	183	2	92	6	287
7	27	7360	19	3750	12	1350	10	891	2	112	7	335
8	32	10200	8	1330	12	1100	7	559	2	89	7	147
9	29	8690	17	2370	12	389	3	228	2	29	8	22
10	28	7280	15	1850	13	1230	2	143	2	16	8	454
DECEMBER												
11	25	5310	12	700	13	1240	2	123	2	90	8	914
12	25	4910	10	1200	13	1100	2	67	2	80	7	1000
13	25	3940	9	970	15	1380	2	52	2	77	13	2190
14	25	1880	9	984	16	1360	2	150	4	177	19	2500
15	18	2290	9	846	16	1120	3	230	4	178	33	3130
JANUARY												
16	18	2490	9	836	15	478	3	254	3	65	22	618
17	13	1620	10	640	15	1480	3	268	3	8.1	12	962
18	12	1260	10	362	13	1140	3	308	3	66	22	3080
19	13	1190	10	913	13	1000	3	261	2	65	24	4240
20	13	825	8	737	12	787	3	122	2	54	25	5670
FEBRUARY												
21	22	1000	6	667	11	820	3	273	3	107	42	13500
22	25	1940	3	8.2	9	234	3	242	3	194	60	28000
23	24	1720	5	347	7	208	3	231	2	49	99	57500
24	24	1690	10	672	7	735	3	250	2	13	116	63300
25	23	1100	13	262	5	229	3	202	3	169	108	46900
MARCH												
26	20	1490	17	1930	7	1010	3	94	4	255	88	34700
27	13	425	23	4040	18	3690	4	60	5	248	77	28900
28	12	457	24	6540	32	8730	4	180	5	294	60	18800
29	12	875	47	22000	42	9310	3	181	5	273	47	12600
30	12	998	52	18700	31	5580	3	148	---	---	35	8900
31	10	648	---	---	25	4700	3	139	---	---	35	12900
TOTAL	---	95478	---	79952.2	---	92310	---	18119	---	3163.5	---	352283
APRIL												
1	40	28800	28	5830	6	163	5	266	5	175	5	33
2	38	24000	32	7100	6	339	5	244	5	29	5	154
3	36	25100	32	6680	6	492	5	273	5	39	5	105
4	34	22400	28	7800	6	814	5	43	5	67	5	69
5	32	16000	24	6510	6	1330	5	163	5	127	5	48
MAY												
6	30	10400	20	3760	6	1690	5	100	5	135	5	28
7	28	7150	18	4080	6	281	5	266	5	148	5	27
8	26	5900	16	4050	6	240	5	283	5	228	5	27
9	26	5540	13	3060	6	514	5	194	5	33	5	117
10	30	7580	13	1450	6	508	5	246	5	42	5	93
JUNE												
11	34	13300	13	987	6	1410	5	269	5	181	5	122
12	38	17200	12	2490	6	2640	5	36	5	135	5	109
13	36	14100	12	2930	6	1450	5	39	5	140	5	21
14	34	24300	12	3310	6	579	5	243	5	147	5	21
15	38	18300	11	3150	6	320	5	224	5	208	5	50
JULY												
16	42	17500	11	3190	6	678	5	215	5	31	5	47
17	38	18700	11	2930	5	1140	5	201	5	26	5	67
18	34	12100	10	2170	5	1090	5	229	5	258	5	127
19	28	6850	10	3820	5	1000	5	39	5	131	5	100
20	24	5390	10	2880	5	779	5	48	5	177	5	28
AUGUST												
21	22	4550	9	2090	5	16	5	255	5	173	5	20
22	20	4560	9	3060	5	22	5	259	5	194	5	232
23	19	3880	9	2560	5	1350	5	116	5	21	5	101
24	18	2740	8	1820	5	802	5	107	5	22	5	21
25	17	2810	8	1220	5	586	5	165	5	89	5	41
SEPTEMBER												
26	16	2630	8	674	5	486	5	31	5	111	5	28
27	15	605	7	598	5	607	5	28	5	126	5	19
28	14	2070	7	724	5	73	5	108	5	129	5	22
29	20	3000	7	745	5	112	5	133	5	157	5	21
30	24	5330	6	622	5	301	5	161	5	32	5	19
31	---	---	6	167	---	---	5	171	5	25	---	---
TOTAL	---	332785	---	92457	---	21812	---	5155	---	3536	---	1917
TOTAL LOAD FOR YEAR: 1098967.7 TONS.												

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	7	149	9	21	3	248	8	18	13	51	25	6950												
2	8	166	10	19	4	270	8	363	11	130	18	4500												
3	10	232	10	502	4	280	8	94	9	515	16	3520												
4	9	29	11	603	3	212	8	101	8	477	13	2430												
5	8	19	12	476	3	295	8	276	9	539	8	1490												
6	7	21	12	309	3	97	8	209	13	860	7	1120												
7	6	90	11	83	2	53	7	103	12	395	7	981												
8	7	152	10	23	2	141	6	212	11	179	7	380												
9	8	206	10	22	3	204	6	147	13	706	5	582												
10	9	159	10	22	6	413	6	12	15	1320	4	383												
11	10	22	10	50	6	426	5	9.8	17	1350	5	460												
12	11	23	10	275	7	601	5	106	28	9990	7	650												
13	12	25	11	339	8	215	5	101	171	72400	10	961												
14	12	131	11	416	7	198	7	141	157	51700	12	962												
15	12	161	11	26	6	400	18	520	102	25900	13	572												
16	11	250	11	25	6	356	15	531	59	13100	10	780												
17	10	210	10	163	8	471	12	28	46	9510	11	766												
18	9	20	10	310	9	493	11	25	42	7480	11	790												
19	8	18	11	395	8	406	10	163	39	6720	10	729												
20	8	34	16	605	7	72	10	190	33	8050	10	675												
21	8	159	12	454	6	13	12	270	56	31600	11	460												
22	8	138	10	22	6	254	23	727	115	78200	10	166												
23	10	226	10	22	4	194	10	273	113	76600	10	686												
24	11	283	8	406	4	85	8	17	114	90800	11	683												
25	12	99	7	510	4	13	8	17	168	137000	12	616												
26	14	31	6	514	4	53	9	191	113	70500	12	648												
27	15	279	6	13	4	79	9	183	78	36200	13	751												
28	15	526	5	344	4	8.5	19	472	39	13900	13	411												
29	14	548	4	140	4	85	20	589	---	---	13	212												
30	12	564	3	---	4	175	18	700	---	---	13	814												
31	10	518	---	---	6	108	16	37	---	---	13	709												
TOTAL	---	5488	---	7109	---	6918.5	---	6825.8	---	746172	---	35837												
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER														
1	17	854																						
2	25	1690																						
3	27	2420																						
4	26	1460																						
5	24	771																						
6	18	1560																						
7	12	920																						
8	13	1030																						
9	13	913																						
10	12	904																						
11	12	622																						
12	15	559																						
13	25	2440																						
14	20	2420																						
15	15	2450																						
16	---	---																						
17	---	---																						
18	---	---																						
19	---	---																						
20	---	---																						
21	---	---																						
22	---	---																						
23	---	---																						
24	---	---																						
25	---	---																						
26	---	---																						
27	---	---																						
28	---	---																						
29	---	---																						
30	---	---																						
31	---	---																						
TOTAL	---	21013																						

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 24,80 1100	MAR 25,81 1000	MAY 27,81 1100	JUN 22,81 1130
TOTAL CELLS/ML	8800	36000	5100	9400
DIVERSITY: DIVISION	1.4	0.1	1.1	1.4
..CLASS	1.4	0.1	1.1	1.4
..ORDER	1.5	0.1	1.8	1.5
...FAMILY	1.8	0.1	2.4	2.1
....GENUS	2.5	0.1	3.3	2.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
.....SCHROEDERIA	--	-	--	-	--	-	67	1
....COELASTRACEAE								
.....COELASTRUM	--	-	--	-	--	-	--	-
....MICRACTINIACEAE								
.....MICRACTINIUM	--	-	--	-	100	2	--	-
....OOCYSTACEAE								
.....ANKISTRODESMUS	130	1	--	-	200	4	*	0
....CHODATELLA	--	-	--	-	--	-	*	0
.....DICTYOSPHAERIUM	480	5	--	-	130	2	3200#	35
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
.....KIRCHNERIELLA	--	-	--	-	300	6	--	-
....OOCYSTIS	76	1	--	-	--	-	67	1
.....SELENASTRUM	--	-	--	-	*	0	--	-
....TETHAEDRON	--	-	--	-	--	-	100	1
....TREUBARIA	--	-	--	-	*	0	*	0
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	2700#	30	--	-	810#	16	1800#	19
....TETRASTRUM	100	1	--	-	--	-	130	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	130	1	480	1	75	1	130	1
..ZYGNEMATALES								
...DESMIDIACEAE								
....EUASTRUM	--	-	--	-	--	-	--	-
....STAURASTRUM	--	-	--	-	--	-	--	-
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....COSCINODISCACEAE								
.....CYCLOTALLA	100	1	36000#	99	1200#	23	2100#	22
....MELOSIRA	680	8	--	-	1000#	20	170	2
....STEPHANODISCUS	--	-	--	-	*	0	--	-
...PENNALES								
....FRAGILARIACEAE								
.....ASTERIONELLA	--	-	--	-	600	12	--	-
....FRAGILARIA	--	-	--	-	75	1	--	-
....SYNEDRA	--	-	--	-	200	4	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	*	0	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	--	-
...NITZSCHIA								
....NITZSCHIA	--	-	--	-	180	3	--	-
...XANTHOPHYCEAE								
...HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	*	0	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOMONADACEAE								
.....CRYPTOMONAS	--	-	--	-	75	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
.....AGMENELLUM	400	5	--	-	--	-	--	-
....ANACYSTIS	3100#	36	--	-	100	2	1500#	16
....GOMPHOSPHAERIA	810	9	--	-	--	-	--	-
...HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-

CONTINUED ...

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

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 24,80 1100		MAR 25,81 1000		MAY 27,81 1100		JUN 22,81 1130	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
....EUGLENACEAE								
....TRACHELOMONAS	--	-	--	4	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
...PERIDINIALES								
....GLENODINIACEAE								
....GLENODINIUM	50	1	--	4	--	-	--	-

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

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

SUSQUEHANNA RIVER BASIN

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 28,81 1130	SEP 9,81 1145	SEP 29,81 1215
TOTAL CELLS/ML	5800	1700	43000
DIVERSITY: DIVISION	1.4	0.3	1.4
..CLASS	1.4	0.3	1.4
..ORDER	1.7	1.3	1.4
...FAMILY	2.1	1.8	1.5
....GENUS	2.8	2.3	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
....CHARACIACEAE						
....SCHROEDERIA	*	0	--	-	--	-
...COELASTRACEAE						
....COELASTRUM	320	6	--	-	1000	2
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	--	-	520	1
....CHODATELLA	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-
....GLOEOACTINIUM	150	3	110	6	--	-
....KIRCHNERIELLA	77	1	--	-	690	2
....OOCYSTIS	64	1	--	-	690	2
....SELENASTRUM	--	-	--	-	--	-
....TETRAEDRON	*	0	--	-	--	-
....TREUBARIA	*	0	--	-	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	100	2	--	-	--	-
....SCENEDESMUS	780	14	--	-	1200	3
....TETRASTRUM	51	1	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	39	1	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....EUASTRUM	*	0	--	-	--	-
....STAURASTRUM	*	0	--	-	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	550	10	570#	33	16000#	37
....MELOSIRA	240	4	330#	19	340	1
...STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	95	6	--	-
....SYNEDRA	--	-	14	1	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	450#	26	--	-
...NITZSCHACEAE						
....NITZSCHIA	39	1	160	9	--	-
..XANTHOPHYCEAE						
...ETEROCOCCALES						
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
....CHROOCOCCACEAE						
....AGMENELLUM	410	7	--	-	13000#	31
....ANACYSTIS	2700#	46	--	-	9300#	22
...GOMPHOSPHAERIA	--	-	--	-	--	-
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	180	3	--	-	--	-

CONTINUED ...

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

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

SUSQUEHANNA RIVER BASIN

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01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 28.81 1130		SEP 9.81 1145		SEP 29.81 1215	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
....EUGLENACEAE						
.....TRACHELOMONAS	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
....GLENODINIACEAE						
.....GLENODINIUM	*	0	--	-	--	-

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

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

SUSQUEHANNA RIVER BASIN

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 mi² (244.5 km²).

WATER-DISCHARGE RECORDS

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

AVERAGE DISCHARGE.--55 years, 125 ft³/s (3.540 m³/s), 17.98 in/yr (457 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s (385 m³/s) Aug. 23, 1933, gage height, 17.7 ft (5.39 m), from floodmarks, from rating curve extended above 3,000 ft³/s (85.0 m³/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 ft³/s (0.23 m³/s) Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily discharge, 8.6 ft³/s (0.24 m³/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.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) Feb. 23, gage height, 5.49 ft (1.673 m), no peak above base of 1,900 ft³/s (53 m³/s); minimum discharge, 23 ft³/s (0.65 m³/s) Jan. 31, result of freezeup.

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	44	50	57	44	38	82	56	64	55	46	36	39
2	47	48	56	44	150	75	66	125	79	56	35	33
3	59	48	54	42	80	70	56	76	68	53	42	32
4	55	51	51	42	60	66	53	66	71	255	51	32
5	48	54	50	40	55	75	55	62	64	156	40	34
6	47	50	50	44	55	70	85	61	57	82	37	34
7	46	48	51	48	55	67	61	60	54	68	37	35
8	46	50	50	45	59	68	57	56	50	60	65	35
9	46	48	50	44	55	76	58	55	65	55	59	40
10	44	50	51	46	50	74	59	56	67	52	41	33
11	47	47	49	43	408	69	56	78	62	49	37	30
12	47	47	48	40	135	68	115	90	51	46	41	29
13	44	47	48	34	80	63	117	69	49	45	40	27
14	43	47	47	36	65	60	258	63	110	44	37	27
15	44	47	45	38	55	57	171	69	171	41	36	28
16	44	48	52	38	52	65	118	215	79	41	45	46
17	44	48	50	38	51	66	102	93	93	43	36	42
18	59	115	48	38	51	59	93	79	63	41	33	46
19	76	78	49	40	52	58	81	76	57	39	32	59
20	50	59	46	44	132	57	82	74	60	40	31	48
21	46	54	48	48	293	56	74	67	57	69	29	36
22	46	51	48	50	125	53	70	63	90	50	29	35
23	45	50	48	52	520	54	71	60	64	42	30	39
24	45	126	50	52	370	52	80	57	54	40	28	33
25	155	164	48	52	148	51	69	55	58	42	29	31
26	104	76	48	51	111	50	64	54	119	43	29	31
27	61	65	48	51	90	51	63	53	59	42	28	30
28	57	73	50	48	84	49	61	58	53	44	27	30
29	54	67	50	45	---	49	61	71	49	52	27	30
30	51	60	50	40	---	54	60	59	47	41	27	29
31	50	---	46	38	---	63	---	62	---	38	37	---
TOTAL	1694	1866	1536	1355	3479	1927	2472	2246	2075	1815	1131	1053
MEAN	54.6	62.2	49.5	43.7	124	62.2	82.4	72.5	69.2	58.5	36.5	35.1
MAX	155	164	57	52	520	82	258	215	171	255	65	59
MIN	43	47	45	34	38	49	53	53	47	38	27	27
CFSM	.58	.66	.52	.46	1.31	.66	.87	.77	.73	.62	.39	.37
IN.	.67	.74	.61	.53	1.37	.76	.97	.89	.82	.72	.45	.41

CAL YR 1980 TOTAL 40269 MEAN 110 MAX 790 MIN 41 CFSM 1.17 IN 15.87
WTR YR 1981 TOTAL 22649 MEAN 62.1 MAX 520 MIN 27 CFSM .66 IN 8.93

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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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 632 ft³/s (17.9 m³/s) Feb. 23, gage height, 3.61 ft (1.100 m), no peak above base of 1,000 ft³/s (28 m³/s); minimum discharge, 6.7 ft³/s (0.19 m³/s) Aug. 28, 29, 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	21	18	16	29	21	35	19	14	12	12
2	14	18	21	17	90	26	25	53	34	21	12	11
3	26	18	19	17	40	25	20	32	26	23	13	10
4	24	23	19	17	25	22	19	27	26	165	16	9.2
5	17	23	19	16	20	30	19	26	24	49	13	9.3
6	14	19	19	17	18	29	23	26	20	27	11	11
7	15	19	19	18	18	28	19	25	19	22	11	10
8	14	20	19	17	30	27	19	24	16	20	18	18
9	13	18	19	18	20	28	18	23	17	18	15	17
10	13	19	19	17	18	26	19	25	23	16	12	12
11	15	18	19	16	100	26	18	41	21	16	12	10
12	15	18	18	15	25	24	110	39	18	15	19	8.4
13	16	19	18	13	20	22	50	31	16	14	16	7.6
14	15	19	17	14	18	21	142	27	84	14	14	9.2
15	14	19	16	15	17	19	59	28	33	14	12	8.8
16	15	19	19	16	17	26	42	37	24	13	19	24
17	15	20	19	15	15	24	36	27	22	13	12	14
18	18	56	19	15	16	21	32	25	20	13	11	20
19	22	28	18	16	16	20	28	26	16	13	9.7	22
20	18	20	17	18	56	20	29	27	22	12	9.3	14
21	16	19	17	19	65	19	27	24	19	18	9.3	11
22	17	18	17	20	35	19	26	24	36	14	8.4	12
23	16	18	17	20	208	19	29	22	20	12	9.8	18
24	17	94	18	19	125	18	43	22	17	11	9.3	11
25	97	54	17	18	54	18	29	21	24	12	9.2	10
26	37	30	17	17	41	18	26	21	23	14	8.4	8.4
27	24	22	17	18	35	18	26	21	17	14	7.6	9.4
28	20	31	17	18	32	17	26	23	15	22	6.7	9.2
29	20	27	19	17	---	16	25	24	14	32	6.7	8.9
30	19	24	18	16	---	21	25	21	14	15	7.6	9.0
31	18	---	16	16	---	22	---	21	---	14	11	---
TOTAL	627	768	564	523	1190	698	1030	848	699	690	361.0	364.4
MEAN	20.2	25.6	18.2	16.9	42.5	22.5	34.3	27.4	23.3	22.3	11.6	12.1
MAX	97	94	21	20	208	30	142	53	84	165	19	24
MIN	13	18	16	13	15	16	18	21	14	11	6.7	7.6
CFSM	.58	.74	.52	.49	1.22	.65	.99	.79	.67	.64	.33	.35
IN.	.67	.82	.60	.56	1.27	.75	1.10	.91	.75	.74	.39	.39
CAL YR 1980	TOTAL	16309.0	MEAN	44.6	MAX	309	MIN	13	CFSM	1.28	IN	17.43
WTR YR 1981	TOTAL	8362.4	MEAN	22.9	MAX	208	MIN	6.7	CFSM	.66	IN	8.94

GUNPOWDER RIVER BASIN

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 mi² (137.0 km²).

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 winter periods, 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.--37 years, 69.2 ft³/s (1.960 m³/s), 17.76 in/yr (451 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft³/s (234 m³/s) June 22, 1972, gage height, 18.54 ft (5.651 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum discharge, 1.9 ft³/s (0.054 m³/s) Aug. 29, 1966; minimum daily discharge, 4.5 ft³/s (0.13 m³/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) Feb. 23, gage height 4.35 ft (1.326 m), no other peak above base of 1,000 ft³/s (28 m³/s); minimum discharge, 12 ft³/s (0.34 m³/s) Aug. 28, gage height 0.34 ft (0.128 m).

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	25	27	35	25	20	58	36	51	35	29	23	21
2	25	26	34	24	100	52	44	77	50	52	22	20
3	35	26	34	22	40	47	34	49	45	44	30	20
4	30	30	32	20	30	45	32	44	52	143	31	19
5	27	30	31	19	26	53	43	41	43	74	25	20
6	25	28	31	20	26	47	56	41	38	52	23	21
7	26	28	32	24	26	45	39	39	36	44	24	22
8	26	28	32	22	28	46	37	37	33	38	39	22
9	25	27	32	19	26	50	39	36	45	36	28	26
10	25	28	33	22	24	47	37	38	48	34	23	19
11	28	26	30	20	300	44	38	64	40	31	22	17
12	26	26	29	18	60	41	85	57	35	29	24	17
13	25	27	29	17	50	40	77	45	33	29	24	16
14	25	27	28	18	40	38	171	41	110	27	22	16
15	26	28	27	22	34	37	103	112	74	25	21	18
16	26	28	32	22	32	44	75	107	47	26	30	33
17	25	29	29	22	30	40	66	64	56	27	21	24
18	28	86	33	22	31	37	59	56	40	25	19	34
19	36	41	28	22	34	37	54	55	38	24	18	34
20	27	32	27	23	118	36	55	52	42	29	17	24
21	27	30	28	24	247	35	48	46	38	46	16	21
22	25	28	26	26	89	34	46	42	78	32	16	21
23	25	27	26	26	344	34	48	39	42	26	17	21
24	26	120	28	26	180	33	53	38	37	25	16	19
25	110	82	26	26	100	32	45	37	39	28	18	18
26	48	48	26	25	75	32	42	36	59	27	16	18
27	32	41	26	25	63	32	40	35	35	26	16	18
28	29	50	27	24	59	30	40	47	32	33	15	20
29	28	41	28	22	---	30	40	51	30	38	15	17
30	26	37	28	19	---	35	39	39	29	26	16	18
31	26	---	26	19	---	37	---	45	---	24	37	---
TOTAL	943	1132	913	685	2232	1248	1621	1561	1359	1149	684	634
MEAN	30.4	37.7	29.5	22.1	79.7	40.3	54.0	50.4	45.3	37.1	22.1	21.1
MAX	110	120	35	26	344	58	171	112	110	143	39	34
MIN	25	26	26	17	20	30	32	35	29	24	15	16
CFSM	.58	.71	.56	.42	1.51	.76	1.02	.95	.86	.70	.42	.40
IN.	.66	.80	.64	.48	1.57	.88	1.14	1.10	.96	.81	.48	.45

CAL YR 1980 TOTAL 23126 MEAN 63.2 MAX 350 MIN 23 CFSM 1.20 IN 16.26
WTR YR 1981 TOTAL 14161 MEAN 38.8 MAX 344 MIN 15 CFSM .73 IN 9.96

01583000 SLADE RUN NEAR GLYNDON, MD

LOCATION.--Lat 39°29'40", long 76°47'45", Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of bridge on Longnecker Road, 1.1 mi (1.8 km) upstream from mouth, 1.6 mi (2.6 km) northeast of Glyndon, and 2.6 mi (4.2 km) northeast of Reisterstown.

DRAINAGE AREA.--2.09 mi² (5.41 km²).

PERIOD OF RECORD.--September 1947 to September 1981 (discontinued).

REVISED RECORD.--WSP 1502: Drainage area. WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 425.25 ft (129.616 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.--34 years, 2.40 ft³/s (0.068 m³/s), 15.59 in/yr (396 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft³/s (14.6 m³/s) June 22, 1972, gage height, 4.80 ft (1.463 m), from rating curve extended above 80 ft³/s (2.27 m³/s) on basis of slope-area measurement at gage height 3.96 ft (1.207 m); no flow many days in August and September 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90 ft³/s (2.55 m³/s) May 28, gage height, 3.36 ft (1.024 m), no peak above base of 90 ft³/s (2.5 m³/s); minimum discharge, 0.56 ft³/s (0.016 m³/s) Aug. 28, 29, gage height 2.02 ft (0.616 m).

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	.80	.93	1.4	1.1	.90	2.0	1.6	2.5	1.9	1.6	1.0	.92
2	1.2	.93	1.3	1.0	3.7	1.9	1.6	3.0	3.2	5.3	1.0	.85
3	1.3	.88	1.2	1.0	1.9	1.7	1.4	2.0	2.4	2.4	1.2	.82
4	1.0	.98	1.2	.90	1.2	1.7	1.4	1.9	3.7	8.2	1.2	.82
5	.96	.98	1.2	.80	1.0	2.0	1.6	1.8	2.6	3.5	1.0	.88
6	.87	.93	1.2	.80	1.0	1.9	1.5	1.8	2.2	2.6	1.1	1.3
7	.86	.93	1.2	.85	1.0	1.8	1.3	1.7	2.0	2.2	1.1	1.1
8	.84	.93	1.2	.80	1.5	1.9	1.3	1.6	1.8	2.0	1.8	1.0
9	.81	.88	1.3	.80	1.2	1.9	1.5	1.4	1.8	1.9	1.2	.94
10	.85	.88	1.2	.85	1.0	1.8	1.4	1.4	2.1	1.7	1.0	.79
11	.92	.83	1.2	.80	9.9	1.8	1.5	2.2	1.8	1.6	.96	.73
12	.82	.88	1.2	.70	2.4	1.7	3.6	1.9	1.5	1.5	1.3	.69
13	.80	.88	1.2	.60	1.7	1.6	2.6	1.9	1.6	1.5	1.1	.67
14	.81	.88	1.1	.65	1.5	1.6	5.3	1.7	4.2	1.4	.99	.66
15	.83	.88	1.1	.75	1.4	1.6	3.0	3.9	2.1	1.3	.94	.75
16	.83	.88	1.2	.80	1.2	1.8	2.4	3.0	1.8	1.4	.90	1.3
17	.81	1.1	1.1	.85	1.3	1.6	2.3	2.2	5.1	1.3	.81	1.1
18	1.0	2.4	1.1	.95	1.3	1.5	2.0	2.0	2.0	1.3	.76	1.6
19	1.0	1.4	1.1	.85	1.5	1.5	1.9	2.2	1.9	1.2	.77	1.4
20	.89	1.2	.97	.98	4.7	1.5	2.0	2.1	5.5	1.2	.75	.97
21	.86	1.1	.93	.98	7.8	1.4	1.9	1.9	2.8	1.5	.72	.88
22	.83	1.0	.98	.98	3.4	1.4	1.8	1.7	5.0	1.3	.75	.98
23	.83	.98	1.0	.98	14	1.4	2.3	1.6	2.3	1.1	.74	1.0
24	.86	4.4	1.1	.98	5.5	1.3	2.7	1.5	2.0	1.2	.68	.79
25	4.4	2.6	1.0	.93	3.0	1.3	2.0	1.4	2.5	1.3	.67	.74
26	1.4	1.9	.95	.93	2.4	1.3	1.9	1.4	2.1	1.3	.69	.74
27	1.2	1.7	.90	.98	2.2	1.3	1.8	1.3	1.8	1.2	.67	.72
28	1.1	1.8	.90	.98	2.1	1.3	1.7	9.2	1.7	2.0	.64	.68
29	.98	1.5	1.0	.98	---	1.3	1.7	4.1	1.6	1.7	.64	.67
30	.98	1.4	1.1	.80	---	1.5	1.6	2.3	1.5	1.2	.70	.69
31	.93	---	1.0	.80	---	1.4	---	2.3	---	1.1	1.6	---
TOTAL	32.57	38.96	34.53	27.15	81.70	49.7	60.6	70.9	74.5	60.0	29.38	27.18
MEAN	1.05	1.30	1.11	.88	2.92	1.60	2.02	2.29	2.48	1.94	.95	.91
MAX	4.4	4.4	1.4	1.1	14	2.0	5.3	9.2	5.5	8.2	1.8	1.6
MIN	.80	.83	.90	.60	.90	1.3	1.3	1.3	1.5	1.1	.64	.66
CFSM	.50	.62	.53	.42	1.40	.77	.97	1.10	1.19	.93	.46	.44
IN.	.58	.69	.61	.48	1.45	.88	1.08	1.26	1.33	1.07	.52	.48

CAL YR 1980 TOTAL 915.09 MEAN 2.50 MAX 12 MIN .68 CFSM 1.20 IN 16.28
WTR YR 1981 TOTAL 587.17 MEAN 1.61 MAX 14 MIN .60 CFSM .77 IN 10.45

GUNPOWDER RIVER BASIN

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 mi² (154.9 km²).

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.--37 years, 69.6 ft³/s (1.971 m³/s), 15.81 in/yr (402 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft³/s (1,080 m³/s) June 22, 1972, gage height, 26.0 ft (7.92 m), from floodmarks, from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of slope-area measurement and contracted-opening measurement at gage height 26.0 ft (7.92 m); minimum discharge, 2.4 ft³/s (0.068 m³/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) Feb. 23, gage height, 3.97 ft (1.210 m), no other peak above base of 1,000 ft³/s (28 m³/s); minimum daily discharge, 17 ft³/s (0.48 m³/s) Aug. 28, 29, Sept. 13, 14.

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	26	31	36	27	22	64	39	54	40	32	25	25
2	26	30	35	26	100	58	48	90	74	60	24	22
3	36	30	34	24	40	52	37	55	57	50	27	21
4	32	33	32	22	32	49	35	48	96	150	29	21
5	28	34	31	20	28	62	38	44	67	90	26	22
6	26	31	31	22	28	58	46	43	54	70	24	24
7	27	31	32	24	27	57	36	41	48	61	26	26
8	27	31	31	22	30	56	35	38	41	52	46	23
9	27	30	32	20	28	55	38	37	40	46	29	24
10	27	31	33	24	26	51	37	39	49	42	25	20
11	30	29	31	22	321	51	39	59	42	38	23	19
12	28	29	30	20	77	47	98	55	36	36	29	18
13	27	29	30	18	50	45	85	42	35	35	27	17
14	27	30	29	20	44	43	169	40	179	34	24	17
15	28	30	28	23	35	42	103	99	64	31	23	19
16	28	30	31	23	33	50	77	108	50	31	23	31
17	28	31	30	23	33	46	69	62	70	32	21	24
18	31	76	28	23	34	43	62	53	45	30	20	30
19	39	44	29	23	37	42	55	56	40	28	19	39
20	30	36	28	24	114	42	56	54	45	29	19	24
21	30	33	30	26	207	40	49	45	40	39	18	21
22	29	32	28	27	94	38	47	41	100	31	18	22
23	29	31	28	27	387	39	50	39	50	28	19	31
24	30	109	30	27	180	37	68	36	40	27	18	21
25	116	88	28	27	102	36	49	35	45	30	19	20
26	59	48	28	26	81	36	45	34	70	30	18	19
27	38	41	28	26	70	36	43	33	40	28	18	19
28	35	48	29	25	66	34	42	70	36	38	17	19
29	33	42	30	23	---	35	42	104	34	55	17	19
30	31	38	30	20	---	40	40	49	32	30	18	19
31	31	---	28	20	---	39	---	50	---	28	48	---
TOTAL	1039	1186	938	724	2326	1423	1677	1653	1659	1341	737	676
MEAN	33.5	39.5	30.3	23.4	83.1	45.9	55.9	53.3	55.3	43.3	23.8	22.5
MAX	116	109	36	27	387	64	169	108	179	150	48	39
MIN	26	29	28	18	22	34	35	33	32	27	17	17
CFSM	.56	.66	.51	.39	1.39	.77	.94	.89	.93	.72	.40	.38
IN.	.65	.74	.58	.45	1.45	.89	1.04	1.03	1.03	.83	.46	.42

CAL YR 1980 TOTAL 24203 MEAN 66.1 MAX 417 MIN 23 CFSM 1.11 IN 15.06
WTR YR 1981 TOTAL 15379 MEAN 42.1 MAX 387 MIN 17 CFSM .70 IN 9.57

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 mi² (24.35 km²).

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 12.5 ft³/s (0.354 m³/s), 18.06 in/yr (459 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft³/s (73.9 m³/s) Aug. 27, 1978, gage height, 6.31 ft (1.923 m); minimum discharge, 1.0 ft³/s (0.028 m³/s) Jan. 29, 1977, gage height, 0.79 ft (0.241 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 234 ft³/s (6.63 m³/s) July 4, gage height, 3.26 ft (0.994 m), no peak above base of 300 ft³/s (8.5 m³/s); minimum discharge, 2.2 ft³/s (0.062 m³/s) Sept. 14, 15, gage height, 0.92 ft (0.280 m).

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	3.6	4.0	5.3	3.6	3.5	7.4	5.8	8.3	4.4	3.6	3.2	2.6
2	3.8	4.0	5.0	3.6	12	6.9	5.9	9.9	7.7	9.7	3.2	2.6
3	5.2	3.8	4.4	3.6	5.0	6.4	5.2	6.6	5.4	5.9	3.2	2.6
4	4.7	5.0	4.3	3.4	4.0	6.1	4.8	6.1	5.9	53	3.5	2.5
5	3.8	4.3	4.3	3.3	4.0	8.6	5.2	5.8	5.3	12	3.1	2.5
6	3.6	4.0	4.3	3.5	4.0	8.0	5.4	5.6	4.8	8.7	3.0	2.5
7	3.6	4.3	4.3	3.6	3.8	7.6	4.8	5.5	4.5	7.1	3.2	2.5
8	3.6	4.3	4.3	3.6	6.0	7.3	4.8	5.2	4.0	6.2	3.3	3.6
9	3.6	4.6	4.8	3.9	4.5	7.1	5.5	5.1	4.0	5.4	3.2	3.2
10	3.7	4.1	4.5	3.8	3.9	6.7	5.1	5.5	5.1	4.9	2.9	2.5
11	4.3	4.0	4.0	3.5	16	6.6	5.8	8.1	4.3	4.5	3.7	2.5
12	3.8	4.0	4.0	3.4	7.0	6.4	16	6.9	3.8	4.2	5.2	2.4
13	3.6	4.0	4.0	3.2	5.5	6.1	11	5.8	3.8	4.2	3.3	2.4
14	3.6	3.8	3.8	3.2	5.0	5.7	25	5.3	20	4.0	3.0	2.3
15	3.6	3.8	3.8	3.3	4.8	5.4	11	7.9	6.2	3.8	3.0	2.7
16	3.6	3.8	4.2	3.5	4.6	6.6	9.1	7.6	5.0	3.8	3.6	5.4
17	3.6	4.8	4.0	3.3	4.5	5.9	8.4	5.8	4.4	3.8	2.9	3.1
18	4.5	10	3.6	3.3	4.6	5.5	7.6	5.3	4.0	3.8	2.7	5.0
19	4.5	5.1	3.8	3.4	5.1	5.7	6.9	6.1	3.8	3.7	2.7	4.4
20	3.8	4.5	3.6	4.0	14	5.4	6.8	5.6	7.9	3.8	2.6	3.0
21	3.6	4.1	3.6	4.3	15	5.2	6.4	5.0	4.6	5.4	2.6	2.8
22	3.6	4.0	3.6	4.5	10	4.8	6.2	5.0	12	3.9	2.5	2.8
23	3.5	4.0	3.6	4.5	55	4.8	6.6	4.6	4.8	3.4	2.5	2.8
24	3.5	16	3.6	4.3	18	4.8	7.8	4.3	4.3	3.3	2.4	2.6
25	17	8.7	3.6	3.8	11	4.8	5.9	4.3	16	4.3	2.4	2.5
26	6.2	6.4	3.6	3.8	9.2	4.8	5.6	4.4	8.1	4.0	2.5	2.5
27	4.8	6.9	3.6	4.0	8.1	4.8	5.5	4.2	4.9	3.5	2.6	2.5
28	4.5	8.5	3.8	3.9	7.6	4.8	5.6	6.0	4.3	5.0	2.4	2.5
29	4.3	6.5	4.3	3.7	---	4.8	5.9	8.8	3.8	6.6	2.4	2.5
30	4.0	5.4	4.0	3.5	---	6.1	5.6	5.1	3.8	3.5	2.4	2.5
31	4.0	---	3.6	3.4	---	5.6	---	5.2	---	3.2	2.8	---
TOTAL	137.1	160.7	125.2	113.7	255.7	186.7	221.2	184.9	180.9	202.2	92.0	86.3
MEAN	4.42	5.36	4.04	3.67	9.13	6.02	7.37	5.96	6.03	6.52	2.97	2.88
MAX	17	16	5.3	4.5	55	8.6	25	9.9	20	53	5.2	5.4
MIN	3.5	3.8	3.6	3.2	3.5	4.8	4.8	4.2	3.8	3.2	2.4	2.3
CFSM	.47	.57	.43	.39	.97	.64	.78	.63	.64	.69	.32	.31
IN.	.54	.64	.50	.45	1.01	.74	.88	.73	.72	.80	.36	.34

CAL YR 1980 TOTAL 3806.5 MEAN 10.4 MAX 91 MIN 3.4 CFSM 1.11 IN 15.06
WTR YR 1981 TOTAL 1946.6 MEAN 5.33 MAX 55 MIN 2.3 CFSM .57 IN 7.70

GUNPOWDER RIVER BASIN

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 mi² (19.71 km²).

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 February, 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.--22 years, 11.4 ft³/s (0.323 m³/s), 20.34 in/yr (517 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s (227 m³/s) Aug. 1, 1971, gage height, 14.05 ft (4.282 m), from rating curve extended above 1,300 ft³/s (36.8 m³/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 ft³/s (0.003 m³/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 14	0145	*1420 40.2	7.40 2.256	July 4	1515	1270 36.0	6.67 2.033
June 25	2100	1110 31.4	5.86 1.786	Aug. 11	2130	1270 36.0	6.68 2.037

Minimum discharge, 0.30 ft³/s (0.008 m³/s) Jan. 4, result of freezeup; minimum daily discharge, 0.99 ft³/s (0.028 m³/s) Aug. 27.

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	1.1	2.3	3.7	2.4	2.0	4.2	11	24	1.9	3.1	1.6	1.4
2	4.1	2.2	2.8	2.2	22	3.5	6.7	24	9.0	36	1.4	1.1
3	16	2.2	2.7	2.0	6.0	3.0	3.2	5.6	3.9	14	1.4	1.1
4	4.9	14	2.6	1.9	4.2	2.9	2.6	3.8	9.3	231	1.4	1.1
5	1.6	3.5	2.4	1.7	3.0	34	8.1	3.6	3.9	40	1.4	1.2
6	1.3	2.1	2.4	1.9	2.8	11	6.7	3.4	2.2	11	1.7	1.5
7	1.3	2.0	2.4	2.3	2.6	6.1	2.7	2.9	1.8	6.6	1.9	1.1
8	1.3	1.9	2.4	1.9	11	4.3	2.5	2.7	1.5	4.9	9.9	35
9	1.2	2.1	4.4	1.6	7.0	3.8	5.2	2.4	1.6	4.3	1.9	3.7
10	1.2	2.2	3.5	1.5	3.0	3.7	3.0	6.3	8.4	3.4	1.5	1.5
11	1.6	1.5	2.4	1.3	30	3.5	3.7	18	2.3	2.8	85	1.2
12	1.3	1.4	2.4	1.2	14	3.1	40	11	1.5	2.4	45	1.1
13	1.2	1.6	2.4	1.0	5.3	3.1	15	4.5	4.2	2.3	4.4	1.1
14	1.2	1.6	2.3	1.2	3.0	2.5	64	3.4	150	2.2	2.4	1.1
15	1.4	1.7	2.1	1.4	2.8	2.5	15	19	8.8	2.0	2.1	27
16	1.5	1.8	3.1	1.4	2.8	6.5	6.8	11	5.0	1.8	6.0	41
17	1.5	15	2.4	1.4	2.9	3.5	5.5	4.1	3.6	1.9	2.8	6.4
18	3.4	30	2.4	1.2	3.1	2.6	4.4	3.0	2.6	1.9	1.8	27
19	2.7	4.2	2.4	1.2	3.2	2.5	4.9	7.9	2.3	1.6	1.4	10
20	1.7	3.0	1.8	1.6	31	2.4	7.4	4.1	64	2.1	1.2	2.8
21	1.4	2.6	1.7	2.5	29	2.2	4.5	2.5	14	5.0	1.1	2.2
22	1.3	2.3	1.7	2.1	17	2.1	3.9	2.1	19	2.1	1.2	2.8
23	1.2	2.1	2.9	2.1	117	2.4	4.1	2.0	4.0	1.6	1.2	2.8
24	1.5	56	7.1	2.1	28	2.3	4.0	2.0	3.1	1.4	1.1	1.7
25	57	13	3.9	2.1	9.3	2.1	2.9	1.8	73	3.0	1.1	1.6
26	9.5	4.7	2.1	2.1	6.0	2.2	2.6	1.8	46	2.7	1.0	1.4
27	3.1	3.9	2.6	2.4	4.4	2.2	2.8	1.6	11	2.1	.99	2.1
28	2.8	14	2.8	2.4	4.2	2.0	9.0	8.3	5.9	3.2	1.1	2.4
29	2.2	5.0	3.4	2.1	---	2.0	11	7.7	4.6	8.7	1.4	1.4
30	2.1	4.0	2.9	2.1	---	13	4.2	2.8	3.8	2.3	1.5	1.4
31	2.2	---	2.4	2.0	---	5.3	---	4.9	---	1.8	4.5	---
TOTAL	135.8	203.9	86.5	56.3	376.6	146.5	267.4	202.2	472.2	409.2	192.39	187.2
MEAN	4.38	6.80	2.79	1.82	13.5	4.73	8.91	6.52	15.7	13.2	6.21	6.24
MAX	57	56	7.1	2.5	117	34	64	24	150	231	85	41
MIN	1.1	1.4	1.7	1.0	2.0	2.0	2.5	1.6	1.5	1.4	.99	1.1
CFSM	.58	.89	.37	.24	1.77	.62	1.17	.86	2.06	1.74	.82	.82
IN.	.66	1.00	.42	.28	1.84	.72	1.31	.99	2.31	2.00	.94	.91
CAL YR 1980	TOTAL	3023.75	MEAN	8.26	MAX	151	MIN	.74	CFSM	1.09	IN	14.78
WTR YR 1981	TOTAL	2736.19	MEAN	7.50	MAX	231	MIN	.99	CFSM	.99	IN	13.37

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 mi² (5.52 km²).

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 except those for January, which are fair. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1958-64, 1967-81), 2.65 ft³/s (0.0750 m³/s), 16.90 in/yr (429 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s (49.3 m³/s) Sept. 11, 1971, gage height, 6.80 ft (2.073 m), from rating curve extended above 90 ft³/s (2.55 m³/s) on basis of slope-area measurement at gage height 6.37 ft (1.942 m); no flow Aug. 14-24, 1957, Sept. 29, 30, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 290 ft³/s (8.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 14	0030	373 10.6	3.77 1.149	June 25	2000	479 13.6	4.13 1.259
June 20	0230	*606 17.2	4.51 1.375	July 4	1530	292 8.27	3.45 1.052

No flow, Sept. 29, 30; minimum daily discharge, 0.09 ft³/s (0.003 m³/s) Sept. 29.

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	.22	.28	.42	.48	.28	.70	3.2	13	.40	1.8	.40	.41
2	1.3	.24	.83	.51	11	.59	.59	2.1	6.4	12	.38	.21
3	4.0	.24	.39	.28	.44	.54	.42	.65	2.4	16	.39	.21
4	.51	5.1	.37	.22	.33	.54	.38	.46	3.1	43	.41	.22
5	.27	.35	.30	.10	.28	9.1	1.9	.49	.66	3.0	.34	.27
6	.17	.30	.37	.32	.32	2.6	.49	.48	.49	1.6	.39	.28
7	.29	.26	.37	.50	.40	1.1	.53	.44	.40	1.2	.37	.27
8	.22	.18	.32	.28	4.0	.71	.35	.44	.37	.96	.66	3.4
9	.24	.57	1.5	.23	.41	.64	1.6	.56	.46	.89	.31	.28
10	.54	.18	.42	.23	.72	.65	.38	5.0	4.9	.78	.23	.13
11	.29	.18	.35	.20	10	.73	1.1	6.3	.39	.72	5.2	.13
12	.25	.22	.35	.16	.73	.56	11	4.2	.36	.64	6.6	.15
13	.14	.26	.32	.14	.44	.54	.89	.57	5.4	.61	.42	.17
14	.18	2.7	.28	.13	.42	.50	13	.48	19	.61	.35	.12
15	.20	4.9	.28	.18	.40	.65	1.1	11	.83	.58	.59	4.8
16	.37	1.3	.84	.18	.38	2.4	.80	1.3	.57	.59	.55	8.3
17	.20	9.4	.32	.18	.36	.54	.80	.73	.50	.54	.21	1.9
18	2.7	4.6	.28	.16	.38	.55	.67	.65	.41	.52	.25	3.8
19	.39	.52	.28	.15	.89	.50	.58	3.7	.46	.49	.24	1.0
20	.14	.45	.26	.20	13	.48	2.0	.82	17	3.3	.20	.27
21	.20	.35	.24	.36	5.3	.47	.49	.61	5.7	.69	.22	.24
22	.21	.32	.26	.30	6.7	.47	.77	.57	4.8	.49	.24	.43
23	.19	.32	.79	.26	22	.44	1.1	.59	.67	.41	.25	.28
24	.19	19	3.1	.25	2.3	.49	.69	.58	.58	.44	.18	.16
25	20	.93	.35	.26	1.1	.48	.47	.56	15	1.6	.18	.15
26	.51	.48	.26	.30	.84	.50	.52	.61	1.6	.50	.26	.17
27	.30	1.3	.35	.34	.75	.45	.46	.76	.68	.46	.17	1.2
28	.35	4.3	.39	.37	1.0	.41	2.6	5.8	.57	6.0	.22	.31
29	.26	4.6	.48	.30	---	.29	.80	6.2	.51	.77	.17	.09
30	.26	.48	.39	.29	---	3.8	.53	.90	.48	.45	.73	.11
31	.26	---	.35	.24	---	.51	---	2.0	---	.41	2.4	---
TOTAL	35.35	64.31	15.81	8.10	85.17	32.93	50.21	72.55	95.09	102.05	23.51	29.46
MEAN	1.14	2.14	.51	.26	3.04	1.06	1.67	2.34	3.17	3.29	.76	.98
MAX	20	19	3.1	.51	22	9.1	13	13	19	43	6.6	8.3
MIN	.14	.18	.24	.10	.28	.29	.35	.44	.36	.41	.17	.09
CFSM	.54	1.01	.24	.12	1.43	.50	.78	1.10	1.49	1.55	.36	.46
IN.	.62	1.12	.28	.14	1.49	.57	.88	1.27	1.66	1.78	.41	.51

CAL YR 1980 TOTAL 757.17 MEAN 2.07 MAX 29 MIN .14 CFSM .97 IN 13.22
WTR YR 1981 TOTAL 614.54 MEAN 1.68 MAX 43 MIN .09 CFSM .79 IN 10.73

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 mi² (11.55 km²).

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 except those for January, which are fair. Slight diurnal fluctuation at times from unknown source. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years (water years 1960-72, 1974-81), 6.75 ft³/s (0.191 m³/s), 20.55 in/yr (522 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft³/s (169 m³/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 ft³/s (31.2 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) many days in 1962, 1964, and 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (20 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
June 14	0100	1490	42.2	4.51	1.375	July 4	1415	976	27.6	3.81	1.161
June 20	0315	703	19.9	3.42	1.042	Aug. 11	2100	Unknown		*a6.97	2.124
June 25	2030	*1520	43.0	4.55	1.387	Sept. 8	1530	754	21.4	3.50	1.067

a Backwater.

Minimum daily discharge, 0.29 ft³/s (0.008 m³/s) Jan. 5.

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	.34	.54	1.1	1.1	.66	1.5	6.0	26	.91	1.6	.54	.80	
2	3.0	.57	1.1	1.2	21	1.3	2.4	14	7.2	19	.52	.53	
3	13	.56	.97	.89	2.3	1.2	1.3	2.5	1.9	6.2	.56	.47	
4	2.2	7.7	.81	.50	1.0	1.2	1.1	1.7	6.2	170	.76	.44	
5	.79	1.5	.85	.29	.78	22	4.7	1.5	2.2	11	.55	.52	
6	.55	.75	.85	.50	.83	5.7	2.7	1.4	1.2	4.1	.53	.46	
7	.51	.69	1.2	.92	.94	2.6	1.2	1.2	.91	2.8	.60	.43	
8	.47	.66	.90	.80	10	1.9	1.1	1.1	.76	2.2	5.3	32	
9	.39	.82	2.3	.65	5.1	1.6	2.7	1.0	.76	1.9	.88	1.5	
10	.39	1.1	1.7	.65	1.2	1.4	1.3	3.3	6.5	1.6	.86	.64	
11	.47	.48	.90	.60	23	1.6	1.4	9.6	1.0	1.3	73	.47	
12	.39	.50	.86	.50	4.5	1.4	21	5.5	.69	1.2	23	.43	
13	.33	.57	.84	.45	1.5	1.3	8.5	1.6	13	1.2	2.6	.43	
14	.32	.61	.75	.40	1.3	1.1	35	1.3	125	1.1	1.5	.36	
15	.40	.61	.73	.55	1.2	1.1	5.0	15	3.7	.95	1.8	28	
16	.48	.65	1.3	.55	1.1	3.9	2.4	3.9	2.3	.96	4.3	31	
17	.40	13	.94	.55	1.1	1.4	2.0	1.4	1.7	.92	1.0	4.9	
18	2.3	15	.78	.50	1.1	1.1	1.7	1.3	1.3	.87	.81	17	
19	1.6	1.5	.79	.45	1.2	1.1	1.4	5.3	1.2	.82	.76	4.0	
20	.48	1.0	.61	.60	25	1.1	2.4	1.9	63	2.9	.73	1.2	
21	.36	.90	.54	1.1	11	.96	1.3	1.2	12	2.1	.64	.92	
22	.35	.82	.76	.80	15	.92	1.2	1.0	9.0	.78	.55	.79	
23	.33	.78	1.8	.70	50	.95	1.4	.97	2.2	.68	.65	1.4	
24	.34	41	4.6	.70	5.0	.92	1.4	.83	1.7	.61	.56	.64	
25	46	4.1	1.3	.80	2.3	.87	1.1	.81	89	2.1	.46	.59	
26	2.5	1.7	.59	.98	1.8	.86	1.0	.80	10	1.1	.57	.59	
27	.89	1.6	.70	1.1	1.6	.89	1.0	.77	2.7	.80	.69	1.4	
28	1.1	7.8	.96	.95	2.1	.84	20	7.3	2.0	11	.42	1.4	
29	.70	1.8	1.2	.83	---	.88	6.3	7.1	1.6	3.5	.40	.51	
30	.60	1.3	1.1	.65	---	7.2	1.8	2.1	1.4	.79	.70	.51	
31	.57	---	.80	.63	---	1.8	---	3.4	---	.63	5.2	---	
TOTAL	82.55	110.61	34.63	21.89	193.61	72.59	141.8	126.78	373.03	256.71	131.44	134.33	
MEAN	2.66	3.69	1.12	.71	6.91	2.34	4.73	4.09	12.4	8.28	4.24	4.48	
MAX	46	41	4.6	1.2	50	22	35	26	125	170	73	32	
MIN	.32	.48	.54	.29	.66	.84	1.0	.77	.69	.61	.40	.36	
CFSM	.60	.83	.25	.16	1.55	.53	1.06	.92	2.78	1.86	.95	1.00	
IN.	.69	.92	.29	.18	1.61	.61	1.18	1.06	3.11	2.14	1.10	1.12	
CAL YR 1980	TOTAL	1749.00		MEAN	4.78	MAX	116	MIN	.23	CFSM	1.07	IN	14.58
WTR YR 1981	TOTAL	1679.97		MEAN	4.60	MAX	170	MIN	.29	CFSM	1.03	IN	14.01

BACK RIVER BASIN

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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 mi² (5.10 km²).

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 1.91 ft³/s (0.073 m³/s), 17.72 in/yr (450 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,500 ft³/s (99.1 m³/s) Aug. 1, 1971, gage height, 10.75 ft (3.277 m), from high-water mark in well, from rating curve extended above 180 ft³/s (5.10 m³/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 ft³/s (4.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 14	0145	394 11.2	4.39 1.338	July 4	1445	321 9.09	3.94 1.201
June 25	2045	258 7.31	3.52 1.073	Aug. 11	2200	*429 12.1	4.60 1.402

Minimum discharge, 0.25 ft³/s (0.007 m³/s) Jan. 13, 14.

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	.58	.52	.81	.60	.47	.73	2.1	9.7	.67	.71	.50	.56
2	1.4	.50	.83	.58	5.9	.69	.97	7.5	2.7	7.6	.50	.55
3	4.1	.50	.67	.55	.81	.63	.62	1.5	1.3	5.2	.52	.50
4	.83	1.8	.63	.50	.52	.62	.60	.84	2.5	64	.55	.50
5	.57	.56	.66	.45	.44	7.4	1.5	.75	1.3	6.7	.55	.50
6	.50	.51	.60	.50	.45	2.7	.89	.73	.82	1.7	.55	.54
7	.57	.43	.60	.61	.49	1.3	.69	.66	.60	1.0	.58	.60
8	.65	.46	.60	.50	2.4	.92	.67	.60	.60	.79	1.2	1.2
9	.56	.65	.99	.41	.73	.86	.98	.60	.64	.70	.50	.56
10	.50	.65	.72	.38	.67	.76	.66	1.7	3.0	.66	.64	.50
11	.52	.50	.72	.35	7.9	.72	.79	3.8	.67	.60	36	.50
12	.50	.84	.72	.30	2.2	.66	6.3	2.7	.60	.60	11	.50
13	.50	.54	.72	.25	.76	.60	3.2	1.3	4.5	.60	1.1	.50
14	.52	.51	.61	.30	.61	.60	12	.72	58	.64	.62	.50
15	.61	.51	.61	.35	.60	.60	2.4	7.6	1.9	.61	.75	5.7
16	.57	.60	.72	.35	.60	1.3	.98	3.0	1.3	.60	.89	7.1
17	.56	4.2	.61	.35	.60	.74	.85	.86	1.0	.60	.56	3.9
18	1.2	5.1	.61	.30	.66	.63	.81	.72	.63	.57	.63	5.8
19	.62	.88	.61	.30	.73	.60	.72	2.7	.60	.55	.70	1.7
20	.61	.88	.50	.41	4.0	.60	.90	1.5	11	1.5	.70	.56
21	.57	.68	.50	.61	4.5	.60	.75	.72	7.7	.75	.59	.49
22	.66	.60	.50	.50	3.3	.60	.73	.67	4.5	.58	.50	.50
23	.62	.60	.61	.50	19	.60	.73	.60	1.3	.50	.50	.51
24	.60	12	1.6	.50	5.7	.63	.84	.57	.74	.50	.50	.58
25	14	2.6	.70	.50	1.8	.62	.66	.50	27	1.2	.54	.53
26	1.5	1.0	.55	.50	1.3	.60	.60	.52	8.1	.57	.55	.41
27	1.2	1.0	.70	.56	.96	.60	.60	.58	.93	.50	.50	.97
28	.93	2.8	.80	.61	.74	.57	7.5	2.3	.69	5.3	.50	.67
29	.60	1.5	.95	.50	---	.50	3.3	3.0	.60	1.1	.50	.55
30	.56	.82	.80	.50	---	1.8	1.0	1.9	.80	.56	.60	.51
31	.50	---	.61	.48	---	.79	---	1.9	---	.50	.96	---
TOTAL	38.21	44.74	21.86	14.10	68.84	31.57	55.34	62.74	146.69	107.99	65.28	38.49
MEAN	1.23	1.49	.71	.45	2.46	1.02	1.84	2.02	4.89	3.48	2.11	1.28
MAX	14	12	1.6	.61	19	7.4	12	9.7	58	64	36	7.1
MIN	.50	.43	.50	.25	.44	.50	.60	.50	.60	.50	.50	.41
CFSM	.62	.76	.36	.23	1.25	.52	.93	1.03	2.48	1.77	1.07	.65
IN.	.72	.84	.41	.27	1.30	.60	1.04	1.18	2.77	2.04	1.23	.73

CAL YR 1980 TOTAL 678.86 MEAN 1.85 MAX 38 MIN .41 CFSM .94 IN 12.81
WTR YR 1981 TOTAL 695.85 MEAN 1.91 MAX 64 MIN .25 CFSM .97 IN 13.13

PATAPSCO RIVER BASIN

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.

DRAINAGE AREA.--3.29 mi² (8.52 km²).

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. 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 m³). 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.--32 years, 3.56 ft³/s (0.101 m³/s), 14.70 in/yr (373 mm/yr), unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft³/s (62.9 m³/s) Sept. 26, 1975, gage height, 7.47 ft (2.277 m), from rating curve extended above 200 ft³/s (5.66 m³/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, 0.27 ft³/s (0.008 m³/s) Dec. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s (2.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 11	0330	103 2.92	2.84 0.866	June 14	0200	*297 8.41	3.71 1.131
Feb. 23	1400	83 2.35	2.70 0.823	June 22	0100	124 3.51	2.97 0.905

Minimum daily discharge, 0.22 ft³/s (0.006 m³/s) Jan. 30.

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	1.4	1.4	1.1	1.4	.25	.66	2.9	5.4	2.3	2.8	2.2	1.7
2	1.4	1.3	1.7	1.4	8.2	.60	2.7	4.9	4.4	5.4	2.1	1.7
3	1.5	1.3	2.0	1.4	.63	.54	1.7	3.3	3.0	3.4	2.5	1.6
4	1.5	1.6	1.7	1.2	.60	.53	2.0	2.9	3.3	10	2.3	1.6
5	1.4	1.4	1.7	1.1	.48	.62	6.3	2.8	2.7	4.8	2.2	1.8
6	1.4	1.4	1.7	1.1	.28	.56	3.3	2.8	2.5	3.8	2.2	1.7
7	1.4	1.3	1.7	1.2	.25	.55	1.3	2.7	2.3	3.2	2.2	1.6
8	1.4	1.3	1.6	1.1	.28	.55	1.0	2.5	2.2	2.9	2.4	1.9
9	1.3	1.3	1.7	1.1	.24	.55	1.2	2.5	2.1	2.8	2.1	1.8
10	1.4	1.3	1.6	1.2	.69	.53	.94	2.7	2.9	2.7	2.0	1.6
11	1.5	1.3	1.6	1.1	33	2.0	1.8	4.7	2.4	2.6	2.0	1.5
12	1.4	1.3	1.6	.95	2.9	1.4	9.0	3.4	2.1	2.5	2.3	1.4
13	1.3	1.3	1.5	.80	1.2	.53	7.1	2.7	2.5	2.4	2.1	1.4
14	1.3	1.3	1.5	.90	.52	.50	16	2.6	36	2.4	1.9	1.4
15	1.3	1.3	1.4	1.0	.50	.47	4.1	7.0	4.6	2.3	1.9	1.5
16	1.3	1.4	1.6	1.1	.44	.58	1.5	4.6	3.4	2.4	2.1	2.2
17	1.2	2.0	1.5	1.1	.59	.53	3.2	3.3	3.2	2.3	1.6	1.9
18	2.0	5.0	1.5	1.1	.77	.53	4.2	2.9	2.8	2.3	1.6	2.4
19	1.6	.87	1.5	.67	.50	.52	3.7	3.4	2.7	2.2	1.6	2.1
20	1.4	.52	1.3	.41	11	.52	2.2	3.0	4.5	3.2	1.6	1.6
21	1.4	.36	1.3	.46	14	.46	.74	2.7	3.8	2.8	1.6	1.6
22	1.3	.31	1.3	.41	3.4	.45	3.0	2.5	20	2.4	1.6	1.5
23	1.4	.31	1.4	.28	27	.45	1.9	2.6	4.5	2.3	1.6	1.5
24	1.4	7.0	1.5	.25	6.6	.44	2.3	2.4	3.7	2.4	1.5	1.4
25	13	4.0	1.4	.24	2.4	.40	3.2	2.3	5.1	2.4	1.5	1.4
26	2.6	2.6	1.3	.30	1.5	.39	3.0	2.3	4.1	2.4	1.5	1.4
27	1.8	2.4	1.2	.26	.79	.39	2.9	2.2	3.3	2.3	1.5	1.9
28	1.6	2.4	1.2	.24	.76	1.1	2.9	3.2	3.0	5.1	1.4	1.7
29	1.5	2.3	1.5	.24	---	1.9	2.8	2.8	2.3	3.3	1.4	1.5
30	1.4	.91	1.5	.22	---	2.4	2.8	2.4	2.7	2.4	1.5	1.5
31	1.4	---	1.4	.25	---	2.2	---	2.8	---	2.2	3.0	---
TOTAL	57.2	52.48	46.5	24.48	119.77	23.85	101.68	98.3	144.4	96.4	59.0	49.8
MEAN	1.85	1.75	1.50	.79	4.28	.77	3.39	3.17	4.81	3.11	1.90	1.66
MAX	13	7.0	2.0	1.4	33	2.4	16	7.0	36	10	3.0	2.4
MIN	1.2	.31	1.1	.22	.24	.39	.74	2.2	2.1	2.2	1.4	1.4
CFSM	.56	.53	.46	.24	1.30	.23	1.03	.96	1.46	.95	.58	.51
IN.	.65	.59	.53	.28	1.35	.27	1.15	1.11	1.63	1.09	.67	.56

CAL YR 1980 TOTAL 1045.29 MEAN 2.85 MAX 23 MIN .31 CFSM .87 IN 11.82
WTR YR 1981 TOTAL 873.86 MEAN 2.39 MAX 36 MIN .22 CFSM .73 IN 9.88

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 mi² (146.6 km²).

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 m³). Records do not include a mean discharge of 2.07 ft³/s (0.059 m³/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.--36 years, 65.0 ft³/s (1.841 m³/s), 15.59 in/yr (396 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 ft³/s (787 m³/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 ft³/s (116 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 ft³/s (0.054 m³/s) Sept. 10, 1966, result of filling pond above station; minimum daily discharge, 3.1 ft³/s (0.088 m³/s) Sept. 10, 12, 1966.

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

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	1300	1050 29.7	4.13 1.259	June 14	0815	*2210 62.6	6.37 1.942
Feb. 11	0515	1480 41.9	5.06 1.542	June 22	0830	1950 55.2	5.98 1.823
Feb. 23	1600	1210 34.3	4.48 1.366				

Minimum discharge, 4.9 ft³/s (0.14 m³/s) Aug. 9, gage height, 1.22 ft (0.372 m), result of regulation.

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	17	22	29	22	17	60	37	59	37	48	29	25
2	19	22	28	21	145	49	49	91	71	112	28	24
3	23	21	30	20	36	43	33	51	49	60	29	22
4	20	25	26	18	25	40	30	43	83	195	34	22
5	19	25	25	16	21	49	54	42	55	95	29	23
6	18	22	25	17	21	46	70	41	43	70	28	24
7	18	22	26	19	22	44	40	38	41	57	29	24
8	18	22	25	18	24	45	37	36	35	50	32	23
9	17	22	25	16	22	46	39	34	34	45	29	25
10	17	21	26	19	20	42	36	36	46	42	25	21
11	19	20	24	16	562	42	39	62	38	39	25	20
12	18	20	24	14	71	40	134	55	33	37	31	19
13	16	20	24	12	41	37	117	39	32	36	29	18
14	16	20	24	14	36	35	273	37	494	36	25	17
15	17	21	22	17	32	34	124	96	96	34	24	19
16	17	22	23	18	30	43	90	109	66	34	28	32
17	17	23	23	18	28	38	80	62	94	35	22	27
18	26	91	22	18	30	34	74	51	55	32	22	34
19	29	37	23	17	33	33	64	58	47	31	21	35
20	20	28	18	19	182	33	64	62	111	34	21	24
21	19	26	18	21	308	32	51	47	71	51	20	21
22	18	25	18	22	102	31	49	46	416	35	21	22
23	17	24	20	22	524	30	52	41	109	31	21	20
24	18	212	22	22	191	29	60	40	77	31	19	19
25	229	88	21	21	103	28	48	38	82	34	19	18
26	53	42	18	20	78	28	46	35	86	34	19	18
27	30	35	18	21	64	28	43	34	60	32	20	20
28	26	48	21	21	59	28	40	72	53	42	19	23
29	24	36	24	19	---	29	41	79	47	76	19	18
30	23	32	24	16	---	33	39	41	46	34	20	17
31	22	---	22	16	---	33	---	53	---	29	43	---
TOTAL	860	1094	718	570	2827	1162	1953	1628	2607	1551	780	674
MEAN	27.7	36.5	23.2	18.4	101	37.5	65.1	52.5	86.9	50.0	25.2	22.5
MAX	229	212	30	22	562	60	273	109	494	195	43	35
MIN	16	20	18	12	17	28	30	34	32	29	19	17
CFSM	.49	.65	.41	.33	1.78	.66	1.15	.93	1.54	.88	.45	.40
IN.	.57	.72	.47	.37	1.86	.76	1.28	1.07	1.71	1.02	.51	.44

CAL YR 1980 TOTAL 19962 MEAN 54.5 MAX 397 MIN 15 CFSM .96 IN 13.12
WTR YR 1981 TOTAL 16424 MEAN 45.0 MAX 562 MIN 12 CFSM .80 IN 10.79

PATAPSCO RIVER BASIN

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 mi² (738 km²).

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 January and February, 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 hm³); dead storage, 1,260,000,000 gal (4.769 hm³). 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 ft³/s (2,280 m³/s) June 22, 1972, gage height, 31.3 ft (9.54 m), from floodmarks, from rating curve extended above 27,000 ft³/s (765 m³/s) on basis of slope-area measurement of peak flow; minimum, 6 ft³/s (0.17 m³/s) Sept. 6, 1944; minimum daily, 9.6 ft³/s (0.27 m³/s) Aug. 12, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,680 ft³/s (161 m³/s) Oct. 1, gage height, 6.82 ft (2.079 m); minimum daily discharge, 25 ft³/s (0.71 m³/s) Jan. 13.

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	30	49	55	48	32	113	70	95	84	73	49	50
2	32	49	53	46	360	96	109	199	118	95	46	41
3	51	49	52	42	234	83	72	103	109	91	44	38
4	47	58	49	40	80	78	64	80	170	389	49	36
5	36	75	47	34	52	124	64	69	250	220	46	38
6	33	72	48	38	43	124	89	66	131	135	44	54
7	33	165	50	42	42	117	70	64	103	108	48	50
8	33	183	50	38	40	99	62	58	84	91	57	42
9	32	182	51	34	51	92	64	53	77	81	55	48
10	31	167	56	40	43	83	70	54	118	77	45	40
11	35	42	50	35	600	78	62	106	95	70	44	35
12	34	34	47	30	190	75	124	136	72	65	86	33
13	30	34	46	25	80	72	185	81	72	62	62	31
14	30	33	44	30	70	67	313	67	1890	61	47	30
15	32	33	42	35	65	62	224	157	278	57	44	32
16	33	35	50	38	65	70	159	199	166	55	52	72
17	35	45	48	40	60	72	138	114	145	56	42	53
18	40	163	43	38	60	64	124	94	109	52	38	51
19	53	88	44	35	60	62	104	102	92	50	36	49
20	43	54	43	40	250	60	99	115	210	50	36	38
21	40	47	36	45	325	60	88	90	116	60	34	35
22	40	45	38	43	190	55	79	80	172	53	34	35
23	41	43	44	43	700	55	79	72	109	49	35	49
24	42	168	48	42	470	55	121	68	86	44	33	42
25	262	246	46	39	200	53	83	65	260	52	31	32
26	147	90	40	39	160	51	72	61	210	53	31	30
27	67	68	40	40	136	53	67	60	83	51	31	30
28	60	82	46	40	117	53	75	135	78	67	30	35
29	55	75	50	37	---	51	86	169	80	155	30	30
30	53	61	50	34	---	60	67	121	78	65	34	28
31	51	---	48	32	---	67	---	115	---	53	59	---
TOTAL	1581	2535	1454	1182	4775	2304	3083	3048	5645	2640	1352	1207
MEAN	51.0	84.5	46.9	38.1	171	74.3	103	98.3	188	85.2	43.6	40.2
MAX	262	246	56	48	700	124	313	199	1890	389	86	72
MIN	30	33	36	25	32	51	62	53	72	44	30	28
(*)	33570	30710	28410	25520	27150	27430	29120	29970	33880	34580	30440	28510
(*)	223	218	211	141	113	104	116	122	144	166	220	159
CAL YR 1980	TOTAL	57211	MEAN	156	MAX	911	MIN	27	* 226			
WTR YR 1981	TOTAL	30806	MEAN	84.4	MAX	1890	MIN	25	* 161			

* Month-end contents, in millions of gallons in Liberty Reservoir, contents on Sept. 30, 1980: 33,660,000,000 gal (127.4 hm³); 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 1990 TO SEPTEMBER 1991

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- CORALT 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)
NOV 04...	0945	53	190	8.7	12.0	7.5	0	10.0	--	--	--	--
JAN 28...	0945	45	150	6.5	.0	.3	<5	13.5	52	17	14	4.2
JUN 30...	1530	72	175	8.5	32.0	27.0	2	11.0	62	12	18	4.1
SEP 18...	1015	53	202	7.9	--	19.0	5	--	67	9.0	18	5.3

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	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 CONSTITUENTS, DIS- SOLVED (MG/L)
NOV 04...	--	--	--	--	--	41	13	16	.2	--	111	--
JAN 28...	10	28	.6	2.0	1.5	35	10	15	.2	8.9	106	85
JUN 30...	7.2	19	.4	3.1	2.3	50	10	13	.1	9.1	116	95
SEP 18...	9.0	22	.5	2.4	--	58	12	14	.3	9.6	123	106

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- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 04...	.15	15.8	1.9	.150	.46	640	--	--	70	--	--
JAN 28...	.14	12.9	2.3	.140	.43	310	280	30	60	10	50
JUN 30...	.16	22.6	1.5	.120	.37	840	800	40	100	40	60
SEP 18...	.17	17.6	1.6	.170	.52	890	850	40	110	70	40

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, Hydrologic Unit 02060003, on right bank at downstream side of 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 mi² (6.40 km²).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 45 ft (14 m), from topographic map.

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.--24 years, 3.33 ft³/s (0.094 m³/s), 18.31 in/yr (465 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft³/s (69.7 m³/s) Sept. 6, 1979, gage height, 6.8 ft (2.07 m), from rating curve extended above 280 ft³/s (7.93 m³/s) on basis of culvert measurement at gage height 3.67 ft (1.119 m), discharge, 580 ft³/s (16.4 m³/s) and culvert and flow-over-road measurement of peak flow at gage height, 6.8 ft (2.07 m) from floodmarks; maximum recorded gage height, 6.35 ft (1.935 m) June 22, 1972; minimum daily discharge, 0.30 ft³/s (0.008 m³/s) July 24, Sept. 4, 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,130 ft³/s (60.3 m³/s) June 14, gage height, 5.89 ft (1.795 m), no other peak above base of 400 ft³/s (11 m³/s); minimum daily discharge, 0.35 ft³/s (0.010 m³/s) Oct. 14, Jan. 12, 13, Aug. 24, 25, 26, Sept. 5, 6, 7, 12, 13, 14.

REVISIONS.--The maximum gage height for water year 1979 has been revised to 6.8 ft (2.07 m), from floodmarks, superseding figure published in the report for 1979.

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	1.3	.40	.75	.40	.54	1.3	2.6	14	1.1	1.3	.91	.45
2	1.7	.40	.90	.40	8.2	1.3	1.3	2.4	3.6	2.5	.75	.45
3	2.8	.40	.90	.40	.95	1.3	1.1	.91	1.4	4.4	.75	.45
4	.68	2.4	.75	.40	.88	1.3	.91	.91	4.8	21	.75	.40
5	.51	.70	.60	.40	.75	6.8	2.3	.91	1.1	2.0	.75	.35
6	.49	.50	.60	.40	.75	1.7	1.3	.91	5.1	1.6	1.1	.35
7	.51	.45	.60	.40	.81	1.3	1.1	.91	.81	1.4	.91	.35
8	.50	.45	.60	.40	3.5	1.3	1.1	.91	.75	1.3	1.1	2.4
9	.45	1.0	1.5	.40	.86	1.3	1.9	.91	.88	1.3	.75	.45
10	.40	.75	.75	.40	.97	1.3	1.1	2.7	5.4	1.3	1.4	.40
11	.50	.50	.55	.40	8.5	1.3	1.4	6.5	.81	1.2	7.0	.40
12	.45	.50	.55	.35	1.2	1.1	5.4	4.4	.75	1.1	2.9	.35
13	.40	.50	.55	.35	.91	.91	2.8	1.0	27	1.1	.80	.35
14	.35	.50	.55	.40	.91	.91	8.2	.91	145	1.1	.75	.35
15	.40	.50	.55	.50	.91	.91	1.6	16	2.6	1.1	2.2	16
16	.40	.50	.75	.45	.91	1.9	1.3	2.0	1.8	1.1	.89	10
17	.40	10	.60	.45	.91	1.1	1.3	1.1	1.4	1.1	.50	2.9
18	1.5	3.7	.55	.51	.91	1.1	1.3	.91	1.2	1.1	.45	11
19	.50	.91	.50	.51	1.2	1.1	1.3	3.0	1.1	1.1	.40	2.3
20	.40	.75	.50	.63	10	1.1	1.4	1.2	7.1	4.2	.40	1.3
21	.45	.60	.50	1.1	4.7	1.1	1.1	1.1	1.2	1.3	.40	1.5
22	.50	.50	.50	.83	3.9	.94	1.1	.91	1.1	.91	.40	1.3
23	.45	.50	1.1	.75	35	.91	1.2	.86	1.1	.91	.40	1.2
24	.50	15	2.8	.75	3.0	.91	1.2	.75	.91	.91	.35	.84
25	27	1.3	.58	.75	1.9	.91	1.1	.75	11	1.4	.35	1.0
26	1.0	.93	.51	.75	1.4	.91	1.1	.75	2.0	.91	.35	1.0
27	.75	1.7	.45	.75	1.3	1.1	1.1	.75	1.3	.75	.40	.71
28	.60	2.9	.40	.75	1.3	1.3	1.4	5.6	1.1	11	.40	.73
29	.50	.86	.45	.75	---	1.3	1.2	1.0	.91	1.4	.40	.86
30	.45	.75	.40	.75	---	2.8	1.3	.99	1.0	1.1	1.7	.70
31	.40	---	.40	.75	---	1.3	---	1.8	---	.91	2.1	---
TOTAL	47.24	50.85	21.69	17.23	97.07	43.81	52.51	77.75	235.32	73.80	32.71	60.84
MEAN	1.52	1.70	.70	.56	3.47	1.41	1.75	2.51	7.84	2.38	1.06	2.03
MAX	27	15	2.8	1.1	35	6.8	8.2	16	145	21	7.0	16
MIN	.35	.40	.40	.35	.54	.91	.91	.75	.75	.75	.35	.35
CFSM	.62	.69	.28	.23	1.41	.57	.71	1.02	3.17	.96	.43	.82
IN.	.71	.77	.33	.26	1.46	.66	.79	1.17	3.54	1.11	.49	.92
CAL YR 1980	TOTAL 905.15	MEAN 2.47	MAX 39	MIN .35	CFSM 1.00	IN 13.63						
WTR YR 1981	TOTAL 810.82	MEAN 2.22	MAX 145	MIN .35	CFSM .90	IN 12.21						

01589300 GWYNN'S 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 mi² (84.2 km²).

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 February, 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.--24 years, 38.7 ft³/s (1.096 m³/s), 16.17 in/yr (411 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s (459 m³/s) June 22, 1972, gage height, 21.5 ft (6.55 m), from floodmarks, from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum discharge, 1.7 ft³/s (0.048 m³/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 ft³/s (149 m³/s) on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 23	1545	1020 28.9	4.72 1.439	June 22	0115	756 21.4	3.97 1.210
June 14	0145	*2460 69.7	7.80 2.377	June 25	2000	1660 47.0	6.20 1.890

Minimum discharge, 5.0 ft³/s (0.14 m³/s) Sept. 15.

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	9.4	12	17	11	9.0	25	28	74	17	17	12	14
2	9.9	12	16	12	155	22	31	91	50	72	12	11
3	22	12	16	11	20	20	18	28	28	31	12	9.9
4	17	22	14	10	13	19	16	21	65	228	14	9.4
5	11	16	14	9.5	12	53	20	19	47	54	12	9.4
6	10	12	13	10	12	37	23	18	23	32	11	48
7	10	11	13	11	12	31	16	17	19	25	13	26
8	10	11	14	10	21	26	15	16	17	21	31	16
9	10	12	16	9.5	14	25	21	14	16	19	16	16
10	11	13	16	10	12	23	18	19	46	17	12	8.2
11	13	11	13	9.5	165	22	18	63	19	16	20	7.1
12	11	11	13	8.5	26	21	84	40	15	15	63	6.6
13	10	11	12	7.0	19	19	56	21	82	14	19	8.4
14	11	12	11	9.0	16	17	175	18	603	14	13	5.4
15	11	12	11	10	15	17	55	161	48	13	12	11
16	11	12	18	10	14	26	32	71	29	13	17	46
17	11	34	14	10	15	22	27	29	26	14	11	17
18	24	88	13	10	16	19	24	24	20	13	10	28
19	20	23	13	10	18	18	21	37	18	13	9.9	36
20	13	17	10	11	145	17	23	31	107	16	9.9	12
21	12	15	10	12	188	17	20	21	65	19	9.6	8.9
22	12	15	10	12	64	16	19	19	167	14	9.6	10
23	12	15	14	12	511	16	20	17	29	12	9.9	21
24	14	139	18	12	105	17	45	16	23	11	10	9.4
25	184	52	12	12	42	16	21	15	196	16	9.4	7.1
26	30	23	11	12	31	15	19	14	98	14	9.0	7.0
27	17	20	10	13	26	15	18	15	27	13	9.1	9.5
28	14	32	12	12	24	15	23	53	22	52	8.7	9.1
29	13	21	13	11	---	15	22	70	19	44	8.7	6.4
30	13	17	12	9.0	---	24	17	24	18	15	11	6.0
31	12	---	12	9.0	---	19	---	32	---	13	45	---
TOTAL	588.3	713	411	325.0	1720.0	664	945	1108	1959	880	469.8	439.8
MEAN	19.0	23.8	13.3	10.5	61.4	21.4	31.5	35.7	65.3	28.4	15.2	14.7
MAX	184	139	18	13	511	53	175	161	603	228	63	48
MIN	9.4	11	10	7.0	9.0	15	15	14	15	11	8.7	5.4
CFSM	.59	.73	.41	.32	1.89	.66	.97	1.10	2.01	.87	.47	.45
IN.	.67	.82	.47	.37	1.97	.76	1.08	1.27	2.24	1.01	.54	.50

CAL YR 1980 TOTAL 13376.9 MEAN 36.5 MAX 436 MIN 8.3 CFSM 1.12 IN 15.31
WTR YR 1981 TOTAL 10222.9 MEAN 28.0 MAX 603 MIN 5.4 CFSM .86 IN 11.70

PATAPSCO RIVER BASIN

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 Franklinton, 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 mi² (14.30 km²).

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 December and 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.--22 years, 7.84 ft³/s (0.222 m³/s), 19.29 in/yr (490 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft³/s (210 m³/s) June 22, 1972, gage height, 12.5 ft (3.81 m), from floodmarks, from rating curve extended above 1,600 ft³/s (45.3 m³/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 ft³/s (0.003 m³/s) Sept. 11-12, 1966, gage height, 0.57 ft (0.174 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 650 ft³/s (18 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 25	0930	653 18.5	3.94 1.201	June 20	0230	1140 32.3	5.53 1.686
Feb. 23	1300	698 19.8	4.11 1.253	June 25	2030	1400 39.6	6.25 1.905
June 14	0230	*3010 85.2	9.25 2.819				

Minimum discharge, 0.28 ft³/s (0.008 m³/s) Oct. 13, 14, gage height, 0.63 ft (0.192 m).

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	.59	.41	.67	.40	.57	2.2	11	65	1.6	1.4	1.0	1.6
2	.64	.42	.95	.40	54	1.8	2.4	15	16	14	.88	1.2
3	8.5	.45	.93	.40	1.2	1.6	1.6	2.2	7.8	8.2	.88	1.2
4	1.4	15	.70	.40	.81	1.6	1.5	1.7	45	85	1.0	1.0
5	.51	.81	.67	.40	.68	43	8.1	1.7	3.6	5.1	.88	.88
6	.50	.51	.65	.40	.72	4.8	2.6	1.6	26	2.5	2.9	44
7	.58	.47	.64	.40	.69	2.6	1.5	1.4	1.9	2.1	1.4	4.0
8	.49	.44	.60	.40	13	2.1	1.5	1.4	1.4	1.9	1.6	9.2
9	.42	1.6	4.4	.40	1.2	1.9	5.6	1.2	1.6	1.6	2.3	1.9
10	.43	.71	1.1	.40	1.4	1.8	1.8	14	27	1.6	1.0	1.2
11	.62	.51	.62	.40	48	1.9	3.0	28	1.9	1.4	3.0	1.0
12	.44	.56	.56	.35	2.6	1.7	30	18	1.4	1.4	32	.88
13	.36	.57	.55	.35	3.2	1.6	13	2.0	6.7	1.4	2.2	.76
14	.33	.55	.53	.40	1.2	1.5	42	1.8	325	1.4	1.2	.76
15	.40	.53	.52	.50	.98	1.6	3.3	60	5.8	1.2	17	23
16	.42	.93	2.3	.60	.94	7.4	2.1	6.4	2.5	1.2	5.6	39
17	.40	42	.68	.60	1.0	1.8	1.9	2.2	1.4	1.2	1.2	5.1
18	11	24	.55	.60	1.1	1.6	1.6	1.9	1.2	1.2	.88	27
19	1.2	.88	.55	.70	3.2	1.6	1.4	13	1.2	1.2	.88	2.5
20	.44	.67	.50	1.2	64	1.6	2.4	2.2	77	8.8	1.0	1.4
21	.50	.62	.40	3.3	45	1.5	1.4	1.6	2.5	2.2	1.0	1.2
22	.61	.53	.40	1.4	30	1.6	1.4	1.4	16	1.2	.76	4.0
23	.52	.50	1.0	.88	178	1.6	1.6	1.3	1.9	1.0	.76	1.6
24	.67	63	12	.76	13	1.6	1.9	1.3	1.6	1.0	.65	.88
25	95	2.7	1.0	.76	3.8	1.6	1.3	1.3	106	2.6	.88	1.0
26	1.4	.90	.45	.76	2.6	1.6	1.2	1.2	10	1.2	.76	.88
27	.58	3.1	.40	.76	2.2	1.7	1.4	1.3	2.5	1.2	1.0	2.9
28	.64	9.8	.40	.76	2.4	1.5	23	19	1.9	34	.76	1.6
29	.50	.98	.50	.60	---	1.6	3.5	3.6	1.4	3.4	.76	1.0
30	.51	.72	.40	.57	---	11	2.0	1.7	1.2	1.2	7.3	.76
31	.45	---	.40	.50	---	2.2	---	7.5	---	1.2	29	---
TOTAL	131.05	174.87	36.02	20.75	477.49	113.2	177.0	281.9	701.0	194.0	122.43	183.40
MEAN	4.23	5.83	1.16	.67	17.1	3.65	5.90	9.09	23.4	6.26	3.95	6.11
MAX	95	63	12	3.3	178	43	42	65	325	85	32	44
MIN	.33	.41	.40	.35	.57	1.5	1.2	1.2	1.2	1.0	.65	.76
CFSM	.77	1.06	.21	.12	3.10	.66	1.07	1.65	4.24	1.13	.72	1.11
IN.	.88	1.18	.24	.14	3.22	.76	1.19	1.90	4.72	1.31	.82	1.24

CAL YR 1980 TOTAL 2557.57 MEAN 6.99 MAX 133 MIN .33 CFSM 1:27 IN 17.23
WTR YR 1981 TOTAL 2613.11 MEAN 7.16 MAX 325 MIN .33 CFSM 1:30 IN 17.61

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 mi² (65.3 km²).

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 except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 34.6 ft³/s (1.980 m³/s), 18.65 in/yr (474 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft³/s (391 m³/s) June 22, 1972, gage height, 18.11 ft (5.520 m), from floodmarks, from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.8 ft³/s (0.051 m³/s) Sept. 7, 8, 1966, gage height, 1.16 ft (0.354 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 634 ft³/s (18.0 m³/s) Feb. 23, gage height, 6.16 ft (1.878 m), no other peak above base of 600 ft³/s (17 m³/s); minimum discharge, 3.4 ft³/s (0.10 m³/s) Aug. 11.

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	9.1	9.6	13	11	8.5	23	17	34	13	18	10	8.4
2	9.5	9.6	12	11	56	20	19	46	26	83	9.9	6.8
3	13	9.2	12	10	20	18	14	22	18	72	9.9	6.5
4	14	13	13	9.0	13	18	13	17	24	201	10	6.3
5	11	12	12	8.5	11	32	15	15	21	56	9.2	6.9
6	10	10	12	9.0	10	26	15	15	15	33	8.9	8.2
7	10	10	12	10	10	24	13	14	13	25	9.6	11
8	9.5	10	12	9.0	15	22	13	13	11	20	12	9.5
9	9.5	10	13	8.5	12	20	14	13	11	17	9.5	8.8
10	9.5	10	13	9.5	10	19	13	15	20	15	7.9	6.2
11	12	10	12	9.5	50	18	14	33	13	13	9.8	5.7
12	11	11	11	9.5	20	17	41	29	10	12	22	5.3
13	10	12	11	9.5	15	17	30	18	16	12	12	5.1
14	9.9	12	11	9.5	13	16	71	16	88	11	9.7	4.8
15	10	12	11	9.5	12	16	36	48	21	9.9	8.7	7.0
16	10	13	14	9.5	11	20	25	39	16	10	9.6	23
17	10	32	12	9.5	12	17	23	22	13	11	7.4	9.8
18	15	35	11	9.5	12	16	20	18	12	10	6.7	28
19	16	17	11	10	13	15	18	23	10	10	6.5	16
20	13	13	10	11	64	15	18	21	48	11	6.3	9.9
21	12	12	9.0	12	72	15	16	17	34	13	5.8	8.5
22	13	12	9.0	12	36	14	15	15	69	11	6.1	8.1
23	13	12	10	12	268	14	16	13	21	10	6.4	8.2
24	13	58	11	11	79	14	21	13	17	9.7	5.5	7.0
25	63	27	10	11	41	13	16	12	61	14	5.1	6.5
26	19	17	9.5	10	31	13	15	11	55	13	5.1	6.7
27	11	16	9.0	10	26	14	14	11	23	11	5.2	6.7
28	10	21	10	10	24	12	14	22	19	22	4.9	6.6
29	9.6	16	12	9.6	---	13	15	32	17	25	4.9	5.7
30	8.8	14	11	9.0	---	17	14	16	16	12	6.2	5.8
31	9.2	---	11	8.5	---	15	---	17	---	11	15	---
TOTAL	403.6	475.4	349.5	307.6	964.5	543	598	650	751	801.6	265.8	263.0
MEAN	13.0	15.8	11.3	9.92	34.4	17.5	19.9	21.0	25.0	25.9	8.57	8.77
MAX	63	58	14	12	268	32	71	48	88	201	22	28
MIN	8.8	9.2	9.0	8.5	8.5	12	13	11	10	9.7	4.9	4.8
CFSM	.52	.63	.45	.39	1.37	.69	.79	.83	.99	1.03	.34	.35
IN.	.60	.70	.52	.45	1.42	.80	.88	.96	1.11	1.18	.39	.39

CAL YR 1980 TOTAL 10527.7 MEAN 28.8 MAX 229 MIN 7.1 CFSM 1.14 IN 15.54
WTR YR 1981 TOTAL 6373.0 MEAN 17.5 MAX 268 MIN 4.8 CFSM .69 IN 9.41

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 September 1981

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
DEC , 1980										
18...	1033	--	--	.22	23	340	6.0	3.0	--	--
18-18	--	1000	1120	.22	21	--	--	--	14	--
31...	1045	--	--	.17	12	308	7.6	4.1	--	14.9
31-31	--	1000	1150	.18	12	--	--	--	6.2	--
JAN , 1981										
13...	1045	--	--	.16	10	422	7.1	1.2	--	14.5
13-13	--	946	1100	.16	10	--	--	--	3.1	--
28...	1008	--	--	.19	16	332	7.1	.0	--	14.7
28-28	--	1000	1120	.18	12	--	--	--	2.6	--
FEB										
10...	1120	--	--	.15	8.5	333	7.1	3.1	--	12.8
10-10	--	1030	1140	.15	8.5	--	--	--	16	--
27...	1405	--	--	.27	18	258	6.6	8.1	--	11.3
27-27	--	1430	1555	.27	18	--	--	--	54	--
MAR										
05...	0015	--	--	.23	12	--	--	--	28	--
05...	0215	--	--	.25	15	--	--	--	26	--
05...	0415	--	--	.30	23	--	--	--	26	--
05...	0615	--	--	.37	37	--	--	--	26	--
05...	0815	--	--	.38	37	--	--	--	26	--
05...	1015	--	--	.42	51	--	--	--	26	--
05...	1215	--	--	.45	61	--	--	--	26	--
10...	1030	--	--	.23	12	386	7.0	5.2	--	10.7
10-10	--	1000	1100	.23	12	--	--	--	22	--
24...	1130	--	--	.23	11	380	6.6	5.8	--	12.0
24-24	--	1000	1110	.23	12	--	--	--	5.6	--
APR										
05...	1746	--	--	.26	16	--	--	--	6.4	--
05...	1853	--	--	.26	16	--	--	--	6.8	--
05...	2000	--	--	.28	19	--	--	--	5.8	--
05...	2135	--	--	.32	26	--	--	--	4.4	--
05...	2213	--	--	.32	26	--	--	--	4.8	--
06...	0121	--	--	.34	30	--	--	--	6.0	--
06...	0421	--	--	.33	28	--	--	--	5.8	--
06...	0821	--	--	.29	21	--	--	--	6.0	--
07...	1018	--	--	.22	10	358	7.9	11.5	--	10.4
07-07	--	1010	1110	.23	10	--	--	--	3.8	--
21...	1110	--	--	.28	19	220	7.8	14.0	--	10.2
21-21	--	1000	1100	.30	23	--	--	--	4.0	--
MAY										
01...	1659	--	--	.40	45	--	--	--	6.4	--
01...	1938	--	--	.57	105	--	--	--	6.0	--
01...	2338	--	--	.78	190	--	--	--	5.2	--
02...	0138	--	--	.86	215	--	--	--	6.4	--
02...	0438	--	--	.75	179	--	--	--	14	--
02...	0738	--	--	.62	127	--	--	--	18	--
02...	1018	--	--	.52	86	--	--	--	7.0	--
02...	1320	--	--	.45	61	--	--	--	7.2	--
05...	1052	--	--	.35	35	288	8.3	17.5	--	10.9
05...	1136	--	--	.35	33	--	--	--	--	--
05-05	--	1030	1110	.35	30	--	--	--	8.5	--
15...	1548	--	--	.29	42	--	--	--	8.8	--
15...	1747	--	--	.57	155	--	--	--	15	--
15...	1947	--	--	.67	201	--	--	--	8.3	--
15...	2224	--	--	.87	295	--	--	--	36	--
16...	0024	--	--	.77	248	--	--	--	22	--
16...	0224	--	--	.65	174	--	--	--	24	--
16...	0424	--	--	.56	150	--	--	--	53	--
16...	0724	--	--	.46	107	--	--	--	55	--
22...	1025	--	--	.27	36	321	7.8	18.8	--	9.4
22-22	--	1020	1040	.27	36	--	--	--	7.4	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
JUN , 1981										
10...	0624	--	--	.28	39	--	--	--	4.0	--
10...	0827	--	--	.41	86	--	--	--	4.4	--
10...	1027	--	--	.44	98	--	--	--	5.2	--
10...	1227	--	--	.42	90	--	--	--	4.8	--
10...	1427	--	--	.38	74	--	--	--	5.8	--
10...	1627	--	--	.36	66	--	--	--	5.0	--
10...	1927	--	--	.32	52	--	--	--	3.8	--
10...	2227	--	--	.30	45	--	--	--	3.8	--
11...	0236	--	--	.27	36	--	--	--	4.4	--
11...	0636	--	--	.27	36	--	--	--	4.4	--
16...	1210	--	--	.27	36	246	6.9	27.0	--	5.5
16-16	--	1000	1100	.27	36	--	--	--	22	--
30...	1019	--	--	.27	36	--	--	--	--	--
30...	1255	--	--	.27	36	248	8.2	26.0	--	8.9
30-30	--	1000	1050	.27	36	--	--	--	12	--
30-30	1130	1050	1130	.27	36	--	--	--	12	--
JUL										
14...	1218	--	--	.26	34	301	8.1	27.0	--	9.4
14-14	--	1000	1100	.21	18	--	--	--	6.4	--
20...	1903	--	--	.20	18	--	--	--	3.0	--
20...	2003	--	--	.28	39	--	--	--	3.6	--
20...	2054	--	--	.33	56	--	--	--	4.2	--
20...	2207	--	--	.33	56	--	--	--	3.6	--
21...	0107	--	--	.34	59	--	--	--	4.2	--
21...	0407	--	--	.27	36	--	--	--	4.6	--
21...	0707	--	--	.27	36	--	--	--	4.6	--
21...	1007	--	--	.25	31	--	--	--	4.4	--
28...	1205	--	--	.21	21	--	--	--	5.2	--
28...	1405	--	--	.23	26	--	--	--	5.0	--
28...	1705	--	--	.27	36	--	--	--	5.2	--
28...	1905	--	--	.28	39	--	--	--	6.4	--
28...	2105	--	--	.46	107	--	--	--	7.2	--
28...	2305	--	--	.54	142	--	--	--	6.6	--
28-28	--	1020	1050	.20	18	--	--	--	4.7	--
29...	0105	--	--	.52	135	--	--	--	7.2	--
29...	0705	--	--	.40	82	--	--	--	8.0	--
29...	1322	--	--	.28	39	--	--	--	9.2	--
AUG										
11...	1252	--	--	.21	20	344	8.1	28.0	--	10.7
11...	1917	--	--	.21	21	--	--	--	4.8	--
11...	2017	--	--	.32	52	--	--	--	5.0	--
11...	2117	--	--	.42	90	--	--	--	5.4	--
11...	2317	--	--	.40	82	--	--	--	4.4	--
11-11	--	1000	1100	.21	21	--	--	--	3.2	--
12...	0117	--	--	.37	70	--	--	--	4.8	--
12...	0317	--	--	.31	49	--	--	--	4.4	--
12...	0517	--	--	.28	39	--	--	--	4.8	--
12...	0715	--	--	.26	34	--	--	--	6.4	--
12...	0915	--	--	.27	36	--	--	--	7.6	--
12...	1115	--	--	.40	82	--	--	--	8.2	--
12...	1254	--	--	.49	120	--	--	--	8.2	--
12...	1954	--	--	.35	63	--	--	--	5.2	--
13...	0027	--	--	.29	42	--	--	--	5.8	--
13...	0327	--	--	.27	36	--	--	--	5.4	--
13...	0627	--	--	.25	31	--	--	--	5.2	--
13...	0928	--	--	.24	28	--	--	--	5.4	--
13...	1228	--	--	.24	28	--	--	--	--	--
13...	1528	--	--	.23	26	--	--	--	--	--
13...	1828	--	--	.23	26	--	--	--	--	--
13...	2128	--	--	.22	23	--	--	--	--	--
14...	0028	--	--	.22	23	--	--	--	--	--
14...	0328	--	--	.22	23	--	--	--	--	--
14...	0628	--	--	.22	23	--	--	--	--	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
AUG , 1981										
14...	0928	--	--	.22	23	--	--	--	--	--
14...	1228	--	--	.23	26	--	--	--	--	--
14...	1528	--	--	.23	26	--	--	--	--	--
14...	1828	--	--	.22	23	--	--	--	--	--
14...	2128	--	--	.22	23	--	--	--	--	--
15...	0028	--	--	.22	23	--	--	--	--	--
15...	0328	--	--	.22	23	--	--	--	--	--
15...	0628	--	--	.22	23	--	--	--	--	--
15...	0928	--	--	.22	23	--	--	--	--	--
15...	1228	--	--	.22	23	--	--	--	--	--
15...	1528	--	--	.22	23	--	--	--	--	--
15...	1828	--	--	.22	23	--	--	--	--	--
15...	2128	--	--	.22	23	--	--	--	--	--
16...	0028	--	--	.23	26	--	--	--	--	--
16...	0328	--	--	.24	28	--	--	--	--	--
16...	0628	--	--	.24	28	--	--	--	--	--
16...	0928	--	--	.23	26	--	--	--	--	--
16...	1228	--	--	.24	28	--	--	--	--	--
16...	1528	--	--	.23	26	--	--	--	--	--
16...	1828	--	--	.22	23	--	--	--	--	--
16...	2128	--	--	.22	23	--	--	--	--	--
17...	0028	--	--	.21	21	--	--	--	--	--
17...	0328	--	--	.21	21	--	--	--	--	--
17...	0628	--	--	.21	21	--	--	--	--	--
25...	1212	--	--	.19	16	350	8.4	24.0	--	12.0
25-25	--	1000	1030	.19	21	--	--	24.0	4.2	12.0
31...	0617	--	--	.18	14	--	--	--	8.4	--
31...	0819	--	--	.21	22	--	--	--	8.4	--
31...	1019	--	--	.26	34	--	--	--	7.4	--
31...	1519	--	--	.29	42	--	--	--	12	--
31...	2119	--	--	.24	28	--	--	--	7.8	--
SEP										
01...	0319	--	--	.20	18	--	--	--	8.2	--
01...	1148	--	--	.18	14	--	--	--	7.4	--
08...	1412	--	--	.17	12	--	--	--	8.4	--
08...	1612	--	--	.18	14	--	--	--	8.8	--
08...	1812	--	--	.22	23	--	--	--	9.2	--
08...	1912	--	--	.24	28	--	--	--	7.8	--
08...	2012	--	--	.26	34	--	--	--	7.2	--
08...	2212	--	--	.26	34	--	--	--	7.0	--
09...	0112	--	--	.24	28	--	--	--	8.2	--
09...	0412	--	--	.23	26	--	--	--	8.4	--
09...	0712	--	--	.21	21	--	--	--	8.2	--
09...	1012	--	--	.20	18	--	--	--	8.4	--
10...	1215	--	--	.15	8.5	371	7.2	22.0	--	6.1
10-10	--	1000	1110	.16	8.5	--	--	--	6.8	--
15...	1836	--	--	.16	10	--	--	--	7.2	--
15...	2036	--	--	.23	26	--	--	--	6.8	--
15...	2236	--	--	.31	49	--	--	--	7.6	--
16...	0036	--	--	.36	63	--	--	--	7.8	--
16...	0236	--	--	.36	66	--	--	--	8.2	--
16...	0436	--	--	.46	107	--	--	--	7.8	--
16...	0536	--	--	.49	115	--	--	--	7.6	--
16...	0736	--	--	.44	98	--	--	--	12	--
16...	0936	--	--	.39	78	--	--	--	14	--
16...	1246	--	--	.32	52	--	--	--	14	--
16...	1450	--	--	.29	39	--	--	--	14	--
17...	0645	--	--	.18	14	--	--	--	8.2	--
17...	0845	--	--	.18	14	--	--	--	--	--
17...	1045	--	--	.18	14	--	--	--	--	--
17...	1300	--	--	.18	14	--	--	--	--	--
17...	1500	--	--	.19	16	--	--	--	--	--
17...	1800	--	--	.18	14	--	--	--	--	--
17...	2100	--	--	.19	16	--	--	--	8.0	--
18...	0001	--	--	.21	21	--	--	--	8.2	--
18...	0300	--	--	.23	26	--	--	--	7.8	--
18...	0600	--	--	.40	82	--	--	--	7.2	--
18...	0800	--	--	.53	138	--	--	--	8.8	--
18...	1000	--	--	.48	115	--	--	--	8.8	--
18...	1200	--	--	.40	82	--	--	--	9.4	--
18...	1358	--	--	.34	59	--	--	--	14	--
18...	1459	--	--	.31	49	--	--	--	--	--
18...	1549	--	--	.31	49	--	--	--	16	--
18...	1552	--	--	.31	45	--	--	--	--	--
18...	1952	--	--	.26	34	--	--	--	--	--
18...	2352	--	--	.25	28	--	--	--	--	--
19...	0352	--	--	.24	28	--	--	--	--	--
19...	0752	--	--	.25	28	--	--	--	--	--
19...	1152	--	--	.24	26	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
SEP , 1981										
19...	1552	--	--	.21	21	--	--	--	--	--
19...	1952	--	--	.20	18	--	--	--	--	--
19...	2352	--	--	.20	16	--	--	--	--	--
20...	0352	--	--	.19	16	--	--	--	--	--
20...	0752	--	--	.19	16	--	--	--	--	--
20...	1152	--	--	.19	16	--	--	--	--	--
20...	1552	--	--	.18	12	--	--	--	--	--
20...	1952	--	--	.18	12	--	--	--	--	--
20...	2352	--	--	.18	12	--	--	--	--	--
21...	0352	--	--	.18	14	--	--	--	--	--
21...	0752	--	--	.18	14	--	--	--	--	--
21...	1152	--	--	.18	14	--	--	--	--	--
21...	1552	--	--	.18	14	--	--	--	--	--
21...	2000	--	--	.18	12	--	--	--	--	--
21...	2200	--	--	.18	14	--	--	--	--	--
22...	0200	--	--	.18	12	--	--	--	--	--
22...	0400	--	--	.18	14	--	--	--	--	--
22...	0600	--	--	.18	14	--	--	--	--	--
22...	0800	--	--	.18	14	--	--	--	--	--
22...	0900	--	--	.18	14	--	--	--	--	--
22...	1230	--	--	.18	14	318	8.0	19.0	--	11.0
22-22	--	1000	1100	.17	12	--	--	--	12	--
DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, RIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, EC PER 100 ML	ALKA- LITY FIELD (MG/L AS CAC03)	
DEC , 1980										
18...	1033	--	--	--	--	8	0	3	--	
18-18	--	1000	1120	12	6.0	--	--	--	92	
31...	1045	--	--	--	--	5	0	2	--	
31-31	--	1000	1150	18	--	--	--	--	--	
JAN , 1981										
13...	1045	--	--	--	--	11	0	<1	--	
13-13	--	946	1100	5	--	--	--	--	--	
28...	1008	--	--	--	--	17	<2	<1	--	
28-28	--	1000	1120	7	--	--	--	--	--	
FER										
10...	1120	--	--	--	--	350	49	3	--	
10-10	--	1030	1140	6	--	--	--	--	--	
27...	1405	--	--	--	--	110	46	57	--	
27-27	--	1430	1555	9	--	--	--	--	--	
MAR										
05...	0015	--	--	14	--	--	--	--	--	
05...	0215	--	--	15	--	--	--	--	--	
05...	0415	--	--	18	--	--	--	--	--	
05...	0615	--	--	18	--	--	--	--	--	
05...	0815	--	--	7	--	--	--	--	--	
05...	1015	--	--	18	--	--	--	--	--	
05...	1215	--	--	14	--	--	--	--	--	
10...	1030	--	--	--	--	17	<1	<1	--	
10-10	--	1000	1100	10	--	--	--	--	--	
24...	1130	--	--	--	--	2	<20	<1	--	
24-24	--	1000	1110	9	--	--	--	--	--	
APR										
05...	1746	--	--	32	--	--	--	--	--	
05...	1853	--	--	32	--	--	--	--	--	
05...	2000	--	--	33	--	--	--	--	--	
05...	2135	--	--	32	--	--	--	--	--	
05...	2213	--	--	29	--	--	--	--	--	
06...	0121	--	--	29	--	--	--	--	--	
06...	0421	--	--	31	--	--	--	--	--	
06...	0821	--	--	29	--	--	--	--	--	
07...	1018	--	--	--	--	11	0	5	--	
07-07	--	1010	1110	28	4.0	--	--	--	92	
21...	1110	--	--	--	--	13	2	<1	--	
21-21	--	1000	1100	5	--	--	--	--	--	
MAY										
01...	1659	--	--	7	--	--	--	--	--	
01...	1938	--	--	12	--	--	--	--	--	
01...	2338	--	--	9	--	--	--	--	--	
02...	0138	--	--	16	--	--	--	--	--	

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, (COLS. PER 100 ML)	ALKA- LITY FIELD (MG/L AS CAC03)
MAY , 1981									
02...	0438	--	--	4	--	--	--	--	--
02...	0738	--	--	4	--	--	--	--	--
02...	1018	--	--	12	--	--	--	--	--
02...	1320	--	--	12	--	--	--	--	--
05...	1052	--	--	--	--	490	490	8	--
05-05	--	1030	1110	9	--	--	--	--	--
15...	1548	--	--	6	--	--	--	--	--
15...	1747	--	--	8	--	--	--	--	--
15...	1947	--	--	14	--	--	--	--	--
15...	2224	--	--	10	--	--	--	--	--
16...	0024	--	--	3	--	--	--	--	--
16...	0224	--	--	3	--	--	--	--	--
16...	0424	--	--	8	--	--	--	--	--
16...	0724	--	--	19	--	--	--	--	--
22...	1025	--	--	--	--	35	3	2	--
22-22	--	1020	1040	16	--	--	--	--	--
JUN									
10...	0624	--	--	16	--	--	--	--	--
10...	0827	--	--	5	--	--	--	--	--
10...	1027	--	--	22	--	--	--	--	--
10...	1227	--	--	20	--	--	--	--	--
10...	1427	--	--	7	--	--	--	--	--
10...	1627	--	--	13	--	--	--	--	--
10...	1927	--	--	20	--	--	--	--	--
10...	2227	--	--	18	--	--	--	--	--
11...	0236	--	--	13	--	--	--	--	--
11...	0636	--	--	13	--	--	--	--	--
16...	1210	--	--	--	--	110	46	130	--
16-16	--	1000	1100	5	--	--	--	--	--
30...	1255	--	--	--	--	4900	790	940	--
30-30	--	1000	1050	14	4.0	--	--	--	71
JUL									
14...	1218	--	--	--	--	33	1	150	--
14-14	--	1000	1100	10	--	--	--	--	--
20...	1903	--	--	19	--	--	--	--	--
20...	2003	--	--	21	--	--	--	--	--
20...	2054	--	--	19	--	--	--	--	--
20...	2207	--	--	3	--	--	--	--	--
21...	0107	--	--	10	--	--	--	--	--
21...	0407	--	--	19	--	--	--	--	--
21...	0707	--	--	19	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, (COLS. PER 100 ML)		
JUL , 1981									
21...	1007	--	--	14	--	--	--		
28...	1205	--	--	10	--	--	--		
28...	1405	--	--	<5	--	--	--		
28...	1705	--	--	7	--	--	--		
28...	1905	--	--	<5	--	--	--		
28...	2105	--	--	<5	--	--	--		
28...	2305	--	--	<5	--	--	--		
28-28	--	1020	1050	170	--	--	--		
29...	0105	--	--	7	--	--	--		
29...	0705	--	--	<5	--	--	--		
29...	1322	--	--	<5	--	--	--		
AUG									
11...	1034	--	--	--	17	0	44		
11...	1917	--	--	<5	--	--	--		
11...	2017	--	--	<5	--	--	--		
11...	2117	--	--	<5	--	--	--		
11...	2317	--	--	5	--	--	--		
11-11	--	1000	1100	160	--	--	--		
12...	0117	--	--	6	--	--	--		
12...	0317	--	--	<5	--	--	--		
12...	0517	--	--	<5	--	--	--		
12...	0715	--	--	14	--	--	--		
12...	0915	--	--	17	--	--	--		
12...	1115	--	--	21	--	--	--		
12...	1254	--	--	19	--	--	--		
12...	1954	--	--	10	--	--	--		
13...	0027	--	--	5	--	--	--		
13...	0327	--	--	5	--	--	--		
13...	0627	--	--	8	--	--	--		
13...	0928	--	--	8	--	--	--		
25...	1212	--	--	--	700	23	980		
25-25	--	1000	1030	51	--	--	--		
31...	0617	--	--	26	--	--	--		
31...	0819	--	--	20	--	--	--		
31...	1019	--	--	10	--	--	--		
31...	1519	--	--	14	--	--	--		
31...	2119	--	--	12	--	--	--		
SEP									
01...	0319	--	--	27	--	--	--		
01...	1148	--	--	5	--	--	--		
08...	1412	--	--	14	--	--	--		
DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, (COLS. PER 100 ML)	ALKA- LINITY FIELD (MG/L AS CAC03)
SEP , 1981									
08...	1612	--	--	<5	--	--	--	--	--
08...	1812	--	--	<5	--	--	--	--	--
08...	1912	--	--	9	--	--	--	--	--
08...	2012	--	--	9	--	--	--	--	--
08...	2212	--	--	<5	--	--	--	--	--
09...	0112	--	--	12	--	--	--	--	--
09...	0412	--	--	<5	--	--	--	--	--
09...	1012	--	--	<5	--	--	--	--	--
10...	1215	--	--	--	--	2300	950	780	--
10-10	--	1000	1110	<5	--	--	--	--	--
15...	1836	--	--	17	--	--	--	--	--
15...	2036	--	--	17	--	--	--	--	--
15...	2236	--	--	19	--	--	--	--	--
16...	0036	--	--	22	--	--	--	--	--
16...	0236	--	--	17	--	--	--	--	--
16...	0436	--	--	22	--	--	--	--	--
16...	0536	--	--	31	--	--	--	--	--
16...	0736	--	--	24	--	--	--	--	--
16...	0936	--	--	27	--	--	--	--	--
16...	1450	--	--	19	--	--	--	--	--
17...	0645	--	--	<5	--	--	--	--	--
17...	2100	--	--	22	--	--	--	--	--
18...	0300	--	--	15	--	--	--	--	--
18...	0600	--	--	22	--	--	--	--	--
18...	0800	--	--	19	--	--	--	--	--
18...	1000	--	--	24	--	--	--	--	--
18...	1200	--	--	19	--	--	--	--	--
18...	1358	--	--	12	--	--	--	--	--
18...	1549	--	--	17	--	--	--	--	--
22...	1230	--	--	--	--	2200	79	160	--
22-22	--	1000	1100	19	4.0	--	--	--	89

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
DEC , 1980									
18-18	--	1000	1120	11	.400	.400	.52	.00	.00
31-31	--	1000	1150	5	.200	--	--	.20	--
JAN , 1981									
13-13	--	946	1100	1	.350	--	--	.15	--
28-28	--	1000	1120	3	.400	--	--	.20	--
FEB									
10-10	--	1030	1140	22	.150	--	--	.90	--
27-27	--	1430	1555	30	.500	--	--	8.5	--
MAR									
05...	0015	--	--	26	.100	--	--	1.1	--
05...	0215	--	--	19	<.100	--	--	--	--
05...	0415	--	--	19	.100	--	--	.70	--
05...	0615	--	--	17	.100	--	--	.80	--
05...	0815	--	--	19	<.100	--	--	--	--
05...	1015	--	--	24	.100	--	--	.70	--
05...	1215	--	--	24	.300	--	--	.80	--
10-10	--	1000	1100	11	.150	--	--	.30	--
24-24	--	1000	1110	9	.600	--	--	.40	--
APR									
05...	1746	--	--	20	<.100	--	--	--	--
05...	1853	--	--	18	<.100	--	--	--	--
05...	2000	--	--	20	<.100	--	--	--	--
05...	2135	--	--	16	<.100	--	--	--	--
05...	2213	--	--	6	.100	--	--	.30	--
06...	0121	--	--	6	<.100	--	--	--	--
06...	0421	--	--	4	<.100	--	--	--	--
06...	0821	--	--	8	<.100	--	--	--	--
07-07	--	1010	1110	7	<.100	<.100	--	--	--
21-21	--	1000	1100	3	.200	--	--	.20	--
MAY									
01...	1659	--	--	9	<.100	--	--	--	--
01...	1938	--	--	8	<.100	--	--	--	--
01...	2338	--	--	11	<.100	--	--	--	--
02...	0138	--	--	11	<.100	--	--	--	--
02...	0438	--	--	17	<.100	--	--	--	--
02...	0738	--	--	18	<.100	--	--	--	--
02...	1018	--	--	13	<.100	--	--	--	--
02...	1320	--	--	11	.300	--	--	1.1	--
05-05	--	1030	1110	13	.200	--	--	.30	--
15...	1548	--	--	11	<.100	--	--	--	--
15...	1747	--	--	21	.010	--	--	.79	--
15...	1947	--	--	11	<.100	--	--	--	--
15...	2224	--	--	47	<.100	--	--	--	--
16...	0024	--	--	22	.400	--	--	1.0	--

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDE (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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
MAY • 1981									
16...	0224	--	--	19	.300	--	--	.70	--
16...	0424	--	--	48	.100	--	--	.60	--
16...	0724	--	--	52	.100	--	--	.80	--
22-22	--	1020	1040	2	.100	--	--	.40	--
JUN									
10...	0624	--	--	<1	.600	--	--	1.1	--
10...	0827	--	--	4	.600	--	--	1.1	--
10...	1027	--	--	4	1.10	--	--	.60	--
10...	1227	--	--	5	.600	--	--	1.1	--
10...	1427	--	--	3	.300	--	--	.80	--
10...	1627	--	--	7	.600	--	--	.60	--
10...	1927	--	--	5	.300	--	--	.60	--
10...	2227	--	--	6	<.100	--	--	--	--
11...	0236	--	--	10	.300	--	--	.60	--
11...	0636	--	--	7	.300	--	--	.60	--
16-16	--	1000	1100	29	.100	--	--	.40	--
30-30	--	1000	1050	150	.300	.300	.39	.70	.30
JUL									
14-14	--	1000	1100	5	<.100	--	--	--	--
20...	1903	--	--	24	.300	--	--	.60	--
20...	2003	--	--	27	.300	--	--	.40	--
20...	2054	--	--	16	.100	--	--	1.3	--
20...	2207	--	--	22	<.100	--	--	--	--
21...	0107	--	--	18	.100	--	--	1.0	--
21...	0407	--	--	23	<.100	--	--	--	--
21...	0707	--	--	23	<.100	--	--	--	--
21...	1007	--	--	30	.100	--	--	.60	--
28...	1205	--	--	4	<.100	--	--	--	--
28...	1405	--	--	4	<.100	--	--	--	--
28...	1705	--	--	94	<.100	--	--	--	--
28...	1905	--	--	42	<.100	--	--	--	--
28...	2105	--	--	30	<.100	--	--	--	--
28...	2305	--	--	28	.100	--	--	.80	--
28-28	--	1020	1050	40	<.100	--	--	--	--
29...	0105	--	--	22	<.100	--	--	--	--
29...	0705	--	--	26	<.100	--	--	--	--
29...	1322	--	--	36	.700	--	--	.00	--
AUG									
11...	1917	--	--	2	<.100	--	--	--	--
11...	2017	--	--	66	<.100	--	--	--	--
11...	2117	--	--	10	<.100	--	--	--	--
11...	2317	--	--	6	<.100	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	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)
AUG , 1981						
11-11	--	1000	1100	26	2:00	2.3
12...	0117	--	--	2	<.100	--
12...	0317	--	--	2	<.100	--
12...	0517	--	--	4	2:00	1.8
12...	0715	--	--	258	3:10	.10
12...	0915	--	--	212	3:010	.09
12...	1115	--	--	230	3:100	.10
12...	1254	--	--	22	3:300	.10
12...	1954	--	--	6	<.100	--
13...	0027	--	--	8	3:700	.10
13...	0327	--	--	16	2:20	.10
13...	0627	--	--	4	3:300	1.0
13...	0928	--	--	14	3:50	2.8
25-25	--	1000	1030	8	3:800	3.1
31...	0617	--	--	8	3:400	4.2
31...	0819	--	--	4	3:400	7.7
31...	1019	--	--	3	1:70	2.5
31...	1519	--	--	22	1:40	10
31...	2119	--	--	14	3:100	1.1
SEP						
01...	0319	--	--	16	3:600	2.2
01...	1148	--	--	18	1:00	2.5
08...	1412	--	--	2	3:600	3.8
08...	1612	--	--	2	3:800	1.1
08...	1812	--	--	2	1:00	5.9
08...	1912	--	--	2	3:800	5.3
08...	2012	--	--	2	3:400	2.1
08...	2212	--	--	2	1:00	1.0
09...	0112	--	--	4	3:700	.80
09...	0412	--	--	4	2:20	.70
09...	0712	--	--	4	3:700	.80
09...	1012	--	--	4	2:20	.70
10-10	--	1000	1110	6	2:00	2.1
15...	1836	--	--	2	3:300	4.5
15...	2036	--	--	4	1:00	5.5
15...	2236	--	--	4	3:800	6.0
16...	0036	--	--	10	1:30	5.6
16...	0236	--	--	36	2:00	2.5
16...	0436	--	--	12	3:600	3.5
16...	0536	--	--	32	3:100	4.3

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

		SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)		
DATE	TIME					
SEP , 1981						
16...	0736	28	1.00	2.2		
16...	0936	28	.600	1.4		
16...	1246	14	.800	.80		
16...	1450	32	.700	3.1		
17...	0645	6	.100	4.5		
17...	0845	6	--	--		
17...	1045	6	--	--		
17...	1300	1	--	--		
17...	1500	20	--	--		
17...	1800	22	--	--		
17...	2100	14	1.30	7.4		
18...	0001	12	1.10	5.5		
18...	0300	20	2.10	4.2		
18...	0600	34	.800	4.9		
18...	0800	16	1.40	6.7		
18...	1000	22	1.00	7.0		
18...	1200	26	1.70	1.1		
18...	1358	22	.700	2.4		
18...	1549	28	2.80	2.8		
18...	1552	20	--	--		
18...	1952	42	--	--		
18...	2352	38	--	--		
19...	0352	44	--	--		
19...	0752	52	--	--		
19...	1152	36	--	--		
19...	1552	48	--	--		
19...	1952	38	--	--		
19...	2352	32	--	--		
20...	0352	44	--	--		
20...	0752	46	--	--		
20...	1152	32	--	--		
20...	1552	42	--	--		
20...	1952	44	--	--		
20...	2352	34	--	--		
21...	0352	142	--	--		
21...	0752	44	--	--		
21...	1152	116	--	--		
21...	1552	32	--	--		
21...	2000	42	--	--		
DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
SEP , 1981						
21...	2200	--	--	44	--	--
22...	0200	--	--	34	--	--
22...	0400	--	--	132	--	--
22...	0600	--	--	26	--	--
22...	0800	--	--	32	--	--
22...	0900	--	--	26	--	--
22-22	--	1000	1100	26	1.30	5.7

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
DEC , 1980										
18-18	--	1000	1120	.40	.40	3.8	17	<.010	<.010	<.010
31-31	--	1000	1150	.40	--	4.7	21	<1.00	<.010	--
JAN , 1981										
13-13	--	946	1100	.50	--	5.6	25	.010	<.010	--
28-28	--	1000	1120	.60	--	4.1	18	<.010	<.010	--
FER										
10-10	--	1030	1140	1.05	--	4.1	18	.080	.120	--
27-27	--	1430	1555	9.00	--	13	58	<.010	.140	--
MAR										
05...	0015	--	--	1.20	--	4.8	21	<.010	<.010	--
05...	0215	--	--	.60	--	3.9	17	<.010	<.010	--
05...	0415	--	--	.80	--	4.3	19	<.010	<.010	--
05...	0615	--	--	.90	--	2.8	12	<.010	<.010	--
05...	0815	--	--	.60	--	3.6	16	<.010	<.010	--
05...	1015	--	--	.80	--	4.4	19	<.010	<.010	--
05...	1215	--	--	1.10	--	3.7	16	<.010	<.010	--
10-10	--	1000	1100	.45	--	2.5	11	<.010	.060	--
24-24	--	1000	1110	1.00	--	3.6	16	<.010	.030	--
APR										
05...	1746	--	--	.30	--	12	54	.090	.340	--
05...	1853	--	--	.10	--	12	53	<.010	.030	--
05...	2000	--	--	.30	--	11	48	<.010	<.010	--
05...	2135	--	--	1.30	--	11	51	<.010	<.010	--
05...	2213	--	--	.40	--	13	57	<.010	<.010	--
06...	0121	--	--	3.00	--	15	68	<.010	<.010	--
06...	0421	--	--	.40	--	14	60	<.010	<.010	--
06...	0821	--	--	.40	--	14	64	<.010	<.010	--
07-07	--	1010	1110	.45	.45	4.5	20	<.010	.030	.030
21-21	--	1000	1100	.40	--	2.5	11	<.010	<.010	--
MAY										
01...	1659	--	--	.60	--	3.4	15	<.010	.040	--
01...	1938	--	--	.80	--	4.7	21	<.010	.030	--
01...	2338	--	--	.80	--	3.4	15	<.010	.040	--
02...	0138	--	--	.60	--	4.1	18	<.010	.050	--
02...	0438	--	--	.80	--	3.3	15	<.010	.060	--
02...	0738	--	--	.80	--	4.5	20	<.010	.070	--
02...	1018	--	--	.60	--	2.7	12	<.010	.050	--
02...	1320	--	--	1.40	--	4.0	18	<.010	.060	--
05-05	--	1030	1110	.50	--	2.3	10	<.010	.050	--
15...	1548	--	--	.70	--	7.6	34	<.010	.070	--
15...	1747	--	--	.80	--	9.7	43	<.010	.060	--
15...	1947	--	--	.40	--	9.5	42	<.010	.050	--
15...	2224	--	--	.70	--	9.0	40	<.010	.120	--
16...	0024	--	--	1.40	--	8.9	39	<.010	.090	--
16...	0224	--	--	1.00	--	7.8	35	<.010	.040	--
16...	0424	--	--	.70	--	8.9	39	<.010	.170	--
16...	0724	--	--	.90	--	7.6	34	<.010	.130	--
22-22	--	1020	1040	.50	--	5.4	24	<.010	.050	--
JUN										
10...	0624	--	--	1.70	--	11	49	<.010	.060	--
10...	0827	--	--	1.70	--	9.6	42	<.010	.050	--
10...	1027	--	--	1.70	--	13	56	<.010	.050	--
10...	1227	--	--	1.70	--	10	46	<.010	.050	--
10...	1427	--	--	1.10	--	9.0	40	<.010	.080	--
10...	1627	--	--	1.20	--	9.2	41	<.010	.050	--
10...	1927	--	--	.90	--	7.2	32	<.010	.040	--
10...	2227	--	--	.60	--	8.2	36	<.010	.040	--
11...	0236	--	--	.90	--	23	101	<.010	.050	--
11...	0636	--	--	.90	--	20	88	<.010	.040	--
16-16	--	1000	1100	.50	--	2.5	11	.040	.070	--
30-30	--	1000	1050	1.00	.60	1.7	7.5	<.010	.070	.600
JUL										
14-14	--	1000	1100	.40	--	1.4	6.2	<.010	.050	--
20...	1903	--	--	.90	--	1.6	7.1	<.010	.040	--
20...	2003	--	--	.70	--	1.7	7.5	<.010	.040	--
20...	2054	--	--	1.40	--	2.4	11	<.010	.030	--
20...	2207	--	--	.40	--	1.7	7.5	<.010	.030	--
21...	0107	--	--	1.10	--	2.3	10	<.010	.030	--
21...	0407	--	--	.40	--	1.5	6.6	<.010	.040	--
21...	0707	--	--	.40	--	1.5	6.6	<.010	.060	--
21...	1007	--	--	.70	--	1.8	8.0	<.010	.030	--
28...	1205	--	--	8.70	--	11	50	<.010	.040	--
28...	1405	--	--	2.20	--	4.6	20	<.010	.030	--
28...	1705	--	--	1.00	--	4.2	19	<.010	.040	--
28...	1905	--	--	.10	--	4.4	19	<.010	<.010	--
28...	2105	--	--	3.20	--	6.4	28	<.010	<.010	--
28...	2305	--	--	.90	--	4.0	18	<.010	.050	--
28-28	--	1020	1050	.05	--	2.2	9.9	<.010	.060	--
29...	0105	--	--	2.10	--	5.1	23	<.010	.040	--
29...	0705	--	--	2.10	--	5.2	23	<.010	.050	--
29...	1322	--	--	.70	--	4.0	18	<.010	.060	--
AUG										
11...	1917	--	--	<.10	--	--	--	<.010	.040	--
11...	2017	--	--	<.10	--	--	--	<.010	.050	--
11...	2117	--	--	1.00	--	5.0	22	<.010	.040	--
11...	2317	--	--	2.70	--	7.7	34	<.010	.040	--

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
AUG . 1981									
11-11	--	1000	1100	4.30	8.8	39	<.010	.030	
12...	0117	--	--	<.10	--	--	<.010	.040	
12...	0317	--	--	2.10	6.8	30	<.010	.040	
12...	0517	--	--	2.00	6.3	28	<.010	.040	
12...	0715	--	--	3.20	8.0	35	<.010	.060	
12...	0915	--	--	.10	4.5	20	<.010	.040	
12...	1115	--	--	.20	4.8	21	<.010	.050	
12...	1254	--	--	.40	4.8	21	<.010	.050	
12...	1954	--	--	.10	5.8	26	<.010	.070	
13...	0027	--	--	.80	7.3	32	<.010	.050	
13...	0327	--	--	2.30	8.5	38	<.010	.040	
13...	0627	--	--	1.30	7.1	31	<.010	.040	
13...	0928	--	--	6.30	12	53	<.010	.040	
25-25	--	1000	1030	3.90	6.2	27	<.010	.040	
31...	0617	--	--	4.60	8.2	36	<.010	.060	
31...	0819	--	--	8.10	12	55	<.010	.040	
31...	1019	--	--	4.20	7.9	35	<.010	.040	
31...	1519	--	--	11.6	23	100	<.010	.060	
31...	2119	--	--	1.20	3.2	14	.010	.050	
SEP									
01...	0319	--	--	2.80	26	114	.010	.050	
01...	1148	--	--	3.50	5.3	23	.010	.050	
08...	1412	--	--	4.40	6.6	29	<.010	.060	
08...	1612	--	--	1.90	4.2	19	<.010	.050	
08...	1812	--	--	6.90	8.8	39	<.010	.050	
08...	1912	--	--	6.10	8.2	36	<.010	.050	
08...	2012	--	--	2.50	5.0	22	<.010	.040	
08...	2212	--	--	2.00	4.3	19	<.010	.050	
09...	0112	--	--	1.50	4.1	18	<.010	.050	
09...	0412	--	--	2.90	5.4	24	<.010	.050	
09...	0712	--	--	1.50	4.1	18	<.010	.050	
09...	1012	--	--	2.90	5.4	24	<.010	.050	
10-10	--	1000	1110	4.10	5.9	26	<.010	.050	
15...	1836	--	--	4.80	12	54	<.010	<.010	
15...	2036	--	--	6.50	16	72	<.010	<.010	
15...	2236	--	--	6.80	16	69	<.010	<.010	
16...	0036	--	--	6.90	14	61	<.010	<.010	
16...	0236	--	--	4.50	13	58	<.010	<.010	
16...	0436	--	--	4.10	12	54	<.010	<.010	
16...	0536	--	--	4.40	14	62	<.010	.050	
DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
SEP . 1981									
16...	0736	--	--	3.20	14	63	<.010	.050	--
16...	0936	--	--	2.00	13	58	<.010	.050	--
16...	1246	--	--	1.60	11	50	<.010	.060	--
16...	1450	--	--	3.80	20	88	<.010	.060	--
17...	0645	--	--	4.60	8.3	37	<.010	.090	--
17...	2100	--	--	8.70	14	62	<.010	.060	--
18...	0001	--	--	6.60	12	51	<.010	.060	--
18...	0300	--	--	6.30	12	51	.010	.070	--
18...	0600	--	--	5.70	11	50	.010	.050	--
18...	0800	--	--	8.10	13	60	.010	.050	--
18...	1000	--	--	8.00	13	58	.010	.070	--
18...	1200	--	--	2.80	5.5	24	<.010	.050	--
18...	1358	--	--	3.10	5.7	25	<.010	.050	--
18...	1549	--	--	5.60	7.5	33	<.010	.060	--
22-22	--	1000	1100	7.00	9.2	41	<.010	.070	<.010

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L)
DEC , 1980												
18-18	--	1000	1120	<5	<10	<10	30	<20	<5	2.8	22	--
31-31	--	1000	1150	<5	<10	<10	15	<20	<5	2.0	24	--
JAN , 1981												
13-13	--	946	1100	<5	<10	<10	18	<20	<5	.9	26	--
28-28	--	1000	1120	<5	<10	<10	230	<20	<5	.7	19	--
FEB												
10-10	--	1030	1140	<5	<10	<10	485	<20	30	2.9	14	--
27-27	--	1430	1555	<5	<10	<10	1220	<20	<5	6.3	14	--
MAR												
05...	0015	--	--	<5	<10	<10	840	<20	10	2.0	17	--
05...	0215	--	--	<5	<10	<10	740	<20	10	2.0	16	--
05...	0415	--	--	<5	<10	<10	850	<20	20	1.0	18	--
05...	0615	--	--	<5	<10	<10	810	<20	10	1.0	17	--
05...	0815	--	--	<5	<10	<10	830	<20	20	2.0	17	--
05...	1015	--	--	<5	<10	<10	890	<20	10	2.0	18	--
05...	1215	--	--	<5	<10	<10	830	<20	20	3.0	18	--
10-10	--	1000	1100	<5	<10	<10	710	<20	<5	1.0	18	--
24-24	--	1000	1110	<5	<10	<10	270	<20	<5	1.0	20	--
APR												
05...	1746	--	--	<5	<10	<10	340	<20	<5	7.0	22	--
05...	1853	--	--	<5	<10	<10	340	<20	<5	6.0	22	--
05...	2000	--	--	<5	<10	<10	320	<20	<5	6.0	22	--
05...	2135	--	--	<5	<10	<10	270	<20	<5	5.0	22	--
05...	2213	--	--	<5	<10	<10	270	<20	<5	4.0	21	--
06...	0121	--	--	<5	<10	<10	270	<20	<5	4.0	20	--
06...	0421	--	--	<5	<10	<10	260	<20	<5	5.0	20	--
06...	0821	--	--	<5	<10	<10	330	<20	<5	4.0	19	--
07...	1018	--	--	--	--	--	--	--	--	--	--	3
07-07	--	1010	1110	<5	<10	<10	140	<20	<5	4.0	22	--
21...	1110	--	--	--	--	--	--	--	--	--	--	1
21-21	--	1000	1100	<5	<10	<10	200	<20	<5	4.0	20	--
MAY												
01...	1659	--	--	<5	<10	<10	210	<20	10	5.0	21	--
01...	1938	--	--	<5	<10	<10	210	<20	<5	6.0	21	--
01...	2338	--	--	<5	<10	<10	260	<20	<5	5.0	21	--
02...	0138	--	--	<5	<10	<10	290	<20	<5	5.0	22	--
02...	0438	--	--	<5	<10	<10	530	<20	<5	6.0	20	--
02...	0738	--	--	<5	<10	<10	510	<20	<5	6.0	19	--
02...	1016	--	--	<5	<10	<10	350	<20	<5	6.0	21	--
02...	1320	--	--	<5	<10	<10	390	<20	<5	6.0	21	--
05...	1136	--	--	--	--	--	--	--	--	--	--	3
05-05	--	1030	1110	<5	<10	<10	280	<20	<5	4.0	19	--
15...	1548	--	--	<5	<10	<10	350	<20	20	2.0	22	--
15...	1747	--	--	<5	<10	<10	400	<20	<5	2.0	22	--
15...	1947	--	--	<5	<10	<10	210	20	<5	2.0	21	--
15...	2224	--	--	<5	<10	<10	970	<20	<5	3.0	19	--
16...	0024	--	--	<5	<10	<10	540	20	<5	2.0	21	--
16...	0224	--	--	<5	<10	<10	550	<20	<5	2.0	21	--
16...	0424	--	--	<5	<10	<10	1000	<20	<5	2.0	19	--
16...	0724	--	--	<5	<10	<10	1100	20	<5	2.0	19	--
22...	1025	--	--	--	--	--	--	--	--	--	--	3
22-22	--	1020	1040	<5	<10	<10	280	<20	<5	1.0	22	--
JUN												
10...	0624	--	--	10	<10	<10	200	<20	<5	6.0	23	--
10...	0827	--	--	<5	<10	<10	170	<20	<5	4.0	23	--
10...	1027	--	--	<5	<10	<10	190	<20	<5	5.0	23	--
10...	1227	--	--	--	--	--	--	--	--	5.0	--	--
10...	1427	--	--	<5	<10	10	350	<20	<5	5.0	22	--
10...	1627	--	--	<5	<10	<10	310	<20	10	4.0	22	--
10...	1927	--	--	<5	<10	<10	210	<20	<5	--	23	--
10...	2227	--	--	<5	<10	<10	230	<20	<5	3.0	23	--
11...	0236	--	--	<5	<10	<10	860	<20	<10	2.0	23	--
11...	0636	--	--	<5	<10	<10	170	<20	<5	3.0	23	--
16...	1210	--	--	--	--	--	--	--	--	--	--	<1
16-16	--	1000	1100	<5	<10	<10	520	<20	<5	3.0	18	--
30...	1019	--	--	--	--	--	--	--	--	--	--	1
30-30	--	1000	1050	<5	<10	<10	440	<20	<5	7.0	18	--
JUL												
14-14	--	1000	1100	<5	<10	<10	130	<20	<5	5.0	16	--
20...	1903	--	--	<5	<10	<10	130	<10	<5	7.0	19	--
20...	2003	--	--	<5	<10	<10	120	<10	<5	7.0	20	--
20...	2054	--	--	<5	<10	<10	180	<10	20	5.0	21	--
20...	2207	--	--	<5	<10	<10	180	10	10	6.0	22	--
21...	0107	--	--	<5	<10	<10	110	<10	<5	4.0	22	--
21...	0407	--	--	<5	<10	<10	130	<10	<5	6.0	21	--
21...	0707	--	--	<5	<10	<10	120	<10	<5	7.0	21	--
21...	1007	--	--	5	<10	<10	110	<10	<5	6.0	21	--
28...	1205	--	--	<5	<10	<10	210	<20	<5	2.5	23	--
28...	1405	--	--	<5	<10	<10	220	<20	<5	4.0	23	--
28...	1705	--	--	<5	<10	<10	210	30	<5	2.5	<.1	--
28...	1905	--	--	<5	<10	<10	280	20	<5	1.9	22	--
28...	2105	--	--	<5	<10	<10	270	20	10	1.0	22	--
28...	2305	--	--	<5	<10	20	200	<20	<5	1.1	22	--
28-28	--	1020	1050	<5	<10	<10	90	<20	<10	75	28	--
29...	0105	--	--	<5	<10	<10	240	<20	<10	2.8	23	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L)
JUL , 1981												
29...	0705	--	--	<5	<10	10	280	<20	<5	2.0	22	--
29...	1322	--	--	<5	<10	<10	490	<20	<5	.3	22	--
AUG												
11...	1015	--	--	--	--	--	--	--	--	--	--	1
11...	1917	--	--	<5	<10	<10	290	20	<5	11	23	--
11...	2017	--	--	<5	<10	<10	300	<20	<5	6.5	23	--
11...	2117	--	--	<5	<10	<10	130	<20	<5	13	22	--
11...	2317	--	--	<5	<10	<10	520	<20	<5	6.9	23	--
11-11	--	1000	1100	<5	<10	<10	110	<20	5	57	6.7	--
12...	0117	--	--	<5	<10	<10	170	<20	<5	6.8	23	--
12...	0317	--	--	<5	<10	<10	160	<20	<5	6.3	23	--
12...	0517	--	--	<5	<10	<10	140	<20	<5	6.9	23	--
12...	0715	--	--	<5	<10	10	140	<20	<5	14	23	--
12...	0915	--	--	<5	<10	<10	190	<20	<5	12	24	--
12...	1115	--	--	<5	<10	<10	280	<20	<5	11	23	--
12...	1254	--	--	<5	<10	<10	320	<20	<5	12	23	--
12...	1954	--	--	<5	<10	<10	290	<20	<5	8.8	22	--
13...	0027	--	--	<5	<10	<10	220	<20	<5	11	22	--
13...	0327	--	--	<5	<10	<10	230	<20	<5	12	23	--
13...	0627	--	--	<5	<10	<10	180	<20	<5	12	23	--
13...	0928	--	--	<5	<10	<10	200	<20	<5	9.1	23	--
13...	1228	--	--	--	--	--	160	--	--	--	--	--
13...	1528	--	--	--	--	--	190	--	--	--	--	--
13...	1828	--	--	--	--	--	230	--	--	--	--	--
13...	2128	--	--	--	--	--	250	--	--	--	--	--
14...	0028	--	--	--	--	--	220	--	--	--	--	--
14...	0328	--	--	--	--	--	160	--	--	--	--	--
14...	0628	--	--	--	--	--	120	--	--	--	--	--
14...	0928	--	--	--	--	--	150	--	--	--	--	--
14...	1228	--	--	--	--	--	190	--	--	--	--	--
14...	1528	--	--	--	--	--	350	--	--	--	--	--
14...	1828	--	--	--	--	--	170	--	--	--	--	--
14...	2128	--	--	--	--	--	330	--	--	--	--	--
15...	0028	--	--	--	--	--	180	--	--	--	--	--
15...	0328	--	--	--	--	--	130	--	--	--	--	--
15...	0628	--	--	--	--	--	140	--	--	--	--	--
15...	0928	--	--	--	--	--	180	--	--	--	--	--
15...	1228	--	--	--	--	--	180	--	--	--	--	--
15...	1528	--	--	--	--	--	190	--	--	--	--	--
15...	1828	--	--	--	--	--	200	--	--	--	--	--
AUG , 1981												
15...	2128	--	--	--	--	--	170	--	--	--	--	--
16...	0028	--	--	--	--	--	180	--	--	--	--	--
16...	0328	--	--	--	--	--	200	--	--	--	--	--
16...	0628	--	--	--	--	--	120	--	--	--	--	--
16...	0928	--	--	--	--	--	160	--	--	--	--	--
16...	1228	--	--	--	--	--	250	--	--	--	--	--
16...	1528	--	--	--	--	--	220	--	--	--	--	--
16...	1828	--	--	--	--	--	140	--	--	--	--	--
16...	2128	--	--	--	--	--	170	--	--	--	--	--
17...	0028	--	--	--	--	--	120	--	--	--	--	--
17...	0328	--	--	--	--	--	130	--	--	--	--	--
17...	0628	--	--	--	--	--	120	--	--	--	--	--
25-25	--	1000	1030	<5	<10	<10	110	<20	<5	14	26	--
31...	0617	--	--	<5	<10	<10	140	<20	<5	11	8.3	--
31...	0819	--	--	<5	<10	<10	160	<20	<5	10	23	--
31...	1019	--	--	<5	<10	<10	120	<20	<5	10	23	--
31...	1519	--	--	<5	<10	<10	210	<20	<5	10	9.3	--
31...	2119	--	--	<5	<10	<10	170	<20	<5	9.7	24	--
SEP												
01...	0319	--	--	<5	<10	<10	210	<20	<5	9.9	55	--
01...	1148	--	--	<5	<10	<10	140	<20	<5	9.1	25	--
08...	1412	--	--	<5	<10	<10	210	<20	<5	5.7	27	--
08...	1612	--	--	<5	<10	<10	230	<20	<5	5.3	27	--
08...	1812	--	--	<5	<10	<10	190	<20	<5	5.4	27	--
08...	1912	--	--	<5	<10	<10	120	<20	<5	5.6	26	--
08...	2012	--	--	<5	<10	<10	130	<20	<5	4.8	26	--
08...	2212	--	--	<5	<10	<10	130	<20	<5	4.5	26	--
09...	0112	--	--	<5	<10	<10	220	<20	<5	5.3	27	--
09...	0412	--	--	<5	<10	<10	350	<20	<5	5.0	27	--
09...	0712	--	--	<5	<10	<10	220	<20	<5	5.3	27	--
09...	1012	--	--	<5	<10	<10	350	<20	<5	5.0	27	--
10-10	--	1000	1110	<5	<10	<10	140	<20	<5	3.9	26	--
15...	1836	--	--	<5	<10	<10	180	<20	10	6.1	23	--
15...	2036	--	--	<5	<10	<10	110	20	10	5.9	23	--
15...	2236	--	--	<5	<10	<10	110	<20	10	6.2	24	--
16...	0036	--	--	<5	<10	<10	140	<20	10	7.2	24	--
16...	0236	--	--	<5	10	<10	140	30	10	6.6	24	--
16...	0436	--	--	<5	50	<10	130	20	10	6.9	25	--
16...	0536	--	--	<5	<10	10	120	40	10	4.5	25	--
16...	0736	--	--	<5	<10	<10	160	30	10	4.6	25	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	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)
SEP , 1981									
16...	0936	<5	<10	<10	180	40	<5	12	24
16...	1246	<5	<10	<10	230	70	<5	4.3	25
16...	1450	<5	<10	<10	260	30	10	5.0	25
17...	0645	<5	<10	<10	180	20	<5	3.9	25
17...	0845	--	--	--	210	--	--	--	--
17...	1045	--	--	--	190	--	--	--	--
17...	1300	--	--	--	140	--	--	--	--
17...	1500	--	--	--	160	--	--	--	--
17...	1800	--	--	--	140	--	--	--	--
17...	2100	<5	<10	10	160	<20	<10	8.0	24
18...	0001	--	--	--	--	--	--	8.7	24
18...	0300	<5	20	20	120	<20	10	16	24
18...	0600	<5	<10	10	110	<20	<5	8.4	23
18...	0800	<5	<10	20	150	<20	<5	8.2	23
18...	1000	<5	<10	20	170	<20	10	15	23
18...	1200	<5	<10	20	210	<20	<5	8.2	23
18...	1358	<5	<10	<10	250	<20	<5	9.2	22
18...	1549	<5	<10	<10	360	<20	<5	--	22
18...	1552	--	--	--	390	--	--	--	--
18...	1952	--	--	--	340	--	--	--	--
18...	2352	--	--	--	480	--	--	--	--
19...	0352	--	--	--	330	--	--	--	--
19...	0752	--	--	--	400	--	--	--	--
19...	1152	--	--	--	520	--	--	--	--
19...	1552	--	--	--	440	--	--	--	--
19...	1952	--	--	--	290	--	--	--	--
19...	2352	--	--	--	300	--	--	--	--
20...	0352	--	--	--	290	--	--	--	--
20...	0752	--	--	--	300	--	--	--	--
20...	1152	--	--	--	500	--	--	--	--
20...	1552	--	--	--	500	--	--	--	--
20...	1952	--	--	--	310	--	--	--	--
20...	2352	--	--	--	380	--	--	--	--
21...	0352	--	--	--	360	--	--	--	--
21...	0752	--	--	--	330	--	--	--	--
21...	1152	--	--	--	320	--	--	--	--
21...	1552	--	--	--	300	--	--	--	--
21...	2000	--	--	--	320	--	--	--	--
21...	2200	--	--	--	300	--	--	--	--

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)
SEP , 1981											
22...	0200	--	--	--	--	--	220	--	--	--	--
22...	0400	--	--	--	--	--	250	--	--	--	--
22...	0600	--	--	--	--	--	210	--	--	--	--
22...	0800	--	--	--	--	--	220	--	--	--	--
22...	0900	--	--	--	--	--	200	--	--	--	--
22-22	--	1000	1100	<5	<10	20	170	30	<5	7.4	20

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 mi² (0.08 km²).

PERIOD OF RECORD.--February to September 1981

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

WATER QUALITY DATA, WATER YEAR FEBRUARY 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
FEB , 1981										
08...	1305	.06	84	260	158	<.100	--	5.00	7.3	32
08...	1316	.08	110	114	176	.300	3.9	4.20	6.3	28
08...	1326	.09	120	367	210	.300	6.2	6.50	8.5	38
08...	1402	.11	130	58	250	.600	3.9	4.50	6.0	27
08...	1422	.13	150	250	386	.300	7.8	8.10	9.4	42
08...	1432	.08	140	450	316	1.10	5.6	6.70	8.0	35
08...	1452	.05	76	81	46	<.100	--	3.40	4.8	21
08...	1522	.04	62	58	32	.300	2.2	2.50	4.2	19
08...	1552	.04	49	84	16	.800	2.2	3.00	5.1	23
08...	1625	.03	46	57	24	.600	2.2	2.80	4.4	19
08...	1635	.03	40	54	14	.600	1.7	2.30	4.6	20
MAR										
04...	2347	.02	7.0	41	14	1.10	3.4	4.50	10	44
05...	0209	.03	5.8	135	200	<.100	4.5	4.50	11	49
05...	0231	.07	16	44	40	2.20	3.4	5.60	11	50
05...	0249	.07	18	57	23	2.20	2.2	4.40	9.3	41
05...	0339	.07	14	31	16	4.50	3.4	7.90	12	53
05...	0428	.08	12	30	19	1.10	2.2	3.30	6.5	29
05...	0501	.04	20	33	21	2.20	3.4	5.60	9.5	42
05...	0622	.03	14	32	14	1.10	2.2	3.30	8.1	36
05...	0655	.05	8.0	26	17	<.100	--	2.20	6.4	28
05...	0743	.04	8.0	28	13	1.10	2.2	3.30	7.6	34
05...	0831	.05	8.6	28	1	2.20	1.1	3.30	6.5	29
05...	0904	.05	12	32	7	1.10	2.2	3.30	7.3	32
05...	1008	.05	18	29	16	1.10	2.2	3.30	8.0	35
05...	1112	.03	20	31	13	1.10	1.1	2.20	7.5	33
05...	1217	.02	16	22	15	<.100	--	2.20	6.9	31
JUN										
20...	0136	.88	200	190	850	<.100	--	4.80	5.2	23
20...	0142	1.00	180	250	520	<.100	--	3.40	3.8	17
20...	0222	.17	52	26	87	.600	2.2	2.80	3.3	15
20...	0246	.10	20	37	26	.600	1.7	2.30	2.9	13
20...	0301	.08	18	13	16	<.100	--	1.70	2.3	10
JUL										
28...	1110	.07	28	270	120	<.100	--	4.60	13	57
28...	1114	.08	46	290	120	.300	6.3	6.60	13	59
28...	1116	.10	28	270	140	<.100	--	9.90	16	73
28...	1120	.10	14	150	48	<.100	--	3.90	9.3	41
28...	1124	.09	14	80	26	<.100	--	2.10	7.8	35
28...	1130	.08	16	95	17	<.100	--	4.50	9.5	42
28...	1142	.07	6.2	28	12	<.100	--	7.00	11	50
28...	1248	.06	16	210	36	<.100	--	4.10	9.8	43

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR FEBRUARY 1981 TO SEPTEMBER 1981

DATE	PHOS- PHORUS, 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)
FEB . 1981										
08...	.160	.710	<5	<10	30	1350	60	90	32	4.8
08...	.230	.660	<5	<10	20	1200	120	80	29	2.4
08...	.260	1.06	<5	<10	20	1250	80	70	40	4.8
08...	.270	1.22	<5	<10	20	2000	110	90	42	4.3
08...	.270	1.52	<5	<10	30	2200	150	100	38	4.8
08...	.280	1.15	<5	<10	20	1490	100	60	33	4.8
08...	.290	.570	<5	10	10	600	60	60	22	4.8
08...	.290	.440	<5	<10	20	470	40	50	20	5.8
08...	.240	.350	<5	<10	30	910	<20	50	19	7.2
08...	.200	.290	<5	<10	30	830	<20	60	19	8.6
08...	.200	.280	<5	<10	30	970	20	50	19	9.1
MAR										
04...	.070	.190	<5	<10	<10	310	20	60	5.0	10
05...	.070	1.23	<5	<10	<10	2100	180	140	13	9.0
05...	.070	.290	<5	<10	<10	470	30	60	3.0	5.0
05...	.060	.160	<5	<10	<10	380	<20	60	3.0	4.0
05...	.050	<.010	<5	<10	<10	250	<20	40	2.0	4.0
05...	.050	.100	<5	<10	<10	290	<20	40	2.0	3.0
05...	.040	<.010	<5	<10	<10	410	<20	40	2.0	7.0
05...	.050	<.010	<5	<10	<10	260	<20	40	3.0	8.0
05...	.040	<.010	<5	<10	<10	190	<20	30	1.0	6.0
05...	.040	<.010	<5	<10	<10	190	<20	20	2.0	7.0
05...	<.010	<.010	<5	<10	<10	200	<20	30	1.0	6.0
05...	.050	<.010	<5	<10	10	270	<20	40	4.0	5.0
05...	.050	<.010	<5	<10	<10	440	<20	30	2.0	6.0
05...	.040	<.010	<5	<10	<10	460	<20	40	2.0	7.0
05...	.050	<.010	<5	<10	20	490	<20	40	3.0	13
JUN										
20...	.050	.930	<5	<10	30	7100	140	190	36	3.0
20...	.060	.710	<5	<10	30	5700	10	150	26	2.0
20...	.080	.330	<5	<10	20	1300	30	60	23	5.0
20...	.060	.170	<5	<10	<10	450	<20	30	11	7.0
20...	.040	.140	<5	<10	30	330	<20	30	12	11
JUL										
28...	.100	.410	<5	<10	70	1900	230	270	69	5.5
28...	.270	.630	<5	<10	40	1600	210	240	50	4.6
28...	.330	.680	<5	<10	20	1300	130	180	50	3.6
28...	.200	.370	<5	<10	10	1200	50	90	34	3.1
28...	.180	.330	<5	<10	20	230	30	60	35	4.5
28...	.170	.280	<5	<10	20	150	<20	40	28	3.7
28...	.190	.280	<5	<10	30	50	<20	30	32	5.4
28...	.070	.250	<5	<10	30	620	130	140	26	5.9

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

WATER QUALITY DATA, WATER YEAR FEBRUARY 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
JUL , 1981										
28...	1250	.11	42	320	254	<.100	--	14.0	20	87
28...	1252	.26	62	460	274	1.00	18	19.0	24	107
28...	1254	.17	32	270	158	.600	5.0	5.60	9.4	42
28...	1258	.16	38	95	86	<.100	--	4.10	8.2	36
28...	1302	.13	40	100	59	2.80	5.2	8.00	12	52
28...	1316	.09	14	87	16	<.100	--	13.0	17	75
28...	1328	.18	8.4	80	10	<.100	--	11.0	18	81
28...	1903	.20	50	270	251	.600	12	13.0	19	84
28...	1909	.28	140	460	647	1.50	28	30.0	34	152
28...	1915	.34	140	130	307	.400	16	16.0	19	83
28...	1925	.18	66	65	82	.600	9.4	10.0	12	55
28...	1940	.14	22	72	26	.100	2.9	3.00	5.8	26
28...	2003	.12	18	72	7	<.100	--	1.80	4.8	21
28...	2057	.12	12	23	18	<.100	--	1.40	4.5	20
28...	2142	.06	7.2	26	6	<.100	--	<.10	--	--
AUG										
11...	1931	.18	32	<5	140	2.50	12	15.0	21	92
11...	1935	.15	38	<5	112	1.40	12	13.0	18	79
11...	1947	.14	22	<5	12	.100	9.0	9.10	16	69
11...	2001	.13	12	<5	6	.100	.40	.50	7.1	31
11...	2007	.09	7.0	<5	4	<.100	--	2.80	9.8	43
11...	2045	.21	9.2	53	22	<.100	--	.18	6.5	29
11...	2053	.17	1.2	74	14	<.100	--	2.70	10	45
11...	2104	.14	7.8	160	18	<.100	--	<.10	--	--
12...	0817	.21	28	94	2030	.600	9.5	10.1	16	70
12...	0822	.16	28	120	56	.400	5.7	6.10	11	50
12...	0834	.17	28	80	38	.100	7.1	7.20	12	53
12...	0853	.15	32	58	36	.300	10	10.8	15	67
12...	0911	.15	24	51	34	.400	8.1	8.50	13	58
12...	0928	.18	50	94	146	.800	11	12.3	18	78
12...	1005	.15	42	100	50	2.20	1.7	3.90	7.7	34
12...	1029	.08	24	44	12	<.100	--	.10	4.4	19
15...	2127	.17	16	51	6	.600	9.9	10.5	46	206
15...	2134	.12	32	44	52	.400	5.5	5.90	49	216
15...	2148	.07	18	44	24	.700	3.2	3.90	68	301
30...	1039	.03	46	3900	120	1.40	9.7	11.1	18	79
30...	1052	.06	40	350	78	1.70	7.4	9.10	19	82
30...	1103	.07	26	280	40	2.20	9.1	11.3	17	76
30...	1113	.07	18	280	12	1.80	10	11.9	16	72
30...	1124	.07	26	210	24	1.70	3.4	5.10	9.8	43

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR FEBRUARY 1981 TO SEPTEMBER 1981

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)
JUL . 1981										
28...	.170	1.40	<5	<10	40	3700	500	410	43	7.7
28...	.210	1.70	<5	<10	50	3600	310	280	31	4.6
28...	.150	.870	<5	<10	30	1800	170	180	27	2.9
28...	.150	.440	<5	<10	20	1200	80	100	17	2.9
28...	.190	.770	<5	<10	10	670	50	80	28	3.6
28...	.230	.340	<5	<10	20	200	<20	40	20	7.8
28...	.170	.270	<5	<10	30	190	<20	30	28	11
28...	.070	.890	<5	<10	40	3200	330	260	7.3	5.1
28...	.150	2.10	<5	<10	40	7100	280	250	21	3.7
28...	.150	6.80	<5	<10	40	3200	110	100	17	1.7
28...	.130	.410	<5	<10	20	1000	40	40	7.8	2.5
28...	.040	.200	<5	<10	20	330	20	20	2.2	3.4
28...	.080	.140	<5	<10	20	180	20	20	4.9	5.5
28...	.080	.130	<5	<10	10	180	30	10	5.1	1.6
28...	.050	.140	<5	<10	60	110	<20	<5	2.5	1.5
AUG										
11...	.140	.510	<5	<10	10	1800	120	130	12	2.2
11...	.170	.480	<5	<10	<10	1200	80	90	8.8	2.0
11...	.230	.370	<5	<10	20	450	40	50	7.6	3.4
11...	.160	.240	<5	<10	30	230	30	50	6.6	4.7
11...	.120	.190	<5	<10	40	190	30	30	8.3	6.6
11...	.110	.190	<5	<10	20	300	30	40	11	5.2
11...	.110	.200	<5	<10	20	250	30	40	9.6	5.5
11...	<.010	.220	<5	<10	20	240	20	30	89	9.9
12...	.290	.320	<5	<10	<10	840	100	100	30	3.6
12...	.090	.280	<5	<10	<10	760	90	90	18	2.6
12...	.090	.230	<5	<10	10	600	60	60	14	3.2
12...	.090	.240	<5	<10	10	650	50	50	13	2.9
12...	.080	.210	<5	<10	<10	510	30	40	11	3.2
12...	.080	.830	<5	<10	20	2200	150	110	17	3.0
12...	.090	.200	<5	<10	10	590	30	30	8.9	3.8
12...	.060	.130	<5	<10	20	280	<20	20	12	6.4
15...	.100	.220	<5	<10	<10	620	90	120	9.6	1.8
15...	.160	.250	<5	<10	10	520	50	50	6.1	3.0
15...	.180	.210	<5	<10	20	300	40	40	8.2	6.6
30...	<.010	.640	<5	<10	40	1400	200	250	220	11
30...	.560	2.40	<5	<10	40	940	150	200	99	29
30...	.480	.800	<5	<10	50	380	90	110	89	4.5
30...	.430	.580	<5	<10	30	190	70	70	54	4.0
30...	.320	.670	<5	<10	30	270	60	60	49	3.5

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR FEBRUARY 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
AUG , 1981										
30...	1139	.07	20	160	1	3.20	4.0	7.20	14	61
31...	0619	.15	38	240	108	1.30	12	12.9	18	81
31...	0626	.11	54	270	184	1.80	18	20.1	27	121
31...	0631	.17	40	190	110	1.70	21	23.0	28	124
31...	0642	.10	18	99	10	1.00	6.4	7.40	12	54
31...	0702	.09	20	99	60	6.20	9.4	15.6	20	88
31...	0708	.14	34	130	108	2.70	10	12.8	18	79
31...	0714	.11	26	84	28	6.40	11	17.3	22	97
31...	0727	.12	16	92	6	2.40	6.6	9.00	14	61
31...	0742	.07	12	92	12	1.40	2.5	3.90	9.8	43
SEP										
08...	1424	.22	56	230	182	1.30	12	13.5	15	69
08...	1429	.15	28	130	54	1.10	7.6	8.70	11	49
08...	1436	.09	12	140	24	1.00	7.6	8.60	12	53
08...	1518	.09	14	13	16	.200	3.6	3.80	7.0	31
08...	1527	.09	9.6	210	12	.200	5.7	5.90	8.9	39
08...	1538	.07	16	110	10	.200	3.4	3.60	6.7	30
22...	1858	.19	28	130	170	2.20	5.6	7.80	11	50
22...	1902	.21	14	81	62	2.90	2.1	5.00	8.5	38
22...	1906	.19	14	51	56	1.30	2.8	4.10	7.4	33
22...	1911	.12	18	44	34	1.10	1.3	2.40	5.7	25
22...	1920	.08	18	51	40	.800	2.8	3.60	7.2	32
22...	1934	.04	8.8	51	162	1.10	1.3	2.40	6.1	27

DATE	PHOS- PHORUS, ORTHOPHOS- 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)
AUG , 1981										
30...	.320	.460	<5	<10	20	150	50	70	48	3.8
31...	.170	.500	<5	<10	20	1000	140	130	38	7.9
31...	.170	1.80	<5	<10	30	2700	310	250	32	7.6
31...	.150	.790	<5	<10	10	1500	140	120	16	4.9
31...	.140	.240	<5	<10	<10	250	20	30	18	4.7
31...	.090	.280	<5	<10	10	830	190	140	13	5.7
31...	.130	.540	<5	<10	20	1000	140	110	14	6.0
31...	.130	.280	<5	<10	<10	360	50	40	15	4.8
31...	.120	.180	<5	<10	10	150	30	10	16	5.2
31...	.110	.170	<5	<10	30	110	30	20	16	6.9
SEP										
08...	.160	1.20	<5	<10	50	1800	370	350	47	9.1
08...	.180	.460	<5	<10	20	460	170	130	126	4.9
08...	.240	.380	<5	<10	10	150	40	50	28	5.3
08...	.200	.330	<5	<10	10	150	30	40	25	11
08...	.170	.240	<5	<10	<10	140	20	30	22	17
08...	.180	.220	<5	<10	10	90	20	20	21	7.5
22...	.110	10.1	<5	<10	40	1800	200	220	32	6.0
22...	.130	.470	<5	<10	20	690	80	100	24	3.3
22...	.140	.330	<5	<10	20	490	60	80	19	3.1
22...	.150	.310	<5	<10	<10	480	40	70	48	7.1
22...	.190	.310	<5	<10	20	360	30	70	26	3.8
22...	.180	.270	<5	<10	20	330	20	50	25	5.1

PATAPSCO RIVER BASIN

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 to September 1981

WATER QUALITY DATA, WATER YEAR MAY 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
MAY, 1981										
15...	1347	.12	140	850	520	.400	39	39.0	61	270
15...	1422	.03	41	780	110	<.100	--	11.0	23	102
15...	1452	3.71	68	160	160	<.100	--	3.20	12	55
15...	1522	3.24	29	42	48	.100	1.8	1.90	9.4	42
15...	1552	4.54	73	46	190	.300	2.0	2.30	9.8	43
15...	1622	.22	28	21	37	<.100	--	1.30	9.8	43
15...	1652	.10	29	33	32	<.100	--	1.70	12	52
15...	1722	.06	190	39	19	<.100	--	1.70	12	52
15...	1822	.04	16	33	26	<.100	--	2.00	12	53
15...	1922	.03	11	24	44	.300	1.4	1.70	10	46
JUL										
25...	0453	.40	52	--	191	1.70	5.4	7.10	13	58
25...	0500	.44	28	--	81	.400	1.1	1.50	6.0	27
25...	0508	.24	14	--	24	.200	1.7	1.90	6.2	27
25...	0515	.17	14	--	15	.400	.00	.40	4.8	21
26...	1840	.01	12	43	4	.200	2.4	2.60	8.3	37
26...	1843	.02	48	--	9	.600	2.6	3.20	24	107
26...	1851	.07	28	--	8	<.100	--	2.80	12	55
26...	1858	.07	34	--	19	.400	6.0	6.40	13	57
26...	1906	.05	28	--	18	.200	3.2	3.40	29	130
26...	1921	.02	4.8	--	<1	<.100	--	2.60	8.2	36
AUG										
11...	1951	.56	62	--	108	2.70	6.3	9.00	18	80
11...	2005	.31	22	--	28	1.30	6.2	7.50	20	91
11...	2009	.36	20	--	44	2.70	5.6	8.30	19	85
11...	2013	.36	18	--	24	3.40	3.2	6.60	15	65
11...	2029	.40	18	--	28	.800	1.0	1.80	9.1	40
11...	2044	.29	18	--	32	1.80	2.7	4.50	12	51
11...	2125	.18	20	--	6	4.30	3.4	7.70	16	71
11...	2139	.16	20	--	32	2.90	6.7	9.60	18	80
11...	2158	.38	6.0	36	12	<.100	--	4.30	12	55
11...	2206	.34	4.8	29	10	.800	8.1	8.90	17	75
12...	0153	.02	5.2	22	20	1.70	1.3	3.00	11	50
30...	1303	.19	78	--	144	3.60	25	28.9	39	172
30...	1308	.27	52	--	90	2.90	14	17.0	26	116
30...	1321	.29	44	--	58	3.10	17	19.9	28	123
30...	1333	.24	34	--	42	1.00	8.8	9.80	16	73
30...	1348	.22	34	--	38	1.80	3.8	5.60	12	52
30...	1406	.15	32	--	26	1.40	4.1	5.50	12	52
SEP										
08...	1415	.38	82	--	464	2.90	34	36.6	40	178
08...	1422	3.05	64	--	248	1.80	27	29.0	31	139

PATAPSCO RIVER BASIN

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01589460 HAMPDEN STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR MAY 1981 TO SEPTEMBER 1981

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)
MAY , 1981										
15...	3.00	10.0	<5	50	410	3700	870	2200	76	18
15...	.210	3.10	<5	220	180	1000	200	600	59	22
15...	.190	.770	<5	<10	80	1300	270	350	30	5.0
15...	.210	.350	<5	90	60	430	40	150	1.0	6.0
15...	.170	.710	<5	240	60	1300	260	260	8.0	4.0
15...	.120	.300	<5	340	50	350	40	110	3.0	--
15...	.170	.290	<5	670	60	330	70	100	5.0	9.0
15...	.210	.300	<5	1000	50	200	40	80	4.0	12
15...	.290	.380	<5	780	50	150	30	70	4.0	15
15...	.220	.350	<5	540	40	120	<20	70	5.0	16
JUL										
25...	.510	1.20	<5	30	160	2500	680	1100	96	4.8
25...	.330	.830	<5	10	130	1200	320	590	20	2.3
25...	.340	.650	<5	40	90	330	60	310	25	1.2
25...	.350	.540	<5	180	90	430	60	300	36	1.4
26...	.670	.950	<5	<10	30	270	<20	130	7.3	11
26...	4.70	7.40	5	<10	40	340	250	320	30	10
26...	2.90	3.50	5	<10	30	180	120	180	23	11
26...	1.80	2.10	<5	<10	30	260	80	210	72	13
26...	.510	.920	<5	<10	20	120	240	310	30	11
26...	.250	.470	<5	<10	20	60	<20	70	9.7	9.9
AUG										
11...	.430	2.50	<5	30	100	4300	1000	1100	44	7.6
11...	.310	.640	<5	30	90	630	160	400	40	1.2
11...	.260	.450	<5	<10	70	440	110	340	39	.9
11...	.190	.380	<5	170	80	420	100	200	22	1.2
11...	.170	.300	<5	130	60	230	60	110	18	1.6
11...	.160	.300	<5	160	50	240	50	80	18	3.4
11...	.160	.260	<5	180	50	210	40	70	21	3.3
11...	.180	.420	<5	190	60	300	60	90	22	3.6
11...	.570	.630	<5	<10	20	160	20	10	36	7.9
11...	.510	.540	<5	<10	20	110	<20	<10	11	8.5
12...	.410	.460	<5	<10	30	100	<20	<10	11	9.0
30...	.720	1.90	<5	20	120	2100	480	1200	170	4.8
30...	.550	2.00	<5	<10	90	1300	290	600	95	6.3
30...	.550	2.10	<5	<10	60	810	190	440	61	3.3
30...	.480	.760	<5	20	50	510	140	200	51	3.0
30...	.430	.680	<5	50	50	440	100	130	51	3.7
30...	.420	.620	<5	120	70	510	90	170	59	6.0
SEP										
08...	.410	2.40	<5	70	110	9100	810	1100	54	15
08...	.200	1.20	<5	70	90	8500	600	740	15	20

PATAPSCO RIVER BASIN

01589460 HAMPDEN STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR MAY 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW 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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
SEP , 1981										
08...	1428	.59	44	--	114	1.50	15	16.3	19	84
08...	1443	.16	26	--	32	1.40	9.9	11.3	14	63
08...	1458	.07	22	--	8	2.10	12	14.3	18	78
08...	1513	.04	18	--	18	1.10	11	11.6	15	66
08...	1525	.26	38	--	58	1.40	25	26.6	31	137
08...	1627	.13	32	--	28	1.80	17	18.5	22	96
08...	1642	.10	32	--	32	--	--	--	--	--
08...	1657	.14	36	--	34	.700	26	27.2	30	134
08...	1712	--	32	--	18	1.10	6.4	7.50	11	46
17...	1917	.18	52	29	126	3.80	15	19.3	30	134
17...	1930	.56	40	--	140	1.30	15	16.3	26	116
17...	1936	.54	38	--	104	2.90	13	15.9	30	132
17...	1944	.24	1.4	--	14	1.30	7.3	8.60	32	140
17...	2058	.08	18	--	12	.800	7.4	8.20	33	147
17...	2150	.52	--	--	--	1.10	6.0	7.10	24	107
18...	0213	.36	14	--	14	2.00	3.8	5.80	29	127
18...	0327	.30	5.4	36	10	1.00	4.5	5.50	23	104
18...	0432	.26	6.6	22	<1	1.10	2.4	3.50	17	77
18...	0502	.36	6.6	36	16	1.30	2.5	3.80	16	70
22...	1927	.42	52	--	266	3.50	9.7	13.2	19	85
22...	1934	.16	38	--	244	2.20	7.0	9.20	13	58
22...	1939	.56	18	44	48	.800	1.5	2.30	6.0	27
22...	1945	.26	16	--	10	1.00	3.2	4.20	10	44
22...	2008	.08	14	36	8	1.10	2.9	4.00	9.9	44
22...	2033	.06	--	--	--	--	--	--	--	--
22...	2328	.04	3.8	22	<1	.100	3.2	3.30	7.6	34
23...	0158	.02	4.0	14	14	.100	.70	.80	5.8	26
27...	1902	.58	92	--	662	5.70	18	23.8	31	139
27...	1932	.06	18	--	48	2.40	3.9	6.30	20	90
27...	2003	.04	18	--	18	1.80	2.7	4.50	16	73
27...	2023	.50	38	--	190	2.70	2.5	5.20	10	46
27...	2053	.08	9.6	--	16	--	--	2.40	14	64
28...	0307	.04	2.2	38	2	.800	.40	1.20	13	58
28...	0836	.04	2.4	30	10	.400	.60	1.00	14	62

DATE	PHOS- PHORUS, ORTHOPHOS- 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)
SEP , 1981										
08...	.220	.750	<5	60	80	1100	280	470	14	23
08...	.250	.590	<5	160	80	430	100	320	33	2.8
08...	2.70	7.10	<5	240	80	370	90	280	39	13
08...	.900	1.90	<5	310	80	280	70	220	37	8.2
08...	.250	.850	5	170	60	740	210	370	59	3.7
08...	.230	.600	<5	190	70	520	150	280	52	4.7
08...	.250	.570	<5	110	60	480	140	250	47	5.5
08...	.210	.530	<5	120	60	530	160	250	47	6.9
08...	.210	.480	<5	110	60	380	120	220	42	10
17...	.420	2.30	<5	10	200	1500	70	880	74	14
17...	.150	1.30	<5	10	100	1200	420	660	52	10
17...	.120	.880	<5	<10	90	950	530	620	37	6.6
17...	.100	.310	<5	<10	100	200	90	280	17	2.1
17...	.080	.230	<5	<10	70	140	40	210	17	3.6
17...	--	--	--	--	--	--	--	--	--	--
18...	.080	.270	<5	<10	60	130	60	190	16	2.3
18...	.080	.150	<5	40	30	70	90	120	7.1	2.6
18...	.070	.120	<5	<10	70	<10	110	100	5.8	2.5
18...	.080	.130	<5	<10	50	<10	80	90	4.9	2.3
22...	.270	3.20	<5	<10	170	3100	960	1000	6.1	13
22...	.150	1.00	<5	<10	70	2300	660	620	33	6.1
22...	.180	.440	<5	<10	60	390	120	230	15	1.5
22...	.190	.330	<5	<10	60	170	50	180	17	1.8
22...	.170	.260	<5	<10	80	100	30	150	15	4.3
22...	--	--	--	--	--	--	--	--	--	--
22...	.050	.070	<5	<10	20	60	10	50	4.1	11
23...	.050	.060	<5	<10	<10	40	10	50	3.5	11
27...	1.30	4.60	10	30	150	4500	1100	1200	164	18
27...	.340	.750	<5	<10	130	780	190	440	89	4.6
27...	.250	.470	<5	<10	140	300	80	280	49	4.5
27...	.150	1.10	<5	<10	80	1700	400	470	14	3.9
27...	.230	.440	<5	60	60	250	80	200	13	2.7
28...	<.010	<.010	<5	<10	20	20	10	50	2.2	11
28...	.120	.170	<5	<10	10	40	10	50	2.9	9.6

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 mi² (8.29 km²).

PERIOD OF RECORD.--December 1980 to September 1981.

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
DEC , 1980										
02-02	--	1320	1420	--	--	--	--	--	--	10.6
18...	1015	--	--	1.20	1.0	445	8.2	5.5	--	--
18-18	--	1050	1230	1.20	1.0	--	--	--	2.8	--
31...	1045	--	--	1.20	1.0	327	6.0	2.4	--	13.5
31-31	--	1020	1140	1.20	1.0	--	--	--	3.4	--
JAN , 1981										
13...	1040	--	--	1.20	1.0	473	6.7	.2	--	14.0
13-13	--	1040	1230	1.20	1.0	--	--	--	1.8	--
28...	1007	--	--	1.20	1.0	279	7.1	3.1	--	14.5
28-28	--	1000	1110	1.20	1.0	--	--	--	2.1	--
FEB										
08...	1131	--	--	1.27	1.6	--	--	--	13	--
08...	1206	--	--	1.28	1.7	--	--	--	17	--
08...	1246	--	--	1.51	7.0	--	--	--	25	--
08...	1332	--	--	1.68	16	--	--	--	66	--
08...	1412	--	--	1.76	20	--	--	--	73	--
08...	1432	--	--	1.88	28	--	--	--	86	--
08...	1452	--	--	1.90	30	--	--	--	260	--
08...	1532	--	--	1.81	23	--	--	--	270	--
08...	1612	--	--	1.74	19	--	--	--	210	--
08...	1652	--	--	1.63	12	--	--	--	220	--
08...	1732	--	--	1.52	7.0	--	--	--	140	--
10...	1047	--	--	1.20	1.0	299	6.8	2.1	--	13.1
10-10	--	1010	1110	1.20	1.0	--	--	--	18	--
27...	1530	--	--	1.20	1.0	385	6.9	10.3	--	11.8
27-27	--	1350	1520	1.20	1.0	--	--	--	8.8	--
MAR										
04...	2328	--	--	1.24	1.2	--	--	--	12	--
05...	0004	--	--	1.25	1.3	--	--	--	20	--
05...	0034	--	--	1.33	2.3	--	--	--	18	--
05...	0811	--	--	1.80	22	--	--	--	180	--
05...	1249	--	--	1.61	11	--	--	--	42	--
05...	1349	--	--	1.68	15	--	--	--	42	--
10...	1020	--	--	1.24	1.2	393	7.6	8.5	--	--
10-10	--	1000	1100	1.24	1.2	--	--	--	54	--
24...	1008	--	--	1.20	1.0	359	8.7	10.5	--	13.4
24-24	--	959	1110	1.21	1.1	--	--	--	2.2	--
APR										
05...	1733	--	--	1.22	1.1	--	--	--	3.6	--
05...	1834	--	--	1.71	16	--	--	--	120	--
05...	1919	--	--	1.59	10	--	--	--	120	--
05...	2005	--	--	1.72	18	--	--	--	130	--
05...	2035	--	--	1.75	19	--	--	--	160	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
APR . 1981										
05...	2133	--	--	1.59	10	--	--	--	100	--
05...	2336	--	--	1.44	4.8	--	--	--	28	--
06...	0136	--	--	1.34	2.5	--	--	--	14	--
06...	0336	--	--	1.32	2.2	--	--	--	14	--
07...	1013	--	--	1.22	1.1	338	8.6	12.5	--	12.8
07-07	--	1000	1100	1.22	1.1	--	--	--	2.7	--
21...	1108	--	--	1.22	1.1	230	8.5	14.0	--	13.2
21-21	--	1000	1110	1.22	1.1	--	--	--	1.8	--
MAY										
01...	1410	--	--	1.49	6.3	--	--	--	39	--
01...	1557	--	--	2.05	43	--	--	--	630	--
01...	1727	--	--	1.83	24	--	--	--	230	--
01...	1930	--	--	2.13	50	--	--	--	170	--
01...	2149	--	--	2.18	59	--	--	--	130	--
02...	0019	--	--	2.06	44	--	--	--	54	--
02...	0219	--	--	1.61	11	--	--	--	27	--
02...	0449	--	--	1.48	6.0	--	--	--	13	--
02...	0711	--	--	1.46	5.3	--	--	--	7.3	--
02...	0851	--	--	1.36	2.9	--	--	--	7.4	--
02...	1155	--	--	1.35	2.6	--	--	--	4.5	--
05...	1043	--	--	1.22	1.1	380	7.3	16.3	--	9.8
05-05	--	1040	1110	1.29	1.8	--	--	--	4.3	--
15...	1327	--	--	1.18	.88	--	--	--	3.0	--
15...	1427	--	--	1.19	.94	--	--	--	3.4	--
15...	1501	--	--	1.54	8.3	--	--	--	53	--
15...	1540	--	--	2.01	40	--	--	--	160	--
15...	1740	--	--	1.54	8.3	--	--	--	120	--
15...	1909	--	--	1.52	7.4	--	--	--	44	--
15...	2000	--	--	2.61	86	--	--	--	570	--
16...	0009	--	--	1.47	5.6	--	--	--	54	--
16...	0257	--	--	1.37	3.2	--	--	--	20	--
16...	0512	--	--	1.32	2.2	--	--	--	14	--
22...	1011	--	--	1.24	1.3	379	7.0	15.0	--	9.6
22-22	--	1000	1100	1.26	1.4	--	--	--	1.5	--
JUN										
10...	0316	--	--	1.27	1.6	--	--	--	4.6	--
10...	0416	--	--	1.34	15	--	--	--	4.0	--
10...	0514	--	--	1.69	16	--	--	--	23	--
10...	0544	--	--	1.91	30	--	--	--	40	--
10...	0647	--	--	2.17	57	--	--	--	42	--
10...	0747	--	--	1.98	37	--	--	--	32	--
10...	0917	--	--	1.58	9.9	--	--	--	7.8	--
10...	1047	--	--	1.43	4.6	--	--	--	6.2	--
10...	1247	--	--	1.32	2.2	--	--	--	2.8	--
10...	1347	--	--	1.29	1.9	--	--	--	3.8	--
16...	1005	--	--	1.14	.64	399	6.9	23.2	--	7.8
16-16	--	1000	1100	1.14	2.7	--	--	--	3.2	--
30...	1040	--	--	.84	.51	451	6.9	23.0	--	8.1
30-30	--	1010	1050	.84	.51	--	--	22.5	1.8	--
30-30	1155	1050	1155	.84	.51	--	--	--	1.8	--
JUL										
14...	1021	--	--	.98	1.2	355	7.2	23.0	--	9.2
14-14	--	1000	1100	.98	1.2	--	--	--	2.8	--
28...	1112	--	--	.96	1.1	375	7.6	21.0	--	8.5
28-28	--	1050	1110	.96	1.1	--	--	--	2.6	--
AUG										
11...	1035	--	--	.96	1.1	359	7.0	22.0	--	8.7
11-11	--	1000	1110	.96	1.1	--	--	--	2.6	--
15...	2108	--	--	1.02	1.5	--	--	--	2.2	--
15...	2129	--	--	1.34	6.7	--	--	--	7.8	--
15...	2159	--	--	1.96	54	--	--	--	14	--
15...	2229	--	--	1.74	28	--	--	--	52	--
15...	2329	--	--	1.49	11	--	--	--	82	--
16...	0029	--	--	1.31	5.9	--	--	--	34	--
16...	0129	--	--	1.20	3.6	--	--	--	14	--
16...	0229	--	--	1.13	1.1	--	--	--	4.6	--
16...	0329	--	--	1.09	2.1	--	--	--	3.4	--
16...	0429	--	--	1.06	1.8	--	--	--	2.2	--
16...	0529	--	--	1.05	1.7	--	--	--	2.4	--
25...	1035	--	--	.96	1.1	285	7.6	19.5	--	9.7
25-25	--	1000	1030	1.02	1.5	--	--	--	2.4	--
30...	0942	--	--	1.13	2.6	--	--	--	22	--
30...	1042	--	--	1.24	3.3	--	--	--	8.0	--
30...	1112	--	--	1.23	4.1	--	--	--	60	--
30...	1142	--	--	1.34	6.7	--	--	--	48	--
30...	1212	--	--	1.38	7.8	--	--	--	140	--
30...	1312	--	--	1.27	4.9	--	--	--	720	--
30...	1412	--	--	1.19	3.5	--	--	--	400	--
30...	1905	--	--	1.10	2.2	--	--	--	76	--
31...	0633	--	--	1.11	2.4	--	--	--	16	--
31...	0703	--	--	1.08	2.0	--	--	--	46	--
31...	0733	--	--	1.67	22	--	--	--	840	--

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WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
AUG . 1981										
31...	0803	--	--	1.94	51	--	--	--	1800	--
31...	0833	--	--	1.74	28	--	--	--	1600	--
31...	0903	--	--	1.77	31	--	--	--	940	--
31...	0933	--	--	1.60	18	--	--	--	940	--
31...	1034	--	--	1.41	8.8	--	--	--	200	--
31...	1204	--	--	1.28	5.2	--	--	--	80	--
31...	1404	--	--	1.18	3.3	--	--	--	38	--
31...	1416	--	--	1.11	2.4	--	--	--	--	--
31...	1616	--	--	1.13	2.6	--	--	--	--	--
31...	1816	--	--	1.14	2.7	--	--	--	--	--
SEP										
08...	1412	--	--	.97	1.1	--	--	--	82	--
08...	1428	--	--	1.73	28	--	--	--	92	--
08...	1450	--	--	2.21	103	--	--	--	180	--
08...	1505	--	--	1.77	31	--	--	--	600	--
08...	1520	--	--	1.56	15	--	--	--	1600	--
08...	1540	--	--	1.73	27	--	--	--	620	--
08...	1600	--	--	1.61	18	--	--	--	300	--
08...	1631	--	--	1.48	11	--	--	--	220	--
08...	1731	--	--	1.32	6.1	--	--	--	120	--
08...	1831	--	--	1.25	4.5	--	--	--	66	--
08...	1931	--	--	1.19	3.5	--	--	--	26	--
08...	2112	--	--	1.13	2.6	--	--	--	14	--
08...	2331	--	--	1.05	1.7	--	--	--	8.2	--
10...	1040	--	--	.98	1.2	371	7.2	17.0	--	8.9
10-10	--	1000	1100	1.08	2.0	--	--	--	4.8	--
15...	1707	--	--	1.52	13	--	--	--	160	--
15...	1709	--	--	1.87	42	--	--	--	160	--
15...	1710	--	--	1.77	31	--	--	--	120	--
15...	1721	--	--	1.28	5.2	--	--	--	140	--
15...	1730	--	--	1.52	13	--	--	--	220	--
15...	1818	--	--	1.67	22	--	--	--	580	--
15...	1918	--	--	2.03	65	--	--	--	440	--
15...	2018	--	--	1.69	24	--	--	--	460	--
15...	2118	--	--	1.66	21	--	--	--	98	--
15...	2249	--	--	1.60	18	--	--	--	56	--
15...	2349	--	--	1.52	13	--	--	--	38	--
16...	0119	--	--	1.76	30	--	--	--	36	--
16...	0219	--	--	1.61	18	--	--	--	32	--
16...	0319	--	--	2.24	111	--	--	--	280	--
16...	0418	--	--	1.88	43	--	--	--	260	--
16...	0503	--	--	1.57	16	--	--	--	120	--
16...	0703	--	--	1.41	8.8	--	--	--	28	--
16...	0903	--	--	1.30	5.6	--	--	--	22	--
16...	1103	--	--	1.17	3.1	--	--	--	14	--
16...	1303	--	--	1.08	2.0	--	--	--	6.8	--
22...	1013	--	--	.97	1.1	332	7.3	17.5	--	9.6
22...	1915	--	--	1.15	2.9	--	--	--	26	--
22...	1945	--	--	1.76	30	--	--	--	120	--
22...	2015	--	--	1.48	11	--	--	--	420	--
22...	2045	--	--	1.55	15	--	--	--	180	--
22...	2115	--	--	1.46	11	--	--	--	120	--
22...	2215	--	--	1.28	5.2	--	--	--	46	--
22...	2315	--	--	1.18	3.3	--	--	--	24	--
22-22	--	1000	1100	1.06	1.7	--	--	--	5.3	--
23...	0015	--	--	1.21	3.8	--	--	--	8.4	--
23...	0115	--	--	1.16	3.0	--	--	--	7.8	--
23...	0215	--	--	1.14	2.7	--	--	--	6.2	--
27...	1914	--	--	1.26	4.7	--	--	--	5.2	--
27...	1944	--	--	1.39	8.1	--	--	--	94	--
27...	2014	--	--	1.49	12	--	--	--	120	--
27...	2144	--	--	1.33	6.4	--	--	--	120	--
27...	2214	--	--	1.34	6.6	--	--	--	72	--
27...	2244	--	--	1.19	3.5	--	--	--	42	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, (COLS. PER 100 ML)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC , 1980									
18...	1015	--	--	--	--	43	11	18	--
18-18	--	1050	1230	18	4.0	--	--	--	62
31...	1045	--	--	--	--	790	78	9	--
31-31	--	1020	1140	10	--	--	--	--	--
JAN , 1981									
13...	1040	--	--	--	--	2400	2400	30	--
13-13	--	1040	1230	4	--	--	--	--	--
28...	1007	--	--	--	--	540	17	1	--
28-28	--	1000	1110	9	--	--	--	--	--
FEB									
08...	1131	--	--	38	--	--	--	--	--
08...	1206	--	--	46	--	--	--	--	--
08...	1246	--	--	34	--	--	--	--	--
08...	1332	--	--	78	--	--	--	--	--
08...	1412	--	--	85	--	--	--	--	--
08...	1432	--	--	74	--	--	--	--	--
08...	1452	--	--	67	--	--	--	--	--
08...	1532	--	--	62	--	--	--	--	--
08...	1612	--	--	49	--	--	--	--	--
08...	1652	--	--	53	--	--	--	--	--
08...	1732	--	--	45	--	--	--	--	--
10...	1047	--	--	--	--	49	5	5	--
10-10	--	1010	1110	11	--	--	--	--	--
27...	1530	--	--	--	--	46000	23000	5800	--
27-27	--	1350	1520	19	--	--	--	--	--
MAR									
04...	2328	--	--	31	--	--	--	--	--
05...	0004	--	--	27	--	--	--	--	--
05...	0034	--	--	20	--	--	--	--	--
05...	0811	--	--	66	--	--	--	--	--
05...	1249	--	--	19	--	--	--	--	--
05...	1349	--	--	68	--	--	--	--	--
10...	1020	--	--	--	--	490	45	45	--
10-10	--	1000	1100	21	--	--	--	--	--
24...	1008	--	--	--	--	17000	780	160	--
24-24	--	959	1110	16	--	--	--	--	--
APR									
05...	1733	--	--	40	--	--	--	--	--
05...	1834	--	--	151	--	--	--	--	--
05...	1919	--	--	71	--	--	--	--	--
05...	2005	--	--	60	--	--	--	--	--
05...	2035	--	--	64	--	--	--	--	--
05...	2133	--	--	47	--	--	--	--	--
05...	2336	--	--	40	--	--	--	--	--
06...	0136	--	--	38	--	--	--	--	--
06...	0336	--	--	37	--	--	--	--	--
07...	1013	--	--	--	--	1100	310	180	--
07-07	--	1000	1100	<5	3.0	--	--	--	65
21...	1108	--	--	--	--	2400	540	35	--
21-21	--	1000	1110	41	--	--	--	--	--
MAY									
01...	1410	--	--	70	--	--	--	--	--
01...	1557	--	--	77	--	--	--	--	--
01...	1727	--	--	50	--	--	--	--	--
01...	1930	--	--	45	--	--	--	--	--
01...	2149	--	--	42	--	--	--	--	--
02...	0019	--	--	19	--	--	--	--	--
02...	0219	--	--	35	--	--	--	--	--
02...	0449	--	--	7	--	--	--	--	--
02...	0711	--	--	14	--	--	--	--	--
02...	0851	--	--	7	--	--	--	--	--
02...	1155	--	--	2	--	--	--	--	--
05...	1043	--	--	--	--	130	49	5	--
05-05	--	1040	1110	<1	--	--	--	--	--
15...	1327	--	--	5	--	--	--	--	--
15...	1427	--	--	12	--	--	--	--	--
15...	1501	--	--	110	--	--	--	--	--
15...	1540	--	--	160	--	--	--	--	--
15...	1740	--	--	59	--	--	--	--	--
15...	1909	--	--	23	--	--	--	--	--
15...	2000	--	--	180	--	--	--	--	--
16...	0009	--	--	5	--	--	--	--	--
16...	0257	--	--	6	--	--	--	--	--
16...	0512	--	--	1	--	--	--	--	--
22...	1011	--	--	--	--	5400	2400	140	--
22-22	--	1000	1100	16	--	--	--	--	--
JUN									
10...	0316	--	--	42	--	--	--	--	--
10...	0416	--	--	78	--	--	--	--	--
10...	0514	--	--	100	--	--	--	--	--
10...	0544	--	--	180	--	--	--	--	--
10...	0647	--	--	83	--	--	--	--	--
10...	0747	--	--	29	--	--	--	--	--
10...	0917	--	--	22	--	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCEI FECAL, (COLS. PER 100 ML)	ALKA- LITY FIELD (MG/L AS CAC03)
JUN , 1981									
10...	1047	--	--	78	--	--	--	--	--
10...	1347	--	--	6	--	--	--	--	--
16...	1005	--	--	--	--	33000	1700	1900	--
16-16	--	1000	1100	13	--	--	--	--	--
30...	1040	--	--	--	--	4900	1700	640	--
30-30	--	1010	1050	3	2.0	--	--	--	76
30-30	1155	1050	1155	3	2.0	--	--	--	79
JUL									
14...	1021	--	--	--	--	7900	1700	650	--
14-14	--	1000	1100	5	--	--	--	--	--
28...	1112	--	--	--	--	280	79	79	--
28-28	--	1050	1110	<5	--	--	--	--	--
AUG									
11...	1035	--	--	--	--	1600	350	120	--
11-11	--	1000	1110	<5	--	--	--	--	--
15...	2108	--	--	44	--	--	--	--	--
15...	2129	--	--	58	--	--	--	--	--
15...	2159	--	--	87	--	--	--	--	--
15...	2229	--	--	51	--	--	--	--	--
15...	2329	--	--	51	--	--	--	--	--
16...	0029	--	--	51	--	--	--	--	--
16...	0129	--	--	65	--	--	--	--	--
16...	0229	--	--	58	--	--	--	--	--
16...	0329	--	--	44	--	--	--	--	--
16...	0429	--	--	51	--	--	--	--	--
16...	0529	--	--	44	--	--	--	--	--
25...	1035	--	--	--	--	17000	1300	1800	--
25-25	--	1000	1030	12	--	--	--	--	--
30...	0942	--	--	20	--	--	--	--	--
30...	1042	--	--	5	--	--	--	--	--
30...	1112	--	--	320	--	--	--	--	--
30...	1142	--	--	160	--	--	--	--	--
30...	1212	--	--	110	--	--	--	--	--
30...	1312	--	--	170	--	--	--	--	--
30...	1412	--	--	91	--	--	--	--	--
30...	1905	--	--	35	--	--	--	--	--
31...	0633	--	--	19	--	--	--	--	--
31...	0703	--	--	62	--	--	--	--	--
31...	0733	--	--	270	--	--	--	--	--
31...	0803	--	--	390	--	--	--	--	--
31...	0833	--	--	240	--	--	--	--	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	STREP- TOCOCCI FECAL, (COLS. PER 100 ML)	ALKA- LITY FIELD (MG/L AS CAC03)
AUG , 1981								
31...	0903	--	--	150	--	--	--	--
31...	0933	--	--	170	--	--	--	--
31...	1034	--	--	91	--	--	--	--
31...	1204	--	--	23	--	--	--	--
31...	1404	--	--	26	--	--	--	--
SEP								
08...	1412	--	--	56	--	--	--	--
08...	1428	--	--	160	--	--	--	--
08...	1450	--	--	850	--	--	--	--
08...	1505	--	--	700	--	--	--	--
08...	1520	--	--	630	--	--	--	--
08...	1540	--	--	230	--	--	--	--
08...	1600	--	--	200	--	--	--	--
08...	1631	--	--	130	--	--	--	--
08...	1731	--	--	110	--	--	--	--
08...	1831	--	--	92	--	--	--	--
08...	2112	--	--	110	--	--	--	--
08...	2331	--	--	92	--	--	--	--
10...	1040	--	--	--	43000	22000	12000	--
10-10	--	1000	1100	7	--	--	--	--
15...	1707	--	--	74	--	--	--	--
15...	1709	--	--	370	--	--	--	--
15...	1710	--	--	180	--	--	--	--
15...	1721	--	--	110	--	--	--	--
15...	1730	--	--	81	--	--	--	--
15...	1818	--	--	130	--	--	--	--
15...	1918	--	--	220	--	--	--	--
15...	2018	--	--	220	--	--	--	--
15...	2118	--	--	200	--	--	--	--
15...	2249	--	--	180	--	--	--	--
15...	2349	--	--	150	--	--	--	--
16...	0119	--	--	29	--	--	--	--
16...	0219	--	--	44	--	--	--	--
16...	0319	--	--	44	--	--	--	--
16...	0418	--	--	88	--	--	--	--
16...	0503	--	--	88	--	--	--	--
16...	0703	--	--	22	--	--	--	--
16...	0903	--	--	120	--	--	--	--
16...	1103	--	--	22	--	--	--	--
16...	1303	--	--	22	--	--	--	--
SEP , 1981								
22...	1013	--	--	--	7900	490	440	--
22...	1915	--	--	15	--	--	--	--
22...	1945	--	--	74	--	--	--	--
22...	2015	--	--	130	--	--	--	--
22...	2045	--	--	170	--	--	--	--
22...	2115	--	--	46	--	--	--	--
22...	2215	--	--	24	--	--	--	--
22...	2315	--	--	15	--	--	--	--
22-22	--	1000	1100	10	2.0	--	--	68
23...	0015	--	--	15	--	--	--	--
23...	0115	--	--	19	--	--	--	--
23...	0215	--	--	22	--	--	--	--
27...	1914	--	--	30	--	--	--	--
27...	1944	--	--	53	--	--	--	--
27...	2014	--	--	76	--	--	--	--
27...	2144	--	--	76	--	--	--	--
27...	2214	--	--	68	--	--	--	--
27...	2244	--	--	60	--	--	--	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
DEC , 1980									
18-18	--	1050	1230	2	.900	.900	1.2	.00	.00
31-31	--	1020	1140	3	.300	--	--	.10	--
JAN , 1981									
13-13	--	1040	1230	1	.200	--	--	.20	--
28-28	--	1000	1110	2	.500	--	--	.20	--
FEB									
08...	1131	--	--	6	.200	--	--	.70	--
08...	1206	--	--	2	.200	--	--	1.0	--
08...	1246	--	--	10	<.100	--	--	--	--
08...	1332	--	--	48	<.100	--	--	--	--
08...	1412	--	--	64	.100	--	--	1.3	--
08...	1432	--	--	92	.300	--	--	1.7	--
08...	1452	--	--	344	<.100	--	--	--	--
08...	1532	--	--	374	.100	--	--	1.5	--
08...	1612	--	--	236	.300	--	--	1.7	--
08...	1652	--	--	212	.300	--	--	2.2	--
08...	1732	--	--	122	<.100	--	--	--	--
10-10	--	1010	1110	11	.300	--	--	.80	--
27-27	--	1350	1520	48	.300	--	--	.80	--
MAR									
04...	2328	--	--	13	.600	--	--	.80	--
05...	0004	--	--	11	<.100	--	--	--	--
05...	0034	--	--	21	.300	--	--	1.3	--
05...	0811	--	--	285	.100	--	--	2.9	--
05...	1249	--	--	47	<.100	--	--	--	--
05...	1349	--	--	67	.100	--	--	.80	--
10-10	--	1000	1100	10	.200	--	--	.10	--
24-24	--	959	1110	5	.100	--	--	.80	--
APR									
05...	1733	--	--	18	1.10	--	--	1.1	--
05...	1834	--	--	242	.100	--	--	2.2	--
05...	1919	--	--	154	<.100	--	--	--	--
05...	2005	--	--	192	<.100	--	--	--	--
05...	2035	--	--	184	<.100	--	--	--	--
05...	2133	--	--	122	<.100	--	--	--	--
05...	2336	--	--	30	<.100	--	--	--	--
06...	0136	--	--	22	<.100	--	--	--	--
06...	0336	--	--	16	<.100	--	--	--	--
07-07	--	1000	1100	3	<1.00	<.100	--	--	--
21-21	--	1000	1110	2	.200	--	--	.20	--
MAY									
01...	1410	--	--	61	.600	--	--	1.4	--
01...	1557	--	--	740	.300	--	--	3.9	--
01...	1727	--	--	224	.300	--	--	2.2	--
01...	1930	--	--	231	.600	--	--	1.7	--
01...	2149	--	--	184	<.100	--	--	--	--
02...	0019	--	--	70	.300	--	--	1.3	--
02...	0219	--	--	35	.300	--	--	.70	--
02...	0449	--	--	9	<.100	--	--	--	--
02...	0711	--	--	6	.300	--	--	.60	--
02...	0851	--	--	3	.300	--	--	.60	--
02...	1155	--	--	3	<.100	--	--	--	--
05-05	--	1040	1110	8	.200	--	--	.20	--
15...	1327	--	--	1	<.100	--	--	--	--
15...	1427	--	--	2	<.010	--	--	--	--
15...	1501	--	--	170	.700	--	--	2.1	--
15...	1540	--	--	530	.400	--	--	4.2	--
15...	1740	--	--	320	.300	--	--	4.2	--
15...	1909	--	--	66	.100	--	--	1.7	--
15...	2000	--	--	1400	.100	--	--	4.1	--
16...	0009	--	--	51	.100	--	--	1.0	--
16...	0257	--	--	5	<.100	--	--	--	--
16...	0512	--	--	4	<.100	--	--	--	--
22-22	--	1000	1100	2	<.100	--	--	--	--
JUN									
10...	0316	--	--	11	.300	--	--	.80	--
10...	0416	--	--	11	.300	--	--	.60	--
10...	0514	--	--	57	.100	--	--	1.5	--
10...	0544	--	--	91	.100	--	--	1.7	--
10...	0647	--	--	91	<.100	--	--	--	--
10...	0747	--	--	51	<.100	--	--	--	--
10...	0917	--	--	28	.300	--	--	.80	--
10...	1047	--	--	9	.300	--	--	1.1	--
10...	1247	--	--	6	<.100	--	--	--	--
10...	1347	--	--	4	.600	--	--	.00	--
16-16	--	1000	1100	14	1.00	--	--	3.0	--
30-30	--	1010	1050	1	.200	.200	.26	.20	.10
30-30	1155	1050	1155	<1	<.100	.100	.13	--	.10
JUL									
14-14	--	1000	1100	2	.100	--	--	.20	--
28-28	--	1050	1110	<1	<.100	--	--	--	--
AUG									
11-11	--	1000	1110	16	<.100	--	--	--	--
15...	2108	--	--	2	.400	--	--	4.6	--
15...	2129	--	--	42	2.10	--	--	8.0	--
15...	2159	--	--	40	2.50	--	--	6.2	--

PATAPSCO RIVER BASIN

01589465 STONY RUN NEAR MOUTH AT BALTIMORE, MD--Continued
 WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
AUG , 1981						
15...	2229	--	--	112	1.00	8.7
15...	2329	--	--	132	.600	6.2
16...	0029	--	--	58	1.00	2.2
16...	0129	--	--	28	.800	3.4
16...	0229	--	--	28	.700	1.0
16...	0329	--	--	4	1.00	2.1
16...	0429	--	--	16	1.00	3.9
16...	0529	--	--	29	2.40	5.9
25-25	--	1000	1030	2	.600	3.6
30...	0942	--	--	16	3.50	1.8
30...	1042	--	--	6	2.10	5.9
30...	1112	--	--	50	2.00	8.2
30...	1142	--	--	44	2.00	8.2
30...	1212	--	--	146	1.00	11
30...	1312	--	--	650	2.20	10
30...	1412	--	--	354	.700	18
30...	1905	--	--	62	.100	17
31...	0633	--	--	4	2.10	3.1
31...	0703	--	--	36	2.40	7.8
31...	0733	--	--	1080	2.90	12
31...	0803	--	--	652	2.00	22
31...	0833	--	--	1730	1.80	25
31...	0903	--	--	1160	2.80	32
31...	0933	--	--	1200	1.80	25
31...	1034	--	--	272	8.00	16
31...	1204	--	--	48	.600	6.0
31...	1404	--	--	24	.300	1.7
31...	1416	--	--	179	--	--
31...	1616	--	--	137	--	--
31...	1816	--	--	288	--	--
SEP						
08...	1412	--	--	78	.300	8.7
08...	1428	--	--	240	4.30	14
08...	1450	--	--	7866	2.70	12
08...	1505	--	--	4816	1.80	8.0
08...	1520	--	--	2096	1.70	4.3
08...	1540	--	--	984	1.40	4.2
08...	1600	--	--	596	1.30	4.6
08...	1631	--	--	384	2.20	15
08...	1731	--	--	150	.700	8.1

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	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)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
SEP , 1981									
08...	1831	--	--	82	.400	--	--	11	--
08...	1931	--	--	44	.800	--	--	7.0	--
08...	2112	--	--	18	.600	--	--	4.1	--
08...	2331	--	--	4	2.00	--	--	4.9	--
10-10	--	1000	1100	10	2.00	--	--	4.9	--
15...	1707	--	--	462	1.50	--	--	9.8	--
15...	1709	--	--	702	3.40	--	--	9.9	--
15...	1710	--	--	452	.300	--	--	13	--
15...	1721	--	--	338	2.20	--	--	12	--
15...	1730	--	--	448	.700	--	--	7.8	--
15...	1818	--	--	876	1.00	--	--	6.6	--
15...	1918	--	--	980	1.00	--	--	10	--
15...	2018	--	--	798	1.50	--	--	11	--
15...	2118	--	--	190	1.30	--	--	9.2	--
15...	2249	--	--	80	1.00	--	--	7.0	--
15...	2349	--	--	6	.400	--	--	400	--
16...	0119	--	--	12	1.40	--	--	9.8	--
16...	0219	--	--	18	1.00	--	--	8.5	--
16...	0319	--	--	788	1.50	--	--	21	--
16...	0418	--	--	558	1.40	--	--	8.4	--
16...	0503	--	--	188	.800	--	--	7.8	--
16...	0703	--	--	30	1.70	--	--	4.2	--
16...	0903	--	--	30	<.100	--	--	--	--
16...	1103	--	--	32	.100	--	--	8.0	--
16...	1303	--	--	4	.400	--	--	2.4	--
22...	1915	--	--	70	.100	--	--	1.4	--
22...	1945	--	--	400	.700	--	--	2.9	--
22...	2015	--	--	840	.800	--	--	6.0	--
22...	2045	--	--	490	.600	--	--	6.0	--
22...	2115	--	--	230	.300	--	--	3.8	--
22...	2215	--	--	66	.300	--	--	.80	--
22...	2315	--	--	32	.100	--	--	3.2	--
22-22	--	1000	1100	19	1.20	1.10	1.4	5.8	6.6
23...	0015	--	--	20	.100	--	--	1.5	--
23...	0115	--	--	6	.700	--	--	.60	--
23...	0215	--	--	8	1.30	--	--	.40	--
27...	1914	--	--	42	.400	--	--	1.4	--
27...	1944	--	--	226	.700	--	--	4.1	--
27...	2014	--	--	284	1.00	--	--	3.1	--

DATE	TIME	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)
SEP , 1981				
27...	2144	230	.800	3.2
27...	2214	154	1.40	2.8
27...	2244	94	1.40	3.6

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
DEC . 1980										
18-18	--	1050	1230	.90	.90	6.0	27	.280	.320	.290
31-31	--	1020	1140	.40	--	6.2	27	.100	.100	--
JAN . 1981										
13-13	--	1040	1230	.40	--	6.2	27	.065	.090	--
28-28	--	1000	1110	.70	--	3.6	16	.600	.070	--
FEB										
08...	1131	--	--	.90	--	6.0	27	.120	.260	--
08...	1206	--	--	1.20	--	5.1	23	.180	.420	--
08...	1246	--	--	.90	--	4.8	21	.130	.290	--
08...	1332	--	--	1.00	--	5.1	23	.080	.350	--
08...	1412	--	--	1.40	--	5.0	22	.110	.360	--
08...	1432	--	--	2.00	--	5.1	23	.120	.510	--
08...	1452	--	--	2.00	--	4.7	21	.200	.770	--
08...	1532	--	--	1.60	--	4.3	19	.270	.690	--
08...	1612	--	--	2.00	--	5.1	23	.210	.540	--
08...	1652	--	--	2.50	--	5.6	25	.230	.560	--
08...	1732	--	--	1.30	--	4.8	21	.160	.380	--
10-10	--	1010	1110	1.10	--	3.6	16	.040	.060	--
27-27	--	1350	1520	1.10	--	10	45	<.010	.180	--
MAR										
04...	2328	--	--	1.40	--	4.4	19	.050	.140	--
05...	0004	--	--	.80	--	1.9	8.4	.050	--	--
05...	0034	--	--	1.60	--	3.3	15	.050	.190	--
05...	0811	--	--	3.00	--	3.9	17	.110	.750	--
05...	1021	--	--	--	--	--	--	--	.280	--
05...	1249	--	--	1.40	--	2.2	9.7	.060	--	--
05...	1349	--	--	.90	--	1.9	8.4	.040	.270	--
10-10	--	1000	1100	.30	--	2.9	13	<.010	.060	--
24-24	--	959	1110	.90	--	3.7	16	<.010	.040	--
APR										
05...	1733	--	--	2.20	--	15	65	<.010	.090	--
05...	1834	--	--	2.30	--	12	52	.100	.750	--
05...	1919	--	--	1.70	--	14	61	.080	.500	--
05...	2005	--	--	1.70	--	11	49	.060	.490	--
05...	2035	--	--	2.80	--	13	58	.050	.730	--
05...	2133	--	--	1.30	--	9.6	42	.060	.330	--
05...	2336	--	--	1.10	--	10	46	.060	.190	--
06...	0136	--	--	.80	--	9.7	43	.040	.110	--
06...	0336	--	--	1.30	--	11	49	.030	.090	--
07-07	--	1000	1100	.30	.30	6.0	27	<.010	<.010	<.010
21-21	--	1000	1110	.40	--	2.9	13	.010	.050	--
MAY										
01...	1410	--	--	2.00	--	5.8	26	<.010	.380	--
01...	1557	--	--	4.20	--	7.0	31	.040	1.18	--
01...	1727	--	--	2.50	--	5.3	23	<.010	.560	--
01...	1930	--	--	2.30	--	5.4	24	<.010	.500	--
01...	2149	--	--	2.00	--	4.1	18	<.010	.390	--
02...	0019	--	--	1.60	--	4.3	19	<.010	.240	--
02...	0219	--	--	1.00	--	3.6	16	<.010	.180	--
02...	0449	--	--	.40	--	3.9	17	<.010	.110	--
02...	0711	--	--	.90	--	4.8	21	<.010	.080	--
02...	0851	--	--	.90	--	5.0	22	<.010	.070	--
02...	1155	--	--	.40	--	4.2	19	<.010	.090	--
05-05	--	1040	1110	.40	--	3.1	14	<.010	.050	--
15...	1327	--	--	.40	--	8.6	38	.050	.080	--
15...	1427	--	--	.60	--	9.9	44	.030	.090	--
15...	1501	--	--	2.80	--	10	46	.050	.550	--
15...	1540	--	--	4.60	--	13	56	.050	1.10	--
15...	1740	--	--	4.50	--	12	51	.080	1.10	--
15...	1909	--	--	1.80	--	9.0	40	.080	.480	--
15...	2000	--	--	4.20	--	11	50	.150	2.30	--
16...	0009	--	--	1.10	--	8.3	37	.100	.270	--
16...	0257	--	--	.60	--	11	47	.070	.140	--
16...	0512	--	--	.70	--	9.3	41	.060	.100	--
22-22	--	1000	1100	3.60	--	8.5	38	.090	.140	--
JUN										
10...	0316	--	--	1.10	--	14	62	<.010	.160	--
10...	0416	--	--	.90	--	14	62	.060	.180	--
10...	0514	--	--	1.60	--	9.3	41	.060	.320	--
10...	0544	--	--	1.80	--	6.9	31	.070	.400	--
10...	0647	--	--	2.50	--	7.2	32	.110	.520	--
10...	0747	--	--	1.10	--	8.1	36	.090	.450	--
10...	0917	--	--	1.10	--	5.1	23	.090	.210	--
10...	1047	--	--	1.40	--	6.1	27	.060	.130	--
10...	1247	--	--	.60	--	6.6	29	.050	.110	--
10...	1347	--	--	.60	--	5.4	24	.050	.090	--
16-16	--	1000	1100	4.00	--	9.5	42	.060	.090	--
30-30	--	1010	1050	.40	.30	2.5	11	.030	.060	.040
30-30	1155	1050	1155	.30	.20	2.7	12	.030	.060	.050
JUL										
14-14	--	1000	1100	.30	--	2.4	11	.070	.100	--
28-28	--	1050	1110	1.30	--	4.5	20	.220	.235	--
AUG										
11-11	--	1000	1110	.80	--	3.6	16	8.00	.100	--
15...	2108	--	--	5.00	--	75	332	.070	.080	--
15...	2129	--	--	10.1	--	69	306	.110	.220	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	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, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)
AUG , 1981								
15...	2159	--	--	8.70	49	216	.090	.310
15...	2229	--	--	9.70	56	247	.090	.280
15...	2329	--	--	6.80	57	251	.100	.360
16...	0029	--	--	3.20	49	218	.080	.170
16...	0129	--	--	4.20	67	297	.080	.150
16...	0229	--	--	1.70	43	189	.070	.100
16...	0329	--	--	3.10	44	195	.070	.090
16...	0429	--	--	4.90	49	216	.060	.080
16...	0529	--	--	8.30	67	298	.060	.090
25-25	--	1000	1030	4.20	7.5	33	.080	.070
30...	0942	--	--	5.30	14	61	.030	.130
30...	1042	--	--	8.00	12	55	.050	.090
30...	1112	--	--	10.2	17	75	.090	.680
30...	1142	--	--	10.2	69	306	.150	.390
30...	1212	--	--	11.9	17	77	.080	.420
30...	1312	--	--	12.3	17	77	.090	1.70
30...	1412	--	--	18.3	23	100	.090	.630
30...	1905	--	--	17.0	24	108	.060	.210
31...	0633	--	--	5.20	11	50	.030	.110
31...	0703	--	--	10.2	18	79	.110	.340
31...	0733	--	--	14.4	22	96	.080	1.70
31...	0803	--	--	24.5	31	135	.070	4.10
31...	0833	--	--	26.9	33	146	.110	4.50
31...	0903	--	--	35.0	41	183	.080	2.30
31...	0933	--	--	26.8	49	216	.060	1.90
31...	1034	--	--	23.9	29	129	.070	.460
31...	1204	--	--	6.60	12	53	.070	.210
31...	1404	--	--	2.00	9.2	41	.080	.150
SEP								
08...	1412	--	--	9.00	13	56	.050	.220
08...	1428	--	--	18.7	21	92	.120	.940
08...	1450	--	--	14.3	16	72	.060	7.60
08...	1505	--	--	9.80	12	53	.110	4.50
08...	1520	--	--	6.00	7.9	35	.140	2.40
08...	1540	--	--	5.60	7.6	34	.100	1.70
08...	1600	--	--	5.90	8.1	36	.080	1.00
08...	1631	--	--	17.7	22	96	.060	.920
08...	1731	--	--	8.80	12	53	.070	.520
08...	1831	--	--	11.0	15	66	.090	.330
08...	1931	--	--	7.80	12	53	.100	.300

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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SEP , 1981										
08...	2112	--	--	4.70	--	8.2	36	.090	.170	--
08...	2331	--	--	6.90	--	9.8	43	.040	.090	--
10-10	--	1000	1100	6.90	--	9.3	41	.050	.070	--
15...	1707	--	--	11.3	--	19	85	.050	1.10	--
15...	1709	--	--	13.3	--	23	100	.090	1.70	--
15...	1710	--	--	13.6	--	21	94	.110	1.60	--
15...	1721	--	--	13.9	--	23	100	.090	.730	--
15...	1730	--	--	8.50	--	18	78	.060	.720	--
15...	1818	--	--	7.60	--	14	63	.090	1.40	--
15...	1918	--	--	11.1	--	18	81	.090	1.40	--
15...	2018	--	--	12.1	--	18	79	.100	1.00	--
15...	2118	--	--	10.5	--	16	69	.070	.440	--
15...	2249	--	--	8.00	--	13	58	.070	.240	--
15...	2349	--	--	397	--	410	1810	.090	.220	--
16...	0119	--	--	11.2	--	21	92	.090	.200	--
16...	0219	--	--	9.50	--	19	86	.080	.190	--
16...	0319	--	--	22.8	--	32	143	.080	.890	--
16...	0418	--	--	9.80	--	18	82	.100	.840	--
16...	0503	--	--	8.60	--	17	74	.080	.370	--
16...	0703	--	--	5.90	--	20	88	.060	.140	--
16...	0903	--	--	5.00	--	15	66	.050	.010	--
16...	1103	--	--	8.10	--	25	111	.070	.120	--
16...	1303	--	--	2.80	--	14	61	.060	.110	--
16...	2349	--	--	76.0	7.6	--	--	--	--	--
22...	1915	--	--	1.50	--	6.1	27	.040	.250	--
22...	1945	--	--	3.60	--	7.5	33	.030	.740	--
22...	2015	--	--	6.80	--	10	46	.050	1.20	--
22...	2045	--	--	6.60	--	9.8	43	.060	.760	--
22...	2115	--	--	4.10	--	7.0	31	.050	.520	--
22...	2215	--	--	1.10	--	5.5	24	.000	.220	--
22...	2315	--	--	3.30	--	6.7	30	.060	.200	--
22-22	--	1000	1100	7.00	7.7	9.5	42	.030	.060	.060
23...	0015	--	--	1.60	--	7.2	32	.060	.140	--
23...	0115	--	--	1.30	--	6.2	27	.050	.110	--
23...	0215	--	--	1.70	--	5.8	26	.050	.100	--
27...	1914	--	--	1.80	--	13	57	.050	.190	--
27...	1944	--	--	4.80	--	15	66	.050	.460	--
27...	2014	--	--	4.10	--	11	49	.060	.500	--
27...	2144	--	--	4.00	--	13	59	.080	.510	--

DATE	TIME	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, ORTHO, TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)
SEP , 1981						
27...	2214	4.20	--	--	--	.470
27...	2244	5.00	12	55	.100	.320
28...	2214	--	--	--	.100	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L)
DEC . 1980												
18-18	--	1050	1230	<5	<10	<10	14	<20	<5	3.0	15	--
31-31	--	1020	1140	<5	<10	<10	16	<20	<5	1.8	14	--
JAN , 1981												
13-13	--	1040	1230	<5	50	<10	15	<20	<5	1.0	15	--
28-28	--	1000	1110	<5	<10	10	120	<20	20	1.6	15	--
FEB												
08...	1131	--	--	<10	20	10	530	40	70	9.8	15	--
08...	1206	--	--	<5	10	30	370	70	110	13	13	--
08...	1246	--	--	<5	20	60	610	60	100	6.9	12	--
08...	1332	--	--	<5	30	40	2000	90	140	11	7.9	--
08...	1412	--	--	<5	20	90	1620	80	140	12	6.7	--
08...	1432	--	--	<5	20	90	2200	70	140	12	6.0	--
08...	1452	--	--	<5	40	90	8100	100	150	12	6.0	--
08...	1532	--	--	<5	40	80	7310	70	100	12	7.2	--
08...	1612	--	--	<5	30	70	5300	60	80	12	7.4	--
08...	1652	--	--	<5	30	60	6100	70	70	12	7.9	--
08...	1732	--	--	<5	20	60	3600	50	70	11	.7	--
10-10	--	1010	1110	<5	<10	<10	370	<20	<5	4.6	20	--
27-27	--	1350	1520	<5	<10	<10	3950	<20	30	3.0	48	--
MAR												
04...	2329	--	--	<5	<10	30	610	<20	60	1.0	14	--
05...	0004	--	--	<5	--	--	--	<20	70	--	14	--
05...	0034	--	--	<5	<10	40	810	<20	80	2.0	13	--
05...	0811	--	--	<5	<10	70	8800	50	130	5.0	6.0	--
05...	1249	--	--	<5	<10	40	1530	<20	70	2.0	6.0	--
05...	1349	--	--	<5	<10	30	1500	<20	70	5.0	6.0	--
10-10	--	1000	1100	<5	<10	<10	360	<20	20	1.0	14	--
24-24	--	959	1110	<5	<10	<10	200	<20	<5	2.0	14	--
APR												
05...	1733	--	--	20	20	<10	330	<20	<5	8.0	15	--
05...	1834	--	--	<5	10	70	5200	230	250	17	11	--
05...	1919	--	--	<5	20	110	3500	140	150	17	9.0	--
05...	2005	--	--	<5	10	100	4800	100	140	14	8.0	--
05...	2035	--	--	5	20	100	9300	120	170	17	11	--
05...	2133	--	--	<5	<10	60	3900	50	70	11	12	--
05...	2336	--	--	<5	<10	30	1300	<20	30	9.0	13	--
06...	0136	--	--	<5	<10	30	690	<20	<5	8.0	14	--
06...	0336	--	--	<5	<10	20	130	<20	<5	7.0	14	--
07...	1013	--	--	--	--	--	--	--	--	--	--	3
07-07	--	1000	1100	<5	<10	<10	150	<20	<5	4.0	15	--
21...	1108	--	--	--	--	--	--	--	--	--	--	1
21-21	--	1000	1110	<5	<10	<10	180	<20	<5	4.0	16	--
MAY												
01...	1410	--	--	<5	<10	90	1300	120	110	18	11	--
01...	1557	--	--	<5	60	180	20000	230	250	26	9.0	--
01...	1727	--	--	5	30	100	8200	130	130	19	8.0	--
01...	1930	--	--	<5	10	90	6300	100	45	16	7.0	--
01...	2149	--	--	<5	10	80	4300	70	90	13	6.0	--
02...	0019	--	--	<5	<10	70	2100	30	70	12	6.0	--
02...	0219	--	--	<5	<10	50	950	<20	40	10	9.0	--
02...	0449	--	--	<5	<10	30	430	<20	30	8.0	9.0	--
02...	0711	--	--	<5	<10	30	300	<20	30	9.0	12	--
02...	0851	--	--	<5	<10	20	290	<20	20	8.0	12	--
02...	1155	--	--	<5	<10	20	230	<20	20	5.0	13	--
05...	1043	--	--	--	--	--	--	--	--	--	--	3
05-05	--	1040	1110	<5	<10	<10	230	<20	10	1.0	18	--
15...	1327	--	--	<5	<10	<10	200	<20	<5	2.0	18	--
15...	1427	--	--	<5	<10	<10	270	<20	20	2.0	18	--
15...	1501	--	--	<5	<10	60	1400	270	400	10	11	--
15...	1540	--	--	<5	<10	170	3500	440	430	15	8.0	--
15...	1740	--	--	<5	<10	110	3000	140	140	9.0	6.0	--
15...	1909	--	--	<5	20	60	830	40	40	2.0	8.0	--
15...	2009	--	--	5	30	190	11000	520	460	18	7.0	--
16...	0009	--	--	<5	<10	30	410	<20	20	2.0	8.0	--
16...	0257	--	--	<5	<10	30	410	<20	20	2.0	12	--
16...	0512	--	--	<5	<10	30	300	<20	<5	1.0	13	--
22...	1011	--	--	--	--	--	--	--	--	--	--	2
22-22	--	1000	1100	<5	10	<10	110	<20	20	.4	19	--
JUN												
10...	0316	--	--	20	40	<10	370	20	42	15	19	--
10...	0416	--	--	<5	60	20	410	70	60	11	18	--
10...	0514	--	--	<5	80	70	1000	80	100	14	13	--
10...	0544	--	--	<5	30	200	1500	110	140	17	9.0	--
10...	0647	--	--	<5	<10	150	1700	130	140	15	9.0	--
10...	0747	--	--	<5	<10	80	920	80	90	12	7.0	--
10...	0917	--	--	<5	<10	30	430	40	40	9.0	8.0	--
10...	1047	--	--	<5	<10	40	250	20	20	6.0	9.0	--
10...	1247	--	--	<5	<10	20	190	20	20	7.0	11	--
10...	1347	--	--	<5	<10	10	180	<20	<5	4.0	12	--
16...	1005	--	--	--	--	--	--	--	--	--	--	<1
16-16	--	1000	1100	<5	--	<10	--	--	--	1.0	19	--
30...	1040	--	--	--	--	--	--	--	--	--	--	1
30-30	--	1010	1050	<5	60	<1	80	<20	<5	3.0	19	--
30-30	1155	1050	1155	<5	40	<1	100	<20	<5	4.0	19	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L)
JUL , 1981												
14-14	--	1000	1100	<5	110	<10	110	<20	10	4.0	13	--
28-28	--	1050	1110	<5	130	<10	65	<20	<10	4.3	16	--
AUG												
11...	1035	--	--	--	--	--	--	--	--	--	--	3
11-11	--	1000	1110	<5	140	--	160	<20	--	.7	22	--
15...	2108	--	--	<5	120	30	130	<20	<5	8.3	17	--
15...	2124	--	--	<5	80	10	880	100	130	8.0	11	--
15...	2154	--	--	<5	90	10	1600	110	110	8.0	6.9	--
15...	2229	--	--	<5	50	120	1700	90	90	5.6	5.5	--
15...	2329	--	--	<5	70	90	3000	80	70	9.5	9.3	--
16...	0029	--	--	<5	50	40	1000	50	60	5.6	11	--
16...	0124	--	--	<5	30	40	400	30	10	4.1	11	--
16...	0224	--	--	<5	30	20	230	20	5	6.5	11	--
16...	0324	--	--	<5	40	20	190	<20	<5	8.5	12	--
16...	0429	--	--	<5	50	20	150	<20	<20	5.0	12	--
16...	0524	--	--	<5	60	20	110	<20	<5	11	13	--
25...	1035	--	--	--	--	--	--	--	--	--	--	1
25-25	--	1000	1030	<5	180	<10	120	<20	<5	5.5	.1	--
30...	0942	--	--	<5	190	<10	430	<20	<5	12	6.2	--
30...	1042	--	--	<5	180	<10	180	<20	<50	8.6	6.3	--
30...	1112	--	--	<5	120	80	1800	160	320	61	5.2	--
30...	1142	--	--	<5	130	60	1200	80	140	24	4.7	--
30...	1212	--	--	<5	230	40	3200	60	90	14	15	--
30...	1312	--	--	<5	230	90	9500	90	150	28	13	--
30...	1412	--	--	<5	220	100	5600	70	90	31	12	--
30...	1905	--	--	<5	70	20	1300	<20	10	14	16	--
31...	0633	--	--	<5	140	<10	390	<20	<5	11	17	--
31...	0703	--	--	<5	110	40	1300	100	110	13	10	--
31...	0733	--	--	<5	200	190	170	280	330	16	10	--
31...	0803	--	--	<5	240	280	32000	370	460	22	13	--
31...	0833	--	--	<5	180	310	28000	330	320	16	21	--
31...	0903	--	--	<5	140	190	23000	230	210	17	11	--
31...	0933	--	--	<5	130	190	24000	230	220	10	11	--
31...	1034	--	--	<5	20	60	5000	70	60	13	9.7	--
31...	1204	--	--	<5	40	40	1500	40	10	12	26	--
31...	1404	--	--	<5	60	10	570	<20	<5	12	11	--
SEP												
08...	1412	--	--	<5	190	<10	1100	<20	10	4.1	17	--
08...	1428	--	--	<5	120	60	3400	320	390	16	11	--
08...	1450	--	--	20	550	910	380000	940	1600	33	19	--
08...	1505	--	--	5	370	730	190000	690	1000	16	15	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)
SEP , 1981											
08...	1520	--	--	<5	350	440	120000	470	560	15	10
08...	1540	--	--	<5	240	290	56000	280	460	23	7.9
08...	1600	--	--	<5	210	190	31000	200	300	19	7.9
08...	1631	--	--	<5	90	190	3700	150	230	18	10
08...	1731	--	--	<5	60	80	1500	80	70	15	10
08...	1831	--	--	<5	70	60	1000	50	40	16	10
08...	1931	--	--	<5	70	60	730	40	20	15	11
08...	2112	--	--	<5	90	40	280	<20	10	9.7	12
08...	2331	--	--	<5	100	30	150	<20	<5	8.8	11
10-10	--	1000	1100	<5	120	<10	430	<20	<5	4.4	17
15...	1707	--	--	<5	140	100	9500	180	270	7.0	15
15...	1709	--	--	<5	80	180	9100	980	--	18	12
15...	1710	--	--	<5	100	130	6900	700	740	16	11
15...	1721	--	--	<5	50	200	4100	350	380	18	5.9
15...	1730	--	--	<5	150	110	7600	210	230	12	12
15...	1818	--	--	<5	110	190	12000	230	280	27	8.7
15...	1918	--	--	<5	130	230	13000	230	270	19	6.9
15...	2019	--	--	<5	140	180	13000	210	210	16	9.2
15...	2118	--	--	<5	<10	90	4000	80	120	16	7.9
15...	2249	--	--	<5	110	90	1800	40	60	14	16
15...	2349	--	--	<5	100	80	920	40	50	11	13
16...	0119	--	--	<5	20	70	550	20	40	11	6.7
16...	0219	--	--	<5	80	70	530	20	50	10	7.0
16...	0319	--	--	<5	80	120	8200	160	160	13	6.0
16...	0418	--	--	<5	30	120	9800	120	140	6.6	6.1
16...	0503	--	--	<5	20	70	3000	60	70	5.1	5.9
16...	0703	--	--	<5	<10	30	450	<20	30	4.6	7.1
16...	0903	--	--	<5	40	40	260	<20	40	4.0	7.9
16...	1103	--	--	<5	20	30	210	<20	30	5.0	9.1
16...	1303	--	--	<5	<10	20	160	70	30	4.3	10
18...	0001	--	--	<5	--	20	100	--	<10	--	--
22...	1915	--	--	<5	110	30	--	50	50	7.9	12
22...	1945	--	--	<5	130	120	11000	150	200	19	12
22...	2015	--	--	<5	90	270	19000	190	210	18	7.9
22...	2045	--	--	<5	50	220	13000	150	170	16	6.0
22...	2115	--	--	<5	40	130	6400	90	110	13	6.7
22...	2215	--	--	<5	60	80	2100	30	50	10	10
22...	2315	--	--	<5	40	70	1100	30	30	9.5	10
22-22	--	1000	1100	<5	70	15	170	<20	20	5.4	16

DATE	TIME	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	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)
SEP , 1981									
23...	0015	<5	40	50	670	20	20	8.4	10
23...	0115	<5	50	40	460	20	<5	8.6	11
23...	0215	<5	50	20	390	20	<5	16	11
27...	1914	<5	60	20	510	30	40	8.2	7.9
27...	1944	<5	30	140	3000	180	170	11	7.9
27...	2014	<5	50	120	5100	140	180	22	9.3
27...	2144	<5	60	160	4200	110	140	28	8.8
27...	2214	<5	20	170	2900	100	150	--	7.5
27...	2244	<5	<10	150	2900	600	150	22	8.1

PATAPSCO RIVER BASIN

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 to September 1981.

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW 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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)
MAR . 1981										
05...	0115	.05	40	130	59	<.100	--	8.10	13	59
05...	0215	.14	74	290	318	.100	18	18.2	19	83
05...	0315	.12	22	61	31	<.100	--	2.00	5.7	25
05...	0415	.18	58	96	181	<.100	--	3.40	7.4	33
MAY										
15...	1418	.00	43	--	100	<.100	--	28.0	43	190
15...	1456	.30	68	--	240	<.100	--	4.60	36	158
15...	1516	.10	27	35	60	<.100	--	2.80	11	51
15...	1532	.03	23	40	28	<.100	--	2.70	11	50
15...	1602	.22	140	--	430	.300	3.6	3.90	13	57
15...	1712	.07	15	33	11	.100	1.5	1.60	19	82
15...	1912	.06	8.4	32	11	<.100	--	6.70	16	73
15...	1939	1.06	200	--	940	<.100	--	5.70	14	61
15...	2001	.16	46	10	80	.100	2.5	2.60	11	50
15...	2101	.02	14	14	10	.100	1.4	1.50	11	49
JUL										
25...	0442	.14	160	--	628	9.10	46	55.0	68	301
25...	0449	.16	120	--	630	4.90	25	30.0	39	171
25...	0502	.19	24	--	53	1.30	9.7	11.0	19	85
25...	0510	.20	160	--	835	3.00	23	26.0	30	134
25...	0517	.28	36	--	134	1.50	6.5	8.00	13	57
25...	0624	.10	8.6	--	16	<.200	--	<.20	--	--
25...	0631	.10	8.6	--	17	1.50	5.6	7.10	11	48
25...	0638	.10	5.8	--	9	<.200	--	1.10	4.9	22
25...	0652	.10	6.4	--	9	1.50	2.1	3.60	7.4	33
25...	0706	.07	6.2	--	10	1.90	.60	2.50	5.9	26
26...	1957	.08	34	--	70	3.70	13	17.0	22	99
26...	2010	.08	34	--	44	4.10	14	18.0	24	106
26...	2025	.08	18	--	32	3.60	12	16.0	22	96
26...	2114	.10	22	--	45	4.10	11	15.0	21	95
26...	2137	.09	14	--	11	1.30	8.2	9.50	15	66
26...	2207	.08	7.4	--	9	1.10	3.9	5.00	9.3	41
28...	1126	.23	140	--	400	3.50	44	48.0	61	270
28...	1140	.21	32	--	59	1.50	13	15.0	28	124
28...	1202	.44	120	--	290	1.30	12	13.0	22	100
28...	1227	.19	34	--	60	.700	4.9	5.60	11	49
28...	1257	.32	48	--	110	.700	7.7	8.40	16	70
28...	1306	.30	24	--	32	3.00	4.1	7.10	12	51
28...	1335	.24	24	--	26	.700	3.5	4.20	9.3	41
28...	1405	.18	28	--	30	.600	3.9	4.50	11	47
28...	1907	.12	240	--	324	.800	17	18.0	23	103

01589470 RESERVOIR HILL STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

DATE	PHOS- PHORUS, 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 , 1981										
05...	.510	1.64	10	<10	20	860	220	410	6.0	7.0
05...	.610	85.3	10	<10	60	3700	1400	1300	17	8.0
05...	.370	4.08	10	<10	10	310	40	200	3.0	4.0
05...	.410	.800	10	<10	20	1150	290	370	6.0	5.0
MAY										
15...	.730	3.10	<5	<10	90	1600	220	1300	86	32
15...	.630	1.90	<5	<10	40	1500	440	610	18	1.0
15...	.310	.730	<5	<10	20	500	100	230	6.0	3.0
15...	.330	.580	<5	<10	20	320	50	180	6.0	4.0
15...	.520	3.30	<5	20	50	2600	860	720	16	3.0
15...	.200	.440	<5	<10	10	270	<20	100	50	80
15...	.160	.230	<5	<10	20	420	30	100	6.0	18
15...	.550	13.0	<5	20	10	4700	1700	1200	18	4.0
15...	.340	1.10	<5	<10	20	590	140	200	4.0	4.0
15...	.150	.280	<5	<10	10	280	20	90	3.0	9.0
JUL										
25...	1.20	9.00	10	80	200	3200	840	100	190	33
25...	1.10	13.8	5	90	220	5700	1890	2400	120	27
25...	1.10	2.10	<5	30	80	860	180	560	100	7.4
25...	1.60	37.4	5	90	290	14000	4400	4500	60	38
25...	.960	3.70	<5	20	70	2060	1000	2400	32	7.4
25...	.510	.720	<5	<10	40	330	30	180	7.0	9.8
25...	.510	.870	<5	<10	30	330	60	180	44	11
25...	.510	.780	<5	<10	30	300	30	160	49	11
25...	.470	.710	<5	<10	40	300	30	160	49	12
25...	.480	.800	<5	<10	30	240	<20	160	45	13
26...	.960	2.50	<5	20	80	800	150	850	150	11
26...	.670	2.40	<5	20	80	540	100	740	190	11
26...	1.00	1.80	<5	10	60	480	120	490	120	20
26...	.640	4.60	<5	20	80	520	90	700	150	19
26...	.970	1.00	<5	<10	50	620	90	310	100	19
26...	.240	.680	<5	<10	40	610	60	240	87	25
28...	.810	7.30	<5	30	130	3400	3200	1900	190	30
28...	.640	1.70	<5	<10	50	1200	450	530	97	11
28...	.620	8.60	<5	40	120	4400	1800	1500	61	22
28...	.540	1.50	<5	10	140	560	250	530	13	4.8
28...	.530	2.90	<5	40	70	3000	1100	720	38	10
28...	.440	1.30	<5	10	40	660	210	290	22	5.2
28...	.490	.910	<5	<10	40	360	130	250	20	6.2
28...	.540	1.10	<5	<10	50	340	160	280	51	11
28...	.320	5.50	<5	60	150	2800	1000	600	80	5.1

PATAPSCO RIVER BASIN

01589470 RESERVOIR HILL STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
JUL , 1981										
28...	1914	.33	60	--	412	1.80	24	26.0	30	133
28...	1923	.17	48	--	170	1.00	11	12.0	15	68
28...	1931	.09	50	46	122	.600	7.4	8.00	11	50
28...	1938	.32	32	39	46	.600	6.3	6.90	10	46
28...	1944	.25	24	46	22	.600	4.6	5.20	8.8	39
28...	2000	.40	52	--	144	.600	7.6	8.20	11	49
28...	2007	.29	20	--	40	.300	.70	1.00	4.2	19
28...	2019	.25	16	--	26	.600	.70	1.30	4.4	19
28...	2034	.11	8.6	39	12	2.10	6.7	8.80	13	56
28...	2041	.13	5.0	--	14	2.70	4.6	7.30	12	51
AUG										
06...	1108	.02	58	--	108	6.30	17	23.0	39	173
06...	1138	.05	92	--	200	4.90	15	20.0	31	137
06...	1208	.04	72	--	138	2.80	8.2	11.0	20	90
06...	1238	.08	62	--	128	2.10	13	15.0	23	102
06...	1308	.11	32	--	100	1.70	7.3	9.00	17	73
06...	1501	.04	18	--	64	1.50	6.0	7.50	14	61
06...	1531	.02	12	--	72	.600	5.2	5.80	12	52
06...	1601	.02	26	--	58	<.100	--	6.70	13	58
06...	1631	.02	18	--	52	3.00	2.2	5.20	11	49
08...	0459	.01	42	--	108	2.70	7.3	10.0	17	77
08...	0529	.14	24	--	58	2.20	18	20.0	31	137
08...	0559	.12	18	--	34	1.50	7.0	8.50	18	79
08...	0720	.08	14	--	16	1.30	7.4	8.70	16	72
08...	0820	.08	8.4	--	6	1.00	7.3	8.30	16	71
08...	0911	.07	7.8	--	16	.600	4.1	4.70	13	56
08...	1126	.06	26	--	32	1.80	12	14.0	21	91
08...	1226	.09	26	--	20	.700	7.3	8.00	24	106
11...	1943	.33	140	--	392	<.100	--	17.1	34	151
11...	1947	1.00	68	--	27	3.10	6.6	9.70	17	76
11...	1951	.29	32	--	28	<.100	--	7.40	15	66
11...	1956	.54	32	--	24	.600	9.9	10.5	16	73
11...	2003	.63	24	--	16	1.00	17	18.1	24	106
11...	2017	.55	18	--	4	4.50	8.0	12.5	21	93
11...	2032	.42	22	36	16	2.70	14	16.4	25	109
11...	2047	.17	16	--	10	1.10	8.0	9.10	17	73
11...	2102	.28	12	--	8	1.10	2.7	3.80	12	51
11...	2200	.25	8.6	44	6	<.100	--	2.00	11	46
11...	2245	.04	8.2	--	8	.400	2.5	2.90	12	52

01589470 RESERVOIR HILL STORM SEWER AT BALTIMORE, MD--Continued

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

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)
JUL . 1981										
28...	.530	5.90	<5	50	70	4100	930	820	11	5.2
28...	.370	1.70	<5	30	30	1500	360	340	8.5	5.5
28...	.320	.730	<5	<10	20	950	230	240	6.7	4.4
28...	.340	.800	<5	<10	10	510	130	160	6.0	2.3
28...	.320	.880	<5	<10	<10	370	130	140	5.6	2.6
28...	.450	1.20	<5	<10	20	1000	260	240	6.0	2.6
28...	.400	.540	<5	<10	10	390	100	130	4.2	2.7
28...	.320	.560	<5	<10	10	240	60	100	3.0	2.2
28...	.450	.640	<5	<10	<10	190	50	10	5.0	1.2
28...	.400	.620	<5	<10	10	260	70	100	6.3	3.5
AUG										
06...	2.20	3.60	<5	30	11	1200	300	750	160	9.7
06...	2.20	4.30	<5	20	80	1600	430	690	130	11
06...	2.00	8.70	<5	30	80	1500	380	670	100	8.7
06...	1.70	3.00	<5	10	70	1600	430	680	71	9.4
06...	1.30	2.20	<5	20	50	1200	280	500	47	8.8
06...	1.10	1.50	<5	20	30	730	160	310	34	10
06...	1.10	1.60	<5	<10	40	830	160	290	37	13
06...	.890	1.80	<5	<10	30	810	150	270	30	15
06...	1.10	2.50	<5	20	20	720	160	290	36	16
08...	2.30	3.70	<5	10	40	1200	320	760	83	17
08...	.590	1.60	<5	10	20	770	180	280	12	5.4
08...	.700	1.40	<5	10	20	380	90	210	18	6.9
08...	.830	1.90	<5	<10	20	270	60	190	18	7.3
08...	.670	1.30	<5	<10	10	360	70	150	14	14
08...	.840	1.80	<5	<10	10	320	50	170	25	14
08...	1.60	2.80	<5	10	30	260	100	28	25	12
08...	4.50	6.60	<5	10	10	380	60	100	12	9.0
11...	.560	4.80	<5	30	80	3400	810	640	320	37
11...	.450	1.90	<5	<10	40	2000	470	470	34	4.0
11...	.460	.760	<5	<10	30	590	130	350	27	.9
11...	.420	2.30	<5	<10	20	560	120	250	19	1.3
11...	.370	.910	<5	<10	10	360	80	160	18	1.2
11...	.440	.630	<5	<10	20	250	50	130	23	2.2
11...	.440	.810	<5	<10	20	420	100	160	22	2.7
11...	.370	.560	<5	<10	20	280	60	100	18	2.7
11...	.370	.470	<5	<10	10	1100	90	110	20	4.5
11...	.420	.490	<5	<10	10	170	30	60	23	8.0
11...	.320	.410	<5	<10	20	170	30	90	21	3.5

PATAPSCO RIVER BASIN

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 to September 1981.

WATER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C. SUS- PENDE (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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
MAR , 1981										
05...	0002	.12	14	72	25	.300	2.5	2.80	10	46
05...	0102	--	8.4	40	18	<.100	--	2.20	10	45
05...	0202	.10	22	68	63	.300	3.6	3.90	8.1	36
05...	0232	.27	6.2	24	11	<.100	--	2.00	8.2	36
05...	0332	.17	7.0	21	14	<.100	--	1.40	6.2	27
05...	0432	.09	12	31	30	.300	1.7	2.00	7.5	33
MAY										
01...	1023	.02	20	--	19	1.10	1.4	2.50	9.1	40
01...	1717	.35	18	30	46	1.00	.70	1.70	4.7	21
01...	1724	.37	18	38	37	.600	1.0	1.60	4.5	20
01...	1734	.28	17	21	24	.400	.70	1.10	3.7	16
01...	1931	.21	8.0	28	17	.400	.60	1.00	3.2	14
01...	2040	.20	7.4	4	11	.300	.40	.70	2.7	12
01...	2210	.20	22	12	24	.300	.60	.90	3.8	17
01...	2340	.14	7.2	2	2	.300	.40	.70	4.3	19
08...	1724	.37	18	38	37	.600	1.0	1.60	4.5	20
15...	1345	.26	13	15	37	<.100	--	2.10	14	62
15...	1415	.20	30	--	64	2.20	5.3	7.50	25	113
15...	1449	.56	39	--	180	.100	3.4	3.50	13	58
15...	1507	.43	20	30	44	<.100	--	1.80	9.9	44
15...	1529	.74	52	--	280	<.100	--	2.80	8.5	38
15...	1546	1.35	22	40	29	.300	.80	1.10	4.6	20
15...	1617	.32	14	37	25	.400	.70	1.10	7.5	33
15...	1928	.10	7.2	24	1	.400	.80	1.20	9.8	43
15...	1950	.85	30	8	11	<.100	--	.60	20	87
15...	2023	.90	15	19	2	<.100	--	1.40	13	59
JUL										
20...	1904	.32	180	--	729	1.70	9.5	11.2	18	80
20...	1906	1.00	140	--	776	3.10	15	17.9	27	120
20...	1909	1.60	26	--	105	1.40	5.0	6.40	11	51
20...	1911	1.28	26	--	79	<.100	--	3.10	7.4	33
20...	1914	.87	22	--	44	1.00	2.5	3.50	7.4	33
20...	1917	.58	22	--	38	1.00	2.5	3.50	6.7	30
20...	1925	.36	--	--	--	1.00	22	23.1	27	121
20...	1940	.23	16	--	15	1.30	3.5	4.80	10	45
20...	1955	.20	20	--	29	1.70	3.1	4.80	11	47
25...	0444	.22	34	--	91	<.100	--	7.10	12	51
25...	0448	.26	44	--	134	4.70	23	28.0	42	186
25...	0452	.30	34	--	79	2.40	6.2	8.60	19	82
25...	0455	.28	22	--	38	3.40	12	15.0	24	106
25...	0459	.27	22	--	82	.700	8.6	9.30	15	65

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

WALTER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

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)
MAR . 1981										
05...	.190	.380	<5	<10	50	320	70	250	3.0	1.0
05...	.150	.270	10	<10	40	200	20	200	2.0	2.0
05...	.120	.310	<5	<10	50	720	160	270	4.0	1.0
05...	.140	.230	<5	<10	40	130	30	170	2.0	1.0
05...	.100	.180	10	<10	40	170	40	170	2.0	1.0
05...	--	.240	<5	<10	40	450	110	180	3.0	2.0
MAY										
01...	.050	.490	<5	<10	100	360	50	190	20	5.0
01...	.010	.030	<5	<10	60	440	120	130	11	3.0
01...	.030	.400	<5	<10	50	370	100	120	11	2.0
01...	.010	.370	<5	<10	60	400	120	130	--	2.0
01...	.010	.190	<5	<10	40	150	30	70	7.0	2.0
01...	.010	.560	<5	<10	40	140	50	70	7.0	2.0
01...	.010	.220	<5	<10	40	490	50	80	9.0	2.0
01...	.010	.110	<5	<10	50	100	30	70	5.0	3.0
08...	--	.400	<5	<10	50	370	100	120	11	2.0
15...	.170	.880	<5	<10	50	730	190	220	6.0	4.0
15...	.340	1.30	<5	20	340	1200	320	500	36	20
15...	.120	.970	<5	<10	130	1200	470	430	14	4.0
15...	.130	.380	<5	<10	120	350	110	210	4.0	3.0
15...	.110	2.30	<5	<10	110	1900	810	490	13	4.0
15...	.100	1.30	<5	<10	90	430	180	170	1.0	3.0
15...	1.00	1.30	<5	<10	70	220	70	140	1.0	3.0
15...	.120	.220	<5	<10	50	140	50	110	1.0	16
15...	.090	.230	<5	<10	50	320	140	150	3.0	2.0
15...	.140	.240	<5	<10	60	210	80	140	2.0	2.0
JUL										
20...	.470	4.80	<5	30	200	13000	4300	4700	300	45
20...	.520	10.8	<5	20	300	13000	3300	3800	16	17
20...	.290	3.80	<5	10	210	1500	740	1000	57	1.0
20...	--	--	<5	<10	150	870	370	600	--	--
20...	.210	2.40	<5	10	160	100	350	600	38	<1.0
20...	.260	.890	<5	10	190	710	230	500	36	<1.0
20...	.340	.730	<5	10	280	380	130	440	49	<1.0
20...	.380	.740	<5	10	260	420	120	480	66	<1.0
20...	.220	.600	<5	10	260	520	130	430	74	<1.0
25...	.110	.740	<5	<10	70	2170	520	53	16	39
25...	.320	5.10	10	60	55	3320	680	2000	61	6.8
25...	.300	1.30	<5	50	330	1600	410	1000	59	4.8
25...	.220	.790	<5	30	220	710	190	630	21	3.6
25...	.350	1.00	<5	40	170	1500	350	580	23	3.2

PATAPSCO RIVER BASIN

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

WALTER QUALITY DATA, WATER YEAR MARCH 1981 TO SEPTEMBER 1981

DATE	TIME	STREAM STAGE (FT ABOVE DATUM)	TUR- BID- ITY (NTU)	OXYGEN DEMAND, CHEM- ICAL (LOW 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)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)
JUL . 1981										
25...	0503	.27	14	--	21	.600	4.5	5.10	9.5	42
25...	0507	.25	6.4	--	15	.400	.90	1.30	5.9	26
25...	0510	.30	6.8	--	14	<.200	--	.60	5.2	23
25...	0525	.23	7.4	--	16	.200	.00	.20	5.4	24
25...	0540	.16	5.0	--	10	.200	.00	.20	5.7	25
26...	1846	.07	16	--	--	<.100	--	--	--	--
26...	1854	.14	18	--	19	.200	3.0	3.20	11	49
26...	1918	.14	14	--	13	1.30	4.7	6.00	29	128
26...	1944	.12	7.4	--	9	1.10	4.1	5.20	27	120
26...	2008	.11	12	--	7	.900	4.5	5.40	26	117
26...	2033	.10	12	--	8	.800	4.2	5.00	25	111
28...	1133	.41	24	--	76	1.70	3.4	5.10	13	57
28...	1148	.24	14	--	14	.300	.90	1.20	7.2	32
28...	1200	.92	20	--	95	1.10	11	12.0	16	73
28...	1214	.34	8.2	26	13	.400	4.1	4.50	7.8	35
28...	1229	.19	6.2	46	8	.700	2.8	3.50	7.5	33
28...	1244	.15	7.4	41	5	.600	4.5	5.10	9.4	42
28...	1255	.18	7.8	--	7	.900	1.7	2.60	8.2	36
28...	1327	.21	12	--	12	.400	2.2	2.60	7.1	31
28...	1353	.15	7.8	--	10	.600	15	16.0	21	92
28...	1905	.11	3.6	32	4	<.100	--	7.00	12	55
28...	1911	1.00	22	--	252	2.00	10	12.0	16	72
28...	1932	.89	1.2	32	28	.100	3.9	4.00	6.9	31
28...	1950	.79	8.6	32	46	.300	4.9	5.20	7.9	35
28...	1957	.71	8.2	32	34	.100	6.4	6.50	9.2	41
28...	2016	.48	5.2	11	22	.100	8.5	8.60	12	53
28...	2023	.35	4.6	18	22	<.100	--	2.70	6.0	27
28...	2038	.23	5.0	18	8	.100	1.7	1.80	5.5	24
28...	2117	.19	5.0	39	20	.100	3.9	4.00	8.3	37
28...	2132	.17	4.2	39	12	.100	3.1	3.20	7.6	34
SEP										
27...	2012	.03	180	--	786	4.10	9.8	13.9	21	95
27...	2024	1.78	24	38	--	1.10	7.3	8.40	28	126
27...	2032	.58	18	30	--	2.00	2.5	4.50	13	56
27...	2045	.17	22	38	44	1.30	3.0	4.30	17	77

DATE	PHOS- PHORUS, ORTHOPHOS- 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)
JUL . 1981										
25...	.220	.490	<5	<10	130	560	90	280	47	5.9
25...	.190	.430	<5	30	120	430	60	250	56	8.5
25...	.160	.330	<5	10	100	320	60	230	.5	15
25...	.090	.260	<5	30	60	300	50	180	64	22
25...	.050	.180	<5	30	30	140	30	130	18	28
26...	<.010	<.010	<5	<10	100	900	80	240	48	--
26...	<.010	.350	<5	30	120	510	70	300	61	20
26...	<.010	.430	<5	60	220	530	110	550	110	9.5
26...	<.010	.430	<5	30	290	680	110	540	140	9.4
26...	<.010	.370	<5	30	280	630	100	480	130	10
26...	<.010	.370	<5	<10	280	110	<20	340	130	11
28...	.160	.690	<5	<10	150	950	270	380	13	2.0
28...	.160	.370	<5	20	110	440	100	260	10	1.4
28...	.130	7.00	<5	20	230	2100	640	590	15	3.0
28...	.140	.500	<5	10	160	330	80	290	8.3	3.0
28...	.140	.290	<5	20	160	190	40	240	4.8	.9
28...	.170	.520	<5	20	150	200	30	210	2.3	2.2
28...	.180	.440	<5	10	180	270	40	250	7.1	2.6
28...	.130	.270	<5	<10	100	190	30	180	3.2	1.7
28...	.130	.260	<5	<10	90	260	40	180	5.7	3.7
28...	.100	.210	<5	<10	60	360	80	140	6.6	17
28...	.290	3.30	<5	60	100	2800	750	640	9.2	4.2
28...	<.010	.030	<5	<10	40	410	150	120	2.2	1.0
28...	.110	.720	<5	<10	30	560	170	130	5.1	1.9
28...	.120	.420	<5	<10	40	500	110	110	1.3	1.4
28...	.100	.240	<5	<10	50	360	60	110	<.1	1.5
28...	.110	.190	<5	<10	50	290	30	100	.5	2.1
28...	.140	.210	<5	<10	70	810	50	150	.7	3.1
28...	.120	.200	<5	<10	70	180	30	100	9.5	4.3
28...	.110	.170	<5	<10	70	120	30	100	2.6	5.1
SEP										
27...	.080	3.10	20	60	180	6100	30000	7400	126	17
27...	<.010	.130	--	--	--	--	--	--	5.4	3.0
27...	.100	.230	--	--	--	--	--	--	2.3	1.6
27...	.170	.400	<5	<10	170	360	630	380	15	1.1

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 Falls way overpass.

DRAINAGE AREA.--53.1 mi² (137.5 km²).

PERIOD OF RECORD.--December 1980 to September 1981.

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
DEC , 1980									
17-18	--	2000	1600	.69	--	--	--	14	--
18...	1545	--	--	.70	350	6.8	9.5	--	--
30-31	--	2000	1600	.69	--	--	--	14	--
31...	1615	--	--	.70	403	7.6	4.6	--	12.4
JAN , 1981									
12-13	--	1900	1500	.72	--	--	--	14	--
13...	1515	--	--	.75	540	7.2	2.8	--	12.0
13...	1615	--	--	.70	--	--	--	--	--
27-28	--	1900	1500	.88	--	--	--	12	--
28...	1425	--	--	.88	393	7.4	5.2	--	11.9
FEB									
08...	1337	--	--	2.31	--	--	--	3.5	--
08...	1400	--	--	2.67	--	--	--	41	--
08...	1510	--	--	2.69	--	--	--	48	--
08...	1700	--	--	1.86	--	--	--	76	--
08...	2120	--	--	1.41	--	--	--	--	--
10...	1425	--	--	.90	405	7.1	5.0	--	12.1
10-10	--	1120	1520	.90	--	--	--	14	--
26-27	--	1900	1500	.74	--	--	--	36	--
27...	1755	--	--	.74	348	6.9	8.7	--	12.7
MAR									
09-10	--	1900	1500	.42	--	--	--	8.0	--
10...	1500	--	--	.44	495	7.7	8.0	--	--
24...	1510	--	--	.46	--	--	--	5.8	--
24...	1515	--	--	.46	395	8.0	9.6	--	12.0
30...	1000	--	--	1.07	--	--	--	130	--
30...	1010	--	--	1.64	--	--	--	130	--
30...	1040	--	--	1.37	--	--	--	100	--
APR									
05...	1750	--	--	1.61	--	--	--	160	--
05...	1755	--	--	2.90	--	--	--	120	--
05...	1815	--	--	2.27	--	--	--	150	--
05...	1820	--	--	1.74	--	--	--	130	--
05...	1915	--	--	1.58	--	--	--	74	--
05...	2010	--	--	1.50	--	--	--	55	--
05...	2110	--	--	1.08	--	--	--	73	--
07...	1530	--	--	.58	389	7.7	12.9	--	9.2
07-07	--	1230	1530	.61	--	--	--	18	--
21...	1500	--	--	.61	457	7.7	13.5	--	10.4
21...	1515	--	--	.61	--	--	--	6.0	--
28...	1740	--	--	1.65	--	--	--	--	--
28...	1745	--	--	3.68	--	--	--	--	--
28...	1750	--	--	5.73	--	--	--	--	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	STREAM STAGE (FT ABOVE DATUM)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- RID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)
APR , 1981									
28...	1755	--	--	7.71	--	--	--	--	--
28...	1830	--	--	4.98	--	--	--	--	--
28...	1930	--	--	4.48	--	--	--	--	--
28...	2000	--	--	2.82	--	--	--	--	--
MAY									
04-05	--	2240	1300	.62	--	--	--	6.0	--
05...	1400	--	--	.56	330	8.1	22.5	--	13.4
21-22	--	1900	1620	.58	--	--	--	4.2	--
22...	1636	--	--	.57	381	7.2	19.2	--	8.1
JUN									
10...	0500	--	--	2.30	--	--	--	56	--
10...	0625	--	--	3.63	--	--	--	24	--
10...	0630	--	--	4.21	--	--	--	32	--
10...	0640	--	--	4.77	--	--	--	42	--
10...	0710	--	--	4.82	--	--	--	22	--
10...	0730	--	--	4.29	--	--	--	38	--
10...	0815	--	--	3.61	--	--	--	34	--
10...	0905	--	--	2.56	--	--	--	50	--
10...	1005	--	--	1.70	--	--	--	25	--
16...	1536	--	--	.46	415	7.8	25.5	--	9.8
16-16	--	817	1520	.53	--	--	--	32	--
29-30	--	1900	1550	.68	--	--	--	9.0	--
30...	1430	--	--	.68	397	7.1	24.4	--	--
JUL									
13-14	--	1950	1550	.68	--	--	--	12	--
14...	1530	--	--	.70	393	7.8	26.5	--	6.4
AUG									
11...	1450	--	--	.60	440	8.1	26.0	--	7.0
11-11	--	1020	1500	.58	--	--	--	40	--
25-26	--	1900	1500	.62	--	--	--	6.2	--
26...	1410	--	--	.67	445	7.9	23.0	--	--
SEP									
09-10	--	1900	1500	.46	--	--	--	5.8	--
10...	1400	--	--	.47	418	7.4	21.6	--	6.8
17...	2050	--	--	1.04	--	--	--	40	--
17...	2120	--	--	1.04	--	--	--	40	--
17...	2140	--	--	1.70	--	--	--	22	--
17...	2155	--	--	2.88	--	--	--	28	--
17...	2255	--	--	1.04	--	--	--	--	--
18...	0310	--	--	1.06	--	--	--	26	--
18...	0440	--	--	1.68	--	--	--	19	--
18...	0515	--	--	2.98	--	--	--	18	--
18...	0545	--	--	2.96	--	--	--	32	--
18...	0600	--	--	3.64	--	--	--	42	--
18...	0630	--	--	4.06	--	--	--	120	--
18...	0745	--	--	2.38	--	--	--	120	--
18...	0945	--	--	1.78	--	--	--	60	--
21-22	--	1900	1500	.55	--	--	--	71	--
22...	1330	--	--	.51	405	7.5	21.2	--	6.5
27...	2030	--	--	2.21	--	--	--	72	--
27...	2035	--	--	3.41	--	--	--	56	--
27...	2040	--	--	4.49	--	--	--	66	--
27...	2045	--	--	5.58	--	--	--	72	--
27...	2050	--	--	4.80	--	--	--	74	--
27...	2055	--	--	4.11	--	--	--	84	--
27...	2100	--	--	3.35	--	--	--	72	--
27...	2105	--	--	2.58	--	--	--	62	--
27...	2110	--	--	1.87	--	--	--	42	--
27...	2120	--	--	1.20	--	--	--	44	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	OXYGEN DEMAND, CHEM- ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	COLI- FORM, CON- FIRMED (MPN)	COLI- FORM, FECAL, EC BROTH (MPN)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC , 1980								
17-19	--	2000	1600	30	21	--	--	94
18...	1130	--	--	--	--	320000	170000	--
30-31	--	2000	1600	30	--	--	--	--
31...	1200	--	--	--	--	2600000	1100000	--
JAN , 1981								
12-13	--	1900	1500	39	--	--	--	--
13...	1200	--	--	--	--	3500000	1100000	--
27-28	--	1900	1500	19	--	--	--	--
28...	1200	--	--	--	--	1700000	210000	--
FEB								
08...	1337	--	--	47	--	--	--	--
08...	1510	--	--	43	--	--	--	--
08...	1700	--	--	29	--	--	--	--
10...	1200	--	--	--	--	2200000	1400000	--
10-10	--	1120	1520	37	--	--	--	--
26-27	--	1900	1500	31	--	--	--	--
MAR								
09-10	--	1900	1500	29	--	--	--	--
24...	1105	--	--	--	--	1400000	220000	--
24...	1510	--	--	49	--	--	--	--
APR								
05...	1750	--	--	319	--	--	--	--
05...	1755	--	--	287	--	--	--	--
05...	1815	--	--	172	--	--	--	--
05...	1820	--	--	210	--	--	--	--
05...	1915	--	--	58	--	--	--	--
05...	2010	--	--	55	--	--	--	--
05...	2110	--	--	55	--	--	--	--
07-07	--	1230	1530	--	40	--	--	86
21...	1110	--	--	--	--	2400000	2400000	--
MAY								
04-05	--	2240	1300	26	--	--	--	--
05...	1105	--	--	--	--	1400000	390000	--
21-22	--	1900	1620	25	--	--	--	--
JUN								
10...	0640	--	--	46	--	--	--	--
10...	0710	--	--	50	--	--	--	--
10...	0815	--	--	48	--	--	--	--
10...	0905	--	--	48	--	--	--	--
10...	1005	--	--	37	--	--	--	--
16...	1133	--	--	--	--	1300000	790000	--
16-16	--	817	1520	20	--	--	--	--
29-30	--	1900	1550	16	14	--	--	92
30...	1245	--	--	--	--	3300000	270000	--
JUL								
13-14	--	1950	1550	19	--	--	--	--
14...	1130	--	--	--	--	3300000	330000	--
AUG								
11...	1030	--	--	--	--	5400000	790000	--
25-26	--	1900	1500	42	--	--	--	--
26...	1105	--	--	--	--	4900000	790000	--
SEP								
09-10	--	1900	1500	17	--	--	--	--
10...	1220	--	--	--	--	3300000	2100000	--
18...	0310	--	--	36	--	--	--	--
18...	0440	--	--	22	--	--	--	--
18...	0600	--	--	36	--	--	--	--
18...	0630	--	--	36	--	--	--	--
18...	0945	--	--	29	--	--	--	--
21-22	--	1900	1500	21	14	--	--	92
22...	1145	--	--	--	--	7000000	1100000	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

DATE	TIME	START- ING TIME (2400 HOURS)	END- ING TIME (2400 HOURS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (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, TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
DEC , 1980									
17-18	--	2000	1600	17	.900	.900	1.2	.10	.10
30-31	--	2000	1600	17	.800	--	--	.10	--
JAN , 1981									
12-13	--	1900	1500	23	1.10	--	--	1.9	--
27-28	--	1900	1500	10	.500	--	--	2.1	--
FEB									
08...	1337	--	--	78	.700	--	--	2.1	--
08...	1400	--	--	80	.400	--	--	2.2	--
08...	1510	--	--	72	<.100	--	--	--	--
08...	1700	--	--	90	<.100	--	--	--	--
10-10	--	1120	1520	43	<.100	--	--	--	--
26-27	--	1900	1500	32	.600	--	--	1.5	--
MAR									
09-10	--	1900	1500	7	.700	--	--	.90	--
24...	1510	--	--	21	1.20	--	--	1.7	--
30...	1000	--	--	364	2.20	--	--	5.6	--
30...	1010	--	--	354	2.00	--	--	7.8	--
30...	1040	--	--	284	2.00	--	--	5.0	--
APR									
05...	1750	--	--	392	8.40	--	--	--	--
05...	1755	--	--	292	1.00	--	--	4.3	--
05...	1815	--	--	410	.600	--	--	5.3	--
05...	1820	--	--	330	.300	--	--	4.9	--
05...	1915	--	--	96	<.100	--	--	--	--
05...	2010	--	--	80	<.100	--	--	--	--
05...	2110	--	--	90	.100	--	--	1.7	--
07-07	--	1230	1530	20	1.20	1.20	1.5	1.8	1.8
21...	1515	--	--	2	.900	--	--	1.1	--
28...	1740	--	--	540	2.20	--	--	13	--
28...	1745	--	--	710	<.100	--	--	--	--
28...	1750	--	--	860	1.30	--	--	9.7	--
28...	1755	--	--	1200	.100	--	--	9.0	--
28...	1830	--	--	2300	<.100	--	--	--	--
28...	1930	--	--	780	.300	--	--	6.0	--
28...	2000	--	--	530	.600	--	--	6.2	--
MAY									
04-05	--	2240	1300	23	.700	--	--	1.1	--
21-22	--	1900	1620	2	1.00	--	--	1.8	--
JUN									
10...	0500	--	--	190	<.100	--	--	--	--
10...	0625	--	--	130	<.100	--	--	--	--
10...	0630	--	--	90	--	--	--	--	--
10...	0640	--	--	73	.400	--	--	.80	--
10...	0710	--	--	81	.100	--	--	1.1	--
10...	0730	--	--	78	<.100	--	--	--	--
10...	0815	--	--	100	<.100	--	--	--	--
10...	0905	--	--	120	2.20	--	--	2.2	--
10...	1005	--	--	90	1.10	--	--	2.2	--
16-16	--	817	1520	75	1.00	--	--	2.3	--
29-30	--	1900	1550	15	.800	.700	.90	.40	.20
JUL									
13-14	--	1950	1550	13	.300	--	--	.70	--
AUG									
11-11	--	1020	1500	72	.400	--	--	2.5	--
25-26	--	1900	1500	2	2.90	--	--	2.7	--
SEP									
09-10	--	1900	1500	4	2.10	--	--	9.8	--
17...	2050	--	--	82	3.50	--	--	9.1	--
17...	2120	--	--	58	.100	--	--	7.8	--
17...	2140	--	--	58	1.10	--	--	5.9	--
17...	2155	--	--	54	1.70	--	--	3.4	--
17...	2255	--	--	--	2.00	--	--	4.3	--
18...	0310	--	--	38	1.40	--	--	6.6	--
18...	0440	--	--	2	1.30	--	--	5.6	--
18...	0515	--	--	12	2.00	--	--	4.3	--
18...	0545	--	--	46	2.40	--	--	6.3	--
18...	0600	--	--	74	1.00	--	--	2.8	--
18...	0630	--	--	298	1.40	--	--	9.5	--
18...	0745	--	--	674	2.00	--	--	11	--
18...	0945	--	--	88	1.40	--	--	11	--
21-22	--	1900	1500	8	2.10	2.20	2.8	1.5	.90
27...	2030	--	--	448	6.30	--	--	25	--
27...	2035	--	--	240	4.90	--	--	8.3	--
27...	2040	--	--	212	3.90	--	--	6.7	--
27...	2045	--	--	172	3.10	--	--	5.3	--
27...	2050	--	--	142	2.40	--	--	14	--
27...	2055	--	--	308	1.80	--	--	5.0	--
27...	2100	--	--	238	2.20	--	--	4.5	--
27...	2105	--	--	182	2.40	--	--	3.5	--
27...	2110	--	--	128	2.70	--	--	4.3	--
27...	2120	--	--	116	2.50	--	--	4.9	--

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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)	NITRO- GEN. TOTAL (MG/L AS N)	NITRO- GEN. TOTAL (MG/L AS N03)	PHOS- PHORUS, ORTHO. TOTAL (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
DEC , 1980										
17-18	--	2000	1600	1.00	1.0	13	59	.280	.460	.290
30-31	--	2000	1600	.90	--	6.8	30	.330	.420	--
JAN , 1981										
12-13	--	1900	1500	3.00	--	9.0	40	.240	.510	--
27-28	--	1900	1500	2.60	--	5.5	24	.190	.480	--
FER										
08...	1337	--	--	2.80	--	7.7	34	.220	.760	--
08...	1400	--	--	2.60	--	6.8	30	.210	.700	--
08...	1510	--	--	1.80	--	5.6	25	.190	.630	--
08...	1700	--	--	1.80	--	5.9	26	.160	.500	--
10-10	--	1120	1520	3.40	--	5.8	26	.320	.940	--
26-27	--	1900	1500	2.10	--	6.6	29	.390	.660	--
MAR										
09-10	--	1900	1500	1.60	--	3.8	17	.190	.430	--
24...	1510	--	--	2.90	--	7.1	31	.320	.590	--
30...	1000	--	--	7.80	--	18	78	.330	1.97	--
30...	1010	--	--	9.80	--	20	89	--	2.52	--
30...	1040	--	--	7.00	--	14	62	.270	1.38	--
APR										
05...	1750	--	--	1.70	--	11	50	.640	2.70	--
05...	1755	--	--	5.30	--	14	61	.210	1.90	--
05...	1815	--	--	5.90	--	14	63	--	1.74	--
05...	1820	--	--	5.20	--	9.2	23	.220	1.38	--
05...	1915	--	--	2.20	--	9.0	40	.240	.760	--
05...	2010	--	--	2.00	--	13	60	.240	.490	--
05...	2110	--	--	1.80	--	15	65	.210	.510	--
07-07	--	1230	1530	3.00	3.0	9.7	43	--	.810	.800
21...	1515	--	--	2.00	--	3.9	17	.370	.450	--
28...	1740	--	--	15.0	--	29	128	--	4.06	--
28...	1745	--	--	13.0	--	18	78	--	4.11	--
28...	1750	--	--	11.0	--	16	69	--	3.80	--
28...	1755	--	--	9.10	--	14	62	--	4.68	--
28...	1830	--	--	13.0	--	20	90	--	5.20	--
28...	1930	--	--	6.30	--	15	68	--	2.06	--
28...	2000	--	--	6.80	--	23	101	--	1.62	--
MAY										
04-05	--	2240	1300	1.80	--	4.1	18	<.010	.330	--
21-22	--	1900	1620	2.80	--	7.8	35	.040	.360	--
JUN										
10...	0500	--	--	2.20	--	6.9	31	1.00	1.80	--
10...	0625	--	--	3.40	--	6.4	28	.290	.390	--
10...	0640	--	--	1.20	--	3.6	16	.250	.380	--
10...	0710	--	--	1.20	--	3.7	16	.220	.430	--
10...	0730	--	--	1.70	--	4.9	22	.220	.430	--
10...	0815	--	--	2.20	--	7.7	34	.100	.520	--
10...	0905	--	--	4.40	--	8.0	35	.140	.480	--
10...	1005	--	--	3.30	--	7.4	33	.270	.430	--
16-16	--	817	1520	3.30	--	5.5	24	.510	.760	--
29-30	--	1900	1550	1.20	.90	73	324	.240	.310	.280
JUL										
13-14	--	1950	1550	1.00	--	11	49	.190	.340	--
AUG										
11-11	--	1020	1500	2.90	--	7.0	31	.840	1.10	--
25-26	--	1900	1500	5.60	--	8.2	36	.410	.560	--
SEP										
09-10	--	1900	1500	11.9	--	14	62	.400	.550	--
17...	2050	--	--	12.6	--	26	113	.450	1.80	--
17...	2120	--	--	7.90	--	20	88	.230	1.00	--
17...	2140	--	--	7.00	--	20	89	.110	.770	--
17...	2155	--	--	5.10	--	17	76	.090	.460	--
17...	2255	--	--	6.30	--	17	77	--	--	--
18...	0310	--	--	8.00	--	19	84	.040	.360	--
18...	0440	--	--	6.90	--	18	79	.040	.200	--
18...	0515	--	--	6.30	--	15	69	.050	.220	--
18...	0545	--	--	8.70	--	18	81	.030	.330	--
18...	0600	--	--	3.80	--	15	66	.040	.330	--
18...	0630	--	--	10.9	--	20	89	.060	.890	--
18...	0745	--	--	13.1	--	23	102	.080	.750	--
18...	0945	--	--	12.6	--	24	104	.200	.690	--
21-22	--	1900	1500	3.60	3.1	5.5	24	.440	.560	.450
27...	2030	--	--	31.1	--	36	160	.250	4.10	--
27...	2035	--	--	13.2	--	20	87	.450	3.20	--
27...	2040	--	--	10.6	--	15	67	.300	1.90	--
27...	2045	--	--	8.40	--	16	72	.160	1.70	--
27...	2050	--	--	16.0	--	23	101	.160	1.20	--
27...	2055	--	--	6.80	--	15	67	.290	1.90	--
27...	2100	--	--	6.70	--	11	50	.140	1.40	--
27...	2105	--	--	5.90	--	14	62	.170	1.00	--
27...	2110	--	--	7.00	--	13	57	.190	.940	--
27...	2120	--	--	7.40	--	14	61	.240	.850	--

PATAPSCO RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR DECEMBER 1980 TO SEPTEMBER 1981

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 , 1980											
17-18	--	2000	1600	--	<10	<10	40	35	<5	7.9	23
30-31	--	2000	1600	<5	<10	<10	26	70	<5	6.2	22
JAN , 1981											
12-13	--	1900	1500	<5	<10	<10	51	<20	<5	9.7	23
27-28	--	1900	1500	<5	<10	10	330	<20	20	8.0	21
FEB											
08...	1337	--	--	<5	<10	30	1030	90	180	15	9.8
08...	1400	--	--	<5	<10	40	1030	90	160	15	9.6
08...	1510	--	--	<5	<10	30	1160	100	130	12	11
08...	1700	--	--	<5	<10	30	1720	60	80	11	13
08...	2120	--	--	<5	<10	<10	<10	<20	<5	--	--
10-10	--	1120	1520	<5	<10	<10	290	20	20	9.8	21
26-27	--	1900	1500	<5	<10	<10	1100	<20	20	13	15
MAR											
09-10	--	1900	1500	<5	<10	<10	520	<20	20	3.0	19
24...	1510	--	--	<5	<10	<10	440	<20	30	10	21
30...	1000	--	--	<5	30	100	7000	280	420	30	19
30...	1010	--	--	<5	40	140	8000	380	510	34	19
30...	1040	--	--	<5	30	90	3600	230	340	28	13
APR											
05...	1750	--	--	<5	40	120	6900	540	620	33	16
05...	1755	--	--	<5	30	100	6700	650	620	25	16
05...	1815	--	--	<5	50	110	7200	520	530	27	16
05...	1820	--	--	<5	40	110	6000	430	480	27	14
05...	1915	--	--	<5	<10	40	2500	140	170	17	15
05...	2010	--	--	<5	<10	20	1600	30	90	13	14
05...	2110	--	--	<5	<10	40	2300	160	140	12	15
07-07	--	1230	1530	--	--	--	--	--	--	6.0	21
21...	1515	--	--	<5	<10	<10	260	<20	20	9.0	22
28...	1740	--	--	--	--	--	--	--	--	51	--
28...	1745	--	--	--	--	--	--	--	--	52	--
28...	1750	--	--	--	--	--	--	--	--	45	--
28...	1755	--	--	--	--	--	--	--	--	42	--
28...	1830	--	--	--	--	--	--	--	--	32	--
28...	1930	--	--	--	--	--	--	--	--	29	--
28...	2000	--	--	--	--	--	--	--	--	28	--
MAY											
04-05	--	2240	1300	<5	<10	<10	310	<20	10	8.0	21
21-22	--	1900	1620	<5	<10	<10	220	20	10	1.0	22
JUN											
10...	0500	--	--	<5	<10	60	3500	210	280	28	10
10...	0625	--	--	--	--	--	--	--	--	19	7.0
10...	0630	--	--	30	<10	70	5500	270	260	20	--
10...	0640	--	--	<5	<10	10	970	60	100	13	9.0
10...	0710	--	--	<5	<10	10	850	30	80	11	9.0
10...	0730	--	--	<5	10	10	1200	60	90	13	9.0
10...	0815	--	--	<5	<10	<10	1500	70	100	15	12
10...	0905	--	--	<5	<10	10	1900	70	80	15	13
10...	1005	--	--	<5	<10	<10	1300	50	60	14	15
16-16	--	817	1520	<5	<10	<10	640	<20	40	10	21
29-30	--	1900	1550	<5	<10	<10	420	25	25	6.0	23
JUL											
13-14	--	1950	1550	<5	10	<10	410	10	60	5.0	12
AUG											
11-11	--	1020	1500	<5	<10	40	1450	30	40	12	18
25-26	--	1900	1500	<5	<10	10	330	<20	<10	10	20
SEP											
09-10	--	1900	1500	<5	20	<10	310	<20	10	6.3	89
17...	2050	--	--	<5	<10	120	4700	150	220	25	23
17...	2120	--	--	<5	<10	60	1200	130	210	22	16
17...	2140	--	--	<5	<10	50	770	120	200	16	12
17...	2155	--	--	<5	20	80	730	90	190	10	8.5
18...	0310	--	--	<5	<10	50	1700	40	100	14	12
18...	0440	--	--	<5	<10	40	3200	<20	70	11	10
18...	0515	--	--	<5	<10	40	350	90	70	5.1	10
18...	0545	--	--	<5	<10	60	1100	<20	70	6.3	13
18...	0600	--	--	<5	10	60	1500	<20	70	7.9	15
18...	0630	--	--	<5	<10	80	5100	120	140	8.5	16
18...	0745	--	--	<5	<10	100	5000	90	120	9.9	15
18...	0945	--	--	<5	<10	40	1700	<20	50	8.8	14
21-22	--	1900	1500	<5	<10	10	350	<20	35	10	17
27...	2030	--	--	<5	70	200	26000	810	900	36	18
27...	2035	--	--	<5	50	120	8100	490	580	35	6.3
27...	2040	--	--	<5	40	110	6300	360	450	29	8.7
27...	2045	--	--	<5	30	90	4700	290	400	35	5.5
27...	2050	--	--	<5	30	80	4000	240	340	32	5.2
27...	2055	--	--	<5	50	120	8400	500	--	34	8.8
27...	2100	--	--	<5	50	100	4100	280	420	23	6.3
27...	2105	--	--	<5	30	60	2800	210	310	18	6.8
27...	2110	--	--	<5	20	90	2100	150	240	24	6.2
27...	2120	--	--	<5	30	80	2000	130	210	19	5.9

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 mi² (17.92 km²).

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.--17 years (water years 1943-52, 1975-81), 9.69 ft³/s (0.274 m³/s), 19.02 in/yr (483 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s (59.5 m³/s) Aug. 2, 1944, gage height, 5.49 ft (1.673 m), from rating curve extended above 140 ft³/s (3.96 m³/s) on basis of velocity-area studies; minimum discharge, 1.5 ft³/s (0.042 m³/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, 91 ft³/s (2.58 m³/s) Aug. 31; gage height, 2.84 ft (0.866 m), no peak above base of 185 ft³/s (5.2 m³/s); minimum discharge, 1.5 ft³/s (0.042 m³/s) all or part of each day July 14-16, 18-20, Aug. 18-30, gage height 1.73 ft (0.527 m).

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	3.0	4.0	5.2	4.8	4.0	6.0	10	9.1	4.0	2.1	1.8	15
2	3.7	4.0	5.2	4.8	15	5.6	14	14	15	2.1	1.8	4.0
3	9.7	4.0	4.8	4.4	13	5.2	6.5	6.0	7.5	3.0	1.8	3.0
4	10	9.0	4.4	4.0	4.8	5.2	6.0	4.8	7.5	27	2.1	2.6
5	4.0	5.0	4.8	4.4	4.0	11	7.5	4.4	11	21	2.1	2.6
6	3.0	4.4	4.8	5.6	4.0	8.0	10	4.4	4.8	4.8	2.1	2.6
7	3.0	4.0	4.8	4.0	4.4	5.6	6.0	4.0	4.0	3.7	2.4	2.6
8	3.0	4.0	4.8	4.4	8.0	5.2	5.6	4.0	3.3	3.0	6.0	3.0
9	3.0	5.0	6.0	4.8	7.5	5.2	7.0	3.7	3.3	2.6	3.7	3.3
10	2.6	4.4	6.0	4.4	5.2	5.2	6.5	4.4	8.5	2.4	2.4	2.4
11	3.0	3.8	5.2	4.2	16	5.2	8.0	8.0	4.4	2.1	2.1	2.4
12	2.6	3.5	4.8	4.1	13	4.8	13	9.7	3.3	2.1	2.4	2.1
13	2.6	3.6	4.8	4.0	5.2	5.2	14	5.6	3.3	2.1	2.4	2.1
14	2.6	3.7	4.4	4.0	4.8	4.8	11	4.4	10	1.8	2.1	2.1
15	2.6	3.9	4.4	4.0	5.2	4.8	8.0	9.7	4.4	1.8	1.8	3.3
16	3.0	4.4	4.8	4.4	6.0	6.5	6.5	8.5	3.7	1.8	2.7	35
17	3.0	15	4.4	4.4	7.0	5.6	6.5	4.8	3.0	2.1	1.8	7.5
18	3.7	23	4.4	4.0	7.5	5.2	6.0	4.4	2.6	1.8	1.8	9.1
19	6.5	5.6	4.8	4.4	7.5	4.8	5.6	8.0	2.6	1.8	1.8	6.0
20	3.7	5.2	3.7	5.2	13	4.8	5.6	6.5	3.3	2.1	1.8	3.7
21	3.7	4.8	3.0	7.0	10	4.8	4.8	4.8	3.0	6.0	1.5	3.0
22	3.7	4.8	3.3	7.0	8.5	4.4	4.8	4.0	3.0	3.3	1.8	2.7
23	3.7	4.4	4.4	6.5	19	4.8	5.6	3.7	2.6	2.1	1.8	3.0
24	3.7	9.7	6.5	6.0	17	4.4	9.1	3.3	2.4	1.8	1.8	2.4
25	25	12	5.6	5.6	8.5	4.4	5.2	3.3	2.4	4.8	1.8	2.1
26	21	6.0	4.0	5.6	7.0	4.4	4.8	3.0	3.7	4.4	1.8	2.1
27	5.6	5.6	4.0	6.0	6.0	4.4	4.8	3.0	2.4	3.0	1.8	2.1
28	5.6	10	4.0	5.6	6.0	4.4	4.4	7.5	2.1	3.3	1.8	2.1
29	4.4	6.5	6.0	5.2	---	4.4	4.4	12	2.1	5.6	1.5	2.1
30	4.4	5.2	6.0	4.4	---	12	4.8	4.4	2.1	2.4	3.0	2.1
31	4.0	---	4.8	4.0	---	13	---	6.0	---	2.1	35	---
TOTAL	163.1	188.5	148.1	151.2	237.1	179.3	216.0	183.4	135.3	130.0	100.5	138.1
MEAN	5.26	6.28	4.78	4.88	8.47	5.78	7.20	5.92	4.51	4.19	3.24	4.60
MAX	25	23	6.5	7.0	19	13	14	14	15	27	35	35
MIN	2.6	3.5	3.0	4.0	4.0	4.4	4.4	3.0	2.1	1.8	1.5	2.1
CFSM	.76	.91	.69	.71	1.22	.84	1.04	.86	.65	.61	.47	.67
IN.	.88	1.01	.80	.81	1.27	.96	1.16	.99	.73	.70	.54	.74

CAL YR 1980 TOTAL 2872.0 MEAN 7.85 MAX 38 MIN 2.4 CFSM 1.13 IN 15.44
WTR YR 1981 TOTAL 1970.6 MEAN 5.40 MAX 35 MIN 1.5 CFSM .78 IN 10.59

RHODE RIVER BASIN

01590720 RHODE RIVER NEAR SOUTH RIVER, MD

LOCATION.--Lat 38°53'10", long 76°32'30", Anne Arundel County, Hydrologic Unit 02060004, 1.5 mi (2.4 km) southeast of South River, at end of 100 ft (30 m) pier located on Smithsonian Institution property.

DRAINAGE AREA.--18.0 mi² (46.6 km²).

PERIOD OF RECORD.--Water years 1971 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. 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, 27,900 micromhos Feb. 15; minimum, 14,600 micromhos May 30.

pH: Maximum, 9.7 units Sept. 3; minimum, 6.8 units May 31, June 1, 6, 7, 12, July 8.

WATER TEMPERATURES: Maximum, 31.5°C June 16; minimum, 0.0°C on many days during winter period.

DISSOLVED OXYGEN: Maximum, 19.2 mg/L Jan. 31; minimum, 0.0 mg/L July 8, 14.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	23900	23700	23800	26200	25600	25900	25400	24900	25200	23400	22600	22900
2	23900	22700	23200	26100	25900	26100	25400	24900	25200	24500	23200	23900
3	23000	22700	22900	26000	25900	26000	25300	24900	25100	25400	24000	24600
4	23000	22800	22900	26000	25900	25900	25000	24700	24800	24500	24000	24200
5	23000	22800	22900	26300	26000	26100	26000	24700	25100	25100	23800	24100
6	23000	22800	22900	26200	26100	26100	26200	25200	25700	24700	23300	24100
7	23100	22800	23000	26300	26200	26200	25800	25300	25600	25800	23600	24200
8	23200	22900	23100	26400	26100	26200	25500	25000	25300	24800	24000	24200
9	23500	23000	23200	26200	26000	26100	25400	25000	25300	25000	24300	24700
10	23600	23200	23400	26600	26200	26400	25400	25100	25200	26300	23800	24200
11	23700	23500	23600	26500	26400	26500	26600	24900	25500	24500	23900	24200
12	23700	23500	23600	26600	26400	26500	26600	26400	26500	25100	23900	24400
13	23800	23600	23700	26700	25700	26500	26500	23400	24600	25900	24000	25000
14	23800	23700	23800	---	---	---	23400	22600	23000	26100	24700	25300
15	24200	23800	23900	---	---	---	23000	21500	22300	26300	25200	25600
16	24300	24100	24200	---	---	---	22500	21500	21800	26100	25100	25900
17	24500	24200	24300	---	---	---	25600	21800	22900	26100	25800	26000
18	24700	24100	24500	---	---	---	25900	22800	23400	26000	25000	25500
19	24600	24300	24500	---	---	---	24900	22900	24500	26000	24900	25200
20	24800	24500	24600	---	---	---	24700	23400	24100	25600	25000	25300
21	24900	24700	24800	26300	26200	26200	23400	22600	23100	25600	24900	25100
22	25100	24900	25000	26300	26200	26300	23500	22700	23100	26400	25100	25700
23	25100	24900	24900	26300	26200	26300	24100	22600	23400	26700	25900	26300
24	25400	25100	25200	25600	25300	25400	23200	22700	23000	27000	26100	26600
25	25400	24500	25000	25700	25300	25500	23300	22800	23000	27200	26300	26700
26	25300	24800	25000	25500	25200	25300	24000	22800	23300	27000	26600	26800
27	24900	24700	24800	25300	24900	25100	25200	22900	23200	27400	26600	26800
28	25000	24700	24800	25100	24800	25000	23900	23000	23500	27000	25900	26300
29	25100	24800	24900	25700	24700	25200	23700	22600	23000	26900	26000	26300
30	25300	25000	25200	25600	24600	25100	23400	22700	23100	27600	26000	27000
31	25800	25200	25500	---	---	---	24900	22600	23300	27400	27000	27200
MONTH	25800	22700	24100	26700	24600	25900	26600	21500	24100	27600	22600	25300

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	27300	26800	27100	19200	16400	18400	23400	23000	23200	21000	20700	20800
2	27200	26700	27000	18300	16700	17600	23500	23000	23300	20900	20700	20800
3	27300	26600	27000	18900	17400	18300	23200	22300	23000	20800	20500	20700
4	27100	25400	26200	18000	17100	17400	23100	22400	22900	20800	20300	20500
5	27100	25800	26200	17100	15900	16500	23100	22600	22900	20700	19800	20400
6	27100	25400	26000	16000	15100	15600	23200	22800	23000	20200	19700	19900
7	26200	25600	25900	15100	15000	15100	22800	22200	22600	20000	19700	19800
8	26100	25700	25900	20200	14900	15500	22700	21900	22300	19800	19600	19700
9	26600	26000	26300	---	---	---	23680	22100	22700	19700	19500	19600
10	26800	26200	26500	---	---	---	23680	22100	23000	19600	19400	19500
11	27200	25800	26400	---	---	---	23100	22400	22800	19400	19000	19200
12	27100	25000	26000	---	---	---	23000	22400	22700	19100	18800	19000
13	26400	25900	26100	20500	20300	20400	22900	22000	22500	18800	18300	18700
14	26800	26000	26300	20500	20300	20400	23300	21800	22600	18800	18500	18600
15	27900	26200	26800	20400	20300	20300	23300	22700	22900	18700	18200	18500
16	26900	24500	26400	20900	20000	20500	22800	22700	22700	18600	18000	18300
17	26300	22300	24200	21000	20100	20400	---	---	---	18800	18000	18300
18	24000	21300	22400	21600	20800	21000	---	---	---	18700	18300	18500
19	21700	20800	21300	24100	21300	22700	---	---	---	19000	18300	18600
20	23500	20700	21800	24700	24100	24500	---	---	---	18600	18300	18500
21	23400	22100	22600	24500	23900	24200	---	---	---	18500	18200	18400
22	22500	21900	22300	24000	23400	23700	---	---	---	18300	17700	18200
23	22100	18600	19700	23800	23500	23700	---	---	---	18100	17600	17900
24	19200	18600	18800	23800	23600	23700	---	---	---	17800	16900	17400
25	19300	18500	18900	23800	23500	23700	---	---	---	17300	16200	16800
26	18900	18800	18800	23800	23300	23600	---	---	---	16900	16400	16700
27	20100	18600	19100	23700	23400	23600	---	---	---	16800	16500	16600
28	19800	16400	18700	23600	23300	23500	---	---	---	16600	16100	16300
29	---	---	---	23600	23500	23500	---	---	---	16200	15800	16100
30	---	---	---	23600	23100	23400	---	---	---	16100	14600	15700
31	---	---	---	23600	23300	23500	---	---	---	16700	15600	16200
MONTH	27900	16400	24000	24700	14900	20900	23600	21800	22800	21000	14600	18500

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16700	16100	16500	18500	18300	18400	21400	21100	21200	23900	23500	23700
2	16600	15900	16300	18700	18300	18500	21700	21200	21400	23800	23500	23600
3	16600	15800	16200	18700	18500	18700	21600	21200	21400	24200	23500	23800
4	17000	15900	16500	18600	17100	18000	21900	21300	21700	24300	24100	24200
5	17200	16900	17100	17900	17100	17500	22100	21700	21900	---	---	---
6	17300	16900	17100	17700	16200	17000	22200	22000	22100	---	---	---
7	17400	17100	17200	17300	16700	17000	22500	22100	22300	---	---	---
8	17200	16600	16900	17100	17000	17100	22700	22400	22500	24200	24000	24100
9	17500	16900	17300	17100	17000	17100	22700	22300	22500	24300	24100	24200
10	17500	17000	17300	17200	17000	17100	22600	22400	22500	24300	24100	24200
11	18700	17500	18200	17300	17100	17200	22600	22500	22500	24600	24300	24400
12	18900	18200	18500	17300	17100	17200	22700	22400	22500	24700	24400	24600
13	18700	18100	18500	17400	17200	17300	22600	22500	22600	24900	24600	24800
14	18600	18000	18400	20000	17300	18400	22700	22500	22600	25000	24700	24900
15	18600	18000	18300	19800	18700	19200	22800	22400	22600	25400	24900	25200
16	18600	17600	18200	19500	19100	19300	22800	22400	22600	25000	24500	24700
17	18700	18000	18400	19400	19100	19300	22900	22400	22700	24700	24300	24600
18	18600	18300	18500	19700	19400	19500	22900	22500	22700	24600	24100	24400
19	18800	18300	18500	19800	19600	19700	23000	22500	22800	24600	24000	24500
20	18500	18300	18400	19800	19600	19700	22900	22700	22800	24600	24500	24500
21	18600	18400	18500	19900	19500	19700	23100	22900	23000	24500	24200	24500
22	18600	18100	18500	20600	19600	19900	23200	22800	23000	24600	24300	24500
23	18500	18300	18400	21200	19900	20400	23100	22700	22900	24500	24200	24300
24	18600	18400	18500	21900	20300	20900	23200	22700	22900	24600	24300	24400
25	18600	18200	18400	21000	20400	20700	23400	22800	23100	24500	24300	24400
26	18300	18100	18200	20900	20300	20700	23500	23100	23300	25100	24500	24600
27	18200	18000	18200	21000	20600	20800	23700	23500	23600	25400	24600	25000
28	18500	18200	18300	20900	20500	20700	23900	23600	23700	25700	25200	25500
29	18400	18300	18400	21100	20600	20900	23900	23800	23900	25500	25300	25500
30	18600	18300	18500	21100	20600	20900	23800	23400	23700	25700	25400	25500
31	---	---	---	21300	21000	21100	23700	23400	23600	---	---	---
MONTH	18900	15800	17900	21900	16200	19000	23900	21100	22700	25700	23500	24500

RHODE RIVER BASIN

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.6	8.0	8.2	8.2	8.1	8.1	8.7	8.6	8.6	8.4	8.3	8.3
2	8.4	8.0	8.2	8.2	8.0	8.1	8.7	8.6	8.6	8.3	8.3	8.3
3	8.1	7.7	7.9	8.3	8.1	8.2	8.7	8.6	8.6	8.2	8.2	8.2
4	8.1	7.6	7.8	8.2	8.1	8.2	---	---	---	8.3	8.2	8.2
5	8.0	7.6	7.8	8.3	8.1	8.2	---	---	---	8.3	8.2	8.2
6	8.2	7.7	7.9	8.4	8.2	8.3	8.7	8.5	8.6	8.3	8.2	8.2
7	8.2	7.8	8.0	8.4	8.2	8.3	8.7	8.6	8.6	8.3	8.2	8.2
8	8.3	7.7	8.0	8.3	8.3	8.3	8.7	8.6	8.6	8.3	8.2	8.3
9	8.4	7.8	8.1	8.3	8.2	8.3	8.6	8.6	8.6	8.3	8.2	8.3
10	8.3	8.0	8.2	8.4	8.1	8.3	8.6	8.6	8.6	8.4	8.2	8.3
11	8.5	7.9	8.2	8.4	8.3	8.4	8.6	8.5	8.6	8.4	8.2	8.3
12	8.5	7.9	8.2	8.5	8.3	8.4	8.5	8.5	8.5	8.4	8.2	8.3
13	8.5	8.2	8.3	8.5	8.4	8.4	8.5	8.4	8.5	8.4	8.2	8.3
14	8.4	8.2	8.3	---	---	---	8.5	8.5	8.5	8.3	8.1	8.3
15	8.5	8.2	8.3	---	---	---	8.5	8.5	8.5	8.2	8.0	8.1
16	8.5	8.2	8.4	---	---	---	8.5	8.5	8.5	8.1	7.9	8.0
17	8.5	8.3	8.3	---	---	---	8.5	8.5	8.5	8.0	7.9	8.0
18	8.3	8.1	8.2	---	---	---	8.5	8.4	8.5	8.1	7.9	8.0
19	8.5	7.9	8.2	---	---	---	8.5	8.4	8.5	8.2	8.0	8.1
20	8.3	7.7	8.1	---	---	---	8.5	8.4	8.5	8.3	8.0	8.2
21	8.2	8.0	8.1	8.4	8.3	8.3	8.5	8.4	8.4	8.3	8.1	8.2
22	8.3	8.0	8.1	8.3	8.3	8.3	8.6	8.4	8.5	8.4	8.2	8.3
23	8.2	8.0	8.1	8.3	8.3	8.3	8.6	8.4	8.5	8.4	8.3	8.3
24	8.2	8.0	8.1	8.3	8.2	8.3	8.5	8.4	8.5	8.5	8.2	8.3
25	8.1	7.9	8.0	8.4	8.2	8.3	8.5	8.4	8.5	8.5	8.2	8.4
26	8.1	7.8	7.9	8.5	8.3	8.4	8.4	8.4	8.4	8.4	8.2	8.3
27	8.2	8.0	8.1	8.5	8.4	8.5	8.4	8.4	8.4	8.4	8.2	8.3
28	8.1	8.1	8.1	8.5	8.5	8.5	8.5	8.4	8.4	8.5	8.3	8.4
29	8.2	8.0	8.1	8.6	8.4	8.5	8.4	8.3	8.4	8.5	8.3	8.4
30	8.1	7.9	8.0	8.6	8.4	8.5	8.4	8.4	8.4	8.5	8.4	8.5
31	8.2	7.9	8.0	---	---	---	8.4	8.3	8.4	8.6	8.4	8.5
MONTH	8.6	7.6	8.1	8.6	8.0	8.3	8.7	8.3	8.5	8.6	7.9	8.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.5	8.3	8.4	8.6	8.1	8.4	8.6	8.4	8.5	8.5	8.3	8.4
2	8.4	8.3	8.4	8.5	8.3	8.4	8.4	8.2	8.3	8.6	8.2	8.4
3	8.5	8.3	8.4	8.5	8.4	8.4	8.6	8.3	8.5	8.7	8.3	8.5
4	8.4	8.3	8.4	8.6	8.4	8.5	8.6	8.4	8.5	8.7	8.4	8.5
5	8.5	8.3	8.4	8.5	8.4	8.5	8.6	8.4	8.5	8.5	8.3	8.4
6	8.3	8.2	8.3	8.5	8.4	8.5	8.5	8.2	8.4	8.5	8.3	8.4
7	8.3	8.2	8.3	8.5	8.4	8.5	8.6	8.4	8.5	8.7	8.3	8.5
8	8.3	8.2	8.3	8.5	8.0	8.5	8.7	8.4	8.5	8.7	8.5	8.6
9	8.3	8.2	8.2	8.3	7.8	8.1	8.5	8.1	8.4	8.6	8.5	8.5
10	8.3	8.2	8.2	8.4	8.1	8.2	8.5	7.9	8.2	8.5	8.2	8.4
11	8.3	8.2	8.2	8.5	8.3	8.4	8.4	8.3	8.4	8.3	7.9	8.1
12	8.3	8.1	8.2	8.5	8.4	8.5	8.3	7.8	8.2	8.4	7.9	8.1
13	8.3	8.1	8.2	8.6	8.5	8.5	8.3	7.9	8.1	8.4	7.9	8.1
14	8.3	8.1	8.2	8.7	8.5	8.6	8.2	8.0	8.2	8.4	8.0	8.2
15	8.2	8.2	8.2	8.7	8.5	8.6	8.4	7.9	8.2	8.2	7.7	8.0
16	8.2	8.1	8.2	8.6	8.3	8.5	8.3	8.2	8.2	8.1	7.3	7.7
17	8.2	8.0	8.1	8.6	8.4	8.5	---	---	---	8.4	7.3	7.8
18	8.1	8.0	8.0	8.5	8.3	8.4	---	---	---	8.0	7.1	7.6
19	8.1	8.0	8.0	8.4	8.1	8.3	---	---	---	7.6	7.1	7.4
20	8.2	8.0	8.1	8.2	8.0	8.1	---	---	---	8.4	7.3	7.8
21	8.2	8.1	8.2	8.4	8.1	8.3	---	---	---	8.4	7.7	8.2
22	8.3	8.2	8.2	8.6	8.3	8.4	---	---	---	8.3	7.9	8.2
23	8.2	8.0	8.1	8.5	8.4	8.5	---	---	---	8.6	7.8	8.2
24	8.4	8.0	8.2	8.6	8.4	8.5	---	---	---	8.6	7.9	8.3
25	8.5	8.2	8.3	8.6	8.4	8.5	---	---	---	8.6	7.6	8.3
26	8.5	8.3	8.4	8.7	8.5	8.6	---	---	---	8.6	7.7	8.2
27	8.5	8.4	8.4	8.6	8.4	8.5	---	---	---	8.4	7.7	8.1
28	8.4	8.1	8.4	8.7	8.5	8.6	---	---	---	8.0	7.5	7.8
29	---	---	---	8.7	8.5	8.6	---	---	---	8.2	7.2	7.5
30	---	---	---	8.6	8.4	8.5	---	---	---	8.1	7.0	7.5
31	---	---	---	8.6	8.3	8.4	---	---	---	7.4	6.8	7.0
MONTH	8.5	8.0	8.3	8.7	7.8	8.5	8.7	7.8	8.4	8.7	6.8	8.1

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	6.8	7.3	8.0	7.5	7.7	8.0	7.6	7.8	---	---	---
2	7.8	7.0	7.3	8.2	7.4	7.8	7.9	7.4	7.7	9.6	---	---
3	7.4	7.0	7.2	8.3	7.5	7.9	8.1	7.6	7.8	9.7	8.7	9.2
4	7.3	6.9	7.0	7.9	7.5	7.7	7.8	7.4	7.6	8.8	8.4	8.6
5	8.0	6.9	7.2	7.6	7.2	7.4	7.9	7.3	7.6	---	---	---
6	7.3	6.8	7.1	8.7	7.0	7.7	7.7	7.3	7.5	---	---	---
7	7.3	6.8	7.1	8.5	6.9	7.6	8.1	7.3	7.6	---	---	---
8	8.0	6.9	7.4	7.3	6.8	7.0	8.0	7.6	7.8	8.6	8.0	8.3
9	7.8	7.0	7.3	7.4	6.9	7.2	8.0	7.3	7.6	8.3	7.9	8.1
10	7.5	6.9	7.1	7.6	7.1	7.3	8.1	7.5	7.8	8.5	7.9	8.2
11	7.4	6.9	7.1	8.1	7.2	7.6	8.2	7.5	7.8	8.5	7.8	8.1
12	8.1	6.8	7.3	7.9	7.2	7.6	7.8	7.4	7.7	8.3	7.7	8.0
13	8.0	7.1	7.5	7.8	7.2	7.5	7.7	7.4	7.5	8.5	7.6	8.1
14	7.7	7.1	7.4	7.5	7.1	7.3	7.7	7.5	7.5	8.7	8.0	8.3
15	8.3	7.0	7.6	7.3	7.0	7.1	7.8	7.4	7.6	8.6	7.8	8.2
16	8.5	7.3	7.9	7.3	7.0	7.2	7.6	7.3	7.4	8.3	7.8	8.0
17	8.3	7.1	7.8	7.4	7.0	7.2	7.9	7.7	7.8	8.5	7.6	7.9
18	8.5	7.1	7.9	7.9	7.1	7.5	8.0	7.5	7.7	8.0	7.7	7.8
19	8.5	8.0	8.2	7.8	7.1	7.5	7.8	7.5	7.6	8.1	7.7	7.9
20	8.2	8.0	8.1	7.9	7.3	7.6	8.1	7.7	7.9	8.3	7.8	8.0
21	---	---	---	7.8	7.3	7.6	8.2	7.7	7.9	8.6	7.8	8.1
22	8.1	---	---	7.7	7.1	7.4	8.2	7.7	7.9	8.6	7.8	8.2
23	8.1	7.5	7.7	8.1	7.0	7.4	8.3	7.8	8.1	8.8	7.9	8.5
24	8.2	7.5	7.9	8.0	7.0	7.6	8.2	7.7	8.0	8.8	---	---
25	8.2	7.6	7.9	7.9	7.5	7.6	---	7.7	---	8.8	8.5	8.6
26	8.0	7.5	7.7	7.9	7.2	7.5	---	---	---	8.9	8.4	8.7
27	7.7	7.3	7.5	7.6	7.2	7.4	---	---	---	8.9	8.4	8.7
28	7.8	7.2	7.4	7.8	7.1	7.5	---	---	---	8.8	8.0	8.5
29	7.7	7.2	7.3	7.9	7.3	7.6	---	---	---	8.8	8.6	8.7
30	8.1	7.2	7.6	8.1	7.3	7.6	---	---	---	8.9	8.6	8.8
31	---	---	---	8.0	7.6	7.8	---	---	---	---	---	---
MONTH	8.5	6.8	7.5	8.7	6.8	7.5	8.3	7.3	7.7	9.7	7.6	8.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

RHODE RIVER BASIN

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.5	3.5	4.0	8.5	7.5	8.0	13.5	13.0	13.5	18.0	17.0	17.5
2	4.5	3.0	4.0	8.0	7.5	8.0	13.5	12.5	13.0	17.5	16.5	16.5
3	5.5	3.5	4.5	8.0	7.5	7.5	15.0	12.5	14.0	18.0	15.5	16.5
4	5.0	3.0	4.5	7.5	6.0	6.5	16.5	14.5	15.5	18.5	16.0	17.5
5	5.0	2.5	3.5	6.5	5.5	6.0	16.5	16.0	16.0	20.0	17.0	18.5
6	3.0	1.5	2.0	6.0	5.5	5.5	15.5	13.0	14.5	19.5	18.0	19.0
7	2.5	1.0	2.0	6.0	4.5	5.5	15.0	12.5	13.5	19.0	17.0	18.5
8	2.5	1.5	2.0	5.5	4.5	5.0	16.5	12.5	14.0	20.0	17.0	18.5
9	3.0	1.5	2.0	5.0	4.5	4.5	15.0	13.5	14.5	20.5	17.5	19.0
10	2.5	2.0	2.0	5.0	4.5	5.0	16.5	13.5	14.5	19.5	19.0	19.5
11	3.0	2.0	2.5	6.0	5.0	5.5	16.0	14.5	15.0	19.5	19.0	19.0
12	3.0	1.5	2.5	6.5	5.0	6.0	16.0	14.5	15.0	19.0	18.0	18.5
13	3.5	2.0	2.5	7.5	5.5	6.5	14.5	13.0	13.5	19.5	17.5	18.5
14	3.5	2.5	2.5	7.5	6.0	6.5	14.0	12.5	13.5	21.5	18.5	19.5
15	3.5	2.5	3.0	7.5	5.5	6.0	14.5	12.5	13.5	21.0	20.0	20.5
16	5.0	3.0	4.0	7.0	5.5	6.5	14.5	12.5	13.0	20.0	19.5	19.5
17	7.0	4.5	5.0	5.5	4.0	5.0	---	---	---	21.5	18.5	19.5
18	8.0	5.0	6.5	5.0	4.5	4.5	---	---	---	20.0	18.5	19.0
19	8.5	6.5	7.5	5.0	4.0	4.5	---	---	---	18.5	16.5	17.5
20	9.0	7.0	8.0	5.0	4.5	4.5	---	---	---	18.5	16.5	17.5
21	8.5	7.0	8.0	5.5	4.5	5.0	---	---	---	20.0	16.5	18.0
22	9.0	8.5	8.5	7.0	4.5	5.5	---	---	---	20.5	18.0	19.5
23	9.0	7.5	8.5	7.0	6.0	6.5	---	---	---	23.0	19.0	20.5
24	8.5	7.5	8.0	8.0	6.0	7.0	---	---	---	23.5	20.5	22.0
25	8.0	7.5	8.0	8.0	7.0	7.5	---	---	---	25.0	21.5	23.0
26	8.0	6.5	7.5	9.5	7.0	8.0	---	---	---	26.5	23.5	24.5
27	8.0	6.5	7.0	9.5	8.0	9.0	---	---	---	25.5	24.0	25.0
28	7.5	6.5	7.0	11.5	8.5	10.0	---	---	---	24.5	23.0	24.0
29	---	---	---	12.0	9.5	11.0	---	---	---	25.0	23.0	23.5
30	---	---	---	12.0	11.5	11.5	---	---	---	26.0	23.0	24.5
31	---	---	---	15.0	11.0	12.0	---	---	---	25.0	23.5	24.0
MONTH	9.0	1.0	5.0	15.0	4.0	7.0	16.5	12.5	14.0	26.5	15.5	20.0

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

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.7	6.5	8.0	9.8	8.9	9.4	14.0	11.7	13.1	12.8	12.5	12.6
2	10.7	6.6	8.3	10.1	8.4	9.2	14.0	12.7	13.5	12.6	12.0	12.4
3	7.5	4.6	5.7	10.5	8.8	9.5	12.6	11.7	12.1	12.7	11.7	12.3
4	7.5	4.2	5.6	9.6	8.8	9.3	---	---	---	13.3	12.1	12.6
5	7.2	4.7	5.9	10.7	8.5	9.5	---	---	---	13.3	12.6	13.0
6	8.8	5.2	6.9	11.5	9.6	10.5	13.7	11.7	12.7	13.4	13.0	13.2
7	9.3	5.7	7.4	11.4	9.8	10.7	13.3	12.9	13.1	13.4	13.0	13.2
8	10.0	5.4	7.8	11.4	10.3	10.9	13.4	11.9	12.7	13.8	12.8	13.3
9	10.8	6.1	8.4	11.5	9.7	10.6	12.4	11.9	12.1	14.2	13.3	13.7
10	9.7	7.1	8.2	10.7	9.3	10.1	12.2	11.6	11.9	14.9	13.5	14.0
11	11.7	6.5	8.2	11.2	9.3	10.3	11.8	11.5	11.6	15.4	13.6	14.5
12	10.8	6.5	8.8	11.5	9.8	10.7	11.7	11.2	11.5	15.7	13.3	14.5
13	10.6	7.7	9.2	11.2	9.9	10.6	11.7	11.1	11.3	16.3	13.2	14.7
14	10.0	7.5	8.8	---	---	---	11.5	10.9	11.2	14.9	13.2	14.3
15	11.2	8.0	9.4	---	---	---	11.7	10.9	11.3	13.6	11.6	12.5
16	11.6	8.3	10.3	---	---	---	11.8	11.1	11.5	12.6	11.0	11.8
17	10.9	8.9	9.5	---	---	---	12.0	11.3	11.6	12.3	11.3	11.9
18	9.2	7.2	8.2	---	---	---	12.0	11.4	11.6	12.8	11.3	12.2
19	10.7	6.5	8.6	---	---	---	11.9	10.7	11.7	13.6	12.1	12.9
20	8.9	4.5	7.2	---	---	---	12.2	11.3	11.8	15.0	12.5	13.6
21	8.8	6.6	7.7	10.5	10.0	10.3	12.4	11.7	12.1	15.6	13.4	14.1
22	9.7	6.7	8.0	10.6	9.7	10.2	13.1	12.0	12.3	16.6	13.8	14.7
23	9.5	7.6	8.6	10.7	10.0	10.3	13.1	12.2	12.6	16.2	15.0	15.5
24	9.6	7.9	8.8	10.6	10.0	10.4	12.8	12.4	12.6	18.4	14.5	16.4
25	8.7	7.7	8.2	11.4	9.3	10.5	13.4	12.1	12.5	18.4	14.6	16.5
26	9.9	7.5	8.6	12.6	9.6	11.6	12.5	12.1	12.4	16.8	14.5	15.3
27	10.7	8.6	9.7	12.7	11.7	12.2	12.8	12.3	12.5	15.9	14.7	15.2
28	10.2	9.4	9.8	12.5	11.8	12.2	13.7	12.4	12.8	17.7	15.0	16.3
29	10.9	9.1	9.8	12.6	11.6	12.0	12.9	12.5	12.7	17.5	15.3	16.4
30	10.0	9.1	9.5	13.2	11.4	12.3	12.8	12.5	12.6	18.2	16.0	17.1
31	10.2	9.2	9.6	---	---	---	13.0	12.6	12.8	19.2	15.8	17.5
MONTH	11.7	4.2	8.4	13.2	8.4	10.6	14.0	10.7	12.2	19.2	11.0	14.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	16.9	15.0	16.0	13.6	11.8	12.6	11.5	9.8	10.9	---	---	---
2	16.4	14.4	15.6	13.0	12.2	12.5	11.1	8.8	10.2	---	---	---
3	---	15.5	---	12.9	11.8	12.4	12.7	10.1	11.3	---	---	---
4	17.5	15.5	16.7	12.8	12.0	12.4	12.1	10.3	11.1	---	---	---
5	17.9	13.3	15.6	12.7	12.1	12.4	10.7	9.1	10.0	10.2	8.9	9.6
6	---	---	---	12.7	12.0	12.3	10.9	8.4	9.7	11.3	9.4	10.3
7	---	---	---	13.0	11.9	12.4	11.9	9.0	10.4	11.8	8.9	10.5
8	---	---	---	13.5	11.1	12.5	11.7	9.6	10.5	11.5	10.0	10.8
9	---	---	---	14.1	11.0	12.6	10.4	7.5	9.4	10.7	8.9	9.8
10	14.1	13.3	13.5	14.5	13.0	13.9	10.6	6.1	8.7	8.9	6.9	8.1
11	13.6	12.0	12.6	16.0	13.9	14.7	10.2	8.7	9.4	7.7	5.8	6.8
12	14.0	11.3	12.4	14.7	13.7	14.1	8.9	5.8	8.2	9.1	5.8	7.3
13	13.6	12.2	12.7	13.9	13.4	13.6	9.5	7.1	8.3	9.4	6.4	7.8
14	13.6	11.7	12.9	13.6	12.3	12.9	9.2	7.6	8.6	9.0	6.7	7.8
15	13.6	12.6	13.1	13.7	12.0	12.6	10.9	7.3	9.3	7.7	5.5	6.8
16	---	---	---	13.1	10.9	12.2	9.6	9.0	9.4	8.0	4.1	6.0
17	---	---	---	12.0	11.3	11.6	---	---	---	8.9	4.6	6.9
18	---	---	---	12.2	11.0	11.5	---	---	---	8.6	4.4	7.7
19	---	---	---	12.4	10.4	11.5	---	---	---	8.7	4.1	7.1
20	14.5	13.1	13.8	12.5	10.8	11.7	---	---	---	10.0	4.6	7.0
21	14.1	13.1	13.6	14.2	11.9	12.9	---	---	---	10.2	6.6	8.6
22	13.8	12.9	13.3	16.0	12.8	13.6	---	---	---	9.8	7.3	8.5
23	13.2	12.6	12.9	14.1	13.1	13.6	---	---	---	10.6	6.7	8.2
24	14.5	12.5	13.4	14.8	12.9	13.9	---	---	---	10.3	6.8	8.6
25	14.4	13.2	13.8	15.1	13.0	14.1	---	---	---	10.2	5.2	8.1
26	13.8	12.4	13.2	14.5	12.6	13.6	---	---	---	10.2	5.1	7.2
27	13.2	12.3	12.6	12.9	11.5	12.3	---	---	---	9.2	5.3	7.3
28	12.6	12.1	12.3	12.9	11.5	12.3	---	---	---	7.3	5.2	6.3
29	---	---	---	12.5	11.4	11.9	---	---	---	9.1	3.4	5.8
30	---	---	---	11.6	10.2	10.8	---	---	---	9.7	3.7	6.7
31	---	---	---	12.1	9.2	10.7	---	---	---	7.6	2.7	5.6
MONTH	17.9	11.3	13.7	16.0	9.2	12.7	12.7	5.8	9.7	11.8	2.7	7.8

RHODE RIVER BASIN

01590720 RHODE RIVER NEAR SOUTH RIVER, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	2.4	5.1	8.4	6.0	7.0	6.9	4.6	5.6	8.9	4.9	7.1
2	7.1	3.0	5.0	8.8	5.3	7.1	6.3	4.0	5.1	9.4	5.6	7.3
3	6.1	3.0	4.3	9.6	5.3	7.4	6.9	4.7	5.8	9.3	5.5	7.4
4	6.4	1.8	4.1	7.4	5.5	6.3	5.4	2.9	3.9	8.9	6.2	7.3
5	8.9	1.4	3.5	6.2	3.1	4.8	5.6	2.6	4.0	---	---	---
6	5.9	1.0	3.9	13.0	2.0	6.6	4.5	2.6	3.4	---	---	---
7	6.8	1.3	4.3	11.6	1.8	6.4	8.0	2.5	4.6	---	---	---
8	9.1	2.5	6.2	4.4	.0	2.0	7.0	4.4	5.6	6.5	5.1	5.8
9	7.6	2.8	5.4	4.7	.5	3.0	7.3	2.8	5.4	6.3	4.3	5.2
10	6.8	3.5	4.1	5.4	1.9	3.2	8.3	4.8	6.0	7.4	3.8	5.5
11	6.4	1.9	3.8	8.1	2.8	5.4	8.1	4.0	5.4	9.2	2.7	5.3
12	8.1	.9	4.8	8.0	3.3	5.8	4.9	2.9	4.0	8.0	3.6	5.7
13	7.8	3.2	5.9	6.3	4.0	5.0	5.6	3.3	3.9	8.9	3.5	6.3
14	7.2	3.6	5.3	4.5	.0	2.7	5.6	4.0	4.5	9.8	5.2	6.9
15	9.5	3.7	6.1	5.7	.6	2.9	6.3	2.4	4.3	9.0	3.3	5.5
16	8.7	3.9	6.4	5.1	2.9	4.1	5.8	3.6	4.7	6.3	3.9	4.8
17	7.7	2.8	5.9	5.0	2.2	3.8	6.6	3.4	5.0	8.5	3.0	4.7
18	10.2	2.4	6.4	7.6	2.9	5.3	6.5	4.6	5.6	5.4	4.0	4.7
19	9.3	6.2	7.6	7.6	3.0	5.7	6.6	4.6	5.6	6.8	3.8	5.2
20	7.7	5.5	6.7	7.1	4.8	5.9	7.4	5.0	6.2	8.5	5.2	6.4
21	---	---	---	6.5	4.0	5.4	8.2	5.1	6.7	11.6	5.7	7.7
22	7.2	---	---	6.0	1.6	4.0	7.9	5.3	6.6	13.2	6.3	9.3
23	7.4	4.1	5.4	8.0	.4	4.1	10.0	3.9	7.0	11.5	6.7	9.3
24	8.2	4.3	6.1	7.5	.8	4.7	8.2	5.7	7.0	11.0	---	---
25	8.8	4.9	6.5	7.1	4.8	5.7	8.8	4.7	6.8	12.0	8.3	9.7
26	7.6	4.2	6.0	7.6	3.3	5.6	7.0	4.7	5.9	12.1	7.5	10.5
27	7.1	3.8	5.4	5.7	1.9	4.1	9.0	7.0	7.8	11.9	7.3	9.8
28	8.1	3.5	5.6	7.1	1.1	4.8	8.5	6.0	7.2	9.6	4.4	7.8
29	6.4	3.7	4.9	6.7	4.0	5.1	8.3	5.7	6.9	9.7	7.4	8.4
30	9.0	4.5	6.3	7.5	3.3	5.1	6.3	5.0	5.7	9.8	6.8	7.9
31	---	---	---	7.3	4.5	5.8	8.4	3.8	5.5	---	---	---
MONTH	10.2	.9	5.4	13.0	.0	5.0	10.0	2.4	5.5	13.2	2.7	7.0

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 mi² (90.1 km²).

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 except those for the period May 5 to June 5, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 39.6 ft³/s (1.121 m³/s), 15.45 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft³/s (595 m³/s) Sept. 11, 1971, gage height, 18.60 ft (5.669 m), from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurement at gage height 13.00 ft (3.962 m); minimum discharge, 0.20 ft³/s (0.006 m³/s) Sept. 10, 11, 12, 1966, gage height, 1.66 ft (0.506 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 422 ft³/s (12.0 m³/s) Feb. 11, gage height, 4.37 ft (1.332 m); no peak above base of 770 ft³/s (21 m³/s); minimum discharge, 4.9 ft³/s (0.14 m³/s) Sept. 14, 15, gage height, 1.83 ft (0.558 m).

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	7.9	11	17	13	11	32	25	42	19	13	10	9.0
2	8.8	11	16	12	99	28	34	49	36	27	9.7	7.7
3	15	10	15	12	49	25	23	30	24	23	9.3	7.6
4	11	12	14	11	23	23	21	25	46	92	10	7.7
5	9.3	14	14	10	16	41	22	24	50	43	9.9	8.2
6	9.0	12	14	11	15	39	29	20	48	28	10	8.1
7	8.7	12	14	13	15	37	22	20	28	21	11	7.8
8	9.2	11	14	12	19	31	21	19	22	18	15	8.0
9	8.8	11	15	11	17	28	22	19	20	17	12	9.9
10	8.4	11	16	11	15	26	22	24	30	15	9.6	7.3
11	9.1	10	15	10	175	26	22	36	23	13	9.2	6.5
12	8.2	10	15	11	52	24	32	28	19	13	18	6.1
13	7.7	10	14	11	36	23	56	22	17	12	13	5.5
14	7.8	11	14	11	26	22	63	20	56	12	9.9	5.2
15	8.4	11	14	11	23	21	50	46	29	11	9.3	5.8
16	8.1	11	15	11	21	23	38	40	21	11	11	14
17	7.8	13	14	11	20	24	35	26	18	12	8.5	11
18	8.6	41	13	11	21	21	32	20	16	11	7.6	9.6
19	11	22	14	14	23	21	28	26	15	10	7.2	8.3
20	8.8	16	12	15	73	20	28	30	30	10	7.1	7.4
21	8.3	14	11	15	85	20	25	22	21	12	6.6	7.2
22	8.1	13	11	15	52	19	24	20	26	11	6.3	7.2
23	8.0	13	12	15	164	19	24	19	18	9.5	6.4	6.9
24	8.6	73	14	14	108	18	31	17	15	9.1	6.1	6.6
25	63	51	13	13	57	18	24	16	16	12	5.8	6.0
26	25	24	11	13	43	17	22	16	24	12	5.5	5.9
27	14	20	11	13	35	18	21	15	15	11	5.5	5.6
28	13	25	13	13	32	17	21	20	13	20	5.5	6.0
29	12	21	14	12	---	17	21	26	12	39	5.2	5.5
30	11	18	14	11	---	20	20	20	12	14	6.8	5.3
31	11	---	13	11	---	23	---	26	---	11	10	---
TOTAL	363.6	542	426	377	1325	741	858	783	739	572.6	277.0	222.9
MEAN	11.7	18.1	13.7	12.2	47.3	23.9	28.6	25.3	24.6	18.5	8.94	7.43
MAX	63	73	17	15	175	41	63	49	56	92	18	14
MIN	7.7	10	11	10	11	17	20	15	12	9.1	5.2	5.2
CFSM	.34	.52	.39	.35	1.36	.69	.82	.73	.71	.53	.26	.21
IN.	.39	.58	.46	.40	1.42	.79	.92	.84	.79	.61	.30	.24

CAL YR 1980 TOTAL 14108.3 MEAN 38.5 MAX 242 MIN 6.6 CFSM 1.11 IN 15.08
WTR YR 1981 TOTAL 7227.1 MEAN 19.8 MAX 175 MIN 5.2 CFSM .57 IN 7.73

PATUXENT RIVER BASIN

01591350 CATTAIL CREEK NEAR COOKSVILLE, MD

LOCATION.--Lat 39°18'50", long 77°03'15", Howard County, Hydrologic Unit 02060006, on left bank at upstream side of bridge on Bushy Park Road, 0.1 mi (0.2 km) west of intersection of Carrs Mill Road, 2.3 mi (3.7 km) west of Cooksville, and 6.8 mi (10.9 km) upstream from mouth.

DRAINAGE AREA.--8.37 mi² (21.68 km²).

PERIOD OF RECORD.--April 1977 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 475 ft (145 m), from topographic map.

REMARKS.--Records good except those for January and period of no gage-height record, Aug. 22 to Sept. 30, which are fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft³/s (69.7 m³/s) Sept. 6, 1979, gage height, 10.14 ft (3.091 m), from rating curve extended above 880 ft³/s (24.9 m³/s); minimum discharge, 1.2 ft³/s (0.034 m³/s) Sept. 21, 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 447 ft³/s (12.7 m³/s) June 14, gage height, 7.87 ft (2.399 m), no other peak above base of 400 ft³/s (11 m³/s); minimum discharge recorded, 1.7 ft³/s (0.048 m³/s) Aug. 21, 22, but may have been less during period of no gage-height record Aug. 22 to Sept. 30.

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	2.4	2.8	4.6	3.2	2.8	6.6	7.7	8.6	4.0	3.5	2.8	2.5
2	5.0	2.8	4.4	3.2	29	6.1	7.0	6.9	7.0	9.6	2.6	2.2
3	3.6	2.6	4.1	3.2	7.2	5.7	5.4	5.1	5.0	4.8	2.6	2.1
4	2.8	3.0	4.0	3.0	4.7	5.5	5.0	4.6	9.0	57	2.8	2.1
5	2.6	2.9	4.0	3.0	3.8	9.2	5.6	4.2	6.0	9.6	2.6	2.3
6	2.4	2.8	4.1	3.2	3.4	8.6	5.6	4.2	5.3	6.6	2.6	2.3
7	2.4	2.8	4.0	3.2	3.2	7.2	5.0	4.0	4.8	5.6	2.8	2.2
8	2.4	2.8	4.0	3.2	4.5	6.4	4.7	3.7	4.0	4.8	3.0	2.3
9	2.4	2.7	4.4	3.2	4.0	6.1	5.0	3.6	4.0	4.3	2.6	2.8
10	2.4	2.8	4.4	3.2	3.6	5.8	4.8	3.9	6.4	4.0	2.4	2.2
11	2.3	2.8	4.0	3.2	68	5.8	5.0	7.2	4.6	3.8	2.2	2.0
12	2.3	2.8	3.9	3.0	7.9	5.6	8.3	5.7	4.0	3.8	3.2	1.8
13	2.3	2.8	3.8	3.0	6.8	5.4	10	4.6	3.8	3.5	2.6	1.6
14	2.3	2.8	3.8	3.0	5.2	5.1	15	4.2	54	3.2	2.4	1.5
15	2.3	2.8	3.6	3.0	4.5	4.9	8.2	5.5	7.9	3.2	2.4	1.8
16	2.3	3.0	3.8	3.0	4.3	5.3	6.5	5.2	5.6	3.2	2.6	4.0
17	2.3	4.1	3.8	3.0	4.4	5.1	6.1	4.4	4.8	3.2	2.2	3.4
18	2.6	9.8	3.6	3.0	4.8	4.8	5.5	4.0	4.3	3.0	2.0	2.8
19	3.0	4.7	3.7	3.4	5.3	4.9	5.0	5.2	4.3	2.8	2.0	2.5
20	2.5	3.9	3.5	3.9	16	5.0	4.9	4.9	10	3.0	2.0	2.2
21	2.4	3.7	3.1	3.2	17	4.8	4.5	4.2	5.3	3.2	2.0	2.2
22	2.3	3.5	3.1	3.0	9.5	4.7	4.3	3.9	7.2	3.0	2.0	2.2
23	2.3	3.3	3.4	2.9	60	4.7	4.7	3.4	4.6	2.8	2.0	2.1
24	2.3	28	3.9	2.9	16	4.5	5.3	3.4	4.3	2.8	2.0	2.0
25	25	8.7	4.0	2.8	9.7	4.4	4.5	3.2	13	3.2	1.9	1.8
26	4.5	5.8	3.8	2.9	7.9	4.3	4.5	3.1	6.6	3.1	1.9	1.8
27	3.3	5.3	3.6	2.9	6.9	4.5	4.3	3.0	4.6	3.0	1.9	1.7
28	3.1	6.5	3.2	2.9	6.8	4.3	4.2	4.2	4.0	7.9	1.8	1.9
29	2.9	5.4	3.2	2.8	---	4.2	4.3	5.0	3.8	4.8	1.7	1.7
30	2.8	4.9	3.5	2.8	---	5.3	4.0	4.4	3.5	3.0	2.0	1.6
31	2.8	---	3.2	2.8	---	5.2	---	5.0	---	2.9	3.0	---
TOTAL	106.3	142.6	117.5	95.0	327.2	170.0	174.9	142.5	215.7	182.2	72.6	65.6
MEAN	3.43	4.75	3.79	3.06	11.7	5.48	5.83	4.60	7.19	5.88	2.34	2.19
MAX	25	28	4.6	3.9	68	9.2	15	8.6	54	57	3.2	4.0
MIN	2.3	2.6	3.1	2.8	2.8	4.2	4.0	3.0	3.5	2.8	1.7	1.5
CFSM	.41	.57	.45	.37	1.40	.66	.78	.55	.86	.70	.28	.26
IN.	.47	.63	.52	.42	1.45	.76	.78	.63	.96	.81	.32	.29

CAL YR 1980 TOTAL 3002.2 MEAN 8.20 MAX 57 MIN 1.9 CFSM .98 IN 13.34
WTR YR 1981 TOTAL 1812.1 MEAN 4.96 MAX 68 MIN 1.5 CFSM .59 IN 8.05

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 mi² (59.3 km²).

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 and period of no gage-height record, Aug. 28 to Sept. 30, which are fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) Sept. 6, 1979, gage height, 11.69 ft (3.563 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge recorded, 4.1 ft³/s (0.12 m³/s) part or all of each day Aug. 24, 25, 26, 27, 28, 1981, but may have been less during period of no gage-height record Aug. 28 to Sept. 30, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 541 ft³/s (15.3 m³/s) July 4, gage height, 5.79 ft (1.765 m), no other peak above base of 500 ft³/s (14 m³/s); minimum discharge recorded, 4.1 ft³/s (0.12 m³/s) Aug. 24, 25, 26, 27, 28, but may have been less during period of no gage-height record Aug. 28 to Sept. 30.

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	5.7	7.5	12	8.7	7.0	18	18	27	11	7.8	7.0	6.5
2	6.3	7.5	11	8.7	63	16	21	24	20	28	6.5	5.6
3	12	7.5	10	8.7	23	14	15	16	15	14	6.4	5.6
4	8.1	8.4	10	8.6	15	14	13	14	28	151	7.0	5.6
5	7.0	9.0	10	8.2	11	29	14	13	25	35	6.6	5.8
6	6.6	8.1	10	8.6	10	24	16	13	16	21	6.2	5.8
7	6.5	8.1	10	8.6	9.4	22	13	12	14	16	7.4	5.6
8	6.2	8.1	10	8.6	13	19	13	11	11	14	11	5.8
9	6.0	7.7	11	8.6	13	16	13	11	10	12	7.9	7.0
10	6.0	7.5	11	8.6	10	16	13	12	17	11	6.6	5.2
11	6.0	7.2	10	8.1	138	15	13	22	12	9.7	6.1	4.8
12	6.0	7.0	9.8	8.0	28	15	20	18	9.9	8.9	10	4.4
13	6.0	7.0	9.8	8.0	19	14	29	14	9.4	8.9	8.3	4.0
14	6.0	7.0	9.6	8.0	15	13	34	13	72	8.6	6.6	3.8
15	6.0	7.5	9.6	8.0	14	13	24	19	21	7.5	6.1	4.2
16	6.0	7.8	9.4	8.0	12	14	18	18	14	7.3	6.8	9.0
17	6.0	9.2	9.3	8.0	13	13	17	14	12	7.6	5.8	7.5
18	6.3	28	8.7	8.0	14	12	16	13	11	7.0	5.3	6.5
19	7.5	13	8.7	10	16	12	15	15	9.8	6.7	5.0	6.0
20	6.5	10	8.7	11	54	12	15	15	22	7.1	5.0	5.2
21	6.4	9.5	8.1	10	63	12	13	13	14	8.3	4.4	5.2
22	6.0	9.3	8.1	9.3	34	11	13	11	15	7.4	4.4	5.0
23	6.0	8.7	8.1	8.8	153	11	13	11	10	6.5	4.4	4.8
24	6.0	59	9.2	8.2	68	11	15	9.9	9.3	6.2	4.3	4.6
25	48	28	11	8.0	32	11	13	9.3	14	7.6	4.1	4.4
26	15	16	9.8	7.7	23	11	12	9.0	27	7.7	4.1	4.2
27	9.5	14	9.5	7.8	20	11	12	8.7	11	7.4	4.1	4.0
28	8.7	17	9.2	7.9	19	11	12	12	9.6	10	4.0	4.4
29	8.3	14	8.7	7.1	---	11	13	15	8.7	26	3.8	4.0
30	8.1	12	9.0	7.0	---	13	12	12	8.1	8.8	5.0	3.8
31	7.4	---	8.7	7.0	---	14	---	15	---	7.5	7.5	---
TOTAL	262.1	370.6	298.0	259.8	909.4	448	478	439.9	486.8	492.5	187.7	158.3
MEAN	8.45	12.4	9.61	8.38	32.5	14.5	15.9	14.2	16.2	15.9	6.05	5.28
MAX	48	59	12	11	153	29	34	27	72	151	11	9.0
MIN	5.7	7.0	8.1	7.0	7.0	11	12	8.7	8.1	6.2	3.8	3.8
CFSM	.37	.54	.42	.37	1.42	.63	.69	.62	.71	.69	.26	.23
IN.	.43	.60	.48	.42	1.48	.73	.79	.71	.79	.80	.30	.26

CAL YR 1980 TOTAL 8359.2 MEAN 22.8 MAX 139 MIN 5.0 CFSM 1:00 IN 13.58
WTR YR 1981 TOTAL 4791.1 MEAN 13.1 MAX 153 MIN 3.8 CFSM .57 IN 7.78

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 mi² (204 km²).

PERIOD OF RECORD.--October 1980 to September 1981.

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 except those for period of no gage-height record, Oct. 1-31, and those discharges above 200 ft³/s (5.66 m³/s), which are fair. Flow completely regulated by Triadelphia Reservoir, 500 ft (150 m) upstream, usable capacity, 6,250,000 gal (23.66 hm³); no dead storage. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft³/s (504 m³/s). Data furnished by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 750 ft³/s (21.2 m³/s) July 7, gage height, 6.92 ft (2.109 m) (affected by backwater), from data furnished by Washington Suburban Sanitary Commission; minimum daily discharge, 4 ft³/s (0.11 m³/s) many days in October, from data furnished by Washington Suburban Sanitary Commission.

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	4.0	344	11	16	25	7.1	8.8	8.8	8.2	41	66	92
2	230	333	22	16	26	12	8.9	8.5	7.5	26	67	86
3	340	123	47	17	18	12	8.7	8.5	7.6	56	40	66
4	410	59	47	23	9.9	9.9	9.5	8.6	8.4	152	25	52
5	380	53	46	25	9.9	9.0	9.3	8.7	8.0	147	25	52
6	360	41	46	25	9.9	7.8	9.2	8.5	8.1	240	25	52
7	330	16	46	25	9.9	8.6	8.5	8.8	7.5	117	35	52
8	310	40	45	26	10	8.5	8.0	9.0	7.9	31	42	53
9	290	40	45	25	10	8.5	8.0	9.2	8.9	9.9	42	53
10	280	43	46	26	10	8.3	8.0	9.2	8.3	28	42	54
11	260	45	46	26	11	8.1	7.8	9.2	8.1	25	49	54
12	130	34	47	26	10	7.9	9.5	9.2	8.0	24	61	55
13	70	23	47	25	9.9	7.9	9.1	9.3	7.8	60	63	55
14	50	23	48	25	9.9	8.1	9.4	9.4	8.1	40	43	56
15	8.0	23	47	25	9.9	7.5	9.6	9.3	74	83	29	56
16	4.0	23	47	26	9.9	7.8	9.4	9.2	78	109	26	57
17	4.0	23	47	26	9.9	8.4	8.8	9.2	17	110	26	69
18	4.0	23	47	26	9.0	8.1	9.2	9.2	12	110	26	78
19	4.0	69	28	26	234	7.8	7.5	9.2	12	93	25	79
20	4.0	95	31	26	352	11	7.4	9.0	62	67	50	78
21	4.0	66	31	26	410	12	7.2	7.8	44	55	67	80
22	4.0	49	17	26	430	9.9	7.5	7.8	15	36	67	81
23	4.0	50	10	27	382	9.6	7.5	7.8	29	26	67	82
24	4.0	66	13	27	450	9.4	7.5	7.8	37	26	82	82
25	4.0	96	15	26	332	8.6	8.3	7.8	39	26	93	83
26	4.0	96	14	21	50	8.0	8.3	7.8	55	26	95	84
27	4.0	94	14	22	7.1	7.8	8.3	7.8	21	25	95	84
28	4.0	91	14	23	6.9	9.4	8.5	7.4	32	45	95	85
29	4.0	55	15	24	---	8.1	8.5	7.3	9.0	66	95	85
30	4.0	11	15	25	---	10	8.5	9.4	23	65	95	99
31	130	---	15	25	---	8.8	---	8.8	---	65	95	---
TOTAL	3642.0	2147	1009	753	2872.1	275.9	254.7	267.5	671.4	2029.9	1753	2094
MEAN	117	71.6	32.5	24.3	103	8.90	8.49	8.63	22.4	65.5	56.5	69.8
MAX	410	344	48	27	450	12	9.6	9.4	78	240	95	99
MIN	4.0	11	10	16	6.9	7.1	7.2	7.3	7.5	9.9	25	52
($\bar{x}$)	3800	3100	3090	3190	3550	3850	4670	5520	6290	6440	6000	5310

WTR YR 1981 TOTAL 17769.5 MEAN 48.7 MAX 450 MIN 4.0

* Month-end contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1980, 5,400,000,000 gal (20.44 hm³)). 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 mi² (69.9 km²).

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 ft³/s (122 m³/s) Sept. 6, 1979, gage height, 8.80 ft (2.682 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 0.75 ft³/s (0.021 m³/s) Jan. 30, 1981, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 644 ft³/s (18.2 m³/s) July 4, gage height, 4.28 ft (1.305 m), no peak above base of 700 ft³/s (19 m³/s); minimum discharge, 0.75 ft³/s (0.021 m³/s) Jan. 30, result of freezeup.

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	5.1	7.4	14	11	7.9	22	19	58	13	9.5	6.8	7.1
2	5.2	7.4	14	11	8.6	20	26	53	25	19	6.3	5.8
3	6.2	7.3	13	10	4.8	20	17	25	21	15	6.0	5.8
4	6.6	11	12	8.3	16	19	15	20	112	154	6.3	5.8
5	5.5	13	12	7.6	11	44	16	18	82	38	6.1	5.8
6	4.9	9.5	12	8.5	10	36	20	18	54	24	6.5	5.8
7	4.6	8.7	13	10	10	25	16	17	32	23	7.1	5.8
8	4.7	8.4	13	9.0	19	22	17	14	24	15	8.1	5.8
9	4.7	8.4	14	8.4	17	21	16	13	23	13	7.2	6.9
10	4.7	8.2	17	9.2	12	20	17	14	37	11	6.2	5.5
11	5.0	8.0	13	8.1	130	19	17	29	24	10	9.5	5.2
12	4.6	8.0	12	7.7	37	18	23	26	18	9.3	39	4.5
13	4.6	8.2	12	6.9	20	18	50	18	17	8.7	12	4.0
14	4.6	8.2	12	8.3	16	16	49	15	38	8.7	7.4	3.7
15	4.6	8.2	11	8.7	17	16	33	51	21	8.1	6.9	4.2
16	4.6	9.0	12	8.7	14	18	25	41	17	7.7	19	30
17	4.6	11	12	8.7	14	19	26	21	15	8.1	6.7	10
18	5.0	49	11	8.7	15	16	21	17	13	7.3	5.8	6.0
19	6.2	20	11	9.1	17	16	19	23	12	6.9	5.2	5.4
20	5.0	13	9.5	11	60	15	19	25	15	13	5.2	5.0
21	4.6	11	8.6	12	64	15	18	18	15	12	5.1	5.0
22	4.6	11	8.6	12	36	14	16	15	13	7.0	4.7	5.0
23	4.6	10	10	11	176	14	16	13	11	6.2	4.9	4.8
24	4.8	76	14	11	90	14	17	12	10	5.9	4.7	4.4
25	61	52	12	9.9	39	14	15	11	20	8.0	4.2	4.0
26	21	21	8.7	10	28	14	14	10	21	7.5	4.2	3.8
27	10	17	9.1	10	24	14	14	9.9	11	7.2	4.2	3.6
28	8.8	24	10	10	22	14	14	21	9.3	12	3.9	4.0
29	8.3	19	12	9.3	---	14	15	26	8.3	30	3.9	3.6
30	7.5	15	12	6.9	---	17	14	18	8.1	9.0	6.5	3.4
31	7.5	---	11	7.5	---	19	---	19	---	6.9	33	---
TOTAL	243.7	487.9	365.5	288.5	1055.9	583	614	688.9	739.7	521.0	262.6	179.7
MEAN	7.86	16.3	11.8	9.31	37.7	18.8	20.5	22.2	24.7	16.8	8.47	5.99
MAX	61	76	17	12	176	44	50	58	112	154	39	30
MIN	4.6	7.3	8.6	6.9	7.9	14	14	9.9	8.1	5.9	3.9	3.4
CFSM	.29	.60	.44	.35	1.40	.70	.76	.82	.92	.62	.31	.22
IN.	.34	.67	.50	.40	1.45	.80	.85	.95	1.02	.72	.36	.25
CAL YR 1980 TOTAL	10682.8			MEAN 29.2	MAX 280	MIN 4.6	CFSM 1.08	IN 14.72				
WTR YR 1981 TOTAL	6030.4			MEAN 16.5	MAX 176	MIN 3.4	CFSM .61	IN 8.31				

PATUXENT RIVER BASIN

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 mi² (342 km²).

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 hm³); dead storage, 80,000,000 gal (302,800 m³). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 26,000 ft³/s (736 m³/s) June 22, 1972, gage height, about 25 ft (7.6 m), from floodmarks, from rating curve extended above 6,600 ft³/s (187 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 25, 1964, (valve closed for repair); minimum daily, 1.1 ft³/s (0.031 m³/s) June 26, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,830 ft³/s (51.8 m³/s) Oct. 3, from records furnished by the Washington Suburban Sanitary Commission; minimum daily discharge, 8.3 ft³/s (0.24 m³/s) Oct. 6.

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	17	17	16	19	20	19	19	21	21	13	18	17
2	17	17	25	19	20	19	14	20	21	13	18	17
3	450	15	26	19	18	19	18	20	20	13	18	17
4	1150	20	26	20	13	20	20	21	20	21	17	17
5	550	17	23	19	18	19	20	107	210	14	17	17
6	8.3	25	26	17	16	19	12	20	17	158	17	17
7	19	25	26	16	20	19	14	21	17	389	17	17
8	19	26	20	19	20	20	20	21	17	174	17	18
9	20	26	16	18	20	20	20	20	16	49	17	18
10	18	17	17	19	21	20	20	20	16	20	17	18
11	21	10	17	19	21	19	20	20	16	19	17	18
12	21	11	18	19	21	19	20	20	15	19	18	17
13	21	11	18	16	21	19	20	20	13	19	18	17
14	22	15	18	15	21	19	20	20	13	19	18	17
15	21	22	18	18	21	19	20	22	13	20	18	17
16	21	22	18	17	21	19	20	21	12	19	18	17
17	22	23	17	19	21	19	20	21	13	18	18	17
18	22	24	18	19	21	19	20	21	17	18	18	17
19	22	22	18	18	21	19	20	21	15	18	18	17
20	18	21	19	16	21	19	20	21	13	19	18	17
21	17	26	19	18	21	20	20	21	13	19	18	17
22	17	25	18	18	21	20	21	21	13	18	18	17
23	17	26	19	18	20	18	20	21	13	19	18	17
24	17	26	19	19	19	18	20	24	13	19	18	17
25	17	18	19	19	20	19	20	29	13	18	18	17
26	17	20	19	18	20	19	21	22	13	18	17	18
27	12	22	19	18	17	18	21	21	14	18	17	18
28	14	22	19	16	19	19	21	21	13	19	16	18
29	17	22	18	19	---	19	20	20	13	16	16	17
30	13	22	16	15	---	19	22	21	13	18	16	17
31	14	---	18	20	---	19	---	21	---	18	17	---
TOTAL	2651.3	615	603	559	553	592	583	740	646	1252	541	517
MEAN	85.5	20.5	19.5	18.0	19.8	19.1	19.4	23.9	21.5	40.4	17.5	17.2
MAX	1150	26	26	20	21	20	22	107	210	389	18	18
MIN	8.3	10	16	15	13	18	12	20	12	13	16	17
(+)	7820	7070	6930	6620	7580	9500	10410	11270	12110	12160	11470	10630
(#)	70.4	70.2	56.2	39.4	11.1	23.5	24.2	23.3	48.8	66.1	64.2	64.4
CAL YR 1980 TOTAL	33824.3											
WTR YR 1981 TOTAL	9852.3											
MEAN 92.4												
MAX 1150												
MIN 8.3												
+64.6												
+47.1												

* Combined month-end total contents, millions of gallons, in Triadelphia and T. Howard Duckett Reservoirs, contents on Sept. 30, 1980: 9,340,000,000 gal (35.35 hm³); 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 mi² (98.4 km²).

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 except for the period of no gage-height record, Nov. 10 to Dec. 29, and January, which are fair. Low flow affected by regulation from unknown source. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 42.7 ft³/s (1.209 m³/s), 15.26 in/yr (388 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s (351 m³/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 ft³/s (51.0 m³/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, 988 ft³/s (28.0 m³/s) June 14, gage height, 8.20 ft (2.499 m), no other peak above base of 800 ft³/s (22 m³/s); minimum discharge, 4.0 ft³/s (0.11 m³/s) Sept. 29.

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	8.4	11	19	15	12	28	29	74	22	15	9.9	15
2	8.7	11	17	14	108	25	38	95	47	28	9.3	10
3	15	10	16	13	45	24	22	32	30	21	9.1	9.0
4	16	21	16	12	30	23	19	24	65	107	9.4	8.4
5	10	18	15	12	20	74	21	21	59	47	8.5	8.3
6	9.0	13	15	13	16	53	26	20	103	27	9.5	7.9
7	8.5	13	15	14	16	35	19	18	35	21	11	7.7
8	8.2	12	15	13	28	29	17	17	24	18	9.8	9.0
9	8.1	12	17	11	24	26	22	15	22	16	9.5	12
10	7.7	12	18	12	20	25	21	18	55	14	14	7.5
11	8.3	11	17	12	125	23	21	60	29	13	24	6.8
12	7.8	11	17	12	59	23	37	60	21	12	86	6.0
13	7.5	12	16	12	32	22	74	29	19	12	25	5.5
14	7.5	12	16	12	26	20	72	22	529	11	14	5.4
15	8.0	12	16	12	22	19	43	98	68	10	12	17
16	7.9	13	17	12	19	25	28	99	34	10	30	63
17	7.6	14	15	12	19	23	25	35	26	11	12	17
18	9.7	60	15	13	19	21	24	26	22	9.7	9.4	23
19	16	28	16	13	21	20	21	37	20	9.2	8.4	18
20	11	18	14	14	131	19	22	36	38	13	8.1	10
21	8.8	16	13	14	131	19	20	24	25	20	7.4	9.2
22	8.6	15	13	14	59	18	19	21	27	12	7.2	8.2
23	8.3	15	14	15	232	18	19	18	19	11	7.5	7.6
24	8.4	120	16	15	113	18	20	17	17	9.2	6.8	6.0
25	116	60	14	15	52	17	17	16	57	14	6.2	5.5
26	40	26	13	15	37	17	16	15	95	13	20	5.0
27	16	24	13	14	31	19	16	15	24	11	16	5.5
28	14	30	15	14	29	19	16	32	19	24	6.7	6.0
29	13	22	16	14	---	17	22	57	16	43	6.3	4.5
30	12	20	16	14	---	27	18	35	15	14	12	4.6
31	11	---	15	13	---	26	---	38	---	12	38	---
TOTAL	447.0	672	480	410	1476	772	784	1124	1582	608.1	463.0	328.6
MEAN	14.4	22.4	15.5	13.2	52.7	24.9	26.1	36.3	52.7	19.6	14.9	11.0
MAX	116	120	19	15	232	74	74	99	529	107	86	63
MIN	7.5	10	13	11	12	17	16	15	15	9.2	6.2	4.5
CFSM	.38	.59	.41	.35	1.39	.66	.69	.96	1.39	.52	.39	.29
IN.	.44	.66	.47	.40	1.44	.76	.77	1.10	1.55	.60	.45	.32

CAL YR 1980 TOTAL 13373.1 MEAN 36.5 MAX 311 MIN 6.7 CFSM .96 IN 13.09
WTR YR 1981 TOTAL 9146.7 MEAN 25.1 MAX 529 MIN 4.5 CFSM .66 IN 8.95

PATUXENT RIVER BASIN

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 mi² (901 km²).

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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,100 ft³/s (881 m³/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 ft³/s (0.91 m³/s); minimum daily 61 ft³/s (1.73 m³/s) Sept. 14, 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,640 ft³/s (46.4 m³/s) Feb. 24, gage height, 9.60 ft (2.926 m), no peak above base of 2,200 ft³/s (62 m³/s); minimum daily discharge, 62 ft³/s (1.76 m³/s) Aug. 29.

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	107	120	156	125	105	207	183	155	144	87	80	251
2	107	123	155	128	220	190	267	658	205	100	74	103
3	155	120	158	123	538	177	190	318	247	120	73	86
4	330	126	145	114	201	165	159	189	208	264	77	80
5	775	176	148	121	152	237	152	157	431	615	76	79
6	907	143	139	118	137	386	199	219	363	192	73	80
7	176	132	137	118	128	250	159	143	278	255	77	77
8	114	131	139	119	145	205	140	151	157	408	94	78
9	107	128	143	117	204	185	147	126	128	249	83	87
10	103	135	163	115	169	177	178	120	174	127	77	82
11	100	125	146	107	281	170	163	190	221	95	88	74
12	105	107	130	104	718	164	330	391	131	89	125	72
13	101	106	128	105	238	161	396	251	112	85	202	69
14	99	108	128	104	173	156	331	163	437	85	100	64
15	99	108	124	106	166	147	360	270	833	81	82	76
16	100	119	126	111	158	154	224	1020	225	90	101	543
17	98	127	132	112	159	176	188	431	150	78	101	239
18	103	484	127	112	157	156	178	222	130	79	76	219
19	141	353	129	111	157	148	160	229	127	74	70	194
20	123	184	127	112	386	143	150	298	151	73	70	128
21	107	152	106	133	602	139	149	204	166	149	69	98
22	102	147	109	150	458	142	137	166	125	100	66	90
23	101	140	121	141	537	138	139	147	123	82	67	91
24	100	184	143	136	1340	137	175	132	102	76	67	97
25	354	606	174	132	606	134	145	120	103	99	66	81
26	768	276	126	127	321	130	127	114	350	116	65	76
27	226	183	126	126	257	131	124	108	176	90	65	76
28	149	223	120	125	234	131	127	119	108	86	64	73
29	129	217	128	121	---	129	132	177	95	255	62	73
30	127	173	142	118	---	159	136	185	90	136	68	72
31	122	---	132	104	---	245	---	163	---	88	353	---
TOTAL	6235	5456	4207	3695	8947	5369	5644	7336	6290	4513	2811	3508
MEAN	201	182	136	119	320	173	188	237	210	146	90.7	117
MAX	907	606	174	150	1340	386	396	1020	833	615	353	543
MIN	98	106	106	104	105	129	124	108	90	73	62	64
CFSM	.58	.52	.39	.34	.92	.50	.54	.68	.60	.42	.26	.34
IN.	.67	.58	.45	.39	.96	.57	.60	.78	.67	.48	.30	.37

CAL YR 1980 TOTAL 129229 MEAN 353 MAX 2070 MIN 93 CFSM 1.01 IN 13.81
WTR YR 1981 TOTAL 64011 MEAN 175 MAX 1340 MIN 62 CFSM .50 IN 6.84

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1977 to September 1980 (discontinued).

WATER TEMPERATURES: December 1977 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
NOV 03...	1030	119	262	7.5	11.5	8.5	.40	7.3	21	21	52	25
MAR 18...	1045	221	177	7.3	-1.0	4.5	1.4	10.2	K3	10	43	24
MAY 18...	1100	221	180	7.1	15.0	14.0	32	7.1	710	2900	49	16
JUL 01...	1015	85	250	6.9	--	24.0	--	--	--	--	--	--
21...	1030	140	210	7.0	30.5	24.5	49	3.9	K11000	K32000	54	29
SEP 15...	1000	66	295	6.9	21.5	22.0	6.8	3.4	140	1400	58	24

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 03...	15	3.6	21	44	1.3	4.7	--	27	21	25	.3
MAR 18...	13	2.5	17	44	1.1	3.8	2.8	19	20	27	.2
MAY 18...	14	3.4	15	38	.9	3.5	2.6	33	20	20	.2
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
21...	16	3.4	17	38	1.0	5.2	3.9	25	20	20	.2
SEP 15...	19	2.6	25	46	1.4	5.2	--	34	20	31	.4

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
NOV 03...	11	130	129	.18	41.8	2.5	2.4	2.80	3.10	3.4	4.0
MAR 18...	11	143	117	.19	85.3	2.7	2.6	1.80	1.80	--	2.3
MAY 18...	11	120	116	.16	71.6	1.9	1.9	.680	.730	--	.94
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
21...	6.3	133	113	.18	50.3	2.1	2.1	.310	.330	--	.43
SEP 15...	8.2	160	150	.22	28.5	4.4	4.2	1.40	1.40	--	1.8

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

PATUXENT RIVER BASIN

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01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	RENZENE 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- ETHYL- ENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	CHLORO- OFORM TOTAL (UG/L)
JAN 15...	1200	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 01...	1015	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,3-DI- CHLORO- PROPANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
JAN 15...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 01...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLOURO- METHANE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
JAN 15...	.00	.00	.00	.00	.00	.00	.0	.00	.00
JUL 01...	.00	.00	.00	.00	.00	.00	9.0	.00	.00

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 03...	--	5.5	.5	550	14	4.5	71
JAN 20...	--	--	--	--	7	2.1	100
MAR 18...	5.0	--	--	1300	10	6.0	92
MAY 18...	--	4.0	.9	460	--	--	--
JUL 21...	--	5.0	2.2	39000	99	37	94
SEP 15...	5.3	--	--	300	15	2.7	100

PATUXENT RIVER BASIN

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 3,80 1030	MAR 18,81 1045	MAY 18,81 1100	JUL 21,81 1030	SEP 15,81 1000					
TOTAL CELLS/ML	550	1300	460	39000	300					
DIVERSITY: DIVISION	1.2	1.6	1.6	0.7	1.1					
..CLASS	1.2	1.6	1.6	0.7	1.1					
...ORDER	1.7	1.8	2.2	1.4	1.9					
...FAMILY	1.7	2.5	3.0	2.1	2.5					
....GENUS	1.7	2.6	3.0	2.4	2.5					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
....CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	13	3	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	5000	13	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	210	1	14	5
....KIRCHNERIELLA	--	-	--	-	--	-	*	0	--	-
....OOCYSTIS	--	-	--	-	51	11	*	0	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	100#	22	210	1	--	-
...TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	56	4	--	-	--	-	--	-
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	180	14	39	8	210	1	43	14
...VOLVOCAEAE										
....PANDORINA	210#	37	--	-	--	-	--	-	--	-
CHRYSTOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINOBIACEAE										
....CYCLOTELLA	26	5	14	1	26	6	*	0	58#	19
....MELOSIRA	--	-	--	-	--	-	*	0	--	-
...PENNALES										
....ACHNANTHACEAE										
....ACHNANTHES	--	-	56	4	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	14	1	26	6	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	*	0	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	56	4	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	39	8	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	14	1	--	-	*	0	14	5
...NAVICULACEAE										
....NAVICULA	--	-	84	6	77#	17	*	0	120#	38
...NITZSCHACEAE										
....NANTZSCHIA	--	-	42	3	--	-	--	-	--	-
....NITZSCHIA	--	-	110	9	--	-	350	1	--	-
...SURIARELLACEAE										
....SURIARELLA	--	-	28	2	--	-	--	-	29	10
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	120#	21	--	-	77#	17	5700	15	--	-
...HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	11000#	28	--	-
...OSCILLATORACEAE										
....LYNGBYA	--	-	--	-	--	-	2100	5	--	-
...OSCILLATORIA	210#	37	630#	48	--	-	14000#	35	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	14	1	13	3	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	*	0	29	10

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

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

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 mi² (21.32 km²).

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. Natural flow of stream affected by inflow from deep coal mine dewatering process.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 479 ft³/s (13.6 m³/s) Aug. 18, 1980, gage height, 5.99 ft (1.826 m); minimum discharge, 3.4 ft³/s (0.096 m³/s) part or all of each day Aug. 28 and 29, 1981.

EXTREMES FOR PERIOD MAY 1980 TO SEPTEMBER 1981.--Peak discharges above base of 170 ft³/s (4.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 16, 1980	0500	180 5.10	2.90 0.884	Aug. 18, 1980	0845	*479 13.6	5.99 1.826
July 29, 1980	0100	179 5.07	2.89 0.881				
Nov. 24, 1980	1315	215 6.09	3.29 1.003	June 6, 1981	0600	242 6.85	3.59 1.094
Mar. 27, 1981	0800	223 6.32	3.38 1.030	June 14, 1981	1030	*372 10.5	4.92 1.500

May to September 1980: Minimum daily discharge during period, 5.2 ft³/s (0.15 m³/s) Sept. 30, 1980.

Water year 1981: Minimum daily discharge, 3.4 ft³/s (0.096 m³/s) Aug. 28, 29, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR MAY 1980 TO SEPTEMBER 1980

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								60	26	13	47	10
2								49	32	12	37	13
3								44	72	29	30	14
4								37	67	19	29	12
5								33	45	16	33	38
6								29	53	33	23	14
7								28	41	17	20	11
8								24	52	67	18	10
9								22	41	51	24	11
10								21	65	42	19	9.1
11								20	44	34	21	7.7
12								19	37	57	31	7.3
13								27	32	56	22	6.9
14								20	28	37	19	9.1
15								17	28	29	49	7.7
16								16	113	24	50	6.9
17								16	58	28	34	6.9
18								22	43	21	246	6.4
19								19	34	17	136	6.4
20								30	30	14	81	6.9
21								85	25	13	54	5.6
22								48	22	40	43	5.6
23								39	18	54	35	16
24								46	17	34	29	9.7
25								61	15	26	24	7.3
26								40	14	21	21	8.2
27								32	15	18	18	6.4
28								28	15	35	16	5.6
29								24	15	75	13	6.0
30								22	19	38	12	5.2
31								26	---	30	12	---
TOTAL								1004	1116	1000	1246	289.9
MEAN								32.4	37.2	32.3	40.2	9.66
MAX								85	113	75	246	38
MIN								16	14	12	12	5.2

POTOMAC RIVER BASIN

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

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	5.2	11	31	9.5	14	81	46	67	65	12	6.9	3.9
2	5.6	9.5	46	9.1	40	55	41	58	52	16	6.7	13
3	5.6	8.8	50	8.6	35	43	34	45	47	10	6.9	15
4	5.2	11	39	8.2	30	36	30	38	65	9.4	6.5	36
5	5.2	15	34	8.0	24	35	29	32	87	9.8	6.2	15
6	5.6	11	32	7.8	22	29	26	30	196	9.0	7.5	8.5
7	5.4	9.9	31	8.4	19	26	22	26	138	8.3	7.3	7.5
8	5.2	9.5	28	9.0	18	22	20	22	74	7.9	7.1	14
9	5.2	19	51	10	17	21	20	20	57	7.7	6.0	11
10	5.2	22	53	9.0	16	20	18	19	90	7.3	5.6	8.1
11	6.0	16	41	8.0	45	19	39	21	61	7.1	5.2	7.0
12	7.0	14	36	7.0	39	18	84	20	45	6.9	4.9	6.0
13	6.0	13	31	6.8	37	24	115	18	39	12	4.6	5.2
14	5.6	12	26	6.4	30	26	67	16	255	8.5	4.5	5.0
15	5.2	11	24	7.0	24	23	51	32	127	7.1	5.0	6.0
16	5.0	12	22	7.6	26	32	47	27	62	6.7	8.5	25
17	4.8	21	19	7.0	43	29	47	24	47	6.5	6.0	8.0
18	4.6	61	18	7.0	70	25	58	27	34	6.4	4.8	7.0
19	5.2	35	17	7.0	77	22	44	74	32	6.2	4.6	6.4
20	5.0	29	13	6.8	106	20	50	61	65	7.1	4.4	6.2
21	5.0	26	12	6.8	115	19	35	43	46	7.5	4.2	6.0
22	5.0	22	12	6.6	77	17	32	34	46	6.5	4.0	5.8
23	4.8	20	11	6.8	77	18	38	29	32	6.2	3.8	5.6
24	4.8	142	10	7.0	62	21	48	26	26	16	3.6	5.4
25	24	103	10	6.9	48	22	52	24	24	8.3	3.6	5.2
26	16	57	9.8	9.9	40	25	41	22	20	7.3	3.5	5.2
27	9.5	45	9.0	18	33	145	70	19	16	7.7	3.5	5.0
28	20	38	10	17	62	83	53	26	14	11	3.4	5.0
29	21	32	10	14	---	62	46	37	12	12	3.4	5.0
30	15	27	10	12	---	56	40	37	11	8.3	3.5	4.9
31	12	---	9.6	11	---	45	---	104	---	7.5	3.6	---
TOTAL	244.9	862.7	755.4	274.2	1246	1119	1343	1078	1885	270.2	159.3	266.9
MEAN	7.90	28.8	24.4	8.85	44.5	36.1	44.8	34.8	62.8	8.72	5.14	8.90
MAX	24	142	53	18	115	145	115	104	255	16	8.5	36
MIN	4.6	8.8	9.0	6.4	14	17	18	16	11	6.2	3.4	3.9
WTR YR 1981	TOTAL	9504.6	MEAN	26.0	MAX	255	MIN	3.4				

POTOMAC RIVER BASIN

201

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1981.

WATER TEMPERATURES: October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)
OCT											
27...	1430	9.2	424	3.3	9.5	3.4	.40	11.2	110	110	1.4
NOV											
06...	1030	10	406	3.0	5.0	4.0	7.5	11.6	82	82	1.3
DEC											
16...	0900	22	385	2.8	.0	3.1	--	12.3	--	--	.2
JAN											
15...	1500	8.0	589	2.9	-2.0	.0	.40	12.3	120	120	3.0
FEB											
19...	0830	69	147	3.3	7.0	2.4	4.9	4.9	40	--	.8
APR											
09...	0930	20	448	2.8	13.0	10.9	18	9.8	110	110	1.4
MAY											
14...	0815	16	497	2.8	17.0	12.5	6.9	10.0	98	98	1.5
JUN											
26...	1000	20	442	2.8	17.0	15.0	19	9.4	92	91	1.1
JUL											
01...	0900	10	568	2.8	--	15.5	3.8	--	120	120	1.8
AUG											
05...	0930	6.3	745	3.5	23.0	21.2	.40	8.0	160	160	2.0
SEP											
17...	1055	15	422	3.0	13.0	12.9	8.2	9.2	99	--	1.2

DATE	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
27...	70	24	12	14	21	.6	1.9	--	--	140	1.9
NOV											
06...	65	20	7.9	2.4	6	.1	1.7	1.3	--	140	1.2
DEC											
16...	10	--	--	--	--	--	--	--	--	140	--
JAN											
15...	149	30	11	3.1	5	.1	1.9	1.4	--	190	1.6
FEB											
19...	40	9.8	3.7	1.0	5	.1	.8	.60	--	52	1.3
APR											
09...	70	30	9.2	2.0	4	.1	1.5	1.1	--	150	1.9
MAY											
14...	74	24	9.3	2.6	5	.1	1.6	1.2	--	160	1.8
JUN											
26...	55	23	8.4	2.0	4	.1	1.5	1.1	0	130	1.4
JUL											
01...	89	28	11	2.8	5	.1	1.8	1.3	--	190	1.9
AUG											
05...	99	42	14	4.6	6	.2	2.5	1.9	--	200	2.2
SEP											
17...	60	27	7.7	2.4	5	.1	1.6	--	0	150	1.6

POTOMAC RIVER BASIN

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, 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, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)
OCT 27...	.1	17	252	315	.34	6.3	15	.26	.26	1.2
NOV 06...	.2	13	217	196	.30	5.9	2	.32	.32	1.4
DEC 16...	--	--	193	--	.26	11.5	--	--	--	--
JAN 15...	.3	20	339	280	.46	7.3	14	--	--	--
FEB 19...	.1	7.3	96	80	.13	17.9	21	--	--	--
APR 09...	.2	17	258	227	.35	13.9	21	--	--	--
MAY 14...	.2	14	273	221	.37	11.8	8	--	--	--
JUN 26...	.2	13	233	187	.32	12.6	8	--	--	--
JUL 01...	.2	16	317	259	.43	8.6	7	--	--	--
AUG 05...	.2	19	468	292	.64	8.0	14	--	--	--
SEP 17...	.1	11	261	--	.35	10.6	18	.27	--	--
DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 27...	.000	.000	.00	.26	.26	.180	.210	.22	.27	.09
NOV 06...	.000	.000	.00	.32	.32	.130	.160	.16	.21	.00
DEC 16...	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	.23	.27	.220	.310	.27	.40	.00
FEB 19...	<.010	<.010	--	1.1	1.1	.070	.070	--	.09	.13
APR 09...	--	--	--	.40	.29	.160	.120	--	.15	.06
MAY 14...	--	--	--	.37	.36	.110	.110	--	.14	.32
JUN 26...	--	--	--	.37	.41	.110	.150	--	.19	.00
JUL 01...	--	--	--	.27	.24	.110	.100	--	.13	.36
AUG 05...	--	--	--	.13	.16	.320	.300	--	.39	.27
SEP 17...	.020	<.010	--	.29	.31	.170	.160	--	.21	.21

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 27...	.00	.27	.09	.18	.53	.44	2.3	.010	.03	.000
NOV 06...	.00	.08	.03	.05	.40	.37	1.8	.000	.00	.000
DEC 16...	--	--	--	--	--	--	--	--	--	--
JAN 15...	.00	.20	.01	.19	.43	.46	1.9	<.010	<.03	<.010
FEB 19...	.03	.20	.10	.10	1.3	1.2	5.8	.020	.06	<.010
APR 09...	--	.22	.17	--	.62	--	2.7	<.010	.03	<.010
MAY 14...	.20	.43	.12	.31	.80	.67	3.5	<.010	.03	<.010
JUN 26...	.01	.10	.00	.16	.47	.57	2.1	<.010	.03	<.010
JUL 01...	.21	.47	.16	.31	.74	.55	3.3	.010	.03	<.010
AUG 05...	.21	.59	.08	.51	.72	.67	3.2	.030	.09	.020
SEP 17...	.11	.38	.11	.27	.67	.56	3.0	<.010	--	<.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL) (01107)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)
OCT 27...	6000	1000	5000	0	0	1	200	100	70	0
JAN 15...	6500	0	6500	1	0	1	<50	--	40	10
APR 09...	5300	200	5100	1	0	1	100	60	40	10
SEP 17...	5300	3600	1700	2	1	1	100	--	<50	<10

DATE	BORON, SUS- PENDE RECOV- ERABLE (UG/L AS B) (01021)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
OCT 27...	0	0	0	0	10	--	<10	12	4	8
JAN 15...	0	10	0	0	10	0	10	30	24	6
APR 09...	0	10	0	0	<10	--	<10	7	0	44
SEP 17...	--	<10	10	10	20	10	10	10	10	3

POTOMAC RIVER BASIN

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D 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- PENDE D RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 27...	10000	--	--	1100	130	970	--
NOV 06...	5800	200	5600	800	0	800	1.9
DEC 16...	7700	0	7900	890	20	870	--
JAN 15...	10000	0	11000	980	0	1200	--
FEB 19...	4700	1600	3100	490	0	490	1.4
APR 09...	5900	0	6600	990	0	1100	1.2
MAY 14...	5000	0	5000	950	0	960	1.4
JUN 26...	4400	0	4400	950	0	970	2.9
JUL 01...	4700	100	4600	1000	0	1000	1.7
AUG 05...	5100	800	4300	1400	0	1400	1.6
SEP 17...	4800	200	4600	800	0	880	1.2

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE D RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE D RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE D TOTAL (UG/L AS SE)
OCT 27...	0	0	7	<.1	<.1	100	6	94	0	0
NOV 06...	--	--	--	--	--	--	--	--	--	--
JAN 15...	0	0	0	<.1	<.1	110	--	--	0	0
FEB 19...	--	--	--	--	--	--	--	--	--	--
APR 09...	5	5	0	<.1	<.1	99	0	130	0	0
MAY 14...	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--
SEP 17...	<100	--	5	<.1	<.1	83	0	83	<1	--

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE D RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 27...	0	0	0	0	270	30	240	--	--
NOV 06...	--	--	--	--	--	--	--	.00	4
JAN 15...	0	0	0	0	350	0	370	--	--
FEB 19...	--	--	--	--	--	--	--	<.01	0
APR 09...	0	1	1	0	300	0	350	--	--
MAY 14...	--	--	--	--	--	--	--	<.01	0
AUG 05...	--	--	--	--	--	--	--	<.01	<1
SEP 17...	<1	<1	--	<1	250	10	240	--	--

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	498	479	492	312	288	304			
2	---	---	---	535	496	516	288	246	277			
3	---	---	---	559	532	550	252	229	238			
4	---	---	---	572	486	542	290	251	271			
5	---	---	---	491	426	443	309	290	300			
6	---	---	---	484	441	461	333	309	318			
7	---	---	---	502	484	495	344	325	336			
8	---	---	---	531	502	522	366	336	349			
9	---	---	---	542	335	463	363	234	301			
10	---	---	---	350	337	342	254	228	238			
11	---	---	---	389	350	374	284	254	270			
12	---	---	---	414	386	403	313	284	298			
13	---	---	---	452	413	438	336	313	324			
14	---	---	---	464	445	451	353	331	342			
15	---	---	---	478	454	463	382	353	365			
16	---	---	---	478	442	454	394	382	387			
17	---	---	---	458	286	422	413	393	400			
18	---	---	---	286	233	242	439	413	428			
19	---	---	---	295	246	272	443	433	439			
20	---	---	---	326	294	313	480	428	440			
21	---	---	---	344	321	333	541	455	478			
22	---	---	---	371	343	360	538	494	510			
23	744	712	729	385	369	377	525	480	490			
24	768	727	759	374	187	235	480	471	474			
25	769	325	514	224	189	207	506	395	442			
26	374	339	353	249	224	237	---	---	---			
27	536	374	451	270	249	261	---	---	---			
28	540	373	467	278	267	273	---	---	---			
29	405	367	380	287	277	282	---	---	---			
30	457	405	428	308	285	297	---	---	---			
31	481	457	472	---	---	---	---	---	---			
MONTH	769	325	506	572	187	384	541	228	361			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1				---	---	---	---	---	---	---	---	---
2				---	---	---	---	---	---	---	---	---
3				---	---	---	---	---	---	---	---	---
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	324	264	290
6				---	---	---	742	632	696	421	332	380
7				---	---	---	664	627	645	528	426	483
8				---	---	---	694	660	675	566	460	530
9				---	---	---	745	699	733	453	396	411
10				---	---	---	778	744	768	517	398	464
11				704	680	690	817	781	805	580	516	550
12				---	---	---	826	806	820	664	536	595
13				---	---	---	847	821	838	665	566	639
14				576	405	507	853	841	848	736	634	691
15				638	581	617	867	684	837	746	628	702
16				693	642	675	---	---	---	615	419	493
17				699	675	687	---	---	---	508	405	442
18				---	---	---	---	---	---	592	513	544
19				---	---	---	---	---	---	621	594	606
20				---	---	---	---	---	---	663	620	638
21				---	---	---	---	---	---	696	665	677
22				---	---	---	---	---	---	731	700	718
23				---	---	---	---	---	---	735	722	729
24				---	---	---	---	---	---	765	737	754
25				---	---	---	---	---	---	790	756	776
26				---	---	---	---	---	---	807	772	797
27				---	---	---	---	---	---	826	800	814
28				---	---	---	---	---	---	826	808	817
29				---	---	---	---	---	---	833	808	824
30				---	---	---	---	---	---	855	819	842
31				---	---	---	---	---	---	---	---	---
MONTH				704	405	635	867	627	767	855	264	623

POTOMAC RIVER BASIN

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1				---	---	---	---	---	---	---	---	---
2				---	---	---	---	---	---	---	---	---
3				---	---	---	---	---	---	---	---	---
4				---	---	---	---	---	---	---	---	---
5				---	---	---	23.0	---	---	17.0	---	---
6				---	---	---	21.0	18.0	19.5	18.5	16.5	17.5
7				---	---	---	19.0	17.5	18.5	19.0	17.5	18.0
8				---	---	---	21.0	18.5	19.5	16.5	16.5	16.5
9				---	---	---	20.5	19.0	19.5	16.0	14.5	15.0
10				23.0	---	---	21.0	18.0	19.5	14.5	12.5	13.5
11				21.0	18.5	20.0	21.0	18.5	20.0	16.5	14.0	15.5
12				21.5	19.0	20.5	21.0	19.0	20.0	17.5	16.0	16.5
13				21.0	19.0	20.0	19.5	17.5	18.5	18.5	16.0	17.0
14				21.5	19.5	20.5	19.5	17.0	18.5	18.0	16.0	17.0
15				19.5	17.0	18.5	19.5	18.0	19.0	18.0	16.0	17.5
16				19.0	18.0	18.5	20.5	18.5	---	16.0	14.0	15.0
17				20.0	17.0	19.0	---	---	---	14.0	12.5	13.5
18				21.0	18.0	19.5	---	---	---	13.5	11.0	12.0
19				22.0	19.0	20.5	---	---	---	12.5	10.5	11.5
20				23.5	21.0	22.0	---	---	---	11.5	10.5	11.0
21				22.0	20.0	21.0	---	---	---	14.0	12.0	13.0
22				---	---	---	---	---	---	14.5	13.0	14.0
23				---	---	---	---	---	---	13.0	10.0	11.5
24				---	---	---	---	---	---	11.5	10.0	10.0
25				---	---	---	---	---	---	11.5	9.5	10.5
26				---	---	---	---	---	---	15.0	11.0	13.0
27				---	---	---	---	---	---	15.5	14.0	14.5
28				---	---	---	---	---	---	14.5	11.5	13.5
29				---	---	---	---	---	---	12.0	10.0	11.0
30				---	---	---	---	---	---	13.5	10.5	12.5
31				---	---	---	---	---	---	---	---	---
MONTH				23.5	17.0	20.0	23.0	17.0	19.5	19.0	9.5	14.0

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 mi² (4.01 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to August 1980, October 1980 to September 1981 (fragmentary).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 2,540 ft (774.192 m) from topographic map.

REMARKS.--Water-discharge records good. Natural flow of stream affected by inflow from deep coal mine dewatering process since September 1980.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282 ft³/s (7.99 m³/s) Aug. 18, 1980, gage height, 4.65 ft (1.417 m), minimum discharge recorded, 0.01 ft³/s (<0.001 m³/s) Aug. 20, 1981, gage height, 0.74 ft (0.226 m).

EXTREMES FOR PERIOD FEBRUARY 1980 TO SEPTEMBER 1981.--Peak discharges above base of 90 ft³/s (2.5 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 9, 1980	0215	99 2.80	3.13 0.954	Aug. 18, 1980	0600	*282 7.99	4.65 1.417
June 16, 1980	0015	97 2.74	3.20 0.975				
Apr. 13, 1981	0130	94 2.66	3.03 0.924	June 14, 1981	1300	*108 3.06	3.19 0.972

February to August 1980: Minimum daily discharge recorded, 1.8 ft³/s (0.051 m³/s) May 16, June 27, July 2, 1980.

Water year 1981: Minimum discharge recorded, 0.01 ft³/s (<0.001 m³/s), gage height, 0.74 ft (0.226 m) Aug. 20, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR FEBRUARY 1980 TO AUGUST 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	4.1	9.5	6.6	4.0	2.1	4.2	
2					---	3.9	7.2	4.8	4.7	1.8	3.7	
3					---	3.5	5.7	4.0	8.8	3.8	3.0	
4					---	3.5	9.1	3.5	6.7	2.8	3.7	
5					---	21	6.7	3.0	4.4	2.5	4.4	
6					---	12	5.7	2.7	6.7	6.2	2.6	
7					---	7.3	5.0	2.5	5.2	2.9	2.1	
8					---	21	5.2	2.3	5.6	18	1.9	
9					---	9.3	45	2.3	4.5	7.3	2.7	
10					---	6.3	8.5	2.1	6.4	4.7	2.4	
11					---	6.2	6.6	2.2	4.7	3.7	3.9	
12					---	4.6	5.7	2.0	4.0	9.2	4.6	
13					---	4.2	5.5	3.2	3.6	7.0	3.3	
14					---	4.0	10	2.2	3.4	4.3	3.3	
15					4.0	4.2	8.1	1.9	5.0	3.4	18	
16					4.5	5.0	7.4	1.8	37	3.0	8.4	
17					3.6	9.8	6.4	1.9	7.8	4.8	4.1	
18					3.4	14	5.8	2.4	5.0	4.5	87	
19					3.0	6.8	5.2	2.2	4.0	2.7	21	
20					3.5	5.6	4.8	3.6	3.6	2.3	8.8	
21					5.7	8.0	4.2	14	3.2	2.0	5.9	
22					28	6.9	3.9	5.7	3.1	6.4	4.5	
23					19	5.9	3.5	4.5	2.5	7.4	3.8	
24					12	5.3	3.4	8.8	2.2	4.6	3.3	
25					7.5	5.5	3.2	12	2.2	3.9	2.7	
26					6.1	4.6	4.0	6.0	1.9	4.1	3.4	
27					5.1	4.1	8.5	4.7	1.8	2.3	3.8	
28					4.7	4.5	6.1	4.1	2.0	4.9	---	
29					4.2	6.6	5.1	3.7	2.1	14	---	
30					---	5.1	11	3.3	2.8	4.0	---	
31					---	19	---	3.8	---	3.3	---	
TOTAL					---	231.8	226.0	127.8	158.9	153.9	---	
MEAN					---	7.48	7.53	4.12	5.30	4.96	---	
MAX					---	21	45	14	37	18	---	
MIN					---	3.5	3.2	1.8	1.8	1.8	---	

POTOMAC RIVER BASIN

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

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	.24	.81	5.3	1.8	1.4	11	6.7	12	5.9	1.8	.61	---
2	.03	.58	8.0	1.3	10	6.6	5.0	9.0	5.3	4.8	.59	---
3	.56	.74	8.2	1.6	4.9	6.4	3.3	6.0	5.9	1.5	1.6	---
4	.35	1.8	4.5	1.8	3.9	4.6	2.9	4.5	13	1.0	2.3	---
5	.24	.67	5.0	1.3	1.6	4.6	3.0	3.5	15	.94	.30	---
6	.90	.28	3.5	.55	2.8	4.6	3.3	3.0	37	.76	1.7	---
7	.97	.54	3.6	.86	2.5	2.4	2.1	2.6	14	1.5	.99	---
8	1.1	.45	4.2	1.0	2.1	2.5	2.9	2.4	8.0	2.1	1.3	---
9	.48	1.7	9.1	.81	1.3	2.7	3.1	2.2	7.6	2.2	.36	---
10	.53	2.2	8.8	1.0	2.2	2.4	2.6	2.0	14	3.4	.61	---
11	.44	1.3	5.6	1.2	9.3	2.9	8.9	2.4	9.0	1.5	2.3	---
12	.41	.46	4.6	.51	5.3	3.4	20	2.4	5.6	.36	.86	---
13	.27	.19	3.5	.17	3.5	3.8	32	2.9	6.2	2.4	.64	---
14	.19	.23	2.9	.19	2.7	4.3	12	.99	52	4.0	.32	---
15	.02	.52	3.5	.09	3.5	4.2	9.1	4.9	13	.46	.09	---
16	.37	.80	1.9	.27	4.5	5.3	5.5	4.1	8.7	.20	1.3	---
17	.15	2.3	2.2	.39	6.0	4.7	5.8	1.7	7.8	1.7	1.3	3.2
18	.09	6.3	1.2	.53	7.5	3.7	7.5	3.0	5.6	2.7	2.4	1.6
19	.32	3.0	1.9	.54	9.3	3.2	5.0	13	5.9	.41	.19	2.5
20	.70	1.6	.91	.47	13	2.6	8.0	8.3	12	.35	.01	.79
21	.61	2.6	.79	.29	13	2.1	6.9	5.2	9.3	1.7	---	1.3
22	.14	.77	1.3	.78	9.0	.79	3.8	4.0	12	1.1	---	1.8
23	.03	1.6	.75	.57	10	3.3	4.2	3.9	8.0	1.6	---	.16
24	.02	32	.79	.50	9.4	5.4	5.0	2.2	3.8	9.0	---	.17
25	5.7	15	.96	.71	6.1	4.3	6.0	2.5	3.5	2.9	---	.37
26	3.0	8.0	.87	2.2	4.6	4.0	4.5	2.6	5.0	.80	---	1.5
27	1.4	5.0	.82	5.7	3.9	23	8.0	3.5	4.1	1.6	---	1.0
28	4.6	4.4	.58	4.7	9.8	8.8	5.0	3.7	1.9	3.0	---	.59
29	2.8	3.5	.84	3.6	---	6.5	4.5	4.8	2.1	4.6	---	1.6
30	1.3	3.0	2.3	2.5	---	7.3	4.0	6.3	3.0	2.0	---	.09
31	2.0	---	2.4	1.1	---	6.8	---	12	---	2.9	---	---
TOTAL	29.96	102.34	100.81	39.03	165.1	158.19	200.6	141.59	304.2	65.28	---	---
MEAN	.97	3.41	3.25	1.26	5.90	5.10	6.69	4.57	10.1	2.11	---	---
MAX	5.7	32	9.1	5.7	13	23	32	13	52	9.0	---	---
MIN	.02	.19	.58	.09	1.3	.79	2.1	.99	1.9	.20	---	---

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 1980 to September 1981.

WATER TEMPERATURES.--October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHCS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)
OCT											
27...	1300	1.8	679	7.1	10.0	6.8	.60	9.9	280	250	--
NOV											
05...	1030	.48	620	6.9	6.0	6.3	5.3	9.2	260	230	.1
DEC											
16...	1015	1.8	335	6.0	.0	2.3	--	12.2	--	--	.0
JAN											
15...	1100	.09	570	6.5	-2.0	.0	2.2	12.2	250	230	.2
FEB											
20...	0900	12	212	6.8	8.0	2.5	39	12.7	89	--	--
APR											
09...	1130	2.8	594	6.3	13.0	9.8	4.1	9.6	350	330	.4
MAY											
14...	1530	.73	629	6.4	27.0	20.1	.55	7.9	280	260	.1
JUN											
26...	1230	5.2	309	6.8	26.0	19.5	45	8.7	140	120	.2
30...	0945	3.4	570	6.6	26.0	18.9	1.6	8.4	290	270	.1
AUG											
12...	0945	.15	959	6.0	20.0	21.3	.70	--	510	510	.3
SEP											
17...	1315	3.5	671	4.2	14.0	17.0	1.7	8.1	350	350	.3

DATE	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PC/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
27...	--	97	9.5	25	16	.6	4.2	--	--	290	3.5
NOV											
05...	5.0	84	12	23	16	.6	3.8	--	--	250	2.9
DEC											
16...	.0	--	--	--	--	--	--	--	13	140	--
JAN											
15...	10	81	11	7.0	6	.2	2.7	--	--	250	3.0
FEB											
20...	--	29	4.1	4.6	10	.2	1.2	.90	--	73	2.6
APR											
09...	20	120	12	5.7	3	.1	2.4	1.8	--	270	3.0
MAY											
14...	5.0	94	12	8.3	6	.2	3.4	2.5	--	260	4.1
JUN											
26...	10	46	5.7	2.8	4	.1	1.5	1.1	21	81	4.9
30...	5.0	95	12	4.5	3	.1	2.6	1.9	--	270	2.1
AUG											
12...	15	170	20	6.8	3	.1	3.7	2.8	--	470	2.2
SEP											
17...	15	120	13	3.9	2	.1	2.9	--	0	320	2.8

POTOMAC RIVER BASIN

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, 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, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)
OCT										
27...	.1	3.6	517	456	.70	2.5	37	.38	.37	1.6
NOV										
05...	.1	4.7	464	400	.63	.60	17	.45	.44	1.9
DEC										
16...	--	--	224	--	.30	1.1	--	--	--	--
JAN										
15...	.2	5.3	395	373	.54	.10	6	--	--	--
FEB										
20...	<.1	3.7	145	124	.20	4.7	51	--	--	--
APR										
09...	.2	4.6	412	429	.56	3.1	20	--	--	--
MAY										
14...	.2	4.5	459	402	.62	.90	5	--	--	--
JUN										
26...	.1	4.6	214	159	.29	3.0	51	--	--	--
30...	.2	5.0	446	402	.61	4.1	5	--	--	--
AUG										
12...	.3	7.5	781	683	1.1	.32	5	.19	--	--
SEP										
17...	.2	5.4	537	475	.73	5.1	11	.23	--	--

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT										
27...	.010	.010	.03	.39	.38	.040	.040	.05	.05	.30
NOV										
05...	.000	.000	.00	.45	.44	.060	.090	.07	.12	.02
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
15...	--	--	--	.53	.39	.080	.090	.10	.12	.05
FEB										
20...	<.010	<.010	--	.94	.92	.050	.050	--	.06	.23
APR										
09...	--	--	--	.34	--	.050	.060	--	.08	.11
MAY										
14...	--	--	--	.39	.38	.070	.060	--	.08	.32
JUN										
26...	--	--	--	.46	.48	.040	.050	--	.06	.24
30...	--	--	--	.49	.38	.060	.070	--	.09	.23
AUG										
12...	.010	<.010	--	.20	.21	.160	.160	--	.21	.27
SEP										
17...	.010	.000	.00	.24	.33	.100	.100	--	.13	.24

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (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)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT										
27...	.12	.34	.18	.16	.73	.54	3.2	.030	.09	.000
NOV										
05...	.00	.08	.02	.06	.53	.50	2.3	.020	.06	.000
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN										
15...	--	.13	--	<.10	.66	--	2.9	<.010	<.03	<.010
FEB										
20...	.18	.28	.05	.23	1.2	1.2	5.4	.050	.15	<.010
APR										
09...	.00	.16	.12	.04	.50	.50	2.2	<.010	.03	<.010
MAY										
14...	.36	.39	.00	.42	.78	.80	3.5	.070	.21	.010
JUN										
26...	.27	.28	.00	.32	.74	.80	3.3	.040	.12	<.010
30...	.25	.29	.00	.32	.78	.70	3.5	<.010	.03	<.010
AUG										
12...	.00	.43	.28	.15	.63	.36	2.8	<.010	--	<.010
SEP										
17...	.17	.34	.07	.27	.58	.52	2.6	<.010	--	.010

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, SUS- PENDE D RECOV. (UG/L AS AL) (01107)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE D TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE D RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)
OCT 27...	300	250	50	1	0	1	100	0	100	4
JAN 15...	190	190	0	1	0	1	100	20	80	10
APR 09...	500	400	100	0	0	1	100	30	70	20
SEP 17...	1600	600	1000	1	0	1	100	0	100	10

DATE	BORON, SUS- PENDE D RECOV- ERABLE (UG/L AS B) (01021)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE D RECOV- ERABLE (UG/L AS CD) (01026)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE D RECOV- ERABLE (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE D RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
OCT 27...	2	2	0	0	10	0	10	10	8	2
JAN 15...	0	10	0	0	10	0	10	10	10	0
APR 09...	0	20	0	0	<10	--	<10	2	0	6
SEP 17...	--	<10	10	10	20	10	10	30	10	17

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01021)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE) (01027)	IRON, DIS- SOLVED (UG/L AS FE) (01026)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01034)	MANGA- NESE, SUS- PENDE D RECOV- ERABLE (UG/L AS MN) (01031)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01030)	CARBON, ORGANIC TOTAL (MG/L AS C) (01042)
OCT 27...	1500	1500	30	790	120	670	--
NOV 05...	1100	1000	90	780	0	860	3.4
DEC 16...	570	510	60	640	70	570	--
JAN 15...	580	250	330	720	0	820	--
FEB 20...	2500	2500	20	440	10	430	2.5
APR 09...	650	620	30	760	0	890	2.4
MAY 14...	390	--	<10	640	0	650	2.0
JUN 26...	2200	--	<10	490	0	490	5.7
30...	490	--	<10	590	0	660	2.3
AUG 12...	400	280	120	1100	0	1300	.7
SEP 17...	440	270	170	2100	0	2400	.8

POTOMAC RIVER BASIN

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)
OCT 27...	0	0	0	<.1	<.1	18	6	12	1	0
NOV 05...	--	--	--	--	--	--	--	--	--	--
JAN 15...	0	0	0	<.1	<.1	32	0	35	1	0
FEB 20...	--	--	--	--	--	--	--	--	--	--
APR 09...	5	5	0	<.1	<.1	52	0	54	1	0
MAY 14...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--
SEP 17...	<100	--	3	<.1	<.1	140	40	100	1	0

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 27...	1	0	0	0	10	1	9	--	--
NOV 05...	--	--	--	--	--	--	--	.00	4
JAN 15...	1	0	0	0	60	30	30	--	--
FEB 20...	--	--	--	--	--	--	--	<.01	0
APR 09...	1	0	0	0	140	20	120	--	--
MAY 14...	--	--	--	--	--	--	--	<.01	0
AUG 12...	--	--	--	--	--	--	--	<.01	<1
SEP 17...	1	<1	--	<1	320	20	300	--	--

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	769	703	751	650	633	644						
2	690	518	632	643	603	621						
3	748	513	632	616	583	596						
4	746	733	742	603	558	585						
5	744	733	742	624	604	617						
6	750	739	744	635	462	585						
7	785	750	777	682	641	663						
8	820	783	808	688	640	666						
9	854	812	841	640	502	595						
10	864	727	841	---	---	---						
11	862	651	819	---	---	---						
12	850	828	839	---	---	---						
13	838	819	833	---	---	---						
14	843	800	835	---	---	---						
15	778	687	725	---	---	---						
16	839	682	764	---	---	---						
17	864	817	843	---	---	---						
18	847	753	805	---	---	---						
19	850	816	835	590	564	577						
20	845	814	835	564	507	531						
21	855	838	845	571	525	545						
22	863	812	842	---	---	---						
23	848	810	825	---	---	---						
24	807	722	752	---	---	---						
25	849	320	725	---	---	---						
26	734	705	720	---	---	---						
27	705	687	698	---	---	---						
28	701	669	687	---	---	---						
29	687	658	674	---	---	---						
30	660	605	631	---	---	---						
31	635	606	617	---	---	---						
MONTH	864	320	763	688	462	602						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1				---	---	---	---	---	---	639	509	587
2				---	---	---	724	651	690	982	645	674
3				---	---	---	696	283	556	669	659	663
4				---	---	---	688	206	510	776	520	615
5				---	---	---	724	557	657	656	535	615
6				---	---	---	665	259	460	680	661	674
7				---	---	---	661	531	644	683	611	657
8				---	---	---	636	242	374	683	535	590
9				---	---	---	644	268	516	640	589	613
10				---	---	---	696	536	594	617	595	606
11				---	---	---	645	441	559	637	571	596
12				---	---	---	496	283	372	649	595	626
13				---	---	---	589	249	513	750	502	650
14				---	---	---	559	374	522	774	510	624
15				---	---	---	598	558	584	559	379	512
16				---	---	---	607	511	598	665	559	598
17				---	---	---	607	423	526	621	508	573
18				---	---	---	717	439	574	575	436	511
19				589	519	546	856	473	624	568	377	494
20				657	545	568	613	486	580	385	318	356
21				647	516	558	631	568	620	391	342	377
22				---	---	---	633	539	585	462	325	361
23				---	---	---	613	547	584	485	423	465
24				---	---	---	637	587	623	425	315	380
25				---	---	---	646	637	644	425	298	321
26				---	---	---	656	646	651	638	423	505
27				---	---	---	659	506	615	585	535	560
28				---	---	---	660	654	657	678	531	581
29				---	---	---	663	527	599	393	421	474
30				---	---	---	651	565	632	681	451	495
31				---	---	---	---	---	---	778	408	630
MONTH				657	516	557	856	206	575	982	298	548

POTOMAC RIVER BASIN

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	801	365	693	737	573	637	926	856	878	---	481	---
2	764	333	549	734	590	679	873	822	849	---	856	---
3	806	403	604	745	623	691	834	799	814	888	779	849
4	815	314	547	633	571	604	946	830	897	843	687	766
5	774	545	633	571	530	542	933	900	916	895	718	819
6	594	343	510	558	479	509	913	762	879	827	594	686
7	645	598	625	616	476	505	935	909	918	603	532	563
8	682	576	657	736	616	660	937	907	922	787	442	569
9	707	684	699	830	736	780	927	913	922	915	552	781
10	709	373	671	892	830	853	955	911	928	909	614	743
11	699	668	687	881	807	850	985	938	961	761	632	677
12	717	697	708	849	796	828	1000	941	981	884	691	781
13	724	462	693	830	470	783	992	935	977	779	676	716
14	543	197	291	764	721	739	985	780	952	742	659	686
15	230	206	215	782	707	760	941	797	897	850	651	745
16	275	229	249	756	659	725	937	782	908	867	664	798
17	297	272	285	855	751	775	886	853	872	867	649	679
18	326	293	308	919	855	889	976	883	933	761	703	739
19	353	225	338	916	878	901	983	859	939	821	731	758
20	347	303	326	894	782	863	922	722	816	781	725	749
21	373	297	333	870	835	849	722	540	604	758	703	717
22	304	294	301	946	863	889	---	527	---	818	743	771
23	326	300	308	988	919	957	---	882	---	825	749	779
24	408	334	377	962	763	854	---	816	---	789	484	690
25	414	392	405	875	724	808	---	894	---	819	789	804
26	---	---	---	726	665	706	971	917	944	873	823	838
27	593	406	482	721	680	699	---	744	---	933	884	908
28	591	462	516	892	707	766	---	735	---	956	925	941
29	557	453	474	930	759	862	---	969	---	983	914	958
30	684	544	609	916	777	832	---	852	---	965	800	918
31	---	---	---	939	793	861	898	504	688	---	---	---
MONTH	815	197	486	988	470	763	1000	504	887	983	442	765

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01594934 SOUTH FORK SAND RUN NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	---	---	---	13.0	10.5	11.5
2				---	---	---	8.0	7.5	7.5	11.5	10.5	11.0
3				---	---	---	12.0	8.0	9.0	12.0	10.5	11.5
4				---	---	---	12.5	8.5	10.0	16.5	11.0	13.0
5				---	---	---	11.5	9.5	10.5	15.0	11.5	13.0
6				---	---	---	10.5	9.0	10.0	13.0	12.0	12.5
7				---	---	---	9.5	9.0	9.5	12.5	12.0	12.5
8				---	---	---	13.5	9.5	11.5	14.5	12.0	13.0
9				---	---	---	12.0	9.5	10.5	14.5	12.0	12.5
10				---	---	---	14.0	9.5	11.0	16.0	13.5	14.5
11				---	---	---	12.5	9.5	10.5	17.0	13.0	15.5
12				---	---	---	13.0	9.0	10.5	16.0	12.5	13.5
13				---	---	---	12.5	9.5	10.0	16.0	12.0	13.0
14				---	---	---	12.0	10.0	10.5	18.5	12.5	14.0
15				---	---	---	11.0	10.0	10.5	16.5	12.5	14.0
16				---	---	---	11.5	10.0	10.5	14.5	12.5	13.0
17				---	---	---	11.5	10.5	11.0	14.0	12.5	13.0
18				---	---	---	12.0	10.5	11.0	14.5	12.5	13.5
19				3.0	2.0	2.5	12.5	11.0	11.5	13.0	11.0	12.0
20				3.0	1.5	2.5	12.5	11.0	11.5	12.5	11.5	12.0
21				2.5	1.5	2.0	11.5	10.5	11.0	13.0	12.0	12.5
22				---	---	---	12.0	10.5	11.0	14.5	13.0	13.5
23				---	---	---	12.5	10.5	11.5	14.5	12.5	13.5
24				---	---	---	11.5	10.5	11.0	15.0	14.0	14.5
25				---	---	---	10.5	10.0	10.0	20.0	14.5	16.5
26				---	---	---	11.0	9.5	10.0	20.5	13.5	16.0
27				---	---	---	11.0	10.0	10.5	18.0	14.5	16.5
28				---	---	---	12.0	10.5	11.5	17.0	13.5	15.5
29				---	---	---	14.5	11.5	12.5	18.5	14.0	16.5
30				---	---	---	12.5	11.0	12.0	19.0	14.0	16.0
31				---	---	---	---	---	---	16.0	13.5	14.5
MONTH				3.0	1.5	2.5	14.5	7.5	10.5	20.5	10.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	14.0	14.5	22.0	18.5	20.5	24.0	19.5	21.5	22.5	20.0	21.5
2	18.5	14.5	15.5	20.5	19.0	20.0	23.5	19.0	22.0	21.5	18.5	20.0
3	19.0	14.5	16.0	20.5	18.5	19.5	25.0	22.0	23.5	21.0	18.5	19.0
4	18.0	13.5	16.0	21.5	20.0	21.0	22.5	21.5	22.0	18.5	18.0	18.0
5	17.5	14.0	15.0	22.0	20.5	21.0	23.0	22.0	22.5	20.0	18.0	19.0
6	17.0	14.0	15.5	24.0	19.0	20.5	23.5	20.5	22.5	20.0	19.0	19.5
7	16.0	14.5	15.5	26.0	17.5	22.0	23.5	20.0	21.0	20.5	19.0	19.5
8	18.0	15.5	16.5	25.5	18.5	21.5	22.0	20.5	21.5	20.0	18.5	19.5
9	17.5	16.0	16.5	27.0	19.5	22.5	23.0	21.0	22.0	18.5	17.5	18.0
10	18.0	15.0	16.5	23.5	22.5	23.0	28.0	21.0	24.0	19.0	17.0	18.0
11	17.0	16.0	16.5	23.0	18.5	21.0	24.5	21.0	22.5	18.5	17.0	18.0
12	18.5	16.5	17.5	24.0	21.0	22.0	25.5	20.5	23.0	18.0	17.5	18.0
13	20.0	17.0	18.0	24.0	20.0	22.0	22.5	20.5	21.5	19.5	17.5	18.5
14	18.5	13.5	17.0	24.0	19.0	21.0	22.0	19.0	21.0	20.0	17.5	19.0
15	19.0	16.5	17.5	21.0	19.0	20.5	24.0	20.5	22.0	19.0	17.5	18.0
16	21.0	17.5	18.5	24.0	20.0	21.5	23.0	21.5	22.0	18.0	17.0	17.0
17	20.5	17.5	19.0	26.5	19.5	22.5	25.0	18.0	22.0	17.0	16.5	17.0
18	22.5	17.0	19.0	22.5	20.0	21.0	22.0	19.5	21.0	17.0	15.5	16.0
19	22.5	18.0	19.5	26.0	20.5	22.0	21.0	19.0	20.0	15.5	15.0	15.5
20	19.0	16.5	17.5	26.0	21.5	23.5	22.5	17.5	20.0	15.0	14.5	14.5
21	21.5	17.5	18.5	25.0	20.0	22.5	22.0	17.0	20.0	16.5	14.0	15.0
22	18.5	16.5	18.0	25.0	21.0	23.0	21.5	18.0	20.0	15.5	14.5	15.0
23	19.5	17.5	18.5	22.5	19.0	21.0	22.0	17.5	20.0	14.5	13.0	14.0
24	20.0	18.0	19.0	22.5	17.0	20.0	26.0	18.5	21.0	16.5	11.5	13.5
25	22.0	18.5	20.0	21.5	18.5	20.0	21.0	17.0	20.0	16.0	12.5	14.5
26	21.0	17.5	19.0	24.0	21.0	22.0	22.5	18.0	20.0	16.0	14.0	15.0
27	19.0	17.5	18.5	23.5	20.5	22.0	24.5	17.5	21.5	16.0	14.5	15.5
28	19.0	17.5	18.5	25.0	20.5	22.0	22.5	20.0	21.0	16.5	13.5	15.0
29	24.5	18.5	20.5	22.0	20.0	20.5	24.0	20.0	21.5	15.5	13.5	14.5
30	21.5	19.0	20.0	24.5	19.5	21.5	23.0	19.0	20.5	15.5	14.0	14.5
31	---	---	---	21.5	20.0	20.5	24.5	20.0	21.5	---	---	---
MONTH	24.5	13.5	17.5	27.0	17.0	21.5	28.0	17.0	21.5	22.5	11.5	17.0

POTOMAC RIVER BASIN

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 mi² (4.95 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and steel weir plate. Altitude of gage is 2,515 ft (767 m), from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 248 ft³/s (7.023 m³/s) Aug. 18, 1980, gage height, 5.75 ft (1.753 m); minimum discharge, 0.30 ft³/s (0.008 m³/s) part or all of each day Oct. 23, 24, 1980.

EXTREMES FOR PERIOD MAY 1980 TO SEPTEMBER 1981.--Peak discharges above base of 40 ft³/s (1.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
June 16, 1980	0315	73	2.07	3.84	1.170	July 28, 1980	2330	49	1.39	3.40	1.036
July 8, 1980	1115	44	1.25	3.31	1.009	Aug. 18, 1980	0615	*248	7.02	5.75	1.753
July 12, 1980	1900	94	2.66	4.16	1.268						
Nov. 24, 1980	1200	59	1.67	3.61	1.100	June 3, 1981	0300	59	1.67	3.60	1.097
Mar. 27, 1981	0545	59	1.67	3.60	1.097	June 12, 1981	1730	87	2.46	4.06	1.237
Apr. 13, 1981	0130	*94	2.66	4.17	1.271						

May to September 1980: Minimum discharge during period, 0.49 ft³/s (0.014 m³/s) Sept. 21, 1980, gage height, 1.78 ft (0.543 m).

Water year 1981: Minimum discharge, 0.30 ft³/s (0.008 m³/s) Oct. 23, 24, 1980, gage height, 1.69 ft (0.515 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR MAY 1980 TO SEPTEMBER 1980

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								12	3.6	1.5	5.6	1.5
2								9.2	4.4	1.3	4.4	1.6
3								6.9	8.9	2.9	3.4	1.7
4								5.4	11	2.1	2.8	1.8
5								4.4	5.6	1.8	3.4	4.6
6								3.9	7.9	3.9	2.5	1.8
7								3.6	5.4	1.9	2.1	1.4
8								3.1	6.6	13	1.9	1.3
9								2.8	4.8	7.2	2.4	1.2
10								2.5	6.9	4.6	2.0	1.2
11								2.5	4.6	3.5	2.7	.94
12								2.5	3.8	16	4.0	.86
13								5.0	3.4	16	2.4	.79
14								2.8	3.2	7.2	1.9	.82
15								2.4	6.6	4.6	14	.79
16								2.1	42	3.6	14	.72
17								2.0	14	5.8	6.3	.66
18								2.9	8.2	3.5	71	.62
19								2.7	5.6	2.6	37	.57
20								5.4	4.4	2.3	17	.51
21								17	3.6	2.0	11	.79
22								8.2	3.4	6.1	7.2	.66
23								5.8	2.5	8.5	5.4	2.2
24								7.9	2.2	4.2	4.2	1.1
25								14	2.2	3.1	3.5	.86
26								7.5	1.9	2.5	2.9	.79
27								5.4	1.7	2.2	2.5	.62
28								4.2	1.7	5.8	2.2	.60
29								3.5	1.6	14	2.0	.57
30								3.1	2.0	5.4	1.8	.54
31								3.8	---	4.0	1.6	---
TOTAL								164.5	183.7	163.1	245.1	34.11
MEAN								5.31	6.12	5.26	7.91	1.14
MAX								17	42	16	71	4.6
MIN								2.0	1.6	1.3	1.6	.51

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

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	.49	1.2	4.8	1.4	3.0	16	8.5	14	5.2	2.8	1.5	1.4
2	.54	1.0	9.2	1.3	5.5	9.9	7.2	11	11	4.0	1.3	7.2
3	.57	.90	9.2	1.2	4.5	7.5	5.4	8.2	32	2.7	1.3	8.5
4	.49	1.0	5.8	1.1	4.0	5.8	4.8	6.3	38	2.3	1.2	21
5	.44	1.1	5.0	1.0	3.5	5.6	4.6	5.4	33	2.2	.98	8.2
6	.40	.90	4.6	.90	3.2	4.8	3.9	5.0	14	2.0	1.5	4.4
7	.48	.82	4.8	1.0	3.0	4.0	3.5	4.4	10	1.6	1.3	3.1
8	.38	.82	4.4	1.1	2.9	3.6	3.2	3.6	14	1.5	1.2	5.0
9	.38	1.4	9.6	1.2	2.8	3.4	3.4	3.2	12	1.4	.98	4.2
10	.49	1.3	8.9	1.1	3.2	3.2	3.4	2.9	7.5	1.4	.86	3.1
11	.72	1.0	6.3	1.0	8.0	3.1	13	3.4	5.8	1.2	.80	2.4
12	.46	.90	5.2	.90	7.0	3.1	29	3.1	46	1.0	.75	2.0
13	.42	.86	4.6	.85	6.0	4.6	47	2.6	27	1.9	.72	1.7
14	.40	.79	3.8	.80	5.0	5.0	20	2.3	13	1.5	.66	1.5
15	.38	.76	3.4	1.1	6.4	4.0	12	5.2	8.9	1.2	.62	2.3
16	.36	.98	3.2	1.3	9.0	5.2	8.5	4.0	6.3	1.0	2.0	5.2
17	.36	1.2	2.8	1.2	12	4.6	8.5	3.6	4.8	.90	1.1	3.2
18	.42	2.7	2.6	1.1	15	4.0	9.9	4.4	13	.79	.70	2.5
19	.44	2.0	2.5	.90	16	3.8	6.9	18	9.2	.79	.62	2.2
20	.38	1.7	2.0	1.0	20	3.5	8.6	13	17	.98	.56	1.9
21	.36	1.6	1.7	1.0	21	3.2	6.4	8.2	8.9	1.0	.50	1.7
22	.34	1.5	1.6	1.1	14	2.8	5.4	5.6	6.3	.86	.46	1.6
23	.32	1.7	1.5	1.1	14	3.2	6.3	4.2	5.6	.79	.40	1.4
24	.32	34	1.4	1.0	12	3.8	8.5	3.6	6.4	6.9	.38	1.3
25	3.6	21	1.3	1.1	8.2	4.2	9.2	3.2	6.9	2.4	.42	1.1
26	2.2	9.9	1.2	1.4	6.3	4.4	6.6	4.2	5.6	1.8	.38	1.1
27	1.4	6.6	1.1	2.0	5.2	33	12	4.8	4.4	1.5	.34	.90
28	2.6	5.2	1.2	3.0	10	14	7.5	4.4	3.6	2.6	2.2	.86
29	2.3	4.4	1.3	2.6	---	11	6.9	13	3.2	3.8	1.1	.79
30	1.6	3.8	1.4	2.2	---	9.6	5.8	7.2	2.8	2.5	.60	.79
31	1.4	---	1.5	2.0	---	7.5	---	6.1	---	2.0	1.2	---
TOTAL	25.36	113.03	117.9	39.95	230.7	201.4	285.9	188.1	381.4	59.31	28.63	102.54
MEAN	.82	3.77	3.80	1.29	8.24	6.50	9.53	6.07	12.7	1.91	.92	3.42
MAX	3.6	34	9.6	3.0	21	33	47	18	46	6.9	2.2	21
MIN	.32	.76	1.1	.80	2.8	2.8	3.2	2.3	2.8	.79	.34	.79
WTR YR 1981	TOTAL	1774.22	MEAN	4.86	MAX	47	MIN	.32				

POTOMAC RIVER BASIN

01594936 NORTH FORK SAND RUN NEAR WILSON, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to September 1981.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 1980 to September 1981.

WATER TEMPERATURES.--October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)
OCT											
27...	1100	1.3	178	6.2	11.0	3.1	1.0	11.0	77	65	.1
NOV											
05...	1050	1.2	185	6.3	--	6.1	.75	--	80	66	.1
DEC											
16...	1100	3.5	87	5.1	.0	2.5	--	12.0	--	--	.0
JAN											
15...	1300	1.2	547	5.0	-3.0	.0	3.7	12.6	230	230	1.2
FEB											
18...	1300	16	86	4.4	15.0	3.3	3.5	12.5	36	--	.3
APR											
09...	1330	3.1	192	3.8	11.0	10.3	2.0	9.7	74	74	.7
MAY											
15...	1145	5.5	139	4.3	16.0	13.0	2.1	9.6	55	54	.1
JUN											
26...	1445	5.7	186	4.4	21.0	18.5	8.6	8.8	70	70	.3
30...	0945	3.3	133	5.1	24.1	15.5	2.7	8.1	51	48	.1
30...	1345	2.8	133	5.1	--	15.5	--	--	--	--	--
AUG											
12...	1225	.80	165	6.0	--	19.1	6.0	--	78	61	.3
SEP											
17...	1500	3.1	98	6.2	15.0	15.0	6.3	7.9	35	28	.1

DATE	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
27...	5.0	22	5.3	.6	2	.0	1.9	--	--	66	3.7
NOV											
05...	5.0	22	6.0	.8	2	.0	1.4	--	--	68	2.0
DEC											
16...	.0	--	--	--	--	--	--	--	3	34	--
JAN											
15...	60	68	15	1.4	1	.0	2.1	--	--	220	1.3
FEB											
18...	15	9.8	2.7	.6	3	.0	.8	.60	--	35	1.3
APR											
09...	35	21	5.3	.6	2	.0	1.1	.80	--	82	1.7
MAY											
15...	5.0	16	3.7	.8	3	.0	.9	.70	--	55	1.2
JUN											
26...	15	20	4.9	.6	2	.0	1.0	.70	2	70	1.1
30...	5.0	17	2.0	.6	2	.0	.6	.40	--	54	1.4
30...	--	--	--	--	--	--	--	--	--	--	--
AUG											
12...	15	22	5.5	1.1	3	.1	.9	.70	--	62	.9
SEP											
17...	5.0	11	1.9	.6	3	.0	.9	--	8	32	1.6

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, 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, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)
OCT 27...	.0	4.6	143	114	.19	.50	4	.31	.32	1.4
NOV 05...	.2	4.8	128	116	.17	.41	1	.37	.37	1.6
DEC 16...	--	--	52	--	.07	.49	--	--	--	--
JAN 15...	.1	7.9	390	332	.53	1.3	31	--	--	--
FEB 18...	<.1	4.5	64	56	.09	2.8	9	--	--	--
APR 09...	<.1	5.2	136	120	.18	1.1	14	--	--	--
MAY 15...	<.1	4.0	93	83	.13	1.4	9	--	--	--
JUN 26...	<.1	4.7	141	107	.19	2.2	16	--	--	--
30...	<.1	4.7	103	83	.14	.92	8	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
AUG 12...	<.1	4.8	125	109	.17	.27	7	.22	--	--
SEP 17...	<.1	4.0	83	59	.11	.69	12	.25	--	--
DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 27...	.010	.000	.00	.32	.32	.170	.190	.21	.24	.15
NOV 05...	.000	.000	.00	.37	.37	.070	.110	.08	.14	.02
DEC 16...	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	.48	.52	.310	.370	.38	.48	.07
FEB 18...	<.010	<.010	--	.99	.97	.040	.050	--	.06	.24
APR 09...	--	--	--	.63	.62	.090	.100	--	.13	.07
MAY 15...	--	--	--	.46	.45	.090	.080	--	.10	.40
JUN 26...	--	--	--	.39	.41	.080	.100	--	.13	.23
30...	--	--	--	.50	.45	.060	.110	--	.14	.33
30...	--	--	--	.50	.45	.060	.110	--	.14	.33
AUG 12...	.010	<.010	--	.23	.20	.080	.070	--	.09	.36
SEP 17...	.150	.000	.00	.40	.37	.070	.100	--	.13	.25

POTOMAC RIVER BASIN

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 27...	.10	.32	.03	.29	.64	.61	2.8	.010	.03	.010
NOV 05...	.00	.09	.09	.00	.46	.37	2.0	.010	.03	.000
DEC 16...	--	--	--	--	--	--	--	--	--	--
JAN 15...	.00	.38	.16	.22	.86	.74	3.8	<.010	<.03	<.010
FEB 18...	.11	.28	.12	.16	1.3	1.1	5.6	<.010	.03	<.010
APR 09...	.00	.16	.06	.10	.79	.72	3.5	<.010	.03	<.010
MAY 15...	.40	.49	.01	.48	.95	.93	4.2	.020	.06	<.010
JUN 26...	.11	.31	.10	.21	.70	.62	3.1	<.010	.03	<.010
30...	.22	.39	.06	.33	.89	.78	3.9	<.010	.03	<.010
30...	.22	.39	.06	.33	.89	.78	3.9	<.010	.03	<.010
AUG 12...	.12	.44	.25	.19	.67	.39	3.0	.020	.06	<.010
SEP 17...	.10	.32	.12	.20	.72	.62	3.2	.020	.06	.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL) (01107)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS R) (01022)
OCT 27...	120	70	50	0	0	0	100	40	60	2
JAN 15...	310	170	140	1	0	1	100	20	80	10
APR 09...	800	50	750	1	0	1	100	40	60	10
SEP 17...	140	110	30	1	0	1	100	0	100	20

DATE	BORON, SUS- PENDE RECOV- ERABLE (UG/L AS B) (01021)	BORON, DIS- SOLVED (UG/L AS R) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
OCT 27...	2	0	0	0	20	--	<10	0	0	4
JAN 15...	0	10	0	0	10	0	10	40	39	1
APR 09...	0	10	0	0	<10	--	<10	5	3	2
SEP 17...	10	10	<10	--	10	0	10	10	10	2

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 27...	1100	460	640	870	90	780	--
NOV 05...	430	250	180	470	0	480	2.9
DEC 16...	520	150	370	320	10	310	--
JAN 15...	10000	0	12000	1600	0	1600	--
FEB 18...	1400	650	750	410	0	430	1.8
APR 09...	960	220	740	490	30	460	--
MAY 15...	1100	850	250	390	10	380	4.6
JUN 26...	4600	500	4100	460	0	510	3.8
30...	1800	1500	340	440	0	480	1.7
30...	--	--	--	--	--	--	1.7
AUG 12...	2300	1800	530	620	0	660	3.5
SEP 17...	1300	1200	110	370	0	410	2.3

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE TOTAL (UG/L AS SE)
OCT 27...	0	0	0	<.1	<.1	9	2	7	0	0
NOV 05...	--	--	--	--	--	--	--	--	--	--
JAN 15...	0	0	0	<.1	<.1	38	3	35	0	0
FEB 18...	--	--	--	--	--	--	--	--	--	--
APR 09...	7	7	0	<.1	<.1	15	2	13	0	0
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 30...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--
SEP 17...	<100	--	3	<.1	<.1	10	5	5	<1	--

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 27...	0	0	0	0	30	0	30	--	--
NOV 05...	--	--	--	--	--	--	--	.00	3
JAN 15...	0	3	3	0	100	30	70	--	--
FEB 18...	--	--	--	--	--	--	--	<.01	0
APR 09...	0	0	0	0	60	30	30	--	--
MAY 15...	--	--	--	--	--	--	--	<.01	0
JUN 30...	--	--	--	--	--	--	--	<.01	--
AUG 12...	--	--	--	--	--	--	--	<.01	<1
SEP 17...	<1	<1	--	<1	50	40	10	--	--

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	118	108	113	188	131	152
2				---	---	---	136	115	124	145	134	138
3				---	---	---	141	134	137	137	134	135
4				---	---	---	138	126	132	144	133	138
5				---	---	---	134	129	132	168	144	158
6				---	---	---	155	130	134	196	171	188
7				---	---	---	172	160	169	193	185	190
8				---	---	---	174	167	172	191	180	185
9				---	---	---	196	172	183	211	177	192
10				---	---	---	189	169	177	215	205	210
11				---	---	---	189	127	152	219	207	213
12				---	---	---	144	106	120	241	217	234
13				---	---	---	111	98	105	243	196	228
14				---	---	---	118	109	111	213	194	205
15				---	---	---	122	110	114	195	160	173
16				---	---	---	127	122	125	211	170	189
17				---	---	---	129	125	127	247	211	229
18				---	---	---	130	121	123	252	175	231
19				---	---	---	125	121	123	175	122	146
20				---	---	---	141	120	127	121	116	117
21				---	---	---	147	141	144	143	121	131
22				---	---	---	157	144	147	152	141	144
23				---	---	---	170	158	163	150	142	147
24				151	122	133	175	158	166	155	150	152
25				161	144	150	170	162	166	159	150	154
26				164	149	155	170	162	168	163	141	150
27				149	87	103	162	139	149	147	137	141
28				93	86	88	162	154	158	173	152	161
29				98	89	92	180	153	167	204	154	177
30				113	97	103	185	178	181	242	204	221
31				115	110	112	---	---	---	195	155	168
MONTH				164	86	117	196	98	144	252	116	174
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	164	156	161	196	193	194	424	395	410	252	137	168
2	206	164	178	198	179	186	453	428	441	218	118	173
3	238	206	225	203	190	196	461	438	453	208	117	166
4	247	100	217	215	205	211	444	434	438	129	114	104
5	119	95	105	223	217	220	452	443	448	118	95	107
6	113	94	98	225	215	222	444	357	399	123	117	120
7	99	93	96	214	208	213	358	336	348	118	112	115
8	129	99	109	208	194	202	338	314	327	111	78	93
9	133	129	131	214	196	206	321	310	315	78	62	67
10	131	103	117	235	216	226	322	312	316	113	71	95
11	134	123	128	257	237	248	---	---	---	126	110	117
12	146	130	134	283	261	276	---	---	---	119	99	108
13	---	---	---	298	266	283	---	---	---	135	108	123
14	---	---	---	285	275	280	---	---	---	161	134	147
15	---	---	---	293	282	289	---	---	---	157	106	138
16	---	---	---	305	293	300	---	---	---	106	75	86
17	---	---	---	308	288	299	---	---	---	264	76	236
18	---	---	---	301	275	289	---	---	---	290	194	255
19	---	---	---	291	257	283	---	---	---	284	234	268
20	---	---	---	278	253	263	---	---	---	271	215	246
21	---	---	---	290	282	287	---	---	---	265	199	238
22	---	---	---	316	291	305	695	587	656	235	191	217
23	---	---	---	339	319	331	637	509	569	236	193	214
24	---	---	---	390	244	299	518	373	436	241	203	217
25	---	---	---	275	248	267	373	297	330	222	188	202
26	---	---	---	293	275	285	455	318	389	222	186	203
27	200	195	198	312	284	298	457	397	436	212	189	200
28	200	196	197	345	315	326	397	143	294	193	180	186
29	200	192	196	342	326	335	226	137	164	194	183	188
30	199	194	196	358	343	352	217	152	187	204	195	199
31	---	---	---	398	355	378	212	139	183	---	---	---
MONTH	247	93	155	398	179	269	695	137	377	290	62	167

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	15.5	15.5	18.5	18.0	18.5	20.0	18.0	19.0	19.5	16.0	17.5
2	16.5	15.5	16.0	18.5	18.0	18.0	21.0	18.5	19.5	18.5	15.5	16.5
3	17.5	16.0	16.5	18.5	18.5	18.5	22.0	19.5	20.0	19.0	15.5	16.5
4	19.5	15.0	17.0	18.5	18.5	18.5	21.5	19.5	20.0	17.5	15.0	16.0
5	18.5	15.0	15.5	19.5	18.0	18.5	22.0	20.5	21.0	16.5	15.5	16.0
6	18.5	14.0	15.0	18.5	18.0	18.5	22.5	18.5	20.5	17.0	16.0	16.5
7	16.0	14.5	15.0	18.5	18.0	18.5	21.5	19.0	20.0	17.5	16.5	17.0
8	18.0	15.0	16.0	19.5	18.5	19.0	21.0	19.5	20.0	17.0	16.0	16.5
9	18.0	17.5	17.5	21.5	19.0	20.0	21.0	19.5	20.0	16.0	15.5	16.0
10	18.0	15.0	16.0	22.5	21.5	22.0	21.5	19.5	20.0	16.0	14.0	15.0
11	16.5	15.5	16.0	22.5	20.0	21.5	---	20.0	---	16.0	14.5	15.5
12	17.0	16.0	16.5	24.0	20.0	21.0	---	---	---	16.5	15.0	15.5
13	---	17.0	---	23.5	20.0	21.5	---	---	---	16.5	15.0	16.0
14	---	---	---	21.5	21.0	21.0	---	---	---	17.5	15.0	16.0
15	---	---	---	21.5	19.5	20.5	---	---	---	17.5	15.5	16.0
16	---	---	---	21.0	19.5	20.0	---	---	---	15.5	14.5	15.0
17	---	---	---	21.5	19.5	20.0	---	---	---	15.0	14.5	15.0
18	---	---	---	23.5	19.5	20.5	---	---	---	14.5	13.0	14.0
19	---	---	---	24.5	20.0	21.5	---	---	---	14.0	12.5	13.5
20	---	---	---	25.0	19.5	22.0	---	---	---	13.5	11.5	13.0
21	---	---	---	23.0	20.0	21.5	18.0	---	---	15.0	12.0	13.5
22	---	---	---	22.5	20.5	21.0	19.0	16.0	17.5	14.0	11.5	13.5
23	---	---	---	21.5	19.0	20.0	18.5	15.0	17.0	14.0	11.0	12.5
24	---	---	---	21.5	18.0	18.5	18.5	15.0	17.5	13.0	9.0	11.5
25	---	---	---	19.0	17.5	18.0	18.5	16.5	17.5	13.0	8.5	11.0
26	18.0	---	---	24.0	18.5	20.0	18.0	14.5	17.0	14.5	11.0	13.0
27	18.5	17.0	18.0	21.0	18.0	19.5	19.0	15.5	17.5	14.0	12.0	13.5
28	18.5	16.5	17.5	23.5	17.5	20.5	19.5	15.5	17.5	14.0	12.5	13.0
29	18.5	17.0	18.0	21.0	19.0	19.0	17.5	15.5	16.5	12.5	9.5	11.5
30	18.5	18.0	18.5	19.5	18.0	18.5	19.0	17.0	18.0	13.0	11.5	12.0
31	---	---	---	20.0	18.0	19.0	19.5	16.0	18.0	---	---	---
MONTH	19.5	14.0	16.5	25.0	16.0	20.0	22.5	14.5	18.5	19.5	8.5	14.5

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 mi² (189.1 km²).

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 winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 174 ft³/s (4.928 m³/s), 32.37 in/yr (822 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft³/s (195 m³/s) July 3, 1978, gage height, 10.30 ft (3.139 m), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 2.9 ft³/s (0.082 m³/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.--Peak discharges above base of 2,200 ft³/s (62 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 13	0130	2760 78.2	6.80 2.073	June 14	1215	*2910 82.4	6.95 2.118

Minimum discharge, 8.7 ft³/s (0.25 m³/s) Oct. 17, 18, 24, 25, gage height, 2.16 ft (0.658 m).

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	23	42	199	76	70	590	157	544	338	112	40	32
2	18	35	376	63	270	346	155	461	291	172	37	190
3	20	30	439	52	220	270	129	321	313	109	40	281
4	20	35	260	43	160	222	132	256	643	90	43	534
5	20	56	217	39	140	216	108	215	668	83	37	292
6	18	42	199	34	130	189	120	193	1400	88	45	136
7	20	34	196	39	120	160	130	177	741	73	60	93
8	16	32	190	48	110	143	123	145	412	59	54	131
9	16	42	319	60	100	136	124	126	321	53	38	148
10	16	105	394	50	120	126	123	112	619	47	30	90
11	25	61	267	42	377	123	336	131	403	45	28	72
12	19	49	220	37	309	123	712	127	246	42	28	62
13	15	42	196	33	243	184	1420	106	238	52	26	54
14	16	38	159	30	211	219	612	93	1760	72	25	51
15	14	33	146	34	180	174	434	213	726	43	25	81
16	12	41	136	40	200	218	310	169	396	35	84	281
17	10	48	115	36	250	190	297	139	293	34	43	142
18	9.1	348	104	33	350	183	331	136	220	29	28	98
19	14	156	97	30	450	155	253	615	230	30	25	81
20	13	108	78	32	600	141	326	493	674	43	23	72
21	14	98	73	33	844	135	245	300	393	51	23	68
22	16	81	65	35	560	119	207	224	406	37	21	60
23	12	78	60	37	549	127	230	182	250	30	21	56
24	9.0	1080	56	35	466	157	374	143	198	120	20	47
25	147	778	53	34	334	145	367	117	283	70	20	38
26	102	376	50	50	263	111	279	110	265	43	20	37
27	49	270	48	76	217	525	472	128	167	62	20	37
28	90	223	54	130	363	298	344	197	138	81	20	35
29	118	187	64	100	---	310	289	236	117	148	26	34
30	68	159	75	80	---	336	263	246	103	72	18	30
31	51	---	92	70	---	256	---	561	---	54	20	---
TOTAL	1010.1	4707	4997	1531	8206	6627	9402	7216	13252	2079	988	3363
MEAN	32.6	157	161	49.4	293	214	313	233	442	67.1	31.9	112
MAX	147	1080	439	130	844	590	1420	615	1760	172	84	534
MIN	9.0	30	48	30	70	111	108	93	103	29	18	30
CFSM	.45	2.15	2.21	.68	4.01	2.93	4.29	3.19	6.06	.92	.44	1.53
IN.	.51	2.40	2.55	.78	4.18	3.38	4.79	3.68	6.75	1.06	.50	1.71

CAL YR 1980	TOTAL	64449.1	MEAN 176	MAX 1300	MIN 9.0	CFSM 2:41	IN 32.84
WTR YR 1981	TOTAL	63378.1	MEAN 174	MAX 1760	MIN 9.0	CFSM 2:38	IN 32.30

POTOMAC RIVER BASIN

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 24...	1330	8.7	1220	4.7	14.0	7.9	10.4	620	620	.3	10	230
NOV 19...	1530	136	228	5.1	-5.0	1.8	12.6	92	90	.3	15	30
DEC 17...	1000	115	333	4.8	-7.0	.5	13.2	140	140	.2	8.3	48
MAR 13...	0900	134	363	4.8	10.0	2.5	11.9	--	--	.2	7.5	--
APR 07...	1215	134	223	4.7	16.0	7.2	11.6	120	120	.2	1.9	40
JUN 18...	1200	226	283	4.1	23.0	16.2	--	--	--	--	12	--
JUL 22...	1130	37	700	5.7	20.0	20.5	8.5	--	--	.2	6.7	--
AUG 25...	1530	20	1580	4.9	25.0	21.8	8.5	940	930	.4	18	340

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	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)
OCT 24...	12	9.8	3	.2	3.0	--	5	680	3.3	.3	6.9	912
NOV 19...	4.1	2.7	6	.1	1.2	--	--	90	3.7	.1	5.0	147
DEC 17...	5.3	3.3	5	.1	.1	--	2	150	2.4	.1	5.8	242
MAR 13...	--	--	--	--	--	--	2	160	--	--	--	283
APR 07...	4.4	2.8	5	.1	1.0	.70	2	100	4.0	<.1	6.0	178
JUN 18...	--	--	--	--	--	--	0	120	--	--	--	195
JUL 22...	--	--	--	--	--	--	3	350	--	--	--	584
AUG 25...	21	6.4	1	.1	3.1	2.3	0	940	4.2	.3	6.9	1440

DATE	SOLIDS, SUM OF CONSTITUENTS, 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 24...	951	1.2	21.4	.75	560	330	230	710	30	680	1	.02
NOV 19...	139	.20	54.0	--	1500	670	830	340	0	350	5	1.8
DEC 17...	217	.33	75.1	--	1500	800	700	320	0	320	--	--
MAR 13...	--	.38	102	--	2200	1500	660	320	0	330	--	--
APR 07...	160	.24	64.4	--	1100	400	700	370	0	400	--	--
JUN 18...	--	.27	119	--	2000	1600	440	330	0	330	--	--
JUL 22...	--	.79	58.3	--	350	290	60	530	90	440	--	--
AUG 25...	1330	2.0	77.8	.69	410	180	230	890	0	920	--	--

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 mi² (126.4 km²).

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 good except those for December and February, which are fair, and 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 hm³), of which 1,681,000,000 gal (6.363 hm³) is controlled above minimum pool. Since 1963, minor regulation by Virginia Electric and Power Company dam 4.0 mi (6.4 km) upstream from station.

AVERAGE DISCHARGE.--20 years, 99.3 ft³/s (2.812 m³/s), 27.63 in/yr (702 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft³/s (151 m³/s) July 3, 1978, from rating curve extended above 2,500 ft³/s (71 m³/s); gage height, 10.34 ft (3.152 m); minimum discharge, 1.8 ft³/s (0.051 m³/s) July 13, 1968; minimum daily discharge, 1.9 ft³/s (0.054 m³/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, 2,630 ft³/s (74.5 m³/s) June 14, gage height, 7.86 ft (2.396 m); minimum discharge, 4.1 ft³/s (0.12 m³/s), Aug. 29, 30, gage height, 1.90 ft (0.579 m).

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	5.2	6.0	72	30	24	131	209	295	400	21	9.4	14
2	5.2	5.4	175	29	80	124	206	272	273	29	8.3	136
3	5.6	5.0	165	25	63	117	198	132	268	36	9.8	109
4	5.2	5.6	122	24	57	112	225	164	739	60	10	458
5	5.0	7.1	114	23	51	119	268	414	121	76	8.1	604
6	4.6	6.4	116	25	46	191	271	234	262	111	12	409
7	4.6	5.8	125	27	43	164	229	73	194	135	15	297
8	4.5	6.0	144	24	40	127	97	44	173	142	12	208
9	4.5	11	175	22	38	106	83	41	188	203	9.3	30
10	5.0	18	188	20	36	95	73	41	372	158	8.1	17
11	5.8	9.2	165	18	151	76	111	54	421	113	7.5	14
12	5.2	7.4	211	17	183	64	229	61	324	59	7.6	12
13	4.6	6.9	193	17	192	71	752	60	235	11	6.9	10
14	4.5	6.4	155	18	112	74	233	56	1340	12	6.1	9.2
15	4.5	6.2	91	17	95	59	216	99	268	11	6.5	13
16	4.3	7.9	75	16	123	49	198	133	148	11	17	101
17	4.3	8.2	58	15	172	38	215	67	135	11	8.2	61
18	4.6	32	50	14	202	41	229	69	122	10	6.5	53
19	5.0	17	37	13	219	36	203	226	118	9.4	6.2	50
20	4.6	12	27	13	297	37	201	200	183	9.5	6.1	55
21	4.6	12	23	15	573	36	153	195	225	12	5.2	88
22	4.5	11	25	15	511	34	85	161	341	10	4.8	71
23	4.6	11	30	14	288	35	80	142	46	8.9	4.7	59
24	4.6	335	31	13	277	41	100	123	25	12	4.6	35
25	33	206	29	13	274	46	99	153	62	12	4.7	19
26	22	142	24	22	661	52	85	138	54	10	4.7	17
27	9.5	211	27	43	52	324	114	76	26	13	4.4	17
28	12	178	31	36	78	584	97	126	21	15	4.8	16
29	14	153	34	26	---	134	93	130	17	23	4.5	14
30	8.2	407	34	22	---	200	96	186	15	14	4.4	14
31	6.4	---	31	21	---	207	---	224	---	11	6.3	---
TOTAL	220.2	1855.5	2777	647	4938	3524	5448	4389	7116	1368.8	233.7	3010.2
MEAN	7.10	61.9	89.6	20.9	176	114	182	142	237	44.2	7.54	100
MAX	33	407	211	43	661	584	752	414	1340	203	17	604
MIN	4.3	5.0	23	13	24	34	73	41	15	8.9	4.4	9.2
($\bar{x}$)	1246	1224	1175	1192	1219	1469	1469	1533	1403	1369	1393	1345

CAL YR 1980 TOTAL 37036.7 MEAN 101 MAX 1060 MIN 4.3 CFSM 2.07 IN 28.23
WTR YR 1981 TOTAL 35527.4 MEAN 97.3 MAX 1340 MIN 4.3 CFSM 1.99 IN 27.08

* 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, 26.0°C Sept. 5, 6, 7, 8; minimum, 1.0°C Jan. 25-29, Feb. 13, 14, March 18-22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
27...	0930	9.7	414	4.6	5.0	12.5	11.7	140	130	.7	35	38
NOV												
04...	1600	6.3	580	4.7	13.0	10.0	--	--	--	--	--	--
19...	1245	16	313	4.9	2.5	.5	13.0	110	110	.4	20	30
DEC												
15...	1730	81	188	4.1	-1.5	5.0	10.6	56	56	.4	18	16
16...	1340	75	210	5.2	1.0	6.0	--	--	--	--	--	--
FEB												
03...	1425	63	230	6.3	-5.0	1.5	--	--	--	--	--	--
MAR												
13...	1115	60	285	4.4	9.0	5.5	11.2	--	--	.7	35	--
31...	1320	208	135	5.4	18.0	11.0	--	--	--	--	--	--
APR												
07...	1045	231	114	4.4	11.0	10.5	10.3	50	49	.2	8.0	16
MAY												
26...	1235	139	175	6.1	23.0	19.5	--	--	--	--	--	--
JUN												
18...	1330	123	207	4.2	22.5	21.0	--	--	--	.4	20	--
JUL												
14...	1215	14	660	4.4	22.0	21.5	--	--	--	--	--	--
21...	0930	13	540	3.9	23.0	19.0	--	150	--	1.0	50	44
22...	1345	10	605	4.0	22.0	21.0	9.0	--	--	1.0	36	--
AUG												
26...	1000	5.0	730	5.2	22.0	16.0	9.3	220	210	.3	17	64
31...	1405	5.4	700	6.5	25.0	20.0	--	--	--	--	--	--

[illegible]

POTOMAC RIVER BASIN

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	11.5	10.0	13.0	12.0	19.0	18.0	18.5	17.5	21.0	18.0	20.5	19.5
2	12.0	9.5	13.0	12.0	20.0	18.0	18.0	17.5	21.0	18.5	20.0	19.5
3	13.0	10.0	14.0	10.5	20.0	18.0	18.0	17.5	21.0	20.0	20.0	20.0
4	14.0	12.0	16.5	12.0	20.5	18.5	18.5	18.5	22.0	20.0	25.0	20.0
5	13.0	12.0	16.5	15.5	18.5	17.0	18.5	18.5	23.5	22.0	26.0	25.0
6	12.0	10.0	15.5	14.5	18.5	17.5	19.5	18.5	23.0	21.0	26.0	26.0
7	13.0	10.0	14.5	11.0	19.5	17.5	20.0	19.5	21.0	20.0	26.0	26.0
8	14.0	10.0	14.5	9.5	20.5	17.0	20.5	20.5	23.0	20.0	26.0	23.0
9	13.0	11.0	15.5	10.5	21.0	19.5	22.5	20.5	23.0	21.0	23.0	19.0
10	13.5	9.0	14.5	13.5	20.5	19.5	22.5	22.0	22.5	20.0	19.0	16.0
11	13.0	12.0	15.5	14.5	21.0	19.5	22.5	22.0	22.5	20.0	19.5	17.0
12	13.0	12.0	15.0	11.5	22.0	20.5	22.5	22.5	22.5	21.0	20.0	18.5
13	13.0	11.0	15.5	10.5	22.5	21.5	22.5	21.5	21.0	20.0	21.0	19.0
14	12.0	11.0	17.5	13.5	22.5	20.5	23.0	21.5	22.0	19.0	21.0	18.0
15	12.0	10.0	16.5	14.5	21.5	20.0	22.0	19.0	21.5	20.0	20.5	19.5
16	13.0	10.0	14.5	13.5	22.5	20.5	21.5	20.0	21.5	20.0	19.5	18.0
17	12.5	12.0	16.0	13.0	22.5	20.5	23.0	20.0	21.0	18.0	18.0	17.0
18	14.0	12.5	16.0	14.0	21.5	19.0	24.0	20.0	19.0	16.0	18.0	17.0
19	13.0	12.0	14.0	12.0	22.5	20.5	23.5	20.0	18.0	15.5	17.0	17.0
20	13.0	10.5	16.5	13.5	21.5	20.5	24.0	22.0	20.0	16.0	17.0	16.0
21	13.0	10.0	18.5	15.5	22.5	20.5	23.5	22.0	19.0	15.5	19.5	17.0
22	12.0	10.5	19.5	15.5	22.5	22.0	23.0	21.0	21.0	17.0	19.5	19.0
23	13.0	12.0	19.5	16.5	22.0	19.5	22.0	18.5	20.0	16.0	19.5	17.0
24	13.0	10.0	20.5	17.5	20.5	18.5	21.5	19.0	21.0	17.0	17.0	15.5
25	10.0	9.0	21.5	18.5	20.5	18.5	21.0	19.0	20.0	17.0	15.5	13.5
26	12.0	9.0	19.0	19.0	18.5	18.5	22.5	20.0	19.0	17.0	16.5	15.0
27	13.0	11.5	19.0	18.0	18.5	16.5	22.0	21.5	20.0	17.0	17.5	16.5
28	15.0	12.0	18.0	17.0	18.5	16.5	23.0	20.5	20.0	18.0	17.5	15.5
29	15.0	13.5	17.5	17.0	18.5	17.5	22.0	19.5	22.0	18.0	15.5	12.5
30	14.0	12.0	20.0	17.0	18.5	18.5	20.5	17.0	20.5	19.0	14.5	14.0
31	---	---	19.0	18.0	---	---	21.0	18.0	20.0	19.0	---	---
MONTH	15.0	9.0	21.5	9.5	22.5	16.5	24.0	17.0	23.5	15.5	26.0	12.5

01595300 ABRAM CREEK AT OAKMONT, WV

LOCATION.--Lat 39°22'00", long 79°10'45", Mineral County, Hydrologic Unit 02070002, on downstream side of right wingwall of highway bridge, 0.5 mi (0.8 km) east of Oakmont, 1.2 mi (1.9 km) downstream from Emory Run, 1.8 mi (2.9 km) southwest of Elk Garden, and at mile 1.9 (3.1 km).

DRAINAGE AREA.--42.6 mi² (110.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1956 to current year.

REVISED RECORDS.--WDR WV-78-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 1,840 ft (560.8 m), from topographic map.

REMARKS.--Water-discharge records good except those for February, which are fair, and those for October, December, and January, which are poor.

AVERAGE DISCHARGE.--25 years, 67.8 ft³/s (1.920 m³/s), 21.61 in/yr (549 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft³/s (65.4 m³/s) July 3, 1978, gage height, 8.17 ft (2.490 m), from rating curve extended above 1,200 ft³/s (34 m³/s) on basis of contracted-opening measurement at gage height 9.82 ft (2.993 m); minimum discharge, 0.2 ft³/s (0.006 m³/s) Sept. 13-19, 1959, Sept. 14-18, 1964; minimum gage height, 1.48 ft (0.451 m) Sept. 16, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 18, 1955, reached a stage of 9.82 ft (2.993 m), from floodmarks, discharge, 3,830 ft³/s (108 m³/s), from rating curve extended above 1,200 ft³/s (34 m³/s) on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (20 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 11	1415	915 25.9	6.01 1.832	Apr. 13	0230	*970 27.5	6.12 1.865

Minimum discharge, 2.6 ft³/s (0.074 m³/s) Aug. 25, gage height, 2.30 ft (0.701 m).

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	6.8	8.7	66	30	65	149	90	204	131	50	8.7	21
2	6.5	8.2	121	26	129	105	87	187	160	75	7.6	92
3	6.8	7.9	145	25	53	87	70	131	160	58	9.2	102
4	6.9	8.2	79	20	46	75	62	108	238	78	11	235
5	6.9	8.7	67	19	39	78	59	92	219	48	7.6	117
6	6.3	8.2	61	20	35	69	54	89	315	46	13	46
7	6.6	7.6	56	21	33	61	46	83	226	36	20	31
8	5.6	8.2	50	19	31	54	43	66	155	31	12	33
9	5.6	8.2	67	17	29	50	41	58	131	27	8.2	42
10	8.2	13	92	16	41	50	41	54	195	24	6.1	24
11	7.8	9.9	62	15	290	52	106	84	137	21	5.3	19
12	7.0	7.9	54	13	122	51	210	81	89	18	4.8	16
13	5.8	7.6	49	13	68	73	551	60	70	18	4.4	14
14	5.8	7.3	41	14	72	93	277	54	213	20	4.3	13
15	5.4	7.1	36	14	64	66	222	87	143	15	4.3	17
16	4.8	9.5	35	13	66	71	166	72	87	13	7.1	141
17	4.4	11	31	12	97	57	145	60	67	13	5.7	61
18	5.6	24	31	11	128	58	131	59	58	11	3.9	35
19	6.3	18	29	9.8	137	53	102	282	51	11	3.8	28
20	5.7	13	22	11	201	50	141	235	81	17	3.4	24
21	5.5	15	20	12	239	47	99	153	66	25	3.3	22
22	5.5	13	18	12	181	43	81	117	78	13	3.1	20
23	5.5	13	22	12	239	44	81	90	48	10	2.8	18
24	5.5	357	27	11	235	55	119	75	40	46	2.8	16
25	70	238	25	11	167	55	119	64	73	31	3.1	15
26	43	111	20	21	129	54	92	57	141	22	3.9	14
27	16	76	20	119	103	266	141	58	58	36	3.9	13
28	13	62	24	100	109	179	109	145	42	29	3.9	13
29	14	53	31	56	---	134	95	231	36	41	3.9	12
30	11	45	35	40	---	120	87	141	32	18	3.9	12
31	9.0	---	32	55	---	104	---	181	---	12	6.6	---
TOTAL	322.8	1185.2	1468	787.8	3148	2505	3667	3458	3540	913	191.6	1266
MEAN	10.4	39.5	47.4	25.4	112	80.8	122	112	118	29.5	6.18	42.2
MAX	70	357	145	119	290	266	551	282	315	78	20	235
MIN	4.4	7.1	18	9.8	29	43	41	54	32	10	2.8	12
CFSM	.22	.84	1.00	.54	2.37	1.71	2.58	2.37	2.50	.62	.13	.89
IN.	.25	.93	1.15	.62	2.48	1.97	2.88	2.72	2.78	.72	.15	1.00

CAL YR 1980	TOTAL	26342.3	MEAN 72.0	MAX 710	MIN 4.4	CFSM 1.52	IN 20.72
WTR YR 1981	TOTAL	22452.4	MEAN 61.5	MAX 551	MIN 2.8	CFSM 1.30	IN 17.66

POTOMAC RIVER BASIN

01595300 ABRAM CREEK AT OAKMONT, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1965, 1969-71, 1976 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)	CALCIUM DIS- SOLVED (MG/L AS CA)	
DATE	TIME												
OCT 24...	1615	5.5	687	4.3	11.5	7.4	10.5	310	310	.8	40	83	
NOV 04...	1300	8.1	580	4.7	19.0	7.0	--	--	--	--	--	--	
19...	1130	18	490	4.7	.5	.6	13.5	200	180	.7	35	52	
DEC 15...	1515	48	273	4.2	-1.0	.3	12.8	100	100	.2	10	27	
16...	1150	36	300	4.8	5.0	5.0	--	--	--	--	--	--	
FEB 03...	1240	53	175	6.8	-5.0	.0	--	--	--	--	--	--	
MAR 13...	1315	60	277	4.3	10.0	5.9	10.7	--	--	.2	9.9	--	
31...	1030	105	210	6.9	17.0	12.0	--	--	--	--	--	--	
APR 07...	0900	47	267	4.5	7.0	4.4	12.6	130	130	.3	15	36	
MAY 26...	1105	56	315	4.5	19.0	15.0	--	--	--	--	--	--	
JUN 17...	1830	66	475	4.0	23.0	19.6	--	--	--	.5	22	--	
JUL 14...	1030	21	560	4.3	30.0	20.5	--	--	--	--	--	--	
21...	0720	28	520	3.9	22.0	19.0	--	190	--	1.0	1.0	49	
22...	1500	12	590	4.8	24.0	21.2	9.1	--	--	1.0	28	--	
AUG 26...	1130	3.9	790	4.8	--	18.5	9.1	360	--	.8	36	94	
		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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 24...	24	6.7	5	.2	2.8	--	0	340	3.9	.3	8.7	555	
NOV 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	17	6.8	7	.2	1.8	--	--	220	6.0	.2	6.7	356	
DEC 15...	8.8	5.1	9	.2	1.8	--	0	120	5.3	.1	5.8	193	
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	--	--	--	--	--	--	110	--	--	--	--	203
31...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	9.1	4.3	7	.2	1.2	.90	3	110	5.1	.2	6.2	184	
MAY 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	--	--	--	--	--	0	150	--	--	--	--	278
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
21...	17	6.6	--	.2	--	--	--	270	15	--	--	--	356
22...	--	--	--	--	--	--	3	220	--	--	--	--	436
AUG 26...	31	8.0	5	.2	2.2	1.6	2	360	4.1	.4	9.6	606	

01595300 ABRAM CREEK AT OAKMONT, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER CAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 24...	477	.75	8.2	.02	140	70	70	6000	0	6300	4	.06
NOV 04...	--	--	--	--	--	--	--	--	--	--	--	--
19...	330	.48	17.3	--	290	90	200	4000	0	4000	1	.05
DEC 15...	177	.26	25.0	--	880	420	460	1800	100	1700	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	--	.28	32.9	--	890	480	410	1500	0	1500	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	175	.25	23.3	--	640	350	290	1800	0	2000	--	--
MAY 26...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	.38	49.5	--	660	520	140	2600	0	2600	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	.48	26.9	--	810	750	60	4100	4100	4	--	--
22...	--	.59	14.1	--	220	140	80	4900	100	4800	--	--
AUG 26...	--	.82	6.4	.21	160	100	60	6300	6300	20	--	--

POTOMAC RIVER BASIN

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 mi² (583 km²).

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.--32 years, 451 ft³/s (12.77 m³/s), 27.22 in/yr (691 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,400 ft³/s (946 m³/s) Oct. 15, 1954, gage height, 13.73 ft (4.185 m), from floodmarks, present site and datum; minimum discharge, 4.6 ft³/s (0.13 m³/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 ft³/s (96 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 24	1430	4520 128	7.29 2.222	Apr. 13	1030	5500 156	a7.7 2.35
Mar. 27	1400	4190 119	7.14 2.176	June 14	1500	*6270 178	7.99 2.435

a Approximate.

Minimum discharge, 34 ft³/s (0.96 m³/s) Oct. 24, 25, gage height, 2.35 ft (0.716 m).

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	52	77	422	130	150	1170	739	1190	997	246	102	70
2	50	67	819	110	650	782	754	1310	1020	389	88	376
3	50	60	1110	90	507	648	626	804	809	281	95	584
4	51	58	646	80	377	560	588	671	1840	289	107	1310
5	50	77	543	68	302	560	609	861	1390	253	93	1140
6	48	78	507	62	272	563	602	688	2390	290	105	700
7	47	64	488	68	249	507	520	510	1680	279	165	508
8	46	61	523	80	233	436	388	367	1020	284	130	450
9	44	60	640	100	202	381	313	317	865	294	95	338
10	45	138	921	90	188	355	338	289	1390	298	72	178
11	56	102	652	76	813	336	500	348	1170	219	62	132
12	58	81	601	68	753	308	1500	380	875	180	60	117
13	50	72	561	60	490	379	3000	314	662	103	57	98
14	45	67	463	54	400	579	2000	279	3360	144	52	85
15	43	61	369	60	370	417	1200	562	1580	101	50	95
16	41	70	320	71	430	483	938	529	812	89	119	587
17	38	84	276	64	500	419	840	404	636	88	95	363
18	38	371	236	58	640	383	877	350	521	81	57	238
19	38	237	222	54	900	356	728	1440	449	76	48	194
20	40	149	150	58	1200	313	851	1290	1200	100	44	180
21	38	138	111	62	2190	303	679	886	837	131	43	198
22	40	126	110	64	1590	269	539	692	1080	96	40	182
23	40	115	100	68	1420	273	493	577	570	80	39	159
24	36	2210	96	64	1310	335	773	485	390	203	38	132
25	255	1710	90	62	1020	361	782	442	508	188	34	97
26	306	857	86	68	1260	379	634	407	855	115	34	82
27	117	699	80	90	544	1900	890	404	411	176	34	79
28	100	594	90	350	626	1960	745	617	308	185	34	78
29	189	507	110	270	---	965	640	779	251	369	39	71
30	117	783	130	180	---	870	610	704	215	181	35	71
31	88	---	160	140	---	839	---	1210	---	126	41	---
TOTAL	2256	9773	11632	2919	19586	18389	24672	20106	30091	5934	2107	8892
MEAN	72.8	326	375	94.2	700	593	822	649	1003	191	68.0	296
MAX	306	2210	1110	350	2190	1960	3000	1440	3360	389	165	1310
MIN	36	58	80	54	150	269	313	279	215	76	34	70

CAL YR 1980	TOTAL	167635	MEAN 458	MAX 4220	MIN 36	CFSM 2.04	IN 27.72
WTR YR 1981	TOTAL	156357	MEAN 428	MAX 3360	MIN 34	CFSM 1.90	IN 25.85

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 September 1981.

pH: October 1980 to September 1981.

WATER TEMPERATURES: August 1961 to current year.

DISSOLVED OXYGEN: October 1980 to September 1981.

SUSPENDED-SEDIMENT DISCHARGE: February to September 1980 (discontinued).

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): Maximum, 32.0°C Aug. 15, 16, 18, 1965; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
DEC 17...	1130	281	282	4.9	2.0	.7	13.3	--	--
APR 06...	1730	540	159	4.4	6.0	8.5	10.8	--	--
JUN 17...	1645	642	270	4.0	23.0	20.7	--	--	--
AUG 26...	1430	43	1160	4.8	24.0	24.0	--	520	520

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 17...	.2	10	--	--	--	--	--	--	--
APR 06...	.1	5.0	--	--	--	--	--	--	--
JUN 17...	.2	10	--	--	--	--	--	--	--
AUG 26...	.3	15	180	17	12	5	.2	2.5	1.9

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 17...	3	130	--	--	--	197	--	.27	149
APR 06...	3	59	--	--	--	90	--	.12	131
JUN 17...	0	88	--	--	--	153	--	.21	265
AUG 26...	1	600	3.3	.2	7.5	907	826	1.2	105

POTOMAC RIVER BASIN

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, TOTAL RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CR)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 26...	1	<1	100	2	<1	10	5	<10	7	7
DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
DEC 17...	1000	370	630	--	--	--	640	50	590	
APR 06...	880	460	420	--	--	--	580	0	580	
JUN 17...	1900	1500	410	--	--	--	640	20	620	
AUG 26...	290	140	150	10000	8	10	1700	0	1700	
DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G AS SE) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)	
AUG 26...	240	<.1	<.01	1	<1	<1	140	31	20.0	

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	441	376	400	---	---	---	378	336	356
2	---	---	---	473	420	435	---	---	---	336	315	327
3	---	---	---	493	478	487	---	---	---	406	315	368
4	---	---	---	532	482	508	---	---	---	400	380	387
5	---	---	---	570	463	508	---	---	---	381	353	366
6	---	---	---	622	575	594	---	---	---	398	361	368
7	---	---	---	582	554	568	---	---	---	478	409	456
8	---	---	---	550	463	498	---	---	---	423	367	386
9	---	---	---	533	467	504	---	---	---	474	365	409
10	---	---	---	510	382	441	---	---	---	482	455	475
11	---	---	---	379	342	355	---	---	---	450	385	403
12	---	---	---	426	339	364	200	178	193	456	388	419
13	---	---	---	455	389	422	212	171	194	452	420	430
14	---	---	---	501	428	455	221	186	204	521	429	464
15	---	---	---	490	396	441	258	186	216	522	508	515
16	---	---	---	437	369	404	283	259	276	505	412	460
17	---	---	---	405	354	377	293	269	285	417	397	406
18	---	---	---	394	104	256	311	249	282	418	403	412
19	---	---	---	291	160	251	319	274	295	404	344	372
20	---	---	---	376	226	283	345	278	327	380	349	364
21	---	---	---	382	273	303	428	344	401	376	356	365
22	---	---	---	402	337	368	437	386	408	470	363	414
23	---	---	---	408	333	361	444	373	407	470	394	433
24	---	---	---	---	---	---	443	350	400	411	379	394
25	---	---	---	---	---	---	387	350	374	452	377	408
26	---	---	---	---	---	---	351	344	349	461	371	435
27	---	---	---	---	---	---	350	342	346	364	250	294
28	---	---	---	---	---	---	402	343	375	270	262	266
29	---	---	---	---	---	---	388	316	334	308	270	290
30	---	---	---	---	---	---	389	314	358	340	310	331
31	395	336	375	---	---	---	380	354	373	354	324	337
MONTH	395	336	375	622	104	417	444	171	320	522	250	391
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	379	296	327									
2	377	138	249									
3	175	135	154									
4	209	169	190									
5	267	192	222									
6	280	208	245									
7	293	215	238									
8	247	181	212									
9	240	17-	215									
10	216	178	201</									

POTOMAC RIVER BASIN

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	423	386	412	573	523	554	940	820	891
2	---	---	---	423	352	378	607	576	590	920	450	788
3	---	---	---	367	311	328	717	602	675	450	170	200
4	---	---	---	397	356	371	658	609	633	230	140	185
5	---	---	---	380	363	375	721	619	682	150	140	145
6	---	---	---	389	366	378	731	652	706	170	160	165
7	---	---	---	411	334	362	675	629	646	190	170	185
8	---	---	---	341	312	331	665	569	628	250	190	207
9	---	---	---	332	225	308	649	590	626	270	250	259
10	---	---	---	288	223	256	620	577	595	330	260	295
11	---	---	---	310	285	298	675	622	653	420	340	371
12	---	---	---	348	311	327	728	677	701	440	410	423
13	---	---	---	515	350	479	748	729	736	460	410	439
14	---	---	---	677	492	591	842	751	791	500	450	478
15	---	---	---	526	483	489	886	848	866	530	490	516
16	---	---	---	622	532	584	998	727	855	490	190	319
17	---	---	---	710	626	665	717	616	663	220	190	203
18	---	---	---	756	712	735	696	673	683	280	210	241
19	---	---	---	763	737	753	755	695	730	280	250	260
20	---	---	---	761	696	720	770	756	764	270	260	264
21	---	---	---	744	616	674	866	755	804	260	240	253
22	---	---	---	649	564	619	989	871	934	380	240	307
23	---	---	---	637	566	612	1070	991	1030	413	370	390
24	304	220	251	659	471	604	---	---	---	466	406	446
25	327	263	315	479	395	445	---	---	---	569	469	531
26	253	175	219	550	483	514	1090	1080	1090	592	532	572
27	272	248	261	510	449	475	1120	1090	1100	535	495	517
28	304	262	276	519	413	472	1130	1120	1120	558	488	520
29	354	307	335	434	385	407	1230	1140	1180	631	551	588
30	405	356	384	454	388	424	1310	1230	1270	664	574	627
31	---	---	---	520	456	487	1210	740	892	---	---	---
MONTH	405	175	292	763	223	480	1310	523	800	940	140	386

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	5.5	5.4	5.5	---	---	---	5.7	5.7	5.7
2	---	---	---	5.5	5.3	5.5	---	---	---	5.7	5.6	5.7
3	---	---	---	5.5	5.3	5.4	---	---	---	5.7	5.7	5.7
4	---	---	---	5.4	5.3	5.3	---	---	---	5.8	5.7	5.7
5	---	---	---	5.5	5.3	5.4	---	---	---	5.7	5.6	5.6
6	---	---	---	5.5	5.4	5.5	---	---	---	5.7	5.6	5.6
7	---	---	---	5.5	5.3	5.4	---	---	---	5.7	5.6	5.7
8	---	---	---	5.3	5.2	5.3	---	---	---	5.7	5.6	5.6
9	---	---	---	5.3	5.2	5.3	---	---	---	5.6	5.3	5.5
10	---	---	---	5.5	5.3	5.4	---	---	---	5.6	5.5	5.5
11	---	---	---	5.6	5.5	5.6	---	---	---	5.6	5.5	5.5
12	---	---	---	5.6	5.5	5.6	5.9	5.7	5.8	5.6	5.5	5.6
13	---	---	---	5.6	5.5	5.5	5.8	5.7	5.7	5.6	5.5	5.6
14	---	---	---	5.5	5.4	5.5	5.8	5.7	5.8	5.6	5.5	5.5
15	---	---	---	5.5	5.4	5.4	5.9	5.8	5.8	5.6	5.6	5.6
16	---	---	---	5.5	5.4	5.5	5.9	5.8	5.9	5.6	5.5	5.6
17	---	---	---	5.6	5.5	5.5	5.9	5.7	5.8	5.5	5.5	5.5
18	---	---	---	6.2	5.5	5.8	5.8	5.7	5.8	5.5	5.5	5.5
19	---	---	---	6.2	5.8	6.1	5.7	5.6	5.7	5.5	5.5	5.5
20	---	---	---	6.7	5.5	6.0	5.8	5.7	5.7	5.5	5.5	5.5
21	---	---	---	5.9	5.7	5.8	5.8	5.7	5.7	5.5	5.5	5.5
22	---	---	---	5.8	5.7	5.8	5.8	5.7	5.7	5.6	5.5	5.6
23	---	---	---	5.8	5.7	5.7	5.7	5.6	5.7	5.6	5.5	5.5
24	---	---	---	---	---	---	5.7	5.7	5.7	5.6	5.5	5.5
25	---	---	---	---	---	---	5.7	5.7	5.7	5.6	5.5	5.5
26	---	---	---	---	---	---	5.7	5.6	5.7	5.8	5.6	5.7
27	---	---	---	---	---	---	5.7	5.6	5.6	7.0	5.8	6.1
28	---	---	---	---	---	---	5.7	5.6	5.6	7.7	6.2	6.7
29	---	---	---	---	---	---	5.7	5.7	5.7	6.9	6.2	6.3
30	5.5	5.3	5.4	---	---	---	5.8	5.7	5.7	6.4	5.6	5.7
31	5.6	5.4	5.5	---	---	---	5.8	5.7	5.7	5.9	5.8	5.8
MONTH	5.6	5.3	5.5	6.7	5.2	5.6	5.9	5.6	5.7	7.7	5.3	5.7

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	5.9	5.8	5.9									
2	7.0	5.9	6.4									
3	6.5	6.3	6.4									
4	6.8	6.3	6.6									
5	7.0	6.6	6.9									
6	7.2	6.6	6.9									
7	6.9	6.0	6.7									
8	7.0	6.9	6.9									
9	7.1	5.8	6.7									
10	7.1	6.8	6.9									
11	6.9	6.2	6.6									
12	6.7	6.5	6.7									
13	6.7	5.9	6.5									
14	6.4	5.7	6.2									
15	6.8	6.4	6.7									
16	6.9	6.7	6.8									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									
MONTH	7.2	5.7	6.6									

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	---	---	---	6.2	5.4	5.7	5.6	5.3	5.4	5.0	4.8	4.9
2	---	---	---	6.5	5.4	6.0	5.4	5.2	5.3	5.9	4.9	5.1
3	---	---	---	6.5	6.1	6.3	5.3	5.0	5.1	6.5	5.9	6.3
4	---	---	---	6.1	5.2	5.5	5.3	5.1	5.2	6.6	5.9	6.4
5	---	---	---	5.7	5.6	5.7	5.2	5.1	5.1	5.8	5.4	5.6
6	---	---	---	5.7	5.2	5.5	5.5	5.1	5.3	5.3	5.3	5.3
7	---	---	---	5.3	5.0	5.2	5.5	5.4	5.4	5.3	5.1	5.2
8	---	---	---	5.2	5.0	5.1	5.5	5.4	5.5	5.4	5.2	5.3
9	---	---	---	5.2	5.1	5.2	5.5	5.3	5.4	5.8	5.4	5.6
10	---	---	---	5.2	5.0	5.1	5.4	5.2	5.3	5.6	5.4	5.5
11	---	---	---	5.1	5.0	5.1	5.3	5.2	5.3	5.5	5.3	5.4
12	---	---	---	5.2	5.1	5.1	5.3	5.2	5.2	5.4	5.2	5.3
13	---	---	---	5.1	5.1	5.1	5.3	5.2	5.2	5.3	5.2	5.2
14	---	---	---	5.2	5.1	5.1	5.3	5.1	5.2	5.2	5.1	5.2
15	---	---	---	5.2	5.1	5.1	5.2	5.1	5.2	5.3	5.1	5.2
16	---	---	---	5.1	5.0	5.1	5.3	5.1	5.2	6.1	5.2	5.6
17	---	---	---	5.1	5.0	5.1	5.4	5.2	5.3	5.9	5.7	5.8
18	---	---	---	5.1	5.0	5.1	5.3	5.2	5.3	5.7	5.5	5.6
19	---	---	---	5.1	4.9	5.0	5.4	5.2	5.3	5.5	5.4	5.5
20	---	---	---	5.1	4.9	5.0	5.4	5.2	5.3	5.5	5.4	5.4
21	---	---	---	5.2	4.9	5.1	5.3	5.2	5.2	5.4	5.3	5.4
22	---	---	---	5.3	5.1	5.2	5.2	5.1	5.2	5.3	5.0	5.2
23	5.0	4.9	5.0	5.2	5.0	5.1	5.2	5.1	5.2	5.3	5.2	5.3
24	5.1	5.0	5.0	5.8	4.9	5.2	---	---	---	5.4	5.3	5.3
25	6.4	4.9	5.2	6.6	5.5	6.0	---	---	---	5.3	5.2	5.3
26	6.6	5.0	5.5	5.8	5.4	5.5	5.0	4.9	4.9	5.3	5.1	5.2
27	6.1	5.2	5.9	6.3	5.1	6.0	5.0	4.9	4.9	5.2	5.1	5.1
28	6.2	5.9	6.0	6.6	5.6	6.0	5.0	4.9	4.9	5.2	5.1	5.2
29	5.9	5.8	5.8	6.7	6.3	6.6	5.0	4.9	5.0	5.3	5.2	5.2
30	5.9	5.8	5.8	6.2	5.8	6.1	5.0	4.9	5.0	5.3	5.2	5.2
31	---	---	---	5.8	5.6	5.7	5.0	4.9	5.0	---	---	---
MONTH	6.6	4.9	5.5	6.7	4.9	5.4	5.6	4.9	5.2	6.6	4.8	5.4

POTOMAC RIVER BASIN

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	12.6	11.5	12.1	---	---	---	---	---	---
2	---	---	---	13.0	11.9	12.5	---	---	---	---	---	---
3	---	---	---	13.4	11.9	12.6	---	---	---	---	---	---
4	---	---	---	12.3	11.5	12.0	---	---	---	---	---	---
5	---	---	---	12.4	11.8	12.0	---	---	---	---	---	---
6	---	---	---	13.0	12.0	12.5	---	---	---	---	---	---
7	---	---	---	12.8	11.2	12.0	---	---	---	---	---	---
8	---	---	---	11.6	11.1	11.3	---	---	---	---	---	---
9	---	---	---	11.8	10.8	11.3	---	---	---	---	---	---
10	---	---	---	14.5	11.4	12.9	---	---	---	---	---	---
11	---	---	---	15.3	14.6	14.9	---	---	---	---	---	---
12	---	---	---	15.6	14.6	15.2	---	---	---	---	---	---
13	---	---	---	15.7	14.2	15.0	---	---	---	---	---	---
14	---	---	---	15.3	14.1	14.6	---	---	---	---	---	---
15	---	---	---	14.4	14.0	14.2	---	---	---	---	---	---
16	---	---	---	15.1	14.1	14.5	---	---	---	---	---	---
17	---	---	---	15.8	15.1	15.5	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	14.8	13.0	13.4	---	---	---	---	---	---
22	---	---	---	13.4	12.5	13.1	---	---	---	---	---	---
23	---	---	---	13.1	12.0	12.6	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	12.5	11.7	12.1	---	---	---	---	---	---	---	---	---
31	13.0	11.8	12.4	---	---	---	---	---	---	11.7	11.2	11.4
MONTH	13.0	11.7	12.3	15.8	10.8	13.2	---	---	---	11.7	11.2	11.4

POTOMAC RIVER BASIN

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	11.2	10.8	11.0									
2	12.5	10.7	11.6									
3	11.5	10.7	11.0									
4	10.8	10.3	10.6									
5	10.6	10.4	10.5									
6	10.4	9.8	10.1									
7	10.3	9.5	9.7									
8	9.6	9.4	9.5									
9	9.6	8.7	9.2									
10	9.2	8.8	9.0									
11	8.9	8.6	8.8									
12	9.0	8.6	8.9									
13	8.7	8.1	8.6									
14	8.4	7.9	8.2									
15	8.6	8.4	8.5									
16	8.5	8.4	8.5									
17	---	---	---									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									
MONTH	12.5	7.9	9.6									

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	---	---	---	7.5	7.2	7.4	10.2	8.8	9.5	8.7	7.9	8.2
2	---	---	---	7.7	7.1	7.5	9.8	8.7	9.2	8.7	8.2	8.4
3	---	---	---	7.7	7.3	7.5	9.3	8.7	9.0	9.7	8.7	9.4
4	---	---	---	7.3	6.7	7.0	9.4	8.7	9.0	10.5	9.6	10.0
5	---	---	---	7.1	6.8	6.9	9.3	8.4	8.9	10.0	9.1	9.5
6	---	---	---	7.0	6.4	6.8	9.3	8.9	9.2	9.3	9.0	9.2
7	---	---	---	6.8	6.1	6.5	9.4	8.8	9.2	9.3	9.0	9.1
8	---	---	---	9.8	6.4	9.2	8.9	7.9	8.4	9.6	9.2	9.4
9	---	---	---	9.3	8.6	9.0	8.4	7.5	8.0	10.3	9.7	10.0
10	---	---	---	9.2	8.6	8.9	8.3	7.4	7.8	10.3	6.3	9.7
11	---	---	---	9.8	8.7	9.2	8.2	7.5	7.7	9.7	8.9	9.3
12	---	---	---	9.7	8.6	9.2	8.1	7.6	7.8	9.2	8.5	8.8
13	---	---	---	9.4	8.8	9.1	8.3	7.7	7.9	8.9	8.3	8.6
14	---	---	---	---	---	---	8.4	7.5	7.9	8.9	8.4	8.7
15	---	---	---	---	---	---	8.2	7.7	7.9	8.9	8.7	8.8
16	---	---	---	---	---	---	8.2	7.8	7.9	9.8	6.8	9.2
17	---	---	---	---	---	---	8.5	7.7	8.0	9.9	8.7	9.7
18	---	---	---	---	---	---	8.7	7.8	8.2	9.8	7.4	9.5
19	---	---	---	---	---	---	8.6	7.7	8.1	9.7	8.5	9.6
20	---	---	---	---	---	---	8.4	7.5	7.9	9.8	9.6	9.7
21	---	---	---	---	---	---	8.4	7.6	7.9	9.8	9.5	9.7
22	---	---	---	---	---	---	8.3	7.6	7.9	9.8	9.6	9.7
23	---	---	---	---	---	---	8.6	7.7	8.0	---	---	---
24	8.3	7.4	7.9	---	---	---	---	---	---	---	---	---
25	8.3	7.2	7.6	---	---	---	8.5	7.2	6.6	---	---	---
26	8.6	7.7	8.1	---	---	---	8.4	7.1	7.6	---	---	---
27	8.7	8.0	8.3	---	---	---	8.5	7.2	7.7	---	---	---
28	8.8	7.7	8.3	---	---	---	8.5	4.3	7.7	---	---	---
29	8.3	7.3	7.8	---	---	---	8.6	7.4	7.9	---	---	---
30	7.8	7.2	7.5	11.0	9.7	10.4	8.7	7.7	8.1	---	---	---
31	---	---	---	10.6	9.2	9.9	8.7	7.9	8.2	---	---	---
MONTH	8.8	7.2	7.9	11.0	6.1	8.3	10.2	4.3	8.2	10.5	6.3	9.3

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 mi² (689 km²).

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 except those for winter periods, which are fair. Regulation at low flow by Stony River Reservoir, 39 mi (63 km) above station (see station 01595200), and since July 1981 complete regulation by Bloomington Reservoir, 1.5 mi (2.4 km) above station.

AVERAGE DISCHARGE.--15 years, 538 ft³/s (15.24 m³/s), 27.47 in/yr (698 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,100 ft³/s (767 m³/s) July 3, 1978, gage height, 13.37 ft (4.075 m), from rating curve extended above 8,000 ft³/s (227 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 10.9 ft³/s (0.03 m³/s) Aug. 12, 1981, gage height, 1.76 ft (0.536 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,330 ft³/s (151 m³/s) April 13, gage height, 7.50 ft (2.286 m), no other peak above base of 4,000 ft³/s (110 m³/s); minimum discharge, 0.91 ft³/s (0.026 m³/s) Aug. 12, gage height, 1.76 ft (0.536 m).

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	45	94	522	150	170	1350	807	1080	1240	242	122	39
2	45	82	703	130	600	955	879	1810	1280	394	112	42
3	45	71	1330	110	500	764	716	1030	932	343	92	189
4	45	65	757	94	400	631	650	828	1880	314	76	730
5	44	76	581	80	350	631	663	939	1880	284	82	1170
6	43	96	539	70	300	631	676	857	2370	299	90	670
7	42	78	516	90	280	575	581	663	2270	291	84	372
8	42	71	545	100	260	498	465	456	1330	302	78	249
9	39	69	551	120	250	437	368	394	1070	274	82	252
10	44	114	1060	100	240	415	368	360	1490	314	94	94
11	56	144	737	84	637	402	575	394	1530	266	92	54
12	62	103	612	76	1100	372	1350	475	1110	204	65	67
13	46	86	600	68	625	415	4500	398	814	139	84	80
14	39	82	510	62	606	637	2200	351	2660	110	86	71
15	39	73	423	70	522	498	1660	527	2530	101	92	63
16	34	76	364	76	527	539	1190	637	986	80	92	281
17	33	92	322	72	764	492	1020	522	709	80	78	222
18	34	277	270	67	1180	441	1070	415	575	82	63	65
19	33	339	266	61	1360	432	886	1320	470	80	62	67
20	33	204	201	66	1580	377	978	1820	1150	80	58	67
21	33	169	166	70	2380	368	843	1160	1060	80	51	67
22	34	161	150	74	1940	326	657	872	1170	88	47	69
23	36	147	130	80	1640	330	569	716	730	84	52	60
24	33	1620	120	76	1700	381	828	594	432	88	52	52
25	155	2320	110	72	1250	406	904	516	381	152	46	52
26	347	1080	100	75	1470	423	757	475	1050	155	44	52
27	161	778	90	95	689	1850	932	480	480	256	51	52
28	117	670	110	400	606	2260	924	581	355	204	51	52
29	195	563	130	300	---	1140	750	1030	288	213	51	52
30	152	737	150	190	---	994	716	879	245	152	56	52
31	114	---	180	160	---	962	---	1320	---	142	51	---
TOTAL	2220	10537	12845	3338	23926	20932	29479	23899	34467	5893	2236	5404
MEAN	71.6	351	414	108	855	675	983	771	1149	190	72.1	180
MAX	347	2320	1330	400	2380	2260	4500	1820	2660	394	122	1170
MIN	33	65	90	61	170	326	368	351	245	80	44	39

CAL YR 1980 TOTAL 198092 MEAN 541 MAX 3240 MIN 33 CFSM 2.03 IN 27.70
WTR YR 1981 TOTAL 175176 MEAN 480 MAX 4500 MIN 33 CFSM 1.81 IN 24.50

POTOMAC RIVER BASIN

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 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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LINITY FIELD (MG/L AS CAC03)
DEC 17...	0830	330	276	5.0	-4.5	.9	13.3	.0	.0	5

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 17...	120	205	.28	183	1700	1100	560	700	70	630

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	760	744	750	---	---	---	254	151	188			
2	760	744	751	---	---	---	265	223	247			
3	826	755	776	---	---	---	224	158	173			
4	888	831	871	---	---	---	193	169	184			
5	892	852	876	---	---	---	197	187	192			
6	859	810	845	---	---	---	210	201	204			
7	812	795	804	---	---	---	206	197	203			
8	813	791	802	---	---	---	201	196	198			
9	833	806	819	---	---	---	238	201	216			
10	847	817	836	---	---	---	230	181	194			
11	836	807	823	---	---	---	213	184	198			
12	806	758	788	---	---	---	234	216	228			
13	779	754	761	---	---	---	240	220	229			
14	788	759	775	---	---	---	261	243	253			
15	761	727	750	---	---	---	262	240	244			
16	729	708	715	---	---	---	319	269	300			
17	723	710	716	---	---	---	337	323	330			
18	756	724	741	---	---	---	340	319	333			
19	800	758	778	---	---	---	---	---	---			
20	813	800	806	---	---	---	---	---	---			
21	800	777	785	342	290	318	---	---	---			
22	778	774	775	393	310	346	---	---	---			
23	789	778	784	395	374	385	---	---	---			
24	776	751	760	415	217	375	---	---	---			
25	---	---	---	217	135	147	---	---	---			
26	---	---	---	156	138	147	---	---	---			
27	---	---	---	171	157	166	---	---	---			
28	---	---	---	191	174	180	---	---	---			
29	---	---	---	203	182	189	---	---	---			
30	---	---	---	216	155	196	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	892	708	787	415	135	245	340	151	229			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	236	163	185	---	---	---	---	---	---
2	---	---	---	176	162	169	---	---	---	---	---	---
3	---	---	---	181	174	178	---	---	---	---	---	---
4	---	---	---	191	182	187	---	---	---	---	---	---
5	---	---	---	191	186	188	---	---	---	---	---	---
6	---	---	---	193	188	191	---	---	---	---	---	---
7	---	---	---	198	188	193	199	187	193	---	---	---
8	---	---	---	207	197	200	233	200	213	---	---	---
9	---	---	---	225	206	214	278	235	264	---	---	---
10	---	---	---	255	226	240	---	---	---	---	---	---
11	---	---	---	265	256	261	---	---	---	---	---	---
12	---	---	---	286	265	274	---	---	---	---	---	---
13	---	---	---	298	284	289	154	123	134	---	---	---
14	---	---	---	---	---	---	201	166	193	---	---	---
15	---	---	---	---	---	---	205	198	201	---	---	---
16	---	---	---	---	---	---	213	204	209	---	---	---
17	---	---	---	---	---	---	214	210	212	---	---	---
18	182	135	154	258	237	250	216	208	211	---	---	---
19	134	126	129	295	271	285	228	211	219	---	---	---
20	154	129	144	306	295	301	228	214	221	---	---	---
21	150	136	142	318	302	310	216	198	205	---	---	---
22	147	138	143	344	310	325	214	199	208	---	---	---
23	165	147	154	354	336	346	222	214	219	---	---	---
24	162	155	158	341	297	310	227	212	222	---	---	---
25	176	162	169	304	288	293	212	199	207	---	---	---
26	187	137	161	296	281	288	207	198	201	---	---	---
27	215	173	199	282	140	214	215	204	211	---	---	---
28	242	232	238	156	131	141	---	---	---	276	249	266
29	---	---	---	184	159	175	---	---	---	252	220	231
30	---	---	---	---	---	---	---	---	---	228	213	220
31	---	---	---	---	---	---	---	---	---	211	182	202
MONTH	242	126	163	354	131	240	278	123	208	276	182	230

POTOMAC RIVER BASIN

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE				JULY				AUGUST		
										SEPTEMBER		
1	195	177	186	425	402	414				---	---	---
2	201	175	187	425	381	401				---	---	---
3	226	202	213	412	350	379				---	---	---
4	218	155	176	400	349	375				---	---	---
5	181	156	169	395	385	390				---	---	---
6	193	159	176	400	392	396				---	---	---
7	187	160	173	403	373	389				---	---	---
8	216	192	205	406	340	370				---	---	---
9	228	215	223	351	340	346				---	---	---
10	234	189	215	346	261	294				---	---	---
11	196	184	190	313	274	296				---	---	---
12	214	197	207	341	315	325				---	---	---
13	242	211	228	364	342	350				---	---	---
14	233	121	182	510	366	428				---	---	---
15	173	124	143	579	520	552				---	---	---
16	220	174	199	529	519	524				---	---	---
17	241	220	230	547	518	531				---	---	---
18	267	242	254	599	547	579				---	---	---
19	292	267	279	651	602	636				---	---	---
20	294	190	244	690	644	667				---	---	---
21	222	191	203	700	686	689				---	---	---
22	219	180	195	693	670	685				---	---	---
23	---	---	---	671	654	664				426	414	420
24	---	---	---	654	549	630				431	425	428
25	337	279	314	609	560	583				---	---	---
26	327	225	255	561	471	542				---	---	---
27	293	257	276	525	483	500				---	---	---
28	303	291	294	493	451	480				---	---	---
29	359	305	330	---	---	---				---	---	---
30	400	360	377	---	---	---				---	---	---
31	---	---	---	---	---	---				---	---	---
MONTH	400	121	226	700	261	479				431	414	424

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	6.4	6.0	6.2	6.2	5.5	5.6				---	---	---
2	6.0	5.8	5.9	5.8	5.5	5.6				---	---	---
3	6.2	5.9	6.0	6.1	5.7	5.9				---	---	---
4	6.4	6.0	6.2	6.1	5.2	5.6				---	---	---
5	6.7	6.5	6.6	5.5	5.3	5.4				---	---	---
6	6.5	5.7	6.2	5.9	5.3	5.5				---	---	---
7	5.6	5.2	5.4	5.3	5.0	5.1				---	---	---
8	5.5	5.2	5.2	5.0	4.7	4.9				---	---	---
9	5.2	5.1	5.2	4.9	4.9	4.9				---	---	---
10	6.1	5.2	5.5	5.0	4.9	4.9				---	---	---
11	5.4	5.1	5.2	4.9	4.8	4.9				---	---	---
12	5.3	5.1	5.2	4.9	4.8	4.9				---	---	---
13	5.4	5.0	5.2	5.0	4.9	4.9				---	---	---
14	6.1	5.0	5.3	5.0	4.8	4.9				---	---	---
15	5.1	4.9	5.0	4.9	4.8	4.9				---	---	---
16	5.1	4.8	5.0	4.9	4.9	4.9				---	---	---
17	5.0	4.9	4.9	4.9	4.9	4.9				---	---	---
18	5.0	4.9	5.0	4.9	4.8	4.9				---	---	---
19	5.0	4.9	5.0	4.9	4.8	4.8				---	---	---
20	6.1	5.0	5.6	4.9	4.7	4.8				---	---	---
21	6.0	5.2	5.5	4.8	4.7	4.8				---	---	---
22	5.8	5.1	5.4	4.9	4.8	4.8				---	---	---
23	5.1	5.0	5.0	4.9	4.9	4.9				5.1	4.9	4.9
24	5.0	5.0	5.0	6.0	4.9	5.0				4.9	4.8	4.9
25	5.1	5.0	5.0	5.0	5.0	5.0				---	---	---
26	6.2	5.1	5.6	6.2	5.0	5.2				---	---	---
27	5.5	5.1	5.3	5.3	5.1	5.2				---	---	---
28	5.7	5.6	5.7	6.0	5.2	5.6				---	---	---
29	5.7	5.5	5.6	6.0	5.7	5.8				---	---	---
30	5.6	5.5	5.5	---	---	---				---	---	---
31	---	---	---	---	---	---				---	---	---
MONTH	6.7	4.8	5.5	6.2	4.7	5.1				5.1	4.8	4.9

POTOMAC RIVER BASIN

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	---	---	---	11.4	10.8	11.2			
2	---	---	---	---	---	---	12.9	10.3	11.5			
3	---	---	---	---	---	---	13.9	13.0	13.6			
4	---	---	---	---	---	---	13.9	13.3	13.6			
5	---	---	---	---	---	---	13.4	12.6	13.1			
6	---	---	---	---	---	---	12.8	12.0	12.5			
7	---	---	---	---	---	---	12.1	11.6	11.9			
8	---	---	---	---	---	---	11.6	10.9	11.3			
9	---	---	---	---	---	---	11.4	11.0	11.1			
10	---	---	---	---	---	---	12.4	11.5	12.0			
11	---	---	---	---	---	---	13.4	12.5	13.0			
12	---	---	---	---	---	---	13.4	12.9	13.2			
13	---	---	---	---	---	---	12.9	12.6	12.7			
14	---	---	---	---	---	---	13.6	12.8	13.3			
15	---	---	---	---	---	---	14.0	13.5	13.8			
16	---	---	---	---	---	---	13.5	13.3	13.4			
17	6.9	6.5	6.7	---	---	---	13.8	13.4	13.6			
18	6.5	6.3	6.4	---	---	---	13.8	13.4	13.7			
19	6.4	6.3	6.3	---	---	---	---	---	---			
20	6.5	6.4	6.4	---	---	---	---	---	---			
21	6.5	6.4	6.5	13.1	12.7	12.8	---	---	---			
22	6.5	6.4	6.5	13.0	12.6	12.8	---	---	---			
23	6.5	6.4	6.5	12.8	12.6	12.7	---	---	---			
24	6.6	6.4	6.5	13.4	12.1	12.5	---	---	---			
25	---	---	---	13.4	12.7	13.1	---	---	---			
26	---	---	---	12.7	11.9	12.4	---	---	---			
27	---	---	---	11.9	11.6	11.7	---	---	---			
28	---	---	---	11.5	11.0	11.2	---	---	---			
29	---	---	---	11.2	11.0	11.1	---	---	---			
30	---	---	---	11.6	11.2	11.4	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	6.9	6.3	6.5	13.4	11.0	12.2	14.0	10.3	12.7			

POTOMAC RIVER BASIN

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	12.5	12.1	12.4	---	---	---	---	---	---
2	---	---	---	12.5	12.3	12.4	---	---	---	---	---	---
3	---	---	---	12.8	12.5	12.7	---	---	---	---	---	---
4	---	---	---	13.3	12.5	12.8	---	---	---	---	---	---
5	---	---	---	12.6	12.3	12.4	---	---	---	---	---	---
6	---	---	---	12.4	11.9	12.2	12.7	11.5	12.1	---	---	---
7	---	---	---	12.4	12.0	12.2	13.1	11.8	12.4	---	---	---
8	---	---	---	12.4	12.1	12.3	12.3	11.1	11.6	---	---	---
9	---	---	---	12.2	11.5	11.9	11.9	11.4	11.5	---	---	---
10	---	---	---	12.4	11.6	11.9	---	---	---	---	---	---
11	---	---	---	12.0	11.6	11.8	---	---	---	---	---	---
12	---	---	---	12.2	11.3	11.7	---	---	---	---	---	---
13	---	---	---	11.6	10.8	11.2	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	12.6	11.9	12.3	---	---	---
18	14.4	13.6	14.1	12.2	11.5	11.9	12.0	11.0	11.5	---	---	---
19	13.8	12.8	13.3	11.9	11.6	11.8	11.8	11.3	11.6	---	---	---
20	12.8	12.6	12.7	13.4	11.8	12.5	12.1	11.7	11.9	---	---	---
21	13.6	12.9	13.4	13.2	12.4	12.8	12.8	11.7	12.3	---	---	---
22	13.2	12.2	12.8	13.0	12.0	12.5	12.4	11.6	12.0	---	---	---
23	12.7	11.9	12.1	12.2	11.4	11.8	11.6	10.8	11.3	---	---	---
24	12.9	12.6	12.8	11.9	11.3	11.6	11.5	10.9	11.2	---	---	---
25	12.7	12.2	12.5	11.7	11.1	11.4	12.5	11.7	12.2	---	---	---
26	13.2	11.9	12.5	11.8	10.8	11.3	12.7	11.1	12.0	---	---	---
27	12.5	12.1	12.3	12.6	10.9	11.8	11.4	10.7	11.0	---	---	---
28	12.4	11.8	12.1	13.2	11.4	12.4	---	---	---	8.4	8.0	8.2
29	---	---	---	11.5	10.3	11.0	---	---	---	8.9	8.5	8.7
30	---	---	---	---	---	---	---	---	---	8.9	8.1	8.5
31	---	---	---	---	---	---	---	---	---	8.8	8.2	8.5
MONTH	14.4	11.8	12.8	13.4	10.3	12.0	13.1	10.7	11.8	8.9	8.0	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.1	8.7	9.0	8.0	7.6	7.8	---	---	---	---	---	---
2	9.1	8.1	8.6	8.1	7.7	7.9	---	---	---	---	---	---
3	8.2	7.7	8.0	7.9	7.5	7.8	---	---	---	---	---	---
4	8.6	7.9	8.3	7.7	7.1	7.4	---	---	---	---	---	---
5	8.9	8.3	8.6	7.4	7.1	7.3	---	---	---	---	---	---
6	9.1	8.3	8.8	7.4	6.9	7.2	---	---	---	---	---	---
7	9.0	8.1	8.6	7.2	6.6	6.9	---	---	---	---	---	---
8	8.3	7.8	8.1	7.7	6.7	7.1	---	---	---	---	---	---
9	8.0	7.4	7.8	7.5	6.8	7.2	---	---	---	---	---	---
10	8.3	7.6	8.0	7.2	6.8	6.9	---	---	---	---	---	---
11	8.2	7.5	7.9	7.5	6.9	7.1	---	---	---	---	---	---
12	8.7	7.5	7.9	7.4	6.9	7.1	---	---	---	---	---	---
13	8.1	7.5	7.8	7.2	6.9	7.1	---	---	---	---	---	---
14	9.1	7.5	8.4	7.2	6.8	7.0	---	---	---	---	---	---
15	9.1	7.8	8.5	7.2	6.8	7.0	---	---	---	---	---	---
16	7.9	7.2	7.6	7.2	6.9	7.1	---	---	---	---	---	---
17	7.5	7.3	7.4	7.3	6.8	7.0	---	---	---	---	---	---
18	7.8	7.1	7.5	7.1	6.6	6.9	---	---	---	---	---	---
19	7.4	6.7	7.1	6.9	6.4	6.7	---	---	---	---	---	---
20	7.6	6.7	7.3	6.6	6.2	6.4	---	---	---	---	---	---
21	7.7	6.8	7.3	6.6	6.2	6.4	---	---	---	---	---	---
22	7.3	6.8	7.0	6.8	6.4	6.6	---	---	---	---	---	---
23	7.1	6.8	7.0	7.0	6.5	6.8	---	---	---	9.7	9.4	9.5
24	---	---	---	6.9	6.7	6.8	---	---	---	9.8	9.0	9.5
25	8.9	8.3	8.6	7.3	6.9	7.1	---	---	---	---	---	---
26	9.7	8.7	9.3	7.1	6.2	6.8	---	---	---	---	---	---
27	9.6	8.7	9.1	6.3	5.7	6.0	---	---	---	---	---	---
28	9.4	8.3	8.9	7.9	5.7	6.7	---	---	---	---	---	---
29	8.9	7.9	8.4	---	---	---	---	---	---	---	---	---
30	8.2	7.6	7.9	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	9.7	6.7	8.1	8.1	5.7	7.0	---	---	---	9.8	9.0	9.5

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 mi² (127.2 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for winter periods, which are fair to poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 75.2 ft³/s (2.130 m³/s), 20.80 in/yr (528 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft³/s (213 m³/s) Oct. 15, 1954, gage height, 8.45 ft (2.576 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 0.40 ft³/s (0.011 m³/s) Sept. 3, 4, 1966, gage height, 0.96 ft (0.293 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 13	1815	Unknown	a4.93 1.503	Apr. 13	0230	*1530 43.3	4.22 1.286
Feb. 18	1430	Unknown	*a5.36 1.634				

a Ice jam.

Minimum discharge, 2.9 ft³/s (0.082 m³/s) Oct. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17, 18, Aug. 29, 30, gage height, 1.11 ft (0.338 m).

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	3.2	7.5	47	13	33	185	115	86	148	75	8.2	34
2	3.2	7.2	100	12	47	171	104	92	131	113	7.5	43
3	3.2	6.6	171	11	74	148	88	82	117	100	43	68
4	3.2	6.3	126	10	66	119	82	77	126	78	29	174
5	3.2	6.3	98	9.8	52	113	75	68	115	68	17	189
6	3.2	5.9	80	10	45	94	65	63	293	56	19	102
7	2.9	5.6	71	10	41	75	56	56	373	47	22	62
8	2.9	7.5	66	11	38	60	50	46	212	37	16	53
9	2.9	8.2	100	12	40	54	47	39	148	30	12	49
10	2.9	11	178	10	37	51	42	36	182	25	9.9	33
11	3.5	8.5	143	11	54	51	54	77	167	20	8.5	26
12	3.8	7.5	113	10	100	51	350	131	136	18	7.9	20
13	3.5	7.2	90	9.8	200	80	1080	108	106	16	7.2	17
14	3.5	6.9	70	9.4	94	129	771	92	171	20	6.9	14
15	3.5	6.6	54	10	69	115	472	104	182	17	6.9	30
16	3.2	7.2	51	10	62	122	324	92	136	14	8.5	143
17	3.2	7.9	39	10	110	110	229	82	100	14	6.9	133
18	2.9	12	43	9.8	230	106	185	77	71	13	5.9	90
19	3.5	11	33	9.5	350	88	138	133	57	11	5.3	63
20	3.5	11	16	9.2	430	77	133	200	233	12	5.0	46
21	3.5	11	20	9.7	520	65	110	161	197	14	4.7	36
22	3.5	10	21	10	470	54	98	124	200	13	4.4	28
23	3.5	11	23	9.5	450	53	92	96	153	11	4.4	22
24	3.5	178	19	9.4	410	57	102	75	122	13	4.4	18
25	108	274	18	9.3	298	60	110	60	113	14	4.1	15
26	65	151	17	16	208	63	115	53	212	12	3.8	14
27	26	102	16	22	151	136	115	56	143	13	3.5	13
28	18	75	17	42	146	197	98	96	110	16	3.2	11
29	14	57	16	47	---	171	88	255	84	28	3.2	9.9
30	10	45	15	42	---	156	77	212	68	14	3.5	9.9
31	8.2	---	14	31	---	133	---	197	---	9.9	56	---
TOTAL	328.1	1071.9	1885	455.4	4825	3144	5465	3126	4606	941.9	347.8	1565.8
MEAN	10.6	35.7	60.8	14.7	172	101	182	101	154	30.4	11.2	52.2
MAX	108	274	178	47	520	197	1080	255	373	113	56	189
MIN	2.9	5.6	14	9.2	33	51	42	36	57	9.9	3.2	9.9
CFSM	.22	.73	1.24	.30	3.50	2.06	3.71	2.06	3.14	.62	.23	1.06
IN.	.25	.81	1.43	.35	3.66	2.38	4.14	2.37	3.49	.71	.26	1.19

CAL YR 1980 TOTAL 28505.6 MEAN 77.9 MAX 1660 MIN 2.9 CFSM 1.59 IN 21.60
WTR YR 1981 TOTAL 27761.9 MEAN 76.1 MAX 1080 MIN 2.9 CFSM 1.55 IN 21.03

POTOMAC RIVER BASIN

01596500 SAVAGE RIVER NEAR BARTON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DEC 18...	0745	47	72	6.4	-1.0	.2	13.5	14	52

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 18...	.07	6.6	120	110	10	10	0	10

01597000 CRABTREE CREEK NEAR SWANTON, MD

LOCATION.--Lat 39°30'00", long 79°09'35", Garrett County, Hydrologic Unit 02070002, on left bank 0.5 mi (0.8 km) upstream from mouth, 1.0 mi (1.6 km) downstream from Springlick Run, and 5.0 mi (8.0 km) northeast of Swanton.

DRAINAGE AREA.--16.7 mi² (43.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1948 to September 1981 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,529.06 ft (466.058 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Small diversion above station by Baltimore and Ohio Railroad. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 29.0 ft³/s (0.821 m³/s), 23.58 in/yr (599 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft³/s (92.3 m³/s) July 12, 1949, gage height, 5.01 ft (1.527 m), from rating curve extended above 210 ft³/s (5.95 m³/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum discharge, 0.1 ft³/s (0.003 m³/s) Dec. 3, 1953, gage height, 0.56 ft (0.171 m); minimum daily discharge, 0.8 ft³/s (0.023 m³/s) Nov. 6, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 396 ft³/s (11.2 m³/s) April 13, gage height, 2.49 ft (0.759 m), no other peak above base of 330 ft³/s (9.3 m³/s); minimum discharge, 1.6 ft³/s (0.045 m³/s) Nov. 20, gage height, 0.70 ft (0.213 m).

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	2.5	3.4	18	6.4	11	61	42	57	50	20	17	10
2	2.5	3.2	36	5.6	15	60	36	73	45	19	15	10
3	2.6	3.0	58	5.2	28	52	32	67	43	18	15	12
4	2.3	3.2	43	4.5	25	42	29	55	42	16	14	44
5	2.3	3.0	32	4.3	20	38	27	43	42	15	12	42
6	2.2	2.8	26	4.4	16	30	25	36	80	14	19	26
7	2.2	2.6	23	4.6	15	25	23	29	130	12	20	20
8	2.2	3.4	20	4.8	14	22	21	25	100	11	19	19
9	2.2	3.2	30	5.0	15	20	20	22	86	10	16	17
10	2.5	3.0	49	4.8	14	20	19	20	107	9.6	14	14
11	3.0	2.6	43	4.9	18	20	24	22	107	8.5	12	12
12	2.5	2.5	35	4.5	32	20	65	21	73	7.8	11	11
13	2.2	2.5	28	4.3	80	27	305	19	54	8.5	9.2	9.6
14	2.5	2.5	23	4.2	32	43	145	19	60	8.5	8.2	8.5
15	2.5	2.5	20	4.4	25	42	105	32	50	7.2	9.2	14
16	2.2	3.2	19	4.7	24	43	69	36	42	6.5	10	25
17	2.0	3.2	18	4.3	36	42	57	22	32	6.5	7.5	23
18	2.2	3.8	16	4.0	70	36	50	33	25	5.9	6.2	20
19	2.2	3.2	15	3.9	88	30	49	45	25	5.6	5.6	18
20	2.0	2.6	11	4.1	99	26	50	60	52	8.2	5.4	16
21	2.0	3.0	8.4	4.5	122	23	43	45	47	12	5.1	15
22	2.0	3.2	9.0	4.8	101	20	40	35	55	7.5	4.5	13
23	1.9	3.6	10	4.5	96	20	39	30	49	5.9	4.3	12
24	1.9	57	8.6	4.4	95	20	39	25	39	10	4.0	9.6
25	17	66	7.4	4.4	76	22	39	22	40	8.5	4.0	8.9
26	10	39	6.8	5.0	58	24	39	21	42	12	3.8	8.2
27	5.1	27	6.6	7.0	44	72	47	20	34	23	3.6	7.5
28	5.1	21	7.6	14	47	82	47	30	27	27	3.6	6.8
29	5.1	19	7.4	15	---	67	47	50	23	42	3.6	6.2
30	4.0	16	7.0	14	---	58	42	90	21	29	4.0	6.2
31	3.6	---	6.7	10	---	47	---	60	---	21	12	---
TOTAL	104.5	314.2	648.5	180.5	1316	1154	1615	1164	1622	415.7	297.8	464.5
MEAN	3.37	10.5	20.9	5.82	47.0	37.2	53.8	37.5	54.1	13.4	9.61	15.5
MAX	17	66	58	15	122	82	305	90	130	42	20	44
MIN	1.9	2.5	6.6	3.9	11	20	19	19	21	5.6	3.6	6.2
CFSM	.20	.63	1.25	.35	2.81	2.23	3.22	2.25	3.24	.80	.58	.93
IN.	.23	.70	1.44	.40	2.93	2.57	3.60	2.59	3.61	.93	.66	1.03

CAL YR 1980 TOTAL 11272.1 MEAN 30.8 MAX 477 MIN 1.9 CFSM 1.84 IN 25.11
WTR YR 1981 TOTAL 9296.7 MEAN 25.5 MAX 305 MIN 1.9 CFSM 1.53 IN 20.71

POTOMAC RIVER BASIN

01597000 CRABTREE CREEK NEAR SWANTON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: February to September 1981 (discontinued).

REMARKS.--Suspended-sediment discharge for the period November 19 to September 30 based on periodic storm samples and a sediment transport curve.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
DEC 18...	1045	13	90	6.6	1.0	1.1	13.2	--	--
APR 07...	0930	22	98	6.9	9.0	3.2	--	--	--
JUN 18...	1545	25	75	6.3	23.0	15.1	9.7	--	--
AUG 27...	1100	3.4	122	7.2	22.5	13.8	9.5	45	6.0

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 18...	--	--	--	--	--	--	--	--	--
APR 07...	.0	.0	--	--	--	--	--	--	--
JUN 18...	.0	.0	--	--	--	--	--	--	--
AUG 27...	.0	.0	14	2.5	3.9	15	.3	1.4	1.0

DATE	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 18...	--	14	--	--	--	56	--	.08	2.0
APR 07...	14	16	--	--	--	61	--	.08	3.6
JUN 18...	17	13	--	--	--	68	--	.09	4.6
AUG 27...	37	14	6.1	<.1	6.2	91	72	.12	.82

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 27...	1	<1	100	2	<1	<10	6	10	2	11

01597000 CRABTREE CREEK NEAR SWANTON, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 18...	100	100	0	--	--	--	10	0	10
APR 07...	130	120	10	--	--	--	10	0	10
JUN 18...	390	360	30	--	--	--	310	310	0
AUG 27...	200	--	<10	9200	7	20	<10	--	10

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, FM BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 27...	850	<.1	<.01	<1	<1	<1	10	51	4.00

01597000 CRABTREE CREEK NEAR SWANTON, MD--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1	.00	2	.02	18	1.0	2	.03	3	.09	27	4.4
2	1	.00	2	.02	49	6.4	2	.03	14	1.8	16	2.6
3	1	.00	1	.00	70	12	2	.03	11	.83	13	1.8
4	1	.00	1	.00	22	2.7	2	.02	5	.34	11	1.2
5	1	.00	1	.00	15	1.3	2	.02	2	.11	10	1.0
6	1	.00	1	.00	10	.70	2	.02	2	.09	10	.81
7	1	.00	1	.00	10	.62	2	.02	2	.08	10	.68
8	1	.00	1	.00	10	.54	2	.03	2	.08	9	.53
9	1	.00	1	.00	39	4.2	2	.03	3	.12	8	.43
10	1	.00	1	.00	47	6.1	2	.03	2	.08	6	.32
11	1	.00	1	.00	18	2.1	2	.03	14	1.6	6	.32
12	1	.00	1	.00	11	1.0	2	.02	28	3.7	4	.22
13	1	.00	1	.00	10	.76	2	.02	22	4.6	16	1.3
14	1	.00	3	.02	7	.43	2	.02	17	1.5	30	3.2
15	1	.00	7	.05	4	.22	2	.02	12	.81	11	1.2
16	1	.00	2	.02	2	.10	2	.03	11	.71	10	1.2
17	1	.00	1	.00	2	.10	2	.02	15	1.5	10	1.1
18	1	.00	1	.01	2	.09	2	.02	16	3.0	7	.68
19	1	.00	1	.00	2	.08	2	.02	17	4.0	6	.49
20	1	.00	1	.00	2	.06	2	.02	20	5.3	6	.42
21	1	.00	1	.00	2	.05	2	.02	30	9.9	5	.31
22	2	.01	1	.00	2	.05	2	.03	20	5.5	5	.27
23	2	.01	2	.02	2	.05	2	.02	21	5.4	4	.22
24	2	.01	96	18	2	.05	2	.02	18	4.8	4	.22
25	33	1.5	33	6.4	2	.04	2	.02	14	2.9	4	.24
26	15	.41	5	.99	2	.04	2	.03	12	1.9	4	.26
27	3	.04	3	.22	2	.04	2	.04	10	1.2	55	11
28	3	.04	2	.11	2	.04	2	.08	25	3.7	32	7.4
29	2	.03	2	.10	2	.04	3	.12	---	---	16	3.1
30	3	.03	2	.09	2	.04	3	.11	---	---	11	1.7
31	2	.02	---	---	2	.04	3	.08	---	---	10	1.3
TOTAL	---	2.10	---	26.07	---	40.98	---	1.05	---	65.64	---	49.92
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10	1.1	1	.15	---	---	6	.32	2	.09	29	.87
2	10	.97	37	7.2	---	---	6	.31	1	.04	14	.42
3	8	.69	8	1.5	---	---	3	.15	1	.04	12	.43
4	6	.47	3	.45	---	---	2	.09	3	.13	159	22
5	5	.36	2	.23	---	---	2	.08	1	.03	37	4.3
6	5	.34	1	.10	---	---	1	.04	55	3.2	3	.21
7	1	.06	1	.08	---	---	1	.03	22	1.2	1	.05
8	1	.06	1	.07	---	---	1	.03	5	.26	1	.05
9	1	.05	1	.06	---	---	1	.03	3	.13	1	.05
10	1	.05	1	.05	49	14	1	.03	3	.11	1	.04
11	12	.85	3	.18	15	4.6	1	.02	1	.03	1	.03
12	55	10	2	.11	2	.39	1	.02	1	.03	1	.03
13	177	166	1	.05	5	.73	1	.02	1	.02	1	.03
14	39	16	1	.05	40	5.4	1	.02	1	.02	1	.02
15	20	5.6	---	---	15	2.0	1	.02	21	.70	37	1.5
16	10	1.9	---	---	2	.23	1	.02	13	.42	56	3.8
17	2	.31	---	---	1	.09	1	.02	1	.02	11	.64
18	2	.27	---	---	1	.07	3	.05	1	.02	2	.11
19	2	.26	---	---	2	.14	3	.05	1	.02	2	.10
20	1	.14	---	---	69	9.3	22	.95	1	.01	2	.09
21	1	.12	---	---	10	1.2	50	1.8	1	.01	2	.08
22	1	.11	---	---	2	.30	15	.30	1	.01	2	.07
23	1	.11	---	---	1	.13	1	.02	1	.01	2	.06
24	1	.11	---	---	1	.11	36	1.3	1	.01	2	.05
25	1	.11	---	---	42	5.7	24	.54	1	.01	2	.05
26	1	.11	---	---	33	3.8	59	4.9	1	.01	1	.02
27	1	.13	---	---	3	.28	118	7.8	1	.00	1	.02
28	1	.13	---	---	2	.15	82	6.7	1	.00	1	.02
29	1	.13	---	---	2	.12	37	4.0	1	.00	1	.02
30	1	.11	---	---	2	.11	18	1.4	13	.21	1	.02
31	---	---	---	---	---	---	3	.17	65	2.5	---	---
TOTAL	---	206.65	---	10.28	---	48.85	---	31.23	---	9.29	---	35.18
TOTAL LOAD FOR YEAR:			527.24		TONS.							

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 mi² (275 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge 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 hm³). Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--33 years, 165 ft³/s (4.673 m³/s), 21.14 in/yr (537 mm/yr), adjusted for storage since December 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,530 ft³/s (185 m³/s) Oct. 16, 1954, gage height, 7.70 ft (2.347 m); minimum discharge, 0.35 ft³/s (0.010 m³/s) Oct. 27, 1966, gage height, 0.57 ft (0.174 m); minimum daily discharge, 0.6 ft³/s (0.017 m³/s) July 27-31, Aug. 5, 6, 9, 10, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft³/s (49.0 m³/s) Apr. 14, gage height, 4.45 ft (1.356 m); minimum discharge, 6.2 ft³/s (0.18 m³/s) Nov. 18, gage height, 0.78 ft (0.238 m); minimum daily discharge 15 ft³/s (0.42 m³/s) Jan. 22, 23, 24, 25, Apr. 10.

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	102	87	263	72	81	410	22	110	224	90	33	60
2	96	87	260	72	81	248	22	193	204	120	28	60
3	93	90	347	72	237	392	21	257	194	109	45	193
4	93	87	392	48	320	215	21	151	265	93	60	513
5	92	87	388	33	171	84	21	163	356	84	43	718
6	92	87	388	33	81	183	21	158	436	76	43	475
7	92	87	335	33	81	240	20	132	659	65	57	106
8	67	87	248	33	83	237	18	129	437	53	46	106
9	74	86	146	44	180	142	17	98	336	47	38	106
10	92	86	88	69	139	77	15	90	371	43	31	99
11	92	86	86	69	81	74	17	121	398	35	27	56
12	92	86	87	46	177	76	19	205	309	32	55	29
13	90	84	256	27	244	76	77	171	229	33	61	29
14	90	84	351	19	240	77	936	150	277	37	37	36
15	90	84	347	16	180	77	1660	188	304	29	33	40
16	90	84	186	16	87	77	1030	208	232	25	33	139
17	90	84	87	16	92	79	436	188	168	25	32	162
18	90	72	174	16	189	79	320	170	129	24	34	108
19	90	42	219	16	577	79	174	305	110	22	36	108
20	90	26	215	16	709	80	94	536	279	24	37	108
21	88	26	168	16	484	80	93	413	264	38	46	108
22	88	26	83	15	493	80	93	328	262	31	53	108
23	88	26	56	15	757	80	101	378	213	23	53	108
24	88	24	41	15	912	79	106	317	166	27	53	108
25	90	24	41	15	757	57	106	21	154	29	53	108
26	88	67	40	20	479	33	104	21	236	30	55	108
27	88	92	40	58	331	23	263	28	175	47	59	108
28	88	205	40	79	484	21	195	114	136	51	59	108
29	88	267	40	229	---	21	106	251	108	89	59	252
30	88	263	60	162	---	22	104	254	92	61	59	108
31	87	---	72	81	---	22	---	270	---	43	60	---
TOTAL	2766	2623	5544	1471	8727	3520	6232	6118	7723	1535	1418	4475
MEAN	89.2	87.4	179	47.5	312	114	208	197	257	49.5	45.7	149
MAX	102	267	392	229	912	410	1660	536	659	120	61	718
MIN	67	24	40	15	81	21	15	21	92	22	27	29
(*)	8840	7890	4420	3880	4370	10230	19830	20190	20090	20050	18720	14740

CAL YR 1980 TOTAL 60467 MEAN 165 MAX 1730 MIN 17 CFSM 1.56 IN 21.22
WTR YR 1981 TOTAL 52152 MEAN 143 MAX 1660 MIN 15 CFSM 1.35 IN 18.30

* Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1980, 13,310 acre-feet).
Records furnished by Corps of Engineers.

POTOMAC RIVER BASIN

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 23...	1645	91	82	6.7	9.0	14.3	9.3	29	12	.0	.0	7.8
NOV 18...	1600	72	82	6.5	1.5	7.2	11.1	30	9.0	.1	5.0	8.3
DEC 18...	1200	215	79	6.5	3.0	2.9	12.7	25	4.0	--	--	6.7
MAR 04...	1600	86	91	6.2	2.0	3.5	10.3	--	--	.0	.0	--
APR 07...	1015	18	85	8.1	11.0	6.8	--	30	17	.0	.0	8.4
JUN 18...	1430	141	64	6.4	22.0	17.5	9.2	--	--	.0	.0	--
JUL 23...	1430	21	85	7.1	24.0	17.5	9.7	--	--	.0	.0	--
AUG 27...	1515	61	69	6.1	--	10.4	10.6	27	17	.0	.0	7.1

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 23...	2.3	2.7	16	.2	1.2	--	18	14	3.7	.0	4.6	58
NOV 18...	2.3	2.9	17	.2	1.2	--	--	14	4.6	.0	4.2	50
DEC 18...	2.1	3.9	24	.3	1.1	--	--	14	6.8	.0	5.2	51
MAR 04...	--	--	--	--	--	--	7	15	--	--	--	50
APR 07...	2.2	4.0	22	.3	1.1	.80	10	17	8.4	<.1	5.6	56
JUN 18...	--	--	--	--	--	--	11	14	--	--	--	50
JUL 23...	--	--	--	--	--	--	13	18	--	--	--	63
AUG 27...	2.2	3.4	21	.3	1.3	1.0	10	14	5.7	<.1	5.5	58

DATE	SOLIDS, SUM OF CONSTITUENTS, 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)	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- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 23...	50	.08	14.2	.80	260	210	50	110	50	60	3	.73
NOV 18...	50	.07	9.7	--	450	400	50	110	60	50	--	--
DEC 18...	52	.07	29.6	--	230	210	20	60	30	30	--	--
MAR 04...	--	.07	11.5	--	200	170	30	40	10	30	--	--
APR 07...	55	.08	2.8	--	70	60	10	30	30	4	--	--
JUN 18...	--	.07	19.0	--	130	110	20	30	10	20	--	--
JUL 23...	--	.09	3.6	--	120	110	10	40	10	30	--	--
AUG 27...	45	.08	9.6	--	240	210	30	130	0	130	--	--

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).

WATER-DISCHARGE RECORDS

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 winter periods, which are fair to poor. Flow regulated since 1913 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,400 ft³/s (1,120 m³/s) Oct. 15, 1954, gage height, 17.15 ft (5.227 m); minimum daily discharge, 6 ft³/s (0.17 m³/s) Sept. 4, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,330 ft³/s (151 m³/s) Apr. 13, gage height, 7.53 ft (2.295 m); minimum discharge, 90 ft³/s (2.55 m³/s) Aug. 21, Sept. 11, 12, gage height, 1.19 ft (0.363 m).

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	158	183	910	260	280	1760	896	1060	1570	355	149	112
2	153	172	968	240	565	1320	965	2040	1560	525	136	120
3	144	161	1630	210	915	1240	807	1380	1260	521	132	334
4	146	155	1250	180	786	1030	728	1120	2090	447	140	1210
5	145	156	1080	150	592	806	730	1160	2480	409	124	1970
6	142	177	1000	135	444	866	744	1150	2760	398	140	1240
7	139	166	938	140	422	916	666	950	3280	387	148	510
8	121	158	847	180	393	833	573	725	1980	369	128	384
9	110	156	769	200	441	705	434	600	1530	344	118	366
10	137	178	1170	180	402	578	429	538	1890	365	121	210
11	145	234	920	170	512	559	517	584	2090	331	116	128
12	151	190	787	140	1050	532	1290	784	1540	260	125	96
13	143	171	893	130	824	554	4470	681	1200	205	142	107
14	134	161	940	120	783	774	3430	607	2600	149	119	107
15	133	156	838	130	701	683	3700	742	3240	145	121	116
16	133	158	639	135	612	676	2600	966	1350	125	120	360
17	129	175	458	130	801	669	1630	829	991	107	111	457
18	130	301	465	130	1260	598	1500	685	807	111	97	183
19	129	413	539	120	1730	602	1250	1340	669	108	99	181
20	127	230	469	125	2260	532	1170	2460	1240	114	100	181
21	128	186	358	130	2680	517	1080	1730	1440	128	98	181
22	126	178	214	140	2480	471	884	1360	1380	126	105	180
23	129	157	200	145	2380	463	781	1220	1110	112	107	174
24	128	1190	180	140	2740	505	998	1030	730	134	107	165
25	215	2470	170	135	2200	529	1090	676	624	175	107	165
26	569	1280	170	140	2010	517	976	621	1170	199	101	165
27	302	946	170	200	1240	1500	1170	610	781	323	113	165
28	213	912	195	500	1180	2340	1260	713	584	288	113	163
29	270	894	230	600	---	1250	958	1390	471	371	112	309
30	268	934	290	400	---	1080	911	1260	387	221	115	164
31	212	---	300	276	---	1060	---	1550	---	186	127	---
TOTAL	5309	12998	19987	6011	32683	26465	38637	32561	44804	8038	3691	10203
MEAN	171	433	645	194	1167	854	1288	1050	1493	259	119	340
MAX	569	2470	1630	600	2740	2340	4470	2460	3280	525	149	1970
MIN	110	155	170	120	280	463	429	538	387	107	97	96
CAL YR 1980	TOTAL	281775	MEAN	770	MAX	5010	MIN	110	CFSM	1.91	IN	25.95
WTR YR 1981	TOTAL	241387	MEAN	661	MAX	4470	MIN	96	CFSM	1.64	IN	22.23

POTOMAC RIVER BASIN

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 current year.

INSTRUMENTATION.--Temperature recorder during all periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE (water years 1964-72, 1977, 1981): Maximum, 33.0°C July 3, 1966; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 26.0°C July 10; minimum, 1.5°C Jan. 13.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

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 mi² (187.5 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for winter periods, which are fair. Records include about 0.5 ft³/s (0.014 m³/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.--52 years (water years 1930-81), 81.2 ft³/s (2.300 m³/s), 15.23 in/yr (387 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft³/s (241 m³/s) Mar. 17, 1936, gage height, 9.6 ft (2.93 m), site then in use, from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.6 ft³/s (0.045 m³/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 flood-marks, at site 95 ft (29 m) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 14	0830	1780 50.4	7.79 2.374	May 29	0415	*1800 51.0	7.81 2.380

Minimum discharge, 5.9 ft³/s (0.167 m³/s) Oct. 21, 22, 23, 24, gage height, 3.62 ft (1.103 m).

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	8.4	12	35	21	20	128	66	113	237	43	16	31
2	8.4	11	56	20	60	107	69	115	221	78	15	29
3	9.5	11	84	16	40	94	60	91	216	91	27	45
4	8.4	11	53	15	34	83	57	84	265	66	24	121
5	8.0	11	46	14	30	85	57	87	237	60	17	68
6	8.0	10	41	14	29	78	53	80	262	55	29	31
7	7.7	9.9	38	14	29	69	47	74	229	46	28	26
8	7.4	12	35	14	28	62	43	66	172	40	22	28
9	7.1	12	57	13	27	60	43	57	159	35	16	29
10	8.0	12	110	13	26	61	42	55	189	29	14	19
11	8.4	9.9	70	12	90	68	55	117	144	27	13	16
12	7.1	9.5	58	12	73	70	280	170	115	25	12	14
13	6.8	9.1	52	12	44	87	981	126	99	24	12	12
14	6.8	9.1	44	11	40	102	868	107	139	23	12	12
15	6.8	9.1	38	12	44	85	528	124	119	22	12	29
16	6.8	12	38	12	45	91	346	109	93	21	13	132
17	7.1	12	35	12	65	81	268	91	76	20	11	63
18	6.5	18	31	12	92	75	240	93	67	20	10	40
19	6.5	16	31	11	110	73	186	180	63	20	9.8	32
20	6.2	14	20	12	224	66	186	172	164	19	9.4	27
21	6.2	14	20	13	254	62	144	137	105	19	9.0	24
22	5.9	14	22	14	204	55	128	117	107	19	8.6	21
23	5.9	14	22	13	302	54	124	102	83	19	8.2	19
24	5.9	163	25	13	296	55	128	90	67	20	8.2	16
25	66	130	24	13	216	51	117	80	68	23	7.9	15
26	43	70	22	20	164	48	96	79	103	22	7.9	14
27	21	49	20	37	128	70	94	109	64	30	7.6	13
28	17	44	18	38	124	66	85	211	53	39	7.3	12
29	16	40	20	32	---	63	83	980	45	53	7.3	11
30	14	34	24	20	---	67	78	417	39	24	8.6	11
31	12	---	23	17	---	66	---	332	---	19	43	---
TOTAL	362.8	802.6	1212	502	2838	2282	5552	4665	4000	1051	445.8	960
MEAN	11.7	26.8	39.1	16.2	101	73.6	185	150	133	33.9	14.4	32.0
MAX	66	163	110	38	302	128	981	880	265	91	43	132
MIN	5.9	9.1	18	11	20	48	42	55	39	19	7.3	11
CFSM	.16	.37	.54	.22	1.40	1.02	2.56	2.07	1.84	.47	.20	.44
IN.	.19	.41	.62	.26	1.46	1.17	2.85	2.40	2.06	.54	.23	.49
CAL YR 1980	TOTAL	29610.9	MEAN	80.9	MAX	1130	MIN	5.9	CFSM	1.12	IN	15.21
WTR YR 1981	TOTAL	24673.2	MEAN	67.6	MAX	981	MIN	5.9	CFSM	.93	IN	12.68

01599000 GEORGES CREEK AT FRANKLIN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 24...	1800	7.1	1310	4.7	10.0	9.6	10.2	730	720	.4	15	180
NOV 19...	0915	79	1080	5.6	3.0	2.1	13.0	520	510	.3	15	130
DEC 16...	1415	131	593	5.7	2.0	2.2	12.9	--	--	.0	.0	--
MAR 04...	1430	257	461	5.7	2.0	2.4	11.0	--	--	.1	2.5	--
APR 07...	1130	52	562	6.2	12.0	7.9	--	300	280	.1	4.5	80
JUN 18...	1245	239	645	6.0	24.0	17.6	7.9	--	--	.0	.0	--
JUL 23...	1315	25	1040	7.1	24.0	22.0	7.1	--	--	.0	.0	--
AUG 26...	1545	7.9	1256	5.7	26.0	22.2	7.6	730	730	.0	.0	180

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 24...	67	12	3	.2	3.3	--	4	770	12	.3	11	1180
NOV 19...	47	21	8	.4	2.8	--	--	510	34	.2	9.3	853
DEC 16...	--	--	--	--	--	--	5	--	--	--	--	--
MAR 04...	--	--	--	--	--	--	4	190	--	--	--	317
APR 07...	24	7.5	5	.2	1.6	1.2	7	290	12	.2	7.7	381
JUN 18...	--	--	--	--	--	--	15	310	--	--	--	535
JUL 23...	--	--	--	--	--	--	10	570	--	--	--	--
AUG 26...	69	14	4	.2	2.7	--	5	740	13	.3	8.9	1170

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)	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)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 24...	1060	1.6	22.6	.58	1900	1400	510	3500	100	3400	15	.29
NOV 19...	760	1.2	182	--	2600	2300	340	2800	0	2800	23	4.9
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 04...	--	.43	220	--	1600	1500	130	1000	0	1000	--	--
APR 07...	435	.52	53.5	--	2200	2100	110	1400	0	1400	--	--
JUN 18...	--	.73	345	--	2800	2700	120	2200	200	2000	--	--
JUL 23...	--	--	--	--	2900	2500	370	2900	300	2600	--	--
AUG 26...	1030	1.6	25.0	--	2700	2200	550	2900	0	3100	--	--

POTOMAC RIVER BASIN

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 mi² (1,544 km²).

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.--43 years, 890 ft³/s (25.20 m³/s), 20.28 in/yr (515 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,000 ft³/s (1,050 m³/s) Oct. 16, 1954, gage height, 23.23 ft (7.081 m); minimum discharge, 31 ft³/s (0.88 m³/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 ft³/s (1,560 m³/s). Flood of Mar. 17, 1936, reached a stage of about 23.5 ft (7.16 m), from floodmarks, discharge, about 50,000 ft³/s (1,420 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,340 ft³/s (208 m³/s) Apr. 13, gage height, 9.75 ft (2.972 m); minimum discharge, 106 ft³/s (3.00 m³/s) Oct. 9, 10, Aug. 21, 22, gage height 1.80 ft (0.549 m).

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	171	204	1190	295	303	2030	1080	1230	2110	427	207	205
2	178	187	1010	280	548	1650	1130	2550	2000	619	187	188
3	168	176	1770	255	1130	1070	984	1860	1710	726	171	271
4	171	171	1470	220	895	1320	875	1420	2460	602	198	1080
5	166	168	1210	180	716	995	854	1390	3100	540	174	2240
6	164	176	1110	170	439	1010	871	1430	2940	501	178	1710
7	159	187	1070	170	432	1110	793	1190	3830	479	239	651
8	156	176	922	210	424	1010	699	885	2480	432	201	475
9	124	173	883	215	403	887	535	739	1940	407	168	417
10	147	171	1330	200	483	726	506	649	2110	390	154	331
11	166	227	1110	190	485	711	506	766	2490	395	152	213
12	168	213	905	180	1270	693	1660	1360	1890	322	143	140
13	171	187	958	165	922	708	6190	1050	1470	272	172	135
14	156	178	1060	150	811	953	4880	883	2190	203	156	139
15	150	171	948	165	746	907	4630	903	3940	199	148	158
16	145	176	784	170	665	846	3390	1280	1740	165	156	361
17	143	184	521	165	865	872	2250	1070	1250	148	148	813
18	140	239	476	150	1420	757	1990	889	1030	150	129	278
19	140	501	579	135	2010	746	1720	1530	845	148	119	251
20	138	295	515	145	2840	668	1520	3110	1400	153	120	239
21	138	222	408	156	3440	635	1450	2290	1890	175	116	235
22	138	204	265	164	3160	586	1180	1770	1690	166	119	229
23	138	192	264	172	3020	546	1030	1550	1450	155	123	224
24	140	1000	295	166	3610	571	1190	1310	919	206	126	208
25	269	3160	279	161	2850	619	1330	888	750	239	126	202
26	615	1610	241	164	2410	597	1240	742	1430	264	123	202
27	396	1090	227	229	1740	1270	1270	752	1040	333	122	201
28	249	1020	234	562	1350	2810	1620	861	724	385	131	197
29	230	1010	255	623	---	1570	1190	2530	573	514	130	280
30	299	907	271	598	---	1270	1090	2000	476	308	133	264
31	236	---	319	299	---	1260	---	2080	---	262	188	---
TOTAL	5969	14575	22879	7104	39387	31403	49653	42957	53867	10285	4757	12537
MEAN	193	486	738	229	1407	1013	1655	1386	1796	332	153	418
MAX	615	3160	1770	623	3610	2810	6190	3110	3940	726	239	2240
MIN	124	168	227	135	303	546	506	649	476	148	116	135

CAL YR 1980 TOTAL 353041 MEAN 965 MAX 6940 MIN 124 CFSM 1.62 IN 22.04
WTR YR 1981 TOTAL 295373 MEAN 809 MAX 6190 MIN 116 CFSM 1.36 IN 18.44

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 23...	1430	147	1060	6.9	12.5	12.8	8.5	280	230	.0	.0	92
NOV 18...	1330	256	911	7.0	3.0	4.9	11.5	260	210	.1	5.0	96
DEC 16...	1135	306	340	6.5	2.0	2.8	13.7	93	75	.0	.0	29
MAR 04...	1300	1450	269	6.4	2.0	2.6	12.1	--	--	.0	.0	--
APR 06...	1415	891	--	--	--	--	--	150	140	.0	.0	50
JUN 19...	0845	865	340	6.1	21.0	15.1	8.1	--	--	.0	.0	--
JUL 23...	1115	164	1100	8.4	25.0	26.0	10.3	--	--	.0	.0	--
AUG 25...	0800	126	1186	6.9	17.0	20.6	6.8	410	360	.0	.0	140

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LITY FIELD (MG/L CAC03)	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)
OCT 23...	11	95	42	2.5	7.2	--	57	250	140	.1	6.0	733
NOV 18...	10	75	38	2.0	4.4	--	--	200	130	.1	6.0	634
DEC 16...	5.0	21	32	.9	1.9	--	74	77	31	.1	5.4	202
MAR 04...	--	--	--	--	--	--	10	63	--	--	--	168
APR 06...	6.5	19	21	.7	1.6	1.2	13	110	31	.1	5.5	250
JUN 19...	--	--	--	--	--	--	10	120	--	--	--	259
JUL 23...	--	--	--	--	--	--	42	320	--	--	--	752
AUG 25...	14	100	34	2.2	5.4	--	45	310	170	.1	5.1	918

DATE	SOLIDS, SUM OF CONSTITUENTS, 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)	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- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 23...	631	1.0	291	.20	410	200	210	800	30	770	11	4.4
NOV 18...	541	.86	438	--	480	310	170	610	0	590	29	20
DEC 16...	182	.27	167	--	630	530	100	500	50	450	--	--
MAR 04...	--	.23	658	--	1100	960	140	350	20	330	--	--
APR 06...	229	.34	601	--	840	730	110	560	0	620	--	--
JUN 19...	--	.35	605	--	710	650	60	620	50	570	--	--
JUL 23...	--	1.0	333	--	310	230	80	750	150	600	--	--
AUG 25...	772	1.3	312	--	910	620	290	910	80	830	--	--

POTOMAC RIVER BASIN

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	749	698	730	---	---	---	---	---	---
2	---	---	---	815	748	784	---	---	---	---	---	---
3	---	---	---	831	803	817	347	238	289	---	---	---
4	999	927	967	890	824	864	252	218	244	---	---	---
5	1030	995	1010	932	840	876	279	219	257	---	---	---
6	1150	1030	1090	944	866	921	280	261	274	---	---	---
7	1150	1110	1130	852	731	757	285	274	280	---	---	---
8	1140	1120	1130	880	743	818	327	282	308	---	---	---
9	1140	1110	1120	938	878	901	326	306	313	---	---	---
10	1360	1120	1190	996	993	973	392	297	340	---	---	---
11	1360	1030	1190	1000	968	985	317	286	301	---	---	---
12	1080	1030	1060	935	789	834	357	307	335	---	---	---
13	1080	1070	1080	900	843	876	380	345	360	---	---	---
14	1070	993	1030	920	816	874	332	288	302	---	---	---
15	1210	1050	1120	885	818	867	336	308	319	1110	930	1020
16	1220	1050	1130	906	800	868	341	297	317	1050	880	994
17	1130	1050	1100	900	809	865	493	340	427	1160	932	1110
18	1120	1080	1110	916	776	873	521	493	501	1220	1170	1200
19	1120	1100	1110	---	---	---	568	425	483	1240	1200	1220
20	1150	1110	1120	581	510	540	477	440	461	1220	1200	1210
21	1150	1090	1110	717	583	655	491	381	435	1220	1080	1120
22	1110	1050	1080	822	711	766	491	377	437	1160	1030	1100
23	1130	1060	1080	855	821	835	812	479	705	1000	860	904
24	1160	1070	1120	843	387	718	784	730	758	956	860	908
25	1150	467	995	329	208	222	748	442	551	975	924	951
26	910	470	710	---	---	---	503	458	484	1020	936	987
27	640	390	520	---	---	---	753	474	557	1100	1000	1070
28	500	290	410	---	---	---	779	731	757	1050	505	719
29	460	250	350	---	---	---	757	646	700	505	456	474
30	560	350	460	---	---	---	---	---	---	494	380	407
31	700	331	567	---	---	---	---	---	---	567	397	473
MONTH	1360	250	967	1000	208	801	812	218	426	1240	380	933

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	642	560	602	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	398	369	385
10	---	---	---	---	---	---	---	---	---	452	392	422
11	---	---	---	---	---	---	---	---	---	465	426	452
12	---	---	---	---	---	---	---	---	---	412	306	326
13	---	---	---	---	---	---	---	---	---	342	329	335
14	---	---	---	---	---	---	---	---	---	379	336	355
15	---	---	---	---	---	---	---	---	---	385	362	368
16	---	---	---	---	---	---	---	---	---	380	321	333
17	---	---	---	---	---	---	---	---	---	331	309	322
18	---	---	---	---	---	---	---	---	---	332	319	325
19	---	---	---	---	---	---	---	---	---	348	256	322
20	---	---	---	---	---	---	---	---	---	250	193	206
21	---	---	---	---	---	---	---	---	---	222	194	208
22	---	---	---	---	---	---	---	---	---	254	223	237
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	642	560	602	---	---	---	---	---	---	465	193	328

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	560	529	544	---	---	---	1040	790	954
2	---	---	---	605	502	568	---	---	---	1090	890	1010
3	---	---	---	523	477	500	---	---	---	1020	800	935
4	---	---	---	538	500	522	---	---	---	970	460	668
5	---	---	---	542	527	535	---	---	---	480	350	393
6	---	---	---	581	541	563	---	---	---	350	310	318
7	---	---	---	599	575	587	986	769	898	490	320	401
8	---	---	---	637	599	619	919	669	854	400	340	360
9	---	---	---	654	625	639	969	762	890	370	340	357
10	---	---	---	645	612	622	999	927	964	450	370	413
11	---	---	---	628	571	600	1170	1080	1140	590	480	560
12	---	---	---	630	573	604	1210	1110	1150	750	590	726
13	---	---	---	686	618	652	1260	1210	1240	1100	750	831
14	---	---	---	724	664	691	1190	879	1010	1290	1130	1230
15	---	---	---	860	713	815	1060	828	945	1220	1110	1150
16	---	---	---	914	823	865	1140	1030	1100	1100	740	930
17	---	---	---	1100	916	1000	1220	1140	1170	780	420	537
18	---	---	---	1180	1090	1130	1220	1050	1140	700	440	494
19	---	---	---	1180	1100	1140	1270	1080	1150	760	700	748
20	---	---	---	1180	1150	1160	---	---	---	770	740	756
21	---	---	---	1220	1170	1200	---	---	---	790	780	787
22	274	253	263	1190	1090	1140	1370	1170	1350	800	770	789
23	292	247	260	1080	955	1010	1380	1310	1350	770	650	715
24	382	294	339	1120	1030	1070	1340	1270	1300	710	600	641
25	410	384	397	1110	807	933	1280	1230	1260	850	710	798
26	428	296	367	1010	915	961	1330	1290	1320	860	810	840
27	371	293	334	---	---	---	1290	1240	1260	810	770	788
28	419	375	402	---	---	---	1290	1240	1260	880	810	859
29	469	421	439	---	---	---	1250	1190	1220	890	820	844
30	527	473	503	---	---	---	1270	1080	1220	880	370	556
31	---	---	---	---	---	---	1170	1020	1120	---	---	---
MONTH	527	247	367	1220	477	795	1380	669	1140	1290	310	713

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.5	7.3	7.4	7.4	7.2	7.3	---	---	---	---	---	---
2	7.4	7.4	7.4	7.4	7.3	7.4	7.2	7.1	7.2	---	---	---
3	7.5	7.4	7.4	7.5	7.4	7.4	7.2	7.0	7.1	---	---	---
4	7.5	7.4	7.4	7.5	7.4	7.5	7.2	7.2	7.2	---	---	---
5	7.6	7.4	7.5	7.6	7.4	7.5	7.2	7.2	7.2	---	---	---
6	7.6	7.5	7.5	7.7	7.5	7.6	7.2	7.2	7.2	---	---	---
7	7.6	7.4	7.5	7.6	7.5	7.6	7.3	7.1	7.2	---	---	---
8	7.7	7.4	7.5	7.6	7.4	7.6	7.3	7.2	7.2	---	---	---
9	7.6	7.5	7.5	7.6	7.4	7.5	7.3	7.2	7.2	---	---	---
10	7.6	7.5	7.5	7.6	7.5	7.6	7.4	7.1	7.2	---	---	---
11	7.7	7.4	7.6	7.7	7.6	7.7	7.3	7.1	7.3	---	---	---
12	7.4	7.4	7.4	7.7	7.6	7.6	7.3	7.2	7.3	---	---	---
13	7.5	7.4	7.4	7.8	7.7	7.7	7.3	7.2	7.3	---	---	---
14	7.5	7.4	7.5	7.7	7.6	7.7	7.3	7.2	7.3	---	---	---
15	7.5	7.4	7.4	7.8	7.7	7.7	7.4	7.3	7.3	7.6	7.5	7.6
16	7.4	7.3	7.4	7.8	7.7	7.7	7.4	7.3	7.4	7.6	7.6	7.6
17	7.5	7.3	7.4	7.7	7.7	7.7	7.5	7.4	7.5	7.7	7.6	7.7
18	7.4	7.3	7.4	7.7	7.6	7.7	7.5	7.3	7.4	7.7	7.6	7.6
19	7.3	7.3	7.3	---	---	---	7.3	7.3	7.3	7.7	7.6	7.6
20	7.3	7.2	7.3	7.4	7.1	7.3	7.4	7.3	7.3	7.7	7.6	7.7
21	7.3	7.3	7.3	7.4	7.3	7.4	7.5	7.3	7.4	7.6	7.4	7.5
22	7.4	7.3	7.3	7.5	7.4	7.4	7.5	7.4	7.4	7.6	7.5	7.5
23	7.5	7.3	7.4	7.7	7.4	7.5	7.6	7.4	7.5	7.6	7.5	7.6
24	7.5	7.4	7.5	7.7	6.7	7.4	7.5	7.4	7.5	7.7	7.6	7.6
25	7.8	7.5	7.6	6.8	6.6	6.7	7.4	7.1	7.2	7.7	7.6	7.6
26	7.7	6.9	7.3	---	---	---	7.1	7.0	7.0	7.6	7.5	7.6
27	7.2	6.9	7.0	---	---	---	7.3	7.0	7.1	7.6	7.5	7.6
28	7.4	7.2	7.3	---	---	---	7.3	7.2	7.2	7.5	7.1	7.3
29	7.5	7.4	7.4	---	---	---	7.3	7.2	7.3	7.3	7.1	7.2
30	7.5	7.3	7.4	---	---	---	---	---	---	7.3	7.1	7.2
31	7.3	7.2	7.2	---	---	---	---	---	---	7.5	7.3	7.4
MONTH	7.8	6.9	7.4	7.8	6.6	7.5	7.6	7.0	7.3	7.7	7.1	7.5

POTOMAC RIVER BASIN

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.4	7.5							---	---	---
2	7.5	7.4	7.4							---	---	---
3	---	---	---							---	---	---
4	---	---	---							---	---	---
5	---	---	---							---	---	---
6	---	---	---							---	---	---
7	---	---	---							---	---	---
8	---	---	---							7.4	7.3	7.3
9	---	---	---							7.4	7.2	7.3
10	---	---	---							7.3	7.2	7.2
11	---	---	---							7.2	7.1	7.2
12	---	---	---							7.6	7.2	7.3
13	---	---	---							7.4	7.2	7.3
14	---	---	---							7.4	7.2	7.3
15	---	---	---							7.3	7.1	7.2
16	---	---	---							7.1	6.9	7.0
17	---	---	---							7.2	7.1	7.1
18	---	---	---							7.2	7.1	7.1
19	---	---	---							7.2	7.1	7.2
20	---	---	---							7.1	6.9	7.0
21	---	---	---							7.2	7.0	7.1
22	---	---	---							7.2	7.0	7.1
23	---	---	---							---	---	---
24	---	---	---							---	---	---
25	---	---	---							---	---	---
26	---	---	---							---	---	---
27	---	---	---							---	---	---
28	---	---	---							---	---	---
29	---	---	---							---	---	---
30	---	---	---							---	---	---
31	---	---	---							---	---	---
MONTH	7.5	7.4	7.5							7.6	6.9	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	7.3	7.1	7.2	---	---	---	7.4	7.1	7.2
2	---	---	---	7.3	7.1	7.2	---	---	---	7.4	7.2	7.3
3	---	---	---	7.1	7.1	7.1	---	---	---	7.3	7.2	7.2
4	---	---	---	7.3	7.1	7.2	---	---	---	7.3	6.8	7.0
5	---	---	---	7.2	7.1	7.2	---	---	---	6.8	6.6	6.7
6	---	---	---	7.3	7.2	7.2	---	---	---	6.8	6.7	6.8
7	---	---	---	7.3	7.1	7.2	7.4	7.2	7.3	7.0	6.7	6.9
8	---	---	---	7.4	7.1	7.2	7.7	7.2	7.5	6.9	6.8	6.8
9	---	---	---	7.3	7.1	7.2	7.9	7.2	7.5	7.0	6.8	6.9
10	---	---	---	7.5	7.1	7.3	7.6	7.3	7.4	7.3	6.8	7.1
11	---	---	---	7.5	7.1	7.3	8.0	7.5	7.7	7.4	7.1	7.2
12	---	---	---	7.7	7.1	7.4	7.9	7.4	7.6	7.7	7.0	7.3
13	---	---	---	7.4	7.2	7.3	7.8	7.4	7.6	7.5	7.2	7.4
14	---	---	---	7.7	7.2	7.4	8.0	7.3	7.6	7.5	7.3	7.4
15	---	---	---	8.0	7.3	7.6	7.8	7.3	7.5	7.4	7.2	7.3
16	---	---	---	8.1	7.4	7.6	7.6	7.2	7.4	7.3	7.2	7.3
17	---	---	---	8.4	7.4	7.8	7.5	7.1	7.3	7.3	6.7	6.9
18	---	---	---	8.8	7.3	8.0	7.5	7.0	7.1	7.3	6.7	7.0
19	---	---	---	8.7	7.5	8.0	7.4	7.1	7.2	7.5	7.2	7.3
20	---	---	---	8.4	7.4	7.8	---	---	---	7.4	7.4	7.4
21	---	---	---	7.9	7.4	7.6	---	---	---	7.7	7.3	7.7
22	7.0	6.9	7.0	8.3	7.4	7.7	7.4	7.0	7.2	7.7	7.4	7.6
23	7.0	6.9	6.9	8.8	7.4	8.1	7.6	7.0	7.2	7.8	7.4	7.5
24	7.2	6.9	7.0	7.8	7.4	7.6	7.6	7.2	7.4	8.2	7.4	7.7
25	7.2	7.1	7.2	7.6	7.3	7.4	7.6	7.3	7.4	8.5	7.6	7.8
26	7.2	6.9	7.1	7.6	7.3	7.4	7.7	7.3	7.5	8.3	7.5	7.8
27	7.2	7.0	7.1	---	---	---	7.4	7.2	7.3	8.2	7.4	7.8
28	7.3	7.0	7.2	---	---	---	7.5	7.1	7.3	8.0	7.6	7.7
29	7.4	7.2	7.3	---	---	---	7.9	7.3	7.5	7.9	7.5	7.7
30	7.4	7.3	7.3	---	---	---	7.8	7.4	7.5	7.8	7.3	7.5
31	---	---	---	---	---	---	7.4	7.3	7.3	---	---	---
MONTH	7.4	6.9	7.1	8.8	7.1	7.5	8.0	7.0	7.4	8.5	6.6	7.3

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.0	.0	1.0	---	---	---	---	---	---	---	---	---
2	3.5	2.0	2.5	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	16.5	14.5	15.5
10	---	---	---	---	---	---	---	---	---	17.5	16.0	17.0
11	---	---	---	---	---	---	---	---	---	18.0	16.5	17.0
12	---	---	---	---	---	---	---	---	---	17.5	14.0	15.5
13	---	---	---	---	---	---	---	---	---	15.5	13.0	14.0
14	---	---	---	---	---	---	---	---	---	18.5	15.5	17.0
15	---	---	---	---	---	---	---	---	---	18.5	17.0	18.0
16	---	---	---	---	---	---	---	---	---	17.0	14.5	15.5
17	---	---	---	---	---	---	---	---	---	15.5	13.5	14.5
18	---	---	---	---	---	---	---	---	---	15.5	14.5	15.0
19	---	---	---	---	---	---	---	---	---	14.0	12.0	13.0
20	---	---	---	---	---	---	---	---	---	14.5	11.0	12.5
21	---	---	---	---	---	---	---	---	---	16.0	12.5	14.0
22	---	---	---	---	---	---	---	---	---	17.0	14.0	15.5
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	3.5	.0	2.0	---	---	---	---	---	---	18.5	11.0	15.5

POTOMAC RIVER BASIN

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	8.1	8.5	12.4	10.0	11.2	---	---	---	---	---	---
2	8.3	7.9	8.1	13.3	12.6	12.9	---	---	---	---	---	---
3	9.1	8.0	8.5	13.4	13.0	13.2	12.3	11.4	11.9	---	---	---
4	9.0	8.2	8.6	13.2	12.3	12.8	12.1	5.2	9.1	---	---	---
5	9.6	8.4	9.0	12.9	11.7	12.2	13.0	5.3	9.6	---	---	---
6	9.7	8.9	9.2	13.4	12.2	12.8	13.0	12.3	12.6	---	---	---
7	9.4	8.5	9.0	12.7	11.3	12.1	12.1	10.7	11.2	---	---	---
8	9.8	8.3	8.8	11.7	11.2	11.4	10.8	9.5	10.2	---	---	---
9	8.3	7.8	8.1	12.1	10.2	11.1	9.9	8.9	9.5	---	---	---
10	8.0	7.8	7.9	11.0	10.5	10.8	11.7	8.7	10.1	---	---	---
11	9.1	7.9	8.3	12.0	11.1	11.5	---	---	---	---	---	---
12	8.6	7.7	8.1	12.5	12.0	12.2	---	---	---	---	---	---
13	9.3	8.4	8.9	12.1	11.5	11.8	---	---	---	---	---	---
14	10.0	9.1	9.5	11.5	10.8	11.1	---	---	---	---	---	---
15	11.1	8.9	9.3	10.8	10.6	10.7	---	---	---	---	---	---
16	9.1	8.5	8.8	11.0	10.6	10.7	---	---	---	---	---	---
17	8.8	7.8	8.4	12.1	11.0	11.5	---	---	---	---	---	---
18	7.8	7.3	7.6	12.5	12.0	12.3	---	---	---	---	---	---
19	7.7	7.3	7.5	---	---	---	12.5	11.9	12.1	---	---	---
20	8.3	7.5	8.0	12.0	11.6	11.8	13.1	12.3	12.7	---	---	---
21	8.9	8.3	8.6	11.9	11.2	11.5	15.3	13.1	14.0	---	---	---
22	9.0	8.3	8.6	11.5	11.1	11.3	14.9	10.0	14.1	---	---	---
23	11.5	8.6	9.9	11.4	10.9	11.2	14.3	12.0	12.6	---	---	---
24	11.7	10.6	11.2	10.9	8.4	10.4	12.2	11.3	11.6	---	---	---
25	10.8	8.7	10.2	11.5	10.2	10.8	15.1	11.5	12.7	---	---	---
26	11.6	9.1	9.8	---	---	---	15.7	13.0	14.2	---	---	---
27	11.0	8.7	9.9	---	---	---	15.8	12.6	14.1	---	---	---
28	9.1	8.4	8.8	---	---	---	15.7	12.7	14.0	---	---	---
29	8.8	8.4	8.6	---	---	---	13.5	12.9	13.3	---	---	---
30	9.1	8.5	8.9	---	---	---	---	---	---	---	---	---
31	10.4	8.8	9.6	---	---	---	---	---	---	---	---	---
MONTH	11.7	7.3	8.9	13.4	8.4	11.6	15.8	5.2	12.1	---	---	---

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										10.7	9.6	10.1
10										9.8	9.2	9.5
11										9.4	8.8	9.1
12										10.1	8.6	9.6
13										10.9	10.0	10.5
14										10.3	9.3	9.8
15										9.3	8.7	9.1
16										10.3	9.2	9.8
17										10.7	10.1	10.4
18										10.2	4.8	9.5
19										10.7	10.0	10.3
20										11.2	10.3	10.9
21										10.9	10.0	10.6
22										10.5	9.6	10.1
23										---	---	---
24										---	---	---
25										---	---	---
26										---	---	---
27										---	---	---
28										---	---	---
29										---	---	---
30										---	---	---
31										---	---	---
MONTH										11.2	4.8	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	8.4	7.9	8.1						
2	---	---	---	8.5	8.1	8.3						
3	---	---	---	8.4	8.0	8.3						
4	---	---	---	8.4	7.9	8.2						
5	---	---	---	8.0	7.6	7.8						
6	---	---	---	8.0	7.4	7.8						
7	---	---	---	7.8	7.2	7.4						
8	---	---	---	7.7	7.0	7.3						
9	---	---	---	7.5	6.6	6.9						
10	---	---	---	7.6	6.5	7.0						
11	---	---	---	8.1	6.6	7.2						
12	---	---	---	8.3	6.9	7.4						
13	---	---	---	7.7	6.8	7.2						
14	---	---	---	8.2	6.8	7.3						
15	---	---	---	8.7	6.8	7.5						
16	---	---	---	8.9	6.7	7.5						
17	---	---	---	9.9	7.1	8.2						
18	---	---	---	10.8	6.7	8.3						
19	---	---	---	10.1	6.3	7.9						
20	---	---	---	8.9	5.9	7.1						
21	---	---	---	8.0	5.9	6.7						
22	---	---	---	9.1	6.1	7.3						
23	8.8	6.9	8.6	10.3	6.5	8.1						
24	8.7	8.2	8.5	7.7	6.5	7.0						
25	8.2	7.9	8.1	7.7	6.8	7.2						
26	8.7	7.9	8.3	---	---	---						
27	9.1	8.6	8.9	---	---	---						
28	9.1	8.6	8.8	---	---	---						
29	8.9	8.4	8.6	---	---	---						
30	8.5	8.0	8.2	---	---	---						
31	---	---	---	---	---	---						
MONTH	9.1	6.9	8.5	10.8	5.9	7.6						

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 mi² (640 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for winter periods, 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 1967-81 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. See page 410. Slight diurnal fluctuation at low flow caused by quarry upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years (water years 1930-81), 326 ft³/s (9.232 m³/s), 17.92 in/yr (455 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft³/s (1,080 m³/s) Mar. 17, 1936, gage height, 20.2 ft (6.16 m), from floodmarks at present site, from rating curve extended above 6,500 ft³/s (184 m³/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 ft³/s (0.25 m³/s) Oct. 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 13	0400	*10100 286	9.57 2.917	June 20	0200	3700 105	6.41 1.954

Minimum discharge, 22 ft³/s (0.62 m³/s) Oct. 20, gage height, 1.53 ft (0.466 m).

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	28	41	125	63	86	550	273	353	611	142	58	218
2	28	38	166	59	508	478	295	383	567	182	54	182
3	30	36	285	56	250	437	255	340	526	363	103	350
4	30	36	237	55	200	379	246	330	612	269	90	475
5	28	35	203	50	170	376	241	309	863	232	70	503
6	27	35	171	50	150	330	223	296	881	202	79	272
7	28	33	150	55	140	284	201	269	707	169	82	185
8	27	35	134	70	130	250	186	232	536	143	76	165
9	26	38	158	60	130	233	180	206	478	126	63	204
10	26	43	277	55	130	237	173	195	550	114	57	144
11	26	44	234	55	680	257	183	474	488	102	53	120
12	26	37	215	55	643	262	1190	1090	379	93	50	103
13	25	35	191	55	500	301	6910	815	325	88	48	89
14	25	34	158	50	360	412	4170	633	448	92	47	79
15	25	34	123	50	260	399	2670	574	499	81	48	101
16	25	39	132	50	240	420	1550	479	392	76	54	242
17	25	41	116	50	220	400	1050	396	304	75	58	185
18	25	56	91	48	400	366	855	347	241	71	49	139
19	25	58	109	48	616	343	649	385	294	67	45	120
20	24	50	60	46	1370	297	557	362	1440	66	41	106
21	26	45	60	48	1910	271	459	301	571	68	40	94
22	26	51	70	55	1380	236	401	272	511	69	39	84
23	26	53	66	55	1590	231	376	246	391	65	37	77
24	27	394	79	52	1870	231	422	222	286	66	35	70
25	194	558	70	49	1180	225	417	202	266	67	35	64
26	213	343	65	53	798	220	372	227	360	69	34	61
27	93	234	65	72	602	256	369	336	240	75	33	59
28	68	198	70	110	524	303	341	385	195	96	33	55
29	58	170	75	105	---	310	325	1360	167	94	33	52
30	50	140	70	85	---	308	337	963	149	80	37	50
31	45	---	69	80	---	293	---	841	---	64	107	---
TOTAL	1355	2984	4094	1844	17037	9895	25876	13823	14277	3566	1688	4648
MEAN	43.7	99.5	132	59.5	608	319	863	446	476	115	54.5	155
MAX	213	558	285	110	1910	550	6910	1360	1440	363	107	503
MIN	24	33	60	46	86	220	173	195	149	64	33	50
CFSM	.18	.40	.53	.24	2.46	1.29	3.49	1.81	1.93	.47	.22	.63
IN.	.20	.45	.62	.28	2.57	1.49	3.90	2.08	2.15	.54	.25	.70

CAL YR 1980	TOTAL	122846	MEAN 336	MAX 6760	MIN 24	CFSM 1.36	IN 18.50
WTR YR 1981	TOTAL	101087	MEAN 277	MAX 6910	MIN 24	CFSM 1.12	IN 15.22

01601500 WILLS CREEK NEAR CUMBERLAND, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 23...	1000	26	652	7.3	12.0	7.0	11.2	310	240	.0	.0	81
NOV 18...	0930	53	613	7.6	-2.0	2.1	14.1	180	180	--	--	49
DEC 16...	1530	128	198	7.0	1.0	.7	15.7	87	87	.0	.0	23
MAR 04...	0945	379	153	6.8	1.0	.9	14.2	--	--	.0	.0	--
APR 06...	1630	218	174	7.6	2.0	11.1	--	89	66	.0	.0	25
JUN 17...	1515	300	170	7.1	28.0	21.6	9.6	--	--	.0	.0	--
JUL 23...	0830	66	540	7.8	16.0	17.2	8.9	--	--	.0	.0	--
AUG 25...	1300	34	718	8.0	26.0	19.2	10.7	380	310	.0	.0	100

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	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)
OCT 23...	25	8.3	6	.2	2.0	--	74	230	17	.2	5.3	464
NOV 18...	14	47	36	1.5	1.9	--	--	120	83	.1	3.6	383
DEC 16...	7.2	5.5	12	.3	1.2	--	25	54	9.5	.1	5.5	144
MAR 04...	--	--	--	--	--	--	--	36	--	--	--	97
APR 06...	6.4	3.8	8	.2	1.4	1.0	21	51	7.6	<.1	4.3	126
JUN 17...	--	--	--	--	--	--	28	49	--	--	--	130
JUL 23...	--	--	--	--	--	--	62	180	--	--	--	388
AUG 25...	32	8.6	5	.2	1.7	--	38	280	21	.3	6.2	569

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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 23...	409	.63	32.6	.09	210	200	10	270	0	270	1	.07
NOV 18...	348	.52	54.8	--	320	300	20	210	0	220	3	.43
DEC 16...	119	.20	49.8	--	80	80	0	100	10	90	--	--
MAR 04...	--	.13	99.3	--	190	180	10	70	0	80	--	--
APR 06...	113	.17	74.2	--	210	190	20	100	10	90	--	--
JUN 17...	--	.18	105	--	280	240	40	100	20	80	--	--
JUL 23...	--	.53	69.1	--	390	380	10	290	60	230	--	--
AUG 25...	496	.77	52.2	--	660	640	20	380	50	330	--	--

POTOMAC RIVER BASIN

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 mi² (2,266 km²).

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 winter periods, 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 regulation 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.--52 years, 1,261 ft³/s (35.71 m³/s), 19.57 in/yr (497 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,200 ft³/s (2,500 m³/s) Mar. 17, 1936, gage height, 29.1 ft (8.87 m), from rating curve extended above 33,000 ft³/s (935 m³/s) on basis of slope-area measurement of peak flow; minimum discharge (river only), 12 ft³/s (0.34 m³/s) Sept. 22, 1932, gage height, 2.38 ft (0.725 m); minimum daily discharge (including flow in canal), 38 ft³/s (1.08 m³/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 ft³/s (2,520 m³/s). Flood of Mar. 29, 1924, reached a stage of 28.4 ft (8.66 m), discharge, about 82,000 ft³/s (2,320 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,900 ft³/s (394 m³/s) Apr. 13, gage height, 12.35 ft (3.764 m), no other peak above base of 10,000 ft³/s (280 m³/s); minimum discharge, 32 ft³/s (3.74 m³/s) Oct. 10, gage height, 2.14 ft (0.652 m); minimum daily discharge, 141 ft³/s (3.99 m³/s) Aug. 27.

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	196	268	1280	395	420	2510	1320	1470	2960	593	294	539
2	206	245	1140	361	1000	2390	1340	2720	2710	673	251	595
3	206	235	1910	342	1400	1910	1200	2580	2400	1080	293	784
4	201	218	1840	320	1050	1830	1090	2010	2890	876	285	1460
5	196	219	1450	280	950	1380	1050	1720	4200	786	266	2990
6	191	218	1290	220	766	1330	1050	1810	3820	712	265	2270
7	187	240	1250	240	746	1420	977	1580	5000	669	327	1030
8	182	232	1100	280	683	1280	868	1170	3630	603	300	726
9	159	232	1120	260	581	1170	737	930	2640	567	246	677
10	144	233	1500	230	655	1030	674	818	2540	513	214	552
11	187	261	1460	230	1090	1010	690	885	3160	524	280	375
12	191	283	1180	230	1880	1020	2250	1840	2580	464	194	281
13	196	248	1150	230	1440	1030	11600	1890	2030	410	197	221
14	187	231	1260	225	1300	1280	10100	1790	1980	367	217	220
15	173	222	1120	225	1200	1370	8310	1530	4680	313	196	269
16	173	237	1010	220	1030	1270	5720	1620	2510	287	206	603
17	173	247	719	210	1090	1280	3670	1600	1730	253	207	1040
18	168	319	603	200	1650	1160	3040	1360	1340	217	181	525
19	168	552	728	187	2500	1120	2620	1320	1090	214	152	399
20	164	445	656	191	4170	1030	2220	2750	2350	219	150	367
21	168	322	496	215	5430	940	2080	2940	2740	227	147	347
22	168	292	400	230	5000	871	1750	2310	2190	244	144	333
23	164	288	355	235	4660	832	1510	1900	2120	234	150	313
24	173	841	350	230	6020	822	1600	1730	1370	223	150	291
25	480	4020	380	210	4550	871	1830	1440	1020	330	150	275
26	871	2140	340	220	3430	851	1770	953	1560	320	147	273
27	620	1380	320	268	2840	1060	1610	1000	1620	364	141	269
28	375	1220	300	586	1890	3410	2060	1050	954	485	150	263
29	297	1220	342	728	---	2090	1690	3650	766	582	150	258
30	368	1060	355	765	---	1510	1520	3400	656	513	159	403
31	316	---	416	458	---	1480	---	3040	---	347	311	---
TOTAL	7648	18168	27820	9221	59421	42557	77946	56806	71236	14209	6520	18948
MEAN	247	606	897	297	2122	1373	2598	1832	2375	458	210	632
MAX	871	4020	1910	765	6020	3410	11600	3650	5000	1080	327	2990
MIN	144	218	300	187	420	822	674	818	656	214	141	220
CAL YR 1980	TOTAL	500192	MEAN	1367	MAX	10400	MIN	144	CFSM	1.56	IN	21.27
WTR YR 1981	TOTAL	410500	MEAN	1125	MAX	11600	MIN	141	CFSM	1.29	IN	17.45

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.--

SPECIFIC CONDUCTANCE: October 1979 to September 1981 (discontinued).

WATER TEMPERATURES: October 1964 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1964 to current year.

INSTRUMENTATION.--Water-quality monitor October 1979 to September 1981.

REMARKS.--Prior to October 1979 water temperatures were measured in field at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water Year 1980): Maximum, 954 micromhos Sept. 25, 1980; minimum, 152 micromhos May 23, 1980.

WATER TEMPERATURES (water Years 1965-80): 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, 2.1 tons (1.9 tonnes) Aug. 27, 1971.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 954 micromhos Sept. 25; minimum, 152 micromhos May 23.

WATER TEMPERATURES: Maximum daily, 30.5°C Aug. 7, 8, 10; minimum daily, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 347 mg/L Apr. 13; minimum daily mean, 3 mg/L Dec. 28.

SEDIMENT LOADS: Maximum daily, 11,400 tons (10,300 tonnes) Apr. 13; minimum daily, 2.4 tons (2.2 tonnes).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)
OCT											
23...	1215	170	1050	6.9	15.0	11.6	9.0	120	300	250	.0
NOV											
18...	1130	316	819	7.0	3.5	4.1	12.0	--	230	190	--
DEC											
16...	1400	988	361	6.7	3.0	2.3	14.8	--	93	72	--
MAR											
04...	1115	1880	233	6.6	1.0	3.0	13.0	5	70	--	.0
APR											
06...	1515	1050	366	6.7	4.0	13.1	--	--	140	120	.0
JUN											
19...	1030	1060	298	6.2	28.0	21.1	8.9	4	--	--	.0
JUL											
23...	1000	235	1080	7.1	20.0	22.0	7.4	--	--	--	.0
AUG											
25...	1030	129	1175	7.1	20.0	20.3	6.8	--	430	370	.0

DATE	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT											
23...	.0	98	14	85	37	2.1	5.6	--	66	230	140
NOV											
18...	--	74	11	71	40	2.0	4.0	--	--	180	110
DEC											
16...	--	29	5.1	22	33	1.0	1.8	--	23	71	31
MAR											
04...	.0	20	4.8	10	23	.5	1.2	.90	--	55	16
APR											
06...	.0	46	6.9	15	18	.5	1.7	1.3	18	97	30
JUN											
19...	.0	--	--	--	--	--	--	--	18	100	--
JUL											
23...	.0	--	--	--	--	--	--	--	59	260	--
AUG											
25...	.0	140	20	91	31	1.9	4.8	--	64	330	160

POTOMAC RIVER BASIN

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)
OCT 23...	.1	6.7	713	616	.97	327	.35	.34	.150	.46
NOV 18...	.1	5.3	536	480	.73	457	.40	--	.100	.31
DEC 16...	.1	5.3	205	178	.28	547	--	--	--	--
MAR 04...	<.1	5.5	135	130	.18	685	.99	.97	.040	.12
APR 06...	.1	5.2	226	214	.31	641	--	--	--	--
JUN 19...	--	--	250	--	.34	715	.53	--	--	--
JUL 23...	--	--	771	--	1.1	489	--	--	--	--
AUG 25...	.2	5.0	933	791	1.3	325	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 23...	570	360	210	680	90	590
NOV 18...	500	320	180	540	10	530
DEC 16...	520	440	80	400	20	380
MAR 04...	530	460	70	260	20	240
APR 06...	480	380	100	410	0	450
JUN 19...	580	520	60	440	40	400
JUL 23...	430	320	110	590	120	470
AUG 25...	790	560	230	840	60	780

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CR)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 25...	2	<1	100	<1	<1	10	5	30	6	63

DATE	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN)	COAL IN BOTTOM MATE- RIAL (GM/KG)
AUG 25...	6700	750	1	50	.1	<.01	<1	<1	<1	50	110	16.0

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	9	4.1	--	APR 13...	378	11800	81
NOV 18...	42	36	--				

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (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
APR 13...	1600	11600	378	11800	36	46	61

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
APR 13...	71	81	91	96	99	100

POTOMAC RIVER BASIN

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	909	828	881	698	593	622	390	261	308			
2	887	853	870	620	608	614	266	222	239			
3	885	856	876	656	624	637	265	226	243			
4	878	825	853	696	662	678	243	201	218			
5	885	842	864	736	706	720	221	198	209			
6	893	835	855	758	734	745	240	229	235			
7	906	866	884	789	761	770	261	247	254			
8	977	864	895	868	799	837	314	271	284			
9	999	761	893	875	711	769	322	285	308			
10	974	909	932	728	707	716	345	278	312			
11	979	902	940	807	738	759	343	280	307			
12	978	942	955	908	801	861	300	297	298			
13	1050	965	1010	929	905	921	326	308	316			
14	1000	892	923	902	789	822	353	331	347			
15	897	873	881	853	816	843	354	328	341			
16	914	866	884	855	831	846	377	357	363			
17	883	859	870	833	805	822	428	403	418			
18	918	888	903	856	807	822	496	425	453			
19	916	881	897	842	794	812	535	517	525			
20	915	897	910	792	626	717	582	563	573			
21	983	902	941	612	577	595	609	375	470			
22	989	926	985	566	254	304	407	400	403			
23	---	947	---	260	246	253	431	425	428			
24	1010	953	986	265	248	256	458	450	454			
25	981	302	620	262	246	251	475	473	474			
26	604	302	442	239	227	233	513	498	500			
27	570	460	490	259	214	217	834	522	551			
28	472	455	463	273	249	261	551	547	548			
29	514	466	486	284	241	265	579	572	575			
30	607	507	556	278	265	272	---	---	---			
31	708	616	664	---	---	---	---	---	---			
MONTH	1050	302	820	929	214	608	834	198	378			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	259	220	237	331	258	269			
2	---	---	---	252	219	231	288	260	274			
3	367	250	299	239	223	231	347	278	291			
4	269	206	241	239	230	234	368	301	313			
5	246	222	235	292	231	249	353	335	340			
6	251	217	237	269	245	256	389	365	373			
7	286	227	260	280	260	270	378	352	363			
8	342	257	296	275	253	265	368	352	358			
9	398	323	359	282	258	273	383	356	362			
10	418	365	401	284	271	277	400	369	378			
11	477	175	322	293	278	288	429	399	413			
12	305	178	236	299	273	288	424	271	375			
13	229	203	209	299	281	292	306	238	251			
14	211	197	204	294	263	279	---	---	---			
15	222	204	215	284	256	270	---	---	---			
16	227	216	223	275	253	260	---	---	---			
17	250	225	239	263	244	253	---	---	---			
18	241	220	230	263	237	248	---	---	---			
19	219	199	205	270	240	252	---	---	---			
20	212	173	190	285	250	263	---	---	---			
21	196	169	183	296	254	282	---	---	---			
22	209	179	193	311	287	297	---	---	---			
23	223	171	200	308	279	297	---	---	---			
24	187	156	174	319	297	309	---	---	---			
25	189	153	179	334	308	320	---	---	---			
26	218	154	195	315	293	309	---	---	---			
27	214	182	197	398	312	330	---	---	---			
28	256	196	222	413	229	277	---	---	---			
29	---	---	---	294	206	230	---	---	---			
30	---	---	---	265	245	254	---	---	---			
31	---	---	---	343	258	271	---	---	---			
MONTH	477	153	236	413	206	271	429	238	335			

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1				---	---	---	819	746	800	819	568	631
2				---	---	---	874	819	859	713	283	566
3				---	---	---	877	758	823	517	407	464
4				---	---	---	880	796	848	593	441	503
5				---	---	---	933	865	904	442	394	417
6				---	---	---	993	916	965	426	374	413
7				501	389	473	959	884	932	419	387	412
8				531	488	511	974	897	940	457	395	433
9				571	502	548	993	907	962	419	358	374
10				612	542	582	967	923	951	413	385	404
11				635	558	608	970	758	896	442	414	433
12				629	566	610	898	855	879	481	444	463
13				621	600	612	975	877	934	541	484	522
14				638	599	622	990	920	967	619	545	593
15				675	639	660	1000	926	983	652	618	637
16				732	684	720	987	854	932	648	515	567
17				816	739	784	871	837	850	680	482	568
18				833	731	811	948	874	922	522	421	440
19				908	815	869	987	917	958	457	435	444
20				1030	861	967	1020	962	985	541	442	499
21				1050	899	982	1020	858	1000	634	537	565
22				1000	909	955	1040	861	1010	658	561	599
23				1090	959	1060	1120	1050	1090	646	596	623
24				1100	1030	1060	1130	1100	1120	689	623	655
25				1090	956	1020	---	1130	---	653	592	628
26				1090	959	1020	---	1310	---	663	565	599
27				970	909	945	---	1210	---	738	654	688
28				992	793	920	---	1210	---	723	686	697
29				891	761	831	---	1210	---	813	691	757
30				842	753	807	---	934	---	792	739	771
31				758	737	749	1030	878	960	---	---	---
MONTH				1100	389	789	1130	746	939	819	283	546

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.0	16.5	18.5	10.5	7.5	8.5	7.5	3.5	5.0			
2	16.5	15.0	16.0	9.5	7.0	8.0	7.0	5.5	6.0			
3	16.5	14.5	15.5	10.0	6.0	8.0	6.0	4.0	5.0			
4	15.0	13.5	14.5	9.5	7.5	8.5	4.5	3.5	4.0			
5	14.5	12.5	13.5	9.0	8.0	8.5	5.0	4.0	4.5			
6	14.5	10.5	13.0	9.0	6.0	7.5	7.0	5.5	6.0			
7	14.5	11.5	13.0	9.0	6.5	7.5	10.0	7.5	8.5			
8	15.5	11.0	13.5	10.5	8.0	9.0	13.0	10.5	12.0			
9	15.0	12.5	14.0	10.5	8.5	9.5	13.5	13.0	13.5			
10	15.0	13.0	13.5	9.5	7.0	8.5	13.0	11.5	12.0			
11	16.0	12.5	14.0	7.0	5.0	6.0	13.5	9.5	10.5			
12	14.0	12.0	12.5	7.0	4.0	5.5	8.5	8.0	8.0			
13	12.0	10.5	11.5	7.0	4.5	5.5	8.0	7.0	7.5			
14	12.0	9.5	11.0	6.5	4.5	5.5	6.0	4.5	5.5			
15	13.5	10.0	11.5	7.0	6.0	6.5	3.5	3.0	3.0			
16	14.5	10.5	12.5	7.5	6.0	7.0	2.5	1.5	2.0			
17	15.5	14.0	13.5	6.5	2.5	4.5	2.5	1.0	2.0			
18	15.0	14.0	14.5	4.0	2.5	3.0	3.0	1.5	2.5			
19	16.0	14.0	15.0	4.5	3.0	3.5	3.5	2.5	3.5			
20	15.0	12.5	13.0	5.0	3.0	3.5	2.5	.5	2.0			
21	15.0	12.5	13.5	4.0	2.0	3.0	2.0	1.0	1.5			
22	15.0	12.0	13.5	---	---	---	2.5	.0	1.5			
23	13.0	10.5	12.0	---	---	---	2.0	1.5	2.0			
24	12.0	9.5	11.0	---	---	---	2.0	1.5	1.5			
25	11.5	9.0	10.5	---	---	---	2.0	1.0	1.5			
26	8.5	7.0	8.0	---	---	---	3.0	1.5	2.5			
27	8.5	7.0	7.5	---	---	---	3.0	2.5	1.5			
28	8.5	7.5	8.0	3.5	3.0	3.5	2.5	2.0	2.5			
29	9.5	7.0	8.0	4.0	3.0	3.5	1.5	1.0	1.5			
30	10.0	7.0	8.0	5.0	3.5	4.0	---	---	---			
31	10.0	7.0	8.0	---	---	---	---	---	---			
MONTH	22.0	7.0	12.5	10.5	2.0	6.2	13.5	.0	5.0			

POTOMAC RIVER BASIN

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	6.5	5.5	6.0	12.0	9.5	11.0			
2	---	---	---	5.5	4.0	5.0	13.0	8.5	10.5			
3	4.0	1.0	3.0	5.0	3.5	4.0	13.5	9.5	11.5			
4	5.5	2.0	3.0	3.5	3.0	3.5	15.0	11.5	13.5			
5	4.0	2.0	3.0	4.0	2.5	3.0	15.0	13.0	14.0			
6	4.5	2.5	3.0	5.0	3.0	4.0	13.0	9.5	11.0			
7	4.0	2.5	3.0	4.5	3.5	4.0	12.0	8.0	10.0			
8	4.0	2.5	3.0	4.5	3.5	4.0	14.5	9.0	11.5			
9	7.5	2.5	3.5	5.5	4.0	4.5	14.0	11.5	13.0			
10	7.5	2.5	3.5	6.0	4.5	5.0	15.0	10.0	12.5			
11	4.5	.0	3.0	6.5	5.0	5.5	17.0	12.5	14.5			
12	4.5	.0	2.0	7.5	4.5	6.0	15.0	11.0	14.5			
13	3.0	1.5	2.0	8.0	4.0	6.5	11.5	8.0	10.5			
14	2.5	1.5	2.0	7.0	5.0	5.5	---	---	---			
15	3.5	2.0	2.5	6.0	3.5	5.0	---	---	---			
16	4.0	2.0	3.5	5.5	4.0	5.0	---	---	---			
17	4.5	3.0	4.0	4.0	2.5	3.5	---	---	---			
18	5.0	3.0	4.0	4.0	.0	2.5	---	---	---			
19	3.5	2.0	3.0	3.5	2.0	3.0	---	---	---			
20	5.5	4.0	5.0	4.5	2.0	3.0	---	---	---			
21	6.0	5.0	5.5	5.0	3.5	4.0	---	---	---			
22	6.5	5.0	6.0	5.5	3.5	4.5	---	---	---			
23	8.0	4.5	6.5	7.5	4.5	6.5	---	---	---			
24	6.0	5.0	5.5	8.0	5.5	7.0	---	---	---			
25	6.0	4.5	5.0	8.0	6.0	7.5	---	---	---			
26	6.0	4.0	5.0	8.0	5.5	7.0	---	---	---			
27	6.0	4.0	5.0	10.5	7.5	9.0	---	---	---			
28	6.0	4.5	5.0	10.5	6.0	7.5	---	---	---			
29	---	---	---	9.5	5.5	7.5	---	---	---			
30	---	---	---	11.0	7.0	9.5	---	---	---			
31	---	---	---	13.5	8.5	11.5	---	---	---			
MONTH	8.0	.0	4.0	13.5	.0	5.5	17.0	8.0	12.0			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1				---	---	---	25.0	20.5	22.5	22.5	20.5	21.0
2				---	---	---	25.0	20.5	22.5	22.0	20.5	21.5
3				---	---	---	24.0	21.5	22.5	20.0	19.5	19.5
4				---	---	---	25.5	22.0	23.5	19.5	18.0	19.0
5				---	---	---	26.5	22.5	24.5	19.0	17.5	18.0
6				---	---	---	24.5	22.0	23.0	19.0	18.0	18.5
7				27.0	22.5	23.5	24.0	20.0	22.5	20.5	18.0	19.0
8				25.5	22.0	23.5	25.5	21.5	23.5	20.5	19.0	19.5
9				27.5	23.5	25.0	25.5	22.0	23.5	20.5	17.5	18.5
10				27.5	25.0	26.0	26.5	21.5	24.0	20.5	16.5	18.5
11				27.0	24.0	25.0	26.5	20.5	23.5	21.5	17.5	19.0
12				26.5	23.0	24.5	25.5	22.5	24.0	23.5	18.5	20.5
13				25.5	23.0	24.0	25.0	22.0	23.5	24.0	20.0	21.5
14				25.0	23.0	24.0	25.5	21.5	23.5	24.0	20.0	22.0
15				26.0	21.5	23.5	30.5	22.5	23.5	23.0	20.5	21.5
16				23.5	21.5	22.5	24.5	22.0	23.0	20.5	18.0	19.0
17				25.0	20.5	22.5	24.0	19.5	22.0	20.0	17.5	18.5
18				27.0	21.0	23.5	23.5	20.0	21.5	19.5	16.5	17.5
19				30.0	21.5	24.5	22.5	20.0	21.5	16.5	15.0	16.0
20				32.0	23.0	28.5	23.0	21.0	21.5	17.0	14.5	15.5
21				32.5	31.0	32.0	22.5	21.0	21.5	19.0	14.5	16.5
22				31.0	29.5	30.5	23.0	21.0	21.5	19.5	16.5	17.5
23				31.5	29.5	31.0	23.0	20.0	22.5	17.5	15.5	16.5
24				31.5	30.5	31.5	---	---	---	18.5	15.0	16.5
25				32.0	31.5	31.5	---	---	---	19.0	14.0	16.5
26				31.5	31.5	31.5	---	---	---	20.0	15.5	17.5
27				31.5	23.0	29.0	---	---	---	20.0	16.5	18.0
28				30.5	22.5	27.5	---	---	---	19.0	16.0	17.5
29				22.5	21.0	22.0	---	---	---	18.0	14.5	16.5
30				23.5	20.5	21.5	---	---	---	17.5	15.5	16.5
31				24.0	20.5	22.0	---	---	---	---	---	---
MONTH				32.5	20.5	26.0	30.5	19.5	23.0	24.0	14.0	18.5

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

TOTAL LOAD FOR YEAR: 67520.5 TONS.

POTOMAC RIVER BASIN

01603500 EVITTS CREEK NEAR CENTERVILLE, PA

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, Hydrologic Unit 02070002, on left bank 2.0 mi (3.2 km) upstream from Thomas W. Koon Dam, 3.0 mi (4.8 km) south of Centerville, 7.0 mi (11.3 km) upstream from Rock Gully Creek, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--30.2 mi² (78.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley."

REVISED RECORDS.--WSP 781: 1933(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft (313.209 m) City of Cumberland datum.

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

AVERAGE DISCHARGE.--49 years, 32.3 ft³/s (0.915 m³/s), 14.52 in/yr (369 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,240 ft³/s (148 m³/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurements at gage heights 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum discharge, 0.70 ft³/s (0.020 m³/s) Dec. 17, 1958, gage height, 0.79 ft (0.241 m), result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 8 ft (2.4 m), from floodmark, date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 13	0345	849 24.0	3.45 1.052	July 3	0315	400 11.3	2.80 0.853
June 20	0245	*869 24.6	3.39 1.033				

Minimum discharge, 3.3 ft³/s (0.093 m³/s) Aug. 29, 30, gage height 1.12 ft (0.341 m).

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	4.4	5.1	17	7.6	13	49	22	33	61	24	6.9	30
2	4.4	4.8	52	7.0	72	42	26	32	59	56	6.6	25
3	4.8	4.8	42	6.6	34	37	22	27	58	142	13	62
4	4.8	5.1	37	6.8	35	33	22	25	91	51	9.6	84
5	4.4	4.8	31	6.2	42	34	25	24	82	39	7.7	90
6	4.2	4.6	28	5.8	48	32	23	24	61	34	8.8	47
7	4.2	4.6	25	5.6	40	29	21	23	52	28	9.2	32
8	4.2	5.4	30	5.7	32	27	20	21	44	25	7.8	27
9	4.2	5.6	50	5.8	27	27	20	20	42	22	6.5	35
10	4.0	6.5	42	6.2	26	29	19	20	51	20	5.8	30
11	4.2	5.1	38	5.8	84	30	25	100	42	18	5.4	25
12	4.0	4.6	35	5.8	50	28	212	163	30	17	5.4	19
13	4.0	4.6	29	6.0	53	26	518	82	27	15	5.0	16
14	4.0	4.6	22	6.0	54	25	368	64	55	16	4.9	14
15	4.2	4.6	23	6.1	47	23	234	123	37	14	7.8	18
16	4.0	5.4	24	6.0	37	26	152	105	26	13	6.1	42
17	4.0	5.9	11	6.4	29	26	120	66	23	12	4.9	32
18	4.2	12	9.0	5.8	24	24	97	56	21	11	4.5	25
19	4.4	11	8.0	5.8	28	23	74	57	40	10	4.2	21
20	4.2	9.2	7.0	5.6	127	22	64	50	433	9.6	4.0	19
21	4.2	8.8	6.4	6.6	142	22	52	42	104	9.8	4.0	17
22	4.0	9.9	6.8	7.2	97	22	46	36	105	10	3.9	15
23	4.0	9.2	8.5	6.8	160	22	45	32	67	9.6	3.9	13
24	4.0	80	7.2	6.6	146	20	49	30	50	9.9	3.8	12
25	37	38	7.0	6.4	97	19	43	27	56	10	3.8	11
26	16	18	7.2	6.4	71	18	36	28	60	10	3.7	10
27	8.1	14	6.8	6.4	56	19	34	30	37	14	3.6	9.8
28	6.8	18	7.6	6.7	51	18	31	47	31	12	3.5	9.4
29	5.9	15	8.8	7.2	---	17	31	244	27	12	3.4	9.0
30	5.4	13	8.2	6.9	---	19	31	92	25	9.0	4.5	8.8
31	5.4	---	8.0	6.5	---	19	---	90	---	7.6	15	---
TOTAL	185.6	342.2	642.5	196.3	1722	807	2482	1813	1897	690.5	187.2	808.0
MEAN	5.99	11.4	20.7	6.33	61.5	26.0	82.7	58.5	63.2	22.3	6.04	26.9
MAX	37	80	52	7.6	160	49	518	244	433	142	15	90
MIN	4.0	4.6	6.4	5.6	13	17	19	20	21	7.6	3.4	8.8
CFSM	.20	.38	.69	.21	2.04	.86	2.74	1.94	2.09	.74	.20	.89
IN.	.23	.42	.79	.24	2.12	.99	3.06	2.23	2.34	.85	.23	1.00

CAL YR 1980	TOTAL	11738.9	MEAN 32.1	MAX 406	MIN 4.0	CFSM 1.06	IN 14.46
WTR YR 1981	TOTAL	11773.3	MEAN 32.3	MAX 518	MIN 3.4	CFSM 1.07	IN 14.50

01603500 EVITTS CREEK NEAR CENTERVILLE, PA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1980 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (UMHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ACIDITY (MG/L AS H) (71825)	ACIDITY (MG/L AS CAC03) (00435)	ALKA- LITY FIELD (MG/L AS CAC03) (00410)	SULFATE DIS- SOLVED (MG/L AS S04) (00945)
DEC 15...	1430	10	184	8.0	-2.0	.6	14.5	.0	.0	80	17
AUG 24...	1430	3.8	221	8.0	22.0	18.0	9.5	.0	.0	103	8.9

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)
DEC 15...	122	.17	3.3	--	--	--	--	--	--	--
AUG 24...	153	.21	1.6	1	<1	100	1	<1	20	4

DATE	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE) (01044)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
DEC 15...	--	--	--	200	150	50	--	--	--	10
AUG 24...	10	3	2	180	140	40	3100	1	<10	20

DATE	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN) (01054)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)
DEC 15...	0	20	--	--	--	--	--	--	--	--
AUG 24...	10	10	140	<.1	<.01	<1	<1	<1	30	16

POTOMAC RIVER BASIN

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 mi² (3,810 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for Dec. 21 to Feb. 10, which are fair. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--57 years (water years 1900-01, 1904-05, 1929-81), 1,294 ft³/s (36.65 m³/s), 11.95 in/yr (304 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 143,000 ft³/s (4,050 m³/s) Mar. 18, 1936, gage height, 34.2 ft (10.42 m), from rating curve extended above 28,000 ft³/s (793 m³/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 ft³/s (0.82 m³/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 ft³/s (3,960 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,700 ft³/s (218 m³/s) June 11, gage height, 8.16 ft (2.487 m), no peak above base of 10,000 ft³/s (280 m³/s); minimum discharge, 56 ft³/s (1.59 m³/s) Aug. 27, gage height, 1.28 ft (0.390 m).

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	154	240	604	299	248	1240	1530	931	2460	389	239	93
2	150	222	537	293	326	1230	1310	1930	2060	435	205	231
3	154	207	570	317	599	1080	1200	1720	2110	654	190	568
4	154	201	890	321	924	950	1030	1370	2660	718	190	729
5	158	197	842	175	584	880	897	1130	2640	689	186	842
6	154	194	722	226	531	854	816	957	3340	647	186	690
7	150	194	644	237	457	825	772	875	5720	1150	216	506
8	147	197	593	266	462	753	704	799	4090	1040	240	397
9	144	194	559	279	435	697	645	693	2800	790	255	483
10	144	194	532	286	420	671	612	616	2670	640	236	474
11	144	197	586	270	436	643	628	583	6200	538	201	391
12	144	197	577	239	3080	612	771	874	3830	475	175	321
13	140	205	526	248	1900	576	2260	963	2700	420	164	283
14	137	205	487	248	1310	541	2200	798	2750	385	154	254
15	134	197	450	285	1120	526	2020	720	3240	361	147	240
16	134	205	416	298	839	523	1760	984	2140	338	147	371
17	134	212	395	297	723	509	1470	1030	1580	311	144	1380
18	134	279	382	285	730	502	1290	885	1220	288	134	873
19	134	575	362	284	972	487	1240	1030	958	270	128	572
20	131	664	337	293	1670	478	1190	5170	1930	257	125	440
21	131	490	316	303	3570	457	1290	6270	2390	260	119	372
22	131	395	275	301	3780	439	1360	3980	1660	234	113	328
23	131	354	248	304	2850	428	1300	2720	1250	237	107	289
24	131	566	240	294	3390	402	1220	2010	968	248	105	255
25	190	2080	234	266	3340	395	1110	1570	764	232	100	229
26	270	1730	248	270	2440	409	1010	1260	657	234	99	210
27	334	1140	270	270	1830	466	916	1050	613	311	81	197
28	375	888	288	266	1460	1580	1080	968	541	270	93	184
29	292	782	306	284	---	2050	1070	2740	465	285	91	174
30	253	689	296	221	---	1660	967	3780	420	249	91	163
31	250	---	266	186	---	1650	---	2940	---	243	98	---
TOTAL	5363	14090	13998	8411	40426	24513	35668	53346	66826	13598	4759	12539
MEAN	173	470	452	271	1444	791	1189	1721	2228	439	154	418
MAX	375	2080	890	321	3780	2050	2260	6270	6200	1150	255	1380
MIN	131	194	234	175	248	395	612	583	420	232	81	93
CFSM	.12	.32	.31	.18	.98	.54	.81	1.17	1.52	.30	.11	.28
IN.	.14	.36	.35	.21	1.02	.62	.90	1.35	1.69	.34	.12	.32
CAL YR 1980	TOTAL	527141	MEAN	1440	MAX	19200	MIN	131	CFSM	.98	IN	13.33
WTR YR 1981	TOTAL	293537	MEAN	804	MAX	6270	MIN	81	CFSM	.55	IN	7.42

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1963, 1965, 1969, 1976 to September 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 22...	0945	133	260	7.8	13.0	130	.0	--	41	6.6	3.1	.1
DEC 16...	1315	410	190	8.2	3.5	87	.0	--	28	4.0	2.5	.1
JAN 29...	1230	286	210	7.0	.5	130	.0	--	41	5.7	3.2	.1
MAR 17...	1620	533	220	8.0	4.0	81	.0	--	25	4.6	3.0	.1
MAY 13...	1245	911	200	7.4	14.5	76	.0	--	23	4.6	4.1	.2
JUL 20...	1445	252	235	7.9	28.0	110	.0	.0	36	5.2	3.2	.1
AUG 25...	1330	102	274	8.0	22.0	120	.0	.0	38	6.3	2.0	.1
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2)	
OCT 22...	1.6	--	32	3.8	.0	.7	161	--	57.8	--	--	
DEC 16...	--	--	25	3.1	--	.3	103	--	--	--	--	
JAN 29...	--	--	30	3.5	--	<.0	144	--	--	<.010	.03	
MAR 17...	--	--	26	3.6	--	--	124	--	--	--	--	
MAY 13...	--	--	27	3.3	--	5.3	111	--	--	<.010	--	
JUL 20...	--	100	22	3.4	--	--	142	.19	96.6	--	--	
AUG 25...	--	110	28	19	--	5.5	187	.25	51.5	<.010	--	
DATE	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)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	
OCT 22...	--	--	--	--	--	--	--	--	--	--	230	
DEC 16...	--	--	--	--	--	40	<1	1	<3	<10	90	
JAN 29...	.26	.080	.10	.010	.03	60	<1	3	<3	<10	120	
MAR 17...	--	--	--	--	--	--	--	--	--	--	220	
MAY 13...	.42	.070	.09	<.010	--	60	<1	<1	<3	<10	380	
JUL 20...	--	--	--	--	--	--	--	--	--	--	380	
AUG 25...	<.01	<.010	.01	<.010	--	60	1	1	3	10	290	

POTOMAC RIVER BASIN

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, SUS- PENDE REC OV- 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 REC OV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE REC OV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM. DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 22...	200	30	--	--	20	20	2	--	--	--	--
DEC 16...	70	23	13	<4	10	6	4	<10	200	<6.0	17
JAN 29...	--	<10	16	6	<10	--	6	15	330	<6.0	20
MAR 17...	--	<10	--	--	20	20	5	--	--	--	--
MAY 13...	330	50	<10	<4	40	30	10	<10	180	<6.0	7
JUL 20...	360	20	--	--	30	30	5	--	--	--	--
AUG 25...	280	9	10	4	40	40	5	10	410	6.0	43

01609000 TOWN CREEK NEAR OLDTOWN, MD

LOCATION.--Lat 39°33'12", long 78°33'19", Allegany County, Hydrologic Unit 02070003, on left bank at downstream side of bridge on Pack Horse Trail (formerly Oldtown Road), 0.4 mi (0.6 km) northeast of Maryland State Highway 51, 2.0 mi (3.2 km) upstream from mouth of Sawpit Run, 3.0 mi (4.8 km) northeast of Oldtown, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--148 mi² (383 km²).

PERIOD OF RECORD.--July 1928 to September 1935, June 1967 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 547.97 ft (167.021 m) National Geodetic Vertical Datum of 1929. July 1928 to September 1935, nonrecording gage on upstream side of highway bridge at datum 0.08 ft (0.024 m) lower.

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

AVERAGE DISCHARGE.--21 years (water years 1929-35, 1968-81), 159 ft³/s (4.503 m³/s), 14.59 in/yr (371 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s (331 m³/s) June 22, 1972, gage height, 14.13 ft (4.307 m); minimum discharge, 0.9 ft³/s (0.025 m³/s) Aug. 2, 3, 7-14, 1930, gage height, 1.49 ft (0.454 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 17 or 18, 1936, reached a stage of 19.08 ft (5.816 m), from floodmarks, discharge, 27,000 ft³/s (765 m³/s), from rating curve extended above 9,500 ft³/s (269 m³/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 20	1800	Unknown	10.06 3.066	May 12	0045	1980 56.1	8.20 2.499
Apr. 13	1345	*4020 114	10.87 3.313				

a Ice jam.

Minimum discharge, 6.4 ft³/s (0.18 m³/s) Aug. 23, gage height, 1.86 ft (0.567 m).

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	8.0	13	55	28	30	213	75	107	233	42	20	20
2	8.0	12	49	26	200	181	106	154	205	43	18	33
3	8.4	12	65	24	160	160	100	128	203	187	16	81
4	8.4	12	72	24	100	138	92	114	255	154	26	82
5	7.8	12	62	23	80	140	92	109	337	132	28	69
6	7.6	12	56	22	70	136	91	104	264	107	22	54
7	7.8	13	51	22	65	119	81	102	248	84	23	36
8	7.6	13	47	24	60	111	76	88	177	66	23	45
9	7.6	10	44	24	55	109	74	80	158	53	20	107
10	7.7	11	76	22	55	143	74	76	188	47	18	68
11	7.7	11	88	20	350	164	72	585	211	40	16	42
12	7.4	11	71	20	300	178	433	1420	139	35	15	32
13	7.0	11	63	20	200	168	2780	635	113	32	14	26
14	7.0	13	56	20	150	153	1810	396	125	32	14	23
15	7.0	12	48	20	120	138	1290	340	128	30	13	22
16	7.0	13	43	20	110	136	725	431	93	27	12	45
17	7.4	15	43	20	110	140	508	288	74	26	14	116
18	7.7	28	39	19	240	118	407	233	64	25	16	59
19	8.4	40	39	19	550	120	305	230	58	22	14	42
20	8.8	37	28	19	1510	107	269	232	175	21	12	35
21	8.8	30	26	19	915	102	220	186	132	21	11	31
22	8.1	26	32	20	591	94	190	156	107	21	10	27
23	9.2	27	32	22	573	88	178	133	109	19	8.8	24
24	9.2	332	34	22	754	84	178	115	81	20	8.7	21
25	25	409	29	20	499	79	159	102	68	21	8.4	20
26	107	155	28	20	346	75	135	91	81	21	8.3	18
27	44	96	28	20	261	71	125	87	72	25	8.1	18
28	27	80	30	50	220	70	114	106	55	24	8.1	16
29	20	76	31	44	---	65	106	333	48	32	8.0	14
30	17	65	33	36	---	67	109	255	43	29	7.6	14
31	15	---	30	32	---	78	---	317	---	24	16	---
TOTAL	444.6	1607	1428	741	8674	3745	10974	7733	4244	1462	457.0	1240
MEAN	14.3	53.6	46.1	23.9	310	121	366	249	141	47.2	14.7	41.3
MAX	107	409	88	50	1510	213	2780	1420	337	187	28	116
MIN	7.0	10	26	19	30	65	72	76	43	19	7.6	14
CFSM	.10	.36	.31	.16	2.10	.82	2.47	1.68	.95	.32	.10	.28
IN.	.11	.40	.36	.19	2.18	.94	2.76	1.94	1.07	.37	.11	.31

CAL YR 1980	TOTAL	51814.4	MEAN 142	MAX 1580	MIN 7.0	CFSM .96	IN 13.02
WTR YR 1981	TOTAL	42749.6	MEAN 117	MAX 2780	MIN 7.0	CFSM .79	IN 10.75

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 mi² (8,052 km²).

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 winter periods, which are fair. Low flow affected 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.--43 years, 3,258 ft³/s (92.27 m³/s), 14.23 in/yr (361 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft³/s (3,140 m³/s) Oct. 16, 1942, gage height, 38.36 ft (11.692 m); minimum discharge, 164 ft³/s (4.64 m³/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 ft³/s (6,800 m³/s), from rating curve extended above 85,000 ft³/s (2,410 m³/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.--Maximum discharge, 25,100 ft³/s (711 m³/s) Apr. 13, gage height, 17.38 ft (5.297 m), no other peak above base of 20,000 ft³/s (560 m³/s); minimum discharge, 269 ft³/s (7.62 m³/s) Aug. 28, gage height, 3.14 ft (0.957 m).

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	466	649	2330	900	1000	4440	3520	3050	6420	1330	713	636
2	452	590	2090	800	2300	4610	3230	5070	5560	1290	615	1100
3	463	548	2390	750	3000	3900	3130	5320	5350	2060	557	2280
4	462	528	3270	700	2500	3600	2760	4260	6420	2360	623	2260
5	454	512	2870	600	2300	3190	2550	3620	8160	2070	607	4110
6	452	495	2540	450	1900	3020	2440	3500	7770	1880	571	3630
7	440	495	2300	470	1800	2970	2340	3210	11300	2020	628	2500
8	432	523	2130	500	1650	2840	2140	2790	9140	2160	714	1620
9	421	512	1980	550	1450	2680	1960	2360	6450	1820	686	1570
10	404	511	2190	500	1600	2620	1770	2080	5680	1550	635	1570
11	388	503	2610	550	2220	2570	1740	2590	9840	1370	568	1240
12	417	542	2280	530	5200	2540	2920	5930	7560	1240	510	964
13	422	557	2060	500	5140	2430	18900	4860	5610	1090	452	750
14	419	534	2060	420	3910	2430	18400	3780	5040	977	447	653
15	407	517	1970	480	3360	2630	14700	3390	8720	847	452	628
16	398	518	1800	500	2720	2480	10400	4140	5940	777	436	1000
17	397	537	1570	490	2350	2480	7370	3860	4170	699	430	2610
18	395	676	1270	450	2610	2350	5960	3310	3330	646	425	2490
19	390	980	1240	400	3580	2200	5250	3290	2780	607	395	1580
20	383	1590	1250	450	6520	2100	4610	7770	4280	591	353	1230
21	378	1250	980	500	10800	1940	4420	10700	5970	592	342	1040
22	375	975	831	550	11800	1820	4070	7860	4600	595	333	948
23	375	865	780	570	9280	1710	3730	5640	4170	566	320	844
24	375	2050	800	540	11100	1640	3600	4610	3150	587	321	750
25	533	6630	700	500	10200	1640	3690	3820	2480	692	317	666
26	1260	5470	600	520	7490	1640	3500	2990	2460	685	311	641
27	1350	3570	550	640	6090	1690	3190	2800	2890	768	305	604
28	1060	2880	650	1300	4550	3860	3580	2760	2130	937	280	563
29	824	2640	750	1850	---	5010	3420	6010	1740	1090	301	551
30	698	2400	800	1950	---	3810	3110	8640	1490	1100	298	592
31	725	---	950	1150	---	3640	---	7150	---	799	437	---
TOTAL	16415	41047	50591	21060	128420	86480	152400	141160	160600	35795	14382	41620
MEAN	530	1368	1632	679	4586	2790	5080	4554	5353	1155	464	1387
MAX	1350	6630	3270	1950	11800	5010	18900	10700	11300	2360	714	4110
MIN	375	495	550	400	1000	1640	1740	2080	1490	566	280	551
CAL YR 1980 TOTAL	1276057			3486		32300		375	1.12	15.27		
WTR YR 1981 TOTAL	889970			2438		18900		280	.78	10.65		

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 mi² (10,549 km²).

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 winter periods, which are fair. Slight regulation at low flow from power plants upstream. 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 Reservoir (see station 01595800). Several observations of water temperature were made during the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--49 years, 4,129 ft³/s (116.9 m³/s), 13.77 in/yr (350 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340,000 ft³/s (9,630 m³/s) Mar. 18, 1936, gage height, 47.6 ft (14.508 m), from rating curve extended above 120,000 ft³/s (3,400 m³/s) on basis of slope-area measurement of peak flow; minimum discharge observed, 180 ft³/s (5.10 m³/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 ft³/s (6,230 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,900 ft³/s (847 m³/s) April 14, gage height, 15.15 ft (4.618 m), no other peak above base of 23,000 ft³/s (650 m³/s); minimum discharge, 335 ft³/s (9.49 m³/s) Aug. 30, gage height, 2.39 ft (0.728 m).

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	582	1000	2970	1100	1200	5570	3830	3730	8530	1970	1070	425
2	560	919	2780	1050	2500	5260	3810	3780	7770	1760	869	585
3	537	837	2620	950	3500	5130	3670	5000	6780	1740	763	1050
4	526	767	2600	900	2900	4630	3560	5690	6430	2100	683	1960
5	526	713	2860	850	2600	4250	3340	5350	7930	2530	683	2410
6	526	668	2950	720	2200	3860	3100	4740	9610	2510	701	3740
7	522	632	2890	550	2100	3580	2930	4340	10400	2360	703	3720
8	518	613	2770	580	2000	3460	2790	3980	12100	2280	694	3150
9	513	612	2630	600	1800	3330	2620	3510	9240	2320	758	2680
10	505	612	2490	650	2000	3200	2430	2980	7970	2090	786	2380
11	497	601	2450	620	2600	3150	2220	2660	8680	1780	761	2200
12	481	594	2540	680	5600	3050	2230	3510	10500	1560	669	1970
13	471	596	2540	650	5500	3000	15000	5290	8570	1420	597	1590
14	471	625	2440	600	4300	3100	27100	5760	7230	1270	538	1220
15	471	629	2350	520	3800	3300	22000	5220	7530	1130	509	978
16	471	629	2270	580	3600	3100	15400	4750	9800	994	523	893
17	471	624	2140	620	3100	3100	10900	4960	7030	894	489	1020
18	471	662	1980	600	2800	2800	9030	4830	5150	817	476	2210
19	471	723	1750	540	3000	2600	8010	4360	4220	757	480	2750
20	466	863	1590	480	3900	2400	6940	4390	3620	715	454	2450
21	456	1220	1510	540	9360	2250	6100	12400	4200	717	419	2180
22	452	1370	1000	600	14400	2100	5610	10800	5230	705	400	1860
23	446	1320	844	650	13500	2000	5120	8770	5130	684	391	1520
24	445	1300	913	700	12700	1900	4730	7330	4720	669	381	1290
25	459	2360	936	650	13500	1900	4470	5990	3920	691	374	1130
26	554	5010	840	600	10900	1900	4350	4950	3200	756	374	1040
27	969	5540	720	700	9010	1950	4140	4110	2880	824	371	966
28	1390	4170	650	1500	7090	5500	3880	3620	2940	815	368	915
29	1390	3510	780	2100	---	5000	3990	3530	2580	988	355	871
30	1260	3210	880	2300	---	4400	3950	7740	2260	1180	347	812
31	1110	---	940	1350	---	4100	---	9270	---	1260	413	---
TOTAL	18987	42929	59623	25530	151460	104870	197250	167340	196150	42286	17399	51965
MEAN	612	1431	1923	824	5409	3383	6575	5398	6538	1364	561	1732
MAX	1390	5540	2970	2300	14400	5570	27100	12400	12100	2530	1070	3740
MIN	445	594	650	480	1200	1900	2220	2660	2260	669	347	425
CFSM	.15	.35	.47	.20	1.33	.83	1.61	1.33	1.61	.34	.14	.43
IN.	.17	.39	.54	.23	1.38	.96	1.80	1.53	1.79	.39	.16	.47

CAL YR 1980 TOTAL 1555623 MEAN 4250 MAX 35300 MIN 445 CFSM 1.04 IN 14.21
WTR YR 1981 TOTAL 1075789 MEAN 2947 MAX 27100 MIN 347 CFSM .72 IN 9.83

POTOMAC RIVER BASIN

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 mi² (1,279 km²).

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.--53 years, 592 ft³/s (16.76 m³/s), 16.27 in/yr (413 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s) June 23, 1972, gage height, 24.5 ft (7.47 m), from floodmark, from rating curve extended above 15,000 ft³/s (425 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 21 ft³/s (0.59 m³/s) Aug. 8, Sept. 12, 1966; minimum daily discharge, 25 ft³/s (0.71 m³/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 ft³/s (620 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft³/s (120 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 20	1400	4310 122	7.51 2.289	Apr. 13	1030	5270 149	8.36 2.548
Feb. 24	0215	*6500 184	9.30 2.835	Apr. 14	2400	4820 137	7.97 2.429

Minimum discharge, 73 ft³/s (2.07 m³/s) Oct. 12, gage height 1.21 ft (0.369 m).

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	94	101	250	100	90	1050	333	491	257	216	160	230
2	96	97	232	95	879	883	334	554	259	298	149	218
3	100	96	249	90	1400	783	317	471	269	821	162	166
4	100	99	232	90	628	700	304	418	303	874	294	160
5	94	99	211	85	458	699	311	393	384	934	242	213
6	94	97	192	85	420	685	309	377	304	629	197	185
7	94	96	186	85	350	644	292	373	262	481	175	162
8	91	98	179	80	277	621	270	346	237	390	164	149
9	91	98	178	80	241	667	264	322	226	338	162	155
10	86	102	207	80	229	698	279	309	307	302	149	149
11	84	101	204	80	1170	676	300	368	335	267	142	136
12	89	100	190	75	2360	626	1420	1420	272	248	142	124
13	78	96	180	75	855	578	4630	911	236	233	140	114
14	86	95	169	75	666	532	3870	680	1340	218	132	109
15	86	94	156	75	545	489	3840	597	903	204	140	116
16	83	92	157	75	475	488	2340	622	595	197	160	134
17	84	97	158	75	383	526	1820	538	446	192	142	162
18	86	156	140	80	351	471	1540	466	367	182	130	142
19	86	214	135	85	399	435	1250	437	323	178	124	128
20	81	181	135	90	3130	417	1090	418	604	180	118	116
21	80	157	130	100	2620	400	937	384	469	218	112	109
22	83	141	130	110	1560	376	825	349	596	202	111	107
23	81	134	140	110	3210	355	774	328	498	173	109	105
24	81	782	140	110	6210	340	776	308	381	166	107	100
25	126	1550	130	105	3030	321	710	292	323	175	105	94
26	284	691	120	100	1860	307	621	280	327	192	105	91
27	210	447	115	100	1400	296	567	275	309	309	105	91
28	147	383	110	95	1160	284	528	298	260	204	103	88
29	123	344	110	90	---	273	506	359	236	245	102	84
30	111	294	105	90	---	281	494	338	221	197	102	86
31	105	---	105	90	---	350	---	286	---	173	187	---
TOTAL	3214	7132	5075	2755	36356	16251	31851	14008	11849	9636	4472	4023
MEAN	104	238	164	88.9	1298	524	1062	452	395	311	144	134
MAX	284	1550	250	110	6210	1050	4630	1420	1340	934	294	230
MIN	78	92	105	75	90	273	264	275	221	166	102	84
CFSM	.21	.48	.33	.18	2.63	1.06	2.15	.92	.80	.63	.29	.27
IN.	.24	.54	.38	.21	2.74	1.22	2.40	1.05	.89	.73	.34	.30

CAL YR 1980 TOTAL 180570 MEAN 493 MAX 5080 MIN 78 CFSM 1.00 IN 13.60
WTR YR 1981 TOTAL 146622 MEAN 402 MAX 6210 MIN 75 CFSM .81 IN 11.04

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1966 to September 1980 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1966 to September 1980 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum daily, 30.0°C July 17, 1969; minimum daily, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,050 mg/L Oct. 25, 1971; minimum daily mean, 1 mg/L on many days.

SEDIMENT LOADS: Maximum daily, 73,000 tons (66,200 tonnes) June 23, 1972; minimum daily, 0.17 ton (0.15 tonne) Nov. 24, 26, 27, 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 20...	1400	90	416	8.2	7.0	.0	<5	19.1	200	28	58	13
APR 27...	1015	572	326	7.1	23.0	14.2	3	--	150	31	45	9.3
AUG 28...	1445	102	421	8.3	28.0	24.8	5	12.2	200	33	58	14

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	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)
JAN 20...	11	11	.4	2.8	2.1	170	27	17	.2	.9	257	232
APR 27...	5.8	8	.2	1.8	1.3	120	19	11	.1	3.8	178	168
AUG 28...	10	10	.3	3.0	2.2	170	25	14	.2	1.6	282	228

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 P04)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN 20...	.35	62.5	4.0	.550	1.7	100	--	<10	<10	--	9
APR 27...	.24	275	3.4	.110	.34	290	--	<10	30	30	5
AUG 28...	.38	77.7	4.0	.320	.98	180	160	20	20	--	<10

POTOMAC RIVER BASIN

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 mi² (49.0 km²).

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 winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 13.1 ft³/s (0.371 m³/s), 9.41 in/yr (239 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft³/s (12.7 m³/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, 47 ft³/s (1.33 m³/s) Nov. 24, gage height, 1.77 ft (0.539 m), no peak above base of 60 ft³/s (1.7 m³/s); minimum discharge, 0.10 ft³/s (0.003 m³/s) Jan. 7, gage height, 0.75 ft (0.229 m), result of freezeup.

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	3.5	4.5	3.7	2.6	2.1	8.4	5.4	11	7.3	6.6	7.0	5.1
2	3.5	3.7	3.5	2.3	12	7.6	5.5	12	8.0	7.3	6.6	5.1
3	3.5	2.7	3.7	4.2	4.5	7.3	5.0	9.6	8.0	8.7	8.0	5.4
4	3.8	2.3	4.0	3.0	4.0	6.6	4.8	9.1	9.1	9.8	8.7	5.1
5	3.5	3.2	3.7	2.6	3.5	8.4	5.3	8.7	10	9.7	7.0	5.1
6	3.6	3.8	3.7	2.5	3.0	8.0	4.8	8.7	8.4	8.4	7.0	4.8
7	3.5	3.8	4.0	2.4	2.7	8.0	4.5	8.4	8.0	7.6	8.0	3.5
8	3.5	3.8	4.0	2.3	2.7	7.6	4.5	7.3	7.3	7.0	7.3	3.2
9	3.5	3.7	3.7	2.2	2.6	7.6	4.4	6.0	7.6	6.6	6.6	4.0
10	3.5	3.6	3.7	2.1	2.6	7.0	4.3	5.7	8.7	6.3	6.0	3.5
11	3.6	3.0	3.5	2.0	9.5	7.3	4.9	8.0	8.0	6.0	6.0	3.2
12	3.2	2.7	3.2	1.9	7.0	7.0	7.8	24	7.0	6.0	5.7	3.0
13	3.4	2.8	3.0	2.0	5.1	6.6	14	14	6.3	6.0	5.7	3.0
14	3.4	2.8	3.0	2.0	4.0	6.0	23	12	7.0	5.7	5.4	2.8
15	3.6	2.9	2.8	2.1	3.5	6.0	19	10	6.6	5.4	5.4	3.0
16	3.7	3.2	3.0	2.2	3.5	7.0	14	9.6	6.3	5.4	5.4	4.0
17	3.6	4.1	3.0	2.1	3.5	6.6	13	9.1	6.0	5.4	5.1	3.5
18	3.8	11	3.0	2.0	3.7	6.0	12	9.1	5.7	5.4	4.8	3.2
19	4.0	7.5	3.2	2.3	4.2	6.0	11	10	4.5	5.1	4.8	3.5
20	4.0	5.5	2.8	3.0	17	6.0	11	9.0	19	5.4	4.5	3.5
21	3.9	4.8	2.7	3.5	12	6.0	10	8.0	9.0	6.6	4.2	3.5
22	3.6	4.5	2.7	2.6	9.5	6.0	9.9	8.0	22	6.3	4.5	3.2
23	3.5	4.5	2.8	1.7	15	6.0	10	7.3	12	5.4	4.2	3.2
24	3.5	19	2.9	1.6	17	5.7	11	7.6	9.7	7.3	4.2	3.0
25	7.6	20	2.8	1.6	12	5.4	9.8	7.6	9.1	8.0	4.0	3.0
26	5.7	8.7	2.7	1.7	11	5.4	9.4	7.3	9.1	8.4	4.0	3.0
27	4.9	7.3	2.8	1.7	9.9	5.4	9.0	7.3	8.0	8.0	3.7	3.2
28	5.1	7.6	2.6	1.7	8.7	5.1	9.1	8.7	7.3	8.7	3.7	2.8
29	4.9	6.0	2.3	1.6	---	5.4	9.1	8.7	7.0	14	3.7	2.6
30	4.5	4.5	2.3	1.7	---	6.3	8.7	8.0	6.6	8.7	3.7	2.8
31	4.5	---	2.1	2.1	---	6.2	---	8.0	---	7.6	4.0	---
TOTAL	123.4	167.5	96.9	69.3	195.8	203.9	274.2	287.8	258.6	222.8	168.9	107.8
MEAN	3.98	5.58	3.13	2.24	6.99	6.58	9.14	9.28	8.62	7.19	5.45	3.59
MAX	7.6	20	4.0	4.2	17	8.4	23	24	22	14	8.7	5.4
MIN	3.2	2.3	2.1	1.6	2.1	5.1	4.3	5.7	4.5	5.1	3.7	2.6
CFSM	.21	.30	.17	.12	.37	.35	.48	.49	.46	.38	.29	.19
IN.	.24	.33	.19	.14	.39	.40	.54	.57	.51	.44	.33	.21
CAL YR 1980	TOTAL	3594.0	MEAN	9.82	MAX	42	MIN	2.1	CFSM	.52	IN	7.07
WTR YR 1981	TOTAL	2176.9	MEAN	5.96	MAX	24	MIN	1.6	CFSM	.32	IN	4.28

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 winter periods, which are fair. Some regulation at low flow by power plants above station, 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.--42 years (water years 1929-53, 1965-81), 6,098 ft³/s (172.7 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 (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 25	0100	25900 733	9.51 2.899	Apr. 14	1030	*41500 1180	12.79 3.898

Minimum discharge, 607 ft³/s (17.2 m³/s) Oct. 23, gage height, 1.57 ft (0.479 m).

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	826	1170	3690	1350	1700	8250	4610	5470	9620	2750	2350	805
2	851	1030	3240	1250	1600	7350	4630	5970	8700	2490	2010	1020
3	872	1090	3320	1200	2500	7180	4370	7370	7690	3460	1850	1070
4	868	1080	2980	1150	4000	6210	4090	8220	8090	4510	1820	1620
5	850	961	3700	1050	3600	5650	4200	7010	11100	6940	1830	2630
6	827	914	3840	900	3200	5440	4090	6000	12400	5430	1780	3480
7	822	926	3430	700	2800	5160	3760	5480	11000	4380	1870	4400
8	790	831	3160	750	2600	5080	3330	5190	13800	3780	1580	3690
9	813	839	2950	780	2470	5080	3390	4800	11900	3580	1540	2840
10	799	881	2780	800	2250	4910	3240	4380	9160	3300	1500	2300
11	802	856	2760	750	2350	5170	3110	4310	8200	2830	1460	2340
12	787	873	3140	850	4630	5100	3750	7060	12200	2530	1460	2140
13	758	870	3140	800	5470	4820	16000	11800	10100	2230	1350	1760
14	732	874	2860	750	6410	4630	40200	9370	7840	1980	1250	1460
15	702	935	2640	650	5330	4400	37800	7290	9190	1790	1270	1270
16	725	906	2670	700	4750	4500	27000	6310	12100	1650	1250	1310
17	763	926	2470	800	4480	4540	19000	6660	9080	1620	1100	1270
18	755	1180	2330	750	4160	4460	14300	6620	6300	1510	949	1860
19	748	1240	2090	650	4040	4280	11700	5980	5060	1490	1070	3730
20	777	1410	1850	600	7460	4020	9810	5670	5520	1450	1130	2930
21	777	1750	1570	700	19500	3860	8400	10200	5840	1340	1150	2200
22	727	2090	1470	750	20500	3620	7750	14000	8480	1500	1020	1840
23	677	1870	1330	800	19800	3400	7100	10500	7200	1480	898	1640
24	726	1940	998	900	23900	3150	6480	7950	6030	1540	999	1400
25	950	6790	1200	800	23500	2950	6290	6410	5070	1830	965	1330
26	1230	11300	1050	750	17400	2810	5820	5330	4180	1710	990	1130
27	1620	8620	900	800	12800	2720	4680	4430	3750	2000	941	1120
28	2100	5780	800	950	10400	2710	4890	4040	3850	2330	775	1100
29	2010	4560	950	1900	---	3330	5060	4150	3570	3280	829	1050
30	1740	3960	1100	2700	---	6040	5540	7950	3160	3010	701	976
31	1300	---	1200	3000	---	5030	---	11500	---	2530	854	---
TOTAL	29724	68452	71608	31280	223600	145850	284390	217420	240180	82250	40541	57711
MEAN	959	2282	2310	1009	7986	4705	9480	7014	8006	2653	1308	1924
MAX	2100	11300	3840	3000	23900	8250	40200	14000	13800	6940	2350	4400
MIN	677	831	800	600	1600	2710	3110	4040	3160	1340	701	805
CFSM	.16	.38	.39	.17	1.35	.79	1.60	1.18	1.35	.45	.22	.32
IN.	.19	.43	.45	.20	1.40	.91	1.78	1.36	1.51	.52	.25	.36

CAL YR 1980	TOTAL	2216946	MEAN	6057	MAX	44900	MIN	665	CFSM	1.02	IN	13.89
WTR YR 1981	TOTAL	1493006	MEAN	4090	MAX	40200	MIN	600	CFSM	.69	IN	9.36

POTOMAC RIVER BASIN

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.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1981 (discontinued).

WATER TEMPERATURES: October 1980 to September 1981 (discontinued).

REMARKS.--Daily samples collected by a local observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 670 micromhos Aug. 6, 10, 15, 30, Sept. 3, 1981; minimum, 160 micromhos Apr. 14, 15, 1981.

WATER TEMPERATURES: Maximum, 30.0°C July 17, 21, 25, 1981; minimum, 1.0°C Feb. 13, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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- RID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
NOV 12...	1330	811	505	8.5	--	7.5	1.7	--	--	160	180	74
JAN 19...	1500	650	460	7.9	--	.5	2.6	15.2	--	--	49	--
MAR 17...	1315	4340	185	8.0	7.0	6.0	1.1	12.4	K1	K5	96	--
MAY 20...	1200	5390	210	7.7	18.0	17.0	4.3	10.0	100	100	86	36
JUL 20...	1400	1250	370	8.5	33.5	28.5	.60	10.8	K18	500	160	59
SEP 14...	1230	1350	340	--	28.0	24.5	3.2	11.2	K16	1100	140	71

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 12...	57	10	23	21	.7	3.3	--	110	79	37	.2
JAN 19...	14	3.3	30	55	1.9	3.9	2.9	.00	18	39	.3
MAR 17...	29	5.7	7.5	14	.3	1.7	1.3	54	37	11	<.1
MAY 20...	26	5.0	6.4	14	.3	1.9	1.4	50	36	9.9	<.1
JUL 20...	49	8.9	10	12	.3	2.2	1.6	100	39	17	.1
SEP 14...	44	6.4	8.7	12	.3	2.1	--	65	66	13	.1

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, 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, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
NOV 12...	2.0	304	282	.41	666	.86	.88	.010	.020	.01	.03
JAN 19...	9.4	154	130	.21	270	2.6	2.6	2.10	2.00	2.5	2.6
MAR 17...	4.6	149	135	.20	1750	1.3	1.3	.020	.030	--	.04
MAY 20...	5.3	150	124	.20	2180	.66	.65	.050	.070	--	.09
JUL 20...	1.8	243	192	.33	820	.89	.82	<.010	<.010	--	.01
SEP 14...	4.4	213	188	.29	776	.86	.86	.030	.050	--	.06

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 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,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)	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 12...	.23	.18	.24	.04	.20	1.1	1.1	4.9	.060	.18	.050
JAN 19...	.90	1.2	3.00	.00	3.2	5.6	5.8	25	1.20	3.7	.850
MAR 17...	.20	--	.22	--	<.10	1.5	--	6.7	.050	.15	.030
MAY 20...	.30	.15	.35	.13	.22	1.0	.87	4.5	.060	.18	.030
JUL 20...	--	--	.70	--	<.10	1.6	--	7.0	.030	.09	<.010
SEP 14...	.31	.17	.34	.12	.22	1.2	1.1	5.3	.080	.25	.040

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 SUS- PENDED 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 12...	1	0	1	100	40	60	0	0	0	10	0
JAN 19...	1	0	1	100	90	10	0	--	<1	10	--
MAY 20...	1	0	2	100	60	40	1	0	2	10	0
JUL 20...	1	0	1	100	40	60	1	0	1	10	0

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)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
NOV 12...	10	0	0	3	3	1	2	220	200	20	10
JAN 19...	<10	4	1	3	8	4	4	1100	780	320	5
MAY 20...	10	1	1	0	19	17	2	510	480	30	5
JUL 20...	10	1	0	3	3	1	2	150	140	<10	28

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)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)
NOV 12...	10	0	40	40	3	<.1	--	<.1	6	0
JAN 19...	5	0	250	20	230	.3	.2	.1	16	12
MAY 20...	5	0	70	50	20	<.1	--	<.1	19	14
JUL 20...	27	1	50	49	<1	.2	.0	.2	11	8

POTOMAC RIVER BASIN

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 12...	8	0	0	0	0	0	0	10	10	0
JAN 19...	4	0	0	0	1	1	0	40	30	7
MAY 20...	5	0	0	0	0	0	0	10	--	<4
JUL 20...	3	0	0	0	0	0	0	20	--	<4

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	--	4.6	--	--	--	--	--
JAN 19...	--	4.9	.1	--	1	1.8	100
MAR 17...	2.0	--	--	400	8	94	97
MAY 20...	--	2.5	.4	--	6	87	99
JUL 20...	--	2.2	--	20000	6	20	100
SEP 14...	3.2	--	--	5200	8	29	100

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	460	510	250	400	---	200	240	170	205	288	445	445
2	450	480	230	410	---	210	320	170	195	325	530	540
3	450	470	255	365	---	200	245	175	225	325	435	670
4	440	490	280	405	---	255	265	195	195	325	450	530
5	440	490	295	410	355	300	---	170	190	365	540	530
6	460	500	290	410	---	255	240	195	240	288	670	535
7	470	495	300	400	---	300	---	195	205	195	530	665
8	480	460	320	---	360	260	---	195	225	290	360	405
9	490	460	320	430	300	275	270	200	185	325	545	365
10	490	475	290	485	180	280	---	195	245	370	670	205
11	490	480	280	510	330	---	260	200	205	330	445	370
12	490	455	280	485	330	---	260	225	225	380	370	340
13	500	435	290	505	300	325	260	205	200	370	540	365
14	505	435	290	465	190	310	160	180	245	330	445	345
15	510	430	280	505	---	305	160	205	205	375	670	420
16	505	425	310	490	300	305	---	225	270	375	540	440
17	510	435	310	---	250	305	---	195	205	370	530	205
18	490	435	315	---	---	305	---	195	225	435	665	525
19	485	440	300	---	300	270	---	195	245	375	445	195
20	470	420	310	---	250	300	---	225	205	450	350	420
21	470	435	320	490	180	265	---	195	325	370	530	490
22	470	440	340	---	---	310	---	195	225	370	660	460
23	480	440	340	---	170	280	---	195	270	435	445	490
24	480	425	340	---	180	350	---	225	320	380	360	405
25	490	430	---	---	170	270	---	205	230	380	530	355
26	490	270	340	525	---	280	465	195	265	440	540	490
27	500	290	350	520	200	270	170	200	290	435	445	410
28	500	340	350	510	210	360	---	195	250	455	360	315
29	520	245	350	520	---	320	175	200	270	380	540	510
30	520	250	350	510	---	350	---	195	288	455	670	410
31	520	---	380	460	---	315	---	195	---	435	535	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	11.0	8.0	2.0	---	8.0	15.0	15.0	18.0	26.0	26.0	26.0
2	21.0	10.0	8.0	3.0	---	7.0	17.0	16.0	17.0	26.0	26.0	24.0
3	20.0	13.0	6.0	3.0	---	7.0	15.0	17.0	19.0	27.0	27.0	25.0
4	20.0	10.0	5.0	---	---	8.0	14.0	16.0	17.0	28.0	28.0	25.0
5	19.0	12.0	6.0	2.0	4.0	7.0	---	16.0	---	29.0	27.0	24.0
6	18.0	11.0	7.0	3.0	---	7.0	15.0	15.0	19.0	28.0	27.0	25.0
7	19.0	12.0	6.0	3.0	---	6.0	---	15.0	18.0	27.0	27.0	25.0
8	19.0	10.0	8.0	---	4.0	7.0	---	17.0	20.0	27.0	26.0	25.0
9	20.0	12.0	9.0	2.0	3.0	8.0	14.0	16.0	18.0	27.0	26.0	26.0
10	19.0	11.0	6.0	3.0	3.0	7.0	---	16.0	22.0	29.0	26.0	25.0
11	18.0	9.0	7.0	3.0	8.0	---	15.0	17.0	19.0	28.0	27.0	25.0
12	18.0	11.0	5.0	2.0	9.0	---	14.0	16.0	20.0	29.0	27.0	25.0
13	14.0	10.0	6.0	4.0	1.0	8.0	15.0	16.0	18.0	28.0	26.0	26.0
14	14.0	10.0	5.0	3.0	2.0	7.0	15.0	17.0	20.0	27.0	28.0	24.0
15	15.0	9.0	4.0	4.0	4.0	---	16.0	16.0	19.0	28.0	27.0	24.0
16	17.0	10.0	6.0	2.0	---	8.0	---	15.0	22.0	29.0	26.0	25.0
17	15.0	6.0	5.0	---	---	7.0	---	16.0	18.0	30.0	27.0	23.0
18	15.0	7.0	7.0	---	---	6.0	---	16.0	21.0	27.0	27.0	23.0
19	17.0	6.0	6.0	---	3.0	10.0	---	15.0	23.0	29.0	29.0	22.0
20	15.0	7.0	---	---	4.0	8.0	---	17.0	19.0	28.0	28.0	23.0
21	16.0	7.0	1.0	5.0	5.0	9.0	---	16.0	21.0	30.0	27.0	21.0
22	15.0	5.0	3.0	---	---	7.0	---	16.0	23.0	29.0	27.0	22.0
23	17.0	6.0	4.0	---	7.0	11.0	---	17.0	23.0	27.0	26.0	22.0
24	14.0	7.0	3.0	---	6.0	10.0	---	18.0	24.0	29.0	27.0	21.0
25	15.0	7.0	---	---	7.0	9.0	---	17.0	22.0	30.0	27.0	20.0
26	14.0	6.0	---	6.0	---	11.0	16.0	16.0	23.0	29.0	26.0	20.0
27	10.0	1.0	---	6.0	7.0	10.0	15.0	17.0	24.0	27.0	28.0	21.0
28	14.0	6.0	3.0	5.0	8.0	11.0	---	16.0	25.0	28.0	27.0	19.0
29	13.0	5.0	3.0	6.0	---	13.0	17.0	15.0	26.0	27.0	27.0	19.0
30	10.0	6.0	---	4.0	---	17.0	---	16.0	25.0	28.0	26.0	20.0
31	12.0	---	---	4.0	---	16.0	---	16.0	---	28.0	26.0	---

POTOMAC RIVER BASIN

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 12,80 1330	MAR 17,81 1315	MAY 20,81 1200	JUL 20,81 1400	SEP 14,81 1230					
TOTAL CELLS/ML	990	400	490	20000	5200					
DIVERSITY: DIVISION	0.9	1.3	1.2	1.1	1.3					
..CLASS	0.9	1.3	1.2	1.1	1.3					
..ORDER	1.5	2.2	1.7	1.2	1.9					
...FAMILY	1.7	3.1	1.9	1.3	2.5					
....GENUS	1.8	3.4	1.9	1.7	2.9					
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	* 0		72	1
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	1500#	29
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	150	1	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	39	4	--	-	13	3	150	1	290	6
...SELENASTRUM	210#	21	13	3	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	52	5	52	13	--	-	2200	11	72	1
...TETRASTRUM	--	-	--	-	--	-	--	-	140	3
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	39	4	39	10	51	11	150	1	750	14
..ZYGNEATALES										
...DESMIDIACEAE										
....COSMARIMUM	13	1	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCEACEAE										
....CYCLOTELLA	590#	60	--	-	280#	58	600	3	1400#	26
...MELOSIRA	--	-	52	13	--	-	--	-	320	6
...STEPHANODISCUS	--	-	77#	19	--	-	--	-	110	2
...PENNALES										
....ACHNANTHACEAE										
...RHOICOSPHEA	--	-	13	3	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	13	3	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	13	3	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	72	1
...NAVICULACEAE										
....NAVICULA	13	1	39	10	39	8	* 0		36	1
...NITZSCHIIACEAE										
....NITZSCHIA	39	4	39	10	26	5	680	3	110	2
...SURIRELLACEAE										
....SURIRELLA	--	-	13	3	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	13	3	--	-	* 0		--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	300	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	1800	9	--	-
...ANACYSTIS	--	-	--	-	77#	16	14000#	68	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	26	6	--	-	--	-	360	7

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

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

01619000 ANTIETAM CREEK NEAR WAYNESBORO, PA

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., Hydrologic Unit 02070004, on right bank 100 ft (30 m) upstream from highway bridge at Rocky Forge, 0.4 mi (0.6 km) downstream from Pennsylvania-Maryland State line, 0.7 mi (1.1 km) downstream from confluence of west and east branches, 1.9 mi (3.1 km) northeast of Leitersburg, Md., 2.5 mi (4.0 km) southwest of Waynesboro, Pa., and 36.6 mi (58.9 km) upstream from mouth.

DRAINAGE AREA.--93.5 mi² (242.2 km²).

PERIOD OF RECORD.--May 1948 to September 1951, October 1965 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 536.59 ft (163.553 m) National Geodetic Vertical Datum of 1929. May 1948 to September 1951, nonrecording gage and crest-stage gage 100 ft (30 m) downstream at present datum.

REMARKS.--Records good. Occasional regulation from mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years (water years 1949-51, 1966-81), 118 ft³/s (3.342 m³/s), 17.14 in/yr (435 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s (154 m³/s) June 22, 1972, gage height, 12.33 ft (3.758 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s); minimum daily discharge, 11 ft³/s (0.31 m³/s) Jan. 30, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 23	1945	993 28.1	5.69 1.734	Aug. 31	1800	925 26.2	5.53 1.686
June 13	2330	*1630 46.2	7.00 2.134				

Minimum daily discharge, 27 ft³/s (0.76 m³/s) Jan. 12, 13, 14, 15.

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	35	33	46	35	30	129	72	117	70	87	56	124
2	35	33	47	34	245	111	74	121	81	118	55	68
3	35	33	47	33	75	101	67	99	78	118	68	61
4	38	34	44	32	55	94	65	94	111	117	73	56
5	34	33	43	31	45	101	69	91	99	107	60	55
6	34	32	42	30	42	95	69	93	78	95	57	51
7	34	32	41	30	41	89	64	92	73	87	57	47
8	34	34	41	29	42	85	62	85	69	81	55	51
9	33	33	42	29	39	84	63	83	72	78	52	51
10	33	32	41	28	39	84	63	83	94	75	51	43
11	33	31	40	28	182	87	95	117	80	71	49	40
12	32	31	39	27	80	85	349	159	67	69	50	40
13	32	31	38	27	63	83	433	106	174	69	49	39
14	32	31	37	27	55	83	492	100	579	68	49	39
15	32	31	37	27	51	79	392	102	211	65	49	45
16	32	31	40	27	50	98	304	104	153	65	49	52
17	31	37	38	29	50	93	258	95	129	64	48	43
18	35	56	37	30	50	83	221	91	112	62	46	39
19	33	41	37	30	53	82	185	91	105	60	44	38
20	32	37	34	30	249	81	175	89	204	70	44	37
21	32	35	33	30	181	79	153	85	127	87	43	37
22	31	34	33	31	128	73	141	81	212	69	43	37
23	31	34	36	31	500	74	142	78	143	62	42	36
24	31	225	36	31	481	72	148	75	118	65	43	35
25	83	111	36	30	260	70	127	73	118	67	43	35
26	58	63	31	31	183	69	115	73	117	76	43	35
27	41	54	32	32	145	67	112	71	103	90	42	34
28	38	54	34	32	133	67	107	80	96	70	40	34
29	36	52	35	31	---	63	105	127	92	74	40	33
30	35	48	36	30	---	77	101	81	89	63	54	34
31	34	---	35	31	---	82	---	75	---	58	244	---
TOTAL	1119	1396	1188	933	3547	2620	4823	2911	3854	2407	1738	1369
MEAN	36.1	46.5	38.3	30.1	127	84.5	161	93.9	128	77.6	56.1	45.6
MAX	83	225	47	35	500	129	492	159	579	118	244	124
MIN	31	31	31	27	30	63	62	71	67	58	40	33
CFSM	.39	.50	.41	.32	1.36	.90	1.72	1.00	1.37	.83	.60	.49
IN.	.45	.56	.47	.37	1.41	1.04	1.92	1.16	1.53	.96	.69	.54
CAL YR 1980	TOTAL	34146	MEAN 93.3	MAX 500	MIN 31	CFSM 1.00	IN 13.59					
WTR YR 1981	TOTAL	27905	MEAN 76.5	MAX 579	MIN 27	CFSM .82	IN 11.10					

POTOMAC RIVER BASIN

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 mi² (728 km²).

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.--58 years (water years 1898-1903, 1905, 1931-81), 275 ft³/s (7.788 m³/s), 13.29 in/yr (338 mm/yr), adjusted for inflow since January 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) July 20, 1956, gage height, 16.73 ft (5.099 m); minimum discharge, 9.4 ft³/s (0.266 m³/s) Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily discharge, 37 ft³/s (1.05 m³/s) Jan. 30, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) June 14, gage height, 5.33 ft (1.625 m), no peak above base of 1,500 ft³/s (42 m³/s); minimum daily discharge, 85 ft³/s (2.41 m³/s) Jan. 11, 12, 13, 14.

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	114	112	139	110	80	326	196	284	196	227	160	361
2	114	110	139	107	266	294	196	334	202	244	155	188
3	114	107	147	105	400	273	182	277	211	286	163	160
4	119	110	139	100	170	255	174	255	259	280	188	144
5	117	112	129	100	140	266	180	248	277	281	185	150
6	114	110	129	95	140	269	185	248	231	252	166	137
7	117	107	127	95	125	259	177	248	205	234	168	129
8	114	110	124	90	122	244	171	234	191	221	158	129
9	114	110	124	90	117	238	171	227	188	208	150	142
10	112	107	127	90	114	234	171	224	221	199	144	129
11	112	105	124	85	259	234	182	255	227	191	142	124
12	107	102	119	85	335	234	346	462	196	182	150	119
13	105	105	119	85	170	227	790	326	182	180	139	114
14	107	105	114	85	150	224	837	281	740	180	137	114
15	107	105	114	87	145	217	916	266	615	177	137	117
16	110	105	117	96	144	227	674	266	367	171	137	142
17	107	107	117	100	142	248	584	255	304	171	132	137
18	105	196	117	96	142	231	527	248	273	168	129	124
19	117	158	114	102	144	217	462	255	252	163	127	117
20	110	129	110	102	424	214	427	252	453	160	124	114
21	105	119	100	102	493	211	393	234	347	227	122	112
22	105	114	100	102	380	202	359	227	468	205	119	112
23	105	114	114	98	497	196	349	217	384	168	117	110
24	105	266	112	96	1070	194	366	208	305	180	117	107
25	196	481	105	91	629	191	335	202	280	196	119	105
26	227	221	110	91	465	185	304	199	283	177	117	107
27	150	174	115	93	379	182	289	196	266	191	114	105
28	127	168	110	93	333	180	280	217	252	244	114	102
29	119	158	110	91	---	177	277	244	241	262	112	102
30	114	147	110	89	---	185	266	238	234	188	117	102
31	114	---	110	87	---	205	---	208	---	171	166	---
TOTAL	3703	4274	3685	2938	7975	7039	10766	7835	8850	6384	4325	3955
MEAN	119	142	119	94.8	285	227	359	253	295	206	140	132
MAX	227	481	147	110	1070	326	916	462	740	286	188	361
MIN	105	102	100	85	80	177	171	196	182	160	112	102
($\bar{x}$)	-13.1	-12.5	-12.4	-13.2	-11.8	-5.9	-5.8	-6.2	-6.8	-9.3	-12.5	-12.8
MEAN*	106	130	107	81.6	273	221	353	247	288	197	128	119
CFSM*	0.38	0.46	0.38	0.29	0.97	0.79	1.26	0.88	1.02	0.70	0.46	0.42
IN*	0.44	0.51	0.44	0.33	1.01	0.91	1.41	1.02	1.14	0.81	0.53	0.47

CAL YR 1980 TOTAL 99890 MEAN 273 MAX 1140 MIN 100 MEAN* 263 CFSM* 0.94 IN* 12.79
WTR YR 1981 TOTAL 71729 MEAN 197 MAX 1070 MIN 80 MEAN* 187 CFSM* 0.66 IN* 8.96

* 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 1980 TO SEPTEMBER 1981

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 CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 20...	1100	99	509	7.7	9.0	.0	5	14.8	230	37	68	14
APR 27...	1300	285	453	7.2	26.0	15.1	3	--	210	38	62	13
AUG 28...	1230	117	510	7.7	28.0	21.6	<1	8.6	240	44	73	15

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)
JAN 20...	16	13	.5	3.6	2.7	190	38	24	.3	4.2	315	282
APR 27...	9.3	9	.3	2.7	2.0	170	26	15	.2	6.7	276	237
AUG 28...	13	10	.4	3.9	2.9	200	35	21	.3	5.9	330	287

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)
JAN 20...	.43	84.2	4.1	.400	1.2	100	80	20	<10	--	5
APR 27...	.38	212	4.0	.170	.52	620	--	<10	50	30	20
AUG 28...	.45	104	3.6	.370	1.1	320	300	20	30	10	20

POTOMAC RIVER BASIN

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.--66 years (water years 1896-1908, 1929-81), 2,681 ft³/s (75.93 m³/s), 11.98 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.--Maximum discharge, 5,440 ft³/s (154 m³/s) June 5, gage height, 5.00 ft (1.524 m), no peak above base of 15,000 ft³/s (420 m³/s); minimum discharge, 216 ft³/s (6.12 m³/s) Sept. 1, gage height, 0.88 ft (0.268 m).

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	648	593	964	604	450	2220	695	1080	3460	771	827	464
2	568	573	962	622	637	2020	852	1130	2930	659	747	597
3	586	582	931	664	924	1870	652	1270	2810	755	659	559
4	592	566	795	680	586	1470	877	1290	3320	1280	617	468
5	580	589	808	520	604	1550	819	1240	4790	2170	584	491
6	704	589	759	487	616	1500	755	1100	4950	2250	631	594
7	532	576	724	568	712	1410	755	1050	4380	4280	740	699
8	538	581	738	650	760	1350	652	1000	3770	4170	710	758
9	568	590	709	664	872	1290	673	938	3420	3280	687	878
10	580	597	723	680	574	1220	747	938	2930	2640	687	808
11	574	585	685	634	712	1140	795	1000	3150	2020	843	880
12	556	603	679	604	1160	1050	860	1010	3330	1730	811	764
13	520	591	680	610	2290	1090	1140	1060	2680	1950	795	703
14	520	555	667	628	2950	1000	1400	1270	2780	1430	695	521
15	538	563	660	637	1860	956	1510	1420	3280	1120	597	564
16	514	567	635	648	1460	1000	1510	1320	2890	1070	638	657
17	556	572	583	680	1280	938	1400	1310	2580	1010	617	761
18	538	662	623	680	1140	929	1180	1290	1810	929	533	884
19	532	709	615	712	1160	920	1190	1360	1540	894	474	814
20	544	807	606	674	1410	894	1140	1380	1390	732	521	776
21	574	868	577	671	3400	886	1060	1690	1430	869	515	735
22	584	963	544	695	4870	886	1010	3840	2030	725	462	680
23	561	814	509	653	4890	903	1000	4110	1860	747	451	611
24	558	742	509	620	4190	869	1060	3140	1590	590	411	545
25	638	1010	448	585	3590	763	1040	2490	1290	645	408	480
26	839	1300	390	562	3390	852	1020	2080	1060	638	422	493
27	866	1160	492	509	3060	638	983	1640	965	877	426	498
28	816	1240	574	595	2620	795	956	1480	869	903	394	485
29	876	1150	712	563	---	740	1020	2030	811	1020	394	422
30	779	1030	667	532	---	779	1020	2250	803	835	397	421
31	665	---	616	514	---	787	---	3680	---	795	418	---
TOTAL	19044	22327	20584	19145	52167	34715	29771	51886	74898	43784	18111	19010
MEAN	614	744	664	618	1863	1120	992	1674	2497	1412	584	634
MAX	876	1300	964	712	4890	2220	1510	4110	4950	4280	843	884
MIN	514	555	390	487	450	638	652	938	803	590	394	421
CFSM	.20	.25	.22	.20	.61	.37	.33	.55	.82	.46	.19	.21
IN.	.23	.27	.25	.23	.64	.42	.36	.63	.92	.54	.22	.23
CAL YR 1980	TOTAL	978952	MEAN	2675	MAX	18300	MIN	390	CFSM	.88	IN	11.98
WTR YR 1981	TOTAL	405442	MEAN	1111	MAX	4950	MIN	390	CFSM	.37	IN	4.96

POTOMAC RIVER BASIN

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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 September 1981.

WATER TEMPERATURES: October 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to instrument malfunction.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 778 micromhos Dec. 29; minimum, 245 micromhos Feb. 26, 27.

WATER TEMPERATURES: Maximum daily, 30°C July 20, 21; minimum daily, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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- HID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
NOV												
12...	1045	604	610	8.4	6.0	6.5	.20	11.6	--	45	200	39
JAN												
19...	1215	720	714	8.2	8.5	.6	.40	14.3	--	--	240	130
MAR												
17...	1100	612	318	8.8	6.0	5.0	.60	12.8	<1	66	170	--
MAY												
19...	1200	1360	352	8.2	10.0	17.0	1.4	8.2	52	1300	140	27
JUL												
20...	1200	869	368	9.2	31.5	29.0	4.1	13.2	K13	550	110	34
SEP												
14...	1030	468	510	--	26.0	24.0	5.0	8.3	K20	950	160	24

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV											
12...	55	15	42	31	1.3	3.1	--	160	110	26	.2
JAN											
19...	70	16	52	32	1.5	2.8	2.1	110	150	32	.2
MAR											
17...	48	11	35	31	1.2	2.1	1.6	120	84	13	.1
MAY											
19...	39	9.6	24	27	.9	2.7	2.0	110	57	12	.1
JUL											
20...	30	9.0	33	38	1.4	2.9	2.2	78	75	12	.1
SEP											
14...	46	12	35	31	1.2	3.2	--	140	64	25	.1

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
NOV											
12...	.0	372	351	.51	607	.79	.84	.010	.010	.01	.01
JAN											
19...	.8	234	400	.54	455	2.2	2.2	.170	.160	.21	.21
MAR											
17...	.4	271	271	.37	448	1.2	1.2	.010	.030	--	.04
MAY											
19...	3.8	248	216	.34	911	.45	.43	.060	.060	--	.08
JUL											
20...	6.1	238	215	.32	558	.08	.08	.010	.010	--	.01
SEP											
14...	4.2	283	279	.38	358	1.2	1.2	.060	.060	--	.08

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

POTOMAC RIVER BASIN

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,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)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV											
12...	.27	.29	.28	.00	.30	1.1	1.1	4.7	.130	.40	.150
JAN											
19...	.57	.42	.74	.16	.58	2.9	2.8	13	.180	.55	.150
MAR											
17...	.35	.19	.36	.14	.22	1.6	1.4	6.9	.100	.31	.080
MAY											
19...	.71	.38	.77	.33	.44	1.2	.87	5.4	.190	.58	.160
JUL											
20...	1.3	.30	1.30	.99	.31	1.4	.39	6.1	.130	.40	.020
SEP											
14...	.62	.38	.68	.24	.44	1.9	1.6	8.3	.160	.49	.120

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 SUS- PENDED 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- ERABLE (UG/L AS CR)
NOV											
12...	1	0	1	100	60	40	0	0	0	10	0
JAN											
19...	2	0	2	<50	--	50	0	0	1	10	0
MAY											
19...	2	0	2	100	60	40	1	--	<1	10	0
JUL											
20...	2	0	3	100	70	30	2	1	1	10	0

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)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
NOV											
12...	10	0	0	4	8	6	2	130	110	20	11
JAN											
19...	10	1	0	1	5	5	0	50	40	<10	6
MAY											
19...	10	1	0	1	23	21	2	200	180	20	12
JUL											
20...	30	1	0	2	4	2	2	190	180	<10	8

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- ERABLE (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)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)
NOV										
12...	10	1	10	4	6	<.1	.0	<.1	7	5
JAN										
19...	6	0	<10	4	5	<.1	.0	<.1	3	1
MAY										
19...	11	1	30	20	7	<.1	.0	<.1	16	14
JUL										
20...	7	1	50	50	1	.2	.1	.1	14	12

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 12...	2	0	0	0	0	0	0	30	20	9
JAN 19...	2	0	0	0	0	0	0	80	40	40
MAY 19...	2	0	0	0	0	0	0	20	--	<4
JUL 20...	2	0	0	0	0	0	0	30	--	<4

DATE	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	--	3.1	.4	350	--	--	--
JAN 19...	--	2.3	.3	--	2	3.9	100
MAR 17...	2.6	--	--	3700	6	9.9	72
MAY 19...	--	2.9	--	11000	24	88	85
JUL 20...	--	3.1	3.2	550000	16	38	86
SEP 14...	3.5	--	--	6500	11	14	100

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	585	565	576	544	538	542	479	460	470	680	649	668
2	565	553	557	549	542	546	494	480	487	692	680	688
3	575	557	568	541	529	535	489	480	483	686	667	676
4	576	572	574	553	530	540	519	491	507	676	664	672
5	581	569	576	575	552	564	520	500	507	691	661	680
6	568	560	564	624	577	599	500	489	495	696	687	692
7	576	570	573	643	624	635	505	489	497	722	688	710
8	582	573	580	650	635	642	515	504	509	717	687	699
9	581	574	577	651	632	642	528	513	518	695	679	689
10	575	564	569	632	622	626	563	529	546	690	673	681
11	581	568	576	621	588	604	571	566	570	693	677	684
12	569	552	560	585	562	570	575	567	570	763	576	686
13	562	553	557	588	576	585	573	542	556	773	744	762
14	584	563	576	589	584	585	551	543	547	741	682	715
15	583	580	582	608	590	599	553	542	548	692	677	682
16	583	574	580	617	609	615	558	547	554	710	692	705
17	586	572	576	618	612	616	566	550	555	703	690	697
18	600	586	596	616	599	610	577	568	575	699	688	694
19	599	594	597	598	581	588	579	576	577	699	687	690
20	602	596	599	604	588	593	586	579	584	736	700	719
21	613	602	609	619	586	609	593	585	588	744	735	741
22	620	614	617	583	555	570	615	594	606	733	687	708
23	621	615	619	553	525	534	623	607	616	686	668	677
24	623	616	619	527	514	520	606	590	598	673	665	669
25	624	606	617	524	506	516	591	584	588	671	655	665
26	615	595	606	523	498	509	602	585	590	655	612	634
27	593	572	580	566	525	548	660	604	634	612	579	597
28	579	573	576	568	482	537	749	660	698	593	580	587
29	590	571	579	477	445	455	778	722	762	593	586	589
30	588	554	571	463	453	459	716	634	669	610	594	603
31	554	535	542	---	---	---	645	621	629	609	602	605
MONTH	624	535	582	651	445	570	778	460	569	773	576	676

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	614	606	611	266	258	262	416	408	413			
2	610	582	599	258	247	252	421	408	411			
3	581	546	565	257	248	253	423	413	419			
4	551	528	536	252	249	250	413	381	399			
5	596	554	580	250	246	249	397	371	380			
6	625	600	613	262	246	251	409	398	404			
7	634	587	619	271	263	268	414	403	410			
8	584	558	572	274	271	273	407	399	402			
9	556	536	546	275	273	274	411	407	409			
10	549	537	545	290	275	284	409	401	405			
11	543	524	530	289	283	285	420	408	413			
12	544	530	536	288	283	286	420	412	416			
13	578	495	549	294	289	292	413	372	390			
14	494	370	405	298	295	297	---	---	---			
15	368	351	356	311	298	304	---	---	---			
16	367	355	362	313	310	311	---	---	---			
17	392	368	380	319	308	312	---	---	---			
18	391	386	389	326	319	324	---	---	---			
19	392	385	389	325	321	323	---	---	---			
20	384	377	379	327	322	324	---	---	---			
21	380	324	345	331	326	329	---	---	---			
22	330	251	280	330	324	326	---	---	---			
23	259	247	253	358	331	344	---	---	---			
24	268	260	264	363	359	361	---	---	---			
25	259	253	255	359	354	356	---	---	---			
26	253	245	250	362	356	360	---	---	---			
27	256	245	250	364	360	362	---	---	---			
28	265	257	262	368	361	363	---	---	---			
29	---	---	---	372	366	369	---	---	---			
30	---	---	---	408	372	395	---	---	---			
31	---	---	---	407	397	401	---	---	---			
MONTH	634	245	436	408	246	311	423	371	405			

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	396	349	371	531	509	523	648	634	642
2	---	---	---	428	398	416	521	507	514	633	593	615
3	---	---	---	456	428	438	514	488	502	642	594	619
4	---	---	---	458	447	453	487	470	477	657	646	653
5	---	---	---	474	451	459	494	479	487	652	643	648
6	---	---	---	475	373	414	487	477	483	648	643	646
7	---	---	---	369	345	360	513	487	497	647	606	630
8	---	---	---	337	289	300	567	508	534	607	582	591
9	---	---	---	306	270	291	610	571	591	617	582	598
10	---	---	---	295	255	278	610	564	590	617	555	586
11	---	---	---	303	280	295	564	514	538	591	514	561
12	---	---	---	311	277	299	528	497	507	607	515	572
13	---	---	---	327	286	312	570	531	555	585	509	563
14	---	---	---	349	306	334	570	541	558	582	503	553
15	---	---	---	349	307	330	540	507	525	552	474	522
16	---	---	---	366	323	341	507	471	493	546	495	522
17	---	---	---	361	329	349	488	463	478	546	484	526
18	---	---	---	401	357	380	500	491	495	562	492	527
19	315	303	309	414	351	390	504	500	502	568	480	541
20	328	313	322	394	350	377	518	500	506	600	543	572
21	351	317	333	376	348	358	561	522	540	580	528	554
22	355	337	346	390	357	373	599	562	581	543	465	510
23	360	321	348	437	371	403	601	583	596	514	478	495
24	330	312	319	490	423	459	594	583	588	503	452	487
25	335	282	321	522	472	501	613	588	600	519	465	494
26	316	277	296	540	475	513	616	601	611	522	424	494
27	353	318	336	517	482	492	623	600	612	522	465	500
28	365	300	346	552	521	543	614	605	610	524	468	496
29	294	280	285	551	538	545	628	609	621	521	469	501
30	348	297	328	551	540	546	636	627	631	535	471	502
31	---	---	---	554	531	546	643	630	638	---	---	---
MONTH	365	277	324	554	255	402	643	463	548	657	424	557

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

POTOMAC RIVER BASIN

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1.0	.5	.5	8.0	7.5	7.5	15.0	14.5	14.5			
2	.5	.5	.5	7.5	7.0	7.5	15.5	14.0	14.5			
3	.5	.0	.5	7.0	6.5	7.0	16.0	14.5	15.0			
4	.5	.0	.0	7.0	6.0	6.0	16.5	15.5	16.0			
5	.5	.0	.0	6.5	5.5	5.5	17.0	16.5	16.5			
6	.5	.0	.5	5.5	5.0	5.0	16.0	13.5	15.0			
7	.5	.0	.5	5.5	4.5	5.0	14.0	12.5	13.0			
8	.5	.0	.0	5.0	4.5	5.0	15.0	13.0	14.0			
9	.5	.0	.0	5.5	5.0	5.5	15.5	14.5	15.0			
10	.5	.0	.5	5.5	5.5	5.5	16.0	14.5	15.0			
11	1.0	.5	.5	6.0	5.5	6.0	16.0	15.0	15.5			
12	1.5	1.0	1.5	7.0	5.5	6.0	16.5	16.0	16.0			
13	1.0	.0	.5	8.0	6.5	7.5	16.0	14.5	15.0			
14	1.5	.0	.5	8.0	7.0	7.5	---	---	---			
15	2.0	1.0	1.5	7.0	6.5	6.5	---	---	---			
16	4.0	2.0	2.5	7.5	6.0	7.0	---	---	---			
17	5.0	4.0	4.5	6.0	5.0	5.5	---	---	---			
18	6.5	5.0	6.0	5.0	4.5	4.5	---	---	---			
19	8.0	6.5	7.5	4.5	4.0	4.5	---	---	---			
20	8.5	8.0	8.5	4.5	4.0	4.0	---	---	---			
21	8.5	8.0	8.5	4.5	4.0	4.5	---	---	---			
22	8.5	7.5	8.0	5.5	4.0	5.0	---	---	---			
23	9.0	8.0	8.5	7.0	5.5	6.0	---	---	---			
24	8.5	8.0	8.0	8.5	7.0	7.5	---	---	---			
25	8.0	7.5	8.0	8.5	7.5	8.0	---	---	---			
26	7.5	7.0	7.0	9.5	7.5	8.5	---	---	---			
27	7.5	6.5	7.0	10.5	8.5	9.5	---	---	---			
28	7.5	7.0	7.5	11.0	9.5	10.0	---	---	---			
29	---	---	---	12.0	10.5	11.5	---	---	---			
30	---	---	---	13.0	12.0	12.5	---	---	---			
31	---	---	---	15.0	12.5	14.0	---	---	---			
MONTH	9.0	.0	3.5	15.0	4.0	7.0	17.0	12.5	15.0			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	26.5	25.5	26.0	28.0	26.5	27.0	27.0	25.5	26.0
2	---	---	---	26.0	25.0	25.5	28.0	26.5	27.0	26.0	25.5	26.0
3	---	---	---	26.0	25.0	25.5	27.5	27.0	27.0	25.5	25.0	25.5
4	---	---	---	25.5	25.0	25.0	28.0	26.5	27.0	25.0	24.0	24.5
5	---	---	---	25.0	24.0	24.5	28.0	26.5	27.5	24.0	23.5	23.5
6	---	---	---	26.5	24.0	25.0	28.0	26.5	27.0	24.5	23.5	24.0
7	---	---	---	27.0	25.5	26.0	26.5	25.5	26.0	25.0	24.0	24.5
8	---	---	---	27.0	25.5	26.5	27.5	26.0	26.5	24.5	24.0	24.5
9	---	---	---	28.5	26.0	27.0	28.5	26.5	27.5	24.0	23.0	23.5
10	---	---	---	29.0	27.5	28.5	29.0	27.0	28.0	23.0	22.5	22.5
11	---	---	---	29.0	27.5	28.5	29.0	28.0	28.5	23.5	22.5	23.0
12	---	---	---	29.5	27.5	28.5	29.0	28.0	28.5	24.5	23.0	24.0
13	---	---	---	29.5	28.0	28.5	28.0	27.5	27.5	25.5	24.0	25.0
14	---	---	---	28.5	27.5	28.0	28.0	27.0	27.5	26.5	24.5	25.5
15	---	---	---	28.0	26.5	27.5	28.0	27.0	27.5	25.5	25.0	25.5
16	---	---	---	27.5	26.5	27.0	28.0	27.0	27.5	25.0	23.5	24.0
17	---	---	---	27.5	26.0	26.5	27.5	26.0	26.5	23.0	22.0	22.5
18	---	---	---	28.5	26.5	27.5	26.0	25.0	25.5	22.0	20.5	21.5
19	28.5	26.5	27.5	29.5	27.5	28.5	25.5	24.0	25.0	20.5	19.0	20.0
20	28.0	27.5	28.0	30.0	28.5	29.5	24.5	23.5	24.0	19.0	18.0	18.5
21	28.0	27.0	27.5	30.0	29.0	29.5	24.5	23.5	24.0	19.0	18.0	18.5
22	28.0	27.0	27.5	29.0	28.0	28.5	24.5	23.5	24.0	20.5	18.5	19.5
23	28.0	26.0	27.0	28.5	27.0	28.0	25.0	23.0	24.0	19.5	19.0	19.0
24	27.5	26.0	27.0	27.5	25.5	26.5	25.0	24.0	24.5	19.0	18.0	18.5
25	28.5	27.0	27.5	25.5	25.0	25.0	25.0	24.0	24.5	18.5	17.5	18.0
26	28.0	27.0	27.5	26.5	24.5	25.5	25.0	24.0	24.5	19.0	18.0	18.5
27	27.0	26.0	26.0	27.5	26.0	26.5	26.0	23.5	25.0	20.5	19.0	19.5
28	26.5	25.0	26.0	27.5	27.0	27.0	27.0	24.5	25.5	20.5	19.5	20.0
29	28.0	25.5	26.5	27.5	26.5	27.0	26.5	24.5	25.5	20.0	19.0	19.5
30	27.5	26.5	26.5	27.0	26.0	26.5	26.0	25.5	25.5	19.0	18.5	19.0
31	---	---	---	27.0	26.0	26.5	27.0	25.5	26.0	---	---	---
MONTH	28.5	25.0	27.0	30.0	24.0	27.0	29.0	23.0	26.0	27.0	17.5	22.0

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	NOV 12,80 1045	MAR 17,81 1100	MAY 19,81 1200	JUL 20,81 1200	SEP 14,81 1030
TOTAL CELLS/ML	350	3700	11000	550000	6500
DIVERSITY: DIVISION	1.5	1.5	0.7	0.7	1.4
..CLASS	1.5	1.5	0.7	0.7	1.4
..ORDER	1.6	1.9	0.8	0.8	1.9
...FAMILY	1.6	2.0	1.5	1.4	2.7
....GENUS	1.6	2.0	1.6	1.8	3.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	26000	5	270	4
...HYDRODICTYACEAE										
...PEDIASTRUM	--	-	--	-	870	8	--	-	--	-
...UOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	190	2	*	0	600	9
....CHODATELLA	--	-	--	-	--	-	--	-	230	4
....DICTYOSPHAERIUM	--	-	--	-	--	-	15000	3	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	19000	3	--	-
....OOCYSTIS	--	-	--	-	190	2	--	-	--	-
....SELENASTRUM	--	-	--	-	150	1	12000	2	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	270	4
....CRUCIGENIA	--	-	--	-	--	-	15000	3	--	-
...SCENEDESMUS	150#	44	--	-	7900#	73	370000#	67	2300#	35
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	500	14	97	1	*	0	500	8
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
...CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	39	11	--	-	150	1	2800	1	660	10
....STEPHANODISCUS	--	-	1300#	35	--	-	--	-	100	2
...PENNALES										
....ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	100	2
...FRAGILARIACEAE										
....FRAGILARIA	--	-	33	1	--	-	--	-	66	1
...NAVICULACEAE										
....NAVICULA	13	4	100	3	150	1	--	-	230	4
...NITZSCHIA										
....NITZSCHIA	--	-	300	8	97	1	9400	2	66	1
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	33	1	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	800	12
....ANACYSTIS	140#	41	1400#	39	1100	10	81000	15	270	4
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	100	2

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

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

POTOMAC RIVER BASIN

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 mi² (173.3 km²).

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

AVERAGE DISCHARGE.--34 years, 76.1 ft³/s (2.155 m³/s), 15.45 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) Oct. 9, 1976, gage height, 14.13 ft (4.307 m), from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 27 to Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 899 ft³/s (25.5 m³/s) June 20, gage height, 4.00 ft (1.219 m), no peak above base of 1,200 ft³/s (34 m³/s); minimum daily discharge, 2.5 ft³/s (0.071 m³/s) Jan. 13.

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	2.7	5.6	17	9.7	5.4	105	39	75	29	39	21	26
2	2.6	6.0	16	8.5	250	83	42	105	35	49	18	16
3	3.0	6.2	19	7.0	61	72	36	66	52	65	18	16
4	3.4	6.7	16	6.0	36	63	33	58	82	64	32	12
5	3.3	7.3	14	5.5	26	72	57	54	82	61	24	12
6	3.2	7.3	13	5.0	22	68	77	54	51	46	21	12
7	3.2	7.1	13	6.0	20	64	56	53	43	36	26	14
8	3.3	7.1	12	5.5	20	61	52	47	35	29	20	14
9	3.0	7.1	12	4.6	16	59	51	43	33	26	20	24
10	2.8	6.8	12	4.0	18	63	48	43	58	23	15	14
11	3.3	6.6	12	3.4	312	63	58	64	49	20	13	9.4
12	2.9	5.9	11	2.8	89	62	146	89	35	18	16	7.5
13	2.6	5.8	10	2.5	59	57	324	63	29	17	16	6.5
14	2.8	6.5	9.7	3.6	46	53	415	54	92	17	12	5.8
15	3.0	6.8	8.7	4.0	40	49	327	52	80	16	11	6.0
16	3.0	7.3	10	5.0	37	63	248	50	46	15	10	12
17	3.1	9.2	9.4	5.5	35	74	216	45	40	16	9.6	15
18	3.8	37	8.7	6.0	36	54	182	42	34	15	8.3	11
19	4.9	24	10	7.0	41	53	147	49	30	13	7.2	8.3
20	5.1	14	6.2	8.5	342	51	139	52	273	17	6.6	7.3
21	4.5	11	9.5	9.7	238	48	115	41	109	33	6.3	7.0
22	3.8	9.6	10	10	46	43	101	36	284	29	6.0	6.2
23	3.5	8.8	10	12	40	41	100	32	131	17	5.7	5.7
24	3.8	132	9.0	11	318	39	103	30	95	25	5.4	4.9
25	38	102	8.2	10	194	37	85	28	84	39	5.3	4.4
26	45	37	10	9.7	146	34	74	27	73	28	5.3	4.1
27	15	26	7.1	10	118	34	69	25	59	29	5.1	4.0
28	9.7	26	7.4	11	105	31	64	35	52	129	4.9	3.8
29	7.7	25	9.0	9.7	---	30	62	47	46	88	4.5	3.5
30	7.0	20	11	6.7	---	38	58	43	40	37	6.8	4.1
31	6.0	---	9.8	6.3	---	54	---	36	---	26	20	---
TOTAL	209.0	587.7	340.7	216.2	2716.4	1718	3524	1538	2181	1082	400.0	296.5
MEAN	6.74	19.6	11.0	6.97	97.0	55.4	117	49.6	72.7	34.9	12.9	9.88
MAX	45	132	19	12	342	105	415	105	284	129	32	26
MIN	2.6	5.6	6.2	2.5	5.4	30	33	25	29	13	4.5	3.5
CFSM	.10	.29	.16	.10	1.45	.83	1.75	.74	1.09	.52	.19	.15
IN.	.12	.33	.19	.12	1.51	.96	1.96	.86	1.21	.60	.22	.16
CAL YR 1980	TOTAL	22286.8	MEAN	60.9	MAX	882	MIN	2.6	CFSM	.91	IN	12.39
WTR YR 1981	TOTAL	14809.5	MEAN	40.6	MAX	415	MIN	2.5	CFSM	.61	IN	8.23

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.--86 years, 9,355 ft³/s (264.9 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.--Maximum discharge, 41,900 ft³/s (1,190 m³/s) Apr. 14, gage height, 9.81 ft (2.990 m), no other peak above base of 35,000 ft³/s (990 m³/s); minimum discharge, 1,080 ft³/s (30.6 m³/s) Aug. 29, gage height, 0.64 ft (0.195 m).

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	1550	1870	5040	2300	1800	11600	5910	6510	13700	3600	3020	2400
2	1560	1730	4750	2200	2300	10000	5960	6760	12200	3400	2700	2200
3	1470	1640	4360	1700	3800	9620	5590	7220	11000	3500	2400	1900
4	1540	1680	4140	1500	5000	8590	5430	10100	11100	5550	2280	1800
5	1490	1710	4220	1300	4500	7930	5490	9010	14600	8380	2180	2200
6	1570	1530	4830	1400	4500	7750	5110	7790	17500	8830	2160	2630
7	1500	1570	4500	1800	5000	7160	4770	6860	15900	8440	2300	4330
8	1390	1540	4210	1800	4340	6860	4540	6520	16600	8450	2380	4080
9	1420	1470	3870	1600	4200	6690	4310	5990	16400	7090	2270	3480
10	1450	1520	3800	1600	4200	6480	4200	5410	12800	6410	2100	3000
11	1430	1510	3550	1600	4450	6420	4080	5110	11400	5320	2220	2800
12	1410	1510	3670	1600	4610	6280	4310	5370	14300	4570	2290	2600
13	1360	1510	4060	1500	7900	6230	11200	11700	13900	4350	2190	2500
14	1290	1500	3790	1500	9670	5990	38500	11800	11200	3930	2000	2400
15	1310	1490	3480	1500	8170	5600	40400	9640	13100	3390	1770	2500
16	1300	1560	3400	1600	6790	5560	31300	8320	14400	3010	1750	2400
17	1310	1570	3310	1500	6090	5680	22500	7880	13500	2750	1690	2300
18	1370	1890	3090	1400	5820	5560	16900	8200	9290	2570	1530	2500
19	1340	2090	2960	1500	5410	5420	13700	7640	7360	2380	1380	3770
20	1330	2200	2640	1600	8000	5110	11700	7100	7350	2260	1450	4190
21	1330	2460	2530	1700	19300	4920	10200	8940	7730	2320	1450	3240
22	1410	3040	2320	1800	25300	4730	9240	17600	11000	2220	1410	2760
23	1330	3050	2100	1900	25800	4500	8690	15900	10500	2200	1310	2330
24	1270	3010	1830	1900	28200	4320	8250	12200	8510	2030	1280	2090
25	1730	5700	1600	1800	28600	4040	7810	9800	7220	2040	1230	1820
26	1980	12300	1300	1900	22700	3840	7470	8240	5870	2060	1230	1750
27	2240	11400	1700	2000	17500	3740	7140	6970	5010	2290	1230	1610
28	2770	8290	2300	2000	14100	3640	6640	6080	4650	3040	1180	1630
29	3020	6490	2200	2000	---	3650	6340	5820	4860	3680	1200	1520
30	2820	5570	2100	1700	---	6500	6650	8240	4090	3460	1300	1390
31	2350	---	2200	1600	---	6670	---	14700	---	3270	2300	---
TOTAL	50640	94400	99850	52800	288050	191080	324330	269420	327040	126790	57180	76120
MEAN	1634	3147	3221	1703	10290	6164	10810	8691	10900	4090	1845	2537
MAX	3020	12300	5040	2300	28600	11600	40400	17600	17500	8830	3020	4330
MIN	1270	1470	1300	1300	1800	3640	4080	5110	4090	2030	1180	1390
CFSM	.17	.33	.33	.18	1.07	.64	1.12	.90	1.13	.42	.19	.26
IN.	.20	.36	.38	.20	1.11	.74	1.25	1.04	1.26	.49	.22	.29
CAL YR 1980 TOTAL	3354390			MEAN 9165	MAX 63100	MIN 1270	CFSM .95	IN 12.93				
WTR YR 1981 TOTAL	1957700			MEAN 5364	MAX 40400	MIN 1180	CFSM .56	IN 7.55				

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, 27.0°C July 13, 14, 20, 21; minimum daily, 0.0°C Dec. 20, Jan. 3, 4.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 338 mg/L Apr. 15; minimum daily mean, 1 mg/L Oct. 13, Jan. 9-28.

SEDIMENT LOADS: Maximum daily, 36,900 tons (33,500 tonnes) Apr. 15; minimum daily, 3.7 tons (3.4 tonnes) Oct. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
NOV 24...	1130	2820	500	7.5	5.0	4.5	5	11.7	170	60	50	11
JAN 28...	1330	2000	492	8.8	10.0	.6	8	14.7	180	60	54	11
JUN 30...	1215	3970	262	8.1	28.5	24.0	2	7.8	110	37	34	6.3
SEP 18...	1330	2370	405	8.1	--	20.0	5	--	150	41	44	10

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	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 CONSTITUENTS, DIS- SOLVED (MG/L)
NOV 24...	28	26	.9	3.8	--	110	71	32	.2	.0	284	262
JAN 28...	31	27	1.0	2.5	1.9	120	79	28	.1	.2	319	278
JUN 30...	7.0	12	.3	2.1	1.6	74	39	11	.1	4.4	180	148
SEP 18...	22	24	.8	2.7	--	110	67	17	.1	4.4	256	233

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- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 24...	.39	2160	.78	.120	.37	210	190	20	10	5	5
JAN 28...	.43	1720	1.7	.100	.31	180	--	<10	30	20	10
JUN 30...	.24	1930	1.1	.050	.15	420	410	10	50	50	4
SEP 18...	.35	1640	1.1	.110	.34	400	390	10	40	30	10

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TRITIUM IN WATER MOLE- CULES	TRITIUM WATER MOLE- CULES COUNT ERROR	DATE	TRITIUM IN WATER MOLE- CULES	TRITIUM WATER MOLE- CULES COUNT ERROR
	(TU)	(TU)		(TU)	(TU)
OCT			APR		
01-31	30.1	1.2	01-30	37.9	1.6
DEC			MAY		
01-31	30.7	1.3	01-31	39.2	1.6
JAN			JUN		
01-31	30.9	1.2	01-18	41.2	2.5
FEB			18-30	38.4	2.3
01-28	29.2	1.3	JUL		
MAR			01-18	37.7	2.3
01-31	33.8	1.4	18-31	39.1	2.3

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.0	4.0	1.0	2.0	7.0	12.0	16.0	20.0	23.0	24.0	---
2	20.0	10.0	7.0	2.0	1.0	6.0	12.0	14.0	19.0	23.0	24.0	24.0
3	17.0	9.0	5.0	.0	---	5.0	12.0	15.0	19.0	23.0	25.0	23.0
4	17.0	9.0	3.0	.0	---	5.0	---	17.0	20.0	23.0	---	22.0
5	17.0	10.0	3.0	---	---	5.0	16.0	15.0	20.0	24.0	26.0	21.0
6	---	8.0	4.0	---	1.0	4.0	13.0	15.0	20.0	23.0	25.0	22.0
7	14.0	9.0	5.0	---	1.0	4.0	12.0	14.0	20.0	26.0	22.0	22.0
8	---	10.0	5.0	---	1.0	4.0	12.0	---	20.0	---	25.0	22.0
9	16.0	9.0	7.0	---	1.0	5.0	14.0	18.0	21.0	25.0	---	20.0
10	16.0	10.0	6.0	---	2.0	6.0	14.0	17.0	21.0	26.0	25.0	19.0
11	15.0	7.0	4.0	---	3.0	6.0	14.0	17.0	20.0	26.0	26.0	20.0
12	14.0	---	5.0	---	---	5.0	16.0	16.0	22.0	25.0	26.0	21.0
13	12.0	7.0	5.0	---	1.0	8.0	13.0	16.0	22.0	27.0	25.0	22.0
14	10.0	9.0	5.0	---	1.0	6.0	12.0	17.0	24.0	27.0	25.0	23.0
15	12.0	8.0	3.0	---	2.0	7.0	11.0	18.0	23.0	24.0	25.0	24.0
16	12.0	8.0	3.0	---	3.0	6.0	12.0	16.0	25.0	25.0	25.0	21.0
17	14.0	5.0	3.0	---	---	6.0	11.0	18.0	24.0	24.0	23.0	20.0
18	17.0	5.0	3.0	---	6.0	6.0	12.0	16.0	23.0	25.0	21.0	20.0
19	---	4.0	4.0	---	9.0	5.0	13.0	15.0	23.0	26.0	21.0	18.0
20	15.0	4.0	.0	---	6.0	5.0	13.0	15.0	25.0	27.0	21.0	18.0
21	13.0	6.0	2.0	---	5.0	5.0	13.0	15.0	26.0	27.0	21.0	17.0
22	17.0	5.0	2.0	---	5.0	6.0	12.0	16.0	25.0	26.0	---	18.0
23	12.0	5.0	1.0	---	6.0	6.0	14.0	16.0	23.0	25.0	20.0	16.0
24	13.0	5.0	4.0	---	6.0	6.0	14.0	19.0	23.0	23.0	22.0	14.0
25	12.0	6.0	1.0	---	6.0	7.0	12.0	18.0	23.0	23.0	21.0	15.0
26	8.0	4.0	1.0	1.0	5.0	7.0	14.0	20.0	23.0	23.0	22.0	17.0
27	7.0	4.0	---	1.0	5.0	8.0	13.0	20.0	21.0	25.0	22.0	21.0
28	11.0	5.0	---	1.0	6.0	8.0	15.0	21.0	22.0	---	24.0	18.0
29	9.0	4.0	---	1.0	---	8.0	16.0	21.0	22.0	25.0	24.0	16.0
30	9.0	5.0	---	1.0	---	8.0	14.0	23.0	24.0	23.0	24.0	17.0
31	10.0	---	1.0	1.0	---	9.0	---	23.0	---	24.0	24.0	---

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION											
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)										
OCTOBER													NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15	63	5	25	26	354	2	12	5	24	21	658										
2	16	67	6	28	21	269	2	12	8	50	22	594										
3	12	48	7	31	16	188	1	4.6	15	154	17	442										
4	11	46	7	32	14	156	2	8.1	22	297	17	394										
5	8	32	7	32	12	137	5	18	22	267	10	214										
6	9	38	6	25	12	156	5	19	20	243	10	209										
7	10	40	6	25	10	121	3	15	19	256	10	193										
8	10	38	6	25	10	114	2	9.7	16	187	8	148										
9	10	38	8	32	11	115	1	4.3	10	113	7	126										
10	7	27	7	29	12	123	1	4.3	9	102	9	157										
11	6	23	6	24	8	77	1	4.3	11	132	8	139										
12	5	19	6	24	8	79	1	4.3	12	149	7	119										
13	1	3.7	5	20	8	88	1	4.1	15	320	9	151										
14	4	14	5	20	6	61	1	4.1	34	888	12	194										
15	6	21	3	12	3	28	1	4.1	32	706	9	136										
16	5	18	2	8.4	2	18	1	4.3	20	367	8	120										
17	4	14	3	13	2	18	1	4.1	17	280	12	184										
18	4	15	3	15	3	25	1	3.8	23	361	8	120										
19	2	7.2	3	17	3	24	1	4.1	21	307	8	117										
20	3	11	3	18	3	21	1	4.3	28	605	6	83										
21	7	25	3	20	4	27	1	4.6	90	5090	7	93										
22	3	11	4	33	4	25	1	4.9	192	13100	6	77										
23	5	18	6	49	2	12	1	5.1	103	7170	5	61										
24	3	10	10	81	3	15	1	5.1	95	7230	5	58										
25	8	37	16	246	5	22	1	4.9	128	9880	5	55										
26	6	32	58	1940	15	53	1	5.1	84	5150	5	52										
27	6	36	68	2110	10	46	1	5.4	49	2320	5	50										
28	11	82	41	935	7	43	1	5.4	18	685	4	39										
29	13	106	28	491	5	30	3	16	---	---	6	59										
30	12	91	28	421	5	28	12	55	---	---	17	298										
31	8	51	---	---	4	24	16	69	---	---	16	288										
TOTAL	---	1081.9	---	6781.4	---	2497	---	329.0	---	56433	---	5628										
APRIL													MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10	160	12	211	38	1410	15	146	25	204	15	97										
2	13	209	15	274	36	1190	15	138	23	168	17	101										
3	12	181	16	312	31	921	17	161	23	149	17	87										
4	15	220	24	654	30	899	32	480	21	129	17	83										
5	16	237	13	316	40	1580	46	1040	20	118	29	172										
6	15	207	11	231	53	2500	37	882	20	117	34	241										
7	10	129	12	222	40	1720	38	866	19	118	50	585										
8	11	135	12	211	46	2060	38	867	18	116	34	375										
9	13	151	11	178	53	2350	29	555	17	104	27	254										
10	12	136	13	190	39	1350	25	433	17	96	23	186										
11	10	110	16	221	35	1080	28	402	18	108	24	181										
12	11	128	12	174	42	1620	26	321	19	117	24	168										
13	60	2260	47	1480	44	1650	19	223	24	142	19	128										
14	294	31100	43	1370	39	1180	18	191	28	151	17	110										
15	338	36900	26	677	53	1870	16	146	23	110	13	88										
16	195	16500	24	539	61	2370	15	122	19	90	12	78										
17	112	6800	21	447	59	2150	15	113	17	78	15	93										
18	55	2510	18	399	37	928	14	99	18	74	16	108										
19	38	1410	19	392	32	636	15	98	16	60	28	285										
20	32	1010	18	345	30	595	15	94	15	59	22	249										
21	23	633	18	434	34	710	15	96	17	67	17	149										
22	21	524	46	2190	50	1490	16	98	17	65	16	119										
23	19	446	39	1670	50	1420	17	103	16	57	10	63										
24	19	423	33	1090	34	781	15	84	14	48	9	51										
25	15	316	24	635	34	663	13	73	16	53	10	49										
26	15	303	19	423	26	412	14	79	16	53	6	28										
27	13	251	16	301	23	311	16	101	15	50	3	13										
28	11	197	15	246	20	251	24	200	14	45	3	13										
29	11	188	18	283	21	276	37	374	12	39	2	8.2										
30	12	215	30	667	18	199	35	333	12	42	2	7.5										
31	---	---	41	1630	---	---	---	---	13	81	---	---										
TOTAL	---	103989	---	18412	---	36572	---	8918	---	2908	---	4169.7										
TOTAL LOAD FOR YEAR: 247719.0													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 mi² (448 km²).

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

AVERAGE DISCHARGE.--39 years, 202 ft³/s (5.721 m³/s), 15.86 in/yr (403 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft³/s (603 m³/s) June 22, 1972, gage height, 24.05 ft (7.330 m), from rating curve extended above 7,000 ft³/s (198 m³/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 ft³/s (651 m³/s). Stage exceeded that of June 1889, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,800 ft³/s (130 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 11	1430	*6910 196	12.18 3.712	Feb. 23	2200	6620 187	11.91 3.630
Feb. 20	1130	5180 147	10.51 3.203	Apr. 14	1430	5190 147	10.52 3.206

Minimum discharge, 1.2 ft³/s (0.034 m³/s) Aug. 27, gage height, 1.66 ft (0.506 m).

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	5.5	8.0	62	22	13	266	80	66	31	19	8.7	177
2	5.2	7.2	52	20	1060	205	87	104	30	21	8.0	45
3	5.2	7.1	54	18	494	163	73	78	46	41	7.8	25
4	5.2	7.2	45	17	136	136	58	60	94	107	22	27
5	5.1	11	31	13	77	157	62	51	74	177	24	22
6	4.6	21	28	11	62	172	85	49	48	70	14	18
7	4.3	21	29	11	42	203	62	52	36	43	11	17
8	4.1	21	27	12	41	241	51	47	29	30	8.9	22
9	3.9	20	26	11	36	307	48	44	25	24	8.8	22
10	4.2	21	29	9.6	34	264	48	43	71	20	8.9	20
11	4.1	23	32	8.0	2550	200	54	121	78	17	8.1	15
12	4.1	24	27	6.9	560	164	649	381	46	14	7.6	12
13	3.5	22	25	6.0	190	136	1670	182	31	14	6.9	8.8
14	3.0	21	23	5.9	135	115	2440	110	151	13	6.4	7.7
15	2.7	21	22	6.5	109	96	896	87	128	15	6.3	7.6
16	2.5	21	22	7.5	88	105	416	97	65	17	6.3	8.7
17	2.9	22	23	8.4	86	144	310	76	41	18	6.0	21
18	4.6	47	21	8.4	95	106	270	61	30	19	6.1	25
19	4.6	82	25	8.6	147	96	206	56	26	21	5.8	17
20	11	47	19	9.7	2630	88	186	52	142	27	5.5	13
21	6.0	31	20	14	2180	84	150	46	102	97	5.0	11
22	4.0	26	16	17	661	76	125	41	200	36	4.1	8.8
23	3.4	24	16	20	3080	71	120	36	198	17	3.2	7.8
24	2.0	446	21	20	2420	62	138	33	74	12	2.5	7.2
25	18	767	18	20	641	55	114	31	45	11	1.9	7.0
26	166	154	15	20	373	50	91	30	38	11	1.6	6.8
27	40	92	12	20	276	48	81	27	33	18	1.5	6.6
28	21	106	12	21	242	48	74	29	25	16	1.6	6.4
29	15	129	15	22	---	45	70	98	22	21	2.1	6.1
30	12	84	21	18	---	51	67	60	20	16	2.6	5.7
31	10	---	24	15	---	107	---	40	---	11	352	---
TOTAL	387.7	2333.5	812	427.5	18458	4061	8781	2288	1979	993	565.2	604.2
MEAN	12.5	77.8	26.2	13.8	659	131	293	73.8	66.0	32.0	18.2	20.1
MAX	166	767	62	22	3080	307	2440	381	200	177	352	177
MIN	2.0	7.1	12	5.9	13	45	48	27	20	11	1.5	5.7
CFSM	.07	.45	.15	.08	3.81	.76	1.69	.43	.38	.19	.11	.12
IN.	.08	.50	.17	.09	3.97	.87	1.89	.49	.43	.21	.12	.13
CAL YR 1980	TOTAL	50959.8	MEAN 139	MAX 5000	MIN 2.0	CFSM .80	IN 10.96					
WTR YR 1981	TOTAL	41690.1	MEAN 114	MAX 3080	MIN 1.5	CFSM .66	IN 8.96					

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 mi² (264 km²).

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.--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.--34 years, 111 ft³/s (3.144 m³/s), 14.78 in/yr (375 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s (793 m³/s) Sept. 26, 1975, gage height, 18.98 ft (5.785 m), from rating curve extended above 3,900 ft³/s (110 m³/s) on the basis of contracted-opening measurement at gage height 17.86 ft (5.444 m); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s (45 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 11	1300	*1780 50.4	5.47 1.667	Apr. 14	1000	1690 47.9	5.28 1.609
Feb. 23	2000	1710 48.4	5.33 1.625	June 13	2400	1620 45.9	5.16 1.573

Minimum discharge, 9.0 ft³/s (0.25 m³/s) Oct. 8, 21, 22, gage height, 0.80 ft (0.244 m).

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	20	27	43	30	26	117	50	76	54	50	40	40
2	21	24	41	29	180	98	79	135	58	105	37	29
3	21	25	41	27	220	86	55	85	64	87	42	28
4	23	25	36	26	90	77	49	73	76	370	56	27
5	22	31	34	25	60	94	133	67	71	194	43	28
6	19	28	37	24	50	94	241	66	57	109	38	29
7	17	25	34	24	46	98	114	67	54	86	41	28
8	20	27	35	22	45	99	94	60	46	71	38	33
9	17	25	35	22	46	97	87	56	45	63	40	50
10	17	26	37	22	38	88	83	57	54	57	35	33
11	18	25	33	22	761	83	79	84	58	50	33	28
12	20	22	31	21	175	80	376	117	46	47	33	26
13	17	23	32	20	80	72	425	75	91	43	38	23
14	17	23	29	20	70	65	860	65	860	42	33	24
15	18	25	28	20	60	60	367	70	153	38	31	24
16	18	24	29	26	55	77	236	152	100	37	33	38
17	18	25	30	24	51	86	196	86	84	39	32	49
18	18	111	30	24	55	66	170	73	71	36	28	36
19	30	72	30	24	67	63	137	74	63	34	25	38
20	25	43	28	26	320	61	142	76	162	44	24	34
21	21	36	24	28	629	58	116	64	112	198	25	29
22	19	33	23	32	222	53	106	59	427	81	23	29
23	20	30	25	32	701	53	105	55	134	48	21	27
24	20	219	27	30	577	51	120	52	93	42	23	24
25	194	254	21	30	232	48	96	49	81	47	21	24
26	131	76	24	30	165	47	86	47	129	46	21	24
27	43	57	28	32	132	46	82	47	74	45	21	24
28	34	70	28	30	116	44	77	47	63	78	21	44
29	31	63	30	27	---	43	75	106	56	210	20	29
30	28	49	32	26	---	48	73	61	53	60	20	26
31	26	---	31	26	---	60	---	62	---	46	45	---
TOTAL	963	1543	966	801	5269	2212	4909	2263	3489	2503	981	925
MEAN	31.1	51.4	31.2	25.8	188	71.4	164	73.0	116	80.7	31.6	30.8
MAX	194	254	43	32	761	117	860	152	860	370	56	50
MIN	17	22	21	20	26	43	49	47	45	34	20	23
CFSM	.31	.50	.31	.25	1.84	.70	1.61	.72	1.14	.79	.31	.30
IN.	.35	.56	.35	.29	1.92	.81	1.79	.83	1.27	.91	.36	.34
CAL YR 1980	TOTAL	33433	MEAN 91.3	MAX 1350	MIN 17	CFSM .90	IN 12.19					
WTR YR 1981	TOTAL	26824	MEAN 73.5	MAX 860	MIN 17	CFSM .72	IN 9.78					

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 mi² (15.36 km²).

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.--Records good except those for January and March, which are fair. 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.--50 years, 9.35 ft³/s (0.265 m³/s), 21.41 in/yr (544 mm/yr), adjusted for diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,270 ft³/s (92.6 m³/s) Dec. 1, 1934, gage height, 8.4 ft (2.56 m), from rating curve extended above 750 ft³/s (21.2 m³/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 ft³/s (3.4 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 23	1415	*764 21.6	4.80 1.463	June 13	2230	656 18.6	4.56 1.390

Minimum daily discharge, 0.30 ft³/s (0.008 m³/s) Oct. 9.

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	.39	.66	2.0	1.1	.72	13	6.2	11	5.1	5.4	2.6	5.4
2	.40	.66	1.9	1.1	35	12	6.2	10	6.3	14	2.5	3.8
3	.49	.63	2.3	1.0	15	11	5.5	7.8	7.1	15	4.4	3.2
4	.49	.75	1.7	.90	3.6	10	5.3	7.3	11	13	3.9	2.7
5	.48	.80	1.6	.85	1.9	9.0	6.9	6.9	8.3	10	2.9	2.8
6	.39	.69	1.6	.85	1.5	9.0	6.4	7.1	6.2	7.8	3.0	2.6
7	.39	.67	1.5	1.0	1.7	8.0	5.6	6.8	5.4	6.4	3.2	3.0
8	.35	.84	1.5	.85	1.7	7.5	5.4	6.2	4.6	5.5	2.9	3.4
9	.30	.80	1.5	.80	1.7	7.5	5.5	5.9	4.8	5.2	2.5	3.1
10	.35	.71	1.7	.84	1.9	7.5	5.2	6.2	7.7	4.8	2.3	2.1
11	.39	.63	1.4	.75	41	7.5	12	12	5.5	4.2	2.2	1.8
12	.40	.62	1.3	.75	24	7.0	40	12	4.2	3.9	2.2	1.6
13	.39	.63	1.3	.65	8.1	6.5	49	8.0	43	3.9	1.9	1.5
14	.40	.64	1.2	.65	5.2	6.5	53	7.2	84	3.8	1.7	1.4
15	.40	.67	1.1	.65	3.7	6.5	35	7.4	30	3.4	1.7	2.0
16	.40	.71	1.3	.60	3.3	7.5	28	7.1	20	3.5	2.0	3.8
17	.39	.89	1.2	.60	3.7	7.0	24	6.3	15	3.5	1.5	2.4
18	.67	3.1	1.3	.65	4.4	6.5	21	6.0	13	3.1	1.3	1.9
19	.89	1.9	1.3	.75	5.3	6.5	18	6.7	11	2.9	1.3	1.8
20	.47	1.4	.97	.93	46	7.0	17	6.3	21	6.1	1.2	1.5
21	.44	1.4	.61	1.1	27	6.5	14	5.5	12	7.1	1.2	1.5
22	.45	1.6	.65	1.1	22	6.5	13	5.0	18	4.3	1.2	1.5
23	.45	1.5	.82	1.2	213	6.5	14	4.7	11	3.2	1.1	1.4
24	.47	28	1.1	1.1	52	6.3	14	4.4	8.7	4.2	1.1	1.2
25	11	7.3	.98	1.1	29	5.9	11	4.3	8.0	4.7	1.2	1.2
26	3.1	3.2	.53	1.3	21	5.6	10	4.0	7.4	4.2	1.1	1.2
27	1.2	2.5	.51	1.8	16	5.5	9.9	3.9	6.5	3.6	1.1	1.2
28	.98	3.7	.67	1.7	14	5.2	9.1	7.5	6.0	7.2	.97	1.2
29	.80	3.3	1.2	1.4	---	5.2	8.7	16	5.5	7.0	.92	1.1
30	.75	2.4	1.6	1.2	---	7.6	8.0	6.8	5.3	3.6	4.2	1.1
31	.68	---	1.2	.74	---	7.0	---	6.2	---	3.0	12	---
TOTAL	29.15	73.30	39.54	30.01	603.42	230.8	466.9	222.5	401.6	177.5	73.29	64.4
MEAN	.94	2.44	1.28	.97	21.6	7.45	15.6	7.18	13.4	5.73	2.36	2.15
MAX	11	28	2.3	1.8	213	13	53	16	84	15	12	5.4
MIN	.30	.62	.51	.60	.72	5.2	5.2	3.9	4.2	2.9	.92	1.1
CFSM	.16	.41	.22	.16	3.64	1.26	2.63	1.21	2.26	.97	.40	.36
IN.	.18	.46	.25	.19	3.78	1.45	2.93	1.40	2.52	1.11	.46	.40

CAL YR 1980 TOTAL 2828.93 MEAN 7.73 MAX 93 MIN .30 CFSM 1:30 IN 17.74
WTR YR 1981 TOTAL 2412.41 MEAN 6.61 MAX 213 MIN .30 CFSM 1:12 IN 15.13

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 mi² (47.7 km²).

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

AVERAGE DISCHARGE.--32 years, 26.6 ft³/s (0.753 m³/s), 19.63 in/yr (499 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft³/s (75.6 m³/s) Oct. 9, 1976, gage height, 6.32 ft (1.926 m); minimum discharge, 0.4 ft³/s (0.011 m³/s) Sept. 9, 1966, gage height, 1.48 ft (0.451 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.9 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 20	0400	405 11.5	3.19 0.972	June 13	2300	617 17.5	3.64 1.109
Feb. 23	1530	*1600 45.3	5.13 1.564	June 20	0200	485 13.7	3.37 1.027
Apr. 14	0730	409 11.6	3.20 .975	June 21	2330	392 11.1	3.16 .963

Minimum discharge, 2.1 ft³/s (0.059 m³/s) Jan. 4, 30, 31, gage height, 1.56 ft (0.475 m).

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	3.7	4.4	4.8	4.0	3.6	39	14	24	16	16	7.0	11
2	3.6	4.2	5.1	3.7	32	33	15	26	17	23	6.0	11
3	3.3	4.2	5.3	3.7	11	28	14	22	18	28	9.8	9.2
4	3.3	4.6	5.1	3.6	6.6	24	13	19	31	34	9.4	7.8
5	2.9	4.8	5.2	3.2	6.4	28	17	17	31	29	8.0	7.8
6	3.0	4.2	5.0	3.0	6.4	28	17	17	24	23	7.9	7.4
7	3.0	4.2	5.0	3.2	5.0	25	14	17	19	19	7.5	7.0
8	2.9	5.0	5.0	3.4	4.8	23	13	15	16	15	7.0	9.4
9	2.9	4.8	5.1	2.8	4.2	22	13	14	16	14	10	8.8
10	3.0	4.4	5.0	2.8	4.1	21	12	15	22	12	6.1	6.9
11	2.8	4.2	4.5	2.6	63	22	17	38	19	11	7.7	5.8
12	2.6	4.0	4.4	2.6	18	22	66	40	15	10	7.4	5.2
13	2.6	4.0	4.4	2.4	11	21	122	29	43	10	5.7	4.9
14	2.8	4.0	4.2	2.4	9.3	20	176	26	179	9.8	5.2	5.0
15	2.8	4.0	4.1	2.4	8.7	19	106	25	91	8.9	5.0	5.4
16	2.8	4.2	4.6	2.2	7.9	23	74	23	54	9.3	5.1	8.1
17	3.0	5.0	4.3	2.2	8.2	24	62	20	44	9.3	4.5	8.1
18	3.2	16	4.0	2.4	9.0	21	54	18	33	6.5	4.2	5.6
19	6.0	6.5	4.1	2.8	17	20	46	20	28	5.7	4.2	5.4
20	3.4	5.5	3.3	3.4	146	19	42	20	96	12	4.0	5.1
21	3.0	5.5	3.4	4.0	57	18	36	17	63	12	4.0	5.1
22	2.8	5.5	3.4	4.0	49	16	32	15	91	8.3	4.1	5.1
23	2.8	5.5	4.0	4.0	640	16	32	14	53	7.4	4.0	4.9
24	2.8	50	4.0	3.9	176	15	32	13	40	9.0	4.0	4.9
25	28	13	3.5	3.8	96	14	28	12	33	12	4.2	4.7
26	9.6	7.0	3.4	3.7	66	14	25	11	28	11	4.1	4.9
27	6.0	6.1	3.4	3.8	45	13	23	11	24	9.5	3.9	4.9
28	5.5	7.8	4.1	3.6	41	13	22	18	21	12	4.0	4.9
29	5.0	6.3	4.3	3.7	---	12	21	39	18	15	4.1	5.1
30	4.8	5.5	4.2	3.3	---	16	20	26	17	10	5.6	5.2
31	4.6	---	3.8	3.4	---	15	---	20	---	8.1	36	---
TOTAL	138.5	214.4	134.0	100.0	1552.2	644	1178	641	1200	419.8	209.7	194.6
MEAN	4.47	7.15	4.32	3.23	55.4	20.8	39.3	20.7	40.0	13.5	6.76	6.49
MAX	28	50	5.3	4.0	640	39	176	40	179	34	36	11
MIN	2.6	4.0	3.3	2.2	3.6	12	12	11	15	5.7	3.9	4.7
CFSM	.24	.39	.24	.18	3.01	1.13	2.14	1.13	2.17	.73	.37	.35
IN.	.28	.43	.27	.20	3.14	1.30	2.38	1.30	2.43	.85	.42	.39
CAL YR 1980	TOTAL	8411.9	MEAN 23.0	MAX 479	MIN 2.6	CFSM 1.25	IN 17.01					
WTR YR 1981	TOTAL	6626.2	MEAN 18.2	MAX 640	MIN 2.2	CFSM .99	IN 13.40					

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 mi² (18.88 km²).

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.--Records good except those above 60 ft³/s (1.7 m³/s), which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 11.6 ft³/s (0.329 m³/s), 21.61 in/yr (549 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,200 ft³/s (62.3 m³/s) Oct. 9, 1976, gage height, 5.75 ft (1.753 m), from rating curve extended above 100 ft³/s (2.83 m³/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 ft³/s (0.017 m³/s) Sept. 10, 11, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s (4.59 m³/s) Feb. 23, gage height, 2.62 ft (0.799 m), no other peak above base of 100 ft³/s (2.8 m³/s); minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Jan. 16, 17.

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	1.3	1.6	2.1	1.4	1.1	21	7.7	14	7.5	10	4.2	2.9
2	1.3	1.5	1.8	1.4	7.2	17	7.6	15	8.0	11	4.0	3.4
3	1.4	1.5	2.0	1.4	2.5	15	7.3	13	9.0	12	4.4	3.0
4	1.4	1.6	1.9	1.3	1.8	13	7.2	12	12	13	4.8	2.6
5	1.4	1.7	1.8	1.2	1.7	12	10	11	12	13	4.1	2.7
6	1.3	1.7	1.8	1.1	1.5	12	12	11	9.6	11	4.3	2.6
7	1.2	1.7	1.8	1.2	1.5	11	9.9	11	8.7	9.7	4.3	2.6
8	1.1	1.7	1.8	1.1	1.5	10	9.7	10	7.5	8.4	3.8	4.6
9	1.1	1.7	1.8	1.0	1.5	9.7	9.7	9.0	7.8	7.8	3.9	3.7
10	1.1	1.7	1.7	1.1	1.5	9.6	9.7	10	11	7.1	3.6	2.4
11	1.1	1.6	1.7	1.0	8.0	9.6	9.8	18	8.8	6.6	3.6	2.1
12	1.1	1.5	1.7	.90	4.3	9.3	14	15	6.9	6.0	4.0	2.0
13	1.1	1.5	1.6	.85	2.7	9.1	29	12	6.9	5.8	3.5	2.0
14	1.1	1.5	1.5	.85	2.3	8.8	42	10	18	5.6	3.2	2.0
15	1.1	1.5	1.5	.85	2.3	8.4	45	11	13	5.4	3.1	1.9
16	1.1	1.5	1.5	.80	2.2	9.0	41	11	10	5.1	3.1	3.1
17	1.1	1.7	1.5	.80	2.2	9.7	37	10	9.6	5.1	2.9	2.7
18	1.2	3.5	1.5	.85	2.2	8.8	34	9.0	9.0	4.8	2.7	2.1
19	1.5	2.2	1.5	.95	2.5	8.6	29	10	8.4	4.5	2.6	2.0
20	1.3	1.9	1.4	1.0	23	8.6	27	9.0	16	6.5	2.5	2.0
21	1.2	1.8	1.3	1.1	13	8.8	24	8.5	13	7.7	2.3	2.0
22	1.1	1.8	1.3	1.2	9.7	8.6	22	8.0	32	5.1	2.3	1.8
23	1.1	1.7	1.3	1.2	74	8.4	22	7.5	24	4.5	2.3	1.8
24	1.1	11	1.4	1.3	59	8.4	22	7.0	19	5.6	2.2	1.7
25	8.5	4.6	1.4	1.3	39	8.2	19	6.5	16	6.2	2.2	1.7
26	2.7	2.5	1.3	1.3	30	7.7	18	6.5	14	5.6	2.2	1.7
27	1.8	2.3	1.3	1.4	26	7.6	16	6.0	13	4.9	2.1	1.7
28	1.8	2.7	1.3	1.4	22	7.4	16	9.0	12	7.1	2.0	1.5
29	1.8	2.5	1.4	1.3	---	7.2	15	14	11	8.1	2.0	1.5
30	1.7	2.2	1.5	1.3	---	8.1	15	10	10	5.2	3.0	1.5
31	1.7	---	1.4	1.1	---	8.7	---	8.0	---	4.7	4.8	---
TOTAL	48.8	67.9	48.8	34.95	346.2	309.3	587.6	322.0	363.7	223.1	100.0	69.3
MEAN	1.57	2.26	1.57	1.13	12.4	9.98	19.6	10.4	12.1	7.20	3.23	2.31
MAX	8.5	11	2.1	1.4	74	21	45	18	32	13	4.8	4.6
MIN	1.1	1.5	1.3	.80	1.1	7.2	7.2	6.0	6.9	4.5	2.0	1.5
CFSM	.22	.31	.22	.16	1.70	1.37	2.69	1.43	1.66	.99	.44	.32
IN.	.25	.35	.25	.18	1.77	1.58	3.00	1.64	1.86	1.14	.51	.35
CAL YR 1980	TOTAL	4196.20	MEAN	11.5	MAX	82	MIN	1.1	CFSM	1.58	IN	21.41
WTR YR 1981	TOTAL	2521.65	MEAN	6.91	MAX	74	MIN	.80	CFSM	.95	IN	12.87

POTOMAC RIVER BASIN

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 mi² (213.2 km²).

PERIOD OF RECORD.--November 1931 to March 1932, September 1934 to current year.

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.--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 hm³). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 86.1 ft³/s (2.438 m³/s), 14.21 in/yr (361 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s (569 m³/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 ft³/s (42.5 m³/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 ft³/s (0.040 m³/s) Nov. 24, 1972, gage height, 1.10 ft (0.335 m), result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 752 ft³/s (21.3 m³/s) Feb. 11, gage height, 5.06 ft (1.542 m), no peak above base of 1,400 ft³/s (39 m³/s); minimum discharge, 8.8 ft³/s (0.25 m³/s) Aug. 25, result of regulation; minimum daily discharge, 12 ft³/s (0.34 m³/s) Oct. 1, Jan. 13, Aug. 25.

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	12	18	34	25	17	85	37	56	39	44	30	27
2	14	17	32	24	169	70	44	82	55	69	28	20
3	17	17	30	20	107	65	37	58	56	69	28	18
4	16	20	28	20	48	60	33	50	97	124	31	17
5	15	22	27	17	35	65	47	47	160	126	29	19
6	14	19	27	17	30	68	85	46	71	76	28	19
7	13	18	27	21	28	71	60	47	57	62	30	19
8	13	17	27	19	30	65	49	43	47	53	30	18
9	14	18	29	16	26	60	47	40	43	48	34	21
10	16	17	31	17	27	55	46	41	55	44	29	18
11	18	15	28	15	320	54	46	57	51	41	25	15
12	18	15	26	13	134	52	99	63	41	37	26	14
13	17	16	25	12	58	49	169	49	37	35	27	14
14	19	16	24	13	49	45	291	44	251	35	24	13
15	22	16	24	16	44	43	202	46	125	32	23	14
16	22	18	25	19	41	47	132	63	76	31	22	22
17	22	20	26	20	39	51	109	49	112	32	20	27
18	26	67	23	18	41	44	95	43	68	31	18	22
19	27	49	24	17	46	43	79	48	55	29	18	18
20	24	30	20	20	143	42	76	53	75	29	17	16
21	19	24	18	25	260	40	67	44	66	44	16	16
22	18	22	18	24	160	38	61	40	277	45	16	15
23	18	20	20	25	300	37	62	37	95	32	15	15
24	18	130	25	24	200	35	79	35	70	31	15	14
25	108	159	21	23	140	35	63	34	65	37	12	13
26	87	57	18	24	100	34	54	32	83	35	13	13
27	33	43	18	25	90	34	52	31	57	33	14	14
28	25	53	19	25	80	34	50	32	50	51	14	17
29	22	48	23	22	---	32	49	42	46	125	14	14
30	20	39	25	18	---	37	48	40	44	47	14	13
31	18	---	23	17	---	41	---	49	---	35	24	---
TOTAL	745	1040	765	611	2762	1531	2368	1441	2424	1562	684	515
MEAN	24.0	34.7	24.7	19.7	98.6	49.4	78.9	46.5	80.8	50.4	22.1	17.2
MAX	108	159	34	25	320	85	291	82	277	126	34	27
MIN	12	15	18	12	17	32	33	31	37	29	12	13
CFSM	.29	.42	.30	.24	1.20	.60	.96	.57	.98	.61	.27	.21
IN.	.34	.47	.35	.28	1.25	.69	1.07	.65	1.10	.71	.31	.23
CAL YR 1980	TOTAL	26752.0	MEAN	73.1	MAX	458	MIN	7.7	CFSM	.89	IN	12.09
WTR YR 1981	TOTAL	16448.0	MEAN	45.1	MAX	320	MIN	12	CFSM	.55	IN	7.43

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 mi² (2,116 km²).

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 tele-meter at station.

AVERAGE DISCHARGE.--52 years, 927 ft³/s (26.25 m³/s), 15.41 in/yr (391 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft³/s (2,310 m³/s) June 23, 1972, gage height, 35.9 ft (10.94 m), from floodmark; minimum daily, 19 ft³/s (0.54 m³/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 ft³/s (1,590 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,800 ft³/s (250 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 12	0130	9540 270	10.82 3.298	Apr. 15	0100	10300 292	11.32 3.450
Feb. 24	1000	*15800 447	14.42 4.395				

Minimum discharge, 75 ft³/s (2.12 m³/s) Jan. 30, result of freezeup.

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	94	118	321	146	112	1080	429	492	357	336	205	1060
2	95	112	277	143	528	953	408	636	349	362	184	391
3	99	110	254	125	2500	793	414	602	373	515	174	239
4	97	117	238	123	590	680	350	470	571	694	198	191
5	96	120	228	120	330	714	385	423	949	1450	223	181
6	94	120	205	120	325	795	877	401	551	731	212	172
7	91	121	189	120	320	830	610	402	429	522	196	217
8	87	128	184	120	277	824	474	378	357	415	190	174
9	87	125	191	118	190	864	428	347	310	351	206	211
10	87	127	197	111	186	882	413	335	362	312	180	203
11	88	119	194	110	2960	763	405	440	431	276	160	165
12	87	119	187	108	4430	710	1140	872	373	248	162	144
13	85	120	181	104	819	636	5140	910	298	237	164	129
14	84	121	170	97	584	573	5460	574	4840	227	160	121
15	86	120	162	105	484	511	5970	504	2040	213	146	118
16	87	122	158	109	422	506	2430	576	937	198	139	143
17	87	136	161	109	381	623	1760	534	806	197	132	180
18	98	290	155	110	385	564	1490	438	605	195	129	199
19	102	418	154	109	441	493	1200	424	474	182	123	185
20	103	326	129	108	4560	470	1050	441	1350	190	117	161
21	112	236	145	124	6550	447	942	396	1090	372	115	144
22	104	186	139	129	2900	419	792	352	3310	482	112	130
23	100	166	136	137	5160	395	749	320	1450	294	108	124
24	98	504	132	142	12200	381	805	298	886	239	107	116
25	360	2580	146	140	3220	360	748	280	668	226	103	109
26	828	838	130	143	1890	340	622	267	668	231	99	107
27	445	461	131	139	1340	328	560	254	553	227	101	118
28	236	406	121	145	1090	318	525	263	452	313	100	127
29	173	450	118	143	---	307	499	533	391	645	99	119
30	147	408	134	124	---	320	477	596	368	412	99	116
31	130	---	136	126	---	380	---	422	---	251	524	---
TOTAL	4567	9324	5403	3807	55174	18259	37552	14180	26598	11543	4967	5794
MEAN	147	311	174	123	1971	589	1252	457	887	372	160	193
MAX	828	2580	321	146	12200	1080	5970	910	4840	1450	524	1060
MIN	84	110	118	97	112	307	350	254	298	182	99	107
CFSM	.18	.38	.21	.15	2.41	.72	1.53	.56	1.09	.46	.20	.24
IN.	.21	.42	.25	.17	2.51	.83	1.71	.65	1.21	.53	.23	.26

CAL YR 1980	TOTAL	274756	MEAN 751	MAX 16600	MIN 84	CFSM .92	IN 12.51
WTR YR 1981	TOTAL	197168	MEAN 540	MAX 12200	MIN 84	CFSM .66	IN 8.98

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, 1980-81): 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, and 1972.

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, 31.0°C July 10; minimum daily, 0.0°C Dec. 25, 27, Jan. 4.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,190 mg/L June 14; minimum daily mean, 3 mg/L Dec. 5, 6.

SEDIMENT LOADS: Maximum daily, 22,100 tons (20,000 tonnes) Feb. 24; minimum daily, 1.7 tons (1.5 tonnes) Dec. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
NOV 24...	1330	370	315	7.3	--	3.5	5	--	110	35	34	6.9
JAN 28...	1430	146	320	7.2	8.5	2.6	5	12.2	120	33	36	6.7
JUN 30...	1030	374	252	7.9	29.0	23.0	2	6.4	100	29	32	5.5
SEP 18...	1430	196	300	8.6	--	20.0	10	--	120	16	37	5.6

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LITY 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 CONSTITUENTS, DIS- SOLVED (MG/L)
NOV 24...	11	17	.5	4.1	--	78	23	22	.1	3.6	165	152
JAN 28...	15	21	.6	2.8	2.1	85	25	24	.1	1.4	185	162
JUN 30...	6.2	11	.3	3.2	2.4	74	14	15	<.1	7.6	167	128
SEP 18...	11	17	.4	3.7	--	99	18	20	.1	2.1	188	157

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)
NOV 24...	.22	165	2.1	.340	1.0	530	490	40	40	10	30
JAN 28...	.25	72.9	2.6	.350	1.1	190	--	<10	60	20	40
JUN 30...	.23	169	2.9	.220	.67	980	960	20	90	60	30
SEP 18...	.26	99.5	1.2	.380	1.2	1300	1300	40	170	120	50

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
FEB 24...	1000	15800	543	23200	48	66	79	89	95	99	100

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	8.0	7.0	1.0	3.0	7.0	15.0	15.0	21.0	23.0	26.0	21.0
2	22.0	10.0	9.0	2.0	4.0	7.0	16.0	15.0	21.0	24.0	26.0	23.0
3	19.0	11.0	4.0	1.0	1.0	7.0	17.0	15.0	20.0	24.0	25.0	23.0
4	15.0	11.0	5.0	.0	1.0	7.0	17.0	18.0	22.0	22.0	23.0	22.0
5	17.0	10.0	4.0	2.0	1.0	4.0	18.0	19.0	23.0	22.0	25.0	22.0
6	18.0	8.0	4.0	2.0	1.0	5.0	13.0	17.0	22.0	25.0	23.0	23.0
7	16.0	11.0	5.0	1.0	4.0	6.0	15.0	18.0	23.0	22.0	24.0	23.0
8	19.0	12.0	12.0	---	3.0	6.0	18.0	16.0	24.0	24.0	25.0	21.0
9	16.0	11.0	9.0	---	3.0	7.0	---	14.0	25.0	26.0	27.0	19.0
10	15.0	9.0	8.0	---	3.0	6.0	17.0	18.0	24.0	31.0	28.0	22.0
11	18.0	7.0	5.0	---	4.0	7.0	16.0	18.0	22.0	30.0	27.0	23.0
12	12.0	7.0	5.0	---	1.0	8.0	14.0	17.0	22.0	29.0	28.0	24.0
13	13.0	7.0	6.0	---	3.0	9.0	12.0	17.0	23.0	29.0	26.0	25.0
14	14.0	10.0	6.0	---	3.0	5.0	11.0	21.0	24.0	29.0	28.0	26.0
15	16.0	8.0	3.0	---	4.0	5.0	12.0	20.0	22.0	27.0	28.0	22.0
16	18.0	8.0	4.0	---	6.0	5.0	11.0	17.0	24.0	25.0	27.0	20.0
17	18.0	---	3.0	---	8.0	6.0	---	20.0	25.0	27.0	25.0	21.0
18	19.0	5.0	4.0	---	9.0	5.0	12.0	16.0	23.0	28.0	22.0	19.0
19	16.0	4.0	3.0	---	8.0	4.0	11.0	14.0	24.0	28.0	24.0	18.0
20	13.0	6.0	2.0	---	7.0	5.0	17.0	17.0	22.0	27.0	25.0	17.0
21	17.0	6.0	2.0	1.0	---	5.0	15.0	19.0	24.0	26.0	24.0	20.0
22	16.0	7.0	1.0	4.0	8.0	7.0	14.0	18.0	23.0	25.0	23.0	17.0
23	13.0	5.0	1.0	4.0	9.0	10.0	15.0	19.0	21.0	25.0	25.0	17.0
24	13.0	6.0	3.0	3.0	9.0	10.0	10.0	19.0	24.0	22.0	25.0	18.0
25	11.0	5.0	.0	4.0	8.0	10.0	12.0	25.0	---	21.0	22.0	19.0
26	10.0	7.0	1.0	4.0	7.0	12.0	15.0	24.0	22.0	24.0	24.0	17.0
27	11.0	5.0	.0	5.0	9.0	---	19.0	25.0	25.0	25.0	25.0	18.0
28	10.0	6.0	1.0	3.0	7.0	12.0	20.0	22.0	22.0	23.0	27.0	18.0
29	11.0	5.0	2.0	3.0	---	13.0	20.0	23.0	25.0	24.0	26.0	16.0
30	11.0	6.0	4.0	3.0	---	13.0	17.0	22.0	25.0	24.0	26.0	16.0
31	9.0	---	1.0	2.0	---	17.0	---	23.0	---	25.0	23.0	---

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)		MEAN CONCEN- TRATION (MG/L)	
	LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)		LOADS (T/DAY)	
OCTOBER												
1	30	7.6	13	4.1	9	7.8	11	4.3	6	1.8	23	67
2	31	8.0	9	2.7	10	7.5	12	4.6	176	402	21	54
3	26	6.9	9	2.7	8	5.5	9	3.0	318	2410	15	32
4	31	8.1	13	4.1	5	3.2	8	2.7	55	88	11	20
5	19	4.9	11	3.6	3	1.8	9	2.9	38	34	14	27
6	46	12	10	3.2	3	1.7	9	2.9	32	28	14	30
7	56	14	9	2.9	4	2.0	10	3.2	16	14	15	34
8	40	9.4	10	3.5	5	2.5	10	3.2	10	7.5	13	29
9	19	4.5	13	4.4	9	4.6	10	3.2	9	4.6	15	35
10	20	4.7	12	4.1	8	4.3	10	3.0	7	3.5	14	33
11	21	5.0	9	2.9	7	3.7	10	3.0	316	3600	11	23
12	38	8.9	7	2.2	8	4.0	10	2.9	301	4020	12	23
13	44	10	8	2.6	6	2.9	10	2.8	150	332	13	22
14	52	12	8	2.6	6	2.8	10	2.6	45	71	10	15
15	20	4.6	9	2.9	7	3.1	10	2.8	16	21	10	14
16	10	2.3	9	3.0	6	2.6	10	2.9	16	18	17	23
17	10	2.3	13	4.8	7	3.0	10	2.9	14	14	12	20
18	8	2.1	42	33	7	2.9	10	3.0	13	14	9	14
19	12	3.3	48	54	8	3.3	10	2.9	16	19	6	8.0
20	10	2.8	20	18	8	2.8	15	4.4	547	8860	8	10
21	11	3.3	13	8.3	6	2.3	25	8.4	486	8920	7	8.4
22	11	3.1	11	5.5	6	2.3	19	6.6	210	1880	7	7.9
23	21	5.7	8	3.6	6	2.2	8	3.0	301	6060	7	7.5
24	13	3.4	34	77	8	2.9	7	2.7	592	22100	11	11
25	100	97	345	2630	14	5.5	7	2.6	101	956	11	11
26	270	604	148	363	8	2.8	6	2.3	40	204	11	10
27	113	136	40	50	7	2.5	6	2.3	34	123	11	9.7
28	43	27	21	23	6	2.0	6	2.3	24	71	13	11
29	33	15	15	18	9	2.9	7	2.7	---	---	9	7.5
30	20	7.9	10	11	10	3.6	8	2.7	---	---	15	13
31	16	5.6	---	---	11	4.0	8	2.7	---	---	16	16
TOTAL	---	1041.4	---	3350.7	---	105.0	---	101.5	---	60276.4	---	646.0
APRIL												
1	16	19	17	23	35	34	40	36	46	25	462	1320
2	17	19	33	57	30	28	25	24	45	22	145	153
3	14	16	26	42	30	30	70	97	43	20	85	55
4	21	20	24	30	62	96	300	562	44	24	68	35
5	24	25	10	22	122	313	594	2470	45	27	60	29
6	71	168	22	24	92	137	120	237	55	31	60	28
7	56	92	21	23	60	69	63	89	48	25	95	56
8	28	36	20	20	41	40	42	47	63	32	70	33
9	22	25	20	19	42	35	32	30	58	32	68	39
10	18	20	20	18	45	44	28	24	43	21	65	36
11	20	22	28	33	50	58	20	15	40	17	48	21
12	88	352	69	162	44	44	18	12	44	19	35	14
13	281	3980	62	152	28	23	21	13	35	15	32	11
14	485	9630	32	50	1190	18500	27	17	37	16	37	12
15	370	7920	29	39	348	2300	40	23	34	13	41	13
16	80	525	34	53	120	304	39	21	27	10	38	15
17	62	295	33	48	110	239	24	13	24	8.6	49	24
18	50	201	33	39	65	106	18	9.5	27	9.4	51	27
19	40	130	27	31	50	64	18	8.8	22	7.3	50	25
20	32	91	20	24	579	2570	16	8.2	21	6.6	47	20
21	27	69	16	17	290	853	60	60	20	6.2	43	17
22	19	41	14	13	740	7020	42	55	18	5.4	47	16
23	20	40	14	12	300	1170	35	28	19	5.5	49	16
24	25	54	13	10	130	311	35	23	20	5.8	45	14
25	25	50	12	9.1	105	189	36	22	23	6.4	42	12
26	20	34	11	7.9	95	171	35	22	20	5.3	37	11
27	21	32	16	11	70	105	42	26	20	5.5	35	11
28	26	37	16	11	70	85	59	50	17	4.6	36	12
29	18	24	40	58	55	58	136	237	17	4.5	34	11
30	17	22	71	114	45	45	77	86	16	4.3	33	10
31	---	---	42	48	---	---	50	34	223	316	---	---
TOTAL	---	23389	---	1220.0	---	35041	---	4399.5	---	750.4	---	2096
TOTAL LOAD FOR YEAR: 132416.9 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 mi² (162.7 km²).

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

AVERAGE DISCHARGE.--25 years (water years 1949-58, 1967-81), 70.9 ft³/s (2.008 m³/s) 15.33 in/yr (389 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft³/s (912 m³/s) June 21, 1972, gage height, 22.1 ft (6.74 m), from floodmark, from rating curve extended above 2,700 ft³/s (76.5 m³/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 ft³/s (0.008 m³/s) Sept. 8, 1966, gage height, 0.80 ft (0.244 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 2	1345	1580 44.7	5.79 1.765	Feb. 11	0930	*2040 57.8	6.56 1.999

Minimum daily discharge, 6.8 ft³/s (0.19 m³/s) Sept. 29.

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	11	12	23	19	14	50	30	49	31	21	14	11
2	11	12	22	18	350	44	37	69	63	26	13	9.3
3	13	11	20	16	70	40	29	43	45	29	14	8.9
4	13	14	17	14	40	36	28	37	121	105	15	9.1
5	12	17	17	12	30	61	33	35	133	60	13	11
6	11	13	17	14	25	67	46	34	69	40	13	11
7	11	12	17	17	24	62	34	33	57	31	16	9.7
8	11	13	17	13	28	52	32	29	45	26	20	11
9	10	12	18	12	27	47	33	28	44	24	20	17
10	10	12	21	12	22	44	33	28	65	22	13	9.6
11	11	11	18	11	442	42	33	57	47	20	14	8.5
12	10	11	18	10	77	39	47	51	37	18	29	7.9
13	9.6	11	18	10	55	37	121	37	34	17	20	7.0
14	9.6	11	18	14	36	35	122	34	48	17	14	6.9
15	10	12	17	18	32	33	92	46	38	14	12	7.0
16	10	13	19	15	31	37	66	71	31	14	16	17
17	10	14	19	14	30	37	59	43	28	16	11	17
18	11	57	17	14	32	33	54	37	25	14	10	12
19	14	30	17	14	36	32	46	43	24	13	10	10
20	12	20	13	18	171	31	46	45	133	13	9.6	8.9
21	11	18	12	20	210	30	40	36	45	18	8.9	9.1
22	11	16	12	19	95	28	37	32	93	16	9.0	9.3
23	11	15	15	18	320	28	40	29	39	12	8.9	12
24	11	153	19	17	207	28	53	28	33	14	8.5	8.3
25	98	83	15	17	103	27	39	27	30	21	8.0	7.5
26	37	35	13	19	72	26	35	25	30	18	7.9	7.4
27	18	28	13	20	57	27	34	23	24	16	7.9	7.4
28	15	40	17	19	52	26	32	26	24	40	7.5	7.8
29	14	31	19	17	---	26	33	27	23	76	7.0	6.8
30	13	26	20	14	---	30	31	33	21	21	7.4	6.9
31	12	---	18	14	---	32	---	67	---	17	13	---
TOTAL	471.2	763	536	479	2688	1167	1395	1202	1480	809	390.6	292.3
MEAN	15.2	25.4	17.3	15.5	96.0	37.6	46.5	38.8	49.3	26.1	12.6	9.74
MAX	98	153	23	20	442	67	122	71	133	105	29	17
MIN	9.6	11	12	10	14	26	28	23	21	12	7.0	6.8
CFSM	.24	.40	.28	.25	1.53	.60	.74	.62	.79	.42	.20	.16
IN.	.28	.45	.32	.28	1.59	.69	.83	.71	.88	.48	.23	.17
CAL YR 1980	TOTAL	21984.2	MEAN 60.1	MAX 678	MIN 9.6	CFSM .96	IN 13.02					
WTR YR 1981	TOTAL	11673.1	MEAN 32.0	MAX 442	MIN 6.8	CFSM .51	IN 6.91					

POTOMAC RIVER BASIN

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 mi² (262 km²).

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.--51 years, 102 ft³/s (2.889 m³/s), 13.71 in/yr (348 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s (739 m³/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 ft³/s (850 m³/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 ft³/s (0.048 m³/s) Sept. 28, 29, 1930, gage height, 0.56 ft (0.171 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,340 ft³/s (37.9 m³/s) Feb. 11, gage height, 5.65 ft (1.722 m), no other peak above base of 1,300 ft³/s (36 m³/s); minimum discharge, 17 ft³/s (0.481 m³/s) Jan. 31, gage height, 1.78 ft (0.543 m).

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	33	39	56	41	33	85	58	172	52	37	33	52
2	33	37	52	41	442	75	88	212	79	55	31	32
3	41	37	50	37	129	70	60	93	85	57	29	28
4	39	44	47	34	71	65	55	75	284	285	31	26
5	35	49	45	30	53	148	57	67	254	111	28	30
6	34	40	45	35	46	128	80	63	136	71	29	27
7	33	40	45	40	45	94	58	62	92	57	37	26
8	31	40	45	35	50	82	55	56	69	48	48	28
9	30	40	48	32	46	76	64	52	65	45	39	40
10	30	37	55	31	43	71	66	52	111	40	30	27
11	31	36	46	30	604	69	66	101	76	37	27	24
12	30	37	43	28	163	66	81	96	61	34	150	23
13	28	37	43	28	84	64	203	66	56	33	70	22
14	29	37	42	35	71	60	160	58	111	33	40	21
15	29	37	41	48	64	57	122	71	69	30	36	29
16	29	39	43	37	60	66	93	134	57	30	92	115
17	30	43	42	36	60	70	87	69	48	33	37	55
18	31	186	38	36	61	59	81	61	46	30	30	38
19	40	74	41	36	65	58	71	83	45	29	27	30
20	30	52	34	41	225	57	72	94	93	28	26	27
21	30	47	33	45	265	56	65	67	67	32	24	27
22	30	45	36	43	140	56	62	59	59	29	23	26
23	30	42	38	41	490	53	62	54	47	27	23	25
24	32	352	46	39	335	52	68	50	43	25	22	24
25	320	232	40	38	151	50	59	47	43	32	21	23
26	100	82	35	39	114	49	54	45	53	34	20	23
27	51	67	35	40	95	50	50	44	40	33	20	22
28	46	91	38	39	87	49	51	48	38	56	19	22
29	42	70	41	36	---	48	56	67	37	268	20	20
30	40	60	42	33	---	57	52	79	36	44	35	20
31	39	---	40	32	---	64	---	66	---	36	97	---
TOTAL	1406	2069	1325	1136	4092	2104	2256	2363	2352	1739	1194	932
MEAN	45.4	69.0	42.7	36.6	146	67.9	75.2	76.2	78.4	56.1	38.5	31.1
MAX	320	352	56	48	604	148	203	212	284	285	150	115
MIN	28	36	33	28	33	48	50	44	36	25	19	20
CFSM	.45	.68	.42	.36	1.45	.67	.75	.75	.78	.56	.38	.31
IN.	.52	.76	.49	.42	1.51	.77	.83	.87	.87	.64	.44	.34
CAL YR 1980	TOTAL	39192	MEAN	107	MAX	818	MIN	28	CFSM	1.06	IN	14.43
WTR YR 1981	TOTAL	22968	MEAN	62.9	MAX	604	MIN	19	CFSM	.62	IN	8.46

01645000 SENECA CREEK AT DAWSONVILLE, MD--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR 1980 TO SEPTEMBER 1981

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 CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 24...	1000	52	245	7.0	5.5	5.0	0	12.2	63	26	17	5.0
JAN 28...	1130	39	236	7.0	6.5	2.5	<5	13.0	59	17	16	4.7
JUN 30...	1315	32	217	8.0	27.5	22.0	1	9.7	65	12	19	4.2
SEP 18...	1200	36	233	7.5	--	19.0	10	--	66	29	19	4.4

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
NOV 24...	18	37	1.0	3.4	--	37	23	22	.2	8.1	137	119
JAN 28...	25	46	1.4	2.7	2.0	42	25	24	.1	7.2	157	130
JUN 30...	12	27	.7	3.4	2.5	53	14	24	.1	8.1	149	117
SEP 18...	14	30	.8	4.2	--	37	20	26	.2	6.8	151	117

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 P04)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 24...	.19	19.2	4.1	.090	.28	530	430	100	80	10	70
JAN 28...	.21	16.5	4.8	.100	.31	280	250	30	80	20	60
JUN 30...	.20	12.9	4.0	.060	.18	660	550	110	100	30	70
SEP 18...	.21	14.7	3.3	.090	.28	560	410	150	50	20	30

POTOMAC RIVER BASIN

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 mi² (9.58 km²).

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 ft³/s (7.1 m³/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.--24 years, 4.16 ft³/s (0.118 m³/s), 15.27 in/yr (388 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s (96.3 m³/s) Sept. 26, 1975, gage height, 7.32 ft (2.231 m), from rating curve extended above 280 ft³/s (7.93 m³/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) in gage well, 7.83 ft (2.387 m), from floodmarks; minimum discharge, 0.10 ft³/s (0.003 m³/s) Sept. 2, 1966, gage height, 1.10 ft (0.335 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft³/s (6.2 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)		Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 25	0945	278	7.87	4.40	1.341	July 28	2015	232	6.57	4.02	1.225
July 4	1115	262	7.42	4.27	1.301	Aug. 11	2000	321	9.09	4.70	1.433
July 20	1900	334	9.46	4.78	1.457	Aug. 12	0915	*458	13.0	5.49	1.673

Minimum discharge, 0.17 ft³/s (0.005 m³/s) July 20, Aug. 29, gage height, 1.13 ft (0.344 m).

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	.54	.54	1.2	.85	.72	1.9	6.5	28	2.6	6.3	.42	.66
2	.56	.54	2.1	.80	19	1.7	2.0	4.0	7.0	8.8	.44	.51
3	1.2	.54	1.2	.80	1.4	1.6	1.5	2.2	6.8	12	.44	.47
4	.62	4.6	1.2	.75	1.1	2.2	1.3	1.8	6.0	39	.54	.50
5	.47	.79	1.1	.75	.99	11	3.6	1.7	1.9	1.6	.54	.52
6	.44	.66	1.1	.75	.93	3.0	1.9	1.9	4.1	1.2	3.3	.45
7	.48	.66	1.1	1.4	.88	2.2	1.4	1.6	1.9	1.1	.79	.43
8	.45	.66	1.1	.90	4.5	2.1	1.4	1.4	1.9	.92	1.9	1.8
9	.49	1.3	3.1	.80	1.1	1.9	4.9	1.4	2.0	.91	.90	.64
10	.52	.79	1.2	.75	.97	1.9	1.6	3.9	7.7	.84	1.6	.41
11	.58	.54	1.1	.75	20	2.0	5.4	13	1.4	.83	17	.39
12	.46	.54	1.1	.75	2.2	1.9	7.2	3.0	1.5	.74	33	.34
13	.46	.66	1.0	.75	1.4	2.3	6.4	1.9	7.5	.78	1.2	.29
14	.53	.66	.92	.86	1.3	1.6	6.9	1.6	6.8	.60	.92	.28
15	.50	.66	1.2	1.1	1.2	1.7	2.4	6.7	1.7	.52	2.2	8.9
16	.46	1.2	1.0	1.2	1.2	3.8	2.0	2.3	1.6	.60	1.2	5.6
17	.44	10	.79	.92	1.6	1.9	2.3	1.8	1.4	.60	.54	1.0
18	1.7	6.9	.79	.79	1.3	1.8	1.8	3.0	1.3	.49	.44	.45
19	.84	1.2	.92	.79	1.7	1.7	1.6	7.6	1.1	.42	.66	.38
20	.45	1.1	.79	1.1	12	1.8	2.0	2.5	2.3	15	.54	.41
21	.48	.79	.92	2.1	9.4	1.8	1.5	1.7	1.2	1.5	.54	.43
22	.54	.79	.79	1.2	3.1	1.5	1.5	1.5	1.1	.60	.44	.68
23	.60	.79	1.0	1.1	25	1.6	4.2	1.3	.99	.68	.35	.43
24	.70	31	2.0	.92	4.4	1.5	3.1	1.3	.97	.56	.35	.28
25	31	2.5	1.1	.92	2.6	1.5	1.5	1.3	4.3	1.1	.40	.29
26	1.3	1.5	.90	.98	2.2	1.5	1.4	1.3	1.4	.57	.27	.26
27	.94	2.9	.85	.87	2.0	1.7	1.3	1.2	1.2	.50	.30	.25
28	.93	3.8	.80	.83	2.0	1.3	2.0	3.2	3.3	13	.24	.32
29	.94	1.5	.80	.74	---	1.3	1.6	1.8	6.6	1.7	.20	.24
30	.85	1.2	.80	.69	---	3.9	1.6	1.6	6.2	.51	7.8	.25
31	.67	---	1.2	.69	---	1.6	---	2.1	---	.46	13	---
TOTAL	51.14	81.31	35.17	28.60	126.19	69.2	83.8	109.6	95.76	114.43	92.46	27.86
MEAN	1.65	2.71	1.13	.92	4.51	2.23	2.79	3.54	3.19	3.69	2.98	.93
MAX	31	31	3.1	2.1	25	11	7.2	28	7.7	39	33	8.9
MIN	.44	.54	.79	.69	.72	1.3	1.3	1.2	.97	.42	.20	.24
CFSM	.45	.73	.31	.25	1.22	.60	.75	.96	.86	1.00	.81	.25
IN.	.51	.82	.35	.29	1.27	.70	.84	1.10	.96	1.15	.93	.28

CAL YR 1980 TOTAL 1364.26 MEAN 3.73 MAX 43 MIN .40 CFSM 1.01 IN 13.71
WTR YR 1981 TOTAL 915.52 MEAN 2.51 MAX 39 MIN .20 CFSM .68 IN 9.20

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 mi² (29,940 km²).

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 Reservoir (see station 01595800). Gage-height telemeter at station.

AVERAGE DISCHARGE.--51 years, 11,400 ft³/s (322.8 m³/s), 13.40 in/yr (340 mm/yr), adjusted for diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484,000 ft³/s (13,700 m³/s) Mar. 19, 1936, gage height, 28.1 ft (8.56 m) site then in use; minimum daily discharge observed at gaging station, 121 ft³/s (3.43 m³/s) Sept. 9, 1966, does not include diversion of 489 ft³/s (13.8 m³/s) for municipal use; minimum daily discharge (adjusted), 601 ft³/s (17.0 m³/s) Sept. 10, 1966, includes diversion of 449 ft³/s (12.7 m³/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 ft³/s (1,200 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 24	2400	47500 1350	6.57 2.003	Apr. 15	1015	*55000 1560	6.95 2.118

Minimum daily discharge, 844 ft³/s (23.9 m³/s) Aug. 29, does not include diversion for municipal use; minimum daily (adjusted) discharge, 1,460 ft³/s (41.3 m³/s) Aug. 29, 30.

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	1450	2790	6230	2450	1650	15900	7380	8780	16700	4120	3450	2290
2	1440	2430	5520	2420	2400	13400	6790	10600	15000	3860	3040	2370
3	1530	2190	4980	2110	5310	11900	6710	9000	13600	3800	2760	2100
4	1470	2190	4590	1700	5130	11300	6150	10700	13200	5980	2450	1900
5	1470	2200	4440	1200	5420	10400	6090	11600	14600	8130	2150	1810
6	1470	2010	4540	1300	5290	10200	6150	10000	19000	11400	2180	2360
7	1480	1800	5070	1700	5980	9460	6240	8660	19100	9550	2190	3290
8	1510	1710	4830	1700	5880	8730	5680	7880	16900	9660	2280	4980
9	1390	1740	4450	1400	4540	8420	5260	7280	19100	8570	2340	4860
10	1350	1610	4190	1500	4120	8250	5140	6530	16400	7240	2300	4070
11	1370	1490	4070	1500	5710	7980	5000	6270	13400	6470	2090	3250
12	1320	1500	3890	1500	12800	7780	5010	6520	12700	5290	3520	3030
13	1330	1570	3930	1400	9980	7520	7610	8710	16900	4500	2750	2900
14	1280	1650	4310	1350	10500	7120	34800	14700	15300	4250	2380	2570
15	1280	1700	4010	1400	11200	6860	53400	12600	17800	3780	2130	2370
16	1220	1690	3780	1400	9200	6470	42800	11000	15400	3270	2070	2570
17	1210	1790	3590	1400	7810	6600	30600	9450	16700	2880	1790	2300
18	1260	2420	3550	1300	7120	6630	23000	9290	12800	2700	1590	2160
19	1370	2460	3300	1450	6640	6570	17900	9550	9370	2530	1470	2220
20	1350	2710	3130	1570	8250	6250	15100	9130	8100	2330	1250	3470
21	1240	2750	2630	1630	22700	5850	13100	8350	9740	2380	1240	4050
22	1250	2810	2420	1700	33000	5660	11600	14300	10600	2308	1250	3190
23	1330	3230	2440	1880	33500	5420	10600	19400	15200	2460	1280	2700
24	1290	3990	2540	1910	43300	5100	10100	15500	11500	2360	1120	2350
25	2190	5460	1650	1870	41200	4880	9640	12200	9330	2280	1030	2050
26	2660	10900	1280	1940	31000	4590	9050	10100	7600	2180	980	1880
27	2970	14500	1650	2000	23800	4330	8680	8470	6170	2220	939	1740
28	2970	11900	2340	2070	19000	4300	8280	7230	5300	2540	897	1470
29	2980	8960	2280	2080	---	4060	7760	6740	4940	4240	844	1500
30	3190	7220	2140	1700	---	4290	7430	7290	4880	4510	965	1410
31	3080	---	2310	1600	---	7680	---	12200	---	3930	1390	---
TOTAL	52700	111370	110080	52130	382430	233900	393050	310030	387330	141710	58115	79210
MEAN	1700	3712	3551	1682	13660	7545	13100	10000	12910	4571	1875	2640
MAX	3190	14500	6230	2450	43300	15900	53400	19400	19100	11400	3520	4980
MIN	1210	1490	1280	1200	1650	4060	5000	6270	4880	2180	844	1410
(#)	512	488	487	521	531	498	508	523	573	590	555	526
MEAN#	2212	4200	4038	2203	14190	8043	13610	10520	13480	5161	2430	3166
CFSM#	.19	.36	.35	.19	1.23	.70	1.18	.91	1.17	.45	.21	.27
IN#	.22	.40	.40	.22	1.28	.81	1.32	1.05	1.31	.52	.24	.30

CAL YR 1980 TOTAL 4038310 MEAN 11030 MAX 68100 MIN 1210 MEAN# 11560 CFSM# 1.00 IN# 13.61
WTR YR 1981 TOTAL 2312055 MEAN 6334 MAX 53400 MIN 844 MEAN# 6905 CFSM# .60 IN# 8.11

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.

POTOMAC RIVER BASIN

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."

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to September 1981 (discontinued).

pH: June 1978 to September 1981 (discontinued).

WATER TEMPERATURES: June 1978 to September 1981 (discontinued).

DISSOLVED OXYGEN: June 1978 to September 1981 (discontinued).

SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since June 1978.

REMARKS.--Records of discharge are given for station 01646500 Potomac River near Washington, D.C. (unadjusted for diversions). Record of suspended sediment discharge for the period April 19 to September 30 developed using a sediment transport curve. Interruptions in record were due to malfunctions of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1979, 1981): Maximum, 598 micromhos Sept. 12, 1981; minimum, 116 micromhos Jan. 25, 1979.

pH (water years 1979, 1981): Maximum, 9.3 units Mar. 29, 1981; minimum, 6.7 units June 2, 1981.

WATER TEMPERATURES (water years 1979, 1981): Maximum, 31.0°C July 23, 24, 1978; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN (water years 1979, 1981): Maximum, 16.4 mg/L on many days in 1979; minimum, 5.6 mg/L June 2, 1981.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 812 mg/L Sept. 6, 1979; minimum daily mean, 1 mg/L on many days during winter periods.

SEDIMENT LOADS: Maximum daily, 281,000 tons (253,000 tonnes) Feb. 27, 1979; minimum daily, 6.9 tons (6.3 tonnes) Sept. 20, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 598 micromhos Sept. 12; minimum, 156 micromhos Apr. 16.

pH: Maximum, 9.1 units Aug. 2; minimum, 6.7 units June 2.

WATER TEMPERATURES: Maximum, 30.5°C July 12, 13, 14, 21; minimum 0°C Jan. 12, 13.

DISSOLVED OXYGEN: Maximum 16.2 mg/L Dec. 26; minimum, 5.6 mg/L June 2.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 377 mg/L Apr. 15; minimum daily mean, 1 mg/L Oct. 1, 3, 16, Nov. 7.

SEDIMENT LOADS: Maximum daily, 54,600 tons (49,500 tonnes) Apr. 15; minimum daily, 3.2 tons (2.9 tonnes) Jan. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
OCT												
27...	1030	3050	420	8.4	9.0	10.5	1.5	11.8	270	88	170	47
DEC												
01...	1030	6400	350	8.1	--	5.8	4.8	--	180	230	120	53
31...	1100	2160	462	9.0	--	.0	.60	--	--	--	160	51
JAN												
27...	1230	2000	--	--	--	--	.50	--	--	--	180	58
FEB												
12...	1900	13700	290	7.7	--	--	--	--	--	--	100	45
21...	1100	21100	260	7.6	--	--	--	--	--	--	83	20
21...	1530	25500	--	--	--	--	--	--	--	--	83	23
22...	2000	31500	271	8.0	--	--	--	--	--	--	86	35
24...	1430	44000	192	7.9	--	8.0	--	--	--	--	62	--
24...	1830	45500	185	8.0	--	8.0	--	12.3	--	--	59	--
25...	1320	39500	--	--	--	--	--	--	--	--	73	--
MAR												
04...	1400	11300	243	8.2	8.5	6.0	2.1	12.8	K6	K7	81	--
31...	1000	7870	335	8.7	20.0	18.0	4.9	11.2	K12	72	110	35
APR												
14...	1330	41600	290	8.1	18.0	13.5	--	10.8	--	--	100	35
14...	1900	47700	288	8.0	19.0	14.0	--	10.8	--	--	110	39
15...	0915	55400	190	7.8	13.0	12.0	--	11.0	--	--	68	33
15...	1400	42000	205	7.8	16.0	12.0	--	11.0	--	--	68	34
16...	1000	44000	165	7.9	17.0	11.0	--	--	--	--	65	34
28...	1130	8340	282	8.6	28.0	17.0	75	9.7	K14	270	110	40
JUN												
01...	1330	6700	232	7.9	20.0	22.0	25	8.4	150	1640	99	33
23...	1100	15000	240	8.1	28.0	26.0	65	8.2	1330	430	87	21
JUL												
27...	1145	2190	332	8.3	32.0	27.0	7.0	8.6	55	1500	120	36
SEP												
01...	1230	2550	389	8.0	35.0	26.0	13	7.8	480	1640	120	42
28...	1200	1340	360	8.2	23.0	20.9	2.1	10.6	22	K450	140	49

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 1980 TO SEPTEMBER 1981

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT												
27...	47	12	28	26	.9	3.3	--	120	72	29	.1	.7
DEC												
01...	35	7.8	17	23	.7	3.2	--	67	49	17	.1	5.7
31...	48	10	25	25	.9	2.4	--	110	74	24	.1	.2
JAN												
27...	53	11	32	28	1.0	2.4	1.8	--	85	27	.2	<.1
FEB												
12...	30	6.8	16	24	.7	4.0	3.0	58	42	23	.1	4.2
21...	27	3.9	11	22	.5	2.6	1.9	63	36	13	<.1	5.0
21...	27	3.7	10	20	.5	2.8	2.1	60	32	14	.1	5.6
22...	28	3.9	9.9	19	.5	2.7	2.0	51	38	13	<.1	5.1
24...	17	4.8	6.6	18	.4	2.9	2.2	32	26	10	<.1	6.5
24...	16	4.6	6.4	18	.4	2.9	2.2	34	27	10	<.1	6.6
25...	21	5.0	6.2	15	.3	2.7	2.0	36	26	9.5	<.1	6.2
MAR												
04...	26	3.9	7.2	16	.3	2.0	1.5	54	31	9.6	<.1	6.4
31...	34	6.6	14	21	.6	1.9	1.4	77	50	15	.1	.2
APR												
14...	30	6.7	13	21	.6	2.8	2.1	68	39	14	.2	3.6
14...	32	6.7	12	19	.5	2.2	1.6	69	42	14	.1	2.7
15...	20	4.3	7.3	18	.4	2.2	1.6	35	27	8.9	<.1	6.3
15...	20	4.4	7.8	19	.4	2.5	1.9	34	30	9.6	<.1	6.5
16...	19	4.2	6.1	16	.3	2.1	1.6	31	27	7.2	<.1	6.7
28...	31	6.8	11	18	.5	1.9	1.4	65	40	11	.1	4.0
JUN												
01...	30	5.8	8.2	15	.4	1.8	1.3	66	34	9.4	.1	4.1
23...	26	5.3	6.6	14	.3	2.8	2.1	66	28	9.0	.1	6.6
JUL												
27...	33	8.6	18	24	.7	2.7	2.0	82	40	15	.1	27
SEP												
01...	29	11	25	31	1.0	2.7	--	76	66	21	.2	<.1
28...	41	9.5	1.6	2	.1	2.7	--	93	63	14	.2	8.5
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)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N03)	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 N02)	NITRO- GEN, N02+N03 TOTAL (MG/L AS N)
OCT												
27...	278	268	.38	2290	--	.83	.84	E3.7	.000	.010	.03	.83
DEC												
01...	208	181	.28	3590	--	1.3	1.30	5.7	.010	.010	.03	1.3
31...	260	256	.35	1520	--	1.4	1.40	6.2	.010	.010	.03	1.4
JAN												
27...	324	--	.44	1750	--	1.8	1.70	7.5	.020	.010	.03	1.8
FEB												
12...	--	169	.23	6240	201	1.8	1.80	8.0	.040	.020	.07	1.8
21...	--	145	.20	8260	345	1.8	1.80	8.0	.030	.020	.07	1.8
21...	--	141	.19	9710	482	2.1	2.10	9.3	.040	.030	.10	2.1
22...	--	143	.19	12200	410	2.5	2.50	11	.040	.020	.07	2.5
24...	--	103	.14	12200	488	2.2	2.20	9.7	.030	.020	.07	2.2
24...	--	104	.14	12800	517	2.2	2.30	10	.030	.020	.07	2.2
25...	--	110	.15	11700	320	2.2	2.30	10	.030	.030	.10	2.2
MAR												
04...	135	127	.18	4120	--	2.3	1.90	8.4	.020	.010	.03	2.3
31...	187	172	.25	3970	--	.86	--	--	.010	<.010	--	.87
APR												
14...	--	156	.21	17500	553	1.3	1.30	5.8	.030	.020	.07	1.3
14...	--	159	.22	20500	450	1.2	1.20	5.3	.030	.030	.10	1.2
15...	--	103	.14	15400	531	1.3	1.30	5.8	.040	.020	.07	1.3
15...	--	107	.15	12100	492	1.3	1.30	5.8	.030	.020	.07	1.3
16...	--	97	.13	11500	392	1.4	1.40	6.2	.030	.020	.07	1.4
28...	164	150	.22	3690	--	1.1	--	--	.010	<.010	--	1.1
JUN												
01...	164	137	.22	2970	--	.89	.90	4.0	.020	.010	.03	.91
23...	143	130	.19	5790	--	1.4	1.40	6.2	.030	.020	.07	1.4
JUL												
27...	197	196	.27	1170	--	.41	--	--	.010	<.010	--	.42
SEP												
01...	240	--	.33	1650	--	.25	.26	1.2	.020	.010	.03	.27
28...	220	199	.30	796	--	--	--	--	<.010	<.010	--	.69

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	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)
OCT												
27...	.85	.000	.000	.00	.00	.36	.42	.36	.00	.42	1.2	1.3
DEC												
01...	1.3	.100	.050	.12	.06	.25	.26	.35	.04	.31	1.7	1.6
31...	1.4	.000	.000	.00	.00	.24	.26	.24	.00	.26	1.6	1.7
JAN												
27...	1.7	.020	.050	.02	.06	.18	.16	.20	.00	.21	2.0	1.9
FEB												
12...	1.8	.240	.220	--	.28	.41	.47	.65	.00	.69	2.5	2.5
21...	1.8	.220	.140	--	.18	.73	.33	.95	.48	.47	2.8	2.3
21...	2.1	.270	.170	--	.22	1.4	.60	1.70	.93	.77	3.8	2.9
22...	2.5	.240	.150	--	.19	1.1	.43	1.30	.72	.58	3.8	3.1
24...	2.2	.110	.170	--	.22	1.2	.34	1.30	.79	.51	3.5	2.7
24...	2.3	.110	--	--	--	.79	--	.90	.16	.74	3.1	3.0
25...	2.3	.160	.070	--	.09	.83	.29	.99	.63	.36	3.2	2.7
MAR												
04...	1.9	.060	.060	--	.08	.41	.27	.47	.14	.33	2.8	2.2
31...	.85	.020	.030	--	.04	.86	.26	.88	.59	.29	1.8	1.1
APR												
14...	1.3	.120	.100	--	.13	1.7	.54	1.80	1.2	.64	3.1	1.9
14...	1.2	.140	.120	--	.15	1.7	.39	1.80	1.3	.51	3.0	1.7
15...	1.3	.150	.100	--	.13	1.9	.50	2.00	1.4	.60	3.3	1.9
15...	1.3	.140	.100	--	.13	2.1	.44	2.20	1.7	.54	3.5	1.8
16...	1.4	.110	.080	--	.10	1.4	.42	1.50	1.0	.50	2.9	1.9
28...	1.1	.040	.030	--	.04	.64	.36	.68	.29	.39	1.8	1.5
JUN												
01...	.91	.060	.060	--	.08	.60	.53	.66	.07	.59	1.6	1.5
23...	1.4	.040	.030	--	.04	.67	--	.71	--	<.10	2.1	--
JUL												
27...	.40	<.010	.030	--	.04	--	.33	.51	.15	.36	.93	.76
SEP												
01...	.27	.100	.100	--	.13	.49	.37	.59	.12	.47	.86	.74
28...	.64	.030	.030	--	.04	.72	.39	.75	.33	.42	1.4	1.1

DATE	NITRO- GEN, TOTAL (MG/L AS N03)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS P04)	PHOS- PHORUS, TOTAL (MG/L AS P04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOPHOSPHATE, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHOPHOSPHATE, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT										
27...	5.3	.070	.09	.21	--	.030	.020	.06	300	200
DEC										
01...	7.3	.090	.21	.28	.070	.070	.060	.18	300	200
31...	7.3	.040	.00	.12	.030	.000	.000	.00	300	200
JAN										
27...	8.9	.060	.12	.18	.050	.040	.050	.15	400	200
FEB										
12...	11	.330	--	1.0	.060	.110	.040	.12	2600	2500
21...	12	.330	--	1.0	.070	.110	.050	.15	1900	1800
21...	17	.480	--	1.5	.080	.120	.060	.18	3500	3400
22...	17	.460	--	1.4	.080	.140	.060	.18	3200	3100
24...	16	.220	--	.67	.060	.040	.060	.18	2800	2700
24...	14	.120	--	.37	.080	.060	.080	.25	6000	5800
25...	14	.080	--	.25	.090	.090	.080	.25	2400	1700
MAR										
04...	12	.020	--	.06	.050	.040	.010	.03	300	200
31...	7.7	.060	--	.18	.020	.030	.010	.03	100	100
APR										
14...	14	.430	--	1.3	.070	.080	.060	.18	2900	2700
14...	13	.360	--	1.1	.050	.060	.050	.15	2000	1900
15...	15	.420	--	1.3	.030	.080	.030	.09	210	110
15...	16	.320	--	.98	.040	.080	.030	.09	250	150
16...	13	.310	--	.95	.030	.070	.020	.06	180	0
28...	7.9	.090	--	.28	.040	.040	.020	.06	200	100
JUN										
01...	7.0	.160	--	.49	.050	.050	.050	.15	800	600
23...	9.3	.280	--	.86	.060	.080	.060	.18	2600	2500
JUL										
27...	4.1	.070	--	.21	.030	.040	.040	.12	200	100
SEP										
01...	3.8	.060	--	.18	.040	.040	.020	.06	500	400
28...	6.4	.070	--	.21	.100	.050	.050	.15	180	120

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS) (01001)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA) (01006)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM SUS- PENDE RECOV- ERABLE (UG/L AS CD) (01026)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT									
27...	--	--	--	--	--	--	0	--	--
DEC									
01...	--	--	--	--	--	--	0	--	--
31...	1	0	1	100	60	40	0	0	0
JAN									
27...	--	--	--	--	--	--	0	--	--
MAR									
04...	--	--	--	--	--	--	0	--	--
31...	0	0	0	200	100	100	0	0	0
APR									
28...	--	--	--	--	--	--	1	--	--
JUN									
01...	--	--	--	--	--	--	1	--	--
23...	1	0	1	100	70	30	1	0	3
JUL									
27...	--	--	--	--	--	--	1	--	--
SEP									
01...	--	--	--	--	--	--	<1	--	--
28...	1	0	3	100	70	30	1	0	2

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, SUS- PENDE RECOV. (UG/L AS CR) (01031)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO) (01036)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU) (01041)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
OCT									
27...	13	--	--	--	--	--	3	--	--
DEC									
01...	12	--	--	--	--	--	2	--	--
31...	<10	0	10	0	0	0	3	3	0
JAN									
27...	12	--	--	--	--	--	13	--	--
MAR									
04...	5	--	--	--	--	--	5	--	--
31...	30	20	10	1	1	0	2	1	1
APR									
28...	8	--	--	--	--	--	16	--	--
JUN									
01...	12	--	--	--	--	--	5	--	--
23...	10	0	10	1	0	1	28	25	3
JUL									
27...	7	--	--	--	--	--	13	--	--
SEP									
01...	7	--	--	--	--	--	7	--	--
28...	10	--	<10	4	3	1	7	5	2

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE D 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- PENDE D RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT									
27...	400	390	10	5	--	--	30	20	10
DEC									
01...	660	470	190	6	--	--	50	30	20
31...	130	130	0	6	1	5	10	3	7
JAN									
27...	130	120	<10	92	--	--	50	40	7
FEB									
12...	5300	5100	230	--	--	--	340	220	120
21...	3800	3700	100	--	--	--	340	280	60
21...	7500	7400	70	--	--	--	490	410	80
22...	5300	5200	80	--	--	--	440	410	30
24...	5600	5400	190	--	--	--	380	360	20
24...	10000	9900	130	--	--	--	430	410	20
25...	4000	3300	740	--	--	--	270	30	240
MAR									
04...	500	470	30	19	--	--	60	40	20
31...	500	460	40	28	28	0	70	60	10
APR									
14...	6000	5900	80	--	--	--	510	500	8
14...	8900	--	--	--	--	--	560	--	--
14...	5900	--	--	--	--	--	520	--	--
14...	5000	5000	40	--	--	--	520	520	4
14...	7100	--	--	--	--	--	550	--	--
15...	5300	5200	110	--	--	--	650	650	5
15...	9000	--	--	--	--	--	630	--	--
15...	6500	6400	80	--	--	--	670	670	5
15...	8800	--	--	--	--	--	700	--	--
16...	3900	3800	90	--	--	--	500	500	2
17...	4100	--	--	--	--	--	300	--	--
28...	420	--	<10	15	--	--	90	90	3
JUN									
01...	1700	--	<10	260	--	--	130	130	3
23...	5000	5000	40	64	64	0	200	200	2
JUL									
27...	340	300	40	23	--	--	60	60	5
SEP									
01...	790	770	20	4	--	--	80	60	20
28...	300	290	15	1300	--	<1	30	30	3

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDE D RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDE D RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDE D TOTAL (UG/L AS SE)
OCT								
27...	.1	--	--	3	--	--	--	--
DEC								
01...	.1	--	--	10	--	--	--	--
31...	.1	--	<.1	4	3	1	0	0
JAN								
27...	<.1	--	--	12	--	--	--	--
MAR								
04...	.1	--	--	6	--	--	--	--
31...	.1	--	--	16	15	1	0	0
APR								
28...	<.1	--	--	3	--	--	--	--
JUN								
01...	<.1	--	--	10	--	--	--	--
23...	.3	--	<.1	8	5	3	0	0
JUL								
27...	.3	--	--	9	--	--	--	--
SEP								
01...	<.1	--	--	7	--	--	--	--
28...	.1	.0	.6	2	0	2	<1	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDE RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT							
27...	--	--	--	--	10	--	--
DEC							
01...	--	3	--	--	20	--	--
31...	0	0	0	0	20	20	0
JAN							
27...	--	--	--	--	30	--	--
MAR							
04...	--	0	--	--	40	--	--
31...	0	0	0	0	20	10	10
APR							
28...	--	--	--	--	20	--	--
JUN							
01...	--	0	--	--	60	--	--
23...	0	0	0	0	40	--	<4
JUL							
27...	--	--	--	--	90	--	--
SEP							
01...	--	<1	--	--	30	--	--
28...	<1	1	--	<1	90	7	83

DATE	CARBON, TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, INOR- GANIC, TOTAL (MG/L AS C)	CARBON, INOR- GANIC, DIS- SOLVED (MG/L AS C)
OCT					
27...	--	--	7.9	32	24
DEC					
01...	22	4.9	3.7	17	15
31...	--	--	2.2	28	28
JAN					
27...	--	3.1	--	28	--
FEB					
12...	--	8.9	--	15	--
21...	--	9.2	--	14	--
21...	--	8.9	--	19	--
22...	--	9.1	--	15	--
24...	--	9.3	--	14	--
24...	--	10	--	13	--
MAR					
04...	--	3.6	1.6	14	11
31...	--	--	1.9	19	16
APR					
14...	--	8.7	3.3	23	23
14...	--	8.2	--	--	--
14...	--	13	--	--	--
14...	--	6.9	--	23	--
15...	--	8.1	3.6	20	11
15...	--	12	--	--	--
15...	--	9.5	--	18	--
15...	--	12	--	--	--
16...	--	7.6	--	18	--
17...	--	6.9	--	--	--
28...	--	2.9	2.0	20	20
JUN					
01...	--	3.6	1.5	19	18
23...	--	--	3.8	16	19
JUL					
27...	--	5.7	2.7	--	19
SEP					
01...	--	3.4	4.0	--	--
28...	--	--	2.7	28	27

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	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- ETHYL- ENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	CHLORO- OFORM TOTAL (UG/L)
DEC 31...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUN 25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,3-DI- CHLORO- PROPANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
DEC 31...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUN 25...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL- ENE- CHLO- RIDE TOTAL (UG/L)	1,1,2,2- TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
DEC 31...	.00	.00	.00	.00	.00	.00	.0	.00	.00
JUN 25...	.00	.00	.00	.00	.00	.00	.0	.00	.00

DATE	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	AME- TRYNE TOTAL	ATRA- TONE TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	CYPRA- ZINE TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
OCT 27...	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
DEC 01...	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
DEC 31...	.00	--	--	--	--	--	--	--	--	--	--
JAN 27...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
FEB 12...	<.10	<.01	<.10	<.10	.20	<.10	<.10	<.10	<.01	<.01	<.01
MAR 04...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
MAR 31...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
APR 14...	<.10	<.01	<.10	<.10	.20	<.10	<.10	<.10	<.01	<.01	<.01
APR 14...	--	--	<.10	<.10	.10	--	<.10	<.10	--	--	--
APR 15...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
APR 28...	<.10	<.01	<.10	<.10	<.10	<.10	<.10	<.10	<.01	<.01	<.01
JUN 01...	<.10	<.01	--	--	--	<.10	--	--	<.01	<.01	<.01
SEP 01...	<.10	<.01	<.10	<.10	.20	<.10	<.10	<.10	<.01	<.01	<.01

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)
OCT											
27...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
DEC											
01...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
31...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
FEB											
12...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	.2
MAR											
04...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
31...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
APR											
14...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
14...	--	--	--	--	--	--	--	--	--	--	<.1
15...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
28...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	<.1
JUN											
01...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	--
SEP											
01...	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.10	<.01	.2

DATE	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZYNE TOTAL (UG/L)	SIME- TONE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOX- APHENE, TOTAL (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)
OCT										
27...	.0	.00	.07	.00	.0	.00	.00	.00	.04	.00
DEC										
01...	.0	.00	.07	.00	.0	.00	.02	.00	.00	.00
31...	.0	--	.04	--	--	--	--	--	--	--
JAN										
27...	<.1	<.10	<.10	<.10	<.1	<.10	.02	.00	.00	.00
FEB										
12...	.0	<.10	.21	<.10	<.1	<.10	.05	<.01	.01	<.01
MAR										
04...	.0	<.10	.05	<.10	<.1	<.10	<.01	<.01	<.01	<.01
31...	.0	<.10	.03	<.10	<.1	<.10	<.01	<.01	<.01	<.01
APR										
14...	.0	<.10	.08	<.10	<.1	<.10	.06	<.01	<.01	<.01
14...	.0	<.10	.06	<.10	<.1	--	.06	<.01	<.01	<.01
15...	.0	<.10	.01	<.10	<.1	<.10	.04	<.01	<.01	<.01
28...	.0	<.10	.05	<.10	<.1	<.10	.02	<.01	<.01	<.01
JUN										
01...	--	--	--	--	--	<.10	<.01	<.01	<.01	<.01
SEP										
01...	<.1	<.10	.20	<.10	<.1	<.10	.11	<.01	<.01	<.01

DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
OCT			
27...	--	.000	.000
DEC			
01...	1500	4.40	.300
31...	--	.560	.000
JAN			
27...	--	1.19	.000
FEB			
12...	--	9.27	.470
21...	--	26.8	.460
24...	--	14.4	.000
24...	--	14.5	.000
MAR			
04...	--	3.10	.250
31...	7400	6.99	.540

DATE	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L)
APR			
14...	--	35.6	.000
14...	--	28.3	.000
15...	--	26.5	.000
15...	--	32.0	.000
16...	--	22.8	.000
28...	--	19.6	.000
JUN			
01...	21000	24.9	1.50
23...	22000	16.3	3.81
JUL			
27...	28000	7.05	1.54
SEP			
01...	6000	4.22	11.3
28...	590	1.34	<.100

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SEDI- MENT, SUS- PENDE (MG/L)	SEDIMENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	SEDI- MENT, SUS- PENDE (MG/L)	SEDIMENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT				APR			
27...	12	99	91	14...	308	38600	85
DEC				14...	202	26000	92
01...	14	242	99	14...	302	39900	82
31...	2	12	100	15...	342	38800	96
JAN				16...	231	27400	98
27...	1	5.4	100	17...	150	12600	92
FEB				28...	23	518	98
12...	140	5170	100	JUN			
22...	238	20200	99	01...	76	1380	94
24...	230	27300	96	23...	128	5180	94
24...	271	33300	97	JUL			
MAR				27...	14	83	100
04...	21	641	82	SEP			
31...	15	319	72	01...	29	200	100
APR				28...	9	33	100
14...	282	31700	94				

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDIMENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
FEB							
12...	1900	13700	--	140	5170	74	91
21...	1045	20900	--	133	7510	47	62
21...	1215	22100	--	153	9130	47	66
21...	1500	24900	--	196	13200	50	65
22...	2000	31500	--	238	20200	52	68
24...	1430	44000	8.0	230	27300	46	63
24...	1830	45500	8.0	271	33300	46	62
24...	1831	45500	--	288	35400	42	54
APR							
14...	1330	41600	13.5	282	31700	50	57
14...	1900	47700	14.0	202	26000	30	41
15...	0945	54600	--	324	47800	49	59
15...	1400	42000	12.0	342	38800	45	61
15...	1530	54400	--	422	62000	50	65
16...	1000	44000	11.0	231	27400	49	66

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	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
FEB						
12...	97	99	100	--	--	--
21...	80	90	97	98	99	100
21...	82	91	97	99	99	100
21...	80	91	97	99	100	--
22...	83	92	99	100	--	--
24...	79	94	96	99	100	--
24...	80	90	97	99	100	--
24...	71	82	89	96	99	100
APR						
14...	73	86	94	99	100	--
14...	58	74	92	99	100	--
15...	76	91	96	99	100	--
15...	76	90	96	99	100	--
15...	82	92	97	99	100	--
16...	86	94	98	100	--	--

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	451	448	449	513	510	512	349	295	324	422	385	396
2	456	449	453	520	509	515	347	304	331	410	389	398
3	461	455	459	521	507	515	302	286	291	436	408	420
4	461	458	459	519	513	515	291	286	288	452	436	448
5	463	459	461	515	501	509	300	292	297	451	441	446
6	467	462	464	502	496	499	305	300	303	449	427	442
7	473	466	470	500	494	497	306	301	303	461	426	445
8	472	468	470	496	492	494	315	306	313	470	449	458
9	474	467	470	496	487	491	313	307	310	470	463	465
10	480	473	477	491	481	485	313	310	310	497	467	486
11	483	480	481	482	471	477	324	313	318	514	492	507
12	487	483	484	477	460	471	327	325	326	523	503	511
13	486	458	476	491	458	477	340	327	332	513	501	508
14	461	450	457	505	492	500	346	341	344	545	507	529
15	479	450	462	513	504	510	342	330	336	560	536	548
16	501	482	489	521	513	518	336	324	328	547	537	541
17	517	501	505	516	458	505	325	321	323	542	532	536
18	511	504	509	488	450	471	327	324	326	537	531	535
19	512	506	510	465	444	452	330	327	329	542	532	538
20	509	496	504	468	455	460	332	329	331	558	542	553
21	496	486	491	457	447	453	336	331	333	562	538	553
22	506	493	498	446	432	439	340	333	337	538	518	526
23	519	507	512	442	431	436	371	339	354	531	496	510
24	530	517	524	456	429	447	384	360	366	498	477	489
25	530	429	494	---	---	---	369	360	364	485	474	479
26	492	473	482	419	339	393	370	364	367	482	474	479
27	508	489	500	424	342	405	379	359	368	490	483	487
28	510	498	505	410	298	365	383	370	379	500	487	493
29	496	447	473	292	259	268	386	380	384	494	482	488
30	488	444	463	293	270	279	411	379	393	486	481	483
31	512	487	505	---	---	---	421	405	413	490	482	485
MONTH	530	429	482	521	259	461	421	286	336	562	385	490
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	492	472	484	200	193	197	334	266	327	269	255	264
2	471	443	458	207	176	202	321	313	317	258	251	255
3	476	443	458	212	207	209	329	317	324	260	247	254
4	461	409	439	220	212	217	356	330	345	272	260	263
5	401	331	358	220	214	217	331	281	301	281	273	277
6	438	369	403	215	214	215	280	259	267	274	262	265
7	441	433	438	233	215	224	280	263	275	267	259	262
8	433	411	421	241	234	239	280	275	278	272	268	271
9	458	426	446	252	240	244	277	266	271	273	257	265
10	452	374	411	260	252	255	274	270	272	257	253	255
11	373	170	343	262	260	262	277	273	275	255	252	254
12	321	278	303	263	259	262	280	271	274	263	253	258
13	275	239	251	281	259	278	285	279	282	271	262	265
14	341	241	297	286	282	285	289	234	273	278	264	273
15	396	318	345	292	286	290	220	163	179	263	241	257
16	396	312	357	292	287	290	165	156	161	238	221	226
17	310	286	297	286	285	286	167	157	163	245	221	229
18	308	286	293	287	284	285	176	168	173	248	245	247
19	317	290	308	286	284	285	184	177	180	244	237	241
20	290	277	281	288	284	286	198	182	190	237	236	236
21	283	237	258	297	286	292	---	---	---	241	236	238
22	250	240	244	304	297	300	---	---	---	263	242	248
23	237	192	213	312	305	309	---	---	---	263	240	247
24	191	177	184	313	309	311	---	---	---	254	231	246
25	195	177	186	313	304	308	242	238	240	229	211	219
26	189	176	180	311	303	306	249	242	246	211	197	202
27	182	176	179	320	311	314	262	249	255	199	193	195
28	194	182	188	323	317	320	265	262	264	205	199	201
29	---	---	---	319	308	313	264	258	261	209	203	206
30	---	---	---	327	317	323	263	257	259	214	208	211
31	---	---	---	327	315	321	---	---	---	236	212	222
MONTH	492	170	322	327	176	272	356	156	256	281	193	244

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	245	232	237	284	270	278	336	328	333	388	374	378
2	246	224	232	286	277	282	343	319	332	410	380	397
3	250	220	237	278	257	271	337	321	329	409	328	362
4	219	203	209	269	219	245	352	326	342	384	332	361
5	212	203	209	291	237	260	361	350	356	384	357	370
6	223	214	220	332	293	311	357	350	353	407	358	378
7	233	207	219	338	324	332	358	348	352	444	411	430
8	207	204	205	323	305	316	389	358	374	481	441	453
9	210	204	208	317	304	308	393	385	390	511	484	504
10	204	191	195	318	292	309	---	---	---	524	506	513
11	205	196	202	292	287	289	---	---	---	585	525	554
12	205	203	204	295	285	291	---	---	---	598	548	582
13	214	205	211	284	277	279	---	---	---	544	433	481
14	211	193	206	285	278	281	---	---	---	432	411	420
15	221	203	211	287	283	285	---	---	---	434	368	421
16	229	204	217	295	287	292	---	---	---	431	409	420
17	234	217	225	302	292	297	---	---	---	420	406	411
18	230	212	218	312	302	307	---	---	---	405	391	395
19	231	213	221	317	311	314	---	---	---	391	371	383
20	244	231	239	319	282	315	---	---	---	370	364	366
21	245	226	234	317	312	315	---	---	---	386	366	375
22	226	222	225	318	309	316	380	376	379	388	360	379
23	234	227	232	307	301	303	376	369	372	369	366	368
24	256	230	246	319	305	314	370	368	369	374	367	371
25	270	244	252	323	314	320	381	370	374	380	372	376
26	278	255	269	319	315	316	387	381	383	379	373	376
27	264	254	258	333	318	325	388	385	386	374	364	368
28	269	264	268	341	290	335	386	384	385	366	359	363
29	269	256	262	358	334	344	396	386	389	361	358	359
30	269	258	262	362	340	354	399	363	393	369	359	364
31	---	---	---	361	335	353	400	211	376	---	---	---
MONTH	278	191	228	362	219	305	400	211	367	598	328	409

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.1	7.9	8.0	8.3	8.1	8.2	7.8	7.3	7.7	8.8	8.5	8.6
2	8.1	7.9	8.0	8.4	8.1	8.2	7.8	7.6	7.7	8.7	8.4	8.6
3	8.1	7.9	8.0	8.5	8.2	8.3	7.9	7.7	7.8	8.7	8.5	8.6
4	8.1	7.9	8.0	8.4	8.1	8.3	7.9	7.6	7.8	8.8	8.4	8.6
5	8.1	8.0	8.0	8.5	8.1	8.3	8.0	7.8	7.9	8.7	8.4	8.5
6	8.1	8.0	8.1	8.5	8.1	8.3	8.1	7.9	8.0	8.7	8.5	8.6
7	8.2	8.0	8.1	8.5	8.1	8.4	8.2	7.9	8.0	8.6	8.5	8.6
8	8.2	8.0	8.1	8.5	8.2	8.4	8.2	7.9	8.0	8.7	8.6	8.6
9	8.2	8.0	8.1	8.4	8.2	8.3	8.1	7.8	8.0	8.7	8.5	8.6
10	8.2	8.0	8.1	8.3	8.1	8.2	8.0	7.8	7.9	8.7	8.5	8.6
11	8.2	8.0	8.1	8.3	8.1	8.2	8.1	7.8	8.0	8.7	8.5	8.6
12	8.2	8.0	8.1	8.3	8.1	8.2	8.3	7.8	8.1	8.6	8.5	8.6
13	8.5	8.1	8.3	8.4	8.2	8.3	8.4	7.9	8.1	8.7	8.5	8.6
14	8.6	8.4	8.5	8.4	8.2	8.3	8.5	8.0	8.2	8.7	8.6	8.6
15	8.6	8.4	8.5	8.4	8.2	8.3	8.5	8.1	8.3	8.7	8.5	8.6
16	8.4	8.1	8.3	8.4	8.2	8.3	8.4	7.3	8.0	8.6	8.4	8.5
17	8.2	8.0	8.1	8.4	7.8	8.3	8.5	7.9	8.2	8.6	8.4	8.5
18	8.2	8.0	8.1	8.3	8.1	8.2	8.6	8.1	8.4	8.5	8.4	8.4
19	8.2	8.0	8.1	8.2	8.0	8.1	8.7	8.2	8.4	8.5	8.4	8.4
20	8.2	8.0	8.1	8.2	8.1	8.1	8.8	8.2	8.5	8.5	8.4	8.4
21	8.5	8.1	8.3	8.4	8.2	8.3	8.7	8.3	8.5	8.5	8.3	8.4
22	8.3	8.0	8.2	8.4	8.2	8.3	8.7	8.3	8.6	8.5	8.2	8.4
23	8.2	8.0	8.1	8.5	8.2	8.3	8.8	8.4	8.6	8.5	8.3	8.4
24	8.2	8.0	8.1	8.5	8.2	8.3	8.8	8.5	8.6	8.5	8.3	8.4
25	8.1	7.9	8.0	---	---	---	8.9	8.5	8.7	8.6	8.3	8.4
26	8.0	7.9	8.0	---	---	---	8.7	8.4	8.6	8.4	8.2	8.4
27	8.1	7.9	8.0	7.9	7.7	7.8	8.9	8.5	8.7	8.4	8.2	8.3
28	8.2	8.0	8.1	7.8	7.6	7.7	8.8	8.6	8.7	8.4	8.3	8.4
29	8.1	8.0	8.0	7.6	7.6	7.6	8.8	8.5	8.7	8.5	8.3	8.4
30	8.2	7.9	8.0	7.7	7.6	7.6	8.8	8.5	8.7	8.5	8.3	8.4
31	8.2	8.0	8.1	---	---	---	8.8	8.5	8.7	8.5	8.3	8.4
MONTH	8.6	7.9	8.1	8.5	7.6	8.2	8.9	7.3	8.3	8.8	8.2	8.5

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.5	8.3	8.4	7.6	7.5	7.6	8.6	8.2	8.4	8.4	7.8	8.2
2	8.5	8.2	8.4	7.6	7.6	7.6	8.6	8.1	8.4	7.8	7.6	7.7
3	8.4	8.2	8.3	7.7	7.6	7.7	8.7	8.4	8.5	8.3	7.5	7.9
4	8.2	8.0	8.1	7.7	7.7	7.7	8.7	8.4	8.5	8.9	8.2	8.5
5	7.9	7.7	7.7	7.7	7.7	7.7	8.5	8.1	8.3	8.7	8.5	8.6
6	7.9	7.7	7.8	7.7	7.7	7.7	8.5	8.0	8.2	8.5	8.1	8.3
7	8.0	7.9	8.0	7.8	7.7	7.7	8.6	8.2	8.4	8.2	7.8	8.0
8	8.0	7.8	7.9	7.8	7.7	7.7	8.7	8.3	8.5	8.1	7.6	7.8
9	7.9	7.8	7.8	7.8	7.7	7.8	8.7	8.3	8.5	8.1	7.7	7.9
10	7.8	7.8	7.8	7.9	7.5	7.8	8.9	8.3	8.6	7.9	7.7	7.8
11	7.9	7.7	7.8	7.9	7.8	7.8	8.8	8.4	8.7	7.7	7.5	7.6
12	7.8	7.5	7.7	7.9	7.8	7.9	8.6	8.2	8.4	7.9	7.4	7.6
13	7.5	7.3	7.4	8.0	7.9	8.0	8.6	8.1	8.3	7.9	7.6	7.8
14	7.8	7.3	7.6	8.0	7.9	7.9	8.4	7.4	7.6	7.8	7.6	7.7
15	7.9	7.8	7.8	8.1	7.9	8.0	7.4	7.1	7.2	7.6	7.4	7.4
16	7.9	7.7	7.8	8.1	7.9	8.0	7.1	7.1	7.1	7.4	7.3	7.4
17	7.8	7.7	7.7	8.1	7.9	8.0	7.3	7.1	7.2	7.5	7.3	7.4
18	7.9	7.7	7.8	8.0	7.9	8.0	7.3	7.3	7.3	7.4	7.4	7.4
19	7.8	7.8	7.8	8.2	7.9	8.1	7.4	7.3	7.4	7.5	7.4	7.4
20	7.8	7.8	7.8	8.3	8.2	8.3	7.6	7.4	7.5	7.7	7.4	7.6
21	7.7	7.5	7.6	8.4	8.2	8.3	---	---	---	7.8	7.5	7.7
22	7.5	7.5	7.5	8.6	8.2	8.4	---	---	---	7.6	7.5	7.6
23	7.5	7.5	7.5	8.6	8.3	8.5	---	---	---	7.6	7.4	7.4
24	7.5	7.4	7.4	8.8	8.3	8.5	---	---	---	7.5	7.4	7.4
25	7.5	7.4	7.4	8.9	8.4	8.6	8.1	7.8	8.0	7.6	7.4	7.5
26	7.5	7.5	7.5	8.9	8.4	8.7	8.1	7.8	7.9	8.9	7.5	8.3
27	7.5	7.5	7.5	8.9	8.5	8.7	8.2	7.8	8.0	9.0	8.8	8.9
28	7.5	7.5	7.5	8.9	8.5	8.7	8.2	7.7	8.0	8.8	8.4	8.7
29	---	---	---	8.9	8.5	8.7	8.5	7.7	8.2	8.5	8.1	8.3
30	---	---	---	8.8	8.5	8.6	8.7	8.2	8.4	8.5	7.9	8.2
31	---	---	---	8.7	8.3	8.5	---	---	---	7.9	7.1	7.5
MONTH	8.5	7.3	7.8	8.9	7.5	8.1	8.9	7.1	8.1	9.0	7.1	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.1	6.9	7.0	8.1	7.6	7.9	9.0	8.1	8.5	7.3	7.1	7.2
2	7.4	6.7	7.1	8.1	7.7	7.9	9.1	8.5	8.8	7.6	7.4	7.5
3	7.3	7.2	7.3	8.1	7.7	7.9	8.9	8.4	8.6	7.5	7.4	7.4
4	7.3	7.2	7.3	7.8	7.3	7.5	8.6	7.9	8.3	7.4	7.4	7.4
5	7.4	7.2	7.3	7.5	7.3	7.4	8.6	7.9	8.3	7.5	7.4	7.4
6	7.4	7.3	7.4	7.6	7.5	7.6	8.3	7.8	7.9	7.6	7.4	7.5
7	7.4	7.4	7.4	7.9	7.6	7.8	8.2	7.5	7.8	7.7	7.5	7.6
8	7.4	7.4	7.4	8.3	7.9	8.1	8.3	7.5	7.8	7.7	7.6	7.6
9	7.4	7.4	7.4	8.1	7.9	8.0	8.5	7.6	8.1	7.8	7.7	7.8
10	7.4	7.4	7.4	7.9	7.7	7.8	---	---	---	7.8	7.7	7.8
11	7.5	7.4	7.4	8.0	7.6	7.8	---	---	---	7.9	7.7	7.8
12	7.5	7.4	7.4	8.1	7.7	7.9	---	---	---	7.9	7.7	7.8
13	7.5	7.4	7.4	7.9	7.6	7.8	---	---	---	7.9	7.6	7.7
14	7.4	7.3	7.4	8.1	7.6	7.8	---	---	---	7.9	7.6	7.8
15	7.4	7.2	7.4	8.4	7.7	8.0	---	---	---	7.8	7.6	7.8
16	7.4	7.2	7.3	8.3	7.9	8.1	---	---	---	7.7	7.6	7.6
17	7.5	7.4	7.4	8.5	7.9	8.2	---	---	---	7.8	7.6	7.7
18	7.5	7.4	7.5	8.5	7.9	8.2	---	---	---	7.8	7.6	7.7
19	7.6	7.5	7.5	8.6	7.9	8.3	---	---	---	7.8	7.6	7.7
20	7.6	7.5	7.6	8.5	8.1	8.3	---	---	---	7.8	7.7	7.7
21	7.7	7.3	7.6	8.3	7.9	8.2	7.9	7.5	7.8	7.9	7.6	7.7
22	7.7	7.0	7.4	8.5	8.0	8.3	7.8	7.3	7.5	8.0	7.8	7.9
23	7.6	7.4	7.5	8.8	8.3	8.5	8.0	7.3	7.6	7.9	7.8	7.9
24	7.7	7.4	7.6	8.6	8.3	8.4	7.8	7.4	7.6	8.0	7.8	7.9
25	8.0	7.6	7.8	8.4	7.9	8.1	7.6	7.4	7.5	8.1	7.9	8.0
26	8.1	7.9	8.0	8.2	7.7	7.9	7.6	7.4	7.5	8.1	7.9	8.0
27	8.1	7.8	8.0	8.5	7.7	8.1	7.6	7.4	7.5	8.2	7.9	8.1
28	8.3	7.9	8.1	8.4	8.0	8.2	7.6	7.4	7.5	8.3	7.0	8.0
29	8.5	7.4	8.2	8.1	7.8	7.9	7.6	7.3	7.4	8.2	7.5	8.0
30	8.5	7.1	8.2	8.3	7.8	8.0	7.4	7.3	7.3	8.2	7.9	8.0
31	---	---	---	8.5	8.0	8.2	7.3	7.1	7.3	---	---	---
MONTH	8.5	6.7	7.5	8.8	7.3	8.0	9.1	7.1	7.8	8.3	7.0	7.7

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	21.0	19.5	20.0	11.0	10.0	10.5	6.0	5.5	6.0	1.0	.5	.5
2	21.5	20.0	21.0	11.0	10.0	10.5	7.0	6.0	6.5	1.5	1.0	1.0
3	21.0	19.5	20.0	11.0	9.5	10.5	6.5	5.0	6.0	1.0	.5	.5
4	20.0	19.0	19.5	11.0	10.0	10.5	5.0	4.0	4.5	.5	.5	.5
5	19.5	18.5	19.0	11.0	10.0	10.5	4.5	3.5	4.0	.5	.5	.5
6	18.5	17.5	18.0	11.0	9.5	10.5	4.5	3.5	4.0	.5	.5	.5
7	18.0	17.0	17.5	11.0	10.0	10.5	6.0	4.5	5.5	.5	.5	.5
8	18.0	16.5	17.5	12.0	10.5	11.0	7.5	6.0	7.0	.5	.5	.5
9	19.0	17.0	18.0	12.5	11.0	12.0	8.5	7.5	8.0	.5	.5	.5
10	18.5	17.0	17.5	12.5	11.0	12.0	8.0	7.5	8.0	.5	.5	.5
11	18.0	17.0	17.5	10.5	9.0	10.0	7.5	6.5	7.0	.5	.5	.5
12	17.5	16.0	16.5	---	---	---	6.5	6.0	6.5	.5	.0	.5
13	16.0	15.0	15.5	---	---	---	6.5	5.5	6.0	.5	.0	.5
14	15.0	14.0	14.5	8.0	7.0	7.5	6.0	5.0	5.5	.5	.5	.5
15	15.0	14.5	14.5	8.5	7.5	8.0	5.0	4.0	4.5	.5	.5	.5
16	15.0	14.0	14.5	8.5	8.0	8.5	4.5	4.0	4.5	.5	.5	.5
17	16.0	14.5	15.0	8.5	7.5	8.0	4.0	3.5	4.0	.5	.5	.5
18	17.0	16.0	16.5	7.5	6.0	7.0	3.5	3.0	3.5	.5	.5	.5
19	18.0	17.0	17.5	6.5	5.5	6.0	3.5	3.0	3.0	1.0	.5	.5
20	17.5	16.5	17.0	6.0	5.5	6.0	2.5	1.5	2.5	1.0	.5	.5
21	17.5	16.5	17.0	6.0	5.5	6.0	1.5	.5	1.0	1.0	.5	.5
22	17.0	16.0	16.5	6.5	5.5	6.0	1.0	.5	.5	1.5	.5	1.0
23	16.0	15.0	15.5	6.0	5.5	6.0	1.5	.5	1.0	1.0	.5	1.0
24	15.0	14.5	14.5	7.0	6.0	6.0	1.0	.5	1.0	---	---	---
25	14.5	13.5	14.0	---	---	---	.5	.5	.5	3.5	1.0	2.5
26	13.0	12.0	12.5	7.0	5.5	6.0	.5	.5	.5	1.5	1.0	1.5
27	11.5	10.0	10.5	6.0	5.5	5.5	1.0	.5	.5	2.0	1.5	1.5
28	11.0	10.0	10.5	5.5	5.5	5.5	1.0	.5	.5	2.5	1.5	2.0
29	11.0	10.0	10.5	5.5	5.0	5.5	1.5	.5	1.0	2.5	1.5	2.0
30	11.0	10.5	10.5	6.0	5.0	5.5	1.5	1.0	1.0	2.5	1.0	2.0
31	11.0	10.0	10.5	---	---	---	1.0	.5	.5	2.0	1.0	1.5
MONTH	21.5	10.0	16.0	12.5	5.0	8.0	8.5	.5	3.5	3.5	.0	1.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1.5	.5	1.0	8.0	7.5	8.0	14.5	14.0	14.5	17.5	16.0	17.0
2	3.0	1.5	2.5	8.0	7.0	8.0	15.0	13.5	14.0	16.5	14.5	15.5
3	2.5	1.0	1.5	7.5	6.5	7.0	15.5	14.0	15.0	17.0	14.0	15.5
4	1.5	.5	1.0	6.5	6.0	6.5	17.0	15.0	16.0	19.0	15.5	17.5
5	1.0	.5	.5	6.5	5.5	6.5	17.5	16.5	17.0	19.5	18.0	18.5
6	1.0	.5	.5	6.0	5.5	6.0	16.5	14.0	15.5	19.5	17.5	19.0
7	1.0	.5	1.0	6.0	5.0	5.5	14.0	13.0	13.5	19.0	17.0	18.0
8	1.0	.5	1.0	6.0	5.5	5.5	15.5	13.0	14.5	19.0	16.0	17.5
9	1.0	.5	1.0	6.0	5.0	6.0	15.5	14.5	15.0	18.5	17.0	17.5
10	1.0	.5	.5	6.5	5.5	6.0	16.5	14.5	15.5	18.5	18.0	18.5
11	4.5	1.5	3.0	6.5	6.0	6.0	16.5	15.0	16.0	19.0	18.5	18.5
12	3.0	.5	3.0	7.0	6.0	2.0	16.5	15.5	16.0	19.5	18.0	19.0
13	1.5	.5	1.0	8.0	6.5	7.5	15.5	14.5	15.0	19.0	17.5	18.5
14	1.5	.5	1.0	7.5	6.5	7.0	15.0	13.5	14.5	21.0	19.0	20.0
15	3.0	1.0	2.0	7.5	6.5	7.0	14.0	11.5	12.5	21.0	19.5	20.0
16	3.0	2.0	2.5	7.5	6.5	7.0	13.0	11.0	12.5	19.5	18.5	19.0
17	4.5	3.0	4.0	6.0	5.5	6.0	15.0	12.0	13.0	20.0	17.5	19.0
18	6.5	4.5	5.5	5.5	4.5	5.0	15.0	12.5	14.0	19.0	17.5	18.5
19	7.0	6.0	7.0	5.0	4.0	4.5	15.5	13.5	14.5	17.0	16.5	17.0
20	8.5	7.0	8.0	5.0	4.5	4.5	15.5	14.5	15.0	17.5	16.0	16.5
21	11.0	7.5	9.0	5.5	4.5	5.0	---	---	---	18.5	17.0	17.5
22	8.5	6.5	7.0	6.5	4.5	5.5	---	---	---	20.5	18.0	19.5
23	8.0	7.0	7.5	7.0	6.0	6.5	---	---	---	20.5	18.5	20.0
24	8.5	7.5	8.0	8.0	6.0	7.0	---	---	---	20.5	19.0	20.0
25	8.0	7.5	7.5	9.5	7.0	8.0	15.0	14.0	14.5	21.5	20.5	21.0
26	7.5	7.0	7.0	10.5	8.0	9.0	15.0	14.0	14.5	22.5	22.0	22.5
27	7.5	6.5	7.0	11.0	9.0	10.0	17.5	14.5	16.0	24.0	22.5	23.5
28	7.5	6.5	7.0	11.5	9.5	10.5	18.5	16.0	17.5	23.5	23.0	23.0
29	---	---	---	13.0	10.0	11.5	19.5	18.0	19.0	24.0	22.5	23.0
30	---	---	---	13.5	12.0	12.5	20.0	17.5	18.5	25.0	23.5	24.5
31	---	---	---	14.5	12.5	13.5	---	---	---	25.0	24.5	25.0
MONTH	11.0	.5	4.0	14.5	4.0	7.0	20.0	11.0	15.0	25.0	14.0	19.5

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.4	9.7	10.0	12.2	11.4	11.7	13.7	13.1	13.4	15.6	15.1	15.3
2	10.2	9.4	9.8	12.5	11.4	11.8	13.2	12.9	13.0	15.5	14.9	15.2
3	10.1	9.6	9.8	12.7	11.5	12.0	13.7	12.9	13.2	15.6	14.9	15.3
4	10.5	9.8	10.1	11.9	11.3	11.6	14.1	13.7	13.9	15.9	15.1	15.5
5	10.9	10.2	10.5	12.6	11.2	11.7	14.1	13.3	13.5	16.1	15.3	15.6
6	11.3	10.5	10.7	12.8	11.3	11.8	14.0	13.3	13.5	15.8	15.2	15.5
7	11.3	10.4	10.8	12.7	11.0	11.7	13.3	12.9	13.1	15.5	14.9	15.2
8	11.2	10.3	10.7	12.3	10.8	11.4	12.9	12.7	12.8	15.6	15.1	15.3
9	11.2	10.4	10.6	11.5	10.4	10.9	12.7	12.4	12.5	15.5	15.1	15.3
10	11.0	10.4	10.6	11.8	10.4	11.2	12.8	12.4	12.6	15.5	15.2	15.4
11	11.3	10.5	10.7	12.7	11.8	12.2	13.3	12.7	13.0	15.6	15.1	15.4
12	11.5	10.6	11.0	---	---	---	13.7	13.2	13.4	15.6	15.2	15.4
13	12.3	10.9	11.6	---	---	---	13.6	13.3	13.4	15.5	15.2	15.4
14	12.8	11.7	12.1	13.6	12.9	13.2	13.9	13.4	13.7	15.4	14.9	15.1
15	12.5	11.5	11.9	13.2	12.6	12.9	14.0	13.5	13.8	15.2	14.9	15.0
16	11.9	10.8	11.4	13.2	12.6	12.8	14.2	13.4	14.0	15.1	14.8	15.0
17	11.4	10.4	10.9	13.1	12.5	12.8	14.6	13.9	14.2	15.2	14.9	15.1
18	10.8	9.8	10.3	12.9	12.5	12.7	14.8	14.1	14.4	15.3	14.9	15.1
19	10.5	9.7	10.0	13.3	12.8	13.1	14.7	14.1	14.4	15.3	14.9	15.1
20	10.6	9.8	10.1	13.4	13.0	13.2	14.8	14.2	14.5	15.2	14.8	15.0
21	10.9	10.0	10.4	13.5	13.1	13.2	15.5	14.6	15.1	15.2	14.8	15.0
22	11.0	9.9	10.4	13.6	12.9	13.2	15.5	14.9	15.2	15.1	14.7	14.9
23	11.4	10.2	10.8	13.2	12.8	13.0	15.3	14.6	14.9	15.3	14.8	15.0
24	11.6	10.8	11.1	---	---	---	15.0	14.4	14.7	15.2	13.6	14.1
25	10.9	10.4	10.7	---	---	---	15.9	15.0	15.3	14.7	13.7	14.2
26	11.2	10.9	11.0	---	---	---	16.2	15.1	15.6	14.6	14.1	14.3
27	12.1	11.2	11.7	13.9	13.6	13.8	16.1	15.3	15.7	14.3	14.0	14.1
28	12.0	11.5	11.7	13.6	13.3	13.5	16.1	15.1	15.4	15.0	14.1	14.6
29	11.9	11.4	11.6	13.5	13.4	13.5	15.6	14.9	15.2	15.1	14.7	14.9
30	11.9	11.4	11.6	13.7	13.5	13.6	15.6	14.8	15.2	15.3	15.0	15.1
31	12.1	11.5	11.7	---	---	---	15.9	15.2	15.6	15.5	15.2	15.3
MONTH	12.8	9.4	10.9	13.9	10.4	12.5	16.2	12.4	14.1	16.1	13.6	15.1

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	15.7	15.3	15.4	13.3	12.9	13.1	12.2	11.1	11.7	10.2	8.6	9.6
2	15.4	14.3	14.8	13.0	12.5	12.9	12.9	11.4	12.2	9.9	9.4	9.6
3	15.5	14.5	15.0	13.5	12.9	13.3	12.8	11.2	12.1	10.0	9.0	9.6
4	15.8	15.4	15.6	13.7	13.3	13.5	12.3	10.9	11.7	12.0	8.3	9.7
5	15.9	15.5	15.7	13.4	13.1	13.2	11.2	10.3	10.7	10.4	8.5	9.8
6	15.9	15.8	15.8	13.7	13.4	13.6	11.8	10.3	11.1	8.3	7.6	8.0
7	15.8	15.3	15.6	13.9	13.6	13.8	12.6	11.0	11.8	8.6	7.6	8.2
8	15.6	15.1	15.3	13.9	13.6	13.8	11.9	10.8	11.3	10.9	7.7	9.0
9	15.4	15.2	15.4	13.8	13.7	13.8	11.2	10.3	10.8	10.4	9.5	9.9
10	15.5	15.1	15.2	13.8	13.6	13.7	12.0	10.3	11.2	9.6	9.3	9.5
11	15.1	13.7	14.3	13.5	13.4	13.5	11.1	10.1	10.6	9.2	7.7	8.6
12	15.9	13.6	14.9	13.6	13.3	13.4	10.6	9.7	10.2	10.3	7.3	8.3
13	15.8	15.3	15.5	13.3	12.9	13.1	11.7	9.7	10.7	10.2	8.8	9.8
14	15.8	15.1	15.6	13.3	12.7	13.1	11.3	10.4	10.8	8.9	7.9	8.5
15	15.4	14.8	15.2	13.6	13.1	13.4	11.9	10.9	11.4	9.6	7.0	8.1
16	15.0	14.7	14.9	13.2	12.7	12.9	---	---	---	9.4	8.6	9.0
17	14.6	13.5	14.1	14.0	13.1	13.6	---	---	---	8.6	7.8	8.2
18	13.6	13.1	13.3	14.1	13.5	13.8	---	---	---	7.7	7.2	7.5
19	13.4	13.0	13.1	14.6	14.0	14.3	---	---	---	10.4	7.5	9.1
20	12.9	12.0	12.3	14.7	13.8	14.3	---	---	---	10.7	9.6	10.4
21	13.2	9.8	12.1	14.8	13.8	14.4	---	---	---	10.8	9.5	10.2
22	14.0	11.7	13.6	14.9	14.2	14.6	---	---	---	10.1	8.9	9.6
23	13.7	13.2	13.4	14.5	13.7	14.1	---	---	---	9.0	7.5	8.5
24	13.4	13.1	13.2	14.3	13.7	14.0	---	---	---	10.4	7.0	9.1
25	13.6	13.3	13.4	14.0	13.3	13.7	11.4	10.0	10.8	9.9	9.2	9.6
26	13.7	13.5	13.6	13.9	13.2	13.6	11.9	10.9	11.4	10.9	8.8	9.9
27	13.8	12.6	13.6	13.4	12.9	13.1	11.4	10.2	10.7	10.6	8.5	9.5
28	13.6	13.1	13.4	13.6	12.9	13.2	10.2	9.0	9.7	9.6	8.3	9.0
29	---	---	---	13.1	12.4	12.8	9.9	7.9	9.0	9.4	8.5	9.0
30	---	---	---	12.3	11.8	12.0	11.4	7.2	8.5	9.5	8.0	8.7
31	---	---	---	12.9	11.7	12.2	---	---	---	8.0	6.4	7.4
MONTH	15.9	9.8	14.4	14.9	11.7	13.5	12.9	7.2	10.9	12.0	6.4	9.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	7.4	6.5	6.9	8.8	8.0	8.4	9.8	8.3	8.9	8.1	7.5	7.8
2	9.9	5.6	7.5	8.8	8.2	8.4	9.6	8.2	8.8	8.4	7.8	8.1
3	7.6	6.7	7.2	8.7	8.1	8.3	9.2	8.0	8.5	8.2	8.0	8.1
4	8.3	6.7	7.4	8.1	7.8	8.0	9.4	7.7	8.4	8.3	8.0	8.2
5	9.4	8.3	9.1	8.2	7.8	8.1	8.9	7.4	8.2	8.6	8.2	8.4
6	9.1	8.7	8.8	8.6	7.9	8.3	7.7	7.1	7.3	8.8	8.4	8.6
7	9.5	8.9	9.3	8.7	8.0	8.4	8.4	6.9	7.6	8.9	8.7	8.8
8	9.4	8.9	9.2	9.0	7.7	8.3	8.7	7.3	7.8	8.9	8.6	8.7
9	9.1	8.8	8.9	8.6	7.5	8.0	8.7	7.1	7.8	9.2	8.9	9.0
10	9.0	8.8	8.9	8.2	7.3	7.7	---	---	---	9.3	9.1	9.2
11	9.1	8.8	8.9	8.3	7.3	7.8	---	---	---	9.5	9.0	9.3
12	9.1	8.7	8.9	8.2	7.3	7.8	---	---	---	9.3	8.7	9.1
13	9.0	8.5	8.8	7.7	7.2	7.5	---	---	---	9.1	8.5	8.8
14	8.5	8.2	8.4	7.9	7.2	7.6	---	---	---	9.0	8.4	8.6
15	8.4	8.0	8.2	8.4	7.4	7.9	---	---	---	8.8	8.2	8.5
16	8.2	7.8	8.0	8.2	7.6	7.9	---	---	---	8.7	8.2	8.4
17	8.2	7.8	8.0	9.2	8.0	8.5	---	---	---	9.1	8.5	8.8
18	8.3	8.0	8.2	9.2	8.1	8.6	---	---	---	9.4	8.9	9.1
19	8.1	8.0	8.1	9.2	7.9	8.5	---	---	---	9.7	9.1	9.5
20	8.1	7.8	8.0	8.7	7.6	8.0	---	---	---	10.0	9.7	9.9
21	8.4	7.9	8.1	8.4	7.3	7.8	8.7	7.9	8.3	10.3	10.0	10.2
22	8.2	7.7	8.0	8.7	7.4	8.0	8.5	8.0	8.3	10.2	9.6	10.0
23	8.5	8.0	8.3	9.3	7.7	8.4	9.1	7.8	8.5	10.2	9.6	9.9
24	8.6	8.2	8.4	8.9	7.8	8.3	8.8	7.5	8.2	10.6	9.7	10.2
25	8.6	7.9	8.3	8.4	7.8	8.1	8.5	7.4	8.1	10.8	10.2	10.4
26	8.4	7.5	8.0	8.8	7.9	8.3	8.3	7.8	8.1	10.9	10.0	10.4
27	8.7	7.9	8.3	8.9	7.9	8.4	8.3	7.6	7.9	10.7	9.6	10.1
28	8.8	8.0	8.4	8.8	7.9	8.2	8.3	7.5	7.9	10.7	7.9	9.9
29	9.2	7.9	8.5	8.2	7.5	7.8	8.3	7.6	7.9	10.7	9.3	10.0
30	9.0	7.9	8.4	8.2	7.6	7.9	8.1	7.6	7.8	10.6	9.5	9.9
31	---	---	---	9.2	7.7	8.5	8.4	7.4	7.7	---	---	---
MONTH	9.9	5.6	8.3	9.3	7.2	8.1	9.8	6.9	8.1	10.9	7.5	9.2

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)				
OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY				MARCH			
1	1	3.9	4	30	15	252	2	13	8	36	40	1720											
2	2	7.8	3	20	20	298	3	20	15	97	35	1270											
3	1	4.1	2	12	20	269	2	11	40	573	20	643											
4	1	4.0	3	18	15	186	2	9.2	35	485	16	488											
5	3	12	3	18	8	96	1	3.2	40	585	12	337											
6	4	16	2	11	8	98	3	11	45	643	12	330											
7	4	16	1	4.9	7	96	2	9.2	20	323	12	307											
8	3	12	2	9.2	8	104	2	9.2	15	238	12	283											
9	3	11	2	9.4	9	108	2	7.6	15	184	10	227											
10	3	11	2	8.7	10	113	2	8.1	15	167	10	223											
11	3	11	4	16	9	99	3	12	25	429	12	259											
12	4	14	5	20	6	63	2	8.1	117	4210	14	294											
13	3	11	6	25	3	32	3	11	231	6190	14	284											
14	7	24	5	22	3	35	3	11	99	2750	13	250											
15	3	10	4	18	3	32	3	11	40	1210	12	222											
16	1	3.3	5	23	4	41	2	7.6	35	869	11	192											
17	2	6.5	4	19	4	39	3	11	30	633	8	143											
18	3	10	8	52	4	38	4	14	20	384	9	161											
19	4	15	10	66	4	36	5	20	20	359	7	124											
20	3	11	5	37	4	34	6	25	24	561	5	84											
21	6	20	4	30	4	28	5	22	211	15300	5	79											
22	5	17	3	23	4	26	8	37	299	26700	5	76											
23	5	18	6	52	3	20	7	36	209	18900	7	102											
24	6	21	9	97	4	27	9	46	287	33600	8	110											
25	20	118	36	538	4	18	10	50	228	25700	8	105											
26	25	180	65	1870	4	14	8	42	175	14700	7	87											
27	10	80	55	2150	3	13	8	43	144	9280	8	94											
28	8	64	35	1120	3	19	8	45	100	5130	8	93											
29	7	56	25	605	3	18	8	45	---	---	9	99											
30	7	60	15	292	3	17	7	32	---	---	9	104											
31	6	50	---	---	2	12	6	26	---	---	20	415											
TOTAL	---	897.6	---	7216.2	---	2281	---	656.2	---	170236	---	9205											
APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
1	14	279	20	474	45	2030	15	167	20	186	23	142											
2	14	257	25	715	40	1620	15	156	15	123	25	160											
3	12	217	20	486	35	1290	15	154	15	112	20	113											
4	16	266	25	722	35	1250	15	242	15	99	15	77											
5	14	230	30	940	40	1580	20	439	15	87	10	49											
6	16	266	20	540	75	3850	50	1540	17	100	15	96											
7	14	236	19	444	50	2580	30	774	15	89	20	178											
8	14	215	15	319	40	1830	30	782	15	92	24	323											
9	16	227	15	295	45	2320	20	463	15	95	20	262											
10	14	194	15	264	40	1770	15	293	15	93	20	220											
11	14	189	15	254	42	1520	15	262	15	85	15	132											
12	16	216	15	264	35	1200	15	214	64	608	15	123											
13	36	850	15	353	40	1830	15	182	25	186	15	117											
14	237	25500	31	1230	40	1650	15	172	20	129	15	104											
15	377	54600	30	1020	50	2400	23	235	15	86	15	96											
16	235	23900	25	742	40	1660	15	132	10	56	15	104											
17	145	12200	20	510	40	1800	10	78	10	48	15	93											
18	110	6950	15	376	30	1040	10	73	10	43	14	82											
19	45	2170	15	387	25	632	10	68	10	40	15	90											
20	18	734	20	493	15	328	9	57	10	34	15	141											
21	15	531	15	338	20	526	10	64	10	33	20	219											
22	15	470	25	965	25	715	10	62	10	34	15	129											
23	15	429	30	1570	40	1640	10	66	10	35	15	109											
24	15	409	25	1050	15	466	10	64	10	30	12	76											
25	15	390	15	494	15	378	10	62	10	28	10	55											
26	15	367	15	409	15	308	10	59	10	26	10	51											
27	15	352	16	366	15	250	10	60	10	25	10	47											
28	30	671	15	293	15	215	18	123	10	24	10	40											
29	15	314	15	273	15	200	25	286	10	23	10	40											
30	15	301	15	295	15	194	25	304	10	26	10	38											
31	---	---	25	823	---	---	20	212	10	38	---	---											
TOTAL	---	133930	---	17704	---	39076	---	7845	---	2713	---	3506											
TOTAL LOAD FOR YEAR:				395266.0				TONS.															

POTOMAC RIVER BASIN

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	DEC 1,80 1030	MAR 31,81 1000	JUN 1,81 1330	JUN 23,81 1100
TOTAL CELLS/ML	1500	7400	21000	22000
DIVERSITY: DIVISION	1.4	1.1	1.4	1.1
..CLASS	1.4	1.1	1.4	1.1
..ORDER	2.0	1.8	1.9	1.4
...FAMILY	2.1	1.9	2.2	2.6
....GENUS	2.1	2.4	2.4	3.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
....COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	1300	6
....MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	5900#	27
....OOCYSTACEAE								
....ANKISTRODESMUS	13	1	210	3	730	4	450	2
....CHODATELLA	--	-	--	-	290	1	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	250	1
....OOCYSTIS	--	-	--	-	--	-	320	1
....QUADRIGULA	--	-	--	-	--	-	510	2
....SELENASTRUM	--	-	--	-	--	-	*	0
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
....SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	510	2
....SCENEDESMUS	150	10	270	4	4800#	23	6800#	31
....TETRASTRUM	--	-	--	-	580	3	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	26	2	1600#	21	870	4	190	1
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	760#	50	1200#	17	10000#	49	1500	7
....MELOSIRA	--	-	--	-	--	-	130	1
....STEPHANODISCUS	--	-	3000#	40	--	-	*	0
...PENNALES								
....ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	290	1	*	0
....CYMBELLACEAE								
....CYMBELLA	--	-	--	-	290	1	--	-
....DIATOMACEAE								
....DIATOMA	--	-	140	2	150	1	--	-
....FRAGILARIACEAE								
....SYNEDRA	13	1	--	-	--	-	*	0
....NAVICULACEAE								
....NAVICULA	120	8	--	-	--	-	*	0
....NITZSCHIACEAE								
....NITZSCHIA	39	3	690	9	580	3	1200	6
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	13	1	--	-	870	4	--	-
....CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
....CHROOCOCCACEAE								
....ANACYSTIS	26	2	340	5	1000	5	1700	8
...HORMOGONALES								
....OSCILLATORIACEAE								
....OSCILLATORIA	350#	23	--	-	--	-	--	-
....RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	640	3

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

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

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE TIME	JUL 27,81 1145	SEP 1,81 1230	SEP 28,81 1200			
TOTAL CELLS/ML	28000	6000	590			
DIVERSITY: DIVISION	1.5	0.9	0.4			
..CLASS	1.5	0.9	0.4			
...ORDER	1.7	1.1	1.3			
...FAMILY	1.8	1.3	1.7			
....GENUS	2.2	2.1	2.2			
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	* 0		--	-	--	-
...COELASTRACEAE						
....COELASTRUM	--	-	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	* 0		--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	35	1	--	-
....CHODATELLA	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	35	1	--	-
....OOCYSTIS	* 0		140	2	--	-
....QUADRIGULA	--	-	--	-	--	-
....SELENASTRUM	200	1	--	-	--	-
....TETRAEDRON	* 0		--	-	--	-
....TREUBARIA	* 0		--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	800	3	--	-	--	-
....SCENEDESMUS	9300#	33	980#	16	55	9
....TETRASTRUM	--	-	--	-	--	-
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	500	2	--	-	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	1700	6	2500#	41	110#	19
....MELOSIRA	3700	13	2000#	33	190#	33
...STEPHANODISCUS	--	-	--	-	--	-
...PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	--	-	120#	21
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	35	1	--	-
...NAVICULACEAE						
....NAVICULA	* 0		140	2	110#	19
...NITZSCHIACEAE	--	-	--	-	--	-
....NITZSCHIA						
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	35	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	11000#	40	170	3	--	-
...HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	--	-
...RIVULARIACEAE						
....RAPHIIDIOPSIS	--	-	--	-	--	-

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

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

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 mi² (161.1 km²).

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. Flow affected by two upstream reservoirs which control flow from about 25 mi² (65 km²), 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.--52 years, 62.3 ft³/s (1.764 m³/s), 13.60 in/yr (345 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s (354 m³/s) June 22, 1972, gage height, 16.2 ft (4.94 m), from floodmark, from rating curve extended above 5,640 ft³/s (160 m³/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 ft³/s (0.014 m³/s) Oct. 1-7, 1930, gage height, 1.04 ft (0.317 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 14	0130	*1420 40.2	6.47 1.972	July 4	1400	1320 37.4	6.21 1.893

Minimum discharge, 6.0 ft³/s (0.17 m³/s) Jan. 4, 31, gage height, 1.17 ft (0.357 m).

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	12	12	24	19	18	35	38	240	29	29	23	45
2	19	12	23	20	193	31	50	111	133	54	22	28
3	39	12	24	19	59	29	30	55	34	56	25	23
4	18	37	21	15	44	28	27	42	83	523	21	19
5	9.2	26	20	21	30	102	37	35	63	97	19	16
6	8.6	14	20	23	24	55	49	34	50	59	34	14
7	8.6	14	18	22	23	41	27	31	40	42	30	13
8	8.5	13	18	19	50	36	26	27	33	33	25	15
9	11	20	37	18	30	33	62	26	29	30	21	20
10	11	26	33	16	24	31	35	32	94	29	19	13
11	11	14	21	15	180	30	75	120	35	24	21	12
12	11	12	20	15	88	28	64	59	28	22	284	11
13	9.9	12	19	15	50	28	97	37	74	22	95	9.9
14	10	12	18	15	38	27	81	31	318	23	60	9.2
15	11	12	17	15	30	26	54	127	39	21	53	173
16	10	14	22	15	27	41	43	88	31	19	67	167
17	8.9	56	19	15	26	36	39	45	27	19	31	35
18	15	169	18	16	25	27	35	39	24	18	26	30
19	25	34	19	20	24	26	31	96	22	17	22	53
20	9.8	27	18	21	112	25	31	54	45	60	15	52
21	8.9	24	15	33	111	25	27	35	29	75	14	24
22	8.8	21	16	30	65	24	26	31	23	28	12	25
23	8.6	19	25	22	326	24	28	27	20	23	11	33
24	8.6	252	50	20	151	24	49	26	19	22	11	17
25	395	99	28	18	94	23	27	24	24	57	10	17
26	53	52	24	18	65	23	25	24	52	27	8.7	13
27	25	41	22	18	49	24	25	24	27	22	8.6	8.4
28	21	77	20	18	39	24	28	41	24	87	8.5	7.9
29	18	32	20	16	---	23	30	42	23	121	8.1	8.5
30	15	27	21	16	---	46	32	34	22	31	65	8.5
31	13	---	18	16	---	36	---	60	---	26	240	---
TOTAL	841.4	1192	688	579	1995	1011	1228	1697	1494	1716	1309.9	920.4
MEAN	27.1	39.7	22.2	18.7	71.3	32.6	40.9	54.7	49.8	55.4	42.3	30.7
MAX	395	252	50	33	326	102	97	240	318	523	284	173
MIN	8.5	12	15	15	18	23	25	24	19	17	8.1	7.9
CFSM	.44	.64	.36	.30	1.15	.52	.66	.88	.80	.89	.68	.49
IN.	.50	.71	.41	.35	1.19	.60	.73	1.01	.89	1.03	.78	.55

CAL YR 1980	TOTAL	23011.4	MEAN 62.9	MAX 485	MIN 8.5	CFSM 1.01	IN 13.76
WTR YR 1981	TOTAL	14671.7	MEAN 40.2	MAX 523	MIN 7.9	CFSM .65	IN 8.77

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.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

AVERAGE DISCHARGE.--43 years, 84.9 ft³/s (2.404 m³/s), 15.83 in/yr (402 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) June 22, 1972, gage height, 9.52 ft (2.902 m), from rating curve extended above 3,800 ft³/s (108 m³/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 ft³/s (0.040 m³/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 ft³/s (297 m³/s), from rating curve extended above 3,000 ft³/s (85.0 m³/s) on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,410 ft³/s (125 m³/s) Aug. 31, gage height, 7.30 ft (2.225 m), no other peak above base of 2,000 ft³/s (56 m³/s); minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Sept. 13, 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	29	32	22	38	59	280	34	106	13	96
2	29	22	31	27	200	35	52	70	201	132	12	16
3	65	21	30	24	70	34	29	46	57	37	12	12
4	37	57	25	22	48	29	25	36	182	299	12	11
5	23	39	24	36	35	133	50	31	87	52	11	10
6	20	27	24	40	37	75	54	31	43	25	14	9.5
7	20	25	25	42	30	45	27	32	35	22	17	9.5
8	19	22	25	37	73	38	24	31	29	18	15	14
9	20	34	53	29	53	34	63	31	28	17	12	12
10	20	30	43	26	34	34	38	56	119	15	11	9.5
11	20	22	29	24	246	32	131	177	40	13	36	8.0
12	20	20	26	23	106	29	148	136	28	11	119	7.0
13	19	21	25	22	47	28	164	56	74	10	25	6.0
14	15	21	25	22	39	28	119	37	337	10	20	6.0
15	15	21	23	22	32	25	68	332	47	10	17	236
16	16	24	23	22	30	42	44	234	29	8.8	30	355
17	16	90	25	22	31	35	44	105	23	8.8	20	47
18	15	212	23	22	31	29	42	92	19	8.8	13	88
19	40	50	24	24	36	28	36	227	17	7.6	11	47
20	22	47	24	30	241	25	37	120	45	76	10	25
21	20	38	26	50	201	25	36	50	25	43	9.5	22
22	19	34	26	44	102	24	34	32	31	15	10	44
23	19	31	39	35	375	24	40	28	17	11	9.0	25
24	19	226	67	31	207	24	50	26	15	10	8.5	15
25	447	114	52	29	82	23	32	24	38	59	8.0	18
26	88	44	46	26	56	23	32	22	35	24	11	15
27	35	46	31	27	48	23	30	22	15	16	9.0	12
28	31	94	29	25	42	23	44	125	12	89	8.0	11
29	26	44	26	24	---	23	31	58	11	66	7.0	10
30	24	34	29	23	---	91	44	38	11	19	69	11
31	22	---	25	22	---	48	---	51	---	16	734	---
TOTAL	1220	1533	952	884	2554	1147	1627	2636	1684	1255.0	1313.0	1207.5
MEAN	39.4	51.1	30.7	28.5	91.2	37.0	54.2	85.0	56.1	40.5	42.4	40.3
MAX	447	226	67	50	375	133	164	332	337	299	734	355
MIN	15	20	23	22	22	23	24	22	11	7.6	7.0	6.0
CFSM	.54	.70	.42	.39	1.25	.51	.75	1.17	.77	.56	.58	.55
IN.	.62	.78	.49	.45	1.31	.59	.83	1.35	.86	.64	.67	.62

CAL YR 1980	TOTAL	28869.5	MEAN 78.9	MAX 841	MIN 7.0	CFSM 1.08	IN 14.75
WTR YR 1981	TOTAL	18012.5	MEAN 49.3	MAX 734	MIN 6.0	CFSM .68	IN 9.20

POTOMAC RIVER BASIN

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 mi² (54.6 km²).

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. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--58 years, 22.7 ft³/s (0.643 m³/s), 14.61 in/yr (371 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s (312 m³/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 ft³/s (34.0 m³/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.--Maximum discharge, 599 ft³/s (17.0 m³/s) July 4, gage height, 5.62 ft (1.713 m), no peak above base of 600 ft³/s (17 m³/s); minimum discharge, 1.8 ft³/s (0.051 m³/s) Aug. 28, 29, 30, Sept. 29, gage height, 1.49 ft (0.454 m).

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	3.3	4.8	7.9	6.4	6.4	12	13	58	11	6.6	4.6	5.9
2	5.5	4.7	7.6	6.0	59	11	12	36	34	25	4.3	4.6
3	7.0	4.5	7.0	5.5	15	10	9.4	14	15	11	4.1	4.2
4	5.4	9.6	6.6	5.3	10	10	8.7	11	26	182	4.2	4.2
5	3.7	7.7	7.4	6.0	7.5	38	12	10	22	23	3.7	4.4
6	3.3	4.8	7.0	8.6	7.4	22	11	9.9	13	13	5.7	4.2
7	3.1	4.6	7.0	8.2	7.4	14	8.9	9.5	13	9.7	5.9	4.0
8	3.3	4.8	6.6	5.5	17	13	8.6	8.3	18	8.1	5.4	4.2
9	3.4	5.5	10	5.0	13	12	14	8.1	17	7.1	4.5	4.7
10	3.2	5.6	9.2	5.0	8.3	11	10	9.3	32	6.6	5.8	3.6
11	3.5	4.5	7.4	5.0	80	11	15	28	13	5.9	28	3.0
12	3.2	4.5	7.0	5.0	18	10	18	16	9.8	5.5	68	2.6
13	2.7	4.8	6.6	5.0	11	10	27	11	14	5.2	9.8	2.3
14	2.7	4.9	6.2	4.8	10	9.8	25	9.2	38	4.9	6.2	2.4
15	3.0	5.0	5.9	4.8	9.6	9.5	14	65	11	4.4	5.8	20
16	3.0	5.3	7.0	5.0	9.0	13	11	33	8.8	4.4	8.0	26
17	3.0	19	6.6	5.5	9.2	11	11	13	7.5	4.7	4.7	6.7
18	2.8	41	6.2	6.0	9.6	10	11	12	9.7	4.5	4.3	5.7
19	4.3	9.8	6.2	6.9	10	9.7	10	25	15	4.1	3.9	6.1
20	3.3	6.8	5.5	8.5	50	9.4	10	17	23	6.1	3.8	4.3
21	3.0	6.3	5.2	11	47	9.7	8.8	12	19	8.8	3.5	4.1
22	2.8	5.9	5.2	9.7	23	8.7	8.7	10	16	4.9	3.2	4.0
23	2.8	5.5	7.4	8.6	189	8.8	10	9.3	13	4.1	3.7	3.8
24	3.2	76	11	8.1	53	8.8	13	8.6	12	3.7	3.1	3.0
25	75	25	7.7	7.6	21	8.3	8.7	8.1	14	6.9	2.7	2.8
26	12	10	6.2	7.7	15	8.3	8.2	7.7	16	5.9	3.9	2.8
27	5.5	9.7	6.0	7.7	13	8.9	8.4	7.2	6.2	4.9	3.2	2.7
28	5.1	19	5.5	7.3	12	8.3	8.2	25	5.4	24	2.7	2.4
29	4.9	10	6.0	7.0	---	8.3	9.6	50	4.8	28	2.3	2.2
30	4.8	8.2	5.5	7.4	---	13	9.1	17	4.8	6.0	8.6	2.4
31	4.7	---	5.5	6.3	---	10	---	16	---	4.9	27	---
TOTAL	196.5	337.8	212.1	206.4	740.4	357.5	352.3	574.2	462.0	443.9	254.6	153.3
MEAN	6.34	11.3	6.84	6.66	26.4	11.5	11.7	18.5	15.4	14.3	8.21	5.11
MAX	75	76	11	11	189	38	27	65	38	182	68	26
MIN	2.7	4.5	5.2	4.8	6.4	8.3	8.2	7.2	4.8	3.7	2.3	2.2
CFSM	.30	.54	.32	.32	1.25	.55	.56	.88	.73	.68	.39	.24
IN.	.35	.60	.37	.36	1.31	.63	.62	1.01	.81	.78	.45	.27

CAL YR 1980 TOTAL 7568.7 MEAN 20.7 MAX 198 MIN 2.2 CFSM .98 IN 13.34
WTR YR 1981 TOTAL 4291.0 MEAN 11.8 MAX 189 MIN 2.2 CFSM .56 IN 7.56

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 mi (1.6 km) west of Hyattsville, and 1.6 mi (2.6 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi² (127.9 km²).

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. 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 the period July 11 to August 19, which are fair. Small diversion since 1962 for irrigation of golf courses above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 46.5 ft³/s (1.317 m³/s), 12.78 in/yr (325 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s (510 m³/s) June 22, 1972, gage height, 14.47 ft (4.410 m), from rating curve extended above 4,000 ft³/s (113 m³/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 ft³/s (0.006 m³/s) Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 14	0030	*2060 58.3	4.00 1.219	Sept. 15	1915	1740 49.3	3.72 1.134

Minimum discharge, 2.4 ft³/s (0.068 m³/s) Sept. 14, 15.

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	5.7	9.6	16	19	12	24	39	171	29	44	8.5	16
2	22	9.6	17	16	181	21	30	88	147	58	8.0	9.3
3	35	9.6	17	14	42	20	18	33	34	42	8.0	7.1
4	17	32	13	11	31	19	15	24	114	390	8.0	6.7
5	7.5	22	13	12	23	97	37	21	49	58	7.5	6.8
6	6.0	13	13	13	15	46	32	21	26	25	10	7.0
7	5.6	11	13	20	14	26	16	20	23	18	11	6.4
8	5.6	12	13	14	49	22	15	18	18	16	9.5	8.9
9	5.6	23	38	11	50	20	51	17	17	13	7.5	9.7
10	5.6	19	25	11	22	19	23	39	90	11	9.0	7.4
11	5.6	10	15	11	194	17	82	110	24	9.0	40	5.6
12	5.6	10	14	11	57	17	69	70	17	8.0	90	5.4
13	5.1	11	13	11	31	18	89	25	56	7.5	20	3.9
14	4.4	11	13	10	23	18	70	20	246	7.0	13	3.4
15	5.2	11	12	10	18	16	39	162	29	7.0	11	195
16	4.8	13	13	10	17	34	29	102	20	7.5	20	163
17	5.6	72	15	11	17	25	30	30	17	7.0	13	22
18	17	126	13	12	17	22	26	31	15	6.5	11	9.0
19	20	20	13	16	20	17	24	86	14	10	9.0	10
20	6.8	12	10	15	154	16	26	50	55	22	6.3	8.0
21	5.9	11	10	29	123	17	23	25	22	40	6.0	6.5
22	5.6	10	10	20	53	15	22	22	29	9.0	5.8	6.0
23	5.6	8.9	24	15	319	16	24	20	14	7.5	5.3	5.5
24	5.6	167	51	15	128	15	44	19	12	7.0	5.7	5.0
25	309	71	35	15	43	15	20	18	31	30	4.8	4.6
26	40	22	21	16	31	15	19	16	40	20	4.7	4.6
27	13	27	18	15	26	15	20	16	15	10	6.2	4.4
28	12	64	16	15	24	15	37	86	12	90	4.9	4.2
29	10	22	17	14	---	15	21	88	12	120	4.3	3.8
30	10	16	16	11	---	51	23	47	11	16	51	4.0
31	9.6	---	15	12	---	25	---	43	---	11	132	---
TOTAL	622.0	875.7	542	435	1734	728	1013	1538	1238	1127.0	551.0	559.2
MEAN	20.1	29.2	17.5	14.0	61.9	23.5	33.8	49.6	41.3	36.4	17.8	18.6
MAX	309	167	51	29	319	97	89	171	246	390	132	195
MIN	4.4	8.9	10	10	12	15	15	16	11	6.5	4.3	3.4
CFSM	.41	.59	.35	.28	1.25	.48	.68	1.00	.84	.74	.36	.38
IN.	.47	.66	.41	.33	1.31	.55	.76	1.16	.93	.85	.41	.42

CAL YR 1980 TOTAL 17072.4 MEAN 46.6 MAX 400 MIN 4.0 CFSM .94 IN 12.86
WTR YR 1981 TOTAL 10962.9 MEAN 30.0 MAX 390 MIN 3.4 CFSM .61 IN 8.26

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 mi² (102.3 km²).

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 except those for April, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 47.7 ft³/s (1.351 m³/s), 16.40 in/yr (417 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft³/s (242 m³/s) Sept. 6, 1979, gage height, 11.21 ft (3.417 m), from rating curve extended above 1,700 ft³/s (48.1 m³/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 1980-81.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 669 ft³/s (18.9 m³/s) June 14, gage height, 6.62 ft (2.018 m), no other peak above base of 450 ft³/s (12 m³/s); no flow Oct. 1-3, 10-17, July 21-24, Aug. 21-30, Sept. 9-15.

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	.00	4.1	9.7	6.3	4.9	19	40	33	9.3	2.4	.79	6.7
2	.00	3.5	8.7	6.5	33	18	80	35	72	10	.25	2.0
3	.00	3.3	7.9	6.0	35	17	30	16	39	8.2	.05	1.3
4	9.5	5.6	6.9	5.1	13	16	26	13	18	17	4.4	.81
5	2.7	10	6.8	4.5	8.7	28	75	12	13	23	2.5	.70
6	.81	5.4	6.7	4.3	7.6	29	85	10	9.9	9.8	.94	.25
7	.26	4.5	6.7	5.8	7.6	20	40	9.5	8.7	6.0	1.8	.23
8	.10	4.2	6.7	5.1	12	16	24	9.0	7.1	3.9	2.7	.12
9	.01	4.0	7.8	4.0	18	15	22	8.5	5.9	2.9	2.3	.00
10	.00	8.1	13	4.3	11	14	26	8.5	16	2.0	1.4	.00
11	.00	5.3	8.5	3.8	54	14	20	60	13	1.1	.49	.00
12	.00	4.1	7.2	3.1	57	13	50	85	6.8	.46	4.0	.00
13	.00	3.5	7.1	2.5	20	13	60	28	34	10	3.2	.00
14	.00	3.5	6.7	3.3	15	12	30	11	402	6.8	1.6	.00
15	.00	3.7	6.2	4.4	14	11	20	25	57	1.9	.54	.00
16	.00	4.1	6.3	5.9	14	14	15	52	26	.62	19	9.0
17	.00	5.5	6.1	5.8	15	19	16	22	16	.53	5.4	7.0
18	6.9	83	5.9	4.6	15	15	18	16	11	.51	1.7	4.0
19	44	22	6.0	4.7	14	13	14	11	9.4	.60	.48	3.0
20	6.5	11	5.1	5.8	39	12	14	10	10	.16	.17	3.5
21	3.1	8.6	4.4	10	34	12	12	9.5	12	.00	.00	2.0
22	1.9	7.4	4.1	12	27	11	11	9.2	12	.00	.00	2.2
23	1.2	6.3	5.3	10	72	11	10	7.8	7.6	.00	.00	2.6
24	.88	15	7.5	8.6	84	11	28	7.0	6.1	.00	.00	2.0
25	98	41	7.4	7.8	37	10	16	6.9	5.1	5.9	.00	1.0
26	70	15	5.1	7.9	27	9.7	13	7.2	7.0	9.6	.00	.40
27	11	12	4.7	8.4	23	9.5	12	6.0	5.0	3.7	.00	.16
28	7.5	30	5.7	7.6	20	9.5	11	12	3.6	11	.00	.03
29	6.5	19	7.5	6.5	---	9.5	11	47	3.2	20	.00	1.2
30	4.9	12	7.8	5.3	---	50	10	13	2.6	4.9	.00	.03
31	4.2	---	6.5	4.9	---	70	---	10	---	1.9	10	---
TOTAL	279.96	364.7	212.0	184.8	731.8	541.2	839	610.1	848.3	164.88	63.71	50.23
MEAN	9.03	12.2	6.84	5.96	26.1	17.5	28.0	19.7	28.3	5.32	2.06	1.67
MAX	98	83	13	12	84	70	85	85	402	23	19	9.0
MIN	.00	3.3	4.1	2.5	4.9	9.5	10	6.0	2.6	.00	.00	.00
CFSM	.23	.31	.17	.15	.66	.44	.71	.50	.72	.14	.05	.04
IN.	.26	.34	.20	.17	.69	.51	.79	.57	.80	.16	.06	.05

CAL YR 1980 TOTAL 10991.23 MEAN 30.0 MAX 314 MIN .00 CFSM .76 IN 10.35
WTR YR 1981 TOTAL 4890.68 MEAN 13.4 MAX 402 MIN .00 CFSM .34 IN 4.61

01655480 POTOMAC RIVER AT INDIAN HEAD, MD

LOCATION.--Lat 38°36'03", long 77°10'56", Charles County, Hydrologic Unit 02070010, in brick building at end of wooden dock on left bank at U.S. Naval Ordnance Station at Indian Head, and 3.5 mi (5.6 km) above mouth of Mattawoman Creek, and at river mile 84.5 (136.0 km).

DRAINAGE AREA.--12,160 mi² (31,490 km²).

PERIOD OF RECORD.--October 1977 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to September 1981 (discontinued).

pH: October 1977 to September 1981 (discontinued).

WATER TEMPERATURES: October 1977 to September 1981 (discontinued).

DISSOLVED OXYGEN: October 1977 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1977.

REMARKS.--Interruptions in record were due to malfunctions of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1978-80): Maximum, 3,490 micromhos Nov. 4, 1977; minimum, 116 micromhos May 19, 20, 1978.

pH (water years 1978, 1980-81): Maximum, 9.4 units Aug. 10, 1981; minimum, 6.6 units Aug. 11, 26, 27, 28, 1980.

WATER TEMPERATURES: Maximum, 33.5°C July 21, 1980; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN (water years 1978-79): Maximum, 15.5 mg/L June 14, 1978; minimum, 3.4 mg/L July 4, 1978.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 9.4 units Aug. 10; minimum, 6.9 units July 27, Sept. 9, 13, 14.

WATER TEMPERATURES: Maximum, 32.0°C July 11; minimum, 0.0°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1070	568	930	950	666	775	1100	950	1010	2640	2250	2440
2	1630	642	991	764	650	711	1260	930	1030	2630	2100	2380
3	1090	504	762	1500	734	931	1170	648	835	2630	2380	2530
4	846	534	679	1760	786	1090	1200	632	785	---	---	---
5	776	448	606	1040	702	814	1250	952	1160	---	---	---
6	584	436	505	1160	702	834	1230	898	1120	---	---	---
7	1200	436	723	1260	706	885	2190	1040	1360	---	---	---
8	1660	572	963	1210	704	885	2440	998	1470	---	---	---
9	1310	606	911	1730	692	991	2400	994	1280	---	---	---
10	1530	629	1010	1700	690	750	1500	870	1110	---	---	---
11	2020	729	1320	666	624	641	2130	794	1110	---	---	---
12	920	464	702	688	618	644	2160	874	1300	---	---	---
13	595	461	524	1570	716	1000	1270	864	1010	---	---	---
14	669	453	516	1500	1070	1240	1360	766	883	---	---	---
15	1370	548	726	2050	993	1240	1790	746	1010	---	---	---
16	1370	611	857	2860	1140	1720	1370	780	1020	---	---	---
17	1810	667	1130	2870	1810	2260	1240	758	1000	---	---	---
18	1970	636	1190	2750	1470	2310	1890	876	1390	---	---	---
19	1270	637	832	2450	1960	2140	1470	784	1040	---	---	---
20	1470	555	760	2930	1970	2530	---	---	---	---	---	---
21	1410	618	917	2950	1980	2600	---	---	---	---	---	---
22	1190	673	908	2530	1660	2130	---	---	---	---	---	---
23	1470	739	1130	2910	1850	2390	---	---	---	---	---	---
24	2090	888	1440	2970	1990	2640	---	---	---	---	---	---
25	2550	937	1830	2700	1620	2090	---	---	---	---	---	---
26	1220	685	904	2240	1460	1630	---	---	---	---	---	---
27	990	700	805	2240	1410	1740	---	---	---	---	---	---
28	902	724	795	2120	1120	1580	---	---	---	---	---	---
29	804	702	736	1860	870	1180	---	---	---	---	---	---
30	990	686	832	1130	892	986	2640	1170	1710	---	---	---
31	1010	752	888	---	---	---	2640	1470	2200	---	---	---
MONTH	2550	436	897	2970	618	1450	2640	632	1180	2640	2100	2450

POTOMAC RIVER BASIN

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	370	244	278	242	222	227
2				---	---	---	392	246	296	226	220	223
3				---	---	---	400	250	290	232	206	221
4				---	---	---	704	276	419	230	204	223
5				---	---	---	760	310	520	238	226	233
6				---	---	---	394	300	334	248	236	240
7				---	---	---	---	---	---	---	---	---
8				---	---	---	---	---	---	---	---	---
9				---	---	---	---	---	---	---	---	---
10				---	---	---	408	334	365	---	---	---
11				194	184	189	440	330	362	---	---	---
12				202	186	191	402	336	358	---	---	---
13				218	194	203	408	350	379	298	260	274
14				210	194	201	464	326	397	272	258	266
15				250	200	221	354	272	295	272	262	265
16				244	212	231	284	232	265	306	270	288
17				220	204	210	252	188	226	308	278	291
18				222	204	211	262	180	210	296	282	287
19				226	210	220	204	184	193	284	272	278
20				226	210	220	282	172	187	276	268	273
21				226	214	221	---	---	---	276	264	269
22				230	216	223	---	---	---	---	---	---
23				234	218	223	---	---	---	272	250	262
24				250	216	234	226	180	196	268	256	261
25				268	218	236	198	188	194	274	256	264
26				722	218	331	230	188	207	274	254	265
27				678	234	296	244	226	234	262	254	257
28				268	224	234	248	224	233	260	256	258
29				582	228	325	232	210	218	274	260	265
30				568	246	347	224	212	217	272	258	266
31				350	236	279	---	---	---	---	---	---
MONTH				722	184	240	760	172	286	308	204	259
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	268	262	265	218	210	213	1280	471	829	3470	2170	2660
2	---	---	---	222	208	213	1250	500	860	3770	2280	2770
3	---	---	---	240	210	221	1120	566	838	3950	2470	2950
4	---	---	---	236	210	221	970	510	709	3860	2540	3140
5	234	222	227	224	212	217	996	494	706	4100	2680	3190
6	236	218	227	230	212	220	886	384	515	3620	2400	2860
7	240	230	234	234	222	228	1030	408	630	3860	2300	2770
8	246	234	238	236	224	230	1350	770	1000	3840	2040	2650
9	246	236	240	236	226	233	1590	442	784	2500	1420	1880
10	242	224	235	242	234	237	1500	438	807	2560	1410	2000
11	238	226	232	256	232	241	1570	506	913	2780	1240	1870
12	240	230	234	250	238	245	1320	356	682	2750	1180	1810
13	236	222	230	252	238	246	656	380	486	2710	1250	1910
14	232	220	226	256	238	247	1210	400	664	3060	1170	2200
15	232	212	223	248	238	244	1630	420	908	2690	1250	1850
16	228	208	216	248	240	244	1620	514	761	2130	910	1500
17	218	202	211	272	246	253	758	390	569	2840	1050	1870
18	218	204	213	358	248	287	1290	448	752	2160	1060	1690
19	224	210	215	751	267	389	1850	526	1070	1750	900	1320
20	222	212	217	857	287	465	2090	808	1400	1450	980	1150
21	230	212	220	527	279	382	1970	1350	2070	1600	950	1080
22	236	218	227	381	285	324	3150	1730	2340	1720	870	1230
23	236	206	223	661	291	372	2590	1360	2040	1390	660	897
24	222	212	217	736	354	536	3340	1480	2130	900	710	758
25	222	212	218	1180	442	744	2460	960	1760	1040	690	883
26	228	216	224	1290	434	835	3560	1890	2720	1700	920	1200
27	228	222	225	1190	390	657	3780	1740	2580	1900	940	1430
28	230	218	224	1140	427	686	3310	1790	2430	1450	730	1060
29	226	220	223	1140	335	662	3500	1430	2430	1620	670	943
30	222	220	222	657	331	396	3610	1780	2710	1990	840	1310
31	---	---	---	1160	355	701	3420	1850	2660	---	---	---
MONTH	268	202	226	1290	208	367	3780	356	1350	4100	660	1830

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	7.6	7.0	7.2	8.4	7.6	7.9	7.9	7.8	7.8	8.0	7.8	7.9
2	7.5	7.0	7.2	8.4	7.7	8.0	7.9	7.8	7.8	7.9	7.8	7.9
3	7.2	7.0	7.1	8.4	7.8	8.0	8.1	7.9	8.0	7.9	7.8	7.9
4	7.6	7.0	7.2	8.0	7.7	7.8	8.1	8.0	8.1	---	---	---
5	7.6	7.0	7.2	8.2	7.7	7.9	8.3	8.0	8.1	---	---	---
6	8.2	7.0	7.3	8.5	7.8	8.0	8.3	8.0	8.1	---	---	---
7	8.1	7.1	7.4	8.4	7.7	8.0	8.1	8.0	8.0	---	---	---
8	8.3	7.2	7.6	8.5	7.8	8.1	8.1	8.0	8.0	---	---	---
9	7.7	7.2	7.5	8.3	7.8	8.0	8.0	7.9	7.9	---	---	---
10	7.6	7.2	7.4	7.9	7.7	7.9	8.0	7.9	7.9	---	---	---
11	7.7	7.2	7.4	8.1	7.9	8.0	8.0	7.9	7.9	---	---	---
12	7.5	7.1	7.3	8.2	8.0	8.1	8.0	7.8	7.9	---	---	---
13	7.6	7.2	7.4	8.4	7.9	8.1	7.9	7.8	7.9	---	---	---
14	8.3	7.3	7.7	8.3	7.8	8.0	8.0	7.8	7.9	---	---	---
15	8.6	7.4	7.9	8.1	7.8	7.9	8.0	7.9	7.9	---	---	---
16	8.8	7.4	8.0	8.3	7.6	7.9	8.0	7.8	7.9	---	---	---
17	8.9	7.5	8.1	8.1	7.6	7.9	7.9	7.9	7.9	---	---	---
18	8.4	7.6	7.9	7.9	7.8	7.8	8.0	7.8	7.9	---	---	---
19	8.8	7.5	7.9	8.0	7.8	7.9	7.9	7.8	7.8	---	---	---
20	8.7	7.5	7.9	7.9	7.8	7.9	---	---	---	---	---	---
21	8.9	7.6	8.0	7.9	7.8	7.8	---	---	---	---	---	---
22	8.8	7.5	8.0	7.9	7.8	7.8	---	---	---	---	---	---
23	8.8	7.7	8.1	7.9	7.8	7.8	---	---	---	---	---	---
24	8.7	7.6	8.1	7.8	7.7	7.7	---	---	---	---	---	---
25	8.0	7.6	7.9	7.8	7.7	7.8	---	---	---	---	---	---
26	8.3	7.6	7.8	7.9	7.7	7.8	---	---	---	---	---	---
27	8.4	7.7	8.0	7.8	7.7	7.8	---	---	---	8.1	8.0	8.0
28	8.0	7.7	7.8	7.8	7.7	7.8	---	---	---	7.9	7.9	7.9
29	8.3	7.7	7.9	7.8	7.7	7.8	---	---	---	7.9	7.9	7.9
30	8.2	7.7	7.9	7.8	7.8	7.8	---	---	---	7.9	7.9	7.9
31	8.2	7.6	7.9	---	---	---	---	---	---	8.0	7.9	8.0
MONTH	8.9	7.0	7.7	8.5	7.6	7.9	8.3	7.8	7.9	8.1	7.8	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	8.0	8.0	---	---	---	7.6	7.5	7.6	8.1	7.4	7.5
2	8.2	8.0	8.1	---	---	---	7.6	7.5	7.5	7.6	7.4	7.5
3	8.1	8.0	8.0	---	---	---	7.6	7.5	7.5	7.7	7.4	7.5
4	8.1	8.0	8.0	---	---	---	7.7	7.5	7.5	7.8	7.3	7.5
5	8.0	8.0	8.0	---	---	---	7.6	7.5	7.6	7.8	7.3	7.5
6	8.0	8.0	8.0	---	---	---	7.7	7.5	7.6	7.6	7.3	7.4
7	8.0	7.9	8.0	---	---	---	---	---	---	---	---	---
8	8.0	8.0	8.0	---	---	---	---	---	---	---	---	---
9	8.0	8.0	8.0	---	---	---	7.7	7.5	7.6	---	---	---
10	8.0	8.0	8.0	---	---	---	7.6	7.4	7.5	---	---	---
11	8.1	8.0	8.1	7.7	7.6	7.6	7.6	7.4	7.5	---	---	---
12	8.1	8.1	8.1	7.7	7.6	7.6	7.5	7.3	7.4	7.7	7.5	7.6
13	8.1	8.0	8.1	7.7	7.6	7.6	7.6	7.4	7.5	7.9	7.4	7.5
14	8.1	8.0	8.0	7.8	7.7	7.7	7.5	7.4	7.4	8.2	7.4	7.6
15	8.1	8.0	8.0	7.8	7.7	7.7	7.7	7.4	7.5	7.8	7.4	7.6
16	8.1	7.9	8.0	7.8	7.7	7.8	7.6	7.5	7.5	7.8	7.3	7.5
17	8.0	7.9	7.9	7.9	7.8	7.8	7.5	7.3	7.4	7.6	7.3	7.5
18	7.9	7.8	7.9	7.9	7.8	7.8	7.5	7.3	7.4	7.6	7.3	7.5
19	---	---	---	7.8	7.7	7.8	7.4	7.2	7.3	7.6	7.3	7.4
20	---	---	---	7.9	7.7	7.8	7.3	7.2	7.3	7.6	7.3	7.4
21	---	---	---	7.9	7.7	7.8	7.4	7.2	7.3	7.6	7.3	7.4
22	---	---	---	7.8	7.7	7.7	---	---	---	7.4	7.3	7.3
23	---	---	---	7.8	7.7	7.7	7.4	7.2	7.3	7.8	7.3	7.5
24	---	---	---	7.7	7.7	7.7	7.5	7.2	7.4	8.0	7.3	7.5
25	---	---	---	7.7	7.7	7.7	7.6	7.4	7.5	8.1	7.3	7.5
26	---	---	---	7.7	7.6	7.7	7.6	7.5	7.5	8.5	7.2	7.6
27	---	---	---	7.7	7.6	7.6	7.7	7.4	7.5	8.3	7.3	7.6
28	---	---	---	7.7	7.6	7.7	7.7	7.4	7.5	8.1	7.3	7.6
29	---	---	---	7.7	7.6	7.7	7.8	7.4	7.6	8.3	7.4	7.6
30	---	---	---	7.7	7.6	7.6	8.1	7.4	7.6	8.2	7.4	7.6
31	---	---	---	7.6	7.6	7.6	---	---	---	7.5	7.4	7.4
MONTH	8.2	7.8	8.0	7.9	7.6	7.7	8.1	7.2	7.5	8.5	7.2	7.5

POTOMAC RIVER BASIN

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.6	7.2	7.4	8.4	7.4	7.9	---	---	---	8.4	7.2	7.5
2	7.2	7.2	7.2	8.8	7.4	8.1	---	---	---	7.8	7.2	7.4
3	---	---	---	8.4	7.4	7.9	---	---	---	7.8	7.2	7.3
4	---	---	---	7.8	7.3	7.5	---	---	---	7.6	7.1	7.3
5	7.4	7.2	7.3	7.5	7.1	7.3	8.8	7.3	8.0	7.5	7.1	7.2
6	7.3	7.2	7.2	7.3	7.0	7.2	8.5	7.2	7.4	7.9	7.0	7.2
7	7.5	7.2	7.3	7.4	7.0	7.2	8.3	7.2	7.5	7.8	7.0	7.2
8	7.5	7.2	7.3	8.0	7.0	7.3	8.5	7.2	7.5	7.2	7.0	7.1
9	7.5	7.2	7.4	8.9	7.1	7.7	9.2	7.1	7.6	7.7	6.9	7.2
10	7.6	7.3	7.4	8.8	7.2	7.9	9.4	7.2	7.8	8.2	7.1	7.4
11	8.1	7.3	7.5	9.2	7.2	8.0	9.2	7.3	7.9	8.3	7.0	7.4
12	8.1	7.4	7.6	8.9	7.2	7.8	8.2	7.1	7.5	7.6	7.0	7.2
13	8.0	7.3	7.5	8.7	7.2	7.7	8.9	7.0	7.5	8.0	6.9	7.3
14	8.1	7.3	7.5	8.6	7.1	7.8	8.8	7.0	7.5	8.6	6.9	7.5
15	8.7	7.2	7.4	8.8	7.1	7.8	8.1	7.1	7.4	8.3	7.3	7.6
16	8.3	7.2	7.4	8.5	7.2	7.8	8.5	7.1	7.5	7.6	7.3	7.4
17	7.8	7.2	7.4	8.7	7.1	7.7	8.8	7.3	7.8	7.7	7.2	7.4
18	7.5	7.1	7.3	8.9	7.0	7.9	8.8	7.3	7.7	7.4	7.3	7.3
19	7.4	7.1	7.2	8.9	7.3	8.1	7.9	7.3	7.5	7.6	7.3	7.4
20	7.4	7.1	7.2	8.6	7.1	7.7	8.0	7.3	7.7	7.7	7.3	7.5
21	7.5	7.0	7.2	8.5	7.0	7.6	8.2	7.4	7.7	8.3	7.3	7.5
22	7.7	7.1	7.3	8.4	7.0	7.7	8.1	7.3	7.6	7.9	7.3	7.5
23	7.7	7.1	7.3	8.5	7.1	7.7	8.7	7.3	7.6	7.7	7.4	7.5
24	7.5	7.1	7.3	7.9	7.1	7.5	8.7	7.3	7.7	7.8	7.5	7.7
25	7.9	7.1	7.3	7.7	7.0	7.3	8.7	7.3	7.6	8.4	7.6	7.8
26	8.3	7.3	7.7	8.3	7.0	7.4	8.8	7.4	7.9	8.4	7.6	7.8
27	8.5	7.3	7.7	8.5	6.9	7.4	8.8	7.4	7.9	8.5	7.5	7.9
28	9.2	7.4	8.0	---	---	---	8.7	7.4	7.9	8.2	7.6	7.8
29	9.0	7.3	8.1	---	---	---	8.4	7.3	7.7	8.6	7.6	8.0
30	7.9	7.4	7.7	---	---	---	7.9	7.3	7.5	8.4	7.6	7.9
31	---	---	---	---	---	---	8.1	7.3	7.5	---	---	---
MONTH	9.2	7.0	7.4	9.2	6.9	7.7	9.4	7.0	7.6	8.6	6.9	7.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.5	.0	.5	---	---	---	11.5	10.0	10.5	17.0	16.5	17.0
2	1.5	.5	1.0	---	---	---	12.5	10.5	11.5	16.5	15.5	16.0
3	1.0	.0	.5	---	---	---	13.0	11.0	12.0	17.5	15.0	16.5
4	1.0	.0	.5	---	---	---	14.5	12.0	13.0	18.5	16.0	17.0
5	.5	.0	.5	---	---	---	14.5	13.5	14.0	18.0	16.5	17.0
6	.5	.0	.5	---	---	---	14.0	13.0	13.5	18.0	16.5	17.0
7	1.0	.0	.5	---	---	---	---	---	---	---	---	---
8	1.0	.5	.5	---	---	---	---	---	---	---	---	---
9	1.5	.0	.5	---	---	---	---	---	---	---	---	---
10	1.5	.5	1.0	---	---	---	15.5	13.0	14.0	---	---	---
11	3.0	1.5	2.0	6.5	5.5	6.0	15.5	14.0	14.5	---	---	---
12	2.5	1.0	2.0	7.0	5.0	6.0	15.5	14.5	15.0	---	---	---
13	2.5	.5	1.5	7.0	6.0	6.5	14.5	13.5	14.5	19.0	16.5	18.0
14	3.5	1.5	2.0	6.5	5.5	6.0	15.0	13.5	14.0	20.0	18.0	18.5
15	3.5	2.0	2.5	7.0	5.0	6.0	15.0	14.0	14.5	19.0	18.5	19.0
16	4.5	2.5	3.0	6.5	5.0	6.0	15.5	13.5	14.5	19.5	18.0	19.0
17	4.5	3.5	3.5	5.5	4.0	5.0	14.5	13.5	14.0	20.5	18.0	19.5
18	5.5	3.5	4.0	5.0	4.5	5.0	16.0	13.5	14.5	19.5	18.0	18.5
19	---	---	---	6.0	4.0	5.0	15.5	13.5	14.5	18.5	17.5	18.0
20	---	---	---	5.5	4.0	4.5	15.0	14.0	14.5	18.5	17.5	18.0
21	---	---	---	6.0	4.0	5.0	---	---	---	19.5	17.0	18.0
22	---	---	---	6.5	4.5	5.5	---	---	---	18.0	18.0	18.0
23	---	---	---	6.0	5.5	5.5	---	---	---	20.5	18.5	19.0
24	---	---	---	7.0	5.0	6.0	16.5	14.5	15.5	20.5	19.0	19.5
25	---	---	---	7.5	5.5	6.5	15.0	14.0	14.5	23.5	19.5	20.5
26	---	---	---	8.0	6.0	7.0	15.5	13.5	14.5	22.5	20.5	21.5
27	---	---	---	7.5	6.5	7.0	18.0	14.5	15.5	22.5	21.0	21.5
28	---	---	---	9.5	7.0	8.0	17.0	15.0	16.0	22.0	21.5	21.5
29	---	---	---	10.0	7.5	8.5	17.5	16.0	17.0	24.0	21.5	22.5
30	---	---	---	10.0	8.5	9.5	17.5	16.5	17.0	25.0	22.0	23.0
31	---	---	---	12.5	9.0	10.5	---	---	---	23.5	23.5	23.5
MONTH	5.5	.0	1.5	12.5	4.0	6.5	18.0	10.0	14.5	25.0	15.0	19.0

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

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	8.7	5.8	6.8	---	---	---	11.7	11.0	11.3	10.2	10.0	10.1
2	8.1	5.8	6.8	---	---	---	11.8	11.0	11.3	10.4	10.0	10.2
3	6.9	5.8	6.4	10.6	8.3	9.4	12.2	11.6	11.9	10.3	9.9	10.2
4	8.7	5.5	6.8	10.2	9.2	9.6	12.9	12.1	12.5	---	---	---
5	8.8	6.3	7.1	10.9	9.3	10.1	13.3	12.4	12.7	---	---	---
6	9.7	6.6	7.6	11.9	9.9	10.6	13.4	12.3	12.7	---	---	---
7	9.7	7.0	8.0	11.8	10.1	10.8	12.8	12.3	12.5	---	---	---
8	10.1	7.3	8.4	12.3	10.3	11.0	12.8	12.2	12.4	---	---	---
9	9.3	7.5	8.5	12.0	10.3	11.0	12.5	11.9	12.1	---	---	---
10	8.4	7.5	7.9	11.5	10.1	10.8	12.2	11.8	12.0	---	---	---
11	8.7	7.1	7.8	11.5	10.3	11.0	12.5	11.9	12.1	---	---	---
12	8.4	7.1	7.8	12.1	11.2	11.8	12.3	11.5	12.0	---	---	---
13	8.8	7.2	8.0	12.8	11.4	11.9	12.2	11.5	11.9	---	---	---
14	10.0	7.6	8.8	12.8	11.5	12.0	12.4	12.0	12.2	---	---	---
15	10.6	8.1	9.2	12.2	11.3	11.7	12.5	12.1	12.2	---	---	---
16	11.6	8.3	9.6	12.8	10.4	11.7	12.4	12.0	12.2	---	---	---
17	11.6	8.7	9.8	12.3	10.6	11.6	12.4	12.2	12.3	---	---	---
18	10.3	8.8	9.5	11.9	11.2	11.5	12.9	12.2	12.5	---	---	---
19	11.6	8.7	9.7	12.4	11.4	11.9	12.9	12.1	12.4	---	---	---
20	11.4	8.8	9.7	12.3	11.7	11.9	---	---	---	---	---	---
21	11.8	9.1	9.8	12.1	11.6	11.8	---	---	---	---	---	---
22	11.8	8.8	10.0	12.3	11.5	11.8	---	---	---	---	---	---
23	11.2	9.3	9.9	12.2	11.5	11.8	---	---	---	---	---	---
24	11.2	9.1	9.9	11.6	11.3	11.5	---	---	---	---	---	---
25	9.7	9.0	9.5	12.0	11.1	11.5	---	---	---	---	---	---
26	10.3	8.8	9.4	12.1	11.3	11.6	---	---	---	12.9	12.0	12.4
27	---	---	---	11.5	11.1	11.3	---	---	---	12.5	11.8	12.0
28	---	---	---	11.5	10.7	11.2	---	---	---	12.2	11.7	11.9
29	---	---	---	11.4	10.7	11.0	---	---	---	12.5	11.9	12.1
30	---	---	---	11.5	10.8	11.2	---	---	---	12.5	12.1	12.3
31	---	---	---	---	---	---	10.3	10.0	10.2	13.1	12.5	12.8
MONTH	11.8	5.5	8.6	12.8	8.3	11.3	13.4	10.0	12.1	13.1	9.9	11.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.7	12.8	13.2	---	---	---	10.3	9.6	9.9	10.5	8.8	9.4
2	14.1	13.3	13.7	---	---	---	10.6	9.4	9.9	9.7	8.7	9.1
3	13.8	13.1	13.4	---	---	---	10.3	8.6	9.5	9.9	8.6	9.2
4	13.8	13.2	13.4	---	---	---	10.1	8.6	9.4	10.0	8.4	8.9
5	13.7	13.2	13.4	---	---	---	9.4	8.0	8.9	10.4	8.2	8.9
6	13.8	13.3	13.6	---	---	---	8.6	7.9	8.1	9.7	8.3	8.8
7	13.7	13.3	13.6	---	---	---	---	---	---	---	---	---
8	13.9	13.3	13.6	---	---	---	---	---	---	---	---	---
9	14.0	13.4	13.6	---	---	---	---	---	---	---	---	---
10	13.9	13.3	13.5	---	---	---	11.1	8.9	9.6	---	---	---
11	13.9	13.1	13.4	12.5	12.1	12.3	10.5	9.0	9.7	---	---	---
12	13.4	13.0	13.1	12.7	12.1	12.4	10.2	9.3	9.7	---	---	---
13	13.4	12.9	13.0	12.5	12.0	12.3	10.2	9.7	9.9	11.3	10.1	10.6
14	13.3	12.6	12.9	12.6	12.1	12.4	10.3	9.6	9.9	11.8	9.6	10.5
15	13.1	12.4	12.7	12.8	12.2	12.5	10.5	9.8	10.1	10.9	9.7	10.2
16	13.1	12.2	12.5	12.5	12.2	12.3	10.8	9.8	10.3	10.8	8.5	9.9
17	13.0	12.0	12.3	13.2	12.3	12.6	10.9	9.8	10.6	10.4	9.1	9.8
18	12.5	12.0	12.1	12.9	12.3	12.6	11.3	10.3	10.7	10.5	9.2	9.8
19	---	---	---	12.7	12.3	12.4	11.1	9.9	10.2	10.0	8.0	9.4
20	---	---	---	13.1	12.2	12.6	10.1	9.4	10.0	10.4	9.2	9.7
21	---	---	---	13.0	12.4	12.7	---	---	---	10.6	9.3	9.9
22	---	---	---	12.8	12.2	12.5	---	---	---	---	---	---
23	---	---	---	12.4	11.2	11.9	---	---	---	11.5	9.4	10.4
24	---	---	---	12.1	9.8	11.5	10.7	8.9	9.8	12.0	9.5	10.4
25	---	---	---	12.2	11.4	11.7	11.1	10.3	10.7	12.1	9.1	10.3
26	---	---	---	13.0	11.5	11.9	11.0	8.2	9.8	13.1	9.2	10.7
27	---	---	---	12.1	11.6	11.8	10.3	9.3	9.9	12.4	9.6	10.5
28	---	---	---	12.3	10.2	11.1	10.1	9.3	9.6	11.6	9.4	10.2
29	---	---	---	11.8	10.5	10.9	10.3	9.0	9.8	12.1	9.4	10.2
30	---	---	---	11.2	10.3	10.7	11.0	9.2	9.7	12.1	9.4	10.6
31	---	---	---	11.0	9.6	10.3	---	---	---	---	---	---
MONTH	14.1	12.0	13.2	13.2	9.6	12.0	11.3	7.9	9.8	13.1	8.0	9.9

01655480 POTOMAC RIVER AT INDIAN HEAD, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.2	8.7	9.6	9.1	7.6	8.3	9.9	6.7	7.8	10.5	6.7	7.9
2	8.7	8.7	8.7	10.7	7.7	8.8	11.0	6.6	8.5	9.0	6.5	7.4
3	---	---	---	9.4	7.7	8.5	8.9	7.1	8.0	8.9	6.4	7.2
4	---	---	---	8.7	7.4	8.0	10.5	6.5	9.5	8.3	6.1	6.9
5	12.0	8.7	10.5	8.3	7.2	7.7	10.7	7.3	8.9	8.3	5.7	6.5
6	11.1	9.0	10.1	8.3	6.7	7.4	9.4	6.9	7.4	9.7	5.4	7.0
7	12.5	9.7	11.2	8.7	6.5	7.6	9.3	6.1	7.2	9.9	5.9	7.1
8	12.7	10.3	11.0	10.4	6.7	8.1	9.7	5.5	7.0	7.5	5.8	6.6
9	12.6	9.6	10.9	13.2	7.3	9.3	12.3	5.8	7.6	8.8	5.8	7.0
10	12.8	10.1	10.9	12.7	7.9	9.7	13.1	6.3	8.2	10.1	5.8	7.5
11	14.3	9.8	11.5	15.9	7.5	10.3	12.1	6.4	8.4	11.2	6.1	7.7
12	14.9	10.5	12.1	13.1	7.7	9.6	9.1	6.2	7.4	11.2	6.2	8.1
13	14.5	10.0	11.7	11.1	7.8	9.2	11.2	5.9	7.7	11.0	6.2	8.3
14	14.7	9.6	11.5	10.7	7.6	9.0	11.0	6.0	7.7	11.4	6.8	8.7
15	17.0	8.7	10.7	11.7	7.4	9.0	9.1	6.3	7.3	10.5	7.0	8.1
16	14.9	8.5	10.8	10.0	7.5	8.8	9.9	6.0	7.7	8.2	6.9	7.4
17	12.2	7.6	9.9	11.1	7.0	8.6	10.1	6.8	8.1	9.0	6.4	7.4
18	10.5	7.0	8.6	12.3	7.1	9.3	10.2	6.4	7.7	7.5	6.8	7.1
19	9.5	5.7	7.7	12.2	8.0	9.5	8.2	6.5	7.2	8.6	6.5	7.5
20	8.9	5.8	7.2	9.5	7.4	8.3	8.8	6.3	7.6	9.0	6.9	8.0
21	9.5	5.3	7.2	9.9	6.7	8.2	9.4	7.0	7.8	10.8	7.2	8.4
22	8.9	5.4	7.1	9.2	6.2	8.0	9.1	6.9	7.5	9.8	7.3	8.4
23	9.6	5.3	6.7	9.9	6.2	8.1	11.3	6.6	7.9	9.1	7.8	8.6
24	7.7	4.9	6.0	8.4	6.0	7.4	11.3	6.8	8.3	9.4	8.3	8.9
25	9.6	4.1	6.0	7.2	5.9	6.6	11.2	6.9	8.4	10.8	8.6	9.4
26	9.6	5.8	7.2	9.2	5.6	6.8	11.8	7.4	9.0	11.0	8.8	9.3
27	11.7	5.7	7.9	9.8	5.8	7.3	12.1	7.3	9.2	11.7	8.1	9.5
28	15.1	6.3	9.2	8.7	6.1	7.2	11.6	7.8	9.2	10.3	8.3	9.2
29	14.9	6.2	9.6	7.7	6.0	6.7	10.5	7.4	8.6	11.5	8.2	9.5
30	7.9	6.5	7.3	9.5	5.6	7.2	9.0	7.1	7.8	10.9	8.1	9.3
31	---	---	---	9.1	6.8	7.8	9.6	7.0	7.8	---	---	---
MONTH	17.0	4.1	9.2	15.9	5.6	8.3	13.1	5.5	8.0	11.7	5.4	8.0

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.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Altitude of gage is 8 ft (2.4 m), from topographic map.

AVERAGE DISCHARGE.--13 years, 21.6 ft³/s (0.612 m³/s), 15.86 in/yr (403 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s (127 m³/s) Sept. 6, 1979, from rating curve extended above 480 ft³/s (13.6 m³/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.--Maximum discharge, 365 ft³/s (10.3 m³/s) June 20, gage height, 4.41 ft (1.344 m), no other peak above base of 220 ft³/s (6.2 m³/s); no flow, Aug. 21-23, Aug 27 to Sept. 15.

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	.48	3.7	8.3	6.0	4.0	9.6	28	13	6.5	2.6	.87	.00
2	.72	3.4	7.6	6.0	8.0	9.2	54	23	13	2.8	.55	.00
3	1.8	3.1	6.7	5.7	15	8.9	20	11	14	3.2	.48	.00
4	5.7	4.7	6.1	4.9	7.9	7.7	14	8.1	9.1	5.9	.43	.00
5	2.8	11	5.6	3.8	5.2	16	20	7.0	6.6	11	.39	.00
6	1.8	6.7	5.5	3.8	4.4	17	55	6.3	5.5	7.7	.32	.00
7	1.3	4.9	5.8	4.6	4.9	11	21	5.9	4.5	6.3	.41	.00
8	.96	4.2	6.0	6.4	7.0	8.8	15	5.3	3.6	4.8	.66	.00
9	.85	4.2	9.9	4.5	11	8.2	15	4.6	3.0	3.5	.83	.00
10	.83	4.5	8.0	3.9	8.4	7.8	18	4.8	11	2.8	.71	.00
11	.96	4.8	7.3	3.2	35	7.7	14	46	21	2.1	.48	.00
12	2.6	4.1	6.4	2.7	34	7.5	12	81	7.0	1.6	.37	.00
13	2.1	3.6	6.3	2.0	13	7.3	43	21	7.5	.52	.30	.00
14	1.5	3.5	5.7	2.0	9.9	7.1	22	11	125	.53	.27	.00
15	1.3	3.6	5.5	3.1	9.1	8.3	16	15	23	.25	.18	.00
16	1.4	3.7	5.3	5.1	8.7	8.3	13	25	11	.35	.16	4.2
17	1.3	4.4	5.3	6.2	8.0	14	12	11	7.0	.46	.13	4.3
18	1.3	42	5.1	5.3	8.5	9.9	12	7.7	5.1	.27	.10	10
19	21	21	5.1	4.6	8.1	8.6	11	28	4.2	.25	.08	5.5
20	8.6	9.1	4.6	5.4	33	7.7	15	30	100	.24	.03	2.4
21	3.6	7.3	3.6	7.1	52	7.0	14	16	134	.22	.00	1.2
22	2.3	6.3	3.1	7.7	25	6.6	9.7	10	72	.20	.00	.62
23	1.9	5.6	4.4	7.6	26	6.6	8.6	7.7	21	.05	.00	.40
24	1.7	8.9	6.6	7.3	28	6.6	19	6.4	11	.06	.13	.32
25	28	18	7.4	6.8	16	6.4	12	5.6	8.1	.32	.09	.26
26	32	10	4.7	6.8	12	6.3	8.6	4.7	6.0	.74	.02	.23
27	8.6	8.3	4.0	8.0	11	6.0	8.1	4.0	5.1	3.8	.00	.19
28	5.7	20	5.5	8.1	9.6	6.0	7.8	43	4.5	6.7	.00	.21
29	5.9	16	8.3	6.5	---	5.7	7.1	55	3.5	5.8	.00	.25
30	4.8	11	8.7	5.0	---	21	6.2	15	2.8	3.4	.00	.19
31	3.9	---	6.8	4.3	---	44	---	8.5	---	1.7	.00	---
TOTAL	157.70	261.6	189.2	164.4	422.7	312.8	531.1	540.6	655.6	80.16	7.99	30.27
MEAN	5.09	8.72	6.10	5.30	15.1	10.1	17.7	17.4	21.9	2.59	.26	1.01
MAX	32	42	9.9	8.1	52	44	55	81	134	11	.87	10
MIN	.48	3.1	3.1	2.0	4.0	5.7	6.2	4.0	2.8	.05	.00	.00
CFSM	.28	.47	.33	.29	.82	.55	.96	.94	1.18	.14	.01	.06
IN.	.32	.53	.38	.33	.85	.63	1.07	1.09	1.32	.16	.02	.06
CAL YR 1980	TOTAL	5667.49	MEAN	15.5	MAX	157	MIN	.00	CFSM	.84	IN	11.40
WTR YR 1981	TOTAL	3354.12	MEAN	9.19	MAX	134	MIN	.00	CFSM	.50	IN	6.74

01661475 POTOMAC RIVER AT PINEY POINT, MD

LOCATION.--Lat 38°08'02", long 76°31'56", St. Marys County, Hydrologic Unit 02070011, in metal house near end of wooden pier on left bank on Stewart Petroleum property, at river mile 15.5 (24.9 km).

PERIOD OF RECORD.--October 1979 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to September 1981 (discontinued).

pH UNITS: October 1979 to September 1981 (discontinued).

WATER TEMPERATURE: October 1979 to September 1981 (discontinued).

DISSOLVED OXYGEN: October 1979 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1979.

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	28400	26700	27700	25800	24300	25000	29200	24700	28200
2	---	---	---	29200	26900	28200	25400	23800	24500	27300	23800	25000
3	---	---	---	29100	27300	28600	---	---	---	27200	25000	25800
4	---	---	---	28600	23200	27500	---	---	---	27400	24400	25800
5	27000	24800	25700	29500	24800	26900	---	---	---	27000	25500	26200
6	26400	24000	25700	---	---	---	---	---	---	26800	26000	26500
7	26500	25000	25800	---	---	---	---	---	---	27200	24700	26100
8	30100	24000	27200	---	---	---	---	---	---	26200	23800	24800
9	30400	26700	27900	28800	23800	26300	---	---	---	26300	24400	25600
10	30500	27600	29400	28400	23600	26200	---	---	---	25800	24800	25400
11	29600	27100	28100	26900	23800	26000	---	---	---	---	---	---
12	29100	25900	27900	25700	24200	24900	---	---	---	---	---	---
13	28000	27200	27500	28500	24300	26400	---	---	---	---	---	---
14	28100	25800	27100	28500	23400	25800	---	---	---	---	---	---
15	29300	25800	27800	29600	23900	27400	---	---	---	---	---	---
16	29700	25600	26900	29800	28000	29000	---	---	---	---	---	---
17	28000	25400	26600	29500	28000	28800	---	---	---	---	---	---
18	28000	26300	26700	28900	27800	28500	---	---	---	---	---	---
19	30400	25800	27200	29900	27300	28700	---	---	---	---	---	---
20	30100	25700	27500	29700	28400	29100	---	---	---	---	---	---
21	29400	25800	27000	29200	20800	25900	---	---	---	---	---	---
22	31000	25800	27200	27900	24200	26200	---	---	---	---	---	---
23	30100	25800	29000	28400	24200	26100	---	---	---	---	---	---
24	30200	26400	29000	27700	24200	25400	---	---	---	---	---	---
25	29300	26100	28600	27300	24000	25300	---	---	---	---	---	---
26	27400	25200	26400	27300	24800	26100	---	---	---	---	---	---
27	28000	24600	26500	28000	24800	27400	---	---	---	---	---	---
28	27500	26300	27100	27100	24100	25100	---	---	---	---	---	---
29	29000	25800	27400	25900	24800	25500	---	---	---	---	---	---
30	28300	23300	26300	25800	24800	25300	---	---	---	---	---	---
31	30200	26800	28000	---	---	---	---	---	---	---	---	---
MONTH	31000	23300	27300	29900	20800	26800	25800	23800	24800	29200	23800	25900

POTOMAC RIVER BASIN

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	17700	16900	17400	22300	20200	21200
2				---	---	---	18200	17300	17700	22600	19300	20800
3				---	---	---	19000	18000	18400	22500	20800	21900
4				---	---	---	18800	18300	18600	22800	21600	22200
5				---	---	---	19200	18700	19000	23000	21300	22400
6				---	---	---	19400	18700	19100	23000	21400	22200
7				---	---	---	20400	19000	19600	23700	21700	22600
8				---	---	---	20500	19800	20100	23400	22000	22900
9				---	---	---	21700	20500	20700	23300	22300	22800
10				---	---	---	21800	20800	21300	23400	22900	23100
11				---	---	---	22100	21300	21800	23700	14200	22900
12				---	---	---	22600	21700	22200	23600	22700	23200
13				---	---	---	22900	22400	22700	23600	21900	22900
14				---	---	---	23400	22700	22900	24000	22400	23000
15				---	---	---	23400	21600	22300	24300	23300	23900
16				---	---	---	22700	21600	22100	24100	23100	23500
17				---	---	---	22300	21000	21600	23900	23300	23600
18				---	---	---	22200	20700	21500	23800	22400	23200
19				---	---	---	23200	20700	21800	23800	23000	23400
20				---	---	---	23400	21000	22100	24200	22900	23500
21				---	---	---	22900	19000	21100	24900	24000	24400
22				---	---	---	22400	19200	20200	24600	22900	23900
23				---	---	---	21700	18300	19900	24600	20200	23700
24				---	---	---	21600	17100	18300	25600	21500	23000
25				21700	21100	21400	21500	17400	19800	25300	20900	22500
26				21600	20600	21000	22800	20100	21400	---	---	---
27				21000	19600	20100	22700	19100	21000	---	---	---
28				20500	19400	19800	24000	18700	20200	---	---	---
29				19300	18700	19000	21700	18900	20300	23700	22700	23400
30				18400	18000	18200	22900	19100	20600	23700	21700	22700
31				18400	17000	17600	---	---	---	23600	21700	22300
MONTH				21700	17000	19600	24000	16900	20500	25600	14200	22900
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23300	21500	22400	23700	21600	23000	24800	24300	24500	26600	25700	26000
2	22200	21000	21400	22900	21800	22400	24900	24200	24500	26300	25800	26100
3	22100	21000	21600	22900	22600	22700	---	---	---	26200	25600	25900
4	22200	21200	21700	23000	22200	22600	---	---	---	25800	25300	25600
5	22500	20400	21700	22900	21700	22400	25600	24900	25300	25400	25200	25300
6	22300	19400	20200	---	---	---	26300	24500	25500	25400	24900	25200
7	21900	19800	20400	---	---	---	26600	25100	25700	25100	24900	25000
8	22300	17800	20300	---	---	---	26000	24600	25200	24900	24100	24600
9	21500	19500	19900	23600	20900	21700	26600	24400	25300	25900	23300	24100
10	21300	18400	19400	23200	20300	21700	27200	25100	25900	24800	24000	24400
11	21100	18500	19400	23900	18700	21500	25900	24500	25400	24700	23200	24100
12	20300	17800	18900	21600	18800	20200	25700	24300	24800	24900	23200	23900
13	20400	17700	19100	20500	18900	19600	27100	23600	24300	25400	22800	24100
14	20500	19500	19800	21300	19300	20000	27200	24000	25000	25200	23200	24100
15	20500	18900	19600	24700	21200	22600	26000	24300	25000	25800	23300	24400
16	21900	19000	20000	23000	20600	21400	26200	24500	25100	26800	22900	24500
17	21100	18400	19700	23100	20600	22300	27500	24700	26200	26400	22800	24800
18	20700	17400	19100	22900	22000	22600	27900	25800	27000	25400	24000	24700
19	20400	19600	20100	23200	21800	22500	27800	26400	26800	25300	23000	23900
20	20700	20000	20300	23100	22300	22600	26600	26100	26300	24500	22900	23500
21	21200	19400	20000	22900	22300	22600	26600	25900	26200	26400	23700	24800
22	20500	19400	19700	25300	21900	23100	26400	25700	26000	24700	23800	24100
23	20900	18800	19500	25000	23300	24000	27000	24900	26000	24600	23400	24100
24	22800	18600	20000	23700	22700	23300	26500	25700	26100	24800	23600	24200
25	20900	20100	20400	23300	22700	23000	26700	25900	26300	25200	23500	24300
26	23600	19800	20400	23700	23100	23400	26400	25900	26100	25300	24300	24900
27	23300	19900	22100	24500	23200	23600	26600	25600	26100	24700	23900	24400
28	23000	19900	21500	24200	23400	23700	26400	25600	25900	24500	23200	23900
29	23400	19500	21000	23500	22900	23300	26300	25600	26000	25400	23400	24400
30	23800	20100	21900	25500	22400	24000	26100	25800	26000	25000	23500	24400
31	---	---	---	25100	24200	24600	26300	25600	25800	---	---	---
MONTH	23800	17400	20400	25500	18700	22500	27900	23600	25700	26800	22800	24600

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOPER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	8.3	8.0	8.1	8.5	8.3	8.5	8.5	8.4	8.4
2	---	---	---	8.2	7.9	8.0	8.6	8.4	8.5	8.4	8.4	8.4
3	---	---	---	8.4	8.0	8.1	---	---	---	8.4	8.3	8.4
4	---	---	---	8.4	8.1	8.2	---	---	---	8.4	8.3	8.3
5	8.2	7.8	8.0	8.4	8.0	8.2	---	---	---	8.3	8.3	8.3
6	8.1	7.8	7.9	---	---	---	---	---	---	8.3	8.3	8.3
7	8.2	7.9	8.0	---	---	---	---	---	---	8.3	8.2	8.3
8	8.4	7.9	8.2	---	---	---	---	---	---	8.3	8.2	8.3
9	8.4	7.9	8.2	8.5	8.1	8.4	---	---	---	8.3	8.3	8.3
10	8.3	7.8	8.0	8.5	8.1	8.3	---	---	---	8.3	8.3	8.3
11	8.4	8.0	8.2	8.2	8.0	8.0	---	---	---	8.3	8.3	8.3
12	8.1	7.9	8.0	8.2	8.0	8.1	---	---	---	---	---	---
13	8.1	7.9	8.0	8.2	8.0	8.1	---	---	---	---	---	---
14	8.2	8.0	8.1	8.3	8.0	8.1	---	---	---	---	---	---
15	8.2	8.0	8.1	8.4	8.0	8.1	---	---	---	---	---	---
16	8.4	8.0	8.2	8.1	8.0	8.0	---	---	---	---	---	---
17	8.5	8.1	8.4	8.2	8.0	8.1	---	---	---	---	---	---
18	8.4	8.2	8.4	8.1	8.0	8.0	---	---	---	---	---	---
19	8.4	7.8	8.2	8.0	7.9	8.0	---	---	---	---	---	---
20	8.4	8.0	8.2	8.1	8.0	8.0	---	---	---	---	---	---
21	8.4	8.0	8.2	8.3	8.0	8.1	---	---	---	---	---	---
22	8.3	8.0	8.1	8.1	8.0	8.0	---	---	---	---	---	---
23	8.4	8.0	8.1	8.1	8.0	8.0	---	---	---	---	---	---
24	8.2	8.0	8.1	8.1	8.0	8.1	---	---	---	---	---	---
25	8.1	8.0	8.1	8.0	8.0	8.0	---	---	---	---	---	---
26	8.1	8.0	8.0	8.0	8.0	8.0	---	---	---	---	---	---
27	8.1	7.9	8.0	8.0	8.0	8.0	---	---	---	---	---	---
28	8.1	8.0	8.0	8.1	8.0	8.0	---	---	---	---	---	---
29	8.0	7.9	8.0	8.2	8.0	8.1	---	---	---	---	---	---
30	8.1	7.9	8.0	8.1	8.1	8.1	---	---	---	---	---	---
31	8.2	7.9	8.1	---	---	---	---	---	---	---	---	---
MONTH	8.5	7.8	8.1	8.5	7.9	8.1	8.6	8.3	8.5	8.5	8.2	8.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	8.3	8.2	8.2	9.3	9.0	9.1
2	---	---	---	---	---	---	8.2	8.1	8.2	9.1	8.9	9.0
3	---	---	---	---	---	---	8.3	8.1	8.2	9.1	8.9	9.0
4	---	---	---	---	---	---	8.5	8.3	8.4	9.2	8.9	9.0
5	---	---	---	---	---	---	8.5	8.3	8.4	9.3	8.9	9.1
6	---	---	---	---	---	---	8.4	8.3	8.3	9.3	9.0	9.2
7	---	---	---	---	---	---	8.4	8.2	8.3	9.2	8.8	9.0
8	---	---	---	---	---	---	8.5	8.3	8.4	9.2	8.9	9.1
9	---	---	---	---	---	---	8.5	8.3	8.5	9.3	9.2	9.2
10	---	---	---	---	---	---	8.6	8.4	8.5	9.2	9.2	9.2
11	---	---	---	---	---	---	8.7	8.5	8.6	9.2	8.4	9.1
12	---	---	---	---	---	---	8.8	8.5	8.7	9.2	9.1	9.1
13	---	---	---	---	---	---	8.7	8.5	8.6	9.2	9.0	9.1
14	---	---	---	---	---	---	9.0	8.6	8.7	9.2	9.1	9.2
15	---	---	---	---	---	---	8.9	8.7	8.8	9.2	9.1	9.1
16	---	---	---	---	---	---	9.1	8.7	8.9	9.1	8.8	9.0
17	---	---	---	---	---	---	9.1	8.9	9.0	9.1	8.9	9.0
18	---	---	---	---	---	---	9.2	8.9	9.1	9.1	8.8	9.0
19	---	---	---	---	---	---	9.2	8.8	9.0	9.0	8.8	9.0
20	---	---	---	---	---	---	9.1	8.6	9.0	9.1	8.8	9.0
21	---	---	---	---	---	---	9.3	8.7	9.0	8.9	8.7	8.8
22	---	---	---	---	---	---	9.3	8.9	9.2	8.9	8.8	8.9
23	---	---	---	---	---	---	9.4	9.1	9.2	8.9	8.7	8.8
24	---	---	---	---	---	---	9.4	9.1	9.3	9.0	8.9	8.9
25	---	---	---	8.2	8.1	8.2	9.2	8.7	8.9	9.0	8.8	8.9
26	---	---	---	8.1	8.1	8.1	9.1	8.6	8.9	---	---	---
27	---	---	---	8.1	8.0	8.1	9.3	8.8	9.1	---	---	---
28	---	---	---	8.1	8.0	8.1	9.3	8.9	9.2	---	---	---
29	---	---	---	8.1	8.1	8.1	9.4	9.2	9.2	9.0	8.8	8.9
30	---	---	---	8.2	8.1	8.1	9.3	9.0	9.2	8.9	8.6	8.8
31	---	---	---	8.3	8.1	8.2	---	---	---	8.9	8.6	8.8
MONTH	---	---	---	8.3	8.0	8.1	9.4	8.1	8.8	9.3	8.4	9.0

POTOMAC RIVER BASIN

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.8	8.5	8.7	8.3	7.8	8.1	8.2	7.6	7.9	8.1	7.8	8.0
2	8.8	8.7	8.8	8.3	8.0	8.1	8.0	7.6	7.8	8.0	7.9	8.0
3	8.9	8.5	8.7	8.1	7.9	8.0	---	---	---	8.0	7.9	7.9
4	8.8	8.4	8.7	8.0	7.8	7.9	---	---	---	8.0	7.8	7.9
5	8.6	8.2	8.4	8.4	7.6	7.9	8.2	7.9	8.1	7.9	7.7	7.8
6	8.6	8.4	8.5	---	---	---	8.1	7.4	7.6	7.8	7.6	7.7
7	8.5	8.2	8.4	---	---	---	7.9	7.4	7.6	8.0	7.6	7.8
8	8.5	8.2	8.4	---	---	---	8.1	7.7	7.9	7.9	7.8	7.8
9	8.4	8.2	8.3	8.8	8.1	8.4	8.0	7.6	7.9	7.9	7.4	7.7
10	8.5	8.0	8.2	8.6	8.3	8.5	8.3	7.8	8.1	8.0	7.5	7.7
11	8.4	8.0	8.3	8.8	7.9	8.4	8.4	8.2	8.3	8.2	7.8	7.9
12	8.4	7.9	8.2	8.7	8.3	8.5	8.3	8.0	8.1	8.3	8.0	8.2
13	8.4	8.0	8.3	8.6	8.4	8.5	8.3	7.4	8.1	8.4	8.0	8.2
14	8.4	8.1	8.2	8.6	8.2	8.5	8.3	7.5	7.9	8.4	8.0	8.3
15	8.4	8.0	8.2	8.3	7.3	8.0	8.3	7.9	8.1	8.5	8.0	8.3
16	8.3	8.2	8.2	8.2	7.9	8.0	8.2	7.7	8.1	8.4	7.7	8.1
17	8.3	7.9	8.1	8.3	7.7	8.0	7.7	7.2	7.4	8.1	7.8	7.9
18	8.6	7.9	8.2	8.3	7.4	7.9	7.7	7.3	7.5	8.0	7.7	7.8
19	8.5	8.3	8.4	8.1	7.7	7.9	7.8	7.3	7.5	7.8	7.6	7.7
20	8.4	8.2	8.3	8.2	7.9	8.0	7.9	7.5	7.8	7.9	7.7	7.8
21	8.5	8.1	8.3	8.4	7.9	8.2	7.9	7.7	7.8	8.2	7.6	7.9
22	8.6	8.2	8.4	8.2	7.5	8.0	7.9	7.6	7.7	8.2	8.0	8.1
23	8.5	7.9	8.3	8.2	7.3	7.7	7.7	7.2	7.5	8.1	7.8	7.9
24	8.4	7.9	8.2	8.3	8.0	8.2	7.7	7.3	7.5	8.0	7.7	7.8
25	8.4	8.1	8.2	8.2	8.0	8.1	7.8	7.4	7.6	8.1	7.8	7.9
26	8.4	7.7	8.2	8.1	7.8	7.9	7.9	7.3	7.6	8.2	7.8	8.0
27	8.2	7.5	7.8	7.9	7.3	7.7	7.9	7.6	7.8	8.3	8.0	8.1
28	8.5	7.7	8.0	7.7	7.4	7.6	7.9	7.5	7.7	8.2	8.1	8.1
29	8.5	7.9	8.2	8.1	7.5	7.8	8.0	7.7	7.9	8.1	7.8	8.0
30	8.5	7.9	8.2	8.1	7.3	7.8	8.0	7.7	7.9	8.2	7.9	8.0
31	---	---	---	7.9	7.4	7.7	8.0	7.7	7.9	---	---	---
MONTH	8.9	7.5	8.3	8.8	7.3	8.1	8.4	7.2	7.8	8.5	7.4	7.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	10.5	8.5	9.0	16.5	14.5	15.5
2				---	---	---	11.0	7.5	9.5	15.0	13.5	14.0
3				---	---	---	11.5	8.0	10.0	15.5	13.0	14.0
4				---	---	---	13.0	10.5	11.5	17.0	14.0	15.0
5				---	---	---	13.0	11.5	12.0	16.5	14.0	15.0
6				---	---	---	12.5	10.5	11.5	17.0	14.5	16.0
7				---	---	---	11.0	9.5	10.0	16.5	14.5	15.5
8				---	---	---	11.5	10.0	11.0	16.0	14.5	15.0
9				---	---	---	13.0	11.0	11.5	17.0	15.0	16.0
10				---	---	---	13.0	11.0	12.0	17.0	16.0	16.5
11				---	---	---	13.0	11.5	12.5	17.5	16.0	16.5
12				---	---	---	13.0	11.0	12.0	18.0	16.0	16.5
13				---	---	---	12.0	11.0	11.5	18.0	16.0	16.5
14				---	---	---	12.5	11.5	12.0	19.0	16.0	17.5
15				---	---	---	13.5	11.0	12.0	19.0	17.5	18.0
16				---	---	---	14.0	11.0	12.5	19.5	17.5	18.0
17				---	---	---	13.5	12.5	13.0	19.0	17.0	18.0
18				---	---	---	16.5	13.0	14.5	18.0	16.5	17.0
19				---	---	---	16.0	12.5	14.0	16.5	16.0	16.5
20				---	---	---	14.5	11.5	13.5	17.0	16.0	16.5
21				---	---	---	14.5	12.0	13.0	17.5	16.0	16.5
22				---	---	---	14.5	12.5	13.5	19.0	16.0	17.5
23				---	---	---	15.5	13.5	14.5	20.5	16.5	18.5
24				---	---	---	16.5	14.5	15.5	21.5	17.5	19.5
25				7.0	5.0	6.0	15.0	12.0	13.0	23.0	18.5	20.5
26				7.0	5.0	6.0	15.0	11.0	13.0	---	---	---
27				8.0	6.0	6.5	16.5	13.0	15.0	---	---	---
28				8.0	6.0	7.0	19.0	13.0	16.0	---	---	---
29				8.0	6.5	7.5	18.0	16.5	17.0	23.0	20.5	21.5
30				8.5	8.0	8.0	18.0	14.0	16.0	24.5	21.0	22.0
31				12.5	7.0	9.0	---	---	---	24.5	19.0	23.0
MONTH				12.5	5.0	7.0	19.0	7.5	12.5	24.5	13.0	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	20.0	20.5	25.5	24.5	25.0	28.5	26.5	27.5	26.5	25.0	25.5
2	21.5	20.5	21.0	26.0	24.5	25.5	28.5	27.0	27.5	26.0	25.5	25.5
3	23.0	20.5	21.5	25.5	25.0	25.5	---	---	---	26.0	25.0	25.5
4	24.5	21.5	22.0	25.5	25.0	25.0	---	---	---	25.5	25.0	25.0
5	24.5	21.0	23.0	26.0	24.5	25.0	29.5	27.5	28.5	25.0	24.5	25.0
6	24.5	22.0	23.5	---	---	---	28.5	26.5	27.0	25.5	24.5	25.0
7	24.0	23.0	23.5	---	---	---	28.5	26.5	27.0	25.0	24.5	25.0
8	24.5	22.0	23.5	---	---	---	27.5	27.0	27.0	25.0	24.0	24.5
9	25.0	23.0	24.0	29.0	26.5	27.5	29.5	27.0	28.0	25.0	23.5	24.0
10	26.0	23.0	25.0	29.0	27.5	28.5	30.5	28.0	29.0	25.5	23.5	24.5
11	25.5	23.5	24.5	31.0	27.0	28.5	29.5	28.0	28.5	25.0	23.5	24.0
12	24.5	23.0	24.0	31.5	28.0	29.5	28.0	27.0	27.5	26.0	24.0	24.5
13	26.5	23.5	25.0	29.5	28.0	29.0	28.0	26.5	27.0	26.5	24.0	25.0
14	26.0	24.5	25.0	29.5	27.5	29.0	28.5	26.5	27.0	26.5	25.0	25.5
15	27.5	24.5	25.5	27.5	26.0	27.0	28.0	26.5	27.0	26.0	25.0	25.5
16	30.0	26.0	27.5	26.5	26.0	26.0	28.5	27.0	27.5	25.0	24.0	24.5
17	29.0	26.0	27.5	27.5	25.5	26.5	27.0	25.0	26.0	24.0	23.0	23.5
18	27.0	25.5	26.0	29.0	26.5	27.5	26.5	25.0	26.0	23.5	22.0	23.0
19	27.5	26.0	26.5	29.0	27.0	28.0	26.0	24.5	25.5	22.0	21.5	21.5
20	27.5	26.0	26.5	28.5	27.5	28.0	25.0	24.0	24.5	22.0	20.5	21.5
21	28.0	26.0	27.0	29.0	27.5	28.0	25.0	24.0	24.5	23.0	21.5	22.0
22	28.0	26.5	27.0	28.5	27.5	28.0	25.0	24.0	24.0	23.0	21.5	22.0
23	28.0	25.0	27.0	28.0	26.5	27.5	25.0	22.5	24.0	22.5	20.0	21.0
24	27.5	25.0	26.5	27.5	27.0	27.0	25.0	23.5	24.5	20.5	19.0	20.0
25	28.0	26.0	27.0	27.0	26.0	26.5	25.0	24.0	24.5	21.5	19.0	20.0
26	27.5	24.0	27.0	28.0	26.5	27.0	25.0	24.0	24.5	21.5	20.0	20.5
27	25.0	24.0	24.5	29.0	26.5	27.5	26.0	24.0	24.5	21.5	20.0	21.0
28	26.5	24.0	24.5	28.0	27.0	27.5	25.5	24.0	25.0	21.0	20.0	21.0
29	26.5	24.5	25.0	28.0	26.5	27.0	25.5	24.5	25.0	21.0	19.5	20.5
30	26.0	25.0	25.0	27.5	25.0	26.5	25.5	24.5	25.0	21.0	20.0	20.5
31	---	---	---	27.5	26.0	26.5	26.0	24.5	25.0	---	---	---
MONTH	30.0	20.0	25.0	31.5	24.5	27.0	30.5	22.5	26.0	26.5	19.0	23.0

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	10.6	8.9	9.6	11.9	10.6	11.2	13.2	11.8	12.4
2	---	---	---	9.6	8.0	8.6	12.0	10.7	11.5	13.1	12.3	12.6
3	---	---	---	11.3	7.8	9.1	---	---	---	12.8	11.8	12.5
4	---	---	---	11.0	10.0	10.4	---	---	---	12.5	11.7	12.1
5	9.1	5.5	7.0	11.0	9.0	10.2	---	---	---	12.9	11.6	12.2
6	9.1	5.8	7.0	---	---	---	---	---	---	12.7	11.9	12.3
7	9.9	6.4	7.4	---	---	---	---	---	---	12.6	12.1	12.4
8	10.3	6.8	8.8	---	---	---	---	---	---	12.8	12.0	12.4
9	10.2	6.4	8.9	11.9	9.8	10.7	---	---	---	12.8	12.0	12.4
10	9.6	6.4	7.9	11.3	9.8	10.4	---	---	---	12.8	12.3	12.6
11	9.6	6.8	8.4	10.3	9.0	9.7	---	---	---	12.8	12.2	12.6
12	8.0	6.2	7.2	10.3	9.1	9.7	---	---	---	---	---	---
13	8.3	6.9	7.6	10.4	9.1	9.8	---	---	---	---	---	---
14	9.3	7.1	8.0	11.2	9.4	10.4	---	---	---	---	---	---
15	9.1	7.1	8.1	12.1	9.1	10.2	---	---	---	---	---	---
16	9.6	7.2	8.6	9.8	8.9	9.3	---	---	---	---	---	---
17	9.6	8.4	9.1	10.3	9.2	9.7	---	---	---	---	---	---
18	8.9	7.9	8.4	9.8	9.1	9.5	---	---	---	---	---	---
19	9.7	6.6	7.6	10.0	9.0	9.6	---	---	---	---	---	---
20	9.8	7.4	8.8	10.1	9.2	9.7	---	---	---	---	---	---
21	10.8	7.7	9.3	10.9	9.9	10.3	---	---	---	---	---	---
22	9.8	6.9	8.9	10.5	9.7	10.1	---	---	---	---	---	---
23	10.1	7.4	8.7	10.8	9.4	10.1	---	---	---	---	---	---
24	9.0	7.5	8.4	10.6	9.9	10.3	---	---	---	---	---	---
25	9.1	7.0	8.1	10.6	9.9	10.1	---	---	---	---	---	---
26	10.3	8.2	9.4	10.6	9.9	10.1	---	---	---	---	---	---
27	9.5	7.6	8.6	10.5	9.3	10.0	---	---	---	---	---	---
28	9.1	8.2	8.7	10.7	10.1	10.4	---	---	---	---	---	---
29	8.6	7.3	8.0	11.2	10.2	10.5	---	---	---	---	---	---
30	10.1	6.3	7.9	10.8	10.2	10.5	---	---	---	---	---	---
31	10.2	7.9	9.2	---	---	---	---	---	---	---	---	---
MONTH	10.8	5.5	8.3	12.1	7.8	10.0	12.0	10.6	11.4	13.2	11.6	12.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	12.0	11.1	11.7	16.0	10.7	13.5
2	---	---	---	---	---	---	11.8	10.8	11.5	12.9	9.5	11.0
3	---	---	---	---	---	---	12.1	11.1	11.7	14.1	10.4	12.1
4	---	---	---	---	---	---	12.7	11.5	12.1	16.9	11.2	13.2
5	---	---	---	---	---	---	12.3	10.6	11.6	17.9	11.0	14.1
6	---	---	---	---	---	---	11.4	9.9	10.8	18.0	12.4	15.2
7	---	---	---	---	---	---	12.3	10.3	11.5	15.3	10.4	12.5
8	---	---	---	---	---	---	13.3	11.5	12.3	15.2	11.1	13.3
9	---	---	---	---	---	---	12.8	11.1	12.3	15.8	13.3	14.5
10	---	---	---	---	---	---	13.6	11.7	12.6	14.2	12.8	13.6
11	---	---	---	---	---	---	14.6	12.0	13.6	13.4	11.3	12.1
12	---	---	---	---	---	---	15.5	12.0	13.7	13.0	11.0	11.8
13	---	---	---	---	---	---	13.8	12.2	13.0	13.7	10.6	12.2
14	---	---	---	---	---	---	14.5	12.1	13.5	14.5	11.3	12.5
15	---	---	---	---	---	---	13.4	11.8	12.8	12.2	9.9	11.1
16	---	---	---	---	---	---	16.1	12.4	14.2	11.4	8.4	10.0
17	---	---	---	---	---	---	15.0	13.1	14.1	11.9	8.8	10.2
18	---	---	---	---	---	---	18.9	12.2	14.8	11.6	7.9	10.0
19	---	---	---	---	---	---	18.9	12.1	15.1	10.4	7.8	9.2
20	---	---	---	---	---	---	17.8	11.1	15.1	11.7	9.1	10.0
21	---	---	---	---	---	---	18.4	11.5	14.7	11.3	8.6	9.9
22	---	---	---	---	---	---	16.6	13.7	15.5	12.0	10.5	11.2
23	---	---	---	---	---	---	16.7	14.1	15.2	12.7	8.8	10.7
24	---	---	---	---	---	---	16.3	9.4	13.6	13.3	11.0	11.9
25	---	---	---	---	---	---	10.5	8.8	9.7	13.0	10.5	11.9
26	---	---	---	---	---	---	15.4	9.3	11.9	---	---	---
27	---	---	---	---	---	---	17.6	11.0	14.8	---	---	---
28	---	---	---	---	---	---	18.9	11.2	16.1	---	---	---
29	---	---	---	---	---	---	16.5	13.8	15.1	10.7	8.6	9.7
30	---	---	---	---	---	---	15.6	12.8	14.0	11.0	7.6	9.8
31	---	---	---	---	---	---	---	---	---	10.4	7.2	9.3
MONTH	---	---	---	---	---	---	18.9	8.8	13.3	18.0	7.2	11.7

01661475 POTOMAC RIVER AT PINEY POINT, MD--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.5	6.5	8.3	8.3	5.9	7.3	---	---	---	9.1	7.3	8.1
2	9.9	8.0	9.2	8.5	6.2	7.4	---	---	---	8.9	7.3	8.1
3	10.6	7.2	8.8	7.8	6.1	6.9	---	---	---	8.9	7.7	8.1
4	10.2	6.4	8.5	7.1	5.4	6.2	---	---	---	8.4	7.3	7.8
5	9.4	6.2	7.6	10.0	4.5	6.2	---	---	---	7.6	6.7	7.3
6	9.6	7.2	8.4	---	---	---	---	---	---	7.4	6.2	6.7
7	8.7	7.0	7.7	---	---	---	---	---	---	8.3	6.4	7.2
8	8.4	6.9	7.7	---	---	---	---	---	---	---	---	---
9	8.2	6.6	7.6	12.3	6.1	8.6	---	---	---	---	---	---
10	10.4	5.1	7.6	10.3	8.2	9.1	---	---	---	---	---	---
11	8.9	6.0	7.7	11.0	5.7	8.5	8.1	6.9	7.6	---	---	---
12	9.0	5.6	7.5	9.8	7.2	8.4	7.1	5.7	6.6	9.8	7.3	8.6
13	8.9	5.6	8.0	---	---	---	8.7	2.9	6.6	10.5	7.2	8.8
14	8.3	6.0	7.3	---	---	---	9.2	2.6	5.9	10.1	7.0	8.8
15	9.0	5.8	7.2	---	---	---	8.3	4.9	6.8	9.9	6.5	8.2
16	8.0	6.8	7.6	8.1	6.0	7.0	8.2	4.5	6.8	8.7	4.4	6.7
17	7.7	5.2	6.8	10.7	5.7	7.6	5.5	3.1	4.3	7.6	4.7	6.1
18	8.7	5.2	7.0	11.3	4.9	8.1	5.8	2.9	4.1	6.9	5.5	6.1
19	8.1	6.9	7.5	9.4	6.4	8.1	6.6	3.3	4.6	7.3	5.6	6.8
20	8.2	6.6	7.4	9.1	7.4	8.1	8.4	5.9	7.2	8.4	6.6	7.4
21	9.4	6.4	7.6	8.9	7.2	8.0	8.6	7.0	7.7	9.8	5.8	7.8
22	9.0	6.9	8.1	8.0	3.9	6.6	9.1	6.7	7.6	10.2	8.1	8.9
23	8.5	4.2	7.0	8.6	3.5	5.9	8.6	3.9	6.4	8.5	7.3	7.9
24	7.5	4.4	6.6	9.1	6.6	8.0	8.7	4.0	6.6	9.0	7.2	8.1
25	9.1	6.6	7.5	8.1	7.3	7.6	8.2	4.0	6.2	10.4	7.4	8.4
26	8.8	6.4	7.3	8.6	6.6	7.3	9.1	4.3	6.3	10.1	7.4	8.4
27	---	---	---	7.8	3.6	6.5	9.7	7.2	8.4	10.6	8.5	9.6
28	9.8	4.5	6.7	7.4	4.5	6.1	8.9	6.6	7.9	9.6	8.5	9.0
29	9.6	5.6	7.5	---	---	---	8.5	6.6	7.8	9.4	7.3	8.2
30	9.3	6.1	7.7	---	---	---	8.4	6.0	7.3	10.7	7.5	8.7
31	---	---	---	---	---	---	9.0	6.3	7.4	---	---	---
MONTH	10.6	4.2	7.6	12.3	3.5	7.4	9.7	2.6	6.7	10.7	4.4	7.9

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 mi² (347 km²).

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 ft³/s (0.011 m³/s) for water supply. The diversion is returned above station as sewage. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 298 ft³/s (8.439 m³/s), 30.20 in/yr (767 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) Oct. 16, 1954, gage height, 12.16 ft (3.706 m); minimum daily discharge, 2.5 ft³/s (0.071 m³/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 ft³/s (56 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 24	2130	2260 64.0	5.64 1.719	June 7	0045	2490 70.5	5.88 1.792
Apr. 13	0945	*3300 93.5	6.64 2.024				

Minimum discharge, 23 ft³/s (0.65 m³/s) Oct. 24, gage height, 1.98 ft (0.604 m).

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	31	91	315	85	130	1210	413	728	527	344	156	126
2	31	79	520	75	500	750	420	929	445	302	120	90
3	34	68	804	65	450	560	337	613	453	239	163	251
4	39	68	520	60	320	438	293	470	928	189	160	819
5	39	72	406	55	250	434	283	379	1120	166	133	762
6	34	66	348	50	230	381	261	332	1880	174	149	379
7	31	57	326	55	210	320	221	299	2040	131	190	246
8	30	59	329	65	190	273	190	232	955	106	139	333
9	28	62	479	75	170	245	191	193	729	93	110	426
10	32	66	809	72	150	230	183	167	1110	91	90	247
11	44	59	560	62	680	223	708	192	870	76	77	185
12	44	52	429	55	620	216	1090	197	612	64	71	146
13	32	48	356	48	400	320	2700	161	447	65	62	118
14	31	48	277	44	340	471	1430	136	1240	130	56	99
15	27	46	228	48	290	365	1100	329	1380	72	59	142
16	27	57	209	56	310	466	739	311	632	56	241	445
17	26	68	181	52	420	429	622	265	451	52	111	302
18	27	343	151	47	530	387	633	250	348	48	73	217
19	34	242	145	45	750	312	493	989	263	48	60	174
20	36	166	100	47	1000	267	554	974	535	56	54	147
21	30	156	90	50	1740	241	451	628	499	123	48	128
22	27	135	84	52	1160	201	385	472	847	103	43	105
23	24	134	80	54	1030	215	357	367	556	59	38	95
24	24	1220	78	52	956	291	503	295	400	106	37	82
25	231	1660	76	50	687	326	655	241	357	193	35	72
26	322	855	72	55	517	347	538	206	969	94	33	67
27	120	580	70	75	416	1350	661	195	464	324	32	59
28	164	462	65	290	552	1060	553	239	350	334	31	55
29	268	361	80	220	---	696	467	287	265	635	31	51
30	158	293	105	150	---	572	425	303	228	375	33	48
31	116	---	90	120	---	483	---	693	---	227	93	---
TOTAL	2141	7673	8382	2329	14998	14079	17856	12072	21900	5075	2728	6416
MEAN	69.1	256	270	75.1	536	454	595	389	730	164	88.0	214
MAX	322	1660	809	290	1740	1350	2700	989	2040	635	241	819
MIN	24	46	65	44	130	201	183	136	228	48	31	48
CFSM	.52	1.91	2.02	.56	4.00	3.39	4.44	2.90	5.45	1.22	.66	1.60
IN.	.59	2.13	2.33	.65	4.16	3.91	4.96	3.35	6.08	1.41	.76	1.78
CAL YR 1980	TOTAL	127632	MEAN 349	MAX 3710	MIN 24	CFSM 2.60	IN 35.43					
WTR YR 1981	TOTAL	115649	MEAN 317	MAX 2700	MIN 24	CFSM 2.37	IN 32.11					

MONONGAHELA RIVER BASIN

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 mi² (167.6 km²).

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 hm³) 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 hm³). 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 hm³) July 24, 25, 1949, elevation, 2,462.075 ft (750.440 m); minimum observed, 11,763 acre-ft (14.5 hm³) Sept. 30, 1925, elevation, 2,433.45 ft (741.716 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,600 acre-ft (110 hm³) June 13, elevation, 2,461.10 ft (750.143 m); minimum, 59,500 acre-ft (73.4 hm³) Oct. 22, elevation, 2,452.50 ft (747.522 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2453.5	62700	
Oct. 31	2452.8	60400	-2300
Nov. 30	2453.9	64000	+3600
Dec. 31	2455.6	69800	+5800
CAL YR 1980			-2000
Jan. 31	2455.2	68400	-1400
Feb. 28	2458.1	78600	+10200
Mar. 31	2458.5	80000	+1400
Apr. 30	2460.4	87000	+7000
May 31	2460.1	85900	-1100
June 30	2460.5	87400	+1500
July 31	2459.3	83000	-4400
Aug. 31	2457.8	77500	-5500
Sept. 30	2456.2	71800	-5700
WTR YR 1981			+9100

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 mi² (764 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for winter periods 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.--47 years (water years 1899-1904, 1941-81), 644 ft³/s (18.24 m³/s), 29.65 in/yr (753 mm/yr), adjusted for storage since October 1940.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) Oct. 16, 1954, gage height, 8.99 ft (2.740 m), from rating curve extended above 5,800 ft³/s (164 m³/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 8.2 ft³/s (0.23 m³/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 ft³/s (440 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,270 ft³/s (149 m³/s) Apr. 13, gage height, 5.82 ft (1.774 m); minimum discharge, 54 ft³/s (1.53 m³/s) Oct. 8, 9, gage height, 2.01 ft (0.613 m).

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	274	204	465	165	240	2070	771	1100	996	944	383	324
2	227	176	703	150	900	1420	806	1470	827	719	304	324
3	277	152	1290	135	800	1130	650	939	745	430	655	446
4	284	138	870	115	600	882	602	869	1150	341	582	969
5	287	130	687	100	450	851	501	773	1650	298	508	1090
6	151	140	585	90	320	796	567	736	2300	444	483	546
7	61	120	535	100	246	574	468	650	3310	490	621	363
8	56	110	539	110	241	458	431	599	1870	397	353	480
9	55	110	659	130	754	546	404	379	1720	383	290	812
10	68	110	1390	120	480	526	419	302	2240	368	391	565
11	71	120	1020	110	677	516	622	458	1930	172	358	480
12	87	95	799	100	1200	506	1700	569	1360	145	343	242
13	85	101	628	90	703	559	4200	502	837	273	317	202
14	72	103	521	80	484	731	2950	462	1550	343	296	414
15	68	105	441	90	398	576	2290	728	2430	313	146	613
16	63	113	437	110	478	858	1490	667	1370	264	268	952
17	60	149	413	95	753	881	1070	504	1130	255	414	826
18	64	472	346	85	1560	735	1090	651	838	109	293	640
19	73	517	340	80	1950	701	863	1430	741	97	282	325
20	76	360	190	85	2160	628	1060	2030	544	264	263	283
21	77	328	170	90	3050	451	936	1300	744	428	250	496
22	69	282	160	95	2130	365	841	982	1410	433	104	464
23	62	267	150	100	1920	464	795	614	1100	318	106	430
24	59	1180	145	90	1860	608	1060	496	885	293	223	415
25	171	2690	140	85	1340	629	1120	414	769	352	231	392
26	662	1390	135	100	1050	640	932	510	1510	219	215	152
27	299	908	130	140	849	1750	1250	557	657	831	218	135
28	248	730	125	600	820	1870	1120	558	485	771	276	307
29	442	594	150	400	---	1170	972	621	566	1510	92	349
30	325	495	200	270	---	1050	922	470	726	933	77	118
31	248	---	175	220	---	935	---	823	---	715	221	---
TOTAL	5121	12389	14538	4330	28413	25876	32902	23163	38390	13852	9563	14144
MEAN	165	413	469	140	1015	835	1097	747	1280	447	308	471
MAX	662	2690	1390	600	3050	2070	4200	2030	3310	1510	655	1080
MIN	55	95	125	80	240	365	404	302	485	97	77	118
(*)	-37.4	+60.5	+94.3	-22.8	+184	+22.8	+117	-17.9	+25.2	-71.6	-89.2	-95.8
MEAN#	128	474	563	117	1199	858	1214	729	1305	375	219	375
CFSM#	0.43	1.61	1.91	0.40	4.06	2.91	4.12	2.47	4.42	1.27	0.74	1.27
IN#	0.50	1.80	2.20	0.46	4.23	3.36	4.60	2.85	4.93	1.46	0.85	1.42

CAL YR 1980 TOTAL 240061 MEAN 656 MAX 5280 MIN 55 MEAN# 653 CFSM# 2.21 IN# 30.13
WTR YR 1981 TOTAL 222681 MEAN 610 MAX 4200 MIN 55 MEAN# 623 CFSM# 2.11 IN# 28.65

* Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir furnished by Pennsylvania Electric Co.

Adjusted for change in contents.

MONONGAHELA RIVER BASIN

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
24...	1045	59	115	6.6	8.0	7.4	10.7	44	27	.0	.0	13
NOV												
20...	1000	361	84	6.5	-1.5	.3	13.6	28	16	.1	5.0	8.6
DEC												
17...	1230	354	55	6.0	-3.0	.5	13.3	22	7.0	.0	.0	6.5
MAR												
12...	1700	570	81	6.0	8.0	4.6	10.8	--	--	.0	.0	--
APR												
08...	1000	329	58	6.2	18.0	7.9	--	25	21	.0	.0	7.3
JUN												
19...	1000	440	51	6.3	19.5	18.3	--	--	--	.1	2.2	--
JUL												
24...	1000	124	73	7.2	19.0	18.4	8.7	--	--	.0	.0	--
AUG												
27...	1600	688	90	6.8	29.0	21.2	8.0	29	21	.0	.0	8.5

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	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)
OCT												
24...	2.7	3.4	14	.2	1.8	--	21	31	5.8	.0	1.6	84
NOV												
20...	1.7	3.4	19	.3	1.9	--	--	16	7.3	.1	3.9	58
DEC												
17...	1.5	1.8	14	.2	.9	--	5	16	3.1	.1	4.4	43
MAR												
12...	--	--	--	--	--	--	8	20	--	--	--	58
APR												
08...	1.7	1.8	13	.2	.9	.70	6	18	4.4	<.1	3.7	46
JUN												
19...	--	--	--	--	--	--	7	15	--	--	--	51
JUL												
24...	--	--	--	--	--	--	8	18	--	--	--	57
AUG												
27...	2.0	2.3	14	.2	1.2	.90	8	21	4.1	<.1	1.9	49

DATE	SOLIDS, SUM OF CONSTITUENTS, 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)	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- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT												
24...	70	.11	13.4	.10	130	90	40	30	10	20	2	.32
NOV												
20...	50	.08	56.5	--	550	450	100	50	10	40	7	6.8
DEC												
17...	43	.06	41.1	--	270	260	10	80	10	70	--	--
MAR												
12...	--	.08	89.3	--	--	--	--	--	--	--	--	--
APR												
08...	40	.06	40.9	--	290	260	30	100	30	70	--	--
JUN												
19...	--	.07	60.6	--	530	420	110	80	50	30	--	--
JUL												
24...	--	.08	19.1	--	260	250	10	40	30	10	--	--
AUG												
27...	46	.07	91.0	--	920	850	70	340	320	20	--	--

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 mi² (126.7 km²).

WATER-DISCHARGE RECORDS

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

AVERAGE DISCHARGE.--17 years, 88.7 ft³/s (2.512 m³/s), 24.63 in/yr (626 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft³/s (132 m³/s) Sept. 14, 1971, gage height, 9.6 ft (2.93 m), from floodmarks, from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft³/s (0.042 m³/s) Sept. 12, 1966, gage height, 0.42 ft (0.128 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 21	0300	886 25.1	3.92 1.195	June 6	1330	1040 29.5	4.08 1.244
Apr. 13	0030	*1660 47.0	5.09 1.551				

Minimum discharge, 7.2 ft³/s (0.20 m³/s) Oct. 23, 24, gage height, 0.82 ft (0.250 m).

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	11	17	58	30	48	307	138	127	69	47	25	15
2	12	15	87	28	96	262	118	113	80	40	23	30
3	12	14	115	26	80	165	100	100	87	34	118	36
4	12	14	90	25	70	130	90	94	106	31	80	66
5	11	14	77	24	62	122	84	72	100	29	52	58
6	9.8	14	71	25	55	100	75	66	449	28	51	32
7	9.8	14	64	28	54	87	67	62	425	26	45	24
8	9.4	21	59	27	50	77	63	56	248	24	38	34
9	9.6	23	94	26	54	72	60	50	257	23	33	34
10	9.4	26	219	25	52	70	56	50	392	22	30	25
11	10	22	146	25	170	71	111	60	365	21	27	21
12	9.1	23	111	23	140	71	587	60	257	20	26	19
13	8.4	21	92	22	95	108	1030	48	162	21	24	17
14	8.4	20	76	22	78	159	749	44	313	22	23	15
15	8.4	20	69	22	64	130	533	86	235	18	22	65
16	8.2	21	63	22	68	171	376	68	149	17	26	132
17	8.0	23	55	21	100	165	292	50	106	17	21	97
18	9.4	38	51	21	220	141	257	34	83	15	19	68
19	12	31	48	21	307	113	162	60	67	14	17	54
20	8.9	30	44	21	431	94	149	120	58	21	16	45
21	8.2	30	39	22	742	82	118	98	52	31	15	39
22	8.0	29	49	23	461	72	104	82	64	24	14	33
23	7.6	29	44	22	403	71	104	74	48	18	13	30
24	7.6	106	39	21	365	79	135	66	42	20	14	26
25	65	235	35	21	272	86	212	60	79	21	13	23
26	45	144	34	42	177	98	197	54	94	21	12	22
27	23	100	34	82	130	262	184	56	63	26	11	20
28	27	80	37	54	156	318	146	66	52	35	11	19
29	28	67	36	42	---	277	127	75	45	57	10	17
30	22	57	34	36	---	248	108	71	58	36	11	16
31	19	---	32	32	---	165	---	88	---	30	17	---
TOTAL	457.2	1298	2102	881	5000	4373	6532	2210	4605	809	857	1132
MEAN	14.7	43.3	67.8	28.4	179	141	218	71.3	154	26.1	27.6	37.7
MAX	65	235	219	82	742	318	1030	127	449	57	118	132
MIN	7.6	14	32	21	48	70	56	34	42	14	10	15
CFSM	.30	.89	1.39	.58	3.66	2.88	4.46	1.46	3.15	.53	.56	.77
IN.	.35	.99	1.60	.67	3.80	3.33	4.97	1.68	3.50	.62	.65	.86

CAL YR 1980 TOTAL 36402.2 MEAN 99.5 MAX 886 MIN 7.6 CFSM 2.04 IN 27.69
WTR YR 1981 TOTAL 30256.2 MEAN 82.9 MAX 1030 MIN 7.6 CFSM 1.70 IN 23.02

MONONGAHELA RIVER BASIN

03076600 BEAR CREEK AT FRIENDSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Year year 1979 to September 1981 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LINITY FIELD (MG/L AS CAC03)
DEC 17...	1400	84	86	6.2	-5.0	.0	13.8	.0	.0	0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	11	45	.06	10.2	100	100	0	10	0	10

03077940 SOUTH BRANCH CASSELMAN RIVER NEAR BITTINGER, MD

LOCATION.--Lat 39°36'06", long 79°12'17", Garrett County, Hydrologic Unit 05020006, on right bank 1.1 mi (1.8 km) east of Bittering, 5.4 mi (8.7 km) upstream from Casselman River.

DRAINAGE AREA.--3.22 mi² (8.34 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 2,450.00 ft (747 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.

AVERAGE DISCHARGE.--5 years, 6.66 ft³/s (0.189 m³/s), 28.09 in/yr (713 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153 ft³/s (4.33 m³/s) Apr. 9, 1980, gage height, 4.76 ft (1.451 m); minimum discharge, 0.23 ft³/s (0.007 m³/s) Aug. 17, 1977, gage height, 0.93 ft (0.283 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft³/s (2.83 m³/s) Apr. 13, gage height, 3.70 ft (1.128 m), no other peak above base of 68 ft³/s (1.9 m³/s); minimum discharge, 0.45 ft³/s (0.013 m³/s) Aug. 23, 24, 25, gage height, 0.92 ft (0.280 m).

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	1.3	1.7	5.0	1.7	4.8	16	8.6	9.0	12	3.5	1.1	1.5
2	1.2	1.6	7.6	1.6	9.4	12	7.2	7.4	13	3.9	.97	6.2
3	1.3	1.5	10	1.5	6.6	9.7	6.2	5.3	12	3.2	6.5	4.8
4	1.2	1.6	8.9	1.5	5.4	8.2	5.7	4.7	14	2.8	2.3	9.9
5	1.1	1.6	8.2	1.4	4.6	6.8	5.3	4.2	13	2.8	1.4	7.1
6	1.1	1.5	8.5	1.4	3.5	6.0	5.2	4.2	21	2.5	2.0	3.0
7	1.1	1.5	8.2	1.3	3.1	5.2	4.6	3.9	11	2.1	1.8	2.0
8	1.3	2.8	7.8	1.3	2.8	4.8	4.1	3.2	6.5	1.9	1.5	2.8
9	.91	2.3	16	1.2	2.6	4.6	4.2	2.9	7.1	1.8	1.3	2.4
10	.96	2.1	15	1.2	2.5	4.7	4.1	2.6	14	1.6	1.1	1.8
11	1.3	1.8	10	1.2	18	5.0	7.1	5.2	11	1.5	.97	1.6
12	1.1	1.7	8.9	1.1	16	5.4	24	4.7	6.5	1.3	.86	1.5
13	1.1	1.6	8.2	1.1	9.6	7.2	36	4.1	6.0	1.5	.82	1.3
14	1.0	1.5	7.0	1.1	5.0	11	42	3.6	14	1.5	.82	1.2
15	1.0	1.5	6.4	1.1	4.8	9.8	22	10	8.8	1.2	.97	6.2
16	.96	1.6	6.2	1.1	6.2	12	15	7.4	6.4	1.1	1.5	13
17	.91	1.7	5.5	1.0	11	10	13	5.8	5.7	1.2	.86	4.7
18	1.0	2.1	5.1	1.0	17	9.4	13	6.4	4.7	.97	.86	2.5
19	1.2	1.8	5.0	1.0	20	7.8	9.7	22	4.2	.86	.77	1.9
20	1.1	1.8	4.6	1.0	36	6.8	11	14	6.5	1.1	.72	1.7
21	1.3	1.8	4.2	1.1	34	5.8	8.2	10	6.4	2.0	.64	1.5
22	1.5	1.8	4.6	1.1	20	5.0	7.1	8.8	10	1.3	.68	1.5
23	1.2	1.8	4.0	1.1	24	5.4	8.4	8.0	5.7	1.1	.56	1.3
24	.91	25	3.4	1.1	19	5.8	10	7.1	4.2	1.8	.60	1.2
25	12	20	3.2	1.1	14	6.0	12	6.5	11	1.6	.56	1.1
26	5.5	9.6	2.8	1.9	11	10	8.6	7.1	12	1.5	.60	1.0
27	2.5	7.4	2.5	4.6	10	15	8.8	12	6.2	2.2	.56	.86
28	2.8	6.4	2.3	3.8	16	25	6.9	13	4.7	4.2	.56	.86
29	2.7	5.4	2.1	3.1	---	17	6.0	13	3.9	6.0	.56	.82
30	1.8	4.6	1.9	2.7	---	13	5.5	15	3.5	1.8	.60	.77
31	1.8	---	1.8	2.5	---	10	---	19	---	1.3	1.1	---
TOTAL	56.15	119.1	194.9	48.9	336.9	280.4	329.5	250.1	265.0	63.13	36.14	88.01
MEAN	1.81	3.97	6.29	1.58	12.0	9.05	11.0	8.07	8.83	2.04	1.17	2.93
MAX	12	25	16	4.6	36	25	42	22	21	6.0	6.5	13
MIN	.91	1.5	1.8	1.0	2.5	4.6	4.1	2.6	3.5	.86	.56	.77
CFSM	.56	1.23	1.95	.49	3.73	2.81	3.42	2.51	2.74	.63	.36	.91
IN.	.65	1.38	2.25	.56	3.89	3.24	3.81	2.89	3.06	.73	.42	1.02

CAL YR 1980 TOTAL 2226.13 MEAN 6.08 MAX 80 MIN .66 CFSM 1.89 IN 25.71
WTR YR 1981 TOTAL 2068.23 MEAN 5.67 MAX 42 MIN .56 CFSM 1.76 IN 23.89

MONONGAHELA RIVER BASIN

03077940 SOUTH BRANCH CASSELMAN RIVER NEAR BITTINGER, MD

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1980 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1980 to September 1981 (discontinued).

WATER TEMPERATURES: November 1980 to September 1981 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: May to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
DEC 17...	1715	3.8	94	6.6	-10.0	2.0	--	--	--
APR 08...	1030	4.8	59	5.5	18.0	8.5	11.0	--	--
JUN 19...	1130	5.3	79	5.9	23.0	16.3	--	--	--
AUG 27...	1900	.46	183	7.5	21.0	19.0	7.8	68	47

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 17...	.0	.0	--	--	--	--	--	--	--
APR 08...	.0	.0	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--
AUG 27...	.0	.0	18	5.5	2.4	7	.1	1.4	1.0

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	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 SI02)	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)
DEC 17...	7	23	--	--	--	54	--	.07	.55
APR 08...	4	21	--	--	--	39	--	.05	.51
JUN 19...	7	28	--	--	--	66	--	.09	.94
AUG 27...	20	39	3.2	.1	4.3	108	87	.15	.13

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 27...	1	<1	100	3	<1	10	2	10	3	2

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	520	470	50	--	--	--	170	10	160
APR 08...	320	290	30	--	--	--	150	20	130
JUN 19...	730	610	120	--	--	--	200	180	20
AUG 27...	770	550	220	4000	8	<10	50	0	50

05077940 SOUTH BRANCH CASSELMAN RIVER NEAR BITTINGER, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1				---	---	---	105	98	102	104	101	103
2				---	---	---	109	99	101	104	101	102
3				---	---	---	100	90	96	105	101	103
4				---	---	---	93	88	91	104	102	102
5				---	---	---	96	92	94	104	101	102
6				---	---	---	97	93	95	104	102	103
7				---	---	---	96	93	95	102	100	101
8				---	---	---	95	93	94	107	100	102
9				---	---	---	109	94	101	115	109	112
10				---	---	---	105	96	99	110	105	107
11				---	---	---	99	91	95	107	105	106
12				---	---	---	97	93	95	108	105	106
13				---	---	---	101	96	99	106	105	106
14				---	---	---	98	94	97	---	---	---
15				---	---	---	97	85	90	---	---	---
16				---	---	---	95	85	91	---	---	---
17				---	---	---	95	90	92	---	---	---
18				123	113	118	93	91	92	---	---	---
19				122	114	117	95	90	93	---	---	---
20				131	121	126	95	92	94	---	---	---
21				133	127	131	96	93	95	---	---	---
22				133	126	130	96	94	95	---	---	---
23				130	121	128	102	92	97	---	---	---
24				121	105	114	100	96	97	---	---	---
25				104	98	101	104	95	99	---	---	---
26				103	100	102	101	99	100	---	---	---
27				107	103	105	100	99	99	---	---	---
28				105	102	104	100	97	99	128	117	122
29				107	102	105	102	98	99	122	116	118
30				111	104	108	117	98	108	121	114	119
31				---	---	---	112	103	107	125	118	121
MONTH				133	98	115	117	85	97	128	100	108

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	120	112	117	96	86	89	90	88	89	---	---	---
2	116	106	111	92	83	86	93	88	90	---	---	---
3	110	105	108	95	87	90	103	81	85	---	---	---
4	106	102	104	95	88	91	99	81	90	---	---	---
5	104	101	102	97	87	91	80	70	73	---	---	---
6	104	101	102	98	89	93	72	65	69	82	74	78
7	100	98	99	103	85	89	82	66	75	89	74	80
8	102	98	99	123	95	108	66	54	60	97	82	91
9	101	97	99	96	89	92	68	58	64	88	80	83
10	102	98	100	95	89	92	71	61	65	88	79	83
11	127	99	111	115	90	104	98	68	81	91	77	82
12	110	102	105	121	96	110	90	80	85	102	77	94
13	107	102	104	149	103	120	87	78	80	95	78	86
14	105	101	103	155	120	133	86	81	83	90	83	86
15	108	103	105	130	110	120	85	83	84	90	75	82
16	108	101	104	124	112	114	87	80	85	112	84	98
17	107	94	101	127	105	114	86	81	83	91	77	84
18	93	83	88	105	100	102	---	---	---	84	77	81
19	83	81	82	107	100	103	---	---	---	112	78	90
20	85	78	81	101	95	98	---	---	---	106	85	92
21	83	80	81	104	95	100	---	---	---	86	80	84
22	85	81	83	101	96	98	---	---	---	86	78	83
23	86	83	84	98	94	96	---	---	---	91	78	85
24	86	83	85	100	94	98	---	---	---	87	80	83
25	86	83	85	118	100	112	---	---	---	85	78	81
26	85	82	83	108	103	106	---	---	---	82	77	79
27	90	80	83	103	96	99	---	---	---	93	80	86
28	97	87	91	98	93	96	---	---	---	87	80	84
29	---	---	---	95	91	93	---	---	---	82	76	80
30	---	---	---	93	89	90	---	---	---	87	76	79
31	---	---	---	95	90	94	---	---	---	104	87	96
MONTH	127	78	96	155	83	101	103	54	79	112	74	85

MONONGAHELA RIVER BASIN

03077940 SOUTH BRANCH CASSELMAN RIVER NEAR BITTINGER, MD--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	89	85	86	104	95	99	186	149	161	179	161	168
2	85	81	83	106	100	103	188	153	166	174	106	157
3	104	82	95	103	98	101	178	123	143	169	147	159
4	93	88	90	103	93	98	168	144	152	173	156	166
5	97	86	90	102	92	96	192	150	168	174	162	169
6	101	85	95	104	96	100	164	136	146	186	167	176
7	100	90	95	124	90	103	152	134	141	200	175	186
8	107	87	99	118	92	105	214	145	169	199	178	191
9	97	89	93	123	100	111	215	202	207	199	175	191
10	98	87	93	124	100	111	217	168	188	202	180	191
11	104	93	94	139	92	109	214	156	176	202	181	190
12	92	88	90	133	98	115	211	161	181	204	186	194
13	88	83	86	129	104	115	206	148	173	216	185	196
14	101	79	88	134	100	114	213	156	180	217	186	199
15	97	83	87	151	93	111	213	148	177	209	161	181
16	85	80	83	150	99	117	186	158	169	162	152	157
17	99	79	86	140	99	116	182	133	151	163	158	161
18	84	78	81	151	103	120	187	141	160	164	158	161
19	83	72	77	155	114	132	182	155	167	164	160	162
20	78	70	75	154	125	135	184	161	172	168	161	165
21	84	74	79	137	117	126	196	162	177	169	161	165
22	101	76	86	140	114	124	196	169	180	167	158	163
23	109	93	101	142	103	120	209	170	193	176	161	169
24	99	92	96	145	100	125	207	168	189	171	156	165
25	107	89	96	128	111	118	211	160	188	180	155	168
26	100	92	97	133	112	120	190	172	181	172	164	167
27	98	90	95	132	126	128	199	181	188	176	171	173
28	112	95	107	140	111	127	191	182	187	179	170	174
29	106	99	103	195	136	157	195	185	190	176	162	169
30	113	97	104	164	144	154	198	180	191	169	158	162
31	---	---	---	173	148	156	210	148	188	---	---	---
MONTH	113	70	91	195	90	118	217	123	174	217	106	173

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

03077940 SOUTH BRANCH CASSELMAN RIVER NEAR BITTINGER, MD--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.0	10.5	12.0	16.0	14.5	15.0	19.5	14.0	16.5	20.5	18.0	19.0
2	15.5	11.5	13.5	17.0	15.0	16.0	19.0	14.5	16.5	20.0	18.5	19.0
3	17.0	13.5	15.0	17.5	15.5	16.0	19.0	17.0	18.0	18.5	18.0	18.0
4	16.5	14.5	15.5	18.5	15.5	17.0	19.5	16.5	18.0	18.0	17.0	17.5
5	17.5	14.5	16.0	17.5	16.0	16.5	21.5	18.5	19.5	19.0	17.0	18.0
6	15.5	14.5	15.0	18.5	15.0	16.5	19.0	17.5	18.0	19.0	17.0	17.5
7	17.0	13.0	15.0	20.5	15.5	18.0	18.5	16.5	17.5	18.5	16.5	17.5
8	18.0	12.0	15.0	21.0	16.5	19.0	20.0	16.5	18.5	17.0	16.5	16.5
9	18.0	15.5	16.5	22.5	19.0	20.5	20.5	17.0	18.5	16.5	14.0	15.0
10	15.5	14.5	15.0	23.0	19.5	21.0	21.0	16.0	18.0	16.0	11.0	13.5
11	17.0	13.5	15.5	21.5	15.0	18.5	20.0	15.5	18.0	17.5	13.5	15.5
12	18.0	13.5	15.5	21.0	15.5	18.5	20.5	17.0	18.5	19.5	15.5	17.0
13	18.5	15.0	16.5	20.0	17.0	18.5	19.5	15.5	17.5	19.5	15.5	17.5
14	18.0	16.5	17.0	22.0	18.5	19.5	20.0	15.5	18.0	19.0	14.5	16.5
15	20.0	16.0	17.5	20.5	15.0	17.5	19.0	16.5	18.0	17.0	16.0	16.5
16	20.5	16.0	18.5	17.5	15.0	16.5	20.0	17.5	18.5	16.0	14.0	15.0
17	18.5	15.5	17.5	20.5	15.0	17.5	18.5	13.5	16.0	15.0	13.0	14.0
18	18.5	13.0	16.0	21.5	15.0	18.0	17.0	11.0	14.0	13.5	11.0	12.5
19	19.0	14.5	17.0	21.0	15.5	18.5	17.5	11.0	14.0	12.0	11.0	11.5
20	17.5	15.5	16.5	22.5	18.5	20.0	18.5	12.0	15.0	12.0	11.0	11.5
21	18.5	14.5	16.5	20.5	19.0	19.5	18.0	11.5	14.5	14.5	11.5	13.0
22	18.0	15.5	16.5	20.5	17.5	18.5	19.0	14.5	16.0	13.0	12.0	12.5
23	17.5	14.0	16.0	20.5	14.5	17.0	18.5	12.0	15.0	12.0	10.5	11.0
24	18.5	13.5	16.0	17.5	15.5	16.5	18.5	13.0	15.5	12.5	9.5	10.5
25	19.0	15.5	17.0	19.5	16.0	17.5	18.5	12.5	15.5	13.0	8.5	11.0
26	16.5	14.0	15.5	21.0	18.0	19.0	19.0	12.5	15.5	15.5	11.5	13.5
27	16.0	11.5	14.0	19.5	18.5	19.0	19.5	13.0	16.0	15.5	13.0	14.0
28	17.0	11.0	14.0	19.5	17.5	18.5	18.5	14.5	16.5	14.5	11.5	13.0
29	17.5	12.5	15.0	18.0	16.0	17.5	21.0	15.0	17.5	11.5	8.5	10.5
30	18.0	14.0	16.0	17.5	13.0	15.5	19.5	16.5	18.0	13.0	11.0	11.5
31	---	---	---	19.0	13.5	16.0	19.0	17.0	18.0	---	---	---
MONTH	20.5	10.5	16.0	23.0	13.0	18.0	21.5	11.0	17.0	20.5	8.5	14.5

MONONGAHELA RIVER BASIN

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 mi² (161.9 km²).

WATER-DISCHARGE RECORDS

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.--Water-discharge records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--34 years, 119 ft³/s (3.370 m³/s), 25.86 in/yr (657 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s (238 m³/s) Oct. 15, 1954, gage height, 10.70 ft (3.261 m), from rating curve extended above 1,600 ft³/s (73.6 m³/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 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Feb. 12	0200	Unknown	*a5.79 1.765	June 6	1700	1270 36.0	4.04 1.231
Apr. 13	0300	*2200 62.3	5.17 1.576				

a Ice jam.

Minimum discharge, 4.8 ft³/s (0.14 m³/s) Aug. 30, gage height, 1.03 ft (0.314 m).

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	12	41	116	40	57	409	180	157	85	60	19	20
2	12	36	210	38	84	246	160	177	91	89	14	89
3	13	31	273	36	120	196	140	125	97	65	246	118
4	12	23	157	34	92	162	120	105	137	50	97	235
5	12	19	127	32	84	157	110	95	118	45	49	200
6	11	19	125	33	74	137	94	91	615	44	59	76
7	9.9	18	127	35	70	118	85	89	414	36	71	50
8	9.9	31	116	36	68	105	80	76	196	31	45	78
9	9.3	38	246	35	74	97	75	67	196	27	33	87
10	9.3	53	302	33	70	95	73	64	414	25	26	53
11	9.9	38	177	34	120	95	142	84	273	22	22	40
12	10	28	144	32	180	93	719	91	171	19	20	35
13	9.9	26	132	31	310	130	1340	71	134	19	19	31
14	10	25	110	29	180	220	925	60	430	21	17	27
15	9.9	24	99	32	110	190	598	137	286	18	17	123
16	11	27	91	35	84	170	346	114	165	15	27	370
17	9.3	31	82	33	160	150	269	89	130	15	19	171
18	9.3	56	80	32	300	140	365	80	105	14	14	97
19	14	42	68	30	520	130	250	220	87	12	13	75
20	12	48	49	29	650	110	231	228	85	14	12	64
21	11	60	52	31	880	100	177	142	89	29	10	56
22	9.3	38	54	34	670	96	147	114	142	25	9.3	49
23	8.2	38	56	32	560	94	147	97	95	18	8.2	45
24	8.7	409	52	31	451	100	250	85	67	20	7.7	40
25	157	424	49	29	294	110	306	75	112	28	7.2	36
26	160	193	46	37	228	150	214	68	217	21	7.2	33
27	53	137	45	47	184	270	187	71	91	28	6.6	29
28	45	114	48	60	302	380	157	84	67	52	6.2	27
29	53	97	47	54	---	300	137	93	55	101	5.7	25
30	36	85	46	47	---	250	125	85	48	44	6.2	24
31	32	---	43	43	---	210	---	130	---	25	15	---
TOTAL	788.9	2249	3369	1114	6976	5210	8149	3264	5212	1032	928.3	2403
MEAN	25.4	75.0	109	35.9	249	168	272	105	174	33.3	29.9	80.1
MAX	160	424	302	60	880	409	1340	228	615	101	246	370
MIN	8.2	18	43	29	57	93	73	60	48	12	5.7	20
CFSM	.41	1.20	1.74	.57	3.98	2.69	4.35	1.68	2.78	.53	.48	1.28
IN.	.47	1.34	2.01	.66	4.15	3.10	4.85	1.94	3.10	.61	.55	1.43

CAL YR 1980	TOTAL	43999.9	MEAN 120	MAX 1440	MIN 8.2	CFSM 1.92	IN 26.19
WTR YR 1981	TOTAL	40695.2	MEAN 111	MAX 1340	MIN 5.7	CFSM 1.78	IN 24.22

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to September 1981 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 24...	0845	5.2	180	7.0	4.5	5.0	11.5	76	45	.0	.0	21
NOV 20...	1200	32	155	6.5	2.0	.3	13.6	53	53	.1	5.0	15
DEC 18...	0945	86	112	6.1	.0	.0	14.1	37	23	.0	.0	10
MAR 12...	1400	84	224	6.2	12.0	4.6	11.6	--	--	.0	.0	--
APR 08...	1200	84	102	6.7	18.0	10.0	--	44	22	.0	.0	13
JUN 18...	0815	106	98	5.9	13.0	14.9	9.1	--	--	.0	.0	--
JUL 24...	1540	23	190	8.6	20.0	19.2	9.6	--	--	.0	.0	--
AUG 27...	0830	6.7	203	7.4	21.0	16.9	9.7	78	50	.0	.0	23

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CAC03)	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)
OCT 24...	5.7	4.3	11	.2	1.8	--	34	41	10	.0	3.5	126
NOV 20...	3.8	11	30	.7	1.4	--	--	29	26	.1	4.3	108
DEC 18...	2.8	4.2	20	.3	.8	--	8	24	9.0	.1	4.4	69
MAR 12...	--	--	--	--	--	--	11	28	--	--	--	134
APR 08...	2.8	4.6	18	.3	.9	.70	10	23	9.8	<.1	4.0	64
JUN 18...	--	--	--	--	--	--	13	22	--	--	--	74
JUL 24...	--	--	--	--	--	--	31	38	--	--	--	126
AUG 27...	4.9	6.0	14	.3	1.3	--	26	36	12	<.1	.8	149

DATE	SOLIDS, SUM OF CONSTITUENTS, 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE- D 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- PENDE- D RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SEDI- MENT, SUS- PENDE- D (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE- D (T/DAY)
OCT 24...	106	.17	1.8	.04	300	170	130	40	10	30	1	.01
NOV 20...	100	.15	9.3	--	440	310	130	90	0	100	7	.60
DEC 18...	64	.09	16.0	--	220	190	30	140	0	140	--	--
MAR 12...	--	.18	30.4	--	260	210	50	190	10	180	--	--
APR 08...	72	.09	14.5	--	340	280	60	130	10	120	--	--
JUN 18...	--	.10	21.2	--	560	370	190	100	30	70	--	--
JUL 24...	--	.17	7.8	--	430	280	150	50	20	30	--	--
AUG 27...	101	.20	2.7	--	360	310	50	30	10	20	--	--

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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									
01477800 - SHELLPOT C AT WILMINGTON DE (LAT 39 45 39 LONG 075 31 10)									
NOV , 1980					MAY , 1981				
25...	1015	7.3	9.5	8.0	05...	1040	2.1	19.0	14.5
26...	1400	2.4	9.0	7.0	JUN				
DEC					12...	1100	.93	26.5	21.0
19...	1215	.80	4.0	2.0	JUL				
FEB , 1981					13...	1415	.88	30.0	26.0
11...	1130	66	13.5	2.0	AUG				
11...	1410	137	9.0	2.0	21...	1220	.56	25.0	19.0
24...	1015	14	6.0	8.0	SEP				
MAR					30...	1125	.64	14.5	14.0
31...	1100	2.7	21.0	12.0					
01478000 - CHRISTINA R AT COOCHS BRIDGE DE (LAT 39 38 16 LONG 075 43 46)									
NOV , 1980					APR , 1981				
12...	0905	15	3.0	4.5	14...	1330	321	10.5	11.0
DEC					27...	1245	14	19.5	15.0
10...	1030	17	6.5	7.5	JUN				
JAN , 1981					09...	1415	14	28.0	24.5
14...	1030	2.0	-2.0	.0	JUL				
FEB					16...	1135	1.2	26.0	22.0
19...	1105	7.6	10.5	7.5	AUG				
MAR					17...	1200	6.0	20.0	21.0
09...	0900	18	6.0	4.5					
30...	1120	12	14.0	11.0					
01478040 - CHRISTINA R NR BEAR DE (LAT 39 38 12 LONG 075 40 53)									
NOV , 1980					MAY , 1981				
12...	1045	5.0	4.0	4.5	05...	1305	17	20.5	15.0
DEC					JUN				
09...	1300	5.5	7.5	8.5	12...	1230	9.2	27.0	22.0
JAN , 1981					JUL				
30...	1235	8.3	-3.0	.0	16...	1400	2.9	27.0	22.0
FEB					AUG				
19...	1240	14	11.0	7.5	17...	1350	15	23.0	23.0
MAR									
31...	1245	19	22.0	13.0					
01479000 - WHITE CLAY C NR NEWARK DE (LAT 39 42 00 LONG 075 41 10)									
NOV , 1980					APR , 1981				
13...	1405	53	12.0	5.5	14...	1230	392	11.0	10.5
DEC					MAY				
19...	1020	39	5.5	2.0	04...	1440	64	20.0	14.0
JAN , 1981					JUL				
02...	1250	39	1.0	.0	17...	1510	22	29.0	27.0
28...	1245	43	5.0	.0	AUG				
FEB					11...	1130	48	29.5	24.5
03...	1330	99	-6.0	.0	27...	1545	24	27.0	24.5
23...	1145	109	10.5	9.0	SEP				
MAR					30...	1425	27	18.0	16.0
09...	1130	93	7.5	6.0					
30...	1325	37	14.5	11.5					
01480000 - RED CLAY C AT WOODDALE DE (LAT 39 45 52 LONG 075 38 08)									
NOV , 1980					APR , 1981				
13...	1110	18	13.0	5.5	08...	0900	27	15.0	11.0
DEC					MAY				
19...	1050	22	6.5	2.5	06...	1040	26	19.5	16.5
JAN , 1981					JUN				
22...	1240	11	--	.0	09...	1120	26	25.0	21.5
FEB					JUL				
24...	1240	99	9.0	8.5	21...	1245	66	28.5	24.0
MAR					AUG				
09...	1325	45	9.0	7.5	27...	1130	18	22.5	20.0

TEMPERATURE MEASUREMENTS AT GAGING STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 , 1980					APR , 1981				
01...	1240	94	26.0	20.5	01...	1135	174	19.0	14.0
NOV					AUG				
07...	1430	108	17.0	8.0	03...	1145	118	26.5	26.0
DEC					SEP				
01...	1130	159	16.0	5.0	01...	1100	122	26.0	25.0
MAR , 1981									
02...	1035	272	6.5	7.0					
01482200 - ARMY C AT STATE ROAD DE (LAT 39 38 56 LONG 075 37 18)									
NOV , 1980					MAR , 1981				
25...	1150	.62	9.5	8.5	27...	1215	.11	12.0	9.5
DEC					MAY				
09...	1045	.10	8.5	9.5	06...	0920	.18	17.0	15.5
FEB , 1981					SEP				
23...	0935	.73	9.5	8.0	19...	1035	19	20.0	17.5
01482298 - RED LION C NR RED LION DE (LAT 39 36 16 LONG 075 40 06)									
DEC , 1980					JUN , 1981				
09...	0920	.79	9.5	9.0	12...	1340	.43	29.0	21.5
JAN , 1981					JUL				
30...	1425	.54	-2.5	.0	16...	1500	.21	26.0	21.0
FEB					AUG				
19...	0950	.85	8.0	6.5	21...	1510	.15	26.0	20.0
MAR					SEP				
27...	0945	.83	14.0	8.0	16...	1345	2.3	17.0	18.5
MAY					19...	1145	23	20.0	18.0
04...	1020	2.2	18.0	13.0	24...	1020	.29	17.0	14.5
01483200 - BLACKBIRD C AT BLACKBIRD DE (LAT 39 21 58 LONG 075 40 10)									
OCT , 1980					APR , 1981				
30...	1030	1.6	8.5	10.0	08...	1115	2.3	17.5	16.0
DEC					JUL				
19...	1230	1.3	2.5	3.0	09...	1020	.74	29.5	28.0
JAN , 1981					AUG				
20...	1215	1.4	7.0	2.0	18...	1420	.22	26.0	25.0
FEB									
24...	1150	5.6	8.5	9.5					
ST. JONES RIVER BASIN									
01483700 - ST JONES R AT DOVER DE (LAT 39 09 49 LONG 075 31 10)									
OCT , 1980					APR , 1981				
02...	1330	11	24.0	21.5	01...	1040	25	21.0	14.0
17...	1005	7.5	19.0	17.5	MAY				
25...	1825	169	10.0	14.5	01...	0935	21	19.5	18.0
27...	1020	194	8.5	10.0	JUN				
31...	1310	29	17.5	11.5	01...	1035	9.9	22.0	23.0
DEC					JUL				
01...	1025	25	11.0	6.5	01...	1100	5.4	25.5	24.5
JAN , 1981					AUG				
02...	1025	18	1.5	4.5	03...	1040	3.0	28.0	24.0
FEB					31...	1505	17	26.0	25.0
02...	1105	32	11.5	7.0					
MAR									
03...	0900	26	.5	7.0					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
MURDERKILL RIVER BASIN									
01484000 - MURDERKILL R NR FELTON DE (LAT 38 58 33 LONG 075 34 03)									
OCT , 1980					APR , 1981				
24...	1400	3.5	14.0	11.0	24...	0920	20	19.0	14.5
DEC					MAY				
17...	1315	8.1	2.0	4.0	07...	1315	10	15.0	14.0
JAN , 1981					12...	0950	34	20.5	15.5
05...	1415	5.9	-1.5	.0	JUN				
13...	1355	4.9	-7.0	.0	09...	1420	6.8	29.0	21.0
FEB					JUL				
10...	1225	9.1	10.0	2.5	16...	1340	3.3	27.0	19.5
17...	1310	12	16.5	8.0	AUG				
APR					25...	1330	3.1	27.0	18.5
02...	0940	32	14.0	10.5	24...	1410	4.8	20.0	14.0
03...	1210	14	25.5	12.0					
06...	0935	68	9.0	11.0					
07...	1250	22	13.5	10.5					
MISPILLION RIVER BASIN									
01484100 - BEAVERDAM B AT HOUSTON DE (LAT 38 54 20 LONG 075 30 49)									
OCT , 1980					MAY , 1981				
25...	1650	37	14.0	15.5	07...	1145	3.2	13.0	13.0
DEC					JUN				
17...	1110	1.9	-2.0	7.0	09...	1225	3.0	29.0	17.5
JAN , 1981					JUL				
13...	1240	1.5	-5.0	2.0	20...	1015	.83	27.0	18.0
FEB					AUG				
17...	1150	2.4	16.0	10.5	25...	1205	1.2	23.0	17.0
23...	1515	2.7	15.5	12.0	SEP				
APR					24...	1310	.89	18.0	14.0
07...	1515	3.9	15.5	15.5					
INDIAN RIVER BASIN									
01484500 - STOCKLEY B AT STOCKLEY DE (LAT 38 38 19 LONG 075 20 31)									
OCT , 1980					MAY , 1981				
20...	1245	1.7	15.0	14.0	04...	1035	5.9	17.0	12.5
DEC					JUN				
08...	1005	2.4	16.0	10.0	15...	1310	4.5	29.0	19.0
JAN , 1981					JUL				
13...	1050	1.6	-6.0	.5	17...	1435	1.6	26.0	19.0
FEB					AUG				
10...	1035	2.3	8.0	4.5	20...	1330	1.9	22.5	17.5
26...	1130	5.7	10.5	7.5	SEP				
MAR					29...	1335	1.3	18.0	14.0
31...	1350	4.5	22.5	16.0					
POCOMOKE RIVER BASIN									
01485000 - POCOMOKE R NR WILLARDS, MD (LAT 38 23 20 LONG 075 19 30)									
OCT , 1980					MAY , 1981				
20...	1105	7.9	12.0	14.5	04...	1230	31	19.0	13.0
DEC					JUN				
09...	1135	19	14.5	12.0	16...	1320	17	33.0	24.5
JAN , 1981					JUL				
19...	1155	13	7.5	1.0	17...	1135	9.8	27.0	21.5
FEB					AUG				
27...	1115	75	8.5	6.5	21...	1235	12	21.0	18.0
MAR					SEP				
31...	1140	35	21.0	13.5	29...	1110	7.1	16.0	13.0
APR									
06...	1230	104	10.0	13.5					
01485500 - NASSAWANGO C NR SNOW HILL, MD (LAT 38 13 44 LONG 075 28 19)									
NOV , 1980					JUN , 1981				
10...	1130	13	17.0	12.0	08...	1420	10	28.0	21.0
DEC					JUL				
15...	1155	13	4.0	4.0	14...	1435	2.7	28.5	23.0
JAN , 1981					AUG				
20...	1340	9.2	9.0	.5	21...	1050	12	19.5	17.0
APR					SEP				
02...	1315	29	18.5	13.5	22...	1425	9.2	25.0	18.0
MAY									
07...	1150	14	12.0	12.5					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
MANOKIN RIVER BASIN									
01486000 - MANOKIN R NR PRINCESS ANNE, MD (LAT 38 12 50 LONG 075 40 18)									
OCT • 1980					MAY • 1981				
24...	1400	.16	20.0	13.0	05...	1155	1.6	16.0	14.0
DEC					JUN				
15...	1340	.68	5.0	3.5	08...	1105	1.6	28.0	22.0
JAN • 1981					JUL				
22...	1130	.62	6.0	2.0	14...	1055	.51	32.5	26.0
MAR					AUG				
03...	1340	2.6	8.0	9.0	18...	1120	.87	24.0	19.0
APR					SEP				
08...	1050	4.4	16.0	11.5	22...	1120	.43	25.5	18.5
NANTICOKE RIVER BASIN									
01487000 - NANTICOKE R NR BRIDGEVILLE, DE (LAT 38 43 45 LONG 075 33 41)									
OCT • 1980					MAY • 1981				
23...	1310	33	15.0	13.0	12...	1130	46	17.5	17.0
DEC					JUN				
08...	1405	63	20.5	12.0	01...	1500	81	21.5	19.5
FEB • 1981					12...	1130	68	25.0	21.0
04...	1205	47	2.0	2.5	JUL				
12...	1450	88	-6.0	3.0	21...	1105	30	29.0	23.0
MAR					AUG				
27...	1415	77	20.0	11.0	04...	1245	33	26.5	21.5
APR					31...	1135	38	25.0	20.5
07...	1120	121	10.5	10.5					
17...	1055	111	19.0	13.5					
MARSHYHOPE C NR ADAMSVILLE DE (LAT 38 50 59 LONG 075 40 24)									
OCT • 1980					JUN • 1981				
22...	1250	10	15.0	13.5	10...	1355	30	26.5	24.0
JAN • 1981					JUL				
12...	1450	17	-4.0	.5	16...	1225	14	27.0	21.0
FEB					AUG				
19...	1420	34	21.5	15.0	07...	1120	11	29.0	21.0
APR					24...	1345	9.5	31.0	22.0
07...	1315	80	16.0	15.0	SEP				
MAY					30...	1455	12	20.5	17.5
05...	1315	47	18.5	17.0					
FAULKNER B AT FEDERALSBURG, MD (LAT 38 42 44 LONG 075 47 34)									
DEC • 1980					JUN • 1981				
15...	1025	6.6	.0	4.0	10...	1045	6.7	22.5	19.5
JAN • 1981					JUL				
14...	1230	4.2	2.0	1.5	20...	1155	3.1	30.0	21.5
FEB					AUG				
19...	1055	7.8	18.5	10.0	25...	1015	3.1	20.0	17.5
APR					SEP				
07...	1030	13	13.0	8.5	30...	1030	2.0	18.0	14.5
MAY									
05...	1050	6.8	14.5	14.0					

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CHOPTANK RIVER BASIN									
01491000 - CHOPTANK R NR GREENSBORO, MD (LAT 38 59 50 LONG 075 47 10)									
OCT , 1980					MAY , 1981				
09...	1045	29	20.5	13.5	12...	0950	396	18.5	15.0
22...	1350	30	16.0	14.0	12...	1335	496	13.0	15.0
25...	1140	67	19.0	13.0	13...	1010	596	14.0	14.0
26...	1055	380	10.5	12.0	JUN				
27...	1005	478	9.5	10.0	15...	1020	79	21.0	22.0
29...	1045	145	9.5	10.0	29...	1035	45	24.0	20.0
NOV					JUL				
25...	1050	91	9.5	7.5	30...	0900	68	20.0	21.5
DEC					AUG				
24...	1040	59	-5.5	.0	06...	1135	18	22.0	24.0
JAN , 1981					28...	1055	13	25.0	20.5
13...	1500	33	-5.5	.0	SEP				
27...	1050	53	9.0	3.0	05...	0920	14	21.5	20.5
FEB					09...	1305	36	22.5	19.5
13...	1000	206	-2.5	.5	10...	1030	24	17.0	18.5
25...	0945	151	6.5	8.0	14...	1300	13	31.0	22.5
MAR					18...	1430	107	18.0	19.0
26...	1010	61	9.5	6.0	19...	0900	364	16.0	17.0
APR					28...	1100	38	19.5	18.0
03...	1050	142	22.0	13.0					
15...	1020	266	8.5	10.5					
27...	1005	124	16.0	13.0					
01492000 - BEAVERDAM B AT MATTHEWS, MD (LAT 38 48 40 LONG 075 58 15)									
OCT , 1980					MAY , 1981				
21...	1145	.72	16.0	13.0	06...	1330	3.1	18.0	14.5
DEC					JUL				
08...	1145	2.1	20.5	8.0	16...	0945	.29	26.0	21.0
JAN , 1981					AUG				
15...	1305	1.1	2.0	.0	24...	1040	.24	20.5	18.0
FEB					SEP				
18...	1030	3.1	16.0	7.5	30...	1300	.49	15.0	15.0
APR									
06...	1435	12	12.0	13.0					
CHESTER RIVER BASIN									
01493000 - UNICORN R NR MILLINGTON, MD (LAT 39 14 59 LONG 075 51 40)									
OCT , 1980					MAY , 1981				
20...	0940	10	11.0	16.0	08...	1150	15	18.0	18.5
DEC					12...	1220	63	13.0	16.0
09...	1415	.26	11.0	9.0	JUL				
10...	1145	.15	8.0	8.0	22...	1440	16	29.0	28.0
JAN , 1981					AUG				
12...	1230	9.5	--	3.0	20...	1520	7.1	26.0	24.0
FEB					SEP				
20...	1025	22	14.5	11.5	17...	1040	12	18.5	21.5
APR									
01...	1330	15	22.0	16.0					
01493500 - MORGAN C NR KENNEDYVILLE, MD (LAT 39 16 48 LONG 076 00 54)									
OCT , 1980					MAY , 1981				
20...	1150	5.4	12.5	12.5	08...	0940	4.0	16.0	10.5
DEC					JUL				
09...	1145	5.5	11.0	10.0	22...	1218	3.1	27.0	23.0
JAN , 1981					AUG				
12...	1045	3.4	-10.0	.0	20...	1315	2.3	25.0	19.0
FEB					SEP				
20...	1250	8.4	14.5	11.0	17...	1315	6.8	22.5	17.5
MAR									
31...	1430	6.5	23.5	17.5					

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ELK RIVER BASIN									
01495000 - BIG ELK C AT ELK MILLS, MD (LAT 39 39 26 LONG 075 49 20)									
DEC , 1980					JUN , 1981				
10...	1300	30	6.0	5.5	19...	1320	21	24.0	22.5
FEB , 1981					JUL				
10...	1205	32	1.0	.0	17...	1310	15	28.0	25.0
18...	1040	35	11.0	7.0	AUG				
MAR					28...	1045	16	24.5	20.5
04...	0940	33	1.0	2.0	SEP				
APR					09...	1100	38	20.0	19.0
08...	1325	32	17.0	15.5	16...	1125	66	18.5	18.0
MAY									
06...	1330	28	20.0	15.0					
01495800 - LONG C NR CHESAPEAKE CITY, MD (LAT 39 33 15 LONG 075 47 18)									
OCT , 1980					APR , 1981				
01...	1450	.18	27.0	23.0	07...	1220	2.9	15.0	12.5
NOV					MAY				
05...	1100	.59	13.0	10.5	07...	0955	1.8	10.0	11.5
DEC					JUN				
11...	0940	.91	1.0	4.0	11...	1505	.86	26.5	26.5
JAN , 1981					JUL				
19...	1045	.58	2.0	.0	17...	1045	.11	28.0	24.0
FEB					AUG				
23...	1310	2.7	12.0	10.0	28...	1240	.10	29.0	27.0
MAR									
30...	1010	.89	18.0	12.0					
NORTHEAST RIVER BASIN									
01496000 - NORTHEAST C AT LESLIE, MD (LAT 39 37 40 LONG 075 56 40)									
OCT , 1980					MAY , 1981				
28...	1305	6.8	12.5	10.0	07...	1150	13	11.0	10.0
DEC					JUN				
11...	1400	9.0	2.0	5.0	11...	1255	12	22.0	21.5
FEB , 1981					AUG				
10...	1325	8.9	5.5	.0	24...	1400	6.9	25.0	21.0
18...	1230	17	15.0	7.0	SEP				
MAR					24...	1455	7.6	18.0	15.5
04...	1055	12	4.5	3.0					
APR									
09...	1110	12	16.0	14.0					
PRINCIPIO CREEK BASIN									
01496200 - PRINCIPIO C NR PRINCIPIO FURNACE, MD (LAT 39 37 34 LONG 076 02 27)									
OCT , 1980					APR , 1981				
28...	1030	3.1	13.5	10.0	07...	1100	4.9	14.0	11.0
DEC					MAY				
12...	1205	4.4	2.0	3.5	08...	1025	4.2	15.5	15.0
JAN , 1981					JUN				
30...	1100	5.4	-1.0	.0	11...	1105	2.9	21.0	20.0
FEB					AUG				
17...	1405	4.9	17.0	9.5	24...	1145	2.0	27.0	19.5
MAR									
04...	1205	4.7	4.5	2.5					
SUSQUEHANNA RIVER BASIN									
01580000 - DEER C AT ROCKS, MD (LAT 39 37 49 LONG 076 24 13)									
OCT , 1980					JAN , 1981				
03...	1530	52	13.0	16.0	23...	1230	53	11.0	.5
NOV					MAR				
19...	1500	81	4.0	4.0	02...	1100	73	7.0	6.5
21...	1230	60	9.0	3.5	APR				
21...	1430	53	6.0	4.0	14...	1200	270	10.0	10.0
DEC					MAY				
03...	1015	52	2.0	4.0	28...	1230	61	20.0	20.0
12...	1030	46	4.0	4.0	AUG				
JAN , 1981					21...	1200	29	23.0	22.0
15...	1330	39	-.5	.5					

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BUSH RIVER BASIN									
01581700 - WINTERS RN NR BENSON, MD (LAT 39 31 12 LONG 076 22 24)									
OCT , 1980					MAR , 1981				
03...	1100	21	15.0	16.0	02...	1500	23	7.5	6.5
NOV					10...	1500	25	7.0	9.0
21...	1030	19	9.0	3.0	APR				
DEC					14...	1420	219	14.0	10.0
12...	1400	17	8.0	5.0	17...	1100	35	17.0	11.5
JAN , 1981					MAY				
07...	1615	18	-3.0	.5	28...	1400	21	20.0	26.0
26...	1200	17	7.5	1.5	AUG				
FEB					20...	1230	9.6	20.0	22.0
25...	1130	54	10.0	6.0					
GUNPOWDER RIVER BASIN									
01582000 - LITTLE FALLS AT BLUE MOUNT, MD (LAT 39 36 16 LONG 076 37 16)									
OCT , 1980					MAR , 1981				
02...	1645	25	20.0	19.0	05...	1330	46	.0	2.0
NOV					APR				
18...	1600	65	2.5	4.0	21...	0900	50	4.0	8.5
DEC					JUN				
11...	1730	30	.0	5.0	03...	1500	42	20.0	16.0
JAN , 1981					AUG				
08...	1430	24	-3.0	.5	19...	1500	20	25.0	22.0
22...	1600	27	7.0	.5					
FEB									
25...	1730	93	5.0	6.0					
01583000 - SLADE RN NR GLYNDON, MD (LAT 39 29 40 LONG 076 47 45)									
OCT , 1980					APR , 1981				
01...	0930	.85	16.5	13.5	13...	1027	2.5	11.0	10.0
NOV					JUN				
10...	1000	.87	13.0	10.0	01...	1050	1.8	16.0	16.0
DEC					JUL				
08...	0945	1.2	10.0	12.0	06...	1040	2.6	26.0	19.0
MAR , 1981					AUG				
02...	1020	1.8	15.0	13.0	17...	1030	.88	21.0	17.0
01583500 - WESTERN RN AT WESTERN RUN, MD (LAT 39 30 38 LONG 076 40 37)									
OCT , 1980					MAR , 1981				
02...	1200	26	22.0	17.0	05...	1000	61	1.0	3.0
NOV					APR				
18...	1030	93	5.0	4.5	15...	0830	106	5.0	8.5
DEC					JUN				
11...	1200	34	5.0	5.5	03...	0900	59	18.0	16.0
JAN , 1981					AUG				
14...	1230	25	1.0	.5	19...	0915	26	17.0	18.0
22...	1200	27	7.0	.5					
FEB									
05...	1600	98	6.0	7.0					
01584050 - LONG GREEN C AT GLEN ARM, MD (LAT 39 27 17 LONG 076 28 45)									
OCT , 1980					MAR , 1981				
10...	1030	3.6	13.0	13.0	06...	1000	7.0	2.0	4.0
NOV					APR				
13...	1430	3.6	11.0	9.0	16...	1045	9.3	16.0	10.0
DEC					JUN				
16...	1030	4.6	4.0	4.0	01...	1530	4.5	20.0	18.0
JAN , 1981					AUG				
26...	0945	2.8	1.0	2.5	21...	0945	2.8	21.0	16.0
FEB									
25...	1015	11	7.0	6.0					

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GUNPOWDER RIVER BASIN--CONTINUED									
01585100 - WHITEMARSH RN AT WHITE MARSH, MD (LAT 39 22 15 LONG 076 26 46)									
OCT . 1980					MAR . 1981				
09...	1230	1.5	25.0	20.0	03...	1230	3.0	5.0	8.0
NOV					APR				
14...	1530	1.6	19.0	11.0	17...	1430	4.0	17.0	14.5
DEC					JUN				
09...	1100	2.6	11.0	10.0	02...	1100	35	19.0	17.5
JAN . 1981					AUG				
27...	1130	3.2	10.0	3.0	21...	1530	1.2	29.0	22.0
BACK RIVER BASIN									
01585200 - WB HERRING RN AT IDLEWYLDE, MD (LAT 39 22 25 LONG 076 35 35)									
OCT . 1980					APR . 1981				
07...	0930	.24	12.0	13.0	13...	0900	1.2	10.0	10.5
NOV					MAY				
12...	0830	.28	3.0	6.0	26...	0900	.59	26.0	20.0
DEC					JUN				
10...	0900	.46	6.0	7.5	04...	1030	.81	26.0	21.0
JAN . 1981					JUL				
20...	1200	.27	7.0	2.0	01...	0900	.49	25.0	21.5
MAR					AUG				
03...	0845	.59	-1.0	3.0	18...	1500	.18	38.0	26.0
01585300 - STEMMERS RN AT ROSSVILLE, MD (LAT 39 20 28 LONG 076 29 17)									
OCT . 1980					MAR . 1981				
14...	0930	.34	8.0	10.0	03...	1415	1.2	6.0	10.0
NOV					APR				
14...	1100	.55	10.0	10.0	16...	1600	2.3	18.0	17.0
DEC					JUN				
09...	1530	1.6	8.0	8.0	02...	1515	4.8	18.0	18.0
JAN . 1981					AUG				
27...	1630	1.3	11.0	4.0	24...	1330	.60	26.0	27.0
01585400 - BRIEN RN AT STEMMERS RUN, MD (LAT 39 20 01 LONG 076 28 23)									
OCT . 1980					MAR . 1981				
09...	1350	.52	24.0	16.0	03...	1045	.65	2.0	4.5
NOV					APR				
14...	1300	.57	20.0	9.5	17...	1615	.84	19.0	14.0
DEC					JUN				
09...	1330	.86	8.0	11.0	02...	1330	2.4	17.0	17.0
JAN . 1981					AUG				
27...	1430	.52	11.0	7.0	24...	1115	.50	26.0	17.0
PATAPSCO RIVER BASIN									
01585500 - CRANBERRY B NR WESTMINSTER, MD (LAT 39 35 35 LONG 076 58 05)									
MAR . 1981					JUL . 1981				
02...	1540	.63	14.0	14.0	06...	1525	3.5	27.0	19.0
APR					AUG				
13...	1530	5.2	11.0	11.0	17...	1540	1.6	25.0	19.0
JUN									
01...	1440	2.2	21.0	15.5					
01586000 - NB PATAPSCO R AT CEDARHURST, MD (LAT 39 30 00 LONG 076 53 00)									
NOV . 1980					JUN . 1981				
10...	1245	20	15.0	12.0	01...	1315	37	21.0	18.0
DEC					JUL				
08...	1210	25	24.0	6.0	06...	1330	71	25.0	21.0
MAR . 1981					AUG				
02...	1250	51	15.0	14.5	17...	1330	22	19.0	20.0
APR									
13...	1310	112	12.0	10.0					

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PATAPSCO RIVER BASIN--CONTINUED

01589000 - PATAPSCO R AT HOLLOFIELD, MD (LAT 39 18 36 LONG 076 47 34)

OCT . 1980					FEB . 1981				
08...	1300	33	20.0	16.0	26...	1500	157	11.0	8.0
NOV					MAR				
04...	0945	53	12.0	7.5	04...	1300	75	1.0	6.0
04...	1100	53	11.0	7.5	APR				
17...	1600	31	.0	5.0	20...	1415	99	16.0	15.5
20...	1100	53	5.0	5.0	MAY				
DEC					27...	1430	60	29.0	22.0
08...	1330	49	21.0	8.0	JUN				
JAN , 1981					01...	0900	80	16.0	17.0
12...	1530	30	-7.5	.5	30...	1530	72	32.0	27.0
20...	1500	45	10.0	.5	SFP				
28...	0945	45	.0	.3	18...	1015	53	--	19.0

01589100 - EB HERRERT RN AT ARRUTUS, MD (LAT 39 14 24 LONG 076 41 33)

JAN , 1981					APR , 1981				
19...	0945	.46	4.0	.5	20...	0930	1.1	19.0	13.0
MAR					MAY				
04...	0845	.97	2.0	3.0	27...	0930	.77	26.0	19.5

01589300 - GWYNN'S FALLS AT VILLA NOVA, MD (LAT 39 20 45 LONG 076 44 01)

OCT . 1980					MAR . 1981				
07...	1430	9.7	20.0	14.0	04...	1515	18	5.0	5.5
NOV					APR				
12...	1200	10	6.5	6.0	13...	1230	49	12.0	11.0
DEC					MAY				
10...	1215	14	6.0	7.5	26...	1430	14	26.0	21.5
JAN . 1981					JUL				
29...	1100	12	2.0	1.0	01...	1200	16	26.0	22.5
FEB					AUG				
27...	1330	27	11.0	7.0	18...	1000	10	19.0	19.0

01589330 - DEAD RN AT FRANKLINTOWN, MD (LAT 39 18 40 LONG 076 43 02)

OCT . 1980					MAR , 1981				
08...	1030	.56	17.0	13.0	04...	1015	1.3	6.0	4.0
NOV					APR				
17...	1300	.54	2.0	5.0	20...	1200	2.9	15.0	15.0
DEC					MAY				
08...	1130	.66	23.0	9.0	08...	1030	1.4	20.0	13.5
JAN , 1981					27...	1100	1.5	26.0	21.0
19...	1230	.66	11.0	.5					

01589440 - JONES FALLS AT SORRENTO, MD (LAT 39 23 30 LONG 076 39 42)

OCT . 1980					FEB , 1981				
02...	0940	9.9	20.0	16.0	27...	1530	27	12.0	8.0
NOV					MAR				
12...	1400	11	10.5	6.0	09...	0845	20	5.5	5.5
DEC					APR				
11...	0930	12	4.0	5.0	13...	1600	27	12.0	12.0
JAN . 1981					MAY				
13...	1430	10	-5.0	.5	26...	1130	12	29.0	18.5
22...	1030	11	9.0	1.5	AUG				
FEB					18...	1215	7.6	23.0	19.0
25...	1345	36	7.0	7.0					

SOUTH RIVER BASIN

01590500 - BACON RIDGE B AT CHESTERFIELD, MD (LAT 39 00 07 LONG 076 36 53)

OCT . 1980					APR , 1981				
14...	1130	2.8	11.0	13.5	20...	1150	6.2	17.5	14.5
NOV					MAY				
19...	1710	6.0	.5	4.5	26...	1020	3.3	25.0	17.0
DEC					JUL				
12...	1230	4.6	11.2	5.5	13...	1210	2.2	29.0	20.0
JAN . 1981					AUG				
19...	1015	3.8	6.5	1.0	17...	1100	1.9	20.0	18.0
MAR									
02...	1150	5.3	9.0	6.5					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
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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)
PATUXENT RIVER BASIN									
01591000 - PATUXENT R NR UNITY, MD (LAT 39 14 18 LONG 077 03 23)									
OCT . 1980					APR . 1981				
02... 1500	7.8	22.0	18.0		17... 1115	34	14.0	12.0	
NOV 12... 1520	10	12.0	9.0		JUN 05... 1055	46	21.0	12.0	
DEC 15... 1520	14	.0	2.0		JUL 10... 1000	15	26.0	23.0	
MAR . 1981					AUG 21... 1100	6.3	18.0	16.0	
06... 1141	36	14.0	13.0						
01591350 - CATTAIL C NR COOKSVILLE, MD (LAT 39 18 50 LONG 077 03 15)									
OCT . 1980					JUN . 1981				
02... 0930	2.5	21.0	16.0		05... 1310	6.1	25.0	18.0	
NOV 12... 1250	2.7	13.0	9.0		JUL 10... 1300	4.2	27.0	23.0	
DEC 16... 1308	3.6	2.0	5.0		AUG 21... 1320	2.0	21.0	17.0	
APR . 1981									
17... 1405	6.1	17.0	13.0						
01591400 - CATTAIL C AT ROXBURY MILLS RD AT ROXBURY MILLS (LAT 39 15 27 LONG 077 03 13)									
OCT . 1980					APR . 1981				
02... 1115	5.8	20.5	16.5		17... 1235	18	14.0	12.0	
NOV 12... 1037	7.2	9.0	5.0		JUN 05... 1200	22	25.0	19.0	
DEC 16... 0945	9.2	2.0	3.0		JUL 10... 1145	11	27.0	24.0	
MAR . 1981									
09... 1112	17	15.0	12.0						
01591610 - PATUXENT R BL BRIGHTON DAM NR BRIGHTON, MD (LAT 39 11 31 LONG 077 00 16)									
NOV . 1980					JUN . 1981				
07... 1235	2.7	25.0	15.0		08... 1525	8.1	27.0	18.5	
21... 1220	42	9.0	8.0		JUL 13... 1440	110	28.0	20.0	
DEC 12... 1240	37	10.0	9.0		AUG 24... 1510	94	28.0	20.0	
MAR . 1981									
09... 1245	7.5	15.0	12.0						
01591700 - HAWLINGS R NR SANDY SPRING, MD (LAT 39 10 29 LONG 077 01 22)									
OCT . 1980					APR . 1981				
02... 1315	53	20.5	17.0		20... 1250	18	17.0	14.0	
NOV 20... 1605	12	5.0	3.0		JUN 08... 1345	22	26.0	18.0	
DEC 12... 1025	12	6.0	7.0		JUL 13... 1315	8.3	28.0	23.0	
MAR . 1981					AUG 24... 1330	4.7	28.0	18.5	
10... 1010	19	16.0	14.0						
01592500 - PATUXENT R NR LAUREL, MD (LAT 39 06 56 LONG 076 52 27)									
NOV . 1980					APR . 1981				
10... 1505	13	9.5	11.5		09... 1240	21	14.0	10.5	
DEC 09... 1030	14	11.5	85.0		JUL 14... 1120	20	28.0	10.0	
JAN . 1981					AUG 24... 1050	17	27.0	19.5	
29... 1530	19	2.5	4.0						

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
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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)
PATUXENT RIVER BASIN--CONTINUED									
01593500 - L PATUXENT R AT GUILFORD, MD (LAT 39 10 04 LONG 076 51 07)									
OCT , 1980					APR , 1981				
01...	1040	8.4	23.5	16.0	20...	1030	22	20.0	11.0
NOV					JUN				
10...	1210	13	17.5	10.5	08...	1115	26	20.0	24.0
DEC					JUL				
29...	1555	16	7.0	.0	13...	1115	13	27.0	24.0
JAN , 1981					AUG				
07...	1420	13	2.0	.5	24...	1100	7.1	25.0	19.0
MAR									
10...	1320	23	16.0	14.0					
01594440 - PATUXENT R NR BOWIE, MD (LAT 38 57 21 LONG 076 41 36)									
OCT , 1980					MAR , 1981				
14...	1520	99	12.0	13.0	18...	1045	221	-1.0	4.5
NOV					MAY				
03...	1030	119	11.5	8.5	18...	1100	221	15.0	14.0
03...	1300	119	11.5	8.5	JUL				
DEC					01...	1015	85	--	24.0
31...	1130	136	.5	4.0	21...	1030	140	30.5	24.5
JAN , 1981					SEP				
20...	1030	111	11.5	1.0	15...	1000	66	21.5	22.0
POTOMAC RIVER BASIN									
01594930 - LAUREL RN AT DOBBIN RD NR WILSON, MD (LAT 39 14 37 LONG 079 25 43)									
OCT , 1980					MAY , 1981				
02...	1250	5.3	15.0	14.5	13...	1245	4.4	18.0	13.0
NOV					13...	1430	18	18.0	12.0
05...	1055	.48	6.0	6.3	14...	1620	.79	18.0	20.0
06...	1030	10	5.0	4.0	JUN				
DEC					26...	1045	20	17.0	15.1
05...	1030	35	3.5	4.0	JUL				
05...	1315	7.1	3.5	3.0	01...	0900	10	--	15.5
JAN , 1981					AUG				
15...	1210	7.7	-2.0	.0	05...	1030	6.3	23.0	21.0
15...	1445	16	-3.0	.0	12...	1010	.18	20.0	21.0
FEB					13...	0940	4.7	20.0	18.5
19...	0841	69	7.0	2.4	SEP				
20...	0915	12	8.0	2.5	04...	1035	34	16.0	17.0
APR					04...	1215	20	20.0	18.0
09...	0920	20	13.0	11.0	17...	1130	7.3	13.0	12.9
09...	1115	2.6	13.0	9.8	17...	1345	3.2	19.0	17.0
01594934 - SF SAND RN NR WILSON, MD (LAT 39 15 31 LONG 079 24 40)									
NOV , 1980					MAY , 1981				
05...	1055	.48	6.0	6.3	13...	1245	4.4	18.0	13.0
DEC					14...	1620	.79	18.0	20.0
05...	1315	7.1	3.5	3.0	AUG				
JAN , 1981					12...	1010	.18	20.0	21.0
15...	1210	.09	-2.0	.0	SEP				
FEB					04...	1215	20	20.0	18.0
20...	0915	12	8.0	2.5	17...	1345	3.2	19.0	17.0
APR									
09...	1115	2.6	13.0	9.8					
01594936 - NF SAND RN NR WILSON, MD (LAT 39 15 36 LONG 079 24 36)									
OCT , 1980					MAY , 1981				
02...	1415	.54	15.0	12.5	13...	1340	2.8	18.0	14.0
27...	1100	1.3	11.0	3.1	15...	1245	5.9	17.0	13.0
NOV					JUN				
10...	1330	1.6	3.0	6.0	26...	1445	5.7	21.0	18.5
DEC					30...	0945	3.3	24.1	15.5
10...	1120	9.3	.0	6.0	AUG				
JAN , 1981					12...	1130	.80	19.0	20.0
15...	1350	1.2	-3.0	.0	SEP				
FEB					17...	1500	3.1	15.0	15.0
18...	1400	16	15.0	3.3					
APR									
09...	1330	3.1	11.0	10.3					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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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									
01595000 - NB POTOMAC R AT STEYER, MD (LAT 39 18 07 LONG 079 18 26)									
OCT , 1980					APR , 1981				
07...	1445	20	13.0	12.0	07...	1350	131	11.0	8.0
24...	1330	8.7	14.0	7.9	JUN				
NOV					12...	1145	285	23.0	18.0
10...	1100	88	3.0	7.0	JUL				
19...	1530	136	-5.0	1.8	22...	1130	37	20.0	20.5
FEB , 1981					SEP				
27...	0845	210	-2.0	1.0	10...	1255	83	17.0	15.0
01595500 - NB POTOMAC R AT KITZMILLER, MD (LAT 39 23 38 LONG 079 10 55)									
OCT , 1980					JUN , 1981				
02...	1100	48	15.0	17.0	08...	1545	788	26.0	18.0
NOV					JUL				
03...	0945	57	.0	3.0	08...	0900	277	25.0	21.0
DEC					AUG				
11...	1230	648	-1.0	3.3	03...	1045	97	20.0	20.0
17...	1130	281	2.0	.7	28...	1200	32	26.5	22.5
31...	1033	162	-1.0	.0	SEP				
JAN , 1981					01...	1110	76	23.0	21.0
09...	1200	101	-8.0	.0					
30...	1320	285	-3.0	.0					
01595800 - NB POTOMAC R AT BARNUM, WV (LAT 39 26 44 LONG 079 06 39)									
OCT , 1980					MAY , 1981				
07...	1035	40	14.0	12.0	05...	1530	1020	23.0	14.0
NOV					JUN				
13...	1415	82	9.0	4.5	12...	1415	1060	24.0	18.0
DEC					JUL				
17...	0830	330	-4.5	.9	08...	1300	294	29.0	22.5
JAN , 1981					28...	1150	176	22.0	20.0
30...	1030	191	-5.0	.0	AUG				
FEB					10...	1200	102	29.0	23.0
24...	1300	1610	4.5	4.0	28...	1455	48	29.5	22.5
MAR					SEP				
04...	1045	647	.0	1.2	01...	1305	37	25.0	24.0
APR									
08...	1305	468	25.0	12.0					
01596500 - SAVAGE R NR BARTON, MD (LAT 39 34 05 LONG 079 06 10)									
OCT , 1980					MAY , 1981				
08...	1330	3.0	16.0	9.0	05...	1000	70	22.0	14.0
NOV					JUN				
13...	0815	7.2	-2.0	1.0	09...	1335	150	16.0	13.0
DEC					JUL				
18...	0745	47	-1.0	.2	27...	1605	12	22.0	19.0
FEB , 1981					31...	0835	12	17.0	18.0
25...	0900	323	-1.0	1.0					
01597000 - CRABTREE C NR SWANTON, MD (LAT 39 30 00 LONG 079 09 35)									
OCT , 1980					FEB , 1981				
03...	1050	2.5	11.5	11.0	25...	1100	78	-1.0	1.0
NOV					APR				
13...	1100	2.4	5.0	2.5	06...	1440	24	-2.0	7.0
DEC					MAY				
18...	1045	13	1.0	1.1	05...	1240	43	23.0	14.0
18...	1100	16	1.0	1.1	JUN				
JAN , 1981					09...	1210	86	17.0	14.0
08...	1530	4.8	-8.0	.0	JUL				
22...	1230	4.8	3.0	.0	27...	1545	20	23.0	19.0

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
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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									
01597500 - SAVAGE R BL SAVAGE R DAM NR BLOOMINGTON, MD (LAT 39 30 05 LONG 079 07 25)									
OCT , 1980					FEB , 1981				
02...	1515	95	15.0	10.0	03...	1315	322	-11.0	.5
23...	1745	90	9.0	14.3	MAR				
NOV					02...	1205	237	.0	4.0
03...	1115	84	3.0	11.0	APR				
18...	1600	72	1.5	7.2	01...	1130	21	17.0	6.5
18...	1630	69	1.5	7.2	AUG				
DEC					03...	1335	36	24.0	18.0
18...	1200	215	3.0	2.9					
01598500 - NB POTOMAC R AT LUKE, MD (LAT 39 28 45 LONG 079 03 55)									
FEB , 1981					JUL , 1981				
04...	1330	713	-8.0	.0	07...	1030	390	27.0	22.5
MAR					07...	1445	400	29.0	22.5
02...	1310	1290	.0	4.0	15...	1100	155	23.0	21.5
13...	1030	559	10.0	6.0	17...	1350	113	26.0	24.0
APR					AUG				
01...	1245	882	16.0	11.0	03...	1405	134	26.0	22.5
01599000 - GEORGES C AT FRANKLIN, MD (LAT 39 29 38 LONG 079 02 42)									
OCT , 1980					APR , 1981				
01...	0920	8.4	11.0	13.0	01...	1410	60	11.0	9.5
24...	1800	7.1	10.0	9.6	07...	1130	52	12.0	7.9
NOV					20...	1145	195	12.5	12.0
03...	1350	10	12.0	9.0	JUN				
19...	0915	79	3.0	2.1	01...	1100	223	20.0	11.5
DEC					JUL				
02...	1300	49	9.0	5.5	01...	0900	48	26.0	19.0
16...	1415	131	2.0	2.2	AUG				
FEB , 1981					03...	1525	35	26.0	22.0
04...	1030	35	-10.0	.0	26...	1440	7.9	28.0	22.5
07...	0900	48	26.0	19.0	SEP				
MAR					02...	1045	23	22.0	24.0
02...	1330	100	1.0	4.0					
01600000 - NB POTOMAC R AT PINTO, MD (LAT 39 33 59 LONG 078 50 25)									
OCT , 1980					APR , 1981				
01...	1155	171	19.0	17.0	02...	1405	1090	20.0	12.0
23...	1430	147	12.5	12.8					
NOV					JUN				
03...	1535	173	12.0	10.0	01...	1345	1950	19.0	14.0
18...	1330	256	3.0	4.9	JUL				
DEC					06...	1500	474	28.0	23.0
16...	1135	306	2.0	2.8	31...	1300	260	26.0	22.0
FEB , 1981					AUG				
23...	1600	3080	13.0	7.0	11...	1120	152	29.0	27.0
MAR									
04...	1300	1450	2.0	2.6					
01601500 - WILLS C NR CUMBERLAND, MD (LAT 39 40 07 LONG 078 47 18)									
OCT , 1980					APR , 1981				
09...	1150	25	17.0	15.0	06...	1630	218	2.0	11.1
23...	1000	26	12.0	7.0	MAY				
NOV					07...	1445	263	11.0	12.0
13...	1105	33	4.0	3.0	JUN				
14...	1436	33	13.0	7.5	12...	0940	405	20.0	19.0
18...	0930	53	-2.0	2.1	JUL				
JAN , 1981					06...	1440	199	25.0	18.0
19...	1530	48	4.0	.0	31...	0920	68	19.0	17.0
FEB					AUG				
18...	1330	426	20.0	3.0	08...	1000	68	28.0	21.0
MAR									
04...	0945	379	1.0	.9					

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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									
01603000 - NB POTOMAC R NR CUMBERLAND, MD (LAT 39 37 16 LONG 078 46 24)									
OCT . 1980					MAR . 1981				
01...	1415	201	20.0	19.0	04...	1115	1880	1.0	3.0
21...	0930	168	10.5	6.0	APR				
23...	1215	170	15.0	11.6	02...	0950	1410	15.0	10.5
NOV					06...	1515	1050	4.0	13.1
04...	0845	220	8.0	9.0	MAY				
18...	1130	316	3.5	4.1	05...	1005	1770	20.0	12.0
DEC					JUN				
01...	0945	1670	9.0	4.4	02...	1025	2680	17.0	14.0
29...	1530	331	5.0	.1	JUL				
JAN . 1981					07...	1400	665	31.0	24.0
16...	1030	211	3.0	.0	31...	1125	341	23.0	21.0
FEB					AUG				
02...	1445	1180	.0	2.5	11...	1305	205	28.0	25.0
03...	1030	1550	-10.0	1.5					
23...	1035	4010	10.0	7.0					
01603500 - EVITT'S C NR CENTERVILLE, PA (LAT 39 47 23 LONG 078 38 48)									
OCT . 1980					MAY . 1981				
09...	0915	4.3	11.0	10.0	07...	1230	23	9.5	11.5
NOV					JUN				
13...	0900	4.7	-2.0	2.0	12...	1400	32	24.0	17.0
DEC					JUL				
15...	1430	10	-2.0	.6	06...	1255	36	24.0	17.0
JAN . 1981					23...	0850	9.4	17.0	15.0
16...	1435	7.3	-2.0	.0	AUG				
FEB					24...	1430	3.8	22.0	18.0
18...	1015	24	10.0	2.5					
APR									
02...	1045	27	15.0	9.5					
01609000 - TOWN C NR OLDTOWN, MD (LAT 39 33 12 LONG 078 33 19)									
OCT . 1980					MAY . 1981				
09...	1335	7.5	20.0	15.0	07...	1045	104	9.5	12.5
NOV					JUN				
14...	1115	11	11.0	4.5	12...	1135	133	23.0	19.0
JAN . 1981					JUL				
22...	1525	21	4.0	.0	29...	1045	35	18.0	20.0
FEB									
23...	1345	518	7.0	6.0					
01610000 - POTOMAC R AT PAW PAW, WV (LAT 39 32 13 LONG 078 27 28)									
OCT . 1980					AUG . 1981				
06...	1040	447	8.0	13.0	19...	1200	390	24.0	23.6
FEB . 1981					SEP				
27...	1045	6510	8.0	6.0	16...	1545	1070	17.0	21.0
01613000 - POTOMAC R AT HANCOCK, MD (LAT 39 41 49 LONG 078 10 39)									
OCT . 1980					SEP . 1981				
06...	1430	525	16.5	17.5	16...	1350	914	18.0	20.0
MAR . 1981									
10...	1440	3160	7.0	5.0					
01614500 - CONOCOCHIEGUE C AT FAIRVIEW, MD (LAT 39 42 29 LONG 077 50 00)									
OCT . 1980					APR . 1981				
15...	1005	83	11.0	10.0	10...	1415	296	20.0	13.0
NOV					27...	1015	572	23.0	14.2
10...	1200	101	12.0	9.0	MAY				
JAN . 1981					07...	1240	385	15.0	12.0
20...	1415	90	4.0	.0	JUN				
FEB					11...	1540	358	25.0	21.0
26...	1315	1890	8.0	5.5	AUG				
APR					28...	1445	102	28.0	24.8
07...	1315	291	14.5	13.0					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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									
01617800 - MARSH RUN AT GRIMES, MD (LAT 39 30 53 LONG 077 46 38)									
OCT . 1980					MAY , 1981				
15...	1335	3.9	16.0	13.0	06...	1530	9.0	16.0	17.0
NOV					JUN				
10...	1455	3.6	9.0	10.0	10...	1355	9.1	22.0	13.0
JAN . 1981					11...	1400	7.8	25.0	23.0
21...	1425	4.5	1.0	.0	JUL				
FEB					16...	1305	5.5	23.0	23.0
24...	1225	16	5.0	8.0	SEP				
APR					15...	1425	3.6	23.0	19.0
07...	1050	4.6	18.0	13.0					
01618000 - POTOMAC R AT SHEPHERDSTOWN, WV (LAT 39 26 04 LONG 077 48 07)									
OCT . 1980					APR , 1981				
10...	1355	798	11.0	17.0	06...	1430	3760	12.0	11.0
NOV					JUN				
12...	0955	825	-2.0	7.0	11...	1250	8070	24.0	19.0
MAR . 1981					SFP				
10...	1145	4770	7.0	5.0	18...	1315	1930	26.0	21.0
01619000 - ANTIETAM C NR WAYNESBORO, PA (LAT 39 42 59 LONG 077 36 28)									
OCT . 1980					APR . 1981				
15...	1145	31	12.0	10.0	07...	1140	64	16.0	10.0
NOV					10...	1015	63	16.0	13.0
10...	1335	32	8.0	9.0	MAY				
JAN . 1981					06...	1145	93	16.0	14.0
22...	1120	30	3.0	1.0	JUN				
FEB					10...	1130	97	21.0	14.0
24...	1100	457	6.0	7.0	JUL				
MAR					22...	1210	67	24.0	19.0
13...	1040	89	10.0	8.0					
01619500 - ANTIETAM C NR SHARPSBURG, MD (LAT 39 27 01 LONG 077 43 52)									
OCT . 1980					MAY . 1981				
15...	1430	109	16.0	11.0	06...	1340	245	16.0	14.0
NOV					JUN				
12...	1030	106	2.0	5.0	10...	1300	221	22.0	15.0
JAN . 1981					11...	1045	239	23.0	19.0
20...	1100	99	9.0	.0	JUL				
FEB					16...	1210	172	23.0	22.0
24...	1425	1140	6.0	8.0	SEP				
APR					11...	1200	124	26.0	20.0
06...	1200	184	8.0	12.0					
27...	1300	285	26.0	15.1					
01637500 - CATOCTIN C NR MIDDLETOWN, MD (LAT 39 25 35 LONG 077 33 25)									
NOV . 1980					JUN . 1981				
19...	0940	24	3.0	2.0	03...	1645	34	21.0	18.0
JAN . 1981					JUL				
07...	1225	6.2	4.0	.0	08...	1620	28	27.0	29.0
MAR					AUG				
04...	1510	58	14.0	12.0	19...	1540	7.6	22.5	21.5
APR									
15...	1425	320	12.0	11.0					
01638500 - POTOMAC R AT POINT OF ROCKS, MD (LAT 39 16 25 LONG 077 32 35)									
JAN . 1981					SEP . 1981				
28...	1330	2000	10.0	.6	18...	1330	2370	--	20.0
01639000 - MONOCACY R AT BRIDGEPORT, MD (LAT 39 40 43 LONG 077 14 06)									
OCT . 1980					JUN . 1981				
16...	1000	2.5	9.0	9.0	02...	1515	30	18.0	19.0
NOV					JUL				
17...	1110	21	.0	3.5	07...	1600	45	31.0	27.0
DEC					AUG				
15...	1030	20	4.0	2.0	18...	1540	6.0	23.5	24.5
MAR . 1981									
03...	1620	166	12.0	14.0					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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									
01639500 - B PIPE C AT BRUCEVILLE, MD (LAT 39 36 45 LONG 077 14 10)									
OCT , 1980					JUN , 1981				
06... 1140	13	13.0	12.0		02... 1320	50	16.0	18.0	
NOV					JUL				
13... 1325	23	15.0	5.0		07... 1250	81	28.0	23.0	
DEC					AUG				
15... 1255	27	.0	2.0		18... 1255	28	22.0	21.0	
MAR , 1981									
03... 1321	86	15.0	15.0						
01640500 - OWENS C AT LANTZ, MD (LAT 39 40 36 LONG 077 27 50)									
NOV , 1980					JUN , 1981				
17... 1350	.72	-2.0	6.0		03... 0930	5.8	16.0	14.0	
DEC					JUL				
09... 0855	1.4	12.0	9.0		08... 0915	6.6	24.0	19.0	
MAR , 1981					AUG				
04... 1000	97	10.0	13.0		19... 0905	1.4	13.5	14.5	
23... 1115	6.7	8.0	5.5						
APR									
15... 0935	34	11.0	8.0						
01641000 - HUNTING C AT JIMTOWN, MD (LAT 39 35 40 LONG 077 23 50)									
NOV , 1980					JUN , 1981				
18... 1040	11	2.0	7.0		02... 1010	18	15.0	15.0	
25... 1130	14	6.0	7.0		JUL				
DEC					07... 0945	21	22.0	19.0	
09... 1146	5.2	10.0	10.0		AUG				
MAR , 1981					18... 0945	4.6	16.0	16.0	
03... 1005	23	9.0	11.0						
01641500 - FISHING C NR LEWISTOWN, MD (LAT 39 31 35 LONG 077 28 00)									
DEC , 1980					JUN , 1981				
09... 1405	1.7	8.0	8.0		03... 1145	8.5	11.0	14.0	
MAR , 1981					JUL				
04... 1240	12	12.0	13.0		08... 1130	8.1	26.0	17.0	
APR					AUG				
15... 1205	46	10.0	10.0		19... 1225	2.8	20.0	14.5	
01642500 - LINGANORE C NR FREDERICK, MD (LAT 39 24 55 LONG 077 20 00)									
NOV , 1980					JUN , 1981				
19... 1235	44	5.0	9.0		04... 1030	78	22.0	20.0	
DEC					JUL				
10... 1435	29	5.0	8.0		09... 0900	47	25.0	24.0	
MAR , 1981					AUG				
05... 1441	68	10.0	11.0		20... 0940	16	19.0	20.0	
APR									
16... 0958	138	15.0	12.0						
01643000 - MONOCACY R AT JUG BRIDGE NR FREDERICK, MD (LAT 39 23 16 LONG 077 22 48)									
NOV , 1980					JUN , 1981				
18... 1050	284	6.0	9.0		04... 1300	554	26.0	20.0	
DEC					JUL				
10... 1235	204	10.0	10.0		09... 1145	365	29.0	26.5	
MAR , 1981					AUG				
12... 1125	758	7.0	5.0		20... 1225	110	20.0	21.0	
01643500 - BENNETT C AT PARK MILLS, MD (LAT 39 17 40 LONG 077 24 30)									
NOV , 1980					APR , 1981				
19... 1445	27	3.0	6.0		21... 1125	38	9.0	11.0	
DEC					JUN				
11... 0950	17	3.0	4.0		04... 1535	52	25.0	19.0	
JAN , 1981					JUL				
07... 1420	19	-2.0	.0		09... 1500	24	29.0	27.0	
MAR					AUG				
05... 1035	38	10.0	12.0		20... 1540	9.5	23.5	21.0	

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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									
01645000 - SENECA C AT DAWSONVILLE, MD (LAT 39 07 41 LONG 077 20 13)									
NOV , 1980					JUN , 1981				
20...	1050	55	5.0	5.0	15...	1225	69	30.0	23.0
DEC					29...	1225	36	28.0	20.0
11...	1150	45	6.0	5.0	30...	1315	32	27.5	22.0
JAN , 1981					SEP				
28...	1130	39	6.5	2.5	18...	1200	36	--	19.0
APR									
27...	1035	53	17.0	15.0					
01645200 - WATTS B AT ROCKVILLE, MD (LAT 39 05 03 LONG 077 10 38)									
NOV , 1980					MAY , 1981				
20...	1325	.92	9.0	5.0	02...	0950	5.2	21.0	20.0
DEC					JUL				
11...	1410	.97	5.0	9.0	08...	1150	.65	28.0	24.0
JAN , 1981					AUG				
21...	1530	.99	7.0	2.0	24...	1335	.37	28.0	23.0
MAR									
16...	1555	9.5	2.0	6.5					
01648000 - ROCK C AT SHERRILL DR WASH, DC (LAT 38 58 21 LONG 077 02 25)									
OCT , 1980					MAR , 1981				
02...	1430	12	26.5	19.0	06...	1115	55	5.0	4.5
NOV					APR				
17...	1210	13	3.5	6.0	23...	1500	25	28.0	14.0
JAN , 1981					MAY				
23...	0920	23	3.0	.0	27...	1136	25	24.0	16.0
01649500 - NE R ANACOSTIA R AT RIVERDALE, MD (LAT 38 57 37 LONG 076 55 34)									
OCT , 1980					MAR , 1981				
03...	1125	34	14.5	17.5	05...	1735	145	2.0	4.5
NOV					MAY				
18...	1440	117	5.0	6.0	27...	0845	21	24.0	20.0
DEC					JUL				
24...	1030	25	1.0	1.0	07...	1040	24	29.0	27.0
JAN , 1981					AUG				
23...	1415	35	4.0	1.5	19...	1450	11	20.0	21.0
FEB									
25...	1125	74	6.0	7.5					
01650500 - NW B ANACOSTIA R NR COLESVILLE, MD (LAT 39 03 55 LONG 077 01 48)									
NOV , 1980					MAR , 1981				
17...	1650	5.7	.5	4.5	06...	1415	20	4.5	4.5
DEC					MAY				
24...	1700	25	1.0	.0	28...	1340	47	26.0	20.0
JAN , 1981					JUL				
26...	1700	8.2	3.5	.5	08...	0950	8.5	31.0	22.0
FEB					AUG				
25...	1500	20	7.0	7.0	21...	1105	3.8	22.0	20.0
01651000 - NW B ANACOSTIA R NR HYATTSVILLE, MD (LAT 38 57 09 LONG 076 58 00)									
OCT , 1980					MAR , 1981				
03...	0950	19	16.0	17.5	16...	1355	23	6.0	8.0
NOV					MAY				
18...	1150	86	5.5	6.0	27...	1010	16	25.0	22.0
DEC					JUL				
24...	1230	19	1.0	1.0	07...	1300	19	28.0	30.0
JAN , 1981					AUG				
08...	1345	13	-3.0	.5	19...	1245	9.0	24.0	22.0
FEB									
25...	1320	39	11.0	8.5					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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									
01653600 - PISCATAWAY C AT PISCATAWAY, MD (LAT 38 42 20 LONG 076 58 00)									
OCT . 1980					APR . 1981				
08...	1055	.11	23.0	12.5	23...	1015	11	24.0	14.0
NOV					JUN				
14...	1510	3.3	12.5	7.5	03...	0930	40	19.0	17.0
DEC					JUL				
11...	1350	9.0	5.0	6.0	09...	0900	2.5	25.0	22.0
JAN . 1981					AUG				
22...	1000	12	9.0	.0	18...	1025	1.6	19.0	18.0
MAR									
05...	1200	27	4.0	4.5					
01661050 - ST CLEMENT C NR CLEMENTS, MD (LAT 38 20 00 LONG 076 43 31)									
OCT . 1980					APR . 1981				
07...	1515	1.1	17.0	17.0	22...	1130	9.5	20.5	12.0
NOV					JUN				
13...	1550	3.5	10.5	6.5	01...	0955	6.4	18.0	20.0
DEC					JUL				
10...	1545	8.6	7.0	9.0	20...	1555	.31	32.0	26.0
MAR . 1981									
04...	1115	7.2	8.5	5.0					
01661500 - ST MARYS R AT GREAT MILLS, MD (LAT 38 14 36 LONG 076 30 13)									
OCT . 1980					MAR . 1981				
07...	1020	3.5	12.0	11.5	04...	0950	8.0	7.0	4.0
NOV					JUL				
13...	1110	5.5	11.0	6.0	14...	1015	3.9	28.0	26.0
DEC					AUG				
10...	1100	31	7.5	8.0	20...	1115	2.2	21.0	19.0
JAN . 1981									
21...	0830	22	1.5	3.0					
MONONGAHELA RIVER BASIN									
03075500 - YOUGHIOGHENY R NR OAKLAND, MD (LAT 39 25 19 LONG 079 25 32)									
OCT . 1980					JUN . 1981				
02...	1025	32	15.0	16.0	12...	1040	635	19.0	16.0
NOV					JUL				
10...	1315	56	.0	7.0	27...	0930	349	21.0	19.0
FEB . 1981					31...	1300	217	21.0	19.0
03...	1115	668	-15.0	.0	AUG				
09...	1145	168	-7.0	.0	26...	1320	34	22.5	20.5
26...	1600	475	-2.0	1.0					
APR									
07...	1210	205	10.0	7.0					
03076500 - YOUGHIOGHENY R AT FRIENDSVILLE, MD (LAT 39 39 13 LONG 079 24 31)									
OCT . 1980					APR . 1981				
03...	1030	97	14.0	15.0	07...	0940	378	7.0	5.5
24...	1045	59	8.0	7.4	08...	1000	329	18.0	7.9
27...	1030	59	8.0	7.4	JUN				
NOV					11...	0915	1730	18.0	15.0
12...	0900	94	.0	3.0	19...	1000	440	19.5	18.3
20...	1000	361	-1.5	.3	JUL				
DEC					24...	1000	124	19.0	18.4
17...	1230	354	-3.0	.5	AUG				
FEB . 1981					27...	1600	688	29.0	21.2
25...	0900	934	-1.0	1.5	SEP				
MAR					09...	1015	661	16.0	18.0
12...	1700	570	8.0	4.6					

TEMPERATURE MEASUREMENTS AT GAGING STATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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MONONGAHELA RIVER BASIN--CONTINUED									
03076600 - BEAR C AT FRIENDSVILLE, MD (LAT 39 39 22 LONG 079 23 41)									
OCT . 1980					APR . 1981				
03...	1145	12	18.0	12.0	06...	1000	71	-2.0	5.5
NOV					MAY				
12...	1300	18	3.5	2.5	04...	1300	96	14.0	7.0
DEC					JUN				
17...	1400	84	-5.0	.0	11...	1330	347	24.0	14.0
18...	0930	52	-2.0	1.0	JUL				
JAN . 1981					24...	1425	23	20.0	19.0
26...	1600	42	9.0	.5	AUG				
27...	1100	108	4.0	1.0	24...	1400	12	23.5	16.0
FEB					SEP				
26...	1300	172	1.0	1.5	09...	1205	32	17.0	16.0
03077940 - SB CASSELMAN R NR BITTINGER, MD (LAT 39 36 06 LONG 079 12 17)									
OCT . 1980					APR . 1981				
03...	1520	1.3	17.0	12.0	16...	1345	14	12.0	10.5
NOV					MAY				
07...	1345	1.5	20.0	7.0	06...	1330	6.2	15.0	12.0
11...	1430	1.8	-3.0	4.0	JUN				
DEC					11...	1710	8.0	25.0	16.0
17...	1715	3.8	-10.0	2.0	19...	1130	5.3	23.0	16.3
JAN . 1981					JUL				
27...	1430	4.6	3.0	1.0	28...	1335	2.2	28.0	19.5
28...	0930	6.2	-1.0	.0	AUG				
FEB					18...	1600	.98	24.0	17.0
25...	1300	14	-1.0	3.2	SEP				
APR					08...	1530	4.3	16.0	17.0
03...	1145	6.3	9.5	10.5					
08...	1030	4.8	18.0	8.5					
03078000 - CASSELMAN R AT GRANTSVILLE, MD (LAT 39 42 08 LONG 079 08 12)									
OCT . 1980					APR . 1981				
03...	1325	12	14.0	15.0	06...	1200	94	-2.0	6.0
24...	0845	5.2	4.5	5.0	08...	1200	84	18.0	10.0
NOV					JUN				
11...	1210	34	-1.0	3.5	09...	1505	254	18.0	14.0
20...	1200	32	2.0	.3	18...	0815	106	13.0	14.9
DEC					JUL				
18...	0945	86	.0	.0	24...	1540	23	20.0	19.2
JAN . 1981					AUG				
08...	0900	36	-12.0	.0	27...	0830	6.7	21.0	16.9
FEB					SEP				
12...	1200	179	-11.0	.5	09...	1355	78	17.0	16.0
25...	1435	281	1.0	3.0					
MAR									
12...	1400	84	12.0	4.6					

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at 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 1981

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	1980-81	3-27-81	4.5
					8-28-81	2.3
Gunpowder River basin						
01581830	Grave Run near Beckleysville, MD	Lat 39°39'17", long 76°46'47", Baltimore County, at bridge on Upper Beckleys- ville Road, 0.9 mi north of Beckleys- ville, and 1.7 mi downstream from Indian Run.	7.68	1977-81	3-27-81	4.8
					8-28-81	2.8
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	1977-81	3-27-81	9.9
					8-28-81	5.7
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	1975-81	3-27-81	4.2
					8-27-81	1.7
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 Franklinton.	50.7	1980-81	8-28-81	7.9
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	1977-81	3-27-81	2.0
					8-27-81	.53
01591650	Hawlings River near Unity, MD	Lat 39°13'03", long 77°06'21", Mont- gomery County, at bridge on Sundown Road, 2.2 mi southwest of Unity, and 5.0 mi upstream from Reddy Branch.	5.08	1977-81	3-27-81	3.1
					8-27-81	.69
01591700	Hawlings River near Sandy Spring, MD	Lat 39°10'29", long 77°01'22", Mont- gomery County, 100 ft downstream from bridge on State Highway 650, 1.0 mi upstream from mouth, and 1.7 mi north of Sandy Spring.	27.2	1975-81	3-27-81	14
					8-27-81	4.2
01593650	Middle Patuxent River tribu- tary 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	1977-81	3-27-81	2.4
					8-27-81	.84
01593700	Middle Patuxent River tribu- tary 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	1977-81	3-27-81	3.4
					8-27-81	1.5

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Patuxent River basin--Continued						
01594300	Towers Branch at Conaways, MD	Lat 39°02'00", long 76°41'38", Anne Arundel County, at bridge on Evergreen Road, 0.7 mi north of Conaways, and 0.8 mi upstream from mouth.	5.69	1975-81	8-26-81	.93
01594455	Stocketts Run near Hardesty, MD	Lat 38°52'58", long 76°39'47", Anne Arundel County, at bridge on Sands Road, 0.9 mi upstream from mouth, and 1.3 mi southeast of Hardesty.	6.68	1977-81	8-26-81	.19
01594465	Rock Branch at Bayard, MD	Lat 38°51'17", long 76°41'16", Anne Arundel County, at bridge on Sands Road, 0.2 mi upstream from mouth, and 0.8 mi northwest of Bayard.	5.88	1977-81	8-26-81	.20
01594490	Northeast Branch at Kolbes Corner, MD	Lat 38°54'03", long 76°47'35", Prince Georges County, at bridge on State Highway 556, 0.1 mi north of Kolbes Corner, and 0.5 mi upstream from mouth.	7.74	1977-81	8-26-81	.28
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	1977-81	8-19-81 9-23-81	1.6 3.5
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	1979-81	8-19-81 9-24-81	.06 .12
01596600	Big Run near Swanton, MD	Lat 39°32'45", long 79°08'31", Garrett County, on Big Run Road, 0.3 mi down- stream from Monroe Run, and 7.5 mi northeast of Swanton.	13.4	1977-81	8-18-81 9-24-81	1.4 2.1
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	1977-81	8-18-81 9-24-81	.86 3.4
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	1979-81	8-18-81 9-24-81	0 .78
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	1979-81	8-18-81 9-24-81	0 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	1979-81	8-18-81 9-24-81	.92 1.8
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	1979-81	8-19-81 9-24-81	.16 .27
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	1979-81	8-19-81 9-24-81	11 37
01605475	Seven Springs Run at Old- town, 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	1975-81	8-19-81 9-23-81	.65 .85
01608950	Murley Branch near Flint- stone, MD	Lat 39°41'37", long 78°34'07", Allegany County, on Town Creek Road, 0.7 mi upstream from mouth, and 1.1 mi south of Flintstone.	11.9	1977-78, 1980-81	8-19-81 9-23-81	6.7 8.3
01608975	Maple Run near Town Creek, MD	Lat 39°36'46", long 78°31'52", Allegany County, on Jacobs Road, 2.7 mi up- stream from mouth, and 6.0 mi north of Town Creek.	7.10	1977-78, 1980-81	8-19-81 9-23-81	0 .09

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Potomac River basin--Continued						
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	1980-81	8-17-81 9-24-81	.42 .49
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	8-17-81 9-24-81	4.3 2.8
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	8-17-81 9-24-81	4.3 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	8-17-81 9-23-81	1.2 .60
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	8-17-81 9-23-81	1.8 1.1
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	8-18-81 9-23-81	1.4 .78
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	8-18-81 9-23-81	3.2 2.4
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	8-18-81 9-24-81	9.0 7.3
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	8-18-81 9-24-81	2.8 1.8
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	8-18-81 9-23-81	1.5 1.2
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	8-18-81 9-23-81	.19 .11
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	1977-81	3-27-81 8-25-81	2.2 .34
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	1977-81	3-27-81 8-26-81	15 2.2
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	1977-81	3-27-81 8-26-81	8.6 .51
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	1975-81	3-27-81 8-27-81	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	1975-81	3-27-81 8-27-81	5.9 3.0

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Potomac River basin--Continued						
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	1977-81	3-27-81 8-27-81	2.4 1.0
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	1977-81	3-27-81 8-27-81	1.4 0
01642430	Linganore Creek near New Lon- don, 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	1980-81	3-27-81 8-26-81	23 13
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	1975-81	3-27-81 8-25-81	4.9 2.5
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	1977-81	8-25-81	3.6
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	1975-81	3-27-81 8-27-81	4.6 .30
01644425	Bucklodge Branch near Dawson- ville, 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	1975-81	3-27-81 8-27-81	4.4 1.0
01645050	Dry Seneca Creek near Seneca, MD	Lat 39°05'38", long 77°20'52", Mont- gomery County, at bridge on Monte- video Road, 0.4 mi upstream from mouth, and 1.1 mi northwest of Seneca.	19.2	1975-81	3-27-81 8-27-81	5.9 .28
01647620 (revised)	Rock Creek at Redland, MD	Lat 39°08'14", long 77°07'46", Mont- gomery County, at bridge on State Highway 115, 0.6 mi upstream from Mill Creek and 1.0 mi southeast of Redland.	7.45	1977-81	3-27-81 8-28-81	4.7 1.6
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 High- way 495, 1.6 mi northwest of College Park, and 2.5 mi southwest of Belts- ville.	17.3	1980-81	8-26-81	2.3
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	1980-81	8-27-81	1.1
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	1975-81	8-27-81	.37
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 Matta- woman, and 2.0 mi north of Waldorf.	16.9	1980-81	8-27-81	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	1980-81	8-27-81	.23
01660740	Port Tobacco Creek near Marshall's 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 Marshall's Corner.	15.8	1977-81	8-27-81	.03
01660905	Zekiah Swamp Run near Malcom, 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 Malcom.	12.1	1975-81	8-27-81	0

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Discharge (ft ³ /s)
Potomac River basin--Continued						
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	1980-81	8-27-81	.33
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 Gravelly Run, and 1.1 mi southeast of Leonardtown.	5.81	1980-81	8-27-81	.32
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	1977-81	9-23-81	4.7
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	1979-81	8-19-81 9-23-81	14 14

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 1981

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft ³ /s)
Wye River basin							
01492500	Sallie Harris Creek near Carmichael, MD	Lat 38°57'55", long 76°06'30", Queen Annes County, at upstream side of bridge on U.S. Highway 50, 2.0 mi northeast of Carmichael, and 2.4 mi upstream from mouth.	8.09	1952-56†, 1957-81	2-25-79 4-10-80 9-18-81	6.07 4.71 3.95	631* 282* 161
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	1971-81	7-4-81	4.6	63
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†, 1971-81	1981	b<5.5	
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	1958-81	6-14-81	5.73	462
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	1971-81	1981	b<19.0	
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†, 1968-81	4-14-81	6.45	3,660
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	1971-81	4-15-81	11.5	44

* Not previously published.

† Operated as a continuous-record station.

a Approximately.

b Peak stage did not reach bottom of gage.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1981

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Gage height (ft)	Dis-charge (ft ³ /s)
Potomac River basin--Continued							
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, 1971-81	2-24-81	4.6	260
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	1965-81	6-14-81	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†, 1979-81	8-31-81	2.50	204
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†, 1973-81	6-20-81	3.82	316
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	1965-81	1981	b<3.8	-
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†, 1974-81	4-13-81	4.40	1,120

† Operated as a continuous-record station.

a Approximately.

b Peak stage did not reach bottom of gage.

Annual maximum discharge at crest-stage partial-record stations during water year 1981

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 1981

				Annual maximum	
Station No.	Station name	Location	Period of Record	Date	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.	1966-81	10-25-80	3.99
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.	1966-81	10-25-80	8.13
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.	1966-81	10-25-80	5.91
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.	1966-81	10-25-80	4.47

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 1981

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Measurements 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	1975-80	10- 2-80 11-18-80 12-11-80 3- 6-81 4-15-81 6- 3-81 7- 6-81	6.4 32 44 102 311 95 154
01583985 Gunpowder Falls	Gunpowder River	Lat 39°25'31", long 76°31'47", Baltimore County, at bridge on Cromwell Bridge Road, 0.5 mi northeast of Loch Raven, Md.	308	1975-80	10-14-80 11-14-80 12-10-80	2.1 2.1 2.7
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-	7-27-81 8-19-81 9-23-81	10 10 11
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-	7- 8-81 8-19-81 9-23-81	1.8 1.0 1.1
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, 1967-80	8-20-81 9-23-81	21 19
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	1975-80	8-19-81 9-24-81	25 20
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 1979-80	10-15-80	117
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	1975-80	10-15-80 11-13-80 12-11-80	30 42 52

POTOMAC RIVER BASIN

Laurel Run seepage investigations--Headwaters to mouth, Garrett County, MD

Two series of discharge measurements were made during the 1981 water year, on Nov. 6 and Aug. 13, on Laurel Run and its tributaries in Maryland, to study the effects of underground coal mining on channel gains and losses. The reach is 4.79 mi (7.71 km) in length and extends from its mouth near Wilson, Md., to its headwaters. The measurements were made during periods of base flow; for 4 days and 8 days before the respective investigations no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. No previous seepage investigations of this reach have been made.

Laurel Run mile	Stream	Location	Meas. discharge (ft ³ /s)	Gain or loss	Water temp (°C)	pH (units)	Conductivity (micro-mhos)	Dis-solved oxygen (mg/L)	Meas. discharge (ft ³ /s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (micro-mhos)	Dis-solved oxygen (mg/L)
Nov. 6, 1980									Aug. 13, 1981					
4.79	Laurel Run	Lat 39°13'12", Long 79°28'42", Garrett Co., 1.0 mi north-east of Kempton.	0.31	-	5.6	6.2	32	10.2	0.03	-	16.8	6.7	71	8.9
4.64	Kempton Well	Lat 39°13'17", long 79°28'44", Garrett Co., 1.05 mi north-east of Kempton.	1.34	-	10.2	3.1	862	0.7	1.34	-	10.3	3.8	148	8.6
3.69	Laurel Run	Lat 39°13'39", long 79°27'50", Garrett Co., 1.8 mi north-east of Kempton.	-	-	-	-	-	-	4.01	+2.64	18.9	2.7	926	8.6
3.64	Laurel Run tributary	Lat 39°13'41", long 79°27'48", Garrett Co., at mouth.	0.23	-	4.1	5.9	23	10.5	0.04	-	15.2	5.7	21	8.3
3.48	...do.....	Lat 39°13'44", long 79°27'39", Garrett Co., at mouth.	0.14	-	4.9	5.6	20	10.5	0.01	-	-	-	-	-
2.70	Laurel Run	Lat 39°14'14", long 79°27'02", Garrett Co., 2.8 mi north-east of Kempton.	7.08	+5.06	2.2	3.1	541	11.4	3.67	-0.39	18.6	2.4	1001	7.1
2.60	Chestnut Ridge Run	Lat 39°14'18", long 79°27'02", Garrett Co., at mouth.	1.68	-	4.0	5.9	168	10.5	0.85	-	20.2	4.0	780	11.8
2.32	Laurel Run tributary	Lat 39°14'12", long 79°26'40", Garrett Co., at mouth.	-	-	-	-	-	-	0.05	-	16.4	5.9	23	7.5
1.67	Dutch Run	Lat 39°14'42", long 79°26'00", Garrett Co., at mouth.	0.88	-	5.0	5.4	109	10.9	0.26	-	18.4	5.9	128	5.6
1.18	Laurel Run	Gaging station near Wilson (0159430)	10.19	+0.55	4.0	3.0	406	11.6	4.67	-0.16	18.3	2.6	872	9.0
0.10	...do.....	Lat 39°14'47", long 79°24'42", Garrett Co., at mouth.	10.91	+0.72	3.7	2.9	388	12.7	5.39	+0.72	18.0	4.3	836	8.7
Overall net gain or loss				+6.33										
										+2.81				

POTOMAC RIVER BASIN

Sand Run seepage investigations--Headwaters to Wilson, MD

Two series of discharge measurements were made during the 1981 water year, on Nov. 5 and Aug. 12, on Sand Run and its tributaries in Maryland, to study the effects of underground coal mining on channel gains and losses. The reach is 2.41 mi (3.88 km) in length along the North Fork of Sand Run and 2.35 mi (3.78 km) in length along the South Fork of Sand Run and extends from the headwaters to the sample station Sand Run near Wilson (01594942). The measurements were made during periods of base flow; for 3 days and 7 days before the respective investigations no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. No previous seepage investigations were made on this reach.

Run mile	Stream	Location	Meas. discharge (ft ³ /s)	Gain or loss	Water temp (°C)	pH (units)	Condu- tivity (micro- mhos)	Dis- solved oxygen (mg/L)	Meas. discharge (ft ³ /s)	Gain or loss	Water temp. (°C)	pH (units)	Condu- tivity (micro- mhos)	Dis- solved oxygen (mg/L)
Nov. 5, 1980														
1.81	North Fork Sand Run	Lat 39°16'35", long 79°25'56", Garrett Co., 2.4 mi north- west of Wilson	0.26	-	7.3	5.1	56	9.8	0.03	-	19.3	5.9	31	4.1
1.38	...do.....	Lat 39°16'19", long 79°25'36", Garrett Co., 1.9 mi north- west of Wilson	0.32	+0.06	6.7	3.9	122	11.0	0.35	+0.32	20.2	6.5	46	8.1
0.43	...do.....	Lat 39°15'55", long 79°24'42", Garrett Co., 1.1 mi north- west of Wilson	0.73	+0.41	5.8	5.7	211	10.4	0.42	+0.07	21.8	5.7	227	7.6
0.05	...do.....	Gaging station near Wilson (01594936)	1.77	+1.04	6.1	6.3	185	11.0	0.80	+0.38	19.1	6.0	165	8.3
		Overall net gain or loss North Fork Sand Run		+1.51						+0.77				
1.75	South Fork Sand Run	Lat 39°15'58", long 79°26'13", Garrett Co., 2.2 mi north- west of Wilson	0.09	-	6.2	6.9	487	9.7	0.12	-	18.8	5.3	847	7.4
1.15	...do.....	Lat 39°15'34", long 79°25'44", Garrett Co., 1.6 mi north- west of Wilson	0.59	+0.50	5.7	6.9	315	9.7	0.12	0	19.8	6.8	678	9.5
0.48	...do.....	Gaging station near Wilson (01594934)	0.48	-0.11	6.3	6.9	620	9.2	0.15	+0.03	21.3	6.0	959	6.6
		Overall net gain or loss South Fork Sand Run		+0.39						+0.03				
0.19	Sand Run	Lat 39°15'13", long 79°24'04", Garrett Co., 0.2 mi west of Wilson	2.63	+0.38	5.7	6.9	447	9.9	1.22	+0.27	19.3	7.1	535	8.6
		Overall net gain or loss		+2.28						+1.07				

Delaware River basin low-flow investigations

A series of base-flow discharge measurements were made in the Delaware River basin as part of a ground-water modeling study in cooperation with the Delaware Department of Natural Resources and Environmental Control and the Corps of Engineers, U.S. Army. The series was made Mar. 30 under conditions of low base flow.

Weather records at Blackbird within the southern part of the area and at Wilmington Airport at the northeastern edge of the area show no precipitation ten days prior to Mar. 30. The measurements are considered to represent base flow.

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 in water years 1978-80.

Discharge measurements of tributaries to the Delaware River in New Castle County, DE, and Cecil County, MD

Stream	Location	Drainage area (mi ²)	Measured discharge (ft ³ /s)	Cfs per square mile
			Mar. 30, 1981	
Belltown Run	Lat 39°36'27", long 75°43'26", New Castle County, at culvert on U.S. Highway 40, and 1.2 mi east of Glasgow.	3.35	0.71	0.212
Muddy Run	Lat 39°37'34", long 75°43'28", New Castle County, at bridge on State Highway 72, 0.9 mi southeast of Coochs Bridge, and 1.9 mi north-east of Glasgow.	8.21	1.65	0.201
White Clay Creek Trib- utary	Lat 39°40'58", long 75°42'36", New Castle County, at culvert on State Highway 273, 100 ft east of Penn Central Railroad, and 0.7 mi north-west of Ogletown.	3.68	0.17	0.046
Army Creek	Gaging station at State Road (01482200)	2.42	.10	0.041
Red Lion Creek	Gaging station near Red Lion (01482298)	3.08	.81	0.263
Dragon Creek	Lat 39°34'23", long 75°41'20", New Castle County, at culvert in trailer park 1500 ft downstream from U.S. Highway 301S, 0.5 mi north-east of Kirkwood, and 6.8 mi upstream from mouth.	1.93	.43	0.223
Dragon Creek Tributary	Lat 39°33'52", 75°41'16", New Castle County, at culvert on Road No. 409, 0.4 mi upstream from mouth, and 0.7 mi east of Kirkwood.	0.16	.11	0.688
Scott Run	Lat 39°31'30", long 75°39'54", New Castle County, at culvert on Road No. 413, 1.9 mi northwest of Boyds Corner, and 3.7 mi upstream from mouth.	2.18	.50	0.229
Blackbird Creek	Gaging station at Blackbird (01483200)	3.85	2.0	0.519
Back Creek	Lat 39°30'36", long 75°45'10", New Castle County, at bridge on County Road 435, 2.3 mi west of Mt. Pleasant.	4.40	1.80	0.409
Long Creek	Gaging station near Chesapeake City (01495800)	4.36	.89	0.204

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 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN

01477875 - CHRISTINA R AT HUNTING HILLS NEWARK DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)
NOV 21...	1145	2.4	123	6.5	8.0	2.9	11.9	40	14	9.6	4.0	7.3

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
NOV 21...	26	.5	3.1	15	11	.1	17	80	83	.11	.52

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)
NOV 21...	1.9	.000	1.9	.000	.00	.38	.38	2.3	10	.010	.00

DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 21...	.03	.000	2	1	0	0	50	0	20	0	10

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01477875 CHRISTINA R AT HUNTING HILLS NEWARK DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980

DATE NOV 21, 80
TIME 1145

TOTAL COUNT 420

DIVERSITY: PHYLUM 0.0
 .CLASS 0.0
 ..ORDER 0.3
 ...FAMILY 0.8
 GENUS 2.1
 GENUS-INSECTA 2.1

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....ORTHOCLADIUS	4
...TIPULIDAE	
....ANTOCHA	16
..TRICHOPTERA	
...GLOSSOSOMATIDAE	
....GLOSSOSOMA	24
...HYDROPSYCHIDAE	
....CHEUMATOPSYCHE	184
....HYDROPSYCHE	112
....SYMPHITOPSYCHE	68
...PHILOPOTAMIDAE	
....CHIMARRA	12

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01477960 - CHRISTINA R AT ROLLING GREEN NEWARK DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)
DEC 03...	1025	4.8	189	6.8	6.0	4.7	9.5	52	30	12	5.3	15
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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)	
DEC 03...	37	.9	3.1	18	24	.1	18	119	109	.16	1.5	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	
DEC 03...	2.2	.010	2.2	.020	.02	.24	.26	2.5	11	.040	.09	
DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
DEC 03...	.12	.030	1	0	0	6	140	0	90	2	10	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01477960 CHRISTINA R AT ROLLING GREEN NEWARK DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO DECEMBER 1980

DATE	DEC 3.80
TIME	1025
TOTAL COUNT	86
DIVERSITY: PHYLUM	0.8
.CLASS	0.8
..ORDER	1.6
...FAMILY	2.0
....GENUS	2.4
....GENUS-INSECTA	2.1

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...ELMIDAE	
....OPTIOSERVUS	1
..DIPTERA	
...CHIRONOMIDAE	
....ORTHOCLADIUS	5
...TIPULIDAE	
....ANTOCHA	32
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....CHEUMATOPSYCHE	8
....HYDROPSYCHE	8
....SYMPHITOPSYCHE	7
...HYDROPTILIDAE	
....LEUCOTRICHIA	2
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...ANCYLIDAE	
....FERRISSIA	23

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01478500 - WHITE CLAY C A9 NEWARK DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 19...	1105	56	255	6.7	4.5	3.2	12.5	86	41	21	8.1	11
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
NOV 19...	20	.5	7.2	28	21	.1	13	165	137	.22	24.9	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	
NOV 19...	3.0	.020	3.0	.040	.05	.37	.41	3.4	15	.130	.31	
DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
NOV 19...	.40	.100	2	0	1	3	80	5	40	3	10	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01478500 WHITE CLAY C AB NEWARK DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980

DATE	NOV 19,80
TIME	1105
TOTAL COUNT	181
DIVERSITY: PHYLUM	0.1
.CLASS	0.1
..ORDER	1.1
...FAMILY	1.6
....GENUS	1.6
....GENUS-INSECTA	1.5

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....EUKIEFFERIELLA	2
....PARATRICHOCADIUS	28
...EMPIDIDAE	
....UNKNOWN GENUS	2
...SIMULIIDAE	
....SIMULIUM	2
...TIPULIDAE	
....ANTOCHA	32
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....SYMPHITOPSYCHE	112
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...ANCYLIDAE	
....FERRISSIA	2
PLATYHELMINTHES (FLATWORMS)	
.TURBELLARIA	
..TRICLADIDA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS	1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01478700 - WHITE CLAY C BL NEWARK, DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 19...	1340	59	259	6.8	6.5	4.3	12.0	87	34	21	8.3	23
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
NOV 19...	35	1.1	4.6	43	23	.1	14	199	169	.27	31.8	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	
NOV 19...	2.6	.030	2.6	.230	.28	.45	.68	3.3	15	.500	1.30	
DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
NOV 19...	1.5	.420	2	1	2	5	100	1	80	5	370	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01478700 WHITE CLAY C BL NEWARK, DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980DATE NOV 19,80
TIME 1340

TOTAL COUNT 18

DIVERSITY: PHYLUM	0.0
..CLASS	0.0
...ORDER	0.3
....FAMILY	0.3
.....GENUS	0.3
.....GENUS-INSECTA	0.3

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
..INSECTA	
...DIPTERA	
....CHIRONOMIDAE	
.....PARATRICHOCLEIDUS	17
...TRICHOPTERA	
....HYDROPSYCHIDAE	
.....SYMPHITOPSYCHE	1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01479955 - RED CLAY C AT ASHLAND DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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...	0915	19	415	6.8	5.0	5.4	10.7	100	45	25	10	33
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	
NOV 20...	39	1.4	7.6	72	25	.1	16	258	225	.35	13.2	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	
NOV 20...	5.0	.040	5.0	.120	.15	.81	.93	5.9	26	.690	1.80	
DATE	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)		
NOV 20...	2.1	.580	1	1	2	6	100	0	70	10	690	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01479955 RED CLAY C AT ASHLAND DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980DATE NOV 20,80
TIME 0915

TOTAL COUNT 8

DIVERSITY: PHYLUM	0.0
..CLASS	0.0
...ORDER	0.0
....FAMILY	0.8
....GENUS	0.8
....GENUS-INSECTA	0.0

ORGANISM	COUNT
MOLLUSCA (MOLLUSCS)	
..GASTROPODA	
...BASOMMATOPHORA	
....ANCYLIDAE	
....FERPISSIA	2
....PHYSIDAE	
....PHYSA	6

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01480019 - RED CLAY C AT STANTON DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 18...	1210	93	324	7.5	8.5	4.6	12.6	86	44	21	8.1	10
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	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)	
NOV 18...	19	.5	6.6	14	17	.1	12	214	115	.29	53.7	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N03)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS P04)	
NOV 18...	2.9	.020	2.9	.070	.08	.56	.63	3.5	16	.150	.31	
DATE	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
NOV 18...	.46	.100	2	1	1	4	110	0	70	12	1000	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01480019 RED CLAY C AT STANTON DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980

DATE TIME	NOV 18, 80 1210
TOTAL COUNT	15
DIVERSITY: PHYLUM	1.6
.CLASS	1.6
..ORDER	1.8
...FAMILY	1.8
....GENUS	2.0
....GENUS-INSECTA	1.4

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....PROCLADIUS	1
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....HYDROPSYCHE	3
....SYMPHITOPSYCHE	1
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...ANCYLIDAE	
....FERRISSIA	6
PLATYHELMINTHES (FLATWORMS)	
.TURBELLARIA	
..TRICLADIDA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS	4

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01481280 - BRANDYWINE C AT SMITH BRIDGE DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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...	1100	140	245	6.9	5.0	3.0	11.8	80	38	20	7.4	12
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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)	
NOV 20...	23	.6	3.7	25	20	.2	11	151	125	.21	57.1	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS P04)	
NOV 20...	2.4	.020	2.4	.180	.22	.44	.62	3.0	13	.230	.61	
DATE	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
NOV 20...	.71	.200	1	0	2	3	80	0	40	14	30	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01481280 BRANDYWINE C AT SMITH BRIDGE DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO NOVEMBER 1980

DATE	NOV 20,80
TIME	1100
TOTAL COUNT	307
DIVERSITY: PHYLUM	0.8
..CLASS	0.8
..ORDER	1.6
...FAMILY	0.0
....GENUS	0.0
....GENUS-INSECTA	2.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
..INSECTA	
...DIPTERA	
....CHIRONOMIDAE	
....ORTHOCLADIUS	9
....RHEOTANYTARSUS	4
....EMPIDIDAE	
....UNKNOWN GENUS	1
...TIPULIDAE	
....ANTOCHA	24
..EPHEMEROPTERA	
...HEPTAGENIIDAE	
....STENONEMA	12
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....CHEUMATOPSYCHE	92
....HYDROPSYCHE	4
....SYMPHITOPSYCHE	112
MOLLUSCA (MOLLUSCS)	
..BIVALVIA	
...NUCULOIDEA	
....SPHAERIIDAE	
....SPHAERIUM	4
..GASTROPODA	
..BASOMMATOPHORA	
...ANCYLIDAE	
....FERRISSIA	24
...PHYSIDAE	
....PHYSA	4
...PLANORBIDAE	
....GYRAULUS	1
PLATYHELMINTHES (FLATWORMS)	
..TURBELLARIA	
..TRICLADIDA	16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01491490 - BRANDYWINE C AT HAGLEY MUSEUM WILMINGTON DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
DEC 02...	1000	160	245	6.9	13.0	5.7	9.7	84	41	20	8.2	12
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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)	
DEC 02...	23	.6	3.4	26	18	.1	13	139	127	.19	60.0	
DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	
DEC 02...	2.4	.030	2.4	.290	.35	.33	.62	3.0	13	.250	.67	
DATE	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	
DEC 02...	.77	.220	1	2	0	4	80	0	50	5	2	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01481490 BRANDYWINE C AT HAGLEY MUSEUM WILMINGTON DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO DECEMBER 1980

DATE	DEC 2,80
TIME	1000
TOTAL COUNT	135
DIVERSITY: PHYLUM	1.5
..CLASS	1.5
...ORDER	2.4
....FAMILY	2.5
.....GENUS	3.3
.....GENUS-INSECTA	2.6
ORGANISM	COUNT
ANNELIDA	
..HIRUDINEA	
...RHYNCHODELLIDA	
....GLOSSIPHONIIDAE	
.....OLIGODELLA	3
ARTHROPODA (ARTHROPODS)	
..INSECTA	
...COLEOPTERA	
....ELMIDAE	
.....DUBIRAPHIA	2
....PSEPHENIDAE	
.....PSEPHENUS	1
...DIPTERA	
....CHIRONOMIDAE	
.....EUKIEFFERIELLA	2
....LIMNOCHIRONOMUS	4
.....POLYPEDILUM	1
....RHEOTANYTARSUS	5
...EPHEMEROPTERA	
....HEPTAGENIIDAE	
.....STENONEMA	2
...ODONATA	
....COENAGRIONIDAE	
.....ARGIA	1
....UNKNOWN GENUS	1
...PLECOPTERA	
....TAENIOPTERYGIDAE	
.....TAENIOPTERYX	1
...TRICHOPTERA	
....HYDROPSYCHIDAE	
.....CHEUMATOPSYCHE	15
....HYDROPSYCHE	8
.....SYMPHITOPSYCHE	34
MOLLUSCA (MOLLUSCS)	
..GASTROPODA	
...BASOMMATOPHORA	
....ANCYLIDAE	
.....FERRISSIA	21
....PHYSIDAE	
.....PHYSA	4
...MESOGASTROPODA	
....VIVIPARIDAE	
.....CAMPELOMA	6
PLATYHELMINTHES (FLATWORMS)	
..TURBELLARIA	
...TRICLADIDA	
....UNKNOWN FAMILY	
.....UNKNOWN GENUS	24

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01481550 - BRANDYWINE C BL ALAPOCAS RN AT WILMINGTON DE

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCTI- ANCE (UMHCS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM
DEC 02...	1245	68	230	16.5	8.0	84	41	20	8.2	12	23

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	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 CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)
DEC 02...	.6	3.5	27	18	.2	13	147	128	.20	27.0	2.4

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN+AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHATE, TOTAL (MG/L AS PO4)	PHOS- PHORUS TOTAL (MG/L AS PO4)
DEC 02...	.030	2.4	.310	.38	.41	.72	3.1	14	.260	.71	.80

DATE	PHOS- PHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	CORAL, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 02...	.230	3	0	0	4	80	0	40	4	5

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA
WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DELAWARE RIVER BASIN--CONTINUED

01481550 BRANDYWINE C BL ALAPOCAS RN AT WILMINGTON DE
BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1980 TO DECEMBER 1980

DATE DEC 2,80
TIME 1245

TOTAL COUNT 115

DIVERSITY: PHYLUM 1.4
 .CLASS 1.4
 ..ORDER 1.9
 ...FAMILY 2.4
 GENUS 2.8
 GENUS-INSECTA 2.8

ORGANISM COUNT

ANNELIDA
..HIRUDINEA
...RHYNCHOBDELLIDA
...GLOSSIPHONIIDAE
....BATRACOBDELLA 1

ARTHROPODA (ARTHROPODS)
..INSECTA
...COLEOPTERA
...ELMIDAE
....MACRONYCHUS 1
...DIPTERA
...CHIRONOMIDAE
....CRICOTOPUS 4
...SIMULIIDAE
....SIMULIUM 1
...EPHEMEROPTERA
...HEPTAGENIIDAE
....STENONEMA 2
...LEPIDOPTERA
...PYRALIIDAE
....PARARGYACTIS 1
...ODONATA
...COENAGRIONIDAE
....UNKNOWN GENUS 1
...PLECOPTERA
...TAENIOPTERYGIDAE
....TAENIOPTERYX 1
...TRICHOPTERA
...HYDROPSYCHIDAE
....CHEUMATOPSYCHE 4
....HYDROPSYCHE 8
....SYMPHITOPSYCHE 16
...HYDROPTILIDAE
....LEUCOTRICHIA 16
...POLYCENTROPODIDAE
....NEURECLIPSIS 1

MOLLUSCA (MOLLUSCS)
..GASTROPODA
...BASOMMATOPHORA
...ANCYLIDAE
....FERRISSIA 6
...PLANORBIDAE
....GYRAULUS 2

PLATYHELMINTHES (FLATWORMS)
..TURBELLARIA
...TRICLADIDA
...PLANARIIDAE
....DUGESIA 50

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN

01594923 - LAUREL RN NR RED OAK, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)
NOV 06...	1030	7.1	541	3.1	--	2.2	--	110	100	2.0	99
FEB 19...	1330	38	297	3.0	11.0	5.4	10.3	59	--	1.5	74
MAY 14...	1315	11	604	2.8	22.0	16.6	8.8	120	120	2.1	104
JUL 01...	1300	5.2	731	2.6	--	14.2	--	150	150	--	--
AUG 05...	1415	4.1	915	3.1	23.0	22.4	23.0	170	170	3.2	159

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	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)
NOV 06...	24	11	3.0	6	.1	1.7	--	1.0	190	1.4	.1
FEB 19...	14	5.9	1.4	5	.1	1.1	.80	.00	91	.8	.1
MAY 14...	30	12	3.1	5	.1	1.9	1.4	.00	220	2.0	.2
JUL 01...	35	14	3.4	5	.1	2.1	1.6	.00	200	1.8	.2
AUG 05...	41	17	5.0	6	.2	2.6	1.9	.00	290	2.0	.3

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)	SOLIDS, VOLA- TILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 06...	18	305	266	.41	5.8	12	85	.26	12000	1100
FEB 19...	11	166	139	.23	17.0	17	46	1.1	7200	570
MAY 14...	20	365	304	.50	11.1	12	104	.28	10000	1200
JUL 01...	21	452	291	.61	6.3	14	149	.12	12000	1400
AUG 05...	25	533	397	.72	6.0	10	159	.04	8900	1600

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594926 - CHESTNUT RIDGE RN NR RED OAK, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)
NOV 06...	0930	1.7	168	5.9	3.0	4.0	--	69	63	.1	5.0
FEB 19...	1230	14	78	4.6	11.0	2.6	12.0	32	--	.2	10
MAY 14...	1215	2.2	157	5.8	25.0	14.7	9.3	60	35	.1	5.0
JUL 01...	1215	2.0	178	5.7	--	15.2	--	72	66	.1	5.0
AUG 05...	1330	.88	540	5.3	23.0	21.5	7.6	240	240	.1	5.0

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAR (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 06...	20	4.7	2.3	7	.1	1.5	--	6.0	62	2.0	.2
FEB 19...	8.5	2.6	.8	5	.1	.8	.60	1.0	26	2.8	<.1
MAY 14...	17	4.2	2.5	8	.1	1.3	1.0	25	51	2.0	<.1
JUL 01...	21	4.8	2.0	6	.1	1.7	1.0	6.0	73	1.6	<.1
AUG 05...	73	15	7.3	6	.2	3.6	2.7	2.0	250	3.5	.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- PENDE (MG/L)	SOLIDS, VOLA- TILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 06...	4.8	116	104	.16	.53	4	17	.58	160	310
FEB 19...	4.2	56	53	.08	2.1	8	9	1.3	130	500
MAY 14...	4.3	108	101	.15	.64	6	20	.80	90	360
JUL 01...	5.0	126	116	.17	.68	12	23	.56	220	510
AUG 05...	6.9	394	364	.54	.94	15	26	.40	220	1400

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594929 - DUTCH RUN AT RED OAK, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)
NOV 06...	1200	.60	120	4.9	9.5	5.3	10.3	48	45	.1	5.0
FEB 19...	1130	9.4	98	4.5	9.0	1.6	5.4	35	--	.2	10
MAY 14...	1045	1.1	114	4.9	21.0	16.4	8.4	42	41	.1	5.0
JUL 01...	1015	.96	127	5.3	--	18.2	--	49	45	--	--
AUG 05...	1230	.44	165	6.4	23.0	23.0	5.6	65	57	.1	5.0

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 06...	13	3.8	.9	4	.1	1.7	--	3.0	45	2.4	.1
FEB 19...	9.4	2.9	.7	4	.1	.8	.60	--	36	1.4	<.1
MAY 14...	11	3.5	1.0	5	.1	.8	.60	1.0	43	1.4	<.1
JUL 01...	13	3.9	.8	3	.1	.9	.70	4.0	36	1.4	.1
AUG 05...	18	4.8	1.5	5	.1	1.1	.80	8.0	61	2.0	<.1

DATE	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, 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)	SOLIDS, VOLA- TILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 06...	4.5	88	76	.12	.14	6	16	.21	630	1200
FEB 19...	4.7	66	--	.09	1.7	8	6	.93	260	890
MAY 14...	4.8	86	70	.12	.26	18	18	.32	870	1200
JUL 01...	5.2	96	67	.13	.25	14	25	.26	850	1300
AUG 05...	5.1	113	102	.15	.13	18	17	.14	1300	1200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594931 - NB POTOMAC R AT WILSON, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 16...	1145	65	588	3.7	.0	2.9	12.5	.3	17	0
AUG 25...	0930	14	2000	4.4	15.0	17.5	8.6	.8	41	0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	240	369	.50	64.8	2800	2600	180	400	20	380
AUG 25...	800	1810	2.5	68.4	1200	770	430	790	0	860

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594932 - SF SAND RN AT MOON RIDGE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)
NOV 04...	1230	.59	315	6.9	5.0	5.7	9.7	93	60	.0	.0
MAY 14...	1415	.75	183	6.3	27.0	16.7	8.4	69	44	.1	5.0
JUN 30...	1400	.99	206	6.7	--	17.0	--	90	68	--	--
AUG 12...	1330	--	678	6.8	23.0	19.8	--	240	220	--	--

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINEITY LAR (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 04...	29	4.9	28	39	1.3	2.0	--	33	100	2.2	.1
MAY 14...	21	4.0	6.1	16	.3	1.1	.80	25	56	1.4	<.1
JUN 30...	28	4.8	3.1	7	.1	1.3	1.0	22	65	1.1	<.1
AUG 12...	71	14	48	30	1.4	3.0	2.2	13	300	1.9	.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)	SOLIDS, VOLA- TILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 04...	4.0	210	193	.29	.33	25	21	.50	180	180
MAY 14...	3.7	122	111	.17	.25	14	26	.59	90	120
JUN 30...	4.7	146	123	.20	.39	17	29	.43	60	140
AUG 12...	7.4	463	457	.63	--	8	24	.34	130	1700

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594935 - NF SAND RN AT MOON RIDGE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	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)
NOV 05...	1240	.32	122	3.9	6.0	6.7	11.0	36	36	.3	15
FEB 18...	1600	9.5	83	3.5	10.0	1.8	8.8	29	--	.5	25
MAY 15...	1045	2.5	92	3.4	17.0	15.6	9.2	25	25	.3	15
JUN 30...	1345	1.3	56	--	24.0	19.6	7.0	--	--	--	--
AUG 12...	1220	.35	46	6.5	--	20.2	--	24	22	--	--

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	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)
NOV 05...	9.4	3.1	.5	3	.0	1.4	--	.00	45	2.6	.2
FEB 18...	7.3	2.5	.4	3	.0	.8	.60	.00	36	1.2	<.1
MAY 15...	6.6	2.0	.5	4	.0	.7	.50	.00	33	.8	<.1
JUN 30...	--	--	--	--	--	--	--	1.0	26	1.0	<.1
AUG 12...	6.4	1.9	.9	7	.1	.5	.40	2.0	21	.7	<.1

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, VOLATILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 05...	5.6	83	72	.11	.07	5	15	.31	1600	1300
FEB 18...	4.9	62	59	.08	1.6	0	6	.98	690	650
MAY 15...	4.1	62	51	.08	.42	21	27	.38	530	600
JUN 30...	--	50	--	.07	.18	42	9	.31	--	--
AUG 12...	4.4	47	39	.06	.04	36	18	.11	490	640

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594942 - SAND RN AT WILSON, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)
NOV 05...	0945	2.6	447	6.9	5.0	5.7	9.9	180	160	.1	5.0
MAY 14...	1700	3.3	345	6.3	27.0	18.5	7.9	150	120	.1	5.0
JUN 30...	1145	7.0	405	7.8	--	17.8	--	180	160	--	--
AUG 12...	1045	1.2	535	7.1	--	19.3	8.6	270	250	--	--

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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 05...	57	9.1	17	17	.6	2.7	--	17	190	2.8	.3
MAY 14...	46	7.3	4.5	6	.2	1.7	1.3	23	130	2.0	.1
JUN 30...	58	7.8	7.3	8	.2	1.7	1.3	19	150	1.5	.1
AUG 12...	89	12	8.4	6	.2	2.0	1.5	19	240	1.4	.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)	SOLIDS, VOLATILE, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 05...	4.5	318	296	.43	2.3	5	24	.41	80	460
MAY 14...	4.6	234	213	.32	2.1	18	29	.49	30	440
JUN 30...	4.6	283	245	.38	5.4	12	26	.41	<10	380
AUG 12...	5.7	409	372	.56	1.4	8	26	.23	140	480

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594960 - BUFFALO C AT BAYARD WV

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
DEC 16...	1330	15	583	4.4	.0	3.1	12.3	--	--
APR 07...	1530	17	121	3.9	18.0	12.4	9.8	--	--
JUN 18...	1500	28	64	3.2	26.0	18.0	--	--	--
AUG 25...	1130	2.0	2600	4.7	22.0	20.9	8.3	1600	1600

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 16...	.3	17	--	--	--	--	--	--	--
APR 07...	--	15	--	--	--	--	--	--	--
JUN 18...	.7	35	--	--	--	--	--	--	--
AUG 25...	1.5	67	630	18	5.9	1	.1	2.3	1.7

DATE	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 16...	0	270	--	--	--	437	--	.59	17.7
APR 07...	0	51	--	--	--	77	--	.10	3.6
JUN 18...	0	250	--	--	--	416	--	.57	30.9
AUG 25...	0	1700	2.4	.1	6.4	2680	2370	3.6	14.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594960 - BUFFALO C AT BAYARD WV--CONTINUED

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, TOTAL RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 25...	1	<1	<50	6	<1	20	6	<10	16	10

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PEN- DED 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, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PH)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PEN- DED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	2000	1900	150	--	--	--	340	30	310
APR 07...	1400	300	1100	--	--	--	320	50	270
JUN 18...	6100	4300	1800	--	--	--	330	0	330
AUG 25...	4100	2000	2100	15000	16	20	1600	0	1700

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SF) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 25...	220	<.2	<.01	1	<1	<1	230	26	31.0

01594965 - NYDEGGER RN AT GORMAN ,MD.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 17...	0800	5.9	91	6.2	-8.0	.3	13.4	.0	.0	14
AUG 25...	1330	.64	235	7.6	25.0	19.4	8.9	.0	.0	29

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TENS PER AC-FT)	SOLIDS, DIS- SOLVED (TENS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PEN- DED 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- PEN- DED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	24	55	.07	.88	190	150	40	190	20	170
AUG 25...	63	141	.19	.24	380	350	30	40	10	30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01594975 - GLADE RN AT STEYER, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 17...	0900	10	78	6.1	-8.0	.5	13.3	.0	.0	11
DATE	AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	19	51	.07	1.4	300	260	40	90	30	60

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01595225 - LAUREL RN AT RILEY RD. NR STEYER,MD.

DATE	TIME	STREAM- FLOW, INSTAN- TANECUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
DEC 16...	1445	11	134	6.1	.0	2.4	12.5	--	--
APR 07...	1400	12	161	6.5	13.0	8.3	10.9	--	--
JUN 18...	1000	13	183	6.7	18.0	13.6	--	--	--
AUG 25...	1730	.77	410	7.5	17.0	15.4	8.9	210	170

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 16...	.0	.0	--	--	--	--	--	--	--
APR 07...	.0	.0	--	--	--	--	--	--	--
JUN 18...	.0	.0	--	--	--	--	--	--	--
AUG 25...	.0	.0	58	16	1.2	1	.0	1.6	1.2

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 16...	11	44	--	--	--	87	--	.12	2.7
APR 07...	12	63	--	--	--	112	--	.15	3.6
JUN 18...	14	61	--	--	--	126	--	.17	4.4
AUG 25...	41	180	1.4	<.1	5.0	316	290	.43	.66

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 25...	1	<1	100	3	1	20	8	40	4	8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01595225 - LAUREL RN AT RILEY RD. NR STEYER, MD.--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D 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, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	240	150	90	--	--	--	110	20	90
APR 07...	290	270	20	--	--	--	130	50	80
JUN 18...	600	480	120	--	--	--	140	60	80
AUG 25...	1900	1900	20	12000	8	10	110	70	40

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01149)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 25...	3600	<.1	<.01	<1	<1	1	30	140	12.0

01595250 - LOSTLAND RN AT LOSTLAND RN RD NR TASKER CORNER, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 16...	1600	11	136	5.5	.0	2.6	12.5	.0	.0	4
AUG 26...	1900	1.4	340	7.5	18.0	16.0	9.0	.0	.0	8

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D 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- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	53	91	.12	2.7	300	220	80	280	20	260
AUG 26...	130	232	.32	.88	380	350	30	120	40	80

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01595275 - ABRAM C AT RTE 50 BRIDGE NR MT STORM WV

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)
DEC 15...	1630	23	380	3.3	-1.0	.8	12.0	.6	31	180

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 15...	264	.36	16.4	1900	1400	150	2900	0	3000

01595495 - WOLFDEEN RN AT KITZMILLER, MD

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)
DEC 17...	1300	4.7	86	5.0	-2.0	.6	13.3	2	34

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	57	.08	.72	130	80	50	140	10	130

01595550 - THREE FORKS RN AT VINDEEN, MD.

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 17...	1515	6.2	456	2.9	.0	1.6	12.9	2.0	80	0
AUG 26...	1700	1.2	1100	3.1	23.0	17.2	8.7	5.0	248	0

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	140	222	.30	3.7	13000	0	13000	600	540	60
AUG 26...	400	693	.94	2.3	36000	1000	35000	1800	0	1900

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01595900 - PINEY SWAMP RN AT HAMPSHIRE WV

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
DEC 18...	0930	3.0	758	3.0	3.0	1.2	13.9	--
APR 06...	1530	3.1	837	2.8	--	7.9	11.6	--
JUN 17...	1500	4.4	1150	2.7	25.0	17.5	--	--
AUG 24...	1500	.49	1725	3.0	25.0	16.1	8.7	650

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 18...	3.0	149	--	--	--	--	--	--	--
APR 06...	2.3	110	--	--	--	--	--	--	--
JUN 17...	3.0	149	--	--	--	--	--	--	--
AUG 24...	8.1	374	170	55	11	4	.2	2.9	2.2

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	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 SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 18...	0	380	--	--	--	547	.74	4.4
APR 06...	0	340	--	--	--	563	.77	4.7
JUN 17...	0	380	--	--	--	655	.89	7.8
AUG 24...	0	980	1.8	.3	33	1510	2.1	2.0

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 24...	1	<1	<50	3	<1	30	10	<10	80	23

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01595900 - PINEY SWAMP RN AT HAMPSHIRE WV--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 18...	22000	6000	16000	--	--	--	2500	0	2500
APR 06...	13000	2000	11000	--	--	--	2600	2600	30
JUN 17...	17000	6000	11000	--	--	--	2300	2100	220
AUG 24...	44000	3000	41000	33000	10	20	4300	0	4600

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 24...	230	<.1	<.01	<1	<1	<1	820	43	170

01597100 - MIDDLE F NR SWANTON, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DEC 18...	0915	9.1	50	6.2	1.5	.4	13.5	16	38

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 18...	.05	.93	420	420	0	10	0	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01597900 - AARON RN AT BLOOMINGTON, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 17...	1645	1.6	1250	3.2	-4.0	.2	14.0	1.3	61	0
AUG 27...	1415	--	2080	3.4	26.0	17.5	9.3	2.0	99	0

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	700	1050	1.4	4.5	3400	1200	2200	3900	100	3800
AUG 27...	1200	2210	3.0	--	420	120	300	8500	0	8800

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01598750 - WINEBRENNER RN AT MIDLOTHIAN,MD.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)
DEC 16...	0730	1.2	127	5.4	-1.0	.8	12.8	--
APR 07...	1415	3.5	135	4.6	18.0	11.7	--	--
JUN 18...	0945	3.9	245	3.1	18.0	14.2	9.2	--
AUG 26...	0900	.13	594	4.3	20.0	15.1	8.4	230

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 16...	.0	.0	--	--	--	--	--	--	--
APR 07...	.1	5.0	--	--	--	--	--	--	--
JUN 18...	1.0	50	--	--	--	--	--	--	--
AUG 26...	1.0	52	57	22	16	13	.5	2.5	1.9

DATE	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 16...	5	40	--	--	--	77	.10	.25
APR 07...	2	41	--	--	--	80	.11	.75
JUN 18...	0	100	--	--	--	204	.28	2.2
AUG 26...	2	200	53	.2	12	429	.56	.15

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 26...	1	<1	100	4	<1	20	5	20	11	16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01598750 - WINEBRENNER RN AT MIDLOTHIAN, MD.--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	360	160	200	--	--	--	970	30	940
APR 07...	340	250	90	--	--	--	1200	100	1100
JUN 18...	800	450	350	--	--	--	3900	0	3900
AUG 26...	410	280	130	10000	9	20	6700	0	9200

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, FM BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 26...	800	<.1	<.01	<1	<1	<1	20	70	240

01598770 - GEORGES CR AT OCEAN, MD

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 16...	0930	2.8	524	6.7	-2.0	.0	7.7	.0	.0	62

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	56	293	.40	2.2	470	230	240	620	10	610

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01598920 - NEFF RN AT MIDLAND, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 16...	1030	3.2	248	5.2	.0	1.3	12.8	.0	.0	5
AUG 26...	1100	.28	555	6.7	23.0	20.7	7.6	.0	.0	25

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	83	154	.21	1.3	560	480	80	590	390	200
AUG 26...	220	418	.57	.32	200	170	30	720	200	520

01598870 - KOONTZ RN AT LONACONING, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 16...	1130	2.9	249	6.8	.5	1.9	12.7	.0	.0	21
AUG 26...	1300	.50	795	7.1	24.0	18.8	6.8	.0	.0	69

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	84	159	.22	1.2	110	100	10	270	30	240
AUG 26...	340	662	.90	.00	220	200	20	280	50	230

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01598980 - MILL RN AT MORRISON, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
DEC 16...	1300	5.6	380	4.3	--	2.4	12.8	--
APR 07...	1230	6.6	510	3.8	13.0	10.4	--	--
JUN 18...	1145	6.4	643	3.1	20.0	15.2	9.2	--
AUG 26...	1445	.71	1780	2.9	25.0	18.0	8.4	950

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 16...	.3	15	--	--	--	--	--	--	--
APR 07...	.4	19	--	--	--	--	--	--	--
JUN 18...	1.0	50	--	--	--	--	--	--	--
AUG 26...	4.0	199	230	90	2.0	0	.0	2.1	1.6

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 16...	0	180	--	--	--	266	.36	4.0
APR 07...	0	240	--	--	--	354	.48	6.3
JUN 18...	0	320	--	--	--	541	.74	9.4
AUG 26...	0	770	1.8	.3	16	1830	2.5	3.5

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 26...	1	<1	<50	5	<1	20	7	10	35	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01598980 - MILL RN AT MORRISON, MD--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	2800	2800	50	--	--	--	480	0	500
APR 07...	3400	3200	220	--	--	--	630	90	540
JUN 18...	8600	5800	2800	--	--	--	1300	100	1200
AUG 26...	27000	11000	16000	46000	8	20	2300	0	2500

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS AG) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 26...	460	<.1	<.01	<1	<1	1	320	29	32.0

01599600 - NEW C AT KEYSER WV

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LINITY FIELD (MG/L AS CAC03)
DEC 16...	1600	6.3	248	7.5	3.0	2.2	13.1	.0	.0	79

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 16...	38	159	.22	2.7	90	70	20	20	10	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01599800 - MILL RN AT RAWLINGS, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LILITY FIELD (MG/L AS CACO3)
DEC 16...	1000	.63	148	7.0	.0	.8	14.6	.0	.0	49

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 16...	19	93	.13	.16	80	70	10	10	0	10

01600500 - WARRIOR RN AT CRESAPTOWN, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LILITY FIELD (MG/L AS CACO3)
DEC 16...	0900	1.7	239	7.2	-1.0	2.0	14.0	.0	.0	79

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 16...	26	143	.19	.66	100	100	0	10	0	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981.

POTOMAC RIVER BASIN--CONTINUED

01601100 - MILLS C AT ELLERSLIE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
DEC 16...	1630	95	103	6.7	1.0	.1	15.8	--	--
APR 06...	1130	180	80	7.3	4.0	9.4	--	--	--
JUN 17...	1300	219	77	6.7	27.0	20.9	9.6	--	--
AUG 25...	1700	5.9	176	8.0	26.0	23.5	9.1	.83	25

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 16...	.0	.0	--	--	--	--	--	--	2
APR 06...	.0	.0	--	--	--	--	--	--	16
JUN 17...	.0	.0	--	--	--	--	--	--	20
AUG 25...	.0	.0	27	3.9	3.7	9	.2	1.7	57

DATE	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)
DEC 16...	19	--	--	--	58	--	.08	14.9
APR 06...	16	--	--	--	52	--	.07	25.3
JUN 17...	14	--	--	--	60	--	.08	35.5
AUG 25...	19	4.8	<.1	3.2	122	98	.17	1.9

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	CORALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 25...	2	<1	100	1	<1	<10	6	10	3	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01601100 - WILLS C AT ELLERSLIE, MD--CONTINUED

DATE	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, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RFOV. 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)
DEC 16...	100	90	10	--	--	--	10	0	10
APR 06...	80	70	10	--	--	--	20	10	10
JUN 17...	250	230	20	--	--	--	30	10	20
AUG 25...	200	170	30	6700	1	20	30	20	10

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 25...	470	<.1	<.01	<1	<1	<1	30	63	14.0

01601280 - JENNINGS RN AT BARRELVILLE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 15...	1630	8.5	393	6.3	-2.0	.8	14.4	.0	.0	11

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 15...	130	250	.34	5.7	380	370	10	420	50	370

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01601300 - NB JENNINGS RN AT BARRELVILLE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 15...	1530	6.6	176	6.6	-1.0	.1	14.8	.0	.0	34
DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 15...	52	130	.18	2.3	280	260	20	50	0	50

01601420 - HOFFMAN DRAINAGE TUNNEL AT CLARYSVILLE MD.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 18...	1145	9.3	992	5.2	1.0	11.0	8.4	2.0	99	66
DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 18...	400	720	.98	18.1	6800	2800	4000	3100	300	2800

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

POTOMAC RIVER BASIN--CONTINUED

01601490 - BRADDOCK RN AT NARROWS PARK, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 16...	1800	13	736	7.0	2.0	4.0	13.6	.0	.0	59
AUG 25...	1530	24	848	7.8	26.0	17.2	9.0	.0	.0	79

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 16...	300	589	.80	20.7	290	290	0	830	120	710
AUG 25...	350	707	.96	45.8	1500	1500	20	730	100	630

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN

03075340 - YOUGHIOGHENY R AT UNDERWOOD RD NR CRELLIN, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
DEC 17...	1130	43	50	5.8	-6.0	1.3	12.7	--	--
APR 07...	1700	48	38	5.9	15.0	9.6	10.6	--	--
JUN 18...	1630	83	46	6.2	24.5	17.8	--	--	--
AUG 27...	0845	4.2	110	7.4	15.0	17.0	7.3	41	8.0

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (MG/L AS K40)
DEC 17...	.0	.0	--	--	--	--	--	--	--
APR 07...	.0	.0	--	--	--	--	--	--	--
JUN 18...	.0	.0	--	--	--	--	--	--	--
AUG 27...	.0	.0	13	2.1	2.4	11	.2	1.6	1.2

DATE	ALKA- LINITY FIELD (MG/L AS CAC03)	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)
DEC 17...	11	8.0	--	--	--	33	--	.04	3.8
APR 07...	10	8.4	--	--	--	30	--	.04	3.9
JUN 18...	14	7.0	--	--	--	45	--	.06	10.1
AUG 27...	41	5.3	3.5	<.1	2.9	62	51	.08	.70

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CR)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 27...	1	<1	100	2	<1	10	2	<10	3	3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--CONTINUED

03075340 - YOUGHIOGHENY R AT UNDERWOOD RD NR CRELLIN, MD--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	360	220	140	--	--	--	50	10	40
APR 07...	650	560	90	--	--	--	50	20	30
JUN 18...	730	500	230	--	--	--	50	10	40
AUG 27...	790	500	290	3500	9	<10	70	0	80

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 27...	300	<.1	<.01	<1	<1	2	10	22	4.00

03075495 - L YOUGHIOGHENY R AT 3RD ST AT OAKLAND, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LINITY FIELD (MG/L AS CAC03)
DEC 17...	1245	44	85	6.0	-4.0	.9	12.9	.0	.0	16
DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	12	62	.08	7.4	620	460	160	110	10	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--CONTINUED

03075550 - HERRINGTON C AT HERRINGTON MANOR RD NR OAKLAND, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LINITY FIELD (MG/L AS CACO3)
DEC 17...	1530	15	23	4.2	-6.0	1.6	12.5	.1	3.8	2
AUG 27...	1130	2.5	32	6.0	22.0	18.2	8.0	.1	5.0	5
DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 17...	8.6	17	.02	.69	330	170	160	140	0	140
AUG 27...	7.6	30	.04	.20	580	380	200	90	0	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--CONTINUED

03075900 - CHERRY C NR MCHENRY, MD

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
DEC 17...	1400	22	159	3.8	-5.0	.6	13.3	--
APR 08...	0900	18	120	3.4	15.0	8.0	11.0	--
JUN 19...	0815	19	106	3.4	20.0	17.3	--	--
AUG 27...	1300	1.8	190	4.2	24.0	17.0	8.7	57

DATE	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
DEC 17...	.2	7.2	--	--	--	--	--	--	--
APR 08...	.2	9.0	--	--	--	--	--	--	--
JUN 19...	.3	10	--	--	--	--	--	--	--
AUG 27...	.2	10	14	5.4	1.0	4	.1	1.0	.70

DATE	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
DEC 17...	0	60	--	--	--	100	.14	5.9
APR 08...	0	41	--	--	--	70	.10	3.4
JUN 19...	0	43	--	--	--	93	.13	4.8
AUG 27...	0	65	1.7	<.1	4.8	102	.14	.50

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU)
AUG 27...	1	<1	100	2	<1	10	1	<10	3	1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--CONTINUED

03075900 - CHERRY C NR MCHENRY, MD--CONTINUED

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	IRON, FM BOT- TOM MA- TERIAL (UG/G AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	400	150	250	--	--	--	1200	0	1200
APR 08...	470	190	280	--	--	--	1200	620	580
JUN 19...	2400	2000	450	--	--	--	840	20	820
AUG 27...	930	610	320	2500	7	<10	1600	0	1600

DATE	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, IN BOT- TOM MA- TERIAL (UG/G) (01148)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	COAL IN BOTTOM MATE- RIAL (GM/KG) (82031)
AUG 27...	140	<.1	<.01	<1	<1	1	70	0	4.00

03076700 - BUFFALO RN NR FRIENDSVILLE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CAC03)	ALKA- LITY FIELD (MG/L AS CAC03)
DEC 17...	1030	18	90	6.4	-5.0	.0	13.4	.0	.0	0

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 17...	20	56	.08	2.7	120	110	10	50	20	30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONONGAHELA RIVER BASIN--CONTINUED

03077925 - NB CASSELMAN R NR GRANTSVILLE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 17...	1600	31	92	5.8	-6.0	.0	--	.0	.0	3
AUG 27...	1800	3.2	132	7.0	28.0	22.6	8.0	.0	.0	6

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 17...	19		42	.06	3.5	270	180	90	200	10	190
AUG 27...	32		77	.10	.67	490	310	180	40	0	40

03077975 - BIG SHADE RN AT GRANTSVILLE, MD

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	ALKA- LITY FIELD (MG/L AS CACO3)
DEC 17...	1500	8.2	124	6.3	-5.0	.5	12.9	.0	.0	13

DATE	TIME	SULFATE DIS- SOLVED (MG/L AS SO4)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	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 17...	34		87	.12	1.9	240	200	40	180	0	180

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

BACK RIVER BASIN

01585401 - BACK R AT EDGEMERE.MD

DATE	TIME	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- ETHYL- ENE TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	CHLORO- OFORM TOTAL (UG/L)
JAN 08...	1300	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 01...	1250	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,3-DI- CHLORO- PROPANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)
JAN 08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JUL 01...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLOURO- METHANE TOTAL (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)
JAN 08...	.00	.00	.00	.00	.00	.00	.0	.00	.00
JUL 01...	.00	.00	.00	.00	.00	.00	5.0	.00	.00

POTOMAC RIVER BASIN

01652590 - POTOMAC R AT ALEXANDRIA, VA.

[illegible]

DATE	METHYL- ENE CHLORO- RIDE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLOURO- METHANE TOTAL (UG/L)	VINYL CHLORO- RIDE TOTAL (UG/L)
JAN 07...	.00	.00	.00	.00	.00	.00	.0	.00	.00
JUN 26...	.00	.00	.00	.00	.00	.00	.0	.00	.00

GROUND-WATER RECORDS

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, 67.40 ft (20.54 m) below land-surface datum, May 5, 1970; lowest, 143.9 ft (43.86 m) below land-surface datum, July 25, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.7	133.6	129.0	125.2	125.6	124.6	127.4	128.0	131.2	137.3	141.6	141.6
10	137.0	132.6	129.0	126.2	125.5	124.4	128.1	127.5	133.2	137.7	140.5	140.2
15	135.5	132.1	129.7	126.0	124.8	124.5	127.8	126.0	135.3	140.8	141.0	139.8
20	134.6	131.3	129.3	125.1	124.2	124.4	126.4	126.9	136.7	142.6	140.7	139.7
25	134.9	130.2	127.9	125.3	123.8	125.6	126.6	128.5	137.2	143.9	140.1	140.1
EOM	134.3	129.1	126.1	125.3	124.6	126.1	127.6	129.9	137.1	143.2	141.2	139.1

WTR YEAR 1981 MAX 123.6 FEB 24, 1981 MIN 143.9 JUL 25, 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 current year.

PERIOD OF RECORD.--August 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 81.47 ft (24.83 m) below land-surface datum, Apr. 8, 1980; lowest, 131.4 ft (40.05 m) below land-surface datum, Sept. 2, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.5	111.4	108.9	109.3	112.8	111.9	.....	110.6	111.0	108.5	110.3	111.5
10	113.2	110.3	109.2	110.6	112.3	111.7	.....	109.6	111.0	110.7	111.3	110.5
15	112.4	109.4	110.2	111.0	110.6	.....	.....	110.2	111.6	111.1	112.2	111.8
20	111.5	110.4	110.5	112.0	111.3	113.7	109.0	110.2	111.4	112.3	112.6	111.6
25	111.4	109.7	109.0	110.4	111.1	.....	110.7	108.7	111.1	112.5	112.1	.....
EOM	112.2	106.3	109.2	112.2	111.8	.....	111.1	109.8	110.6	108.4	111.8	.....

WTR YEAR 1981 MAX 105.7 DEC 1, 1980 MIN 114.9 OCT 1, 1980

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, 9.56 ft (2.91 m) below land-surface datum, Oct. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	6.95	JAN 22	7.36	FEB 25	7.66	APR 27	7.58	JUN 15	7.75	AUG 28	8.77
NOV 25	6.86	JAN 27	7.59	MAR 26	7.81	MAY 14	7.53	JUN 29	7.82	SEP 28	8.50
DEC 24	7.21	FEB 17	7.60	APR 15	7.62	MAY 26	7.73	JUL 30	8.33		

GROUND-WATER LEVELS

467

DELAWARE--Continued

KENT COUNTY--Continued

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	14.57	JAN 12	14.46	FEB 19	14.70	MAY 5	12.66	JUL 16	13.31	SEP 30	15.74
DEC 15	14.12	FEB 3	14.68	APR 7	13.29	JUN 10	12.71	AUG 24	14.07		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	9.37	JAN 13	7.37	FEB 17	6.01	MAY 7	4.27	JUL 13	6.48	AUG 31	8.32
DEC 17	6.73	FEB 3	7.55	APR 7	4.13	JUN 9	4.13	AUG 4	7.69		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	12.90	DEC 4	14.60	FEB 9	15.40	MAR 12	15.40	APR 16	15.10	JUN 11	14.00
NOV 6	13.90	JAN 20	15.10	FEB 26	15.80	MAR 27	15.50	MAY 8	15.00	JUL 2	14.15

GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

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 current year.

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, 39.30 ft (11.98 m) below land-surface datum, Feb. 2, 1976; lowest, 61.17 ft (18.64 m) below land-surface datum, Sept. 24, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.90	46.70	55.77	.....	54.30	55.25	55.78	57.00	.....	.....	59.85	60.02
10	46.33	53.03	55.15	.....	55.30	54.95	57.17	57.70	.....	59.15	59.55	59.90
15	46.55	54.75	56.02	53.22e	55.65	56.05	57.09	57.48	59.12	58.95	59.37	60.25
20	46.50	55.00	.....	52.65	54.55	55.57	56.35	58.10	.....	59.55	59.75	60.46
25	45.10	55.35	.....	53.05	56.15	56.96	57.30	.....	.....	59.60	60.00	60.50
EOM	46.80	56.35	.....	53.30	56.10	56.85	57.15	.....	.....	59.80	59.55	59.75

WTR YEAR 1981 MAX 44.87 OCT 25, 1980 MIN 61.17 SEP 24, 1981

e Estimated

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 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 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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	8.01	JAN 20	9.14	APR 8	8.97	JUN 19	8.75	AUG 3	9.33	SEP 1	9.80
DEC 18	8.71	FEB 24	8.79	MAY 11	8.69	JUL 9	8.98	AUG 17	9.55		

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, 69.70 ft (21.24 m) below land-surface datum, Jan. 1, 1971; lowest, 80.64 ft (24.58 m) below land-surface datum, Sep. 25, 26, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	80.10	79.78	.....	80.23	80.28	.....	80.07	80.13	80.08	.....	80.41	80.54
10	80.05	79.79	.....	80.17	80.27	.....	80.21	80.19	80.03	.....	80.52	80.58
15	80.16	80.00	.....	80.07	80.33	.....	80.26	80.07	.....	.....	80.41	80.53
20	79.97	80.09	80.28	80.08	79.80	.....	.....	80.08	.....	.....	80.40	40.46
25	79.53	79.88	80.19	80.13	.....	80.16	79.95	80.13	.....	80.52	80.48	80.64
EOM	79.90	.....	80.06	80.29	.....	80.12	80.07	80.11	.....	80.57	80.50	80.63

WTR YEAR 1981 MAX 75.53 OCT 25, 1980 MIN 80.64 SEP 25, 26, 1981

GROUND-WATER LEVELS

469

DELAWARE--Continued

SUSSEX COUNTY--Continued

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	13.49	JAN 14	14.16	FEB 19	12.95	MAY 5	12.55	JUL 13	12.95	AUG 18	13.18
DEC 15	12.87	FEB 3	13.20	APR 7	12.47	JUN 16	12.65	AUG 4	13.29		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	12.90	JAN 20	12.90	MAR 31	12.17	JUN 17	11.74	AUG 20	12.87		
DEC 9	12.59	FEB 26	12.73	MAY 6	11.56	JUL 20	12.37	SEP 29	13.37		

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 current year.

PERIOD OF RECORD.--January 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.01 ft (1.53 m) below land-surface datum, Mar. 7, 1979; lowest, 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 1980 TO SEPTEMBER 1981

NOON VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.43	10.60	10.26	10.48	10.65	9.36	9.55	9.25	9.00	10.02	11.05	11.08
10	11.43	10.54	10.25	10.50	10.59	9.37	9.32	9.35	9.20	10.20	11.18	11.28
15	11.46	10.48	10.25	10.53	10.41	9.39	9.26	9.33	9.37	10.41	11.18	11.45
20	11.35	10.41	10.35	10.58	10.27	9.47	9.23	8.63	9.56	10.67	10.85	11.03
25	11.10	10.36	10.37	10.62	9.75	9.62	9.22	8.72	9.72	10.92	10.87	10.99
EOM	10.74	10.30	10.41	10.67	9.54	9.69	9.26	8.83	9.93	10.93	10.98	11.05
WTR YEAR 1981	MAX	8.59	MAY 22, 1981	MIN	11.47	OCT 1, 2, 3, 17, 18, 1980						

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, 12.18 ft (3.71 m) below land-surface datum, Oct. 16, 1962, Sept. 8, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	11.71	JAN 20	10.00	FEB 27	6.56	MAY 4	7.48	JUL 21	10.20	AUG 26	10.56
DEC 9	9.35	FEB 6	9.76	MAR 31	7.85	JUN 16	8.21	AUG 19	10.30		

GROUND-WATER LEVELS

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	5.68	DEC 17	4.26	FEB 25	2.75	MAY 6	3.65	JUL 22	4.96		
NOV 10	5.95	JAN 21	5.21	APR 6	4.73	JUN 10	3.12	SEP 9	4.17		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	79.81	DEC 11	77.80	FEB 25	75.98	APR 20	74.14	JUL 24	77.32	SEP 8	76.76
NOV 26	79.28	JAN 28	77.90	MAR 25	75.25	JUN 24	76.24	AUG 20	76.49		

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, 49.22 ft (15.00 m), June 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	47.03	DEC 11	47.07	FEB 25	47.36	APR 20	47.52	JUL 24	48.83	SEP 8	49.36
NOV 26	46.94	JAN 28	47.38	MAR 25	47.73	JUN 24	48.65	AUG 20	49.51		

GROUND-WATER LEVELS

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MARYLAND--Continued

BALTIMORE CITY

391617076322001. Local number, 2SSE-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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	63.68	DEC 18	62.47	FEB 9	60.09	APR 20	61.24	JUL 2	65.54	SEP 11	66.88
NOV 26	61.72	JAN 6	60.12	MAR 19	63.35	JUN 9	62.51	JUL 31	59.18		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	19.66	DEC 10	20.32	JAN 26	20.67	APR 16	19.59	JUL 7	18.29		
NOV 13	20.15	JAN 5	20.55	MAR 5	19.76	JUN 1	18.86	AUG 21	19.05		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	55.66	DEC 9	52.70	JAN 5	53.26	MAR 3	51.99	JUN 2	52.40		
NOV 12	54.73	JAN 5	53.26	JAN 20	52.15	APR 21	52.56	AUG 25	58.18		

GROUND-WATER LEVELS

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	70.14	DEC 8	72.64	JAN 20	74.07	APR 13	72.21	JUL 6	66.75		
NOV 13	72.24	JAN 5	73.59	MAR 2	73.64	JUN 1	69.15	AUG 17	67.24		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	73.62	DEC 11	72.37	JAN 21	74.14	APR 23	73.02	JUL 14	72.57		
NOV 14	72.96	JAN 6	73.09	MAR 4	74.02	JUN 3	72.63	AUG 20	71.39		

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	76.98	JAN 6	92.10	MAR 3	72.61	MAY 6	77.79	JUL 13	77.49	SEP 21	79.23
DEC 18	72.55	FEB 6	75.19	APR 6	77.11	JUN 11	73.14	AUG 17	78.40		

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, 9.77 ft (2.98 m) below land-surface datum, Sept. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	7.58	JAN 23	8.36	FEB 13	8.18	APR 15	7.41	MAY 27	7.41	JUL 27	7.74
NOV 24	7.24	27	8.33	25	7.84	27	7.47	JUN 15	7.25	AUG 27	9.20
DEC 23	7.60	FEB 4	8.25	MAR 26	7.76	MAY 14	7.36	29	7.37	SEP 28	9.77

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	9.93	DEC 9	10.25	JAN 27	10.70	APR 17	10.19	JUL 1	9.71		
NOV 19	11.02	JAN 5	11.42	MAR 2	10.22	JUN 2	9.91	AUG 24	9.67		

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, 15.44 ft (4.71 m) below land-surface datum, Aug. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	13.46	JAN 22	13.90	FEB 7	14.12	APR 15	13.13	MAY 27	13.38	JUL 29	13.57
NOV 25	13.15	23	13.90	17	13.78	27	13.66	JUN 15	13.58	AUG 28	15.44
DEC 29	13.67	27	14.00	25	11.70	MAY 14	13.62	29	14.33	SEP 29	15.37
JAN 16	12.71	FEB 4	13.57	MAR 26	13.32						

GROUND-WATER LEVELS

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	35.30	JAN 20	35.96	MAY 7	29.24	JUN 15	31.20	JUL 27	30.14	SEP 9	33.31
NOV 10	35.60	FEB 26	33.45	JUN 10	31.39	29	29.34	AUG 27	32.48	28	34.10
DEC 17	35.41	APR 6	31.73								

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 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	8.90	JAN 6	8.70	FEB 27	6.75	MAY 5	7.68	JUL 17	8.83	AUG 26	8.19
DEC 18	8.68	FEB 5	8.94	APR 2	7.67	JUN 16	8.08	27	8.97	SEP 28	8.95

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

LOCAL IDENT- I- FIER	STATION	NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
CALVERT COUNTY, MARYLAND										
FE 27 731219	382233076243301	124PNPN	80-08-07	465	135.00	289	7.5	19.0	0	
DB 57 731106	383114076365001	124PNPN	80-08-08	315	160.00	270	7.3	21.0	0	

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HARD- NESS (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)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY FIELD (MG/L AS CACO3)
FE 27 731219	80-08-07	79	19	7.7	22	33	1.1	14	10	130
DB 57 731106	80-08-08	120	37	6.9	2.6	4	.1	8.1	6.0	130

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 SI02)	SOLIDS, RESIDUE AT 180 DEG C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
FE 27 731219	80-08-07	12	.8	.5	44	190	198	.02	.020	80
DB 57 731106	80-08-08	5.2	1.8	.3	49	184	189	.09	.050	210

LOCAL IDENT- I- FIER	DATE OF SAMPLE	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FE 27 731219	80-08-07	60	20	10	10	0
DB 57 731106	80-08-08	80	130	10	10	0

Geologic unit (aquifer):

124PNPN - Piney Point Formation

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIFR	STATION	NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLF	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	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)
KENT COUNTY, DELAWARE										
JD 42 14	390607075331500	112CLMB	81-06-16	39	40	45.00	45	2.9	175	
KC 44 1	390116075365300	112CLMB	81-06-16	30	30	61.00	25	4.3	63	
KD 32 3	390209075331800	112CLMB	81-06-16	26	26	42.00	30	1.9	158	

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 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
JD 42 14	81-06-16	4.5	15.0	3.2	60	53	9.2	9.1	5.9	17
KC 44 1	81-06-16	5.3	14.5	1.8	7	500	1.9	.6	7.1	65
KD 32 3	81-06-16	5.0	16.5	5.5	52	50	14	4.1	7.2	23

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINITY LAR (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)
JD 42 14	81-06-16	.3	1.5	1.1	7.0	29	11	<.1	19	120
KC 44 1	81-06-16	1.2	.8	.60	13	4.5	2.7	<.1	20	63
KD 32 3	81-06-16	.4	1.5	1.1	2.0	17	11	<.1	20	119

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JD 42 14	81-06-16	114	5.7	60	60
KC 44 1	81-06-16	46	.03	90	8
KD 32 3	81-06-16	100	5.5	90	8

Geologic unit (aquifer):

112CLMB - Columbia Group

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
ANNE ARUNDEL COUNTY, MARYLAND									
EE 68 742910	385320076331501	125AQUI	81-05-14	35.00	170	170	150	55.00	720
EF 18	385400076294201	125AQUI	81-06-09	--	100	100	90	10.00	120
BALTIMORE									
AC 150	394026076401601	300PRTB	81-08-10	--	SP	--	--	520.00	--
DC 18	392943076135601	300CCKV	81-08-10	--	SP	--	--	550.00	--
DD 297	392938076380401	300LCRV	81-08-10	--	SP	--	--	440.00	--
DE 1	392631076304801	300CCKV	81-08-10	--	SP	--	--	240.00	--
GC 25 738100	391319076404001	217PTXN	81-06-11	1.00	90	90	80	8.00	120
CAROLINE									
AD 17	390756075472901	112PCPC	81-05-07	6.78	30	20	20	75.00	45
BD 56	390042075495601	112PCPC	81-05-05	--	39	39	34	50.00	60
CC 54 731613	385514075520301	112PCPC	81-05-06	10.40	45	45	35	50.00	60
EC 25	384630075524801	112PCPC	81-05-06	8.40	28	28	18	58.00	60
EE 15	384640075444001	112PCPC	81-05-11	--	40	40	30	45.00	30
FB 27 731447	384324075585401	112PCPC	81-05-11	--	30	30	22	30.00	30
CARROLL									
CC 111	393220077063301	300WKFD	81-08-14	--	SP	--	--	450.00	--
DC 165	392818077065801	300PRTB	81-08-14	--	SP	--	--	700.00	--
CECIL									
CC 40	393501076044901	300JMSR	81-08-13	--	SP	--	--	180.00	--
ED 15	392409075581201	112PCPC	81-05-12	--	48	48	--	80.00	20
CHARLES									
RF 145 732889	383558076524501	211MGTY	81-05-13	--	750	592	442	200.00	4440
CH 14 732790	383051076404101	125AQUI	81-03-10	--	460	460	370	5.00	1380
FE 5 732765	381803076550801	217PPSC	81-01-21	--	890	857	520	10.00	1410
DORCHESTER									
AG 8	384027075533301	112PCPC	81-05-06	--	55	45	38	30.00	--
RG 63	383718075545801	112PCPC	81-05-07	--	46	40	40	40.00	30
BG 65	383540075524402	112PCPC	81-05-07	--	110	100	93	44.00	--
BI 12 730890	383523075435301	112PCPC	81-05-12	--	80	80	70	27.00	30
CE 88	383401076032001	217PTXN	81-02-28	53.80	3340	3213	3183	4.40	--
		217PTXN	81-03-26	-23.60	3340	2839	2829	4.40	--
		217PTXN	81-04-16	-30.50	3340	2650	2644	4.40	--
		217PTXN	81-05-28	-16.50	3340	2283	2274	4.40	--
		217PPSC	81-06-23	-10.13	3340	1828	1818	4.40	--
		217PPSC	81-07-31	18.30	3340	1427	1418	4.40	--
CG 32	383003075504801	112PCPC	81-08-25	--	15	15	12	10.00	--
CH 28 731132	383206075470301	112PCPC	81-05-12	--	70	70	60	25.00	45
DM 20	382919075493101	112PCPC	81-08-24	6.65	12	12	7.0	10.00	60
DM 21	382919075493102	112PCPC	81-08-24	--	30	30	25	10.00	45
DM 13	382922075490601	112PCPC	81-08-25	12.22	17	17	12	5.00	60
DM 25	382922075490602	112PCPC	81-08-25	13.58	55	55	48	10.00	45
GARRETT									
FA 34 732145	391539079254604	321CNMG	81-05-07	--	115	115	96	2618.00	--
FA 35	391619079252701	321CNMG	81-05-15	--	--	--	--	2630.00	--
		321CNMG	81-06-30	--	--	--	--	2630.00	--
FR 23 732176	391530079244402	321CNMG	81-04-22	--	495	495	460	2530.00	--
FB 25 732178	391530079244404	321CNMG	81-04-24	--	180	180	120	2530.00	--
FB 30 732185	391513079243605	321CNMG	81-05-05	--	385	85	22	2755.00	--
BALTIMORE CITY									
3N3E 3	392006076343501	300LCRV	81-08-13	--	SP	--	--	140.00	--
3S3E36 730040	391548076341301	217PTXN	81-03-20	24.47	230	230	225	15.60	60
3S3E37 730039	391539076341801	217PTXN	81-03-13	15.52	115	149	129	9.05	645
3S3E38 730042	391548076341303	217PTXN	81-03-26	20.69	114	114	109	15.60	60
3S3E39 730041	391548076341304	217PTXN	81-03-20	20.58	147	147	142	15.60	60
3S3E40 730043	391548076341302	110QRNR	81-04-29	5.15	20	20	15	15.57	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
HARFORD										
BC 30	393757076240101	300WSCK	81-08-13	--	SP	--	--	--	290.00	--
BF 1	393601076075401	300PRDP	81-08-13	--	SP	--	--	--	20.00	--
HOWARD										
BD 15	391532076563301	300CCKV	81-08-14	--	SP	--	--	--	450.00	--
KENT										
CC 5	391337076083901	112PCPC	81-05-06	--	29	29	--	--	82.00	10
MONTGOMERY										
FF 18	385946077095901	--	81-08-19	--	SP	--	--	--	180.00	--
FG 9	385824077001901	--	81-08-19	--	SP	--	--	--	200.00	--
QUEEN ANNES										
RF 15	391050075585701	112PCPC	81-05-06	20.70	25	25	.0	.0	63.00	30
BG 56	391104075530601	112PCPC	81-04-09	--	--	25	15	15	45.00	--
DE 10	390251076005101	112PCPC	81-05-08	10.10	25	25	.0	.0	63.00	30
EB 110	385751076171603	217PTXN	80-11-19	--	2547	2475	2413	2413	13.00	1440
EE 26	385600076013201	112PCPC	81-05-04	11.70	30	25	15	15	58.00	60
TALBOT										
BF 9	385416075573001	112PCPC	81-05-07	22.00	24	22	.0	.0	60.00	30
BF 53	385040075591201	112PCPC	81-05-07	6.46	20	15	.0	.0	55.00	5
CE 32	384527076310101	112PCPC	81-05-06	17.50	30	30	.0	.0	70.00	20
WASHINGTON										
AK 3	394040077341901	377TMSN	81-08-27	--	SP	--	--	--	650.00	--
DI 6	392915077413301	377TMSN	81-08-25	--	SP	--	--	--	370.00	--
WICOMICO										
BF 64	383742075333701	112PCPC	81-05-12	9.66	98	98	88	88	52.00	20
BF 69	382517075334901	112PCPC	81-05-13	11.00	84	74	64	64	43.00	120
BF 70	382517075334902	112PCPC	81-05-13	11.70	30	25	15	15	43.00	120
CE 13	382150075352101	112PCPC	81-05-13	3.50	55	--	--	--	7.00	60
CG 53	382331075253901	112PCPC	81-05-13	21.78	98	98	88	88	60.00	20
DE 72	381947075365301	112PCPC	81-05-13	--	58	58	53	53	30.00	30
WORCESTER										
AF 29	382549075104001	112PCPC	81-05-14	5.80	80	80	60	60	15.00	60
BG 50	382016075065301	112PCPC	81-05-13	7.68	80	80	70	70	10.00	20
BG 51	382017075233301	112PCPC	81-05-13	7.31	90	90	80	80	20.00	20
CG 45	381731075084601	112PCPC	81-05-12	--	94	94	84	84	60.00	30
DE 46	381158075151301	112PCPC	81-05-13	4.98	64	64	54	54	10.00	20

Geologic unit (aquifer):

110QRNR - Quaternary System
 112PCPC - Pleistocene-Pliocene Series
 125AQUI - Aquia Formation
 211MGTY - Magothy Formation
 217PPSC - Patapsco Formation
 217PTXN - Patuxent Formation
 300CCKV - Cockeysville Marble
 300JMSR - James Run Gneiss

300LCRV - Loch Raven Schist
 300PRDP - Port Deposit Gneiss
 300PRTB - Prettyboy Schist
 300WKFD - Wakefield Marble
 300WSCK - Wissahickon Formation
 321CNMG - Conemaugh Formation
 377TMSN - Tomstown Dolomite

SP - Spring

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	FLOW RATE, INSTAN- TANEOUS (GPM)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (NTU)	DENSITY (GM/ML AT 20 C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CAC03)
ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED										
EE 68 742910	81-05-14	125	375	7.5	15.0	3	--	--	--	180
EF 18	81-06-09	50	3208	7.3	16.0	1	--	--	--	1600
BALTIMORE										
AC 150	81-08-10	--	155	6.2	14.0	--	.30	--	--	43
OC 18	81-08-10	--	410	7.4	13.0	--	.50	--	6.4	160
DD 297	81-08-10	--	28	5.8	13.8	--	.50	--	9.8	5
DE 1	81-08-10	--	615	7.5	13.0	--	.50	--	4.2	240
GC 25 738100	81-06-11	75	52	5.0	13.5	1	--	--	--	3
CAROLINE										
AD 17	81-05-07	4.0	86	4.5	14.7	0	--	--	--	31
BD 56	81-05-05	5.0	279	6.3	12.6	5	--	--	--	110
CC 54 731613	81-05-06	6.0	18	4.5	13.8	150	--	--	--	7
EC 25	81-05-06	30	83	4.2	12.9	0	--	--	--	29
EE 15	81-05-11	15	137	3.8	12.9	0	--	--	--	34
FB 27 731447	81-05-11	10	347	6.4	14.2	10	--	--	--	170
CARROLL										
CC 111	81-08-14	--	520	7.2	13.0	--	.50	--	6.6	230
DC 165	81-08-14	--	32	5.7	12.0	--	.50	--	9.6	7
CECIL										
CC 40	81-08-13	--	190	5.4	13.0	--	.20	--	--	46
ED 15	81-05-12	--	147	4.2	13.5	0	--	--	--	38
CHARLES										
BF 145 732889	81-05-13	510	300	7.6	16.0	0	--	--	--	160
CH 14 732790	81-03-10	275	290	7.7	17.0	<5	--	--	--	110
FE 5 732765	81-01-21	350	430	7.9	19.5	<5	--	--	--	2
DORCHESTER										
AG 8	81-05-06	--	179	6.1	--	0	--	--	--	46
RG 63	81-05-07	5.0	122	3.9	14.3	2	--	--	--	35
RG 65	81-05-07	--	25	4.5	14.4	0	--	--	--	4
RI 12 730890	81-05-12	--	25	4.4	14.1	0	--	--	--	4
CE R8	81-02-28	32	58500	7.6	35.5	--	.00	1.032	--	9300
	81-03-26	30	6500	7.9	34.0	--	7.1	1.003	--	140
	81-04-16	57	920	8.8	37.0	--	4.6	1.000	--	4
	81-05-28	52	996	8.4	33.0	--	.65	.999	--	7
	81-06-23	10	760	8.6	21.5	--	260	.999	--	6
	81-07-31	7.0	410	8.5	22.5	--	200	.998	--	4
CG 32	81-08-25	--	136	5.3	16.7	70	--	--	--	8
CH 28 731132	81-05-12	8.0	64	5.0	14.4	0	--	--	--	--
DH 20	81-08-24	--	423	4.0	21.1	<1	--	--	--	140
DH 21	81-08-24	--	591	5.2	14.3	--	--	--	--	--
DH 13	81-08-25	--	6840	5.9	21.8	10	--	--	--	670
DH 25	81-08-25	--	105	5.6	14.5	80	--	--	--	7
GARRETT										
FA 34 732145	81-05-07	--	141	7.0	14.8	--	--	--	--	82
FA 35	81-05-15	40	3280	4.9	11.3	--	--	--	--	1700
	81-06-30	58	--	--	--	--	--	--	--	1600
FB 23 732176	81-04-22	--	195	7.0	12.0	--	--	--	--	110
FB 25 732178	81-04-24	--	438	7.3	9.4	--	--	--	--	210
FB 30 732185	81-05-05	--	193	6.4	12.3	--	--	--	--	110
BALTIMORE CITY										
3N3E 3	81-08-13	--	500	7.1	15.0	--	.00	--	8.8	190
3S3E36 730040	81-03-20	10	10200	6.4	15.0	--	--	1.004	--	1500
3S3E37 730039	81-03-13	235	14300	6.6	15.0	--	--	1.006	--	1700
3S3E38 730042	81-03-26	10	8400	4.3	16.0	--	--	1.003	--	1000
3S3E39 730041	81-03-20	10	7680	5.8	15.0	--	--	1.004	--	1000
3S3E40 730043	81-04-29	--	20000	5.0	13.3	--	--	1.013	--	4100

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	FLOW RATE, INSTAN- TANEOUS (GPM)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)
HARFORD										
BC 30	81-08-13	--	32	5.6	14.0	--	.50	--	7	.00
BF 1	81-08-13	--	155	7.2	15.5	--	1.0	--	40	22
HOWARD										
BD 15	81-08-14	--	280	7.1	14.0	--	.50	6.0	120	3.0
KENT										
CC 5	81-05-06	--	445	4.1	12.6	0	--	--	130	130
MONTGOMERY										
FF 18	81-08-19	--	155	5.7	13.0	--	.30	--	44	5.0
FG 9	81-08-19	--	129	4.7	16.0	--	4.4	--	3	2.0
QUEEN ANNES										
BF 15	81-05-06	--	276	6.7	13.7	--	--	--	--	--
RG 56	81-04-09	1.8	192	5.2	14.3	<5	--	--	59	35
DE 10	81-05-08	40	409	5.8	11.4	0	--	--	70	11
EB 110	80-11-19	7.5	180	7.5	23.5	30	--	--	15	.00
EE 26	81-05-04	8.0	93	4.5	12.9	0	--	--	45	21
TALBOT										
BF 9	81-05-07	3.0	782	5.4	14.8	0	--	--	160	110
BF 53	81-05-07	20	222	5.7	11.8	20	--	--	63	31
CE 32	81-05-06	1.0	280	4.1	14.0	0	--	--	97	95
WASHINGTON										
AK 3	81-08-27	--	430	8.1	12.0	--	.20	--	180	32
DI 6	81-08-25	--	480	7.6	11.0	--	.20	--	260	43
WICOMICO										
BF 64	81-05-12	--	48	4.6	15.7	0	--	--	7	.00
BF 69	81-05-13	2.0	115	5.6	--	0	--	--	27	.00
BF 70	81-05-13	.3	140	5.0	--	0	--	--	21	20
CE 13	81-05-13	30	104	5.1	15.0	0	--	--	23	.00
CG 53	81-05-13	--	141	5.6	15.4	100	--	--	18	.00
DE 72	81-05-13	10	189	5.0	16.4	0	--	--	50	23
WORCESTER										
AF 29	81-05-14	40	109	4.4	13.9	0	--	--	24	.00
RG 50	81-05-13	--	211	6.7	15.5	5	--	--	78	.00
RG 51	81-05-13	--	86	5.4	17.5	0	--	--	20	.00
CG 45	81-05-12	50	190	6.3	14.8	60	--	--	66	.00
DE 46	81-05-13	--	112	5.2	14.6	0	--	--	21	.00

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	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)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED										
EE 68 742910	81-05-14	23	--	--	62	6.9	4.1	5	.1	3.6
EF 18	81-06-09	1500	--	--	600	16	14	2	.2	11
BALTIMORE										
AC 150	81-08-10	21	--	--	9.2	4.9	6.1	22	.4	2.7
DC 18	81-08-10	13	--	--	44	13	5.0	6	.2	1.2
DD 297	81-08-10	.00	--	--	.9	.7	1.6	37	.3	.6
DE 1	81-08-10	19	--	--	66	18	3.9	3	.1	2.7
GC 25 738100	81-06-11	.00	--	--	.8	.3	5.8	75	1.4	.8
CAROLINE										
AD 17	81-05-07	29	--	--	4.1	5.1	4.6	22	.4	3.4
BD 56	81-05-05	15	--	--	39	3.1	4.1	7	.2	4.8
CC 54 731613	81-05-06	.00	.3	15	1.8	.6	3.1	44	.5	1.3
EC 25	81-05-06	4.0	.1	5.0	4.5	4.4	2.6	15	.2	2.7
EE 15	81-05-11	32	.2	10	3.1	6.3	8.1	32	.6	3.4
FB 27 731447	81-05-11	.00	--	--	63	2.2	8.0	9	.3	.6
CARROLL										
CC 111	81-08-14	42	--	--	70	14	4.2	4	.1	.8
DC 165	81-08-14	2.0	--	--	1.5	.9	1.4	27	.2	.5
CECIL										
CC 40	81-08-13	38	--	--	9.6	5.4	8.6	29	.6	.6
ED 15	81-05-12	25	.1	5.0	9.5	3.5	12	40	.8	1.4
CHARLES										
BF 145 732889	81-05-13	.00	--	--	41	13	10	11	.3	12
CH 14 732790	81-03-10	.00	--	--	23	12	8.7	13	.4	14
FE 5 732765	81-01-21	.00	--	--	.4	.2	130	98	42	3.3
DORCHESTER										
AG 8	81-05-06	25	--	--	8.1	6.2	3.8	14	.2	5.1
BG 63	81-05-07	34	.2	10	3.7	6.3	4.2	19	.3	3.5
BG 65	81-05-07	.00	--	--	1.0	.3	2.9	50	.7	2.1
BI 12 730890	81-05-12	.00	.2	10	.9	.4	4.6	64	1.0	1.3
CE 88	81-02-28	9700	--	--	2900	490	14000	77	63	48
	81-03-26	.00	--	--	44	7.7	1400	95	51	8.9
	81-04-16	.00	--	--	1.1	.4	230	99	48	1.5
	81-05-28	.00	--	--	2.0	.4	260	98	44	1.9
	81-06-23	.00	--	--	1.5	.6	240	98	46	3.5
	81-07-31	.00	--	--	.6	.5	95	95	22	5.0
CG 32	81-08-25	.00	--	--	1.7	1.0	13	75	2.0	.9
CH 28 731132	81-05-12	--	--	--	<.1	<.1	20	1	--	.1
DM 20	81-08-24	--	.5	25	26	19	15	18	.5	2.4
DM 21	81-08-24	--	--	--	--	--	--	--	--	--
DM 13	81-08-25	590	--	--	52	130	1100	77	19	44
DM 25	81-08-25	.00	--	--	1.5	.8	13	77	2.1	1.1
GARRETT										
FA 34 732145	81-05-07	8.0	--	--	24	5.4	.7	2	.0	1.1
FA 35	81-05-15	1700	--	--	470	120	5.5	1	.1	12
	81-06-30	1600	9.0	447	440	110	6.5	1	.1	13
FB 23 732176	81-04-22	19	--	--	34	5.7	1.1	2	.0	1.0
FB 25 732178	81-04-24	87	--	--	60	14	11	10	.3	3.7
FB 30 732185	81-05-05	7.0	--	--	31	6.7	.4	1	.0	1.6
BALTIMORE CITY										
3N3E 3	81-08-13	32	--	--	44	20	10	10	.3	2.6
3S3E36 730040	81-03-20	1100	--	--	140	270	2700	79	31	65
3S3E37 730039	81-03-13	1400	--	--	110	340	3000	79	32	85
3S3E38 730042	81-03-26	1000	10	497	130	170	1600	77	22	25
3S3E39 730041	81-03-20	1000	--	--	95	190	2000	80	27	47
3S3E40 730043	81-04-29	4000	--	--	990	400	1500	41	10	430

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)	POTAS- SIUM .40 DIS- SOLVED (PCI/L AS K40)
HARFORD										
BC 30	81-08-13	--	--	1.4	.8	2.0	37	.3	.6	.40
BF 1	81-08-13	--	--	11	3.1	7.5	28	.5	1.0	.70
HOWARD										
BD 15	81-08-14	--	--	31	11	4.6	7	.2	1.8	1.3
KENT										
CC 5	81-05-06	.2	10	21	19	10	12	.4	25	19
MONTGOMERY										
FF 18	81-08-19	--	--	9.0	5.2	8.0	28	.5	.9	.70
FG 9	81-08-19	--	--	.6	.4	12	83	2.9	1.8	1.3
QUEEN ANNES										
BF 15	81-05-06	--	--	--	--	--	--	--	--	--
BG 56	81-04-09	--	--	13	6.5	13	31	.7	2.3	1.7
DE 10	81-05-08	--	--	15	7.9	25	29	1.3	50	37
EB 110	80-11-19	--	--	3.1	1.8	36	77	4.0	6.7	--
EE 26	81-05-04	--	--	9.6	5.1	9.6	30	.6	2.1	1.6
TALBOT										
BF 9	81-05-07	--	--	28	21	92	51	3.2	31	23
BF 53	81-05-07	--	--	21	2.6	13	27	.7	12	9.0
CE 32	81-05-06	.2	10	14	15	7.2	14	.3	1.9	1.4
WASHINGTON										
AK 3	81-08-27	--	--	48	15	17	17	.5	1.3	--
DI 6	81-08-25	--	--	84	13	4.7	4	.1	2.1	1.6
WICOMICO										
BF 64	81-05-12	--	--	2.1	.5	7.2	64	1.2	1.3	1.0
BF 69	81-05-13	--	--	6.5	2.7	8.9	40	.7	1.5	1.1
BF 70	81-05-13	--	--	4.6	2.2	13	55	1.2	2.3	1.7
CE 13	81-05-13	--	--	6.5	1.7	12	51	1.1	1.7	1.3
CG 53	81-05-13	--	--	4.8	1.5	11	56	1.1	.8	.60
DE 72	81-05-13	--	--	14	3.7	26	51	1.6	3.7	2.8
WORCESTER										
AF 29	81-05-14	.2	10	3.2	4.0	11	46	1.0	3.1	2.3
BG 50	81-05-13	--	--	24	4.5	13	26	.6	.9	.70
BG 51	81-05-13	--	--	4.9	2.0	11	52	1.1	1.1	.80
CG 45	81-05-12	--	--	19	4.4	11	26	.6	.8	.60
DE 46	81-05-13	--	--	5.5	1.7	15	59	1.4	1.5	1.1

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)	ALKA- LINEITY FIELD (MG/L AS CAC03)	ALKA- LINEITY LAR (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED										
EE 68 742910	81-05-14	2.7	--	160	24	6.2	.2	--	35	265
EF 18	81-06-09	--	--	49	31	980	<.1	--	30	2640
BALTIMORE										
AC 150	81-08-10	2.0	--	22	4.6	12	<.1	--	7.5	85
DC 18	81-08-10	.90	--	150	4.2	13	.1	--	9.8	181
DD 297	81-08-10	.40	--	6.0	.5	1.7	<.1	--	9.6	30
DE 1	81-08-10	2.0	--	220	17	11	<.1	--	16	299
GC 25 738100	81-06-11	.60	--	7.0	5.7	6.7	.2	--	8.2	31
CAROLINE										
AD 17	81-05-07	2.5	--	2.0	8.6	6.9	<.1	--	17	77
BD 56	81-05-05	3.6	--	95	8.9	6.2	<.1	--	25	178
CC 54 731613	81-05-06	1.0	--	25	.0	3.9	<.1	--	13	36
EC 25	81-05-06	2.0	--	25	4.3	7.2	<.1	--	10	87
EE 15	81-05-11	2.5	--	2.0	1.8	12	<.1	--	9.7	92
FB 27 731447	81-05-11	.40	--	180	5.2	8.7	.1	--	42	238
CARROLL										
CC 111	81-08-14	.60	--	190	21	12	<.1	--	9.4	295
DC 165	81-08-14	.40	--	5.0	.3	1.7	<.1	--	7.2	34
CECIL										
CC 40	81-08-13	.40	--	8.0	.6	37	<.1	--	22	134
ED 15	81-05-12	1.0	--	13	.3	18	<.1	--	16	138
CHARLES										
BF 145 732889	81-05-13	9.0	--	170	6.9	1.1	.2	--	13	203
CH 14 732790	81-03-10	10	--	130	8.3	.9	.2	--	14	162
FE 5 732765	81-01-21	2.5	--	230	15	1.3	1.3	--	36	325
DORCHESTER										
AG 8	81-05-06	3.8	--	21	6.6	12	<.1	--	7.1	111
RG 63	81-05-07	2.6	--	1.0	.0	13	<.1	--	11	90
RG 65	81-05-07	1.6	--	7.0	.1	2.8	<.1	--	9.3	14
BI 12 730890	81-05-12	1.0	--	20	.8	4.5	<.1	--	14	38
CE 88	81-02-28	37	48	24	665	27800	.3	--	14	45500
	81-03-26	6.6	150	160	38	2200	.4	--	19	3910
	81-04-16	1.1	276	290	28	140	1.0	--	19	594
	81-05-28	1.4	341	330	35	120	1.3	--	18	631
	81-06-23	--	425	430	35	2.8	2.3	--	15	575
	81-07-31	3.7	172	190	16	2.3	1.4	--	14	255
CG 32	81-08-25	.70	--	17	2.1	12	<.1	--	26	74
CH 28 731132	81-05-12	.10	--	34	6.5	5.8	<.1	--	27	72
DH 20	81-08-24	1.8	--	<1.0	140	29	.3	--	30	306
DH 21	81-08-24	--	--	--	--	--	--	--	--	--
DH 13	81-08-25	33	--	80	330	2100	.2	--	9.8	4040
DH 25	81-08-25	.80	--	24	1.6	7.3	<.1	--	26	78
GARRETT										
FA 34 732145	81-05-07	.80	--	74	4.0	.5	.1	--	7.5	102
FA 35	81-05-15	9.0	--	.00	2100	2.5	.1	--	31	3360
	81-06-30	9.7	--	.00	2100	2.4	.2	--	22	3430
FB 23 732176	81-04-22	.70	--	89	14	1.0	.2	--	6.3	120
FB 25 732178	81-04-24	2.8	--	120	99	.6	.2	--	7.8	275
FB 30 732185	81-05-05	1.2	--	98	7.2	1.1	.2	--	7.8	121
BALTIMORE CITY										
3N3E 3	81-08-13	1.9	--	160	5.9	25	<.1	--	13	257
3S3E36 730040	81-03-20	48	--	350	240	4700	.3	.040	4.1	7990
3S3E37 730039	81-03-13	63	--	300	230	6000	.3	.200	5.4	10300
3S3E38 730042	81-03-26	19	--	.00	120	3500	.5	.250	39	6180
3S3E39 730041	81-03-20	35	--	7.0	230	3800	.3	.230	4.7	6160
3S3E40 730043	81-04-29	320	--	130	3600	630	180	.320	89	10200

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	ALKA- LINIT LAB (MG/L AS CAC03)	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 CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)
HARFORD										
BC 30	81-08-13	19	.2	2.0	<.1	11	30	29	--	--
BF 1	81-08-13	18	21	3.7	<.1	27	108	85	--	--
HOWARD										
BD 15	81-08-14	120	1.9	5.3	<.1	24	166	152	--	--
KENT										
CC 5	81-05-06	1.0	11	27	.2	12	355	126	--	<.010
MONTGOMERY										
FF 18	81-08-19	39	6.8	7.3	<.1	20	106	81	--	--
FG 9	81-08-19	1.0	1.9	21	<.1	9.1	82	48	--	--
QUEEN ANNES										
BF 15	81-05-06	--	--	--	--	--	--	--	--	<.010
RG 56	81-04-09	24	6.8	28	<.1	17	170	101	--	--
DE 10	81-05-08	59	59	21	<.1	11	278	225	--	<.010
EB 110	80-11-19	70	14	15	.2	14	118	134	--	--
EE 26	81-05-04	24	2.0	15	<.1	16	121	74	--	<.010
TALBOT										
BF 9	81-05-07	49	27	180	<.1	16	476	425	--	<.010
BF 53	81-05-07	32	18	9.7	<.1	9.5	160	105	8.1	.020
CE 32	81-05-06	2.0	12	33	<.1	17	209	102	--	<.010
WASHINGTON										
AK 3	81-08-27	150	5.7	30	.1	9.6	245	217	--	--
DI 6	81-08-25	220	17	9.6	.2	9.9	310	273	--	--
WICOMICO										
RF 64	81-05-12	18	1.1	6.0	<.1	27	57	56	--	--
RF 69	81-05-13	41	6.5	5.0	<.1	24	60	87	--	--
RF 70	81-05-13	1.0	11	25	<.1	8.0	80	76	--	--
CE 13	81-05-13	27	4.0	9.8	<.1	26	94	78	--	--
CG 53	81-05-13	38	6.7	6.9	.1	46	123	115	--	--
DE 72	81-05-13	27	6.5	33	<.1	26	193	129	--	--
WORCESTER										
AF 29	81-05-14	24	1.3	12	<.1	13	86	62	--	--
RG 50	81-05-13	110	.4	10	.1	40	161	160	--	--
RG 51	81-05-13	25	.7	9.0	<.1	42	76	86	--	--
CG 45	81-05-12	75	1.8	11	.1	42	134	139	--	--
DE 46	81-05-13	24	3.7	13	<.1	38	103	93	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED										
EE 68 742910	81-05-14	240	--	--	--	--	<.01	--	--	--
EF 18	81-06-09	1760	--	--	--	--	.24	--	--	--
BALTIMORE										
AC 150	81-08-10	60	--	--	--	--	--	--	--	--
DC 18	81-08-10	180	--	--	--	--	--	--	--	--
DD 297	81-08-10	19	--	--	--	--	--	--	--	--
DE 1	81-08-10	267	--	--	--	--	--	--	--	--
GC 25 738100	81-06-11	33	--	--	--	--	<.01	--	--	--
CAROLINE										
AD 17	81-05-07	51	--	--	<.010	--	4.5	--	<.010	--
RD 56	81-05-05	153	--	--	<.010	--	1.3	--	.130	--
CC 54 731613	81-05-06	39	.29	--	.030	--	.32	--	.060	--
EC 25	81-05-06	51	--	--	<.010	--	4.7	--	.010	--
EE 15	81-05-11	46	--	--	--	--	6.3	--	--	--
FR 27 731447	81-05-11	241	--	--	--	--	.05	--	--	--
CARROLL										
CC 111	81-08-14	246	--	--	--	--	--	--	--	--
DC 165	81-08-14	17	--	--	--	--	--	--	--	--
CECIL										
CC 40	81-08-13	89	--	--	--	--	--	--	--	--
ED 15	81-05-12	69	--	--	--	--	5.5	--	--	--
CHARLES										
RF 145 732889	81-05-13	200	--	--	--	--	<.01	--	--	--
CH 14 732790	81-03-10	159	--	--	--	--	.04	--	--	--
FE 5 732765	81-01-21	326	--	--	--	--	<.01	--	--	--
DORCHESTER										
AG 8	81-05-06	69	--	--	<.010	--	6.7	--	.230	--
RG 63	81-05-07	43	--	--	<.010	--	5.9	--	<.010	--
RG 65	81-05-07	23	--	--	<.010	--	2.1	--	<.010	--
BI 12 730890	81-05-12	39	--	--	--	--	.88	--	--	--
CE 88	81-02-28	47200	--	--	--	--	--	--	--	--
	81-03-26	3820	--	--	--	--	--	--	--	--
	81-04-16	596	--	--	--	--	--	--	--	--
	81-05-28	637	--	--	<.010	<.010	<.01	.01	.080	.090
	81-06-23	560	--	--	--	--	--	--	--	--
	81-07-31	250	--	--	<.010	<.010	.02	.03	.600	.050
CG 32	81-08-25	67	--	--	--	<.010	.03	.05	--	.550
CH 28 731132	81-05-12	0	--	--	--	--	<.01	--	--	--
DH 20	81-08-24	--	--	1.50	--	.020	1.5	1.5	--	.170
DH 21	81-08-24	--	--	--	--	<.010	--	.04	--	.280
DH 13	81-08-25	3820	--	--	--	<.010	.10	.05	--	.270
DH 25	81-08-25	66	--	--	--	<.010	<.01	.04	--	.090
GARRETT										
FA 34 732145	81-05-07	89	--	--	--	--	--	<.01	--	--
FA 35	81-05-15	2980	--	--	--	--	--	.04	--	--
	81-06-30	2840	--	--	--	--	--	.03	--	--
FB 23 732176	81-04-22	117	--	--	--	--	--	.01	--	--
FB 25 732178	81-04-24	269	--	--	--	--	--	<.01	--	--
FB 30 732185	81-05-05	119	--	--	--	--	--	.02	--	--
BALTIMORE CITY										
3N3E 3	81-08-13	217	--	--	--	--	--	--	--	--
3S3E36 730040	81-03-20	8340	--	--	--	--	--	.02	--	--
3S3E37 730039	81-03-13	9960	--	--	--	<.010	--	.01	--	--
3S3E38 730042	81-03-26	5670	--	--	--	--	--	.06	--	--
3S3E39 730041	81-03-20	6440	--	--	--	<.010	--	.29	--	--
3S3E40 730043	81-04-29	17800	--	--	--	<.010	--	2200	--	--

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER		DATE OF SAMPLE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE RECOV- ERABLE (UG/L AS FE)
HARFORD											
BC 30		81-08-13	--	--	--	--	--	--	--	330	300
BF 1		81-08-13	--	--	--	--	--	--	--	1400	1400
HOWARD											
BD 15		81-08-14	--	--	--	--	--	--	--	400	380
KENT											
CC 5		81-05-06	27	.020	.18	.20	27	<.010	<.010	100	80
MONTGOMERY											
FF 18		81-08-19	--	--	--	--	--	--	--	110	--
FG 9		81-08-19	--	--	--	--	--	--	--	240	150
QUEEN ANNES											
BF 15		81-05-06	.05	<.010	--	.40	.45	.270	.080	--	--
BG 56		81-04-09	5.5	--	--	--	--	<.010	--	580	340
DE 10		81-05-08	5.6	.030	.57	.60	6.2	.070	.060	510	340
EB 110	732979	80-11-19	.10	--	--	--	--	.080	--	1500	0
EE 26		81-05-04	7.1	<.010	--	.35	7.5	.010	<.010	240	80
TALBOT											
BF 9		81-05-07	6.5	.570	.00	.51	7.0	.090	.030	220	190
BF 53		81-05-07	8.1	.080	1.0	1.10	9.2	.520	.390	1800	1700
CE 32		81-05-06	12	.030	.30	.33	12	<.010	<.010	110	70
WASHINGTON											
AK 3		81-08-27	--	--	--	--	--	--	--	230	200
DI 6		81-08-25	--	--	--	--	--	--	--	110	--
WICOMICO											
BF 64		81-05-12	2.8	--	--	--	--	<.010	--	40	30
BF 69		81-05-13	.17	--	--	--	--	.010	--	7400	1100
BF 70		81-05-13	2.0	--	--	--	--	.260	--	26000	17000
CE 13		81-05-13	5.4	--	--	--	--	.020	--	1900	1700
CG 53		81-05-13	.02	--	--	--	--	.070	--	15000	1000
DE 72	732158	81-05-13	4.9	--	--	--	--	<.010	--	300	200
WORCESTER											
AF 29		81-05-14	5.0	--	--	--	--	<.010	--	100	--
BG 50		81-05-13	<.01	--	--	--	--	.290	--	1100	110
BG 51		81-05-13	.04	--	--	--	--	.020	--	4400	4100
CG 45		81-05-12	.05	--	--	--	--	.220	--	3500	100
DE 46		81-05-13	.18	--	--	--	--	.080	--	400	390

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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)
HARFORD					
RC 30	81-08-13	30	10	6	4
BF 1	81-08-13	50	30	30	1
HOWARD					
RD 15	81-08-14	20	<10	--	2
KENT					
CC 5	81-05-06	20	160	0	170
MONTGOMERY					
FF 18	81-08-19	<10	<10	--	<10
FG 9	81-08-19	90	170	10	160
QUEEN ANNES					
RF 15	81-05-06	--	--	--	--
BG 56	81-04-09	240	80	0	110
DE 10	81-05-08	170	60	10	50
EB 110	80-11-19	1500	70	0	70
EE 26	81-05-04	160	110	0	120
TALBOT					
BF 9	81-05-07	30	50	10	40
BF 53	81-05-07	60	30	10	20
CE 32	81-05-06	40	70	0	80
WASHINGTON					
AK 3	81-08-27	30	10	--	<10
DI 6	81-08-25	<10	10	--	<10
WICOMICO					
BF 64	81-05-12	10	10	7	3
BF 69	81-05-13	6300	1400	0	1400
BF 70	81-05-13	9400	250	50	200
CE 13	81-05-13	200	30	10	20
CG 53	81-05-13	14000	80	0	80
DE 72	81-05-13	100	60	0	60
WORCESTER					
AF 29	81-05-14	<10	10	5	5
BG 50	81-05-13	990	180	10	170
BG 51	81-05-13	300	100	0	100
CG 45	81-05-12	3400	190	10	180
DE 46	81-05-13	10	10	7	3

QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE 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- PENDE RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
ANNE ARUNDEL COUNTY, MARYLAND--CONTINUED								
EE 68 742910	81-05-14	--	1100	0	1300	10	0	10
EF 18	81-06-09	--	52000	8000	44000	390	110	280
BALTIMORE								
AC 150	81-08-10	--	160	--	<10	<10	--	4
DC 18	81-08-10	--	110	--	<10	<10	--	2
DD 297	81-08-10	--	780	--	<10	<10	--	2
DE 1	81-08-10	--	100	--	<10	<10	--	<1
GC 25 738100	81-06-11	--	310	80	230	20	10	10
CAROLINE								
AD 17	81-05-07	--	190	130	60	20	0	30
AD 56	81-05-05	--	5500	900	4600	110	0	120
CC 54 731613	81-05-06	--	27000	27000	160	120	100	20
EC 25	81-05-06	--	270	--	<10	20	0	20
EE 15	81-05-11	--	100	90	10	120	0	120
FB 27 731447	81-05-11	--	3300	100	3200	120	0	120
CARROLL								
CC 111	81-08-14	--	150	--	<10	<10	--	<1
DC 165	81-08-14	--	140	--	<10	10	--	<1
CECIL								
CC 40	81-08-13	--	220	--	<10	<10	--	2
ED 15	81-05-12	--	70	50	20	10	0	20
CHARLES								
BF 145 732889	81-05-13	--	190	30	160	30	0	30
CH 14 732790	81-03-10	--	140	60	80	10	--	<1
FE 5 732765	81-01-21	--	440	220	220	10	0	20
DORCHESTER								
AG 8	81-05-06	--	1700	1700	50	7300	0	7400
BG 63	81-05-07	--	80	--	<10	40	0	40
BG 65	81-05-07	--	170	160	10	70	0	80
BI 12 730890	81-05-12	--	100	--	<10	10	7	3
CE 88	81-02-28	--	13000	5800	7200	9000	400	8600
	81-03-26	--	1800	1100	710	280	0	280
	81-04-16	--	1400	1300	100	30	20	10
	81-05-28	.130	440	130	310	20	0	30
	81-06-23	--	39000	39000	140	490	470	20
	81-07-31	.210	48000	48000	350	420	410	7
CG 32	81-08-25	--	20000	20000	190	120	10	110
CH 28 731132	81-05-12	--	290	210	80	10	--	<1
DH 20	81-08-24	--	5600	5100	520	820	0	850
DH 21	81-08-24	--	--	--	--	--	--	--
DH 13	81-08-25	--	1000	210	790	480	0	530
DH 25	81-08-25	--	10000	9900	100	100	0	100
GARRETT								
FA 34 732145	81-05-07	--	1400	0	1400	90	0	100
FA 35	81-05-15	--	290000	60000	230000	5700	0	6000
	81-06-30	--	--	--	130000	--	--	5800
FB 23 732176	81-04-22	--	--	--	40	--	--	120
FB 25 732178	81-04-24	--	--	--	290	--	--	60
FB 30 732185	81-05-05	--	3600	0	3800	260	0	290
BALTIMORE CITY								
3N3E 3	81-08-13	--	970	--	<10	10	--	<1
3S3E36 730040	81-03-20	--	660	50	610	3200	300	2900
3S3E37 730039	81-03-13	--	48000	43000	4800	3800	200	3600
3S3E38 730042	81-03-26	--	53000	4000	49000	17000	1000	16000
3S3E39 730041	81-03-20	--	56000	3000	53000	9400	400	9000
3S3E40 730043	81-04-29	--	36000	0	39000	100000	23000	77000

TRACE METALS

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDE TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDE RECOV- ERABLE (UG/L AS BA)
BALTIMORE COUNTY, MARYLAND										
AC 150	81-08-10	100	--	<100	--	--	--	--	--	--
DC 18	81-08-10	200	--	<100	--	--	--	--	--	--
DD 297	81-08-10	100	--	<100	--	--	--	--	--	--
DE 1	81-08-10	100	0	100	--	--	--	--	--	--
GC 25 738100	81-06-11	--	--	--	--	--	--	--	--	--
CARROLL										
CC 111	81-08-14	100	--	<100	--	--	--	--	--	--
DC 165	81-08-14	300	--	<100	--	--	--	--	--	--
CECIL										
CC 40	81-08-13	<100	--	<100	--	--	--	--	--	--
DORCHESTER										
CE 88	81-02-28	--	--	10	--	1	0	1	100	--
	81-03-26	--	--	30	--	0	0	0	300	0
	81-04-16	--	--	70	--	0	0	0	100	80
	81-05-28	--	--	10	--	2	1	1	100	60
	81-06-23	--	--	410	--	9	8	1	300	300
	81-07-31	--	--	120	--	1	0	1	400	400
HARFORD										
BC 30	81-08-13	200	--	<100	--	--	--	--	--	--
BF 1	81-08-13	900	--	<100	--	--	--	--	--	--
HOWARD										
BD 15	81-08-14	<100	--	<100	--	--	--	--	--	--
MONTGOMERY										
FF 18	81-08-19	200	100	100	--	--	--	--	--	--
FG 9	81-08-19	400	100	300	--	--	--	--	--	--
WASHINGTON										
AK 3	81-08-27	100	0	200	--	--	--	--	--	--
OI 6	81-08-25	200	100	100	--	--	--	--	--	--
BALTIMORE CITY										
3N3E 3	81-08-13	200	--	<100	--	--	--	--	--	--
3S3E36 730040	81-03-20	--	--	40	0	--	--	0	--	--
3S3E37 730039	81-03-13	--	--	0	0	--	--	2	--	--
3S3E38 730042	81-03-26	--	--	3100	0	--	--	1	--	--
3S3E39 730041	81-03-20	--	--	200	0	--	--	0	--	--
3S3E40 730043	81-04-29	--	--	8600	1	--	--	0	--	--

QUALITY OF GROUND WATER

493

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIEH	DATE OF SAMPLE	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDE 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- PENDE RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
BALTIMORE COUNTY, MARYLAND--CONTINUED										
AC 150	81-08-10	--	--	--	1	--	--	3	--	--
DC 18	81-08-10	--	--	--	1	--	--	1	--	--
DD 297	81-08-10	--	--	--	1	--	--	5	--	--
DE 1	81-08-10	--	--	--	1	--	--	5	--	--
GC 25 738100	81-06-11	--	--	--	--	--	--	--	--	--
CARROLL										
CC 111	81-08-14	--	--	--	1	--	--	4	--	--
DC 165	81-08-14	--	--	--	2	--	--	5	--	--
CECIL										
CC 40	81-08-13	--	--	--	1	--	--	7	--	--
DORCHESTER										
CE 88	81-02-28	--	--	--	0	0	0	40	0	50
	81-03-26	400	--	--	3	2	1	30	10	20
	81-04-16	20	--	--	1	0	1	20	10	10
	81-05-28	40	--	--	1	--	<1	10	0	20
	81-06-23	50	--	--	<1	--	2	120	--	<10
	81-07-31	30	--	--	1	0	1	220	210	10
HARFORD										
BC 30	81-08-13	--	--	--	1	--	--	9	--	--
BF 1	81-08-13	--	--	--	1	--	--	5	--	--
HOWARD										
RD 15	81-08-14	--	--	--	1	--	--	2	--	--
MONTGOMERY										
FF 18	81-08-19	--	--	--	2	--	--	17	--	--
FG 9	81-08-19	--	--	--	2	--	--	15	--	--
WASHINGTON										
AK 3	81-08-27	--	--	--	<1	--	--	5	--	--
DI 6	81-08-25	--	--	--	<1	--	--	16	--	--
BALTIMORE CITY										
3N3E 3	81-08-13	--	--	--	1	--	--	10	--	--
3S3E36 730040	81-03-20	100	20	270	--	--	0	--	--	0
3S3E37 730039	81-03-13	100	30	830	--	--	0	--	--	0
3S3E38 730042	81-03-26	300	30	120	--	--	0	--	--	0
3S3E39 730041	81-03-20	100	30	410	--	--	0	--	--	0
3S3E40 730043	81-04-29	100	50	160	--	--	50	--	--	3

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, SUS- PENDE RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDE RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDE RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)
BALTIMORE COUNTY, MARYLAND--CONTINUED										
AC 150	81-08-10	--	--	--	2	--	--	4	--	--
DC 18	81-08-10	--	--	--	3	--	--	4	--	--
DD 297	81-08-10	--	--	--	23	--	--	5	--	--
DE 1	81-08-10	--	--	--	2	--	--	4	--	--
GC 25 738100	81-06-11	--	--	--	--	--	--	--	--	--
CARROLL										
CC 111	81-08-14	--	--	--	4	--	--	22	--	--
DC 165	81-08-14	--	--	--	3	--	--	6	--	--
CECIL										
CC 40	81-08-13	--	--	--	3	--	--	7	--	--
DORCHESTER										
CE 88	81-02-28	0	0	1	2	0	2	11	11	0
	81-03-26	1	0	1	1	1	0	1	1	0
	81-04-16	4	0	4	2	2	0	2	1	1
	81-05-28	1	0	2	6	5	1	1	1	0
	81-06-23	28	--	<1	150	150	2	33	32	1
	81-07-31	12	--	<1	70	68	2	28	22	6
HARFORD										
RC 30	81-08-13	--	--	--	3	--	--	5	--	--
RF 1	81-08-13	--	--	--	5	--	--	11	--	--
HOWARD										
BD 15	81-08-14	--	--	--	3	--	--	1	--	--
MONTGOMERY										
FF 18	81-08-19	--	--	--	3	--	--	7	--	--
FG 9	81-08-19	--	--	--	10	--	--	10	--	--
WASHINGTON										
AK 3	81-08-27	--	--	--	21	--	--	2	--	--
OI 6	81-08-25	--	--	--	2	--	--	8	--	--
BALTIMORE CITY										
3N3E 3	81-08-13	--	--	--	6	--	--	3	--	--
3S3E36 730040	81-03-20	--	--	79	--	--	10	--	--	0
3S3E37 730039	81-03-13	--	--	49	--	--	130	--	--	1
3S3E38 730042	81-03-26	--	--	470	--	--	70	--	--	100
3S3E39 730041	81-03-20	--	--	110	--	--	280	--	--	0
3S3E40 730043	81-04-29	--	--	1400	--	--	23	--	--	500

QUALITY OF GROUND WATER

495

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- IFIER	DATE OF SAMPLE	LITHIUM DIS- SOLVED (UG/L AS LI)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	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)
BALTIMORE COUNTY, MARYLAND--CONTINUED										
AC 150	81-08-10	--	<.1	--	--	--	3	--	--	--
DC 18	81-08-10	--	<.1	--	--	--	9	--	--	--
DD 297	81-08-10	--	<.1	--	--	--	3	--	--	--
DE 1	81-08-10	--	<.1	--	--	--	3	--	--	--
GC 25 738100	81-06-11	--	--	--	--	--	--	--	--	--
CARROLL										
CC 111	81-08-14	--	<.1	--	--	--	5	--	--	--
DC 165	81-08-14	--	<.1	--	--	--	4	--	--	--
CECIL										
CC 40	81-08-13	--	<.1	--	--	--	5	--	--	--
DORCHESTER										
CE 88	81-02-28	--	1.5	.0	3.0	--	3	2	1	0
	81-03-26	--	2.2	.8	1.4	--	9	9	0	0
	81-04-16	--	.4	.1	.3	--	8	8	0	0
	81-05-28	--	.2	.0	.2	--	10	9	1	0
	81-06-23	--	.4	.2	.2	--	49	47	2	<1
	81-07-31	--	.1	--	<.1	--	18	--	<1	<1
HARFORD										
RC 30	81-08-13	--	<.1	--	--	--	2	--	--	--
BF 1	81-08-13	--	<.1	--	--	--	5	--	--	--
HOWARD										
BD 15	81-08-14	--	<.1	--	--	--	3	--	--	--
MONTGOMERY										
FF 18	81-08-19	--	<.1	--	--	--	9	--	--	--
FG 9	81-08-19	--	<.1	--	--	--	17	--	--	--
WASHINGTON										
AK 3	81-08-27	--	.1	--	--	--	1	--	--	--
DI 6	81-08-25	--	<.1	--	--	--	3	--	--	--
BALTIMORE CITY										
3N3E 3	81-08-13	--	<.1	--	--	--	3	--	--	--
3S3E36 730040	81-03-20	10	--	--	.2	0	--	--	14	--
3S3E37 730039	81-03-13	10	--	--	.6	0	--	--	14	--
3S3E38 730042	81-03-26	30	--	--	2.0	0	--	--	300	--
3S3E39 730041	81-03-20	10	--	--	.9	0	--	--	23	--
3S3E40 730043	81-04-29	500	--	--	5.7	0	--	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, SUS- PENDED RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
BALTIMORE COUNTY, MARYLAND--CONTINUED							
AC 150	81-08-10	--	--	<1	--	--	--
DC 18	81-08-10	--	--	<1	--	--	--
DD 297	81-08-10	--	--	<1	--	--	--
DE 1	81-08-10	--	--	2	--	--	--
GC 25 738100	81-06-11	--	--	--	--	--	--
CARROLL							
CC 111	81-08-14	--	--	<1	--	--	--
DC 165	81-08-14	--	--	<1	--	--	--
CECIL							
CC 40	81-08-13	--	--	<1	--	--	--
DORCHESTER							
CE 48	81-02-28	0	0	0	0	0	--
	81-03-26	0	0	0	0	0	--
	81-04-16	0	0	0	0	0	--
	81-05-28	0	0	0	0	0	--
	81-06-23	--	<1	<1	--	<1	--
	81-07-31	--	<1	1	--	<1	--
HARFORD							
BC 30	81-08-13	--	--	<1	--	--	--
BF 1	81-08-13	--	--	<1	--	--	--
HOWARD							
BD 15	81-08-14	--	--	<1	--	--	--
MONTGOMERY							
FF 18	81-08-19	--	--	<1	--	--	--
FG 9	81-08-19	--	--	5	--	--	--
WASHINGTON							
AK 3	81-08-27	--	--	<1	--	--	--
DI 6	81-08-25	--	--	<1	--	--	--
BALTIMORE CITY							
3N3E 3	81-08-13	--	--	<1	--	--	--
3S3E36 730040	81-03-20	--	0	--	--	0	1100
3S3E37 730039	81-03-13	--	0	--	--	0	1600
3S3E38 730042	81-03-26	--	2	--	--	2	1000
3S3E39 730041	81-03-20	--	0	--	--	0	1100
3S3E40 730043	81-04-29	--	1	--	--	0	1500

QUALITY OF GROUND WATER

497

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDE D RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
BALTIMORE COUNTY, MARYLAND--CONTINUED					
AC 150	81-08-10	30	--	--	--
DC 18	81-08-10	20	--	--	--
DD 297	81-08-10	20	--	--	--
DE 1	81-08-10	10	--	--	--
GC 25 738100	81-06-11	--	--	--	.3
CARROLL					
CC 111	81-08-14	30	--	--	--
DC 165	81-08-14	10	--	--	--
CECIL					
CC 40	81-08-13	20	--	--	--
DORCHESTER					
CE 88	81-02-28	240	200	40	--
	81-03-26	30	20	10	--
	81-04-16	10	--	<4	--
	81-05-28	20	--	<4	--
	81-06-23	170	--	<4	--
	81-07-31	110	100	10	--
HARFORD					
BC 30	81-08-13	40	--	--	--
BF 1	81-08-13	20	--	--	--
HOWARD					
BD 15	81-08-14	30	--	--	--
MONTGOMERY					
FF 18	81-08-19	10	--	--	--
FG 9	81-08-19	40	--	--	--
WASHINGTON					
AK 3	81-08-27	40	--	--	--
DI 6	81-08-25	20	--	--	--
BALTIMORE CITY					
3N3E 3	81-08-13	40	--	--	--
3S3E36 730040	81-03-20	--	--	30	4.6
3S3E37 730039	81-03-13	--	--	40	--
3S3E38 730042	81-03-26	--	--	640	.9
3S3E39 730041	81-03-20	--	--	60	1.9
3S3E40 730043	81-04-29	--	--	9000	1300

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

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

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

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