

*White*  
Aug. 5, 1976

# **Water Resources Data for Maryland and Delaware Water Year 1975**



U.S. GEOLOGICAL SURVEY WATER DATA REPORT MD-75-1

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

# CALENDAR FOR WATER YEAR 1975

1974

## OCTOBER

S	M	T	W	T	F	S
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6	7	8	9	10	11	12
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1975

## JANUARY

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## JUNE

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## JULY

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## AUGUST

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31						

## SEPTEMBER

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28	29	30				

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Delaware and with other agencies**

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## PREFACE

This report was prepared by the U. S. Geological Survey in cooperation with the States of Maryland and Delaware and the District of Columbia and with other agencies by personnel of the Maryland, Delaware, District of Columbia district of the Water Resources Division under the supervision of W. F. White, District Chief, and J. T. Callahan, Regional Hydrologist, Northeastern Region..

This report is one of a series issued State by State under the general direction of J. S. Cragwall, Jr., Chief Hydrologist, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

UNITED STATES DEPARTMENT OF THE INTERIOR

THOMAS S. KLEPPE, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

Prepared in cooperation with

Maryland Geological Survey  
Delaware Geological Survey  
Maryland State Highway Administration  
Delaware Department of Highways and Transportation  
Washington Suburban Sanitary Commission  
Maryland Water Resources Administration  
Maryland National Capital Park and Planning Commission  
Maryland Department of Health and Mental Hygiene  
District of Columbia  
City of Baltimore  
County of Montgomery  
Corps of Engineers, U. S. Army  
Water Quality Office, Environmental Protection Agency  
Soil Conservation Service, U. S. Department of Agriculture  
National Park Service, U. S. Department of the Interior

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[Letters after station name designate type of date;  
(c) chemical; (t) water temperature; (s) sediment]

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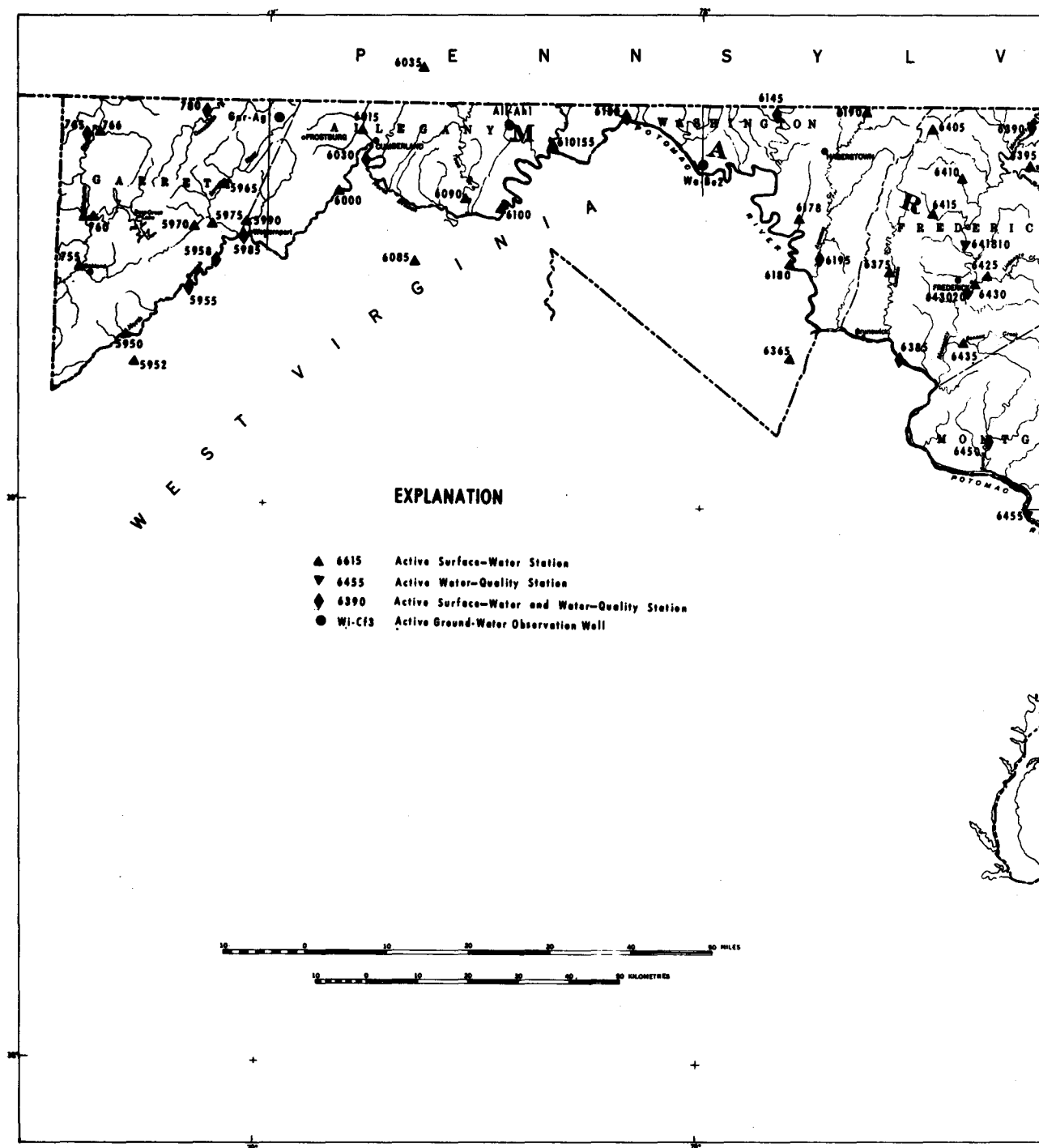
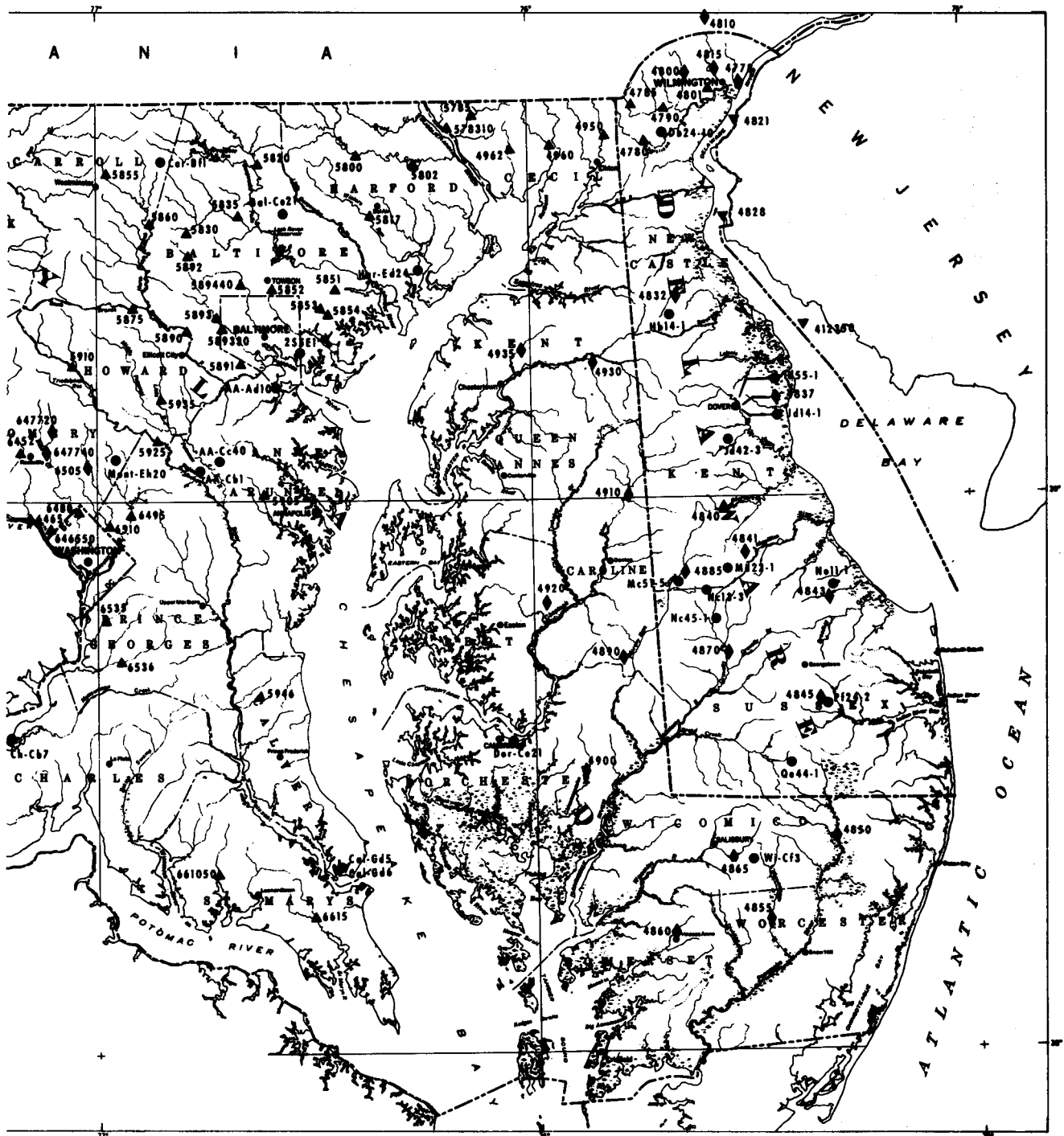


Figure 1.--Map of Maryland and Delaware showing location of surface-water and water-quality stations and ground-water observation wells.



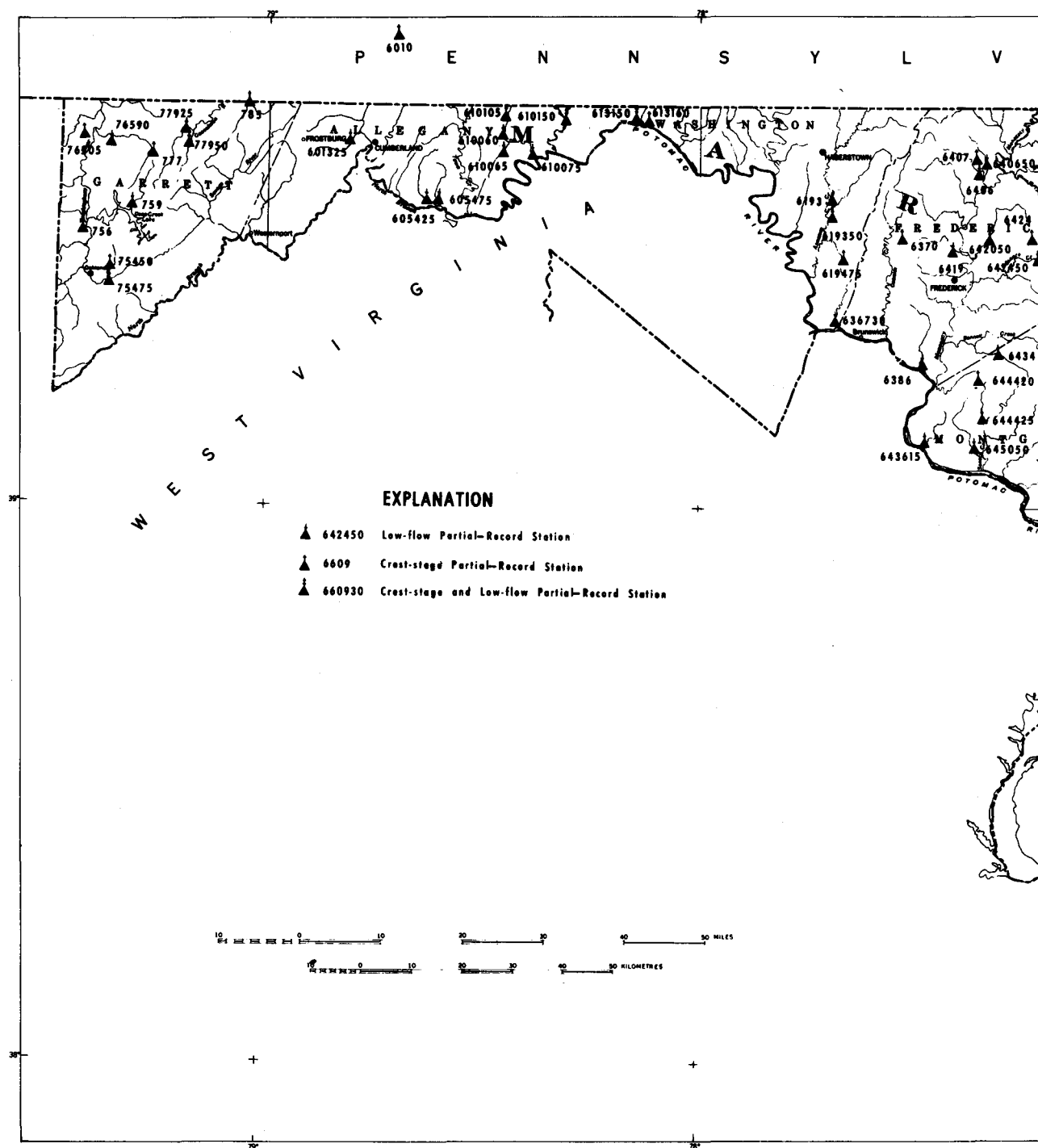
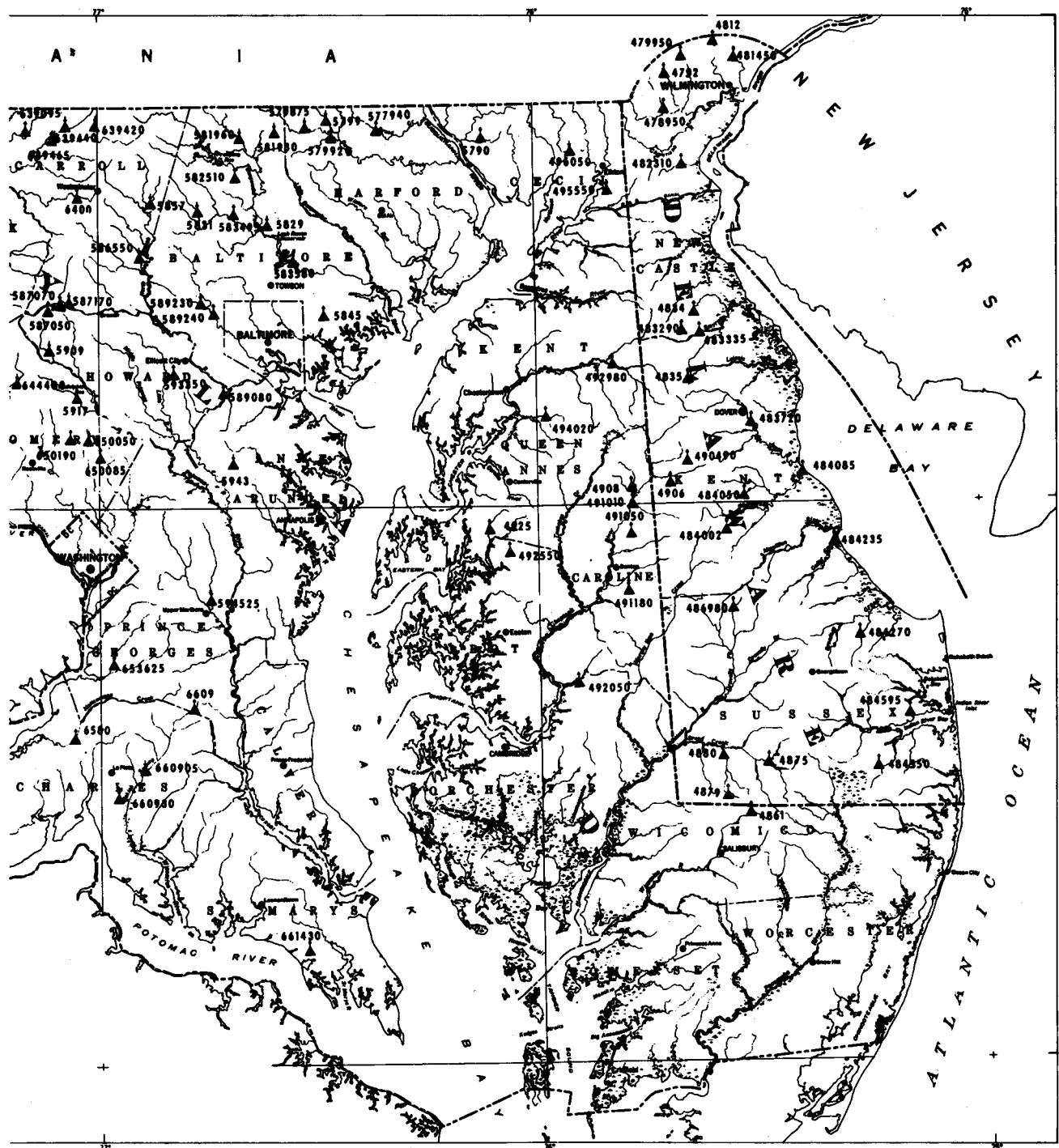


Figure 2.--Map of Maryland and Delaware showing location of low-flow and crest-stage partial-record stations.





## WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1975

- Section 1. Surface-Water Records
- Section 2. Water-Quality Records
- Section 3. Ground-Water Records

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### INTRODUCTION

Water resources data for the 1975 water year for Maryland and Delaware consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water-levels and water quality of wells and springs. This report contains discharge records for 107 gaging stations; stage and contents for 1 reservoir; water quality for 41 gaging stations, and 126 wells; and water levels for 28 observation wells. Also included are data for 54 low-flow partial-record stations, 61 crest-stage partial-record stations, and 4 tidal crest-stage partial-record stations. Additional water data were collected at various sites, not part of 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 and Federal agencies in Maryland and Delaware.

Records of discharge (or stage) of streams, and contents (or stage) of lakes and reservoirs were first published in a series of U. S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through water year 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."

Beginning with the 1961 water year and continuing through water year 1974, streamflow data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year, and ground-water data since the 1971 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports provided rapid release of preliminary water data shortly after the end of the water year. The final data were then released in the water-supply paper series mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water year reports will be in a series which will 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-DEL-75-1." These reports are for sale to the public for a nominal fee from the National Technical Information Service, U. S. Department of Commerce, Springfield, Virginia, 22151. For more information on publications available, see "PUBLICATIONS" on a subsequent page.

## COOPERATION

The U. S. Geological Survey and organizations of the State of Maryland have had cooperative agreements for the systematic collection of stream-flow records from 1896 to 1909, and since 1924, 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 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, B. M. Evans,  
administrator.

Delaware Department of Highways and Transportation, R. A. Haber,  
director of highways.

Washington Suburban Sanitary Commission, R. J. McLeod, general  
manager.

Maryland Water Resources Administration, H. M. Sachs, director.

Maryland National Capital Park and Planning Commission, D. L.  
Spicer, executive director.

Maryland Department of Health and Mental Hygiene, Environmental  
Health Administration, D. H. Noren, director.

District of Columbia Department of Environmental Services,  
W. C. McKinney, director.

City of Baltimore, Department of Public Works, R. J. Kretzschmar,  
chief of water supply division, bureau of engineering.

Montgomery County Department of Environmental Protection,  
H. C. Ervine, director.

Assistance in the form of funds or services was given by the Corps of Engineers, U. S. Army, for 27 gaging stations; by the Water Quality Office, Environmental Protection Agency for 3 gaging stations; by the Soil Conservation Service, U. S. Department of Agriculture for 1 station; and by the National Park Service, U. S. Department of the Interior for 1 station.

The following organizations aided in collecting records:

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

Maryland: Upper Potomac River Commission; Natural Resources  
Institute, University of Maryland; Anne Arundel County, Balti-  
more County; Harford County; city of Salisbury; Potomac Electric  
Power Co.; and Virginia Electric Power Co.

Organizations that supplied data are acknowledged in station descrip-  
tions.

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, follow. See also table 3, "Factors for Converting English Units to International System (SI) Units" on page 24.

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, about 326,000 gallons, or about 1,233 cubic metres.

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

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded 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  $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$  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 the intestine of warmblooded 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  $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$  on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Benthic organisms (invertebrates) are animals inhabiting the bottom of an aquatic environment. They include a number of different types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are frequently used as indicators of environmental quality because many have restricted mobility during their aquatic life phase, as well as a relatively long lifespan which allows for response to prevailing and changing water-quality conditions. Many benthic organisms inhabit specific types of environments which, if changed, result in changes in the composition of the benthic community.

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

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

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

Dry weight refers to the weight of residue present after drying in an oven at  $60^{\circ}\text{C}$  for zooplankton and  $105^{\circ}\text{C}$  for periphyton, until the weight remains unchanged. This weight represents the total organic matter, ash and sediment, in the sample. Dry weight values are expressed in the same units as ash weight.

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

Cfs-day is the volume of water represented by a 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 about 2,447 cubic metres, and represents a runoff of approximately 0.0372 inch (0.945 millimetre) from 1 square mile (2.590 square kilometres).

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

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.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken once or more times daily.
3. When sediment discharge records include those periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

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

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. One CFSM is equivalent to 0.01093 cubic metres per second per square kilometre, approximately.

Cubic foot per second (cfs) 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, approximately 448.8 gallons per minute, or 0.02832 cubic metres per second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (cfs)."

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

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 stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing 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 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 general term "stage," although gage height is more appropriate when used with a reading on a gage. The elevation of the water surface above mean sea level may be determined by adding the gage height to the datum of the gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

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

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

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

Milligrams per litre (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represents the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per litre of water-sediment mixture. In the range of concentration of suspended sediment reported herein, concentration expressed in parts per million is essentially equivalent to that in mg/l.

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

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 multi-celled and counted according to the number of contained cells per sample volume, usually millilitres (ml) or litres (l).

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 metres ( $\text{m}^2$ ), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.



Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi ply by</u>
Aluminum ( $\text{Al}^{+3}$ )*....	0.11119	Iron ( $\text{Fe}^{+3}$ )*.....	0.05372
Ammonia as $\text{NH}^{+1}$ .....	.05544	Lead ( $\text{Pb}^{+2}$ )*.....	.00965
Bicarbonate ( $\text{HCO}_3^{-1}$ ).....	.01639	Magnesium ( $\text{Mg}^{+2}$ )....	.08226
Calcium ( $\text{Ca}^{+2}$ ).....	.04990	Manganese ( $\text{Mn}^{+2}$ )*...	.03640
Carbonate ( $\text{CO}_3^{-2}$ )...	.03333	Nickel ( $\text{Ni}^{+2}$ )*.....	.03406
Chloride ( $\text{Cl}^{-1}$ ).....	.02821	Nitrate ( $\text{NO}_3^{-1}$ ).....	.01613
Chromium ( $\text{Cr}^{+6}$ )*.....	.11539	Nitrite ( $\text{NO}_2^{-1}$ ).....	.02174
Cobalt ( $\text{Co}^{+2}$ )*.....	.03394	Phosphate ( $\text{PO}_4^{-3}$ )...	.03159
Copper ( $\text{Cu}^{+2}$ )*.....	.03148	Potassium ( $\text{K}^{+1}$ ).....	.02557
Cyanide ( $\text{CN}^{-1}$ ).....	.03844	Sodium ( $\text{Na}^{+1}$ ).....	.04350
Fluoride ( $\text{F}^{-1}$ ).....	.05264	Sulfate ( $\text{SO}_4^{-2}$ ).....	.02082
Hydrogen ( $\text{H}^{+1}$ ).....	.99209	Zinc ( $\text{Zn}^{+2}$ )*.....	.03060

\*Constituent reported in micrograms per litre; multiply by factor and divide results by 1,000.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually millilitres (ml) or litres (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 or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined either by 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, that is, the river water at the time and point of sampling (Guy, 1969).

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:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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 (Guy, 1969). All particle size analyses in this report were performed in distilled water and chemically dispersed unless noted otherwise.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Picocurie (PC/L, pCi/l) is one millionth of the amount of radioactivity represented by a microcurie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegration per minute.

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

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

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

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

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

Runoff in inches (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. One IN. is equivalent to 25.4 mm.

Sediment is a solid material that originates mostly from disintegrated rocks and is transformed 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 discharge 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 by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time (Colby and Hembree, 1955).

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 litre of water-sediment mixture (mg/l).

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

Seston is the total suspended particulate matter in water. The concentration of particulate matter has a profound effect upon the optical properties of the water, and upon the concentration of dissolved materials in the water. Their concentrations are expressed in milligrams per litre (mg/l).

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 and is expressed in micromhos per centimetre at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per litre) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the 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." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

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

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The use of artificial substrates 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.

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.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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

#### SPECIAL NETWORKS AND PROGRAMS

National stream-quality accounting network is an accounting 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 in the network design. Areal configuration of the network is based on river-basin accounting units designed 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 water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in stream quality.

Radiochemical program is a network of regularly sampled water quality stations where additional samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are samples represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in  $\mu\text{g/l}$  (micrograms per litre), radium as radium - 226 in PC/L, (pCi/l, picocuries per litre), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per litre ( $\mu\text{g/l}$ ). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

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

Tritium network is a network of tritium-sampling 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.

Tritium concentrations are reported in terms of tritium units (TU); one TU is equal to 3.2436 picocuries per litre.

#### DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report, the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station, partial-record station, and water-quality 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 continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. 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 01646500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "646500." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 1 (North Atlantic slope basins) and Part 3 (Ohio River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

Downstream order station numbers are not assigned to sites where only occasional streamflow measurements are taken. These sites are classified as miscellaneous sites and are listed in downstream order in the table beginning on page 150.

#### NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

Miscellaneous 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 is a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and a miscellaneous site are the same, assign sequential numbers "01," "02," etc. as one would for wells. See figure 3 on the following page.

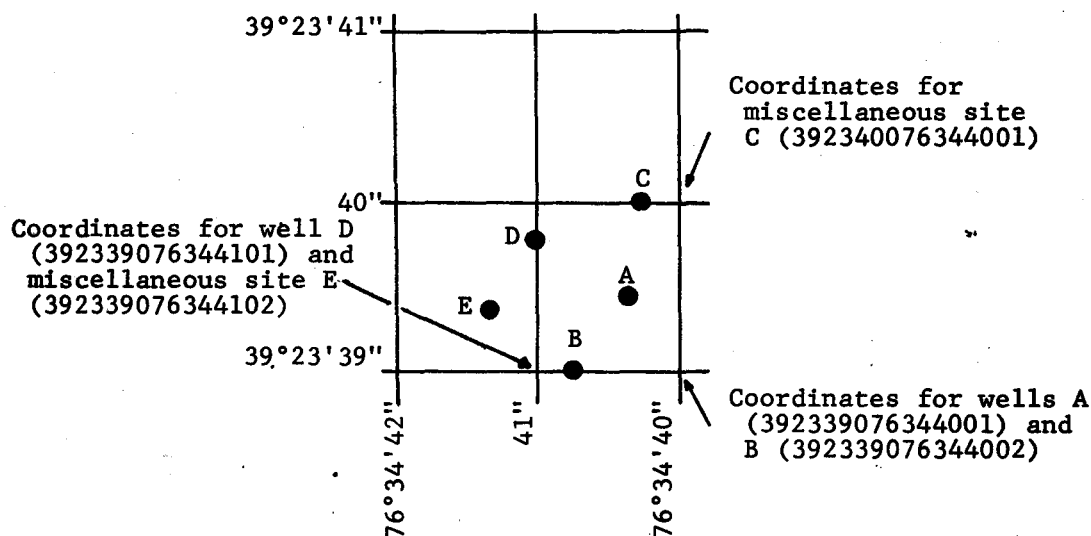


Figure 3. System for numbering wells and miscellaneous sites (latitude and longitude)

#### EXPLANATION OF SURFACE-WATER 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 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 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. 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. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

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), 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 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 the gage-height record and occasional winter discharge measurements, consideration being 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, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, 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 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. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the reverse side of the back cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the 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." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. 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. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents) and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph

headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds 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 at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, 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 also given under "REMARKS."

Previously published 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 "REVISIONS (WATER YEARS)" 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 were revised, that 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 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"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion.

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

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.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected 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.

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 and miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

#### Accuracy of data

The accuracy of discharge 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 interpretation 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 of the true discharge; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

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

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

### Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Maryland and Delaware for the period October 1960 to September 1965 are in Water-Supply Papers 1902, 1903, and 1907.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Maryland and Delaware are compiled in Water-Supply Papers 1302 and 1305 through September 1950, and in 1722 and 1725 for October 1950 to September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

### 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.

## EXPLANATION OF WATER-QUALITY RECORDS

### Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads in this report.

Descriptive statements are given for water-quality stations located at or near streamflow stations. Given are location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations. For ground-water stations, 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-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic

and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnished information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U. S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per litre. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 2 below.

Table 2.--Degrees Celsius (°C) to degrees Fahrenheit (°F)\*  
(Temperature reported to nearest 0.5°)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.6	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

$$*C = 5/9 (°F - 32) \text{ or } °F = 9/5 (°C) + 32$$

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre (see "Definition of Terms," p. 5 and Table 3, p. 24).

### Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman. The method for determining elemental constituents by emission spectrographic techniques is described by Barnett and Mallory. Analysis of pesticides, herbicides, and organic substances in water are described

by Goerlitz and Lamar, Lamar, Goerlitz, and Law, and Goerlitz and Brown. The collection and analysis of aquatic, biological and microbiological samples are described by Slack and others.

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 the 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.

The daily chemical-quality data in this report generally represent equal-volume composites for 2- to 30-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

For chemical-quality stations equipped with noncontinuous-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 U. S. Geological Survey district office at the address given on the back of the title page of this report.

Ground-water quality normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately define ground-water quality at a given site. Water samples from wells are analyzed individually.

#### Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken about the same time each day when sample is collected. Large streams have a small diurnal temperature change while small, 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 continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

#### 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 are collected, daily loads of suspended sediment are 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 are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, 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 periodic measurements of the particle-size distribution of the suspended sediment are included.

#### Publications

The annual series of water-supply papers that contain information on quality of surface waters in Maryland and Delaware are listed below:

<u>Water Year</u>	<u>WSP No.</u>	<u>Water Year</u>	<u>WSP No.</u>	<u>Water Year</u>	<u>WSP No.</u>
1946	1050	1959	1641	1967	2011,
1948	1132	1960	1741		2012
1949	1162	1961	1881	1968	2091,
1950	1186	1962	1941		2093
1951	1197	1963	1947,	1969	2141,
1952	1250		1948		2143
1953	1290	1964	1954,	1970	2151,
1954	1350		1955		2153
1955	1400	1965	1961,	1971	*2161,
1956	1450		1962		*2163
1957	1520	1966	1991,		
1958	1571		1992		

\*In press

#### EXPLANATION OF GROUND-WATER LEVEL RECORDS

##### Collection of the data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the nation's most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on the grid system of latitude and longitude as shown in figure 4, and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs.

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

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level 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 mean sea level is given in the well description. Water levels in wells equipped with recording gages are reported for every fifth day and 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 of 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

Publication of ground-water level data for the United States in Water-Supply Papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single Water-Supply Paper for each year covering the entire nation was issued (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate Water-Supply Papers were issued for 6 sections of the United States. Water-level data for Maryland are in reports covering the southeastern states and data for Delaware are in reports covering the northeastern states. These data are in the Water-Supply Papers listed below, each report containing one or more calendar years (January to December) of data. Data in this report are for the 12-month water year ending September 30.

<u>Calendar Year</u>	<u>National Report</u>	<u>North- eastern</u>	<u>South- eastern</u>	<u>Calendar Year</u>	<u>North- eastern</u>	<u>South- eastern</u>
1936	817	---	---	1950	1165	1166
1937	840	---	---	1951	1191	1192
1938	845	---	---	1952	1221	1222
1939	886	---	---	1953	1265	1266
1940	---	---	907	1954	1321	1322
1941	---	---	937	1955	1404	1405
1942	---	---	945	1956-57	1537	----
1943	---	---	987	1956-58	----	1538
1944	---	1016	1017	1958-62	1782	----
1945	---	1023	1024	1959-63	----	1803
1946	---	1071	1072	1963-67	1977	----
1947	---	1096	1097	1964-68	----	1978
1948	---	1126	1127	1968-72	2140	----
1949	---	1156	1157	1969-73	----	2171

Information about reports and other data on ground water in Maryland and Delaware may be obtained from the district office, at the address given on the back of the title page.



## HYDROLOGIC CONDITIONS

Streamflow during the year was excessive throughout the bi-State area and averaged about 160 percent of normal, an increase of about 40 percent over the preceding year. Runoff at four index streamflow stations indicated that the last six consecutive water years (1970-75) averaged above normal, with the Potomac River at Point of Rocks, Md., being the highest of any consecutive six year period since records began in 1895.

Streamflow at Potomac River at Paw Paw, W. Va., averaged  $4,248 \text{ ft}^3/\text{sec}$  ( $120 \text{ m}^3/\text{s}$ ), 142 percent of normal. The average flow for Seneca Creek at Dawsonville was  $138 \text{ ft}^3/\text{s}$  ( $3.91 \text{ m}^3/\text{s}$ ), 157 percent of normal and for Choptank River near Greensboro was  $203 \text{ ft}^3/\text{s}$  ( $5.75 \text{ m}^3/\text{s}$ ), 181 percent of normal.

Graphical illustrations of streamflow conditions during the year in comparison with previous records for two stations are shown on page 23. Data for the station, Potomac River at Point of Rocks, Md., a long-term record, reflects runoff conditions in the Potomac River basin excluding the Coastal Plain. Data for the station, Choptank River at Greensboro, Md., reflects runoff from a  $113 \text{ mi}^2$  area ( $293 \text{ km}^2$ ), ( $21.6 \text{ mi}^2$ ,  $34.8 \text{ km}^2$ , in Delaware) in the central part of the Delmarva peninsula. Annual mean discharge is shown in figure 4 for the period of record of the two stations.

The combined storage in the three major water-supply reservoirs in Baltimore City Municipal System was 119 percent of average on September 30, 1975, which was about 86,400 mil gal ( $327.07 \text{ hm}^3$ ), an increase of about 7 percent over the end of last year.

Wide-spread flooding occurred during the year mostly as a result of thunderstorm activity during July and intense rainfall associated with Hurricane Eloise during September. High discharges, second only to those produced by tropical storm Agnes in June 1972, were recorded on several streams in The Baltimore, Md.-Washington, D. C. area.

Average fresh-water inflow to the Chesapeake Bay was estimated at  $94,900 \text{ ft}^3/\text{s}$  ( $2,690 \text{ m}^3/\text{s}$ ), 129 percent of the long-term average of  $73,500 \text{ ft}^3/\text{s}$  ( $2,080 \text{ m}^3/\text{s}$ ), reference period 1952-74. Inflows were above average from December to September except during April, with a record high  $155,000 \text{ ft}^3/\text{s}$  ( $4,390 \text{ m}^3/\text{s}$ ) occurring in September.

Ground-water levels were generally above average throughout the year west of the Fall Line. There was a seasonal rise in the water levels from November or December to a peak in the period February-April, then a seasonal decline through mid-September. The highest water level in 27 years was observed at Green Ridge State Forest, Allegany County. The water level stood 1.93 ft (0.59 m) below lsd on February 24, 1975 (see page 302). In the Coastal Plain, except in areas affected by heavy pumpage, there was generally a seasonal rise in artesian water levels from October to April, then a decline from April through September.

As a result of recharge from abnormally heavy rains during late September (tropical storm Eloise) levels in some wells were at or near their highest points for the end of September in at least 20 years.

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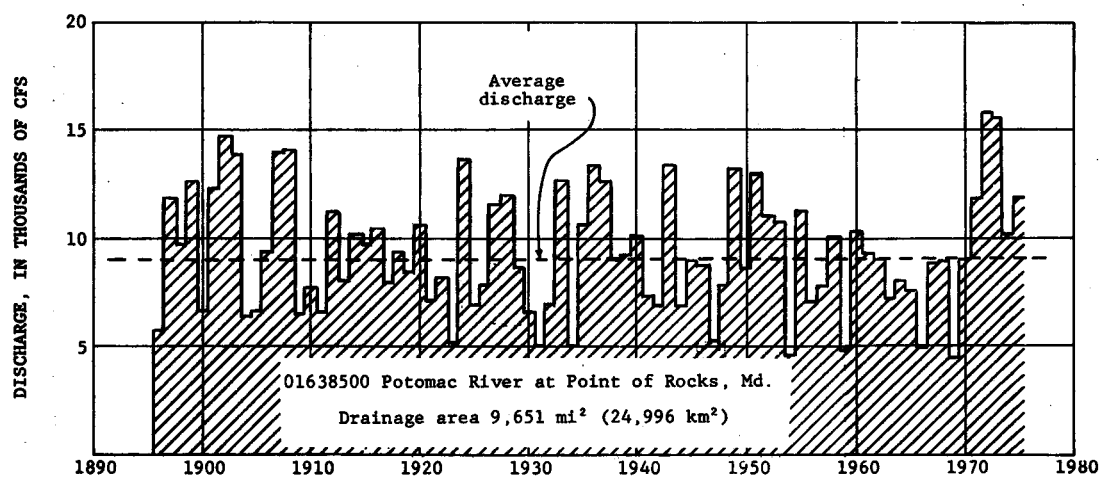
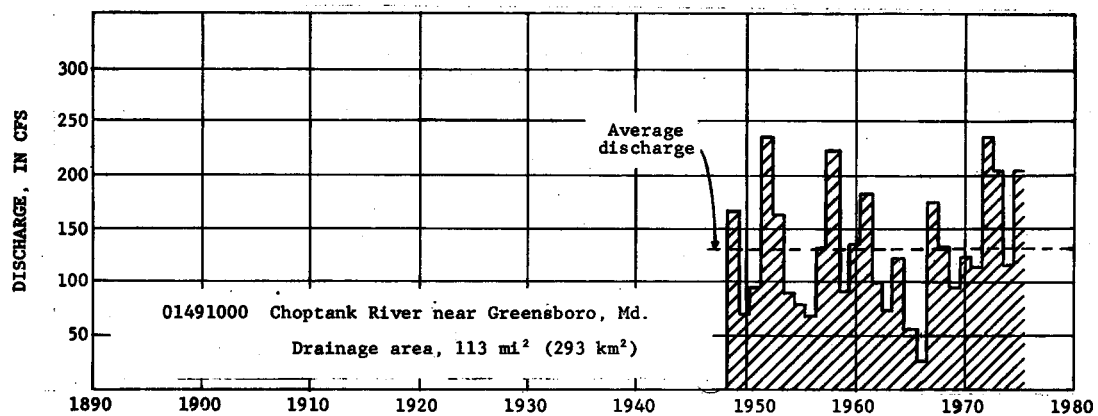


Figure 4.--Annual mean discharge at two gaging stations in Maryland.

Table 3.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<u>Length</u>		
inches (in)	$2.540 \times 10^{-1}$	millimetres (mm)
	$2.540 \times 10^{-2}$	metres (m)
	2.540	centimetres (cm)
feet (ft)	$3.048 \times 10^{-1}$	metres (m)
miles (mi)	1.609	kilometres (km)
<u>Area</u>		
acres	$4.047 \times 10^{-3}$	square metres (m <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometres (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	2.590	square kilometres (km <sup>2</sup> )
<u>Volume</u>		
gallons (gal)	3.785	litres (l)
	$3.785 \times 10^{-3}$	cubic metres (m <sup>3</sup> )
million gallons (mg)	$3.785 \times 10^{-3}$	cubic metres (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometres (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^{-2}$	cubic metres (m <sup>3</sup> )
cfs-day (ft <sup>3</sup> /s-day)	$2.447 \times 10^3$	cubic metres (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometres (hm <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$	cubic metres (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometres (hm <sup>3</sup> )
<u>Flow</u>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^{-2}$	cubic metres per second (m <sup>3</sup> /s)
gallons per minute (gpm)	$6.309 \times 10^{-2}$	litres per second (l/s)
	$6.309 \times 10^{-5}$	cubic metres per second (m <sup>3</sup> /s)
million gallons per day (mgd)	$4.381 \times 10^{-2}$	cubic metres per second (m <sup>3</sup> /s)
	$3.785 \times 10^6$	litres per day (l/d)
<u>Mass</u>		
ton (short)	$9.072 \times 10^{-1}$	tonne (t)

**SECTION 1. SURFACE WATER RECORDS**

## GAGING-STATION RECORDS

## DELAWARE RIVER BASIN

01477800 Shellpot Creek at Wilmington, Del.

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, on right bank 100 ft (30 m) east of intersection of 44th and Pine Streets in Clifton Park, 700 ft (213 m) downstream from highway bridge on North Market Street in Wilmington, 0.2 mi (0.3 km) downstream from Matson Run, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--7.46 mi<sup>2</sup> (19.32 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft (4.621 m) above mean sea level.

AVERAGE DISCHARGE.--29 years (1946-75), 9.72 ft<sup>3</sup>/s (0.275 m<sup>3</sup>/s), 17.69 in/yr (449 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,390 ft<sup>3</sup>/s (39.4 m<sup>3</sup>/s) Mar. 19, gage height, 5.08 ft (1.548 m); minimum daily, 0.53 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) Sept. 10.

Period of record: Maximum discharge, 6,850 ft<sup>3</sup>/s (194 m<sup>3</sup>/s) Sept. 13, 1971, gage height, 11.91 ft (3.630 m), from rating curve extended above 620 ft<sup>3</sup>/s (17.6 m<sup>3</sup>/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, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 2, 4, 1968.

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.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1382: 1948(m).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.0	2.8	13	4.1	4.2	3.7	10	209	2.0	1.5	.84
2	1.2	1.8	56	5.9	3.5	3.7	3.6	7.3	15	1.8	1.5	.86
3	1.2	3.9	4.3	2.8	3.2	3.4	30	4.3	4.7	3.9	1.4	.64
4	1.2	1.4	2.5	2.8	2.9	3.0	6.1	85	3.4	2.8	12	.68
5	1.2	1.8	2.0	2.3	18	2.9	4.6	12	153	1.7	9.8	.64
6	1.0	2.4	1.8	4.7	28	2.8	4.2	13	154	7.4	21	1.1
7	.94	1.3	2.4	23	12	3.0	3.6	8.9	8.9	3.1	3.0	.72
8	.89	1.1	118	4.8	5.5	4.0	3.7	4.9	4.9	2.3	1.6	.64
9	.86	1.1	11	94	5.2	3.1	3.5	4.2	4.0	8.5	1.4	.61
10	.84	1.0	4.6	7.8	4.2	3.8	3.3	3.7	3.2	3.7	1.7	.53
11	.80	1.0	3.3	14	3.6	4.8	3.3	3.2	2.9	3.4	1.4	.65
12	.77	9.0	2.6	6.6	5.5	15	3.2	10	272	3.7	1.4	8.2
13	.97	5.4	2.3	54	5.2	7.0	3.3	78	94	212	3.8	2.4
14	.85	1.5	4.5	12	4.4	43	3.3	15	8.7	25	4.6	.81
15	1.5	1.8	2.4	5.2	3.8	14	6.0	5.7	5.4	11	1.4	.69
16	97	1.4	173	4.5	7.2	5.8	5.0	42	5.4	4.3	12	.64
17	6.1	1.2	14	3.8	11	5.2	3.1	6.5	5.0	3.6	1.8	.64
18	2.3	1.2	5.5	60	19	3.8	3.1	5.1	3.9	3.0	1.4	.74
19	1.7	1.2	3.9	24	7.6	330	4.1	4.4	20	2.4	1.2	5.1
20	1.6	2.3	3.2	30	4.6	47	4.2	3.6	9.3	11	1.7	1.1
21	1.4	3.8	2.9	7.7	3.9	7.6	2.9	11	3.5	86	1.1	1.1
22	1.4	1.4	2.6	8.2	3.5	5.9	2.7	7.3	3.6	3.6	1.1	1.7
23	1.5	1.3	2.3	7.2	39	5.7	2.7	3.6	4.0	2.5	1.0	.87
24	1.3	1.2	2.3	7.2	82	45	15	3.2	4.7	2.3	4.1	.89
25	1.2	1.9	2.9	45	24	16	127	2.8	4.6	8.3	1.4	17
26	1.2	3.0	2.4	13	7.2	5.9	41	2.7	5.1	2.2	1.1	25
27	1.1	1.3	2.0	5.4	5.2	4.3	6.4	2.6	4.8	1.8	.98	5.3
28	1.0	1.2	2.0	4.5	4.5	3.9	4.8	2.3	8.3	1.7	.81	2.2
29	1.0	1.2	1.9	4.1	---	3.8	4.2	2.2	10	1.6	.75	1.7
30	1.1	1.1	1.9	3.6	---	19	3.6	35	9.2	1.5	.55	1.5
31	1.1	---	6.3	5.7	---	5.0	---	4.8	---	1.5	.93	---
TOTAL	137.62	60.2	449.6	486.8	327.8	631.6	315.2	404.3	1044.5	429.6	99.42	259.73
MEAN	4.4	2.0	14	15	11	20	10	13	34	13	3.2	8.6
MAX	97	9.0	173	94	82	330	127	85	272	212	21	89
MIN	.77	1.0	1.8	2.3	2.9	2.8	2.7	2.2	2.9	1.5	.55	.53
CFSM	.60	.27	1.94	2.10	1.57	2.73	1.41	1.75	4.67	1.86	.43	1.16
IN.	.69	.30	2.24	2.43	1.63	3.15	1.57	2.02	5.21	2.14	.50	1.30

CAL YR 1974 TOTAL 3285.67 MEAN 9.00 MAX 386 MIN .72 CFSM 1.21 IN 16.38  
WTR YR 1975 TOTAL 4646.37 MEAN 12.7 MAX 330 MIN .53 CFSM 1.71 IN 23.17

PEAK DISCHARGE (BASE, 550 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-16	1320	4.14	877	6-12	0935	4.27	949
3-19	2155	5.08	1,390	6-13	0610	3.74	644
4-25	2125	3.86	716	7-13	0500	4.34	987
6-01	0325	4.33	982	7-21	0030	4.60	1,130
6-05	2215	5.02	1,360				

01478000 Christina River at Coochs Bridge, Del.

LOCATION.--Lat 39°38'14", long 75°43'43", New Castle County, 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 Muddy Run, 3.3 mi (5.3 km) south of Newark, and 22.6 mi (36.4 km) upstream from mouth.

DRAINAGE AREA.--20.5 mi<sup>2</sup> (53.1 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft (7.78 m) above mean sea level. 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.

AVERAGE DISCHARGE.--32 years, 27.3 ft<sup>3</sup>/s (0.773 m<sup>3</sup>/s), 18.08 in/yr (459 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,500 ft<sup>3</sup>/s (70.8 m<sup>3</sup>/s) July 14, gage height, 10.76 ft (3.280 m); minimum daily, 5.7 ft<sup>3</sup>/s (0.161 m<sup>3</sup>/s) Oct. 26.  
Period of record: Maximum discharge, 3,320 ft<sup>3</sup>/s (94.0 m<sup>3</sup>/s) June 22, 1972; maximum gage height, 12.41 ft (3.783 m) May 1, 1947; minimum daily discharge, 0.2 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Aug. 7, 14, 18, 21, 27, 28, 1966.

REMARKS.--Records good. Low and medium flow regulated by mill above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	7.6	20	32	19	21	23	73	154	11	17	11
2	12	8.4	311	19	17	19	21	49	42	12	16	12
3	7.5	10	26	13	16	17	85	27	19	11	16	13
4	11	10	15	14	15	16	30	329	17	12	18	9.2
5	7.3	11	13	12	53	17	21	70	130	10	20	12
6	8.3	17	9.3	16	104	16	19	39	440	11	15	9.5
7	12	7.3	11	87	60	18	18	38	35	10	16	10
8	9.0	6.7	454	19	25	17	17	25	20	9.9	16	12
9	8.4	6.4	58	262	20	15	17	22	19	89	13	10
10	9.6	6.4	21	37	19	16	16	20	14	24	14	13
11	9.0	6.5	17	31	13	18	17	19	15	17	15	9.1
12	6.7	12	14	23	31	45	15	26	284	11	13	18
13	8.0	18	15	146	23	36	15	187	148	655	22	14
14	12	8.0	18	62	17	126	15	81	30	929	23	9.6
15	7.3	7.7	14	23	15	82	18	27	20	169	13	12
16	202	7.1	654	17	18	27	20	119	21	224	45	8.4
17	28	6.9	96	16	30	23	15	32	20	68	15	12
18	9.7	6.9	33	150	63	20	15	25	17	37	15	8.5
19	7.9	6.9	21	102	29	460	16	23	16	30	13	22
20	7.6	7.6	18	137	19	298	14	19	15	29	16	11
21	7.5	9.6	17	36	17	46	13	18	13	435	12	11
22	7.8	7.5	15	24	15	32	11	26	12	37	13	11
23	7.6	6.8	15	28	140	26	11	18	12	26	12	207
24	7.6	6.8	12	30	173	107	23	16	11	23	14	449
25	9.1	7.3	13	127	125	107	266	15	13	99	13	119
26	5.7	8.3	15	77	34	33	253	15	10	27	12	37
27	7.2	6.9	11	25	24	24	37	15	13	22	12	21
28	7.9	7.1	13	20	22	23	27	14	22	19	11	14
29	8.6	6.9	11	19	---	23	25	13	16	19	12	13
30	6.7	6.9	14	17	---	79	22	17	18	18	9.8	12
31	7.1	---	16	20	---	31	---	18	---	17	11	---
TOTAL	475.7	252.5	1990.3	1641	1156	1838	1115	1435	1616	3110.9	482.8	1130.3
MEAN	15.3	8.41	64.2	52.9	41.2	59.2	37.1	46.2	53.8	100	15.5	37.6
MAX	202	18	654	262	173	460	266	329	440	929	45	449
MIN	5.7	6.4	9.3	12	13	15	11	13	10	9.9	9.8	8.4
CFSM	.75	.41	3.13	2.58	2.01	2.89	1.81	2.26	2.63	4.90	.76	1.84
IN.	.86	.46	3.61	2.98	2.10	3.34	2.02	2.60	2.93	5.65	.88	2.05

CAL YR 1974 TOTAL 10287.0 MEAN 28.1 MAX 654 MIN 2.9 CFSM 1.37 IN 18.67  
WTR YR 1975 TOTAL 16243.5 MEAN 44.5 MAX 929 MIN 5.7 CFSM 2.17 IN 29.48

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	1330	9.84	1,140	6-06	0145	10.04	1,340
12-16	1630	10.30	1,700	7-14	0630	10.76	2,500
3-19	2030	10.12	1,430	7-21	0445	10.24	1,600
4-25	2315	9.85	1,150				



01478500 White Clay Creek above Newark, Del.

LOCATION.--Lat 39°42'52", long 75°45'34", New Castle County, on right bank at downstream wingwall of abandoned bridge, 0.9 mi (1.4 km) downstream from small tributary, 1.7 mi (2.7 km) southeast of Delaware-Maryland-Pennsylvania State corner, 2.1 mi (3.4 km) downstream from Pennsylvania-Delaware State line, 2.2 mi (3.5 km) north of Newark, and 12.8 mi (20.6 km) upstream from mouth.

DRAINAGE AREA.--66.7 mi<sup>2</sup> (172.8 km<sup>2</sup>).

PERIOD OF RECORD.--February 1952 to September 1959, July 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 78.6 ft (24.0 m) above mean sea level.

AVERAGE DISCHARGE.--20 years, 84.2 ft<sup>3</sup>/s (2.385 m<sup>3</sup>/s), 17.14 in/yr (435 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,330 ft<sup>3</sup>/s (179 m<sup>3</sup>/s) July 15, gage height, 11.71 ft (3.569 m); minimum daily, 38 ft<sup>3</sup>/s (1.08 m<sup>3</sup>/s) Oct. 11, 12.  
Period of record: Maximum discharge, 10,200 ft<sup>3</sup>/s (289 m<sup>3</sup>/s) June 22, 1972, gage height, 13.77 ft (4.197 m), from rating curve extended above 1,800 ft<sup>3</sup>/s (51.0 m<sup>3</sup>/s) on basis of contracted-opening measurements at gage heights 9.97 ft (3.039 m) and 13.77 ft (4.197 m); minimum, 4.6 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Dec. 7, 1954, gage height, 0.55 ft (0.168 m), result of freezeup; minimum daily, 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) Sept. 10, 1966.

REMARKS.--Records fair. Records do not include a negligible diversion above station by plant of E. I. du Pont de Nemours & Co. Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	45	45	104	93	112	122	148	1050	88	118	66
2	46	44	285	91	89	107	115	144	213	80	115	66
3	44	52	82	76	86	102	142	116	124	121	109	64
4	43	49	63	76	83	98	118	309	103	124	107	60
5	43	48	56	72	107	97	108	176	285	83	171	60
6	42	49	54	72	131	99	105	138	808	77	117	60
7	41	45	53	150	131	100	102	168	171	76	115	62
8	39	43	857	88	102	102	100	119	128	74	103	62
9	39	43	164	322	96	91	97	108	113	82	96	56
10	39	43	96	120	87	94	97	103	103	83	93	52
11	38	44	79	108	86	101	96	97	99	84	93	54
12	38	52	75	96	95	116	94	95	396	78	89	68
13	40	78	70	185	89	123	91	178	579	1280	93	80
14	40	48	73	138	86	168	91	152	169	3060	124	56
15	42	49	67	98	83	182	99	107	131	1570	91	52
16	294	45	699	90	91	128	110	187	121	952	132	54
17	98	44	208	84	132	113	94	118	124	341	102	56
18	60	43	118	216	223	104	90	106	111	244	93	56
19	54	43	99	191	152	1050	94	102	108	207	85	95
20	53	45	91	234	113	607	92	94	167	224	86	65
21	51	59	85	120	98	185	84	97	96	1750	79	88
22	50	47	82	108	93	155	81	217	89	266	79	72
23	49	43	77	105	208	140	81	106	86	199	75	463
24	48	43	78	106	282	197	93	94	83	175	81	733
25	48	44	77	194	284	233	377	87	82	355	79	303
26	47	47	74	171	141	145	523	87	87	192	75	192
27	46	42	72	109	122	125	148	85	89	158	70	128
28	45	43	72	101	115	122	123	78	176	145	67	91
29	45	42	70	99	---	123	116	74	113	134	65	80
30	45	41	71	92	---	189	108	80	152	126	66	76
31	45	---	72	95	---	136	---	87	---	122	66	---
TOTAL	1702	1403	4164	3911	3498	5444	3791	3857	6156	12550	2934	3470
MEAN	54.9	46.8	134	126	125	176	126	124	205	405	94.6	116
MAX	294	78	857	322	284	1050	523	309	1050	3060	171	733
MIN	38	41	45	72	83	91	81	74	82	74	65	52
CFSM	.82	.70	2.01	1.89	1.87	2.64	1.89	1.86	3.07	6.07	1.42	1.74
IN.	.95	.78	2.32	2.18	1.95	3.04	2.11	2.15	3.43	7.00	1.64	1.94

CAL YR 1974	TOTAL	32878	MEAN	90.1	MAX	857	MIN	33	CFSM	1.35	IN	18.34
WTR YR 1975	TOTAL	52880	MEAN	145	MAX	3060	MIN	38	CFSM	2.17	IN	29.49

PEAK DISCHARGE (BASE, 1,500 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	1315	6.53	2,200	6-06	0130	6.99	2,470
12-16	1500	6.67	2,280	6-13	0700	5.58	1,650
3-19	1945	7.72	2,930	7-15	2145	11.71	6,330
4-26	0015	5.72	1,730	7-21	0445	10.60	5,100
6-01	0500	6.89	2,410				

01479000 White Clay Creek near Newark, Del.

LOCATION.--Lat 39°42'01", long 75°41'00", New Castle County, on left bank 300 ft (91 m) upstream from Baltimore & Ohio Railroad bridge, 0.4 mi (0.5 km) downstream from Pike Creek, 3.5 mi (5.6 km) east of Newark, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--87.8 mi<sup>2</sup> (227.4 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 11.6 ft (3.54 m) above mean sea level. Nov. 17, 1931 to Sept. 30, 1936, at site 15 ft (5 m) downstream at same datum.

AVERAGE DISCHARGE.--35 years, 111 ft<sup>3</sup>/s (3.144 m<sup>3</sup>/s), 17.17 in/yr (436 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,900 ft<sup>3</sup>/s (195 m<sup>3</sup>/s) July 16, gage height, 16.15 ft (4.923 m), from high-water mark in well; minimum, 44 ft<sup>3</sup>/s (1.25 m<sup>3</sup>/s) Oct. 15; minimum daily, 46 ft<sup>3</sup>/s (1.30 m<sup>3</sup>/s) Oct. 11.

Period of record: Maximum discharge, 9,080 ft<sup>3</sup>/s (257 m<sup>3</sup>/s) June 22, 1972, gage height, 17.74 ft (5.407 m), from rating curve extended above 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 4.7 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Sept. 11, 1966; minimum gage height, 3.65 ft (1.116 m) July 26, 1954; minimum daily discharge, 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Sept. 10, 1966.

Maximum stage known, 23 ft (7 m) in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Slight diurnal fluctuation by low flow caused by mills above station. Records do not include a negligible diversion above station by plant of E. I. du Pont de Nemours & Co.

REVISIONS (WATER YEARS).--WSP 1051: 1933(M). WSP 1382: 1932, 1934.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	49	65	114	129	150	160	210	1400	108	162	88
2	58	47	440	101	123	145	150	200	250	96	157	87
3	54	70	119	80	117	140	210	160	150	103	150	85
4	52	58	84	79	111	135	160	450	130	165	151	79
5	52	61	74	74	160	135	145	230	400	100	206	78
6	52	66	71	76	180	135	140	180	1100	94	158	78
7	50	55	70	167	180	135	135	240	210	91	159	80
8	48	52	873	91	140	140	135	160	160	89	140	80
9	47	52	229	456	130	125	130	150	140	187	132	74
10	47	52	134	149	120	130	130	140	130	126	127	69
11	46	51	106	130	120	140	130	130	120	114	127	70
12	47	63	96	116	130	160	125	125	560	102	121	86
13	49	103	89	224	125	170	120	250	800	2100	132	102
14	48	62	96	174	120	290	125	200	230	3870	165	74
15	48	61	87	111	115	250	140	140	170	1770	122	69
16	409	59	976	102	125	180	170	250	150	1710	179	70
17	154	57	278	96	190	150	130	160	150	396	140	71
18	80	57	154	291	320	140	120	140	140	274	126	70
19	67	56	120	262	210	1500	130	130	130	244	113	110
20	62	5	105	281	150	800	120	120	230	4	117	85
21	59	74	95	166	130	250	110	130	120	2480	104	112
22	56	58	90	151	130	210	105	300	115	304	104	120
23	53	52	84	145	280	190	105	140	110	240	99	795
24	55	54	83	146	400	280	130	135	105	222	111	989
25	52	55	82	237	410	330	600	115	105	373	105	272
26	54	58	79	233	200	200	760	115	110	232	98	220
27	54	52	7	148	170	170	200	110	120	208	91	160
28	49	53	76	134	160	165	160	100	240	192	86	124
29	47	54	74	133	---	160	150	96	150	181	84	111
30	47	53	74	126	---	270	140	105	200	172	85	106
31	48	---	80	131	---	180	---	120	---	167	88	---
TOTAL	2106	1755	5159	4924	4875	7555	5265	5231	8135	16754	3939	4614
MEAN	67.9	58.5	166	159	174	244	176	169	271	540	127	154
MAX	409	103	976	456	410	1500	760	450	1400	3870	206	989
MIN	46	47	65	74	111	125	105	96	105	89	84	69
CFSM	.77	.67	1.89	1.81	1.98	2.78	2.00	1.92	3.09	6.15	1.45	1.75
IN.	.89	.74	2.19	2.09	2.07	3.20	2.23	2.22	3.45	7.10	1.67	1.95

CAL YR 1974 TOTAL 40575 MEAN 111 MAX 976 MIN 40 CFSM 1.26 IN 17.19  
WTR YR 1975 TOTAL 70312 MEAN 193 MAX 3870 MIN 46 CFSM 2.20 IN 29.79

PEAK DISCHARGE (BASE, 2,000 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	1915	10.73	2,100	6-01	*	*	*
12-16	1915	11.34	2,460	6-06	*	*	*
3-19	*	*	*	7-16	0015	16.15	6,900
4-26	*	*	*	7-21	0800	15.42	6,060

\* Unknown, discharge probably greater than base.

NOTE.--No gage-height record Feb. 6 to June 30.

## 01480000 Red Clay Creek at Wooddale, Del.

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

DRAINAGE AREA.--47.0 mi<sup>2</sup> (121.7 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--32 years, 64.4 ft<sup>3</sup>/s (1.824 m<sup>3</sup>/s), 18.61 in/yr (473 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,010 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) July 21, gage height, 10.32 ft (3.146 m); minimum, 6.8 ft<sup>3</sup>/s (0.193 m<sup>3</sup>/s) Oct. 1, result of regulation; minimum daily, 27 ft<sup>3</sup>/s (0.765 m<sup>3</sup>/s) Oct. 8, 10, 11, 12, 13, 14.

Period of record: Maximum discharge, 5,010 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) July 21, 1975, gage height, 10.32 ft (3.146 m); minimum, 2.9 ft<sup>3</sup>/s (0.082 m<sup>3</sup>/s) Sept. 4, 1966; minimum daily, 4.5 ft<sup>3</sup>/s (0.127 m<sup>3</sup>/s) Sept. 4, 1966.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1141: 1948. WSP 1272: 1951(M). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WRD Md. and Del. 1969: 1960(M), 1964(M), 1966-67(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	34	74	68	79	86	102	639	64	96	56
2	33	32	254	63	65	75	82	98	125	60	93	56
3	31	39	66	52	62	72	105	82	80	108	90	54
4	30	34	48	52	61	69	83	191	70	90	8	51
5	30	35	42	47	86	68	79	125	185	63	155	51
6	28	35	40	46	103	7	77	110	511	70	111	50
7	28	33	39	107	98	70	75	132	115	64	107	51
8	27	32	464	59	75	73	74	91	88	60	90	50
9	28	32	107	247	70	62	72	84	79	71	83	47
10	27	31	64	83	63	64	72	80	74	66	80	44
11	27	30	55	79	63	71	72	74	72	66	82	45
12	27	47	52	68	70	84	71	74	376	62	76	51
13	27	79	49	138	64	87	68	135	371	1060	76	64
14	27	40	52	97	59	128	68	109	122	1630	104	45
15	28	39	48	66	58	131	75	83	100	1080	75	44
16	259	36	470	63	68	87	82	142	91	632	126	44
17	89	34	138	59	94	74	71	91	93	198	92	46
18	50	34	78	169	155	69	69	83	83	141	82	45
19	42	34	66	133	105	731	73	80	96	123	73	79
20	39	35	62	160	83	421	70	75	129	117	73	55
21	37	44	59	87	75	131	64	87	76	1390	65	57
22	37	36	56	79	71	110	62	110	71	183	68	54
23	37	34	53	77	157	101	62	76	69	147	64	330
24	36	34	53	78	215	139	74	65	68	134	67	568
25	36	34	54	135	199	163	286	62	69	260	65	216
26	34	37	50	118	103	102	352	62	68	141	62	158
27	33	32	49	78	89	91	108	60	71	126	58	95
28	33	33	49	73	82	88	91	56	86	120	55	69
29	33	33	46	72	---	88	85	54	74	111	54	60
30	33	32	49	66	---	131	80	60	87	104	55	57
31	33	---	45	70	---	95	---	66	---	99	57	---
TOTAL	1294	1093	2791	2795	2561	3828	2788	2799	4238	8640	2523	2692
MEAN	41.7	36.4	90.0	90.2	91.5	123	92.9	90.3	141	279	81.4	89.7
MAX	259	79	470	247	215	731	352	191	639	1630	155	568
MIN	27	30	34	46	58	62	62	54	68	60	54	44
CFSM	.89	.77	1.91	1.92	1.95	2.62	1.98	1.92	3.00	5.94	1.73	1.91
IN.	1.02	.87	2.21	2.21	2.03	3.03	2.21	2.22	3.35	6.84	2.00	2.13

CAL YR 1974 TOTAL 22912 MEAN 62.8 MAX 470 MIN 23 CFSM 1.34 IN 18.13  
WTR YR 1975 TOTAL 38042 MEAN 104 MAX 1630 MIN 27 CFSM 2.21 IN 30.11

PEAK DISCHARGE (BASE, 1,200 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	1315	4.92	1,240	6-01	0500	5.26	1,480
12-16	1545	5.37	1,560	6-06	0145	5.29	1,500
3-19	2245	6.41	2,290	7-14	0715	9.23	4,310
4-25	2345	4.99	1,290	7-21	0500	10.32	5,010

## DELAWARE RIVER BASIN

31

01480100 Little Mill Creek at Elsmere, Del.

LOCATION.--Lat 39°44'05", long 75°35'14", New Castle County, on left bank at downstream side of highway bridge on North Du Pont Road at Elsmere, 0.5 mi (0.8 km) downstream from unnamed tributary, and 2.2 mi (3.5 km) upstream from mouth.

DRAINAGE AREA.--6.70 mi<sup>2</sup> (17.35 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1968. Prior to Mar. 19, 1964, nonrecording gage at same site and datum. Datum of gage is 48.62 ft (14.819 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 10.3 ft<sup>3</sup>/s (0.292 m<sup>3</sup>/s), 20.88 in/yr (530 mm/yr).

EXTREMES.--Current year: Maximum discharge, 882 ft<sup>3</sup>/s (25.0 m<sup>3</sup>/s) June 5, gage height, 5.23 ft (1.594 m); minimum, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Oct. 9, 12, 13, 14.  
Period of record: Maximum discharge, 3,960 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) Aug. 10, 1967, gage height, 8.58 ft (2.615 m), from rating curve extended above 380 ft<sup>3</sup>/s (10.8 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; minimum, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) July 17, 18, Sept. 18, 19, 1966.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.5	7.4	9.6	5.4	5.3	6.6	14	123	5.5	4.8	3.4
2	2.4	2.4	87	5.8	5.0	4.8	6.1	9.4	16	4.9	4.2	3.3
3	2.2	5.3	5.2	4.6	4.7	4.3	26	6.1	6.3	23	3.8	3.5
4	2.2	2.4	3.4	4.1	4.5	4.1	7.8	71	5.1	7.2	7.6	3.0
5	2.1	5.2	3.2	3.6	22	4.0	6.1	12	104	5.2	9.8	3.0
6	2.0	3.8	3.1	9.9	19	4.1	5.8	11	118	16	17	3.7
7	2.0	2.3	2.8	20	10	4.5	5.9	7.7	12	7.6	5.5	3.1
8	2.0	2.2	68	6.2	6.3	4.2	5.6	5.4	7.8	5.4	4.3	3.0
9	1.9	2.1	8.0	77	5.9	3.4	5.2	5.0	6.8	40	3.8	3.0
10	1.9	2.2	4.7	8.1	5.0	4.9	5.3	4.3	6.0	10	3.8	2.9
11	2.1	2.3	3.9	8.7	5.0	5.0	5.2	4.0	5.6	7.4	3.9	3.1
12	1.8	16	3.7	5.4	9.8	16	4.7	10	156	6.9	3.8	14
13	1.9	6.6	3.6	40	7.3	7.0	4.5	44	76	262	12	4.4
14	1.9	2.7	5.5	11	5.0	37	4.6	13	12	79	8.4	2.8
15	4.8	2.7	3.1	5.8	4.7	13	8.4	5.7	9.0	19	3.7	2.8
16	93	2.4	120	5.4	5.8	6.6	6.0	31	11	17	19	2.8
17	7.1	2.2	13	4.8	9.7	6.1	5.1	5.9	8.2	30	4.7	3.0
18	3.8	2.3	6.5	51	11	5.5	4.6	5.3	6.9	19	4.6	3.3
19	2.7	2.4	5.3	21	6.9	192	5.7	4.6	46	8.9	3.9	10
20	2.3	4.5	4.7	25	5.5	47	4.8	4.0	27	22	8.6	3.8
21	2.4	3.8	4.3	9.5	4.8	11	4.3	6.8	7.5	79	3.8	3.5
22	2.3	2.3	4.5	9.4	4.5	8.9	4.3	13	6.3	8.6	3.4	5.2
23	2.7	1.9	4.4	8.0	38	7.7	4.4	6.2	6.0	6.7	3.1	96
24	2.3	2.1	3.8	7.3	68	39	14	4.8	5.7	6.5	11	117
25	2.4	3.0	4.4	33	22	17	91	4.5	5.3	11	3.8	22
26	2.3	2.8	3.7	12	8.1	8.7	37	4.3	6.1	6.4	3.5	37
27	2.2	2.1	3.6	7.0	6.4	7.2	7.6	4.2	6.3	5.5	3.3	10
28	2.2	2.1	3.5	6.3	5.9	6.4	6.2	3.9	12	5.3	3.5	5.5
29	2.3	2.0	3.4	5.9	---	6.2	5.7	3.5	24	5.1	3.6	4.7
30	2.3	1.9	3.5	5.4	---	21	5.1	23	8.1	4.7	3.0	4.6
31	2.4	---	8.4	7.9	---	7.5	---	5.4	---	4.4	3.1	---
TOTAL	168.5	98.5	409.6	438.7	316.2	519.4	313.6	353.0	850.0	739.2	182.3	387.4
MEAN	5.43	3.28	13.2	14.1	11.2	16.7	10.4	11.3	28.3	23.8	5.88	12.9
MAX	93	16	120	77	68	192	91	71	156	262	19	117
MIN	1.8	1.9	2.8	3.6	4.5	3.4	4.3	3.5	5.1	4.4	3.0	2.8
CFSM	.81	.49	1.97	2.11	1.69	2.50	1.56	1.70	4.23	3.56	.88	1.93
IN.	.94	.55	2.27	2.44	1.76	2.88	1.74	1.96	4.72	4.10	1.01	2.15

CAL YR 1974 TOTAL 3471.0 MEAN 9.50 MAX 150 MIN 1.5 CFSM 1.42 IN 19.27

WTR YR 1975 TOTAL 4776.4 MEAN 13.0 MAX 262 MIN 1.8 CFSM 1.95 IN 26.52

PEAK DISCHARGE (BASE, 350 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-02	0215	4.47	578	6-12	0930	4.22	494
12-16	1300	4.04	424	6-19	2215	3.83	368
3-19	1530	4.27	512	7-09	1700	4.25	505
4-25	2015	4.11	449	7-13	0415	4.55	610
6-01	1845	4.37	550	7-21	0015	4.81	722
6-05	2330	5.23	882				

01481000 Brandywine Creek at Chadds Ford, Pa.

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, on left bank, 27 ft (8 m) upstream from Penn Central Railroad Bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run and 1,200 ft (370 m) downstream from highway bridge on U. S. Highway 1.

DRAINAGE AREA.--287 mi<sup>2</sup> (743 km<sup>2</sup>), including that of Harvey Run.

PERIOD OF RECORD.--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 150.45 ft (45.857 m) above mean sea level. Prior to May 21, 1927, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--55 years (1911-53, 1962-75), 389 ft<sup>3</sup>/s (11.0 m<sup>3</sup>/s), 18.40 in/yr (467 mm/yr), adjusted for storage since November 1973.

EXTREMES.--Current year: Maximum discharge, 9,600 ft<sup>3</sup>/s (272 m<sup>3</sup>/s) July 14, gage height, 11.60 ft (3.536 m); minimum, 133 ft<sup>3</sup>/s (3.77 m<sup>3</sup>/s) Oct. 12, 14, gage height, 1.42 ft (0.433 m).  
Period of record: Maximum discharge, 23,800 ft<sup>3</sup>/s (674 m<sup>3</sup>/s) June 22, 1972, gage height, 16.56 ft (5.047 m), from rating curve extended above 9,000 ft<sup>3</sup>/s (225 m<sup>3</sup>/s) on basis of area-velocity study; minimum, 4.9 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Oct. 2, 1941, gage height, 0.28 ft (0.085 m); minimum daily, 42 ft<sup>3</sup>/s (1.19 m<sup>3</sup>/s) Sept. 12, 1966.

REMARKS.--Records good. Flow regulated by Marsh Creek Reservoir about 17 miles (27 km) upstream.

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 1201: 1919-20, 1932-33, 1936, 1938(P), 1942 (maximum only, 1917-18, 1922-31, 1934, 1939, 1944-46). WRD Pa. 1972: 1971.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	161	161	392	475	568	637	765	2390	514	486	276
2	201	160	502	409	463	534	601	826	795	468	476	272
3	193	189	342	323	446	507	721	681	618	456	456	263
4	176	169	239	311	434	476	661	1080	532	523	453	254
5	172	168	203	295	480	462	514	1000	829	450	609	250
6	168	164	192	281	519	457	503	776	1890	434	484	250
7	164	164	191	467	551	456	492	871	730	422	492	254
8	156	155	2310	391	480	464	480	691	580	415	452	250
9	151	154	114	951	458	427	476	631	526	410	432	241
10	156	153	478	531	426	423	485	617	494	460	419	232
11	144	151	395	474	426	440	481	593	475	419	416	227
12	147	178	356	443	442	478	473	583	1320	401	411	304
13	147	327	340	571	438	555	462	877	2470	2840	399	426
14	147	210	329	610	410	550	451	671	913	7640	445	263
15	147	194	310	520	410	613	457	593	682	4240	393	241
16	555	185	1250	460	426	619	507	954	633	1980	523	236
17	463	177	1290	390	475	537	466	717	717	1260	458	241
18	254	168	504	583	754	504	451	612	591	1040	410	232
19	210	169	427	800	787	1760	458	593	548	909	380	332
20	197	172	396	1040	636	4730	450	555	595	932	380	286
21	188	203	371	578	519	1190	425	612	501	2460	351	1000
22	176	194	353	523	488	956	412	820	475	874	347	429
23	180	173	330	501	803	873	405	597	461	784	332	1750
24	197	172	324	493	1340	944	491	555	469	715	323	2640
25	170	172	321	661	1910	1140	1430	532	498	1230	323	1770
26	171	185	308	924	806	820	2670	537	553	725	323	1070
27	169	165	295	569	663	714	954	510	525	632	295	877
28	162	172	291	519	601	689	776	488	1270	568	286	557
29	162	162	280	519	---	680	712	467	1220	540	276	478
30	158	156	283	506	---	869	666	463	679	513	276	443
31	182	---	279	484	---	734	---	578	---	499	276	---
TOTAL	6086	5322	14790	16519	17066	25209	19167	20845	24979	35753	12382	16344
MEAN	196	177	477	533	610	813	639	672	833	1153	399	545
MAX	555	327	2310	1040	1910	4730	2670	1080	2470	7640	609	2640
MIN	144	151	161	281	410	423	405	463	461	401	276	227
(/)	-2.3	0	+4.1	+2.9	+4.0	-9.4	+1.8	-5.7	+6.1	-5.2	+0.2	+10.1
MEAN#	194	177	481	536	614	804	641	666	839	1148	399	555
CFSM#	.68	.62	1.68	1.87	2.14	2.80	2.23	2.32	2.92	4.00	1.39	1.93
IN#	.78	.69	1.93	2.15	2.23	3.23	2.49	2.68	3.26	4.61	1.61	2.16
CAL YR 1974	TOTAL	137962	MEAN 378	MAX 2310	MIN 137	MEAN# 393	CFSM# 1.37	IN# 18.52				
WTR YR 1975	TOTAL	214462	MEAN 588	MAX 7640	MIN 144	MEAN# 588	CFSM# 2.05	IN# 27.82				

# 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.

01481500 Brandywine Creek at Wilmington, Del.

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

DRAINAGE AREA.--314 mi<sup>2</sup> (813 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft (20.797 m) above mean sea level.

AVERAGE DISCHARGE.--29 years, 468 ft<sup>3</sup>/s (13.25 m<sup>3</sup>/s), 20.24 in/yr (514 mm/yr), adjusted for storage since November 1973.

EXTREMES.--Current year: Maximum discharge, 8,400 ft<sup>3</sup>/s (238 m<sup>3</sup>/s) July 14, gage height, 9.70 ft (2.957 m); minimum, 122 ft<sup>3</sup>/s (3.46 m<sup>3</sup>/s) Nov. 4, 11, 12, 18; minimum daily, 157 ft<sup>3</sup>/s (4.45 m<sup>3</sup>/s) Oct. 12.  
Period of record: Maximum discharge, 29,000 ft<sup>3</sup>/s (821 m<sup>3</sup>/s) June 23, 1972, gage height, 15.49 ft (4.721 m), from rating curve extended above 18,000 ft<sup>3</sup>/s (510 m<sup>3</sup>/s); minimum, about 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) Dec. 26, 1948, during period of ice effect; minimum daily, 56 ft<sup>3</sup>/s (1.59 m<sup>3</sup>/s) Aug. 23, 24, 1957.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mills above station. Flow regulated since November 1973 by Marsh Creek Reservoir 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. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1432: 1948, 1950.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	245	172	182	437	516	683	817	757	2890	665	550	309		
2	218	172	865	481	501	646	763	885	1020	586	541	307		
3	208	206	455	380	477	614	866	719	740	566	516	294		
4	190	192	285	363	453	568	865	1280	655	658	507	280		
5	186	188	244	342	510	537	646	1150	1100	557	657	277		
6	183	189	228	328	563	533	624	868	2610	577	562	273		
7	179	182	223	538	598	531	598	937	930	518	562	288		
8	172	176	2470	465	518	544	571	776	741	496	514	273		
9	168	174	1500	1110	485	492	554	687	666	660	479	265		
10	170	173	556	661	449	484	573	660	606	598	466	249		
11	161	177	452	553	440	506	565	630	570	518	459	245		
12	157	196	406	528	461	547	550	613	1890	481	439	271		
13	160	406	380	628	453	693	528	1010	3280	3490	446	514		
14	158	263	370	691	415	685	514	791	1220	6570	507	297		
15	158	216	350	502	423	795	516	651	919	4790	446	263		
16	816	203	1860	473	440	768	610	1030	853	2280	562	257		
17	590	192	1720	439	489	663	539	828	923	1300	548	259		
18	309	187	631	607	733	622	510	670	804	964	472	253		
19	246	183	517	966	767	1990	519	633	842	847	426	369		
20	223	186	466	1150	673	5310	514	558	824	857	420	335		
21	212	226	433	676	554	1490	481	607	686	2920	401	1020		
22	190	219	411	606	513	1100	461	826	629	875	389	492		
23	189	194	384	568	746	1020	450	629	596	792	371	2100		
24	189	188	375	559	1380	1110	518	533	578	741	365	3250		
25	184	197	371	677	2440	1470	1760	502	655	1390	365	2230		
26	182	203	359	1070	893	1000	3230	502	674	764	359	1160		
27	180	189	341	644	779	921	1030	481	678	689	326	948		
28	175	188	336	571	720	889	856	446	1320	634	311	631		
29	175	184	324	565	---	873	776	422	1610	609	301	540		
30	171	176	324	552	---	1010	704	476	867	583	301	496		
31	195	---	322	526	---	936	---	561	---	567	305	---		
TOTAL	6939	5997	18140	18656	18389	30030	22510	22118	32376	38542	13873	18737		
MEAN	224	200	585	602	657	969	750	713	1079	1243	448	625		
MAX	816	406	2470	1150	2440	5310	3230	1280	3280	6570	657	3250		
MIN	157	172	182	328	415	484	450	422	570	481	301	245		
(f)	-2.3	0	+4.1	+2.9	+4.0	-9.4	+1.8	-5.7	+6.1	-5.2	+0.2	+10.1		
MEAN#	222	200	589	605	661	960	752	707	1085	1238	448	635		
CFSM#	.71	.64	1.88	1.93	2.11	3.06	2.39	2.25	3.46	3.94	1.43	2.02		
IN#	.81	.71	2.16	2.22	2.19	3.52	2.67	2.60	3.86	4.55	1.64	2.26		
CAL YR 1974	TOTAL	157929	MEAN	433	MAX	2730	MIN	155	MEAN#	447	CFSM#	1.42	IN#	19.31
WTR YR 1975	TOTAL	246307	MEAN	675	MAX	6570	MIN	157	MEAN#	676	CFSM#	2.15	IN#	29.19

PEAK DISCHARGE (BASE, 4,000 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	2315	7.33	4,700	7-14	1430	9.70	8,400
3-20	0900	9.31	7,620	7-21	0530	8.16	5,740
4-26	0915	7.28	4,640	9-24	2300	7.15	4,480
6-13	0515	7.06	4,370				

/ 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.

01483200 Blackbird Creek at Blackbird, Del.

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

DRAINAGE AREA.--3.85 mi<sup>2</sup> (9.97 km<sup>2</sup>).

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) above mean sea level. Mar. 5, 1951 to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft (5 m) upstream at same datum.

AVERAGE DISCHARGE.--19 years, 4.75 ft<sup>3</sup>/s (0.135 m<sup>3</sup>/s), 16.75 in/yr (425 mm/yr).

EXTREMES.--Current year: Maximum discharge, 277 ft<sup>3</sup>/s (7.84 m<sup>3</sup>/s) July 11, gage height, 3.52 ft (1.073 m); minimum, 0.59 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Sept. 11; minimum daily, 0.88 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Sept. 10.  
Period of record: Maximum discharge, 712 ft<sup>3</sup>/s (20.2 m<sup>3</sup>/s) June 22, 1972, gage height, 5.04 ft (1.536 m), from rating curve extended above 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.3	3.5	7.1	6.7	6.0	7.2	8.0	4.4	1.4	1.8	1.4
2	1.7	2.4	29	4.5	6.2	5.6	6.6	9.7	3.2	1.2	1.7	1.8
3	1.6	2.5	11	4.0	5.5	5.3	13	7.2	2.4	1.4	1.6	1.4
4	1.6	2.4	4.7	4.3	5.1	5.0	12	22	2.1	1.9	1.6	1.1
5	1.6	2.6	3.7	3.7	9.1	4.9	7.1	17	7.6	1.4	3.7	1.1
6	1.5	2.5	3.4	4.1	13	5.0	6.4	9.1	16	1.3	2.5	1.1
7	1.4	2.2	3.3	10	11	4.9	5.9	8.7	5.7	1.9	2.1	1.1
8	1.3	2.1	11	5.9	7.0	5.1	5.8	7.0	3.0	1.4	1.8	1.2
9	1.4	2.1	11	15	6.6	4.2	5.6	6.3	2.5	6.7	1.6	1.1
10	1.4	2.1	5.1	9.4	5.4	4.6	5.5	6.0	2.2	30	1.5	.88
11	1.3	2.1	4.1	7.7	5.7	5.6	5.4	5.5	2.0	96	1.5	.94
12	1.4	3.0	4.0	7.1	8.0	7.8	5.2	5.5	11	7.4	1.4	1.2
13	1.4	5.7	3.7	13	8.1	10	4.9	18	6.9	65	1.4	1.8
14	1.4	2.9	4.7	15	5.3	16	4.7	12	2.9	69	3.2	1.1
15	2.1	2.6	4.1	6.6	5.1	18	7.0	6.5	2.4	37	1.8	.99
16	19	2.4	24	6.0	5.5	8.0	7.9	19	2.2	15	1.8	.99
17	14	2.3	22	5.2	5.6	7.0	5.5	11	2.3	9.6	1.8	1.1
18	3.9	2.3	8.3	9.6	7.8	6.0	5.2	6.6	2.1	13	1.7	1.1
19	2.6	2.3	6.2	17	6.2	27	5.9	5.8	2.3	5.9	1.4	1.6
20	2.4	2.6	5.5	15	5.1	54	5.5	4.9	4.1	4.8	1.3	1.5
21	2.3	2.7	5.3	9.8	4.8	14	5.2	4.2	1.8	16	1.3	1.2
22	2.2	2.2	5.1	7.6	4.5	9.9	4.5	4.4	1.6	5.7	2.4	1.1
23	2.3	2.1	4.7	7.5	13	9.3	4.5	3.6	1.5	3.7	4.1	11
24	2.2	2.2	4.5	7.9	19	15	5.1	3.3	1.4	3.3	1.8	29
25	2.2	2.5	4.7	11	22	26	12	3.5	1.3	3.2	1.5	20
26	2.3	2.8	4.2	11	9.2	11	30	3.5	2.2	3.2	1.3	4.5
27	2.2	2.3	4.0	7.2	6.8	8.0	9.8	3.0	1.9	2.6	1.1	3.0
28	2.2	2.3	4.1	6.3	6.2	7.3	6.9	2.6	1.8	2.4	1.0	2.7
29	2.2	2.2	3.9	6.4	---	7.3	6.6	2.3	1.7	2.2	.98	2.4
30	2.2	2.2	4.0	5.5	---	12	5.9	3.2	1.6	2.0	1.0	2.3
31	2.3	---	4.4	6.1	---	10	---	3.7	---	1.9	1.4	---
TOTAL	89.5	74.9	221.2	256.5	223.5	339.8	222.8	233.1	104.1	417.5	55.08	101.70
MEAN	2.88	2.49	7.13	8.27	7.98	10.9	7.42	7.51	3.47	13.4	1.77	3.39
MAX	19	5.7	29	17	22	54	30	22	16	96	4.1	29
MIN	1.3	2.1	3.3	3.7	4.5	4.2	4.5	2.3	1.3	1.2	.98	.88
CFSM	.75	.65	1.85	2.15	2.07	2.85	1.93	1.95	.90	3.50	.46	.88
IN.	.86	.72	2.14	2.48	2.16	3.28	2.15	2.25	1.01	4.03	.53	.98

CAL YR 1974 TOTAL 1676.86 MEAN 4.59 MAX 41 MIN .53 CFSM 1.19 IN 16.20  
WTR YR 1975 TOTAL 2339.68 MEAN 6.41 MAX 96 MIN .88 CFSM 1.67 IN 22.61

PEAK DISCHARGE (BASE, 50 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-20	0130	2.74	122	7-13	2145	2.98	165
7-11	0315	3.52	277				

01483700 St. Jones River at Dover, Del.

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

DRAINAGE AREA.--31.9 mi<sup>2</sup> (82.6 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.50 ft (0.152 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 36.5 ft<sup>3</sup>/s (1.03 m<sup>3</sup>/s), 15.54 in/yr (395 mm/yr).

EXTREMES.--Current year: Maximum discharge, 718 ft<sup>3</sup>/s (20.3 m<sup>3</sup>/s) July 13, gage height, 6.53 ft (1.990 m); minimum, 4.2 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Oct. 28; minimum gage height, 2.58 ft (0.786 m) Oct. 3, 4.

Period of record: Maximum discharge, 1,900 ft<sup>3</sup>/s (53.8 m<sup>3</sup>/s) Sept. 13, 1960, gage height, 9.45 ft (2.880 m), from floodmark; no flow at times in 1959, 1961, 1962.

REMARKS.--Records good. Flow affected by Silver Lake.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	10	31	34	48	49	90	58	42	16	17	18
2	9.5	11	145	33	50	44	66	88	50	12	16	24
3	8.0	12	67	28	47	40	89	85	32	12	13	20
4	6.7	12	54	26	43	37	116	112	23	20	13	13
5	7.6	12	31	24	58	34	102	172	34	15	126	12
6	8.4	12	22	24	90	34	68	136	49	12	166	12
7	8.4	11	20	38	104	34	56	94	40	44	59	12
8	8.0	9.0	47	43	79	37	50	77	24	25	30	13
9	7.6	8.0	63	58	60	30	48	57	19	16	22	12
10	8.0	8.4	62	70	49	31	47	48	16	15	19	10
11	8.4	9.0	40	66	45	38	45	42	15	22	17	9.0
12	9.0	12	29	56	56	49	45	37	33	23	17	14
13	9.0	15	25	85	76	74	42	50	68	440	16	24
14	9.0	14	30	128	66	126	39	58	49	500	22	16
15	11	12	31	112	53	182	57	62	24	316	23	11
16	33	10	85	69	48	142	88	69	22	217	20	11
17	32	10	114	49	49	88	79	90	30	142	20	11
18	27	9.5	108	52	53	64	57	70	23	114	19	11
19	14	10	66	77	57	148	53	49	18	106	16	13
20	9.5	11	43	120	52	416	49	42	16	52	14	14
21	7.6	14	36	112	45	288	40	34	13	108	13	14
22	7.1	12	33	86	40	152	36	42	11	170	16	12
23	7.6	9.5	30	66	63	106	36	52	10	86	22	88
24	7.1	9.0	28	60	118	106	38	37	10	40	20	407
25	8.4	11	29	68	144	230	69	29	9.0	55	16	442
26	8.4	12	26	90	122	225	175	28	17	51	14	240
27	8.0	10	26	92	83	126	175	27	22	33	12	106
28	7.1	9.5	25	66	58	83	96	24	16	26	11	56
29	8.0	9.5	24	53	---	69	62	20	15	22	9.0	33
30	7.6	11	24	45	---	85	52	27	17	20	9.5	26
31	11	---	24	45	---	104	---	30	---	18	17	---
TOTAL	332.0	325.4	1418	1975	1856	3271	2065	1846	767.0	2748	824.5	1704.0
MEAN	10.7	10.8	45.7	63.7	66.3	106	68.8	59.5	25.6	88.6	26.6	56.8
MAX	33	15	145	128	144	416	175	172	68	500	166	442
MIN	6.7	8.0	20	24	40	30	36	20	9.0	12	9.0	9.0
CFSM	.34	.34	1.43	2.00	2.08	3.32	2.16	1.87	.80	2.78	.83	1.78
IN.	.39	.38	1.65	2.30	2.16	3.81	2.41	2.15	.89	3.20	.96	1.99

CAL YR 1974 TOTAL 13924.1 MEAN 38.1 MAX 245 MIN 5.4 CFSM 1.19 IN 16.24  
 WTR YR 1975 TOTAL 19131.9 MEAN 52.4 MAX 500 MIN 6.7 CFSM 1.64 IN 22.31



## MURDERKILL RIVER BASIN

01484000 Murderkill River near Felton, Del.

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

DRAINAGE AREA.--13.6 mi<sup>2</sup> (35.2 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Datum of gage is 21.87 ft (6.666 m) above mean sea level. 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.

AVERAGE DISCHARGE.--17 years (1931-33, 1960-75), 19.0 ft<sup>3</sup>/s (0.538 m<sup>3</sup>/s), 18.97 in/yr (482 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,150 ft<sup>3</sup>/s (32.6 m<sup>3</sup>/s) July 13, gage height, 7.49 ft (2.283 m); minimum, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) Nov. 24.  
Period of record: Maximum discharge, 2,090 ft<sup>3</sup>/s (59.2 m<sup>3</sup>/s) Aug. 4, 1967, gage height, 8.83 ft (2.691 m); minimum, 0.80 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Aug. 28, Sept. 11, 1966.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

REVISIONS (WATER YEARS).--WSP 1432: 1932.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	5.6	13	21	29	23	29	45	25	5.5	8.6	7.8
2	3.0	6.7	128	16	28	23	26	43	23	4.6	7.6	7.0
3	3.4	8.4	31	13	26	21	64	60	20	4.3	7.2	6.0
4	2.8	10	15	13	24	19	73	130	15	4.8	7.0	5.0
5	3.4	10	9.2	12	45	18	38	100	22	4.0	100	5.0
6	3.0	8.1	6.7	11	53	18	31	60	33	3.6	35	5.0
7	2.9	6.7	5.4	22	46	18	28	64	20	4.3	25	5.2
8	2.8	4.7	24	17	35	17	26	40	13	4.3	17	4.9
9	2.7	3.7	22	32	31	15	24	30	11	7.2	14	4.4
10	2.7	4.4	12	27	27	17	23	25	9.4	19	12	4.2
11	2.6	4.4	8.6	80	26	20	22	23	8.1	34	11	4.0
12	2.6	5.4	7.3	40	37	28	21	22	21	41	9.6	6.0
13	2.5	8.9	6.2	110	51	37	20	40	31	557	11	5.8
14	2.5	5.0	23	70	33	71	19	35	16	530	10	5.0
15	5.0	4.4	17	35	28	92	38	32	12	235	9.8	4.5
16	7.0	3.3	60	25	29	43	45	62	10	135	9.8	4.3
17	5.8	4.4	87	20	32	39	30	43	11	130	8.8	4.1
18	5.4	4.2	35	35	35	33	26	27	17	61	8.2	5.2
19	5.0	3.7	26	70	31	84	25	24	11	36	7.6	5.0
20	4.9	4.1	23	80	27	240	23	20	17	29	8.0	4.6
21	4.7	4.6	23	50	25	95	20	17	8.6	111	8.2	4.3
22	4.6	3.6	21	45	23	53	18	110	6.4	80	8.0	4.0
23	4.5	2.7	19	40	2	47	20	58	6.0	39	7.0	10
24	4.3	2.2	18	30	55	39	25	28	5.4	27	6.2	150
25	4.4	3.7	17	48	47	47	60	22	5.0	25	6.2	70
26	3.8	6.1	16	38	32	36	100	21	5.6	21	5.6	40
27	3.4	3.9	15	32	27	30	54	18	6.1	16	5.0	25
28	4.0	3.1	14	29	25	28	40	15	5.8	13	4.5	16
29	4.4	3.7	14	28	---	27	32	12	9.7	11	4.2	12
30	4.3	2.5	13	27	---	39	30	13	6.7	10	4.0	10
31	4.7	---	13	27	---	36	---	16	---	9.4	4.5	---
TOTAL	120.2	152.2	742.4	1143	935	1353	1030	1255	410.8	2212.0	390.6	444.3
MEAN	3.88	5.07	23.9	36.9	33.4	43.6	34.3	40.5	13.7	71.4	12.6	14.8
MAX	7.0	10	128	110	55	240	100	130	33	557	100	150
MIN	2.5	2.2	5.4	11	23	15	18	12	5.0	3.6	4.0	4.0
CFSM	.29	.37	1.76	2.71	2.46	3.21	2.52	2.98	1.01	5.25	.93	1.09
IN.	.33	.42	2.03	3.13	2.56	3.70	2.82	3.43	1.12	6.05	1.07	1.22

CAL YR 974 TOTAL 5619.5 MEAN 15.4 MAX 142 MIN 2.2 CFSM 1.13 IN 15.37  
WTR YR 1975 TOTAL 10188.5 MEAN 27.9 MAX 557 MIN 2.2 CFSM 2.05 IN 27.87

PEAK DISCHARGE (BASE, 130 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-02	0530	5.07	195	5-22	1445	4.82	157
1-11	0100	4.75	147	7-13	1815	7.49	1,150
1-13	*	*	*	7-21	1245	5.06	164
3-20	0230	5.62	326	8-05	*	*	*
5-04	*	*	*	9-24	*	*	*

\* Unknown, discharge probably greater than base.

NOTE.--No gage-height record July 26 to Sept. 29.

## MISPILLION RIVER BASIN

37

01484100 Beaverdam Branch at Houston, Del.

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, on left bank 15 ft (5 m) upstream from bridge on State Highway 384, 0.8 mi (1.3 km) south of Houston, 2,000 ft (610 m) upstream from unnamed stream, and 1.2 mi (1.9 km) upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi<sup>2</sup> (7.33 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and timber control. Datum of gage is 35.67 ft (10.872 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 3.74 ft<sup>3</sup>/s (0.106 m<sup>3</sup>/s), 17.95 in/yr (456 mm/yr).

EXTREMES.--Current year: Maximum discharge, 115 ft<sup>3</sup>/s (3.26 m<sup>3</sup>/s) July 13, gage height, 4.66 ft (1.420 m); minimum daily, 0.70 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Oct. 15.  
Period of record: Maximum discharge, 176 ft<sup>3</sup>/s (4.98 m<sup>3</sup>/s) Sept. 12, 1960, gage height, 5.55 ft (1.692 m); minimum daily, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Sept. 18, 19, 1966.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	.84	2.0	2.9	5.0	5.2	5.9	6.1	7.3	2.8	4.3	2.5
2	.96	.83	11	2.5	4.9	5.1	5.6	6.4	5.8	2.7	4.3	2.8
3	.96	.83	1.8	2.5	4.7	4.8	12	5.6	5.2	2.7	4.3	2.3
4	1.0	.83	1.4	2.5	4.5	4.6	8.9	11	4.7	2.7	4.4	2.1
5	.99	.81	1.4	2.4	8.6	4.6	7.2	8.6	7.2	2.6	7.7	2.0
6	.92	.80	1.3	2.4	7.2	4.6	6.6	7.1	8.7	2.4	6.1	2.4
7	.88	.81	1.3	2.8	7.3	4.6	6.2	7.2	5.7	2.4	5.3	2.8
8	.85	.76	2.2	2.5	6.2	4.4	5.9	6.2	4.9	2.4	4.7	2.6
9	.86	.79	1.7	3.8	5.8	4.2	5.6	5.7	4.4	17	4.3	2.2
10	.85	.79	1.5	2.9	5.4	4.4	5.5	5.4	4.1	35	4.1	1.9
11	.81	.82	1.4	5.0	5.2	4.6	5.5	5.1	4.0	30	4.0	1.9
12	.80	.85	1.3	4.0	7.2	5.1	5.3	5.0	5.1	24	3.8	2.8
13	.83	.86	1.3	11	6.8	5.7	5.0	5.3	5.6	48	3.5	3.1
14	.72	.80	2.9	7.3	5.7	9.9	4.9	5.1	4.4	74	3.8	1.9
15	.70	.75	1.9	4.8	5.5	8.2	7.9	4.7	4.0	48	3.7	1.8
16	1.9	.75	11	4.4	5.5	6.5	7.5	5.8	3.7	54	3.7	2.0
17	1.3	.75	6.6	4.1	5.6	7.2	6.3	5.1	3.6	33	3.8	1.9
18	1.1	.75	3.5	5.0	6.0	6.5	5.8	4.8	3.6	17	3.5	1.9
19	1.0	.75	3.2	6.5	5.6	18	5.7	4.6	3.8	11	3.2	2.0
20	1.0	.76	3.1	9.6	5.1	34	5.3	4.1	16	7.7	3.1	1.8
21	.92	.76	3.2	6.5	4.9	11	5.0	3.9	5.1	37	3.0	1.7
22	.91	.74	3.0	6.1	4.6	8.9	4.9	29	4.2	16	2.8	1.6
23	.91	.75	2.9	5.8	5.3	8.3	4.8	9.4	3.7	8.7	2.8	4.7
24	.91	.75	2.9	5.7	7.4	7.7	4.9	7.3	3.4	6.3	2.8	9.2
25	.90	.77	2.8	7.5	8.3	7.6	6.4	6.5	3.3	5.3	2.6	7.6
26	.91	.77	2.7	6.9	5.9	6.7	7.8	6.2	3.3	5.1	2.5	3.7
27	.87	.75	2.7	5.4	5.5	6.2	5.8	5.8	3.4	4.7	2.3	3.7
28	.83	.75	2.6	5.2	5.4	6.1	5.5	5.2	3.3	4.7	2.2	3.1
29	.83	.75	2.7	5.2	---	6.1	5.6	4.9	3.2	5.1	2.2	2.9
30	.83	.75	2.6	4.7	---	7.1	5.2	4.8	3.1	4.4	2.1	2.8
31	.83	---	2.7	4.9	---	6.3	---	4.7	---	4.3	2.3	---
TOTAL	29.04	23.47	92.6	152.8	165.1	234.2	184.5	206.6	147.8	521.0	113.2	85.7
MEAN	.93	.78	2.98	4.92	5.89	7.55	6.15	6.66	4.92	16.8	3.65	2.85
MAX	1.9	.86	11	11	8.6	34	12	29	16	74	7.7	9.2
MIN	.70	.74	1.3	2.4	4.5	4.2	4.8	3.9	3.1	2.4	2.1	1.6
CFSM	.33	.28	1.06	1.74	2.08	2.67	2.17	2.35	1.74	5.94	1.29	1.01
IN.	.38	.31	1.22	2.01	2.17	3.08	2.43	2.72	1.94	6.85	1.49	1.13

CAL YR 1974 TOTAL 1075.23 MEAN 2.94 MAX 14 MIN .70 CFSM 1.04 IN 14.13  
WTR YR 1975 TOTAL 1956.01 MEAN 5.35 MAX 74 MIN .70 CFSM 1.89 IN 25.71

PEAK DISCHARGE (BASE, 30 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-20	0045	3.75	60	7-13	2145	4.66	115
5-22	1045	3.58	52	7-16	0130	4.13	78
6-20	0700	3.11	31	7-21	0845	3.79	61
7-09	2345	3.90	69				

01484300 Sowbridge Branch near Milton, Del.

LOCATION.--Lat 38°48'51", long 75°19'39", Sussex County, on left bank at downstream side of highway bridge, 1 mi (1.6 km) downstream from Reynolds Pond, 2.5 mi (4.0 km) north of Milton, and 0.7 mi (1.1 km) upstream from mouth.

DRAINAGE AREA.--7.08 mi<sup>2</sup> (18.34 km<sup>2</sup>).

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1968. Datum of gage is 3.43 ft (1.045 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 10.1 ft<sup>3</sup>/s (0.286 m<sup>3</sup>/s), 19.37 in/yr (492 mm/yr).

EXTREMES.--Current year: Maximum discharge, 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) July 15, gage height, 5.33 ft (1.625 m); minimum, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Nov. 25, 26, 27, Dec. 7, 8; minimum gage height, 4.59 ft (1.399 m) Dec. 30, 31.  
Period of record: Maximum discharge, 134 ft<sup>3</sup>/s (3.79 m<sup>3</sup>/s) Aug. 5, 1967, gage height, 6.33 ft (1.929 m); minimum, 0.47 ft<sup>3</sup>/s (0.013 m<sup>3</sup>/s) Feb. 10, 1969 (result of freezeup).

REMARKS.--Records good. Flow regulated by Reynolds Pond.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	6.4	5.5	2.7	12	12	17	15	14	7.5	8.6	7.3
2	4.5	2.5	7.2	3.3	12	12	16	15	17	7.1	8.4	8.0
3	4.5	1.9	11	14	12	12	18	15	17	6.7	8.0	7.4
4	3.7	1.9	10	13	11	12	19	17	15	6.6	8.4	7.1
5	3.7	1.9	8.8	10	13	11	19	18	14	6.5	9.1	7.0
6	3.8	1.9	5.7	8.5	14	11	17	18	15	7.1	9.2	7.2
7	3.8	2.0	2.0	8.4	14	11	17	17	14	7.6	10	7.5
8	3.6	2.0	3.1	7.9	4.2	11	16	16	13	6.9	10	8.0
9	3.6	2.0	4.3	8.6	4.9	11	15	16	12	7.1	10	7.6
10	3.7	2.3	3.5	8.5	18	11	15	15	11	8.5	10	7.3
11	3.6	2.6	2.2	8.6	17	11	14	14	11	12	10	7.3
12	3.8	2.9	12	9.1	16	12	14	14	11	17	9.9	7.5
13	3.8	3.2	11	11	16	13	14	14	12	24	9.9	8.3
14	3.9	3.0	3.5	13	15	15	13	15	12	33	9.8	6.8
15	3.8	2.9	2.3	12	14	18	17	14	11	38	9.4	6.7
16	6.4	2.9	6.2	11	13	17	21	14	11	38	9.5	6.9
17	5.6	3.2	19	10	13	18	21	14	10	36	9.6	6.7
18	5.1	3.4	6.0	9.9	14	17	19	14	9.8	28	9.4	6.2
19	4.8	3.6	13	11	13	19	18	13	9.7	22	8.9	6.3
20	4.7	6.7	11	13	13	28	17	13	12	19	8.6	6.3
21	4.4	7.4	10	14	13	29	16	12	11	21	8.4	6.2
22	4.2	6.6	9.1	13	12	28	15	18	10	26	8.3	6.2
23	4.2	6.1	8.3	12	12	25	14	19	9.4	24	8.1	8.5
24	4.1	2.3	7.8	12	13	24	14	18	8.7	20	8.1	11
25	4.4	1.7	7.7	12	15	22	14	16	8.3	17	8.0	13
26	9.9	1.9	7.3	13	14	21	17	14	7.8	16	7.9	14
27	10	1.8	7.3	13	13	19	17	14	8.0	15	7.9	31
28	9.0	4.7	6.0	12	13	17	16	13	8.0	14	8.0	28
29	7.8	5.4	2.1	12	---	17	15	12	7.8	13	8.1	21
30	6.7	5.2	2.0	12	---	18	15	12	7.7	11	7.8	17
31	7.3	---	1.9	11	---	18	---	12	---	8.6	7.6	---
TOTAL	156.9	102.3	216.8	329.5	364.1	520	490	461	338.2	524.2	274.9	299.3
MEAN	5.06	3.41	6.99	10.6	13.0	16.7	16.3	14.8	11.2	16.9	8.86	9.97
MAX	10	7.4	19	14	18	29	21	19	17	38	10	31
MIN	3.6	1.7	1.9	2.7	4.2	11	13	12	7.7	6.5	7.6	6.2
CFSM	.71	.48	.99	1.50	1.84	2.37	2.31	2.10	1.59	2.39	1.25	1.41
IN.	.82	.54	1.14	1.73	1.91	2.73	2.57	2.42	1.78	2.75	1.44	1.57
CAL YR 1974 TOTAL	3070.0			MEAN 8.41	MAX 22	MIN 1.7	CFSM 1.19	IN 16.13				
WTR YR 1975 TOTAL	4077.2			MEAN 11.1	MAX 38	MIN 1.7	CFSM 1.58	IN 21.42				

## INDIAN RIVER BASIN

39

01484500 Stockley Branch at Stockley, Del.

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

DRAINAGE AREA.--5.24 mi<sup>2</sup> (13.57 km<sup>2</sup>).

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) above mean sea level. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 7.02 ft<sup>3</sup>/s (0.199 m<sup>3</sup>/s), 18.19 in/yr (462 mm/yr).

EXTREMES.--Current year: Maximum discharge, 97 ft<sup>3</sup>/s (2.75 m<sup>3</sup>/s) Mar. 20, gage height, 3.56 ft (1.085 m); minimum, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Oct. 2.

Period of record: Maximum discharge, 132 ft<sup>3</sup>/s (3.74 m<sup>3</sup>/s) June 4, 1948, gage height, 5.0 ft (1.52 m), from graph based on gage readings, from rating curve extended above 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum observed, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Sept. 1-11, 1944.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1141: 1948(P). WSP 1432: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	2.9	5.2	9.1	9.7	13	11	5.6	3.3	7.1	4.5
2	1.8	1.5	13	4.7	8.8	9.5	11	12	4.0	3.2	6.8	6.3
3	1.9	1.5	3.2	4.5	8.4	8.9	36	11	3.0	3.1	6.4	4.5
4	1.9	1.5	2.6	5.1	7.8	8.3	31	17	2.7	3.1	6.2	4.0
5	1.9	1.6	2.4	4.7	17	7.9	19	18	2.8	3.1	7.3	3.9
6	1.8	1.5	2.4	4.3	16	7.9	16	14	3.3	3.3	9.3	4.2
7	1.8	1.5	2.4	5.0	16	7.9	15	13	2.9	3.3	18	4.0
8	1.8	1.5	8.9	4.1	13	7.9	14	12	2.7	3.2	9.1	7.2
9	1.8	1.4	4.7	6.0	11	7.2	13	10	2.7	3.2	7.7	4.8
10	1.8	1.4	3.3	4.5	10	7.3	12	9.8	3.0	3.9	7.1	4.2
11	1.7	1.4	3.2	9.5	9.5	7.8	12	9.0	3.2	8.2	6.8	3.9
12	1.7	1.5	3.0	7.8	13	8.5	11	8.7	5.0	9.9	6.4	5.4
13	1.7	1.7	3.0	19	15	10	11	8.3	6.8	28	6.1	9.5
14	1.7	1.5	5.2	18	12	20	11	8.4	5.0	32	5.9	5.1
15	1.7	1.4	3.9	10	10	22	24	8.0	4.7	22	5.9	4.6
16	6.2	1.4	9.9	8.3	11	16	30	8.2	4.2	19	8.0	4.6
17	2.7	1.4	6.8	7.5	13	25	20	7.9	4.7	18	12	4.5
18	2.0	1.4	5.4	8.2	13	22	17	7.4	4.5	16	7.5	4.3
19	1.9	1.4	5.1	13	13	37	16	7.3	4.5	11	6.5	4.7
20	1.8	1.4	5.1	19	11	63	16	6.6	5.5	9.9	6.0	4.2
21	1.7	1.4	5.7	16	10	26	14	5.8	4.3	22	5.8	4.0
22	1.7	1.4	5.4	14	9.3	20	12	12	3.9	12	5.6	3.9
23	1.7	1.4	5.1	13	9.6	18	11	8.1	3.9	9.6	5.4	8.5
24	1.7	1.5	5.1	12	11	16	11	6.0	3.7	8.6	5.3	11
25	1.7	1.6	5.1	16	17	17	12	4.9	3.6	12	5.2	8.5
26	1.7	1.7	4.9	17	12	14	22	4.0	3.6	19	4.9	8.7
27	1.6	1.6	4.8	12	11	12	15	3.3	3.8	11	4.6	13
28	1.6	1.6	4.7	10	10	11	12	2.3	3.8	9.5	4.2	9.0
29	1.6	1.6	4.7	9.9	---	11	13	1.9	3.7	8.4	4.1	7.6
30	1.6	1.6	4.6	9.0	---	16	12	1.7	3.5	7.8	4.0	7.1
31	1.4	---	4.7	8.5	---	15	---	1.7	---	7.4	4.4	---
TOTAL	59.4	44.8	151.2	305.8	327.5	489.8	482	259.3	118.6	334.0	209.6	179.7
MEAN	1.91	1.49	4.87	9.86	11.6	15.8	16.0	8.36	3.95	10.7	6.76	5.99
MAX	6.2	1.7	13	19	17	63	36	18	6.8	32	18	13
MIN	1.4	1.4	2.4	4.1	7.8	7.2	11	1.7	2.7	3.1	4.0	3.9
CFSM	.37	.28	.93	1.88	2.23	3.02	3.07	1.60	.75	2.06	1.29	1.14
IN.	.42	.32	1.07	2.17	2.33	3.48	3.42	1.84	.84	2.37	1.49	1.28

CAL YR 1974 TOTAL 1771.0 MEAN 4.85 MAX 29 MIN 1.4 CFSM .93 IN 12.57  
WTR YR 1975 TOTAL 2961.7 MEAN 8.11 MAX 63 MIN 1.4 CFSM 1.55 IN 21.03

PEAK DISCHARGE (BASE, 45 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-20	0030	3.56	97	7-13	1930	3.26	72
4-03	1630	3.25	71				

## POCOMOKE RIVER BASIN

01485000 Pocomoke River near Willards, Md.

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

DRAINAGE AREA.--60.5 mi<sup>2</sup> (156.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft (4.252 m) above mean sea level.

AVERAGE DISCHARGE.--25 years (1950-75), 69.9 ft<sup>3</sup>/s (1.980 m<sup>3</sup>/s), 15.69 in/yr (399 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) July 26, gage height, 12.00 ft (3.658 m); minimum, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 13, 14.  
Period of record: Maximum discharge, 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) July 26, 1975; maximum gage height, 13.67 ft (4.167 m) June 30, 1972; minimum, 2.2 ft<sup>3</sup>/s (0.062 m<sup>3</sup>/s) Aug. 18, 19, 1957, gage height, 1.91 ft (0.582 m).

REMARKS.--Records fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	14	63	89	81	165	96	83	21	101	26
2	15	15	44	63	91	79	133	103	93	20	81	45
3	14	15	40	59	88	77	145	98	65	19	71	46
4	14	15	33	60	79	71	173	119	59	26	66	39
5	14	15	29	62	161	68	131	147	52	87	81	35
6	14	14	28	59	183	66	112	120	49	33	114	33
7	14	14	27	68	181	65	100	118	46	26	89	31
8	13	14	54	70	158	64	89	105	40	24	74	57
9	13	14	94	91	132	61	81	88	35	24	65	64
10	13	13	66	94	115	60	76	76	32	31	59	53
11	13	13	58	106	105	65	73	68	30	32	54	48
12	13	14	54	146	123	68	70	63	32	123	50	46
13	12	15	51	248	164	114	66	68	51	215	47	113
14	13	14	61	418	131	229	63	70	48	446	43	77
15	13	13	71	238	114	354	130	64	41	435	41	62
16	23	13	150	157	109	229	277	61	35	389	43	57
17	34	13	213	129	141	308	187	62	31	434	56	60
18	22	13	135	117	140	337	141	58	28	242	49	57
19	20	13	108	176	132	365	124	56	27	150	43	54
20	19	13	91	196	120	703	138	53	80	108	39	52
21	18	13	94	220	106	597	118	49	47	154	36	48
22	17	13	97	189	94	398	100	110	36	140	34	44
23	17	12	82	162	89	276	88	106	31	108	32	44
24	16	12	75	142	91	217	82	78	27	81	31	76
25	16	12	71	177	139	285	100	67	25	182	30	75
26	16	13	66	210	118	203	201	62	26	899	28	68
27	15	13	62	150	100	158	141	56	26	890	27	124
28	15	13	63	124	89	132	114	51	24	633	26	111
29	16	13	60	112	---	118	107	46	23	394	26	86
30	16	12	59	101	---	207	106	43	22	225	25	71
31	16	---	56	90	---	224	---	41	---	138	26	---
TOTAL	500	404	2206	4297	3382	6279	3631	2402	1244	6729	1587	1802
MEAN	16.1	13.5	71.2	139	121	203	121	77.5	41.5	217	51.2	60.1
MAX	34	15	213	418	183	703	277	147	93	899	114	124
MIN	12	12	14	59	79	60	63	41	22	19	25	26
CFSM	.27	.22	1.18	2.30	2.00	3.36	2.00	1.28	.69	3.59	.85	.99
IN.	.31	.25	1.36	2.64	2.08	3.86	2.23	1.48	.76	4.14	.98	1.11

CAL YR 1974 TOTAL 20553.5 MEAN 56.3 MAX 392 MIN 6.5 CFSM .93 IN 12.64  
WTR YR 1975 TOTAL 34463.0 MEAN 94.4 MAX 899 MIN 12 CFSM 1.56 IN 21.19

PEAK DISCHARGE (BASE, 500 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-20	1500	10.88	716	7-26	1700	12.00	1,000

## POCOMOKE RIVER BASIN

41

01485500 Nassawango Creek near Snow Hill, Md.

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

DRAINAGE AREA.--44.9 mi<sup>2</sup> (116.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft (3.746 m) above mean sea level.

AVERAGE DISCHARGE.--25 years (1950-75), 52.2 ft<sup>3</sup>/s (1.478 m<sup>3</sup>/s), 15.79 in/yr (401 mm/yr).

EXTREMES.--Current year: Maximum discharge, 615 ft<sup>3</sup>/s (17.4 m<sup>3</sup>/s) Mar. 20, gage height, 6.73 ft (2.051 m); minimum, 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) July 4, 5, 6, 7, 9, gage height, 1.52 ft (0.463 m).  
Period of record: Maximum discharge, 1,320 ft<sup>3</sup>/s (37.4 m<sup>3</sup>/s) June 30, 1972; maximum gage height, 7.82 ft (2.384 m) Aug. 16, 1953; minimum discharge, 0.80 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Sept. 8, 9, 10, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS)--WSP 1332: 1953.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	7.4	9.4	28	62	55	253	76	11	4.2	34	5.3
2	11	7.8	25	30	62	49	180	71	14	3.6	25	44
3	8.5	8.2	21	30	61	45	133	63	20	3.2	18	38
4	7.3	8.2	17	32	58	41	119	71	26	3.0	14	28
5	6.8	7.8	14	31	87	38	107	84	22	2.9	11	19
6	6.4	7.8	12	30	120	35	96	92	17	2.9	10	14
7	5.8	7.4	10	35	158	33	80	102	15	2.9	33	13
8	5.4	7.0	27	35	152	32	65	91	12	3.0	87	20
9	5.0	6.6	33	51	127	31	55	78	9.9	4.2	75	23
10	4.9	7.0	34	59	102	30	48	63	7.7	26	45	20
11	4.7	7.0	35	72	84	37	44	49	6.4	26	30	18
12	4.7	7.4	30	90	78	43	41	40	13	73	18	14
13	4.6	11	23	138	84	67	39	35	33	135	12	32
14	4.5	9.7	22	262	89	119	37	33	25	205	9.6	31
15	4.4	9.2	20	294	80	235	64	31	17	280	11	31
16	8.9	8.2	36	206	70	256	130	31	12	290	10	29
17	20	7.4	53	134	72	236	186	33	9.1	315	34	30
18	18	7.0	77	98	78	275	165	33	7.3	340	55	23
19	17	7.0	84	103	85	312	118	31	6.1	245	30	20
20	14	6.9	66	127	82	532	109	29	24	144	18	18
21	12	8.0	54	166	71	545	103	25	19	88	12	16
22	10	7.7	47	166	61	347	92	29	13	100	9.7	14
23	9.7	7.3	42	144	52	222	76	27	7.8	129	8.7	20
24	8.7	6.9	39	119	53	177	62	24	5.7	97	9.2	37
25	8.7	6.9	35	126	78	214	57	21	4.7	64	8.2	34
26	8.2	10	30	163	82	261	75	19	4.4	125	6.6	43
27	7.8	9.6	26	178	85	210	150	17	4.7	367	5.0	73
28	7.4	9.0	26	140	71	142	171	14	5.4	329	4.3	66
29	7.4	8.5	24	100	---	108	114	12	5.4	170	3.8	49
30	7.4	7.9	24	80	---	131	87	9.9	4.6	88	3.6	38
31	7.4	---	23	68	---	221	---	9.9	---	48	3.4	---
TOTAL	272.6	237.8	1018.4	3335	2344	5079	3056	1343.8	382.2	3713.9	654.1	860.3
MEAN	8.79	7.92	32.8	107	83.7	163	101	43.3	12.7	119	21.1	28.6
MAX	20	11	84	294	158	545	253	102	33	367	87	73
MIN	4.4	6.6	9.4	28	52	30	37	9.9	4.4	2.9	3.4	5.3
CFSM	.20	.18	.73	2.40	1.86	3.65	2.27	.97	.28	2.67	.47	.64
IN.	.23	.20	.84	2.76	1.94	4.21	2.53	1.11	.32	3.08	.54	.71

CAL YR 1974 TOTAL 14314.7 MEAN 39.2 MAX 351 MIN 2.0 CFSM .87 IN 11.86  
WTR YR 1975 TOTAL 22297.1 MEAN 61.0 MAX 545 MIN 2.9 CFSM 1.36 IN 18.47

PEAK DISCHARGE (BASE, 280 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-15	0500	5.63	311	7-18	0100	5.84	353
3-20	2300	6.73	615	7-27	1700	6.15	418

## MANOKIN RIVER BASIN

01486000 Manokin Branch near Princess Anne, Md.

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

DRAINAGE AREA.--4.80 mi<sup>2</sup> (12.43 km<sup>2</sup>), revised.

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) above mean sea level. Artificial control since April 30, 1975. Nov. 26, 1968 to Sept. 30, 1971, water-stage recorder above and nonrecording gage below gage height 1.4 ft (0.43 m). Prior to Nov. 26, 1968, recording gage at datum 1.0 ft (0.30 m) higher.

AVERAGE DISCHARGE.--21 years, 4.22 ft<sup>3</sup>/s (0.120 m<sup>3</sup>/s), 11.94 in/yr (303 mm/yr).

EXTREMES.--Current year: Maximum discharge, 265 ft<sup>3</sup>/s (7.50 m<sup>3</sup>/s) Mar. 19, gage height, 4.21 ft (1.283 m), from rating curve extended above 28 ft<sup>3</sup>/s (0.79 m<sup>3</sup>/s); minimum daily, 0.66 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) July 9.  
Period of record: Maximum discharge, 547 ft<sup>3</sup>/s (15.5 m<sup>3</sup>/s) Aug. 20, 1969, gage height, 5.44 ft (1.658 m), from rating curve extended above 27 ft<sup>3</sup>/s (0.76 m<sup>3</sup>/s) based on channel-conveyance study; no flow at times in 1954, 1963, 1964, 1966.

REMARKS.--Records fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.80	1.0	4.9	7.4	6.1	16	4.5	1.5	.79	3.3	.91
2	1.0	.80	4.0	4.9	7.4	6.1	12	5.0	1.3	.77	2.9	1.9
3	1.0	.80	3.0	4.3	7.0	6.1	13	4.5	1.5	.75	2.5	1.3
4	1.0	.90	2.8	4.9	7.0	5.8	11	9.0	1.4	.74	2.3	1.1
5	.90	1.0	2.8	4.9	19	5.2	8.6	8.6	1.3	.74	2.0	.98
6	.90	1.0	2.8	4.6	13	5.5	7.4	7.3	1.3	.71	1.9	.98
7	.90	.90	2.8	5.2	15	5.5	6.1	14	1.3	.71	2.0	.96
8	.90	.90	4.3	5.2	9.5	5.2	5.5	9.0	1.2	.68	1.7	1.1
9	.80	.80	4.3	9.5	7.4	4.6	4.9	6.6	1.1	.66	1.6	1.1
10	.80	.80	3.2	7.4	6.1	5.2	4.6	5.1	1.1	.75	1.5	1.0
11	.71	.80	2.8	13	6.1	6.1	4.3	4.3	1.1	.87	1.4	.98
12	.71	.71	2.8	13	7.4	7.4	4.3	3.9	1.4	1.4	1.3	1.0
13	.71	.71	2.8	36	7.4	11	4.0	3.6	1.8	37	1.2	1.3
14	.71	.71	2.8	25	6.5	33	3.7	3.4	1.3	14	1.2	1.2
15	.71	.71	2.8	13	6.1	22	18	3.1	1.2	17	1.3	1.1
16	1.7	.71	6.8	11	6.5	13	17	3.1	1.1	25	1.2	1.1
17	2.4	.71	6.9	9.5	8.6	48	10	3.2	1.1	21	1.8	1.1
18	1.7	.71	5.8	10	7.8	25	7.8	2.9	1.0	14	1.4	1.1
19	1.4	.71	6.1	14	7.8	94	7.8	2.7	.92	12	1.2	1.2
20	1.1	.71	5.2	15	7.4	61	9.5	2.4	2.4	7.8	1.1	1.2
21	1.1	.71	5.8	14	6.5	29	6.9	2.2	1.3	5.4	1.1	1.2
22	1.0	.71	6.1	13	6.5	19	5.8	2.1	.99	4.3	1.1	1.1
23	1.0	.71	4.9	12	6.5	16	5.5	1.9	.93	3.5	1.1	1.3
24	1.0	.71	4.9	10	7.4	27	5.2	1.8	.89	3.0	1.0	2.6
25	1.0	.80	4.9	22	11	32	9.0	1.7	.89	18	.98	2.6
26	1.0	.80	4.0	17	7.8	16	6.0	1.7	.89	56	.94	2.1
27	.90	.80	4.0	12	6.9	11	5.2	1.6	.89	15	.90	2.0
28	.80	.80	4.3	9.9	6.5	9.5	4.8	1.5	.89	8.6	.85	1.7
29	.80	.80	4.3	9.5	---	8.6	4.7	1.3	.86	5.9	.80	1.6
30	.80	.80	4.3	8.2	---	41	4.5	1.3	.83	4.5	.80	1.5
31	.80	---	4.0	7.4	---	25	---	1.4	---	3.7	.80	---
TOTAL	31.25	23.53	127.3	350.3	229.5	609.9	233.1	124.7	35.68	285.27	45.17	40.31
MEAN	1.01	.78	4.11	11.3	8.20	19.7	7.77	4.02	1.19	9.20	1.46	1.34
MAX	2.4	1.0	6.9	36	19	94	18	14	2.4	56	3.3	2.6
MIN	.71	.71	1.0	4.3	6.1	4.6	3.7	1.3	.83	.66	.80	.91
CFSM	.21	.16	.86	2.35	1.71	4.10	1.62	.84	.25	1.92	.30	.28
IN.	.24	.18	.99	2.71	1.78	4.73	1.81	.97	.28	2.21	.35	.31

WTR YR 1975 TOTAL 2136.01 MEAN 5.85 MAX 94 MIN .66 CFSM 1.22 IN 16.55

PEAK DISCHARGE (BASE, 50 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-13	1600	2.44	71	3-24	1930	2.41	68
3-14	1545	2.24	53	3-30	1000	2.52	78
3-17	0930	2.54	80	7-13	1500	3.90	155
3-19	1600	4.21	265	7-26	0015	3.80	140

## WICOMICO RIVER BASIN

43

01486500 Beaverdam Creek near Salisbury, Md.

LOCATION.--Lat 38°21'05", long 75°34'11", Wicomico County, on upstream side of Schumaker Dam between spillway and emergency floodgate, 0.6 mi (1.0 km) upstream from Beaglin Branch, 2 mi (3 km) southeast of Salisbury, and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--19.5 mi<sup>2</sup> (50.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1929 to August 1933, May 1934 to September 1935, May 1936 to current year (discontinued). Prior to October 1948, published as East Branch Wicomico River near Salisbury.

GAGE.--Water-stage recorder and concrete spillway of dam for control. Datum of gage is 8.93 ft (2.722 m) above mean sea level (city of Salisbury bench mark). Prior to Sept. 28, 1938, at site on left bank at datum 9.02 ft (2.749 m) higher.

AVERAGE DISCHARGE.--40 years (1929-32, 1938-75), 24.0 ft<sup>3</sup>/s (0.68 m<sup>3</sup>/s), 16.71 in/yr (424 mm/yr).

EXTREMES.--Current year: Maximum discharge, 339 ft<sup>3</sup>/s (9.60 m<sup>3</sup>/s) Mar. 20, gage height, 11.45 ft (3.490 m); minimum daily, 0.87 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Feb. 22 (leakage under dam following closing of floodgate).  
1929-75: Maximum discharge, not determined, probably occurred Aug. 23, 1933, when dam was partially washed out; maximum known discharge, 1,480 ft<sup>3</sup>/s (41.9 m<sup>3</sup>/s) Aug. 4, 1948, gage height, 14.31 ft (4.362 m), from high-water mark in well; minimum daily discharge recorded, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Dec. 17, 1963 (leakage under dam following closing of floodgate).

REMARKS.--Records good. Records represent total flow and include flow over spillway, through spillway valve, over or through floodgate, and leakage under dam. Occasional regulation at low and medium flow caused by mill above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 741: 1931(m). WSP 1232: Drainage area. WSP 1432: 1931, 1936-37, 1940.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	9.3	11	14	38	25	68	31	29	12	24	15
2	7.4	10	25	12	38	27	47	31	36	11	21	36
3	8.0	9.3	12	12	52	24	44	32	34	10	18	20
4	8.0	9.3	8.6	12	55	24	48	41	31	11	14	15
5	8.0	9.3	8.6	12	67	17	45	44	23	12	16	13
6	8.0	9.3	7.4	12	53	11	41	41	21	11	20	12
7	7.4	10	8.6	13	63	14	35	41	19	9.3	25	13
8	8.0	10	20	14	53	16	32	36	17	9.3	23	29
9	8.0	10	23	20	38	18	29	32	16	12	18	21
10	8.0	9.3	12	19	33	17	28	28	15	18	17	16
11	9.3	8.6	12	25	31	24	27	24	14	21	16	13
12	9.3	10	11	31	33	24	24	24	18	45	15	14
13	8.6	13	11	57	33	32	15	24	28	136	15	29
14	8.0	12	12	95	28	58	25	29	21	208	13	18
15	9.3	10	10	66	31	84	42	27	18	139	14	16
16	29	8.6	31	39	26	73	63	28	16	129	19	15
17	24	8.6	39	27	36	77	63	27	15	138	23	17
18	12	8.6	29	28	34	86	50	25	15	55	24	14
19	12	8.6	20	36	35	117	38	24	13	53	16	14
20	8.6	9.3	13	53	38	263	41	23	35	29	14	14
21	8.0	8.0	20	52	13	148	36	20	19	56	14	14
22	8.0	8.0	19	48	.87	78	35	16	15	51	13	13
23	8.0	6.2	15	53	1.9	50	29	19	13	29	14	22
24	8.6	8.0	13	48	20	50	29	19	12	27	14	39
25	8.6	7.4	12	59	28	91	32	18	12	35	14	24
26	8.6	11	11	57	30	63	84	19	12	132	13	20
27	9.3	11	10	45	28	50	54	20	12	104	12	19
28	8.6	8.6	9.3	40	25	38	39	13	13	54	12	20
29	8.0	8.0	7.4	35	---	35	35	13	13	29	12	13
30	8.6	8.0	8.6	50	---	71	32	13	12	31	12	13
31	9.3	---	12	61	---	86	---	14	---	27	12	---
TOTAL	301.3	277.3	461.5	1150	961.77	1791	1210	796	567	1643.6	507	551
MEAN	9.72	9.24	14.9	37.1	34.3	57.8	40.3	25.7	18.9	53.0	16.4	18.4
MAX	29	13	39	95	67	263	84	44	36	208	25	39
MIN	6.8	6.2	7.4	12	.87	11	15	13	12	9.3	12	12
CFSM	.50	.47	.76	1.90	1.76	2.96	2.07	1.32	.97	2.72	.84	.94
IN.	.57	.53	.88	2.19	1.83	3.42	2.31	1.52	1.08	3.14	.97	1.05

CAL YR 1974 TOTAL 7559.43 MEAN 20.7 MAX 201 MIN .80 CFSM 1.06 IN 14.42  
WTR YR 1975 TOTAL 10217.47 MEAN 28.0 MAX 263 MIN .87 CFSM 1.44 IN 19.49



## NANTICOKE RIVER BASIN

01487000 Nanticoke River near Bridgeville, Del.

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

DRAINAGE AREA.--75.4 mi<sup>2</sup> (195.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft (4.157 m) above mean sea level (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.

AVERAGE DISCHARGE.--32 years, 92.6 ft<sup>3</sup>/s (2.622 m<sup>3</sup>/s), 16.68 in/yr (424 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,730 ft<sup>3</sup>/s (49.0 m<sup>3</sup>/s) Mar. 20, gage height, 8.23 ft (2.509 m); minimum, 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s) Nov. 29, 30, Dec. 1.  
Period of record: Maximum discharge, 2,360 ft<sup>3</sup>/s (66.8 m<sup>3</sup>/s) Aug. 5, 1967, gage height, 8.86 ft (2.701 m); minimum observed, 6.3 ft<sup>3</sup>/s (0.18 m<sup>3</sup>/s) Sept. 29, 1943.  
Maximum stage known, about 11.0 ft (3.35 m) in September 1935, from information by local residents.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1111: 1947. WSP 1232: 1945-49.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	25	57	130	132	178	149	132	48	106	46
2	29	28	61	53	130	129	168	161	150	45	101	50
3	29	28	43	51	126	123	212	157	121	43	96	46
4	29	28	33	54	122	118	257	210	112	43	91	43
5	29	28	30	51	167	114	201	253	113	39	93	42
6	29	28	29	50	187	111	181	206	132	39	92	41
7	28	27	28	56	177	110	169	199	123	39	92	42
8	28	27	42	53	161	110	160	183	107	37	84	46
9	28	27	44	69	148	104	153	170	98	39	79	43
10	28	26	35	66	139	103	149	161	91	124	75	40
11	28	27	32	78	135	108	146	154	86	97	73	39
12	28	27	32	92	149	108	142	148	90	111	70	42
13	28	28	31	156	176	125	137	148	99	186	66	54
14	28	27	41	229	150	176	133	145	92	619	67	43
15	29	26	40	137	140	264	170	141	86	506	64	40
16	51	26	113	120	136	186	219	145	82	477	65	40
17	47	26	178	111	137	203	186	144	79	336	70	40
18	33	26	86	108	137	205	170	138	77	240	64	39
19	29	25	68	138	138	356	165	135	74	170	60	42
20	28	25	63	216	132	1230	160	130	72	145	58	40
21	28	25	64	200	125	473	147	125	70	357	55	39
22	28	24	61	163	120	329	141	205	67	341	54	38
23	27	24	58	155	122	292	138	196	64	226	52	60
24	27	24	58	148	133	256	138	154	61	187	51	93
25	27	24	57	167	195	244	144	140	57	168	51	111
26	27	25	55	198	158	220	183	132	56	154	48	82
27	27	23	54	160	142	200	165	126	56	143	45	71
28	27	23	54	144	136	189	152	120	54	135	43	63
29	27	22	53	139	---	184	154	112	52	128	41	58
30	27	22	53	135	---	197	149	107	51	119	41	56
31	28	---	53	129	---	196	---	106	---	112	43	---
TOTAL	915	774	1674	3683	4048	6895	4967	4800	2604	5453	2090	1529
MEAN	29.5	25.8	54.0	119	145	222	166	155	86.8	176	67.4	51.0
MAX	51	28	178	229	195	1230	257	253	150	619	106	111
MIN	27	22	25	50	120	103	133	106	51	37	41	38
CFSM	.39	.34	.72	1.58	1.92	2.94	2.20	2.06	1.15	2.33	.89	.68
IN.	.45	.38	.83	1.82	2.00	3.40	2.45	2.37	1.28	2.69	1.03	.75

CAL YR 1974 TOTAL 26007 MEAN 71.3 MAX 220 MIN 22 CFSM .95 IN 12.83  
WTR YR 1975 TOTAL 39432 MEAN 108 MAX 1230 MIN 22 CFSM 1.43 IN 19.45

PEAK DISCHARGE (BASE, 360 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-20	0500	8.23	1,730	7-21	1500	6.59	550
7-14	2100	6.97	685				

## NANTICOKE RIVER BASIN

45

01488500 Marshyhope Creek near Adamsville, Del.

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

DRAINAGE AREA.--43.9 mi<sup>2</sup> (113.7 km<sup>2</sup>). Area at site used prior to Oct. 1, 1971, 44.8 mi<sup>2</sup> (116.0 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft. (7.989 m) above mean sea level. 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.

AVERAGE DISCHARGE.--29 years (1943-68, 1971-75), 54.6 ft<sup>3</sup>/s (1.546 m<sup>3</sup>/s), 16.89 in/yr (429 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,700 ft<sup>3</sup>/s (105 m<sup>3</sup>/s) July 13, gage height, 13.19 ft (4.020 m); minimum, 9.9 ft<sup>3</sup>/s (0.280 m<sup>3</sup>/s) Nov. 29, 30, Dec. 1.

Period of record: Maximum discharge, 3,700 ft<sup>3</sup>/s (105 m<sup>3</sup>/s) July 13, 1975, gage height, 13.19 ft (4.020 m); maximum gage height, 13.98 ft (4.261 m) Aug. 5, 1967, present datum; minimum discharge, 1.0 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Sept. 9, 10, 1964, Aug. 20, 1965.

Maximum stage known, 16.5 ft (5.03 m), present datum, in September 1935, from information by local residents.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	11	45	83	72	77	88	77	30	55	26
2	15	12	122	42	83	68	71	114	72	28	53	28
3	14	13	34	40	78	62	277	99	58	27	51	25
4	14	15	24	41	73	58	177	342	53	27	48	24
5	14	14	21	39	165	55	119	274	80	26	49	24
6	14	13	20	38	153	54	98	165	110	25	50	24
7	14	13	20	47	154	53	85	163	79	24	46	25
8	14	12	36	45	114	54	76	124	59	24	44	25
9	13	12	42	97	99	49	70	102	51	143	42	23
10	13	12	30	68	85	49	65	88	46	275	41	22
11	13	12	27	118	80	51	62	79	43	162	40	22
12	13	12	26	106	118	55	59	71	47	286	39	26
13	13	14	26	426	135	95	55	82	81	1780	37	31
14	13	12	54	277	97	265	52	90	63	2480	37	24
15	13	12	40	136	84	235	91	75	52	707	40	22
16	21	12	402	108	81	135	115	100	47	681	36	22
17	21	11	196	91	88	138	90	125	50	672	35	22
18	16	11	91	101	98	118	80	92	48	270	34	22
19	14	11	71	191	92	681	77	81	42	163	33	23
20	13	12	62	369	79	946	70	71	84	118	31	22
21	13	12	60	194	71	247	62	63	57	393	31	22
22	13	11	57	161	65	171	57	310	43	172	31	21
23	13	11	52	144	73	147	56	154	39	115	30	41
24	13	11	51	131	107	124	56	103	37	95	30	211
25	13	11	50	186	173	125	78	81	35	85	29	176
26	13	12	46	185	102	102	185	71	33	77	28	57
27	12	11	44	119	85	87	111	64	33	71	27	45
28	12	11	44	102	77	81	90	56	32	67	26	40
29	12	10	42	95	---	78	86	50	41	78	26	37
30	12	9.9	41	85	---	92	80	48	33	62	26	35
31	12	---	40	81	---	88	---	49	---	58	26	---
TOTAL	428	356.9	1882	3908	2792	4635	2727	3474	1625	9221	1151	1167
MEAN	13.8	11.8	60.7	126	99.7	149	90.9	112	54.1	297	37.1	38.9
MAX	21	15	402	426	173	946	277	342	110	2480	55	211
MIN	12	9.9	11	38	65	49	52	48	32	24	26	21
CFSM	.31	.27	1.38	2.87	2.27	3.41	2.07	2.55	1.23	6.78	.85	.89
IN.	.36	.30	1.59	3.31	2.37	3.93	2.31	2.94	1.38	7.81	.98	.99

CAL YR 1974 TOTAL 19620.9 MEAN 53.7 MAX 595 MIN 9.9 CFSM 1.22 IN 16.63  
WTR YR 1975 TOTAL 33366.9 MEAN 91.4 MAX 2480 MIN 9.9 CFSM 2.08 IN 28.27

PEAK DISCHARGE (BASE, 450 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-16	1700	6.70	1,080	5-04	1700	5.64	704
1-13	1700	6.25	918	5-22	1100	5.41	628
1-20	1100	4.97	496	7-10	0100	5.43	634
3-14	1900	5.34	607	7-13	2400	13.19	3,700
3-19	2200	9.38	2,240	7-16	2100	7.57	957
4-03	1600	5.48	649	7-21	0800	5.88	628

## NANTICOKE RIVER BASIN

01489000 Faulkner Branch at Federalsburg, Md.

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

DRAINAGE AREA.--7.10 mi<sup>2</sup> (18.39 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft (5.090 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 8.86 ft<sup>3</sup>/s (0.251 m<sup>3</sup>/s), 16.95 in/yr (431 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,680 ft<sup>3</sup>/s (47.6 m<sup>3</sup>/s) July 13, gage height, 5.98 ft (1.823 m) from rating curve extended as explained below; minimum, 0.95 ft<sup>3</sup>/s (0.027 m<sup>3</sup>/s) Oct. 10, 11, 12.  
Period of record: Maximum discharge, 1,680 ft<sup>3</sup>/s (47.6 m<sup>3</sup>/s) July 13, 1975, gage height, 5.98 ft (1.823 m), from rating curve extended above 210 ft<sup>3</sup>/s (5.95 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; no flow at times during many years (result of pumpage for irrigation).

REMARKS.--Records good. Diversion for irrigation of about 100 acres (40.5 ha) above station during some years.

REVISIONS (WATER YEARS).--WSP 1552: 1952. WSP 2103: 1960(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.6	2.2	6.5	15	10	14	11	15	5.1	6.7	3.2
2	1.3	1.6	4.1	5.8	15	9.6	13	13	10	4.4	6.3	4.3
3	1.2	1.6	2.5	5.5	14	8.9	21	11	7.2	4.0	6.0	3.0
4	1.3	1.7	2.0	5.7	13	8.2	19	24	6.4	3.7	5.9	2.6
5	1.3	1.7	1.8	5.3	25	7.8	14	21	5.5	3.5	5.6	2.4
6	1.2	1.6	1.8	5.1	24	7.8	12	16	13	3.3	8.6	2.5
7	1.2	1.8	1.8	6.6	22	7.8	11	16	7.0	3.2	9.5	2.5
8	1.2	1.5	4.2	6.1	18	7.7	10	13	5.5	3.2	5.7	4.5
9	1.2	1.6	3.6	11	16	6.9	9.6	11	4.8	3.7	5.1	3.7
10	1.1	1.6	2.8	9.1	14	7.2	9.3	10	4.4	5.9	4.9	3.3
11	1.1	1.6	2.5	15	14	7.9	8.8	9.1	4.0	5.8	4.7	3.2
12	1.1	1.9	2.4	15	19	9.3	8.4	7.9	5.7	135	4.4	2.9
13	1.1	2.4	2.3	38	21	13	7.9	9.2	12	699	4.2	2.5
14	1.2	1.9	4.2	36	15	24	7.5	8.9	6.9	249	4.1	2.0
15	1.2	1.8	3.5	20	14	27	16	7.7	5.5	141	3.9	2.0
16	3.8	1.7	23	17	13	17	20	8.7	4.8	115	3.8	2.0
17	2.7	1.8	21	15	14	33	14	8.5	12	96	3.9	2.0
18	2.0	1.8	10	16	15	25	12	7.6	16	41	3.7	2.0
19	1.8	1.8	8.6	26	14	104	12	7.1	6.6	28	3.3	2.3
20	1.8	1.8	7.9	47	12	116	11	6.5	22	23	3.2	2.2
21	1.7	1.7	8.1	31	11	35	9.2	5.9	7.5	69	3.1	2.0
22	1.6	1.6	7.5	26	10	26	8.4	6.0	5.7	26	3.0	1.9
23	1.6	1.6	6.8	24	11	24	8.1	5.3	5.0	18	2.9	9.2
24	1.6	1.7	6.7	22	13	21	8.2	5.1	4.5	15	3.0	34
25	1.6	1.8	6.5	27	16	21	11	5.0	4.2	14	2.8	22
26	1.6	2.1	6.0	28	13	17	17	4.8	4.5	12	6.7	9.7
27	1.5	1.8	5.9	20	11	14	12	4.5	4.5	11	3.1	7.6
28	1.5	1.8	5.9	17	10	14	10	4.1	17	9.6	2.6	6.2
29	1.5	1.7	5.6	16	---	14	11	3.8	14	8.6	2.4	5.4
30	1.5	1.6	5.5	15	---	18	10	4.3	6.3	7.7	2.3	5.3
31	1.6	---	5.5	15	---	16	---	4.4	---	7.2	3.1	---
TOTAL	47.4	52.2	182.2	552.7	422	678.1	357.4	280.4	247.5	1770.9	138.5	158.4
MEAN	1.52	1.74	5.87	17.8	15.0	21.8	11.9	9.04	8.25	57.1	4.46	5.28
MAX	3.8	2.4	23	47	25	116	21	24	22	699	9.5	34
MIN	1.1	1.5	1.8	5.1	10	6.9	7.5	3.8	4.0	3.2	2.3	1.9
CFSM	.22	.25	.83	2.51	2.12	3.08	1.68	1.27	1.16	8.05	.63	.74
IN.	.25	.27	.95	2.90	2.21	3.55	1.87	1.47	1.30	9.28	.73	.83
CAL YR 1974	TOTAL	2406.2	MEAN	6.59	MAX	48	MIN	1.0	CFSM	.93	IN	12.61
WTR YR 1975	TOTAL	4887.7	MEAN	13.3	MAX	699	MIN	1.1	CFSM	1.89	IN	25.61

PEAK DISCHARGE (BASE, 60 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-13	2015	2.35	80	7-13	1100	5.98	1,680
1-20	1215	2.15	60	7-16	2200	3.31	201
3-19	2045	3.71	301	7-21	0845	2.72	116

## TRANSQUAKING RIVER BASIN

47

01490000 Chicamacomico River near Salem, Md.

LOCATION.--Lat 38°30'43", long 75°52'51", Dorchester County, on left bank 30 ft (9 m) downstream from Big Mill Pond dam, 1.6 mi (2.6 km) east of Salem, 3.5 mi (5.6 km) northwest of Vienna, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--15.0 mi<sup>2</sup> (38.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 10 ft (3.05 m), from topographic map.

AVERAGE DISCHARGE.--24 years, 18.3 ft<sup>3</sup>/s (0.52 m<sup>3</sup>/s), 16.57 in/yr (421 mm/yr).

EXTREMES.--Current year: Maximum discharge, 478 ft<sup>3</sup>/s (13.5 m<sup>3</sup>/s) July 14, gage height, 4.32 ft (1.317 m); minimum daily, 4.9 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Oct. 8, 9, 21, 22.  
Period of record: Maximum discharge, 542 ft<sup>3</sup>/s (15.3 m<sup>3</sup>/s) Aug. 3, 1973, gage height, 4.48 ft (1.366 m); minimum daily, 0.5 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) June 11, 1965.

REMARKS.--Records fair. Occasional regulation by Big Mill Pond.

REVISIONS (WATER YEARS).--WSP 1332: 1952.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.7	6.1	12	22	19	28	23	34	16	13	12
2	5.3	5.9	11	9.5	23	19	24	30	39	13	12	21
3	5.1	5.9	11	8.8	22	18	32	25	25	12	12	14
4	5.0	5.9	7.7	10	20	16	37	40	20	10	11	11
5	5.1	6.3	5.4	9.5	40	16	27	53	16	10	11	9.9
6	5.1	5.8	5.4	9.2	47	15	23	36	17	9.7	34	9.7
7	5.0	5.6	5.5	12	43	16	22	41	16	10	34	9.4
8	4.9	5.5	14	10	35	16	20	33	12	9.9	20	11
9	4.9	5.4	13	17	28	14	20	24	13	11	14	9.8
10	5.2	5.8	7.2	13	23	15	20	20	12	18	13	8.4
11	5.2	6.2	6.2	25	22	18	20	17	11	23	13	8.1
12	5.1	7.3	6.2	31	34	19	19	16	14	35	12	12
13	5.2	9.7	6.1	43	45	28	18	21	19	218	12	21
14	5.2	8.5	13	64	31	42	17	20	15	337	12	11
15	5.8	7.1	9.3	37	25	62	36	17	13	169	12	9.0
16	13	5.9	23	27	24	40	48	18	14	180	13	8.6
17	12	5.6	29	24	27	60	34	17	13	167	16	9.2
18	6.4	5.5	16	23	28	72	27	15	18	70	13	9.0
19	5.0	5.6	12	32	28	93	27	14	12	45	11	10
20	5.0	5.7	10	50	24	211	28	14	11	36	10	11
21	4.9	5.8	11	50	21	77	20	13	11	33	9.8	10
22	4.9	5.4	11	39	19	53	18	12	10	29	9.9	9.0
23	5.0	5.0	9.5	34	19	47	17	12	9.5	23	9.9	20
24	5.0	5.7	9.4	31	23	40	17	12	9.4	21	10	51
25	5.1	6.2	9.5	40	43	38	21	13	9.0	21	9.9	83
26	5.2	6.4	8.8	45	31	33	45	12	14	19	9.2	37
27	5.0	5.5	9.0	33	23	26	30	12	16	17	8.6	28
28	5.0	5.3	9.7	26	20	24	22	11	16	16	8.1	23
29	5.1	5.1	8.9	24	---	24	23	11	50	16	8.0	18
30	5.3	5.0	9.0	23	---	35	21	13	26	14	8.1	16
31	5.5	---	9.0	21	---	37	---	17	---	13	9.8	---
TOTAL	175.2	180.3	321.9	833.0	790	1243	761	632	514.9	1621.6	399.3	520.1
MEAN	5.65	6.01	10.4	26.9	28.2	40.1	25.4	20.4	17.2	52.3	12.9	17.3
MAX	13	9.7	29	64	47	211	48	53	50	337	34	83
MIN	4.9	5.0	5.4	8.8	19	14	17	11	9.0	9.7	8.0	8.1
CFSM	.38	.40	.69	1.79	1.88	2.67	1.69	1.36	1.15	3.49	.86	1.15
IN.	.43	.45	.80	2.07	1.96	3.08	1.89	1.57	1.28	4.02	.99	1.29

CAL YR 1974 TOTAL 5156.7 MEAN 14.1 MAX 72 MIN 4.2 CFSM .94 IN 12.79  
WTR YR 1975 TOTAL 7992.3 MEAN 21.9 MAX 337 MIN 4.9 CFSM 1.46 IN 19.82

## CHOPTANK RIVER BASIN

01491000 Choptank River near Greensboro, Md.

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, on left bank at highway bridge, 0.1 mi (0.2 km) upstream from Gravelly Branch, 2 mi (3 km) northeast of Greensboro, and 60 mi (97 km) upstream from mouth.

DRAINAGE AREA.--113 mi<sup>2</sup> (293 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft (1.070 m) above mean sea level.

AVERAGE DISCHARGE.--27 years, 131 ft<sup>3</sup>/s (3.710 m<sup>3</sup>/s), 15.74 in/yr (400 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,860 ft<sup>3</sup>/s (81.0 m<sup>3</sup>/s) July 14, gage height, 9.86 ft (3.005 m); minimum, 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) Oct. 15, gage height, 1.99 ft (0.607 m); minimum daily, 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s) Oct. 15, Nov. 30.

Period of record: Maximum discharge, 6,970 ft<sup>3</sup>/s (197 m<sup>3</sup>/s) Aug. 4, 1967, gage height, 14.47 ft (4.410 m), from rating curve extended above 3,600 ft<sup>3</sup>/s (102 m<sup>3</sup>/s); minimum, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Aug. 29, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by mill above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1622: 1948.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	27	26	94	160	176	277	183	99	139	73	48
2	28	27	184	111	164	158	212	246	132	83	67	62
3	27	26	420	109	162	147	278	269	122	55	62	56
4	27	26	285	99	154	138	582	366	92	51	56	44
5	24	25	158	92	168	132	421	830	104	47	497	40
6	25	26	101	85	288	127	268	627	148	43	858	39
7	24	25	77	94	394	123	206	401	167	42	430	39
8	23	24	92	117	317	122	176	308	132	41	229	41
9	23	24	155	160	227	115	158	229	93	46	154	39
10	23	24	197	274	193	106	146	180	76	54	116	34
11	23	25	154	293	161	113	139	156	68	68	95	34
12	23	25	117	281	164	123	133	140	85	78	86	35
13	23	33	96	347	233	179	127	147	162	663	77	49
14	23	29	92	719	255	401	118	191	211	2510	82	47
15	22	27	96	643	198	916	132	213	151	2090	87	38
16	37	26	159	346	174	741	209	194	108	1470	80	35
17	53	25	485	229	160	423	246	292	94	963	77	35
18	51	25	538	196	168	296	190	264	116	643	73	34
19	41	24	334	306	162	379	164	184	146	388	65	41
20	35	25	231	603	173	1740	154	155	119	257	60	40
21	33	25	181	667	154	1300	140	127	91	487	56	37
22	31	24	159	451	141	730	126	161	73	887	53	35
23	30	24	145	320	151	478	114	336	62	505	52	154
24	29	23	131	270	340	362	110	275	55	256	51	818
25	28	24	119	276	659	738	134	171	50	301	47	1230
26	28	25	112	432	595	731	389	139	51	282	46	872
27	28	24	102	435	332	416	628	126	53	189	41	517
28	27	23	94	268	214	280	366	111	52	137	40	322
29	26	23	89	203	---	232	249	94	65	112	36	204
30	26	22	85	179	---	244	197	83	116	95	33	153
31	26	---	83	164	---	322	---	81	---	82	38	---
TOTAL	896	755	5297	8863	6671	12488	6789	7279	3093	13064	3817	5172
MEAN	28.9	25.1	170	285	238	402	226	234	103	421	123	172
MAX	53	33	538	719	659	1740	628	830	211	2510	858	1230
MIN	22	22	26	85	141	106	110	81	50	41	33	34
CFSM	.26	.22	1.51	2.53	2.11	3.56	2.00	2.08	.91	3.73	1.09	1.53
IN.	.29	.25	1.74	2.92	2.20	4.11	2.23	2.40	1.02	4.30	1.26	1.70

CAL YR 1974 TOTAL 44803 MEAN 122 MAX 859 MIN 15 CFSM 1.09 IN 14.75  
WTR YR 1975 TOTAL 74184 MEAN 203 MAX 2510 MIN 22 CFSM 1.80 IN 24.42

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-15	1615	6.63	1,050	7-14	1230	9.86	2,860
3-20	1645	8.84	2,150	9-25	0200	7.23	1,260

01492000 Beaverdam Branch at Matthews, Md.

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, on left bank 50 ft (15 m) upstream from bridge on State Highway 328, 1 mi (2 km) west of Matthews, 6 mi (10 km) northeast of Easton, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--5.85 mi<sup>2</sup> (15.15 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2.33 ft (0.710 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 6.78 ft<sup>3</sup>/s (0.192 m<sup>3</sup>/s), 15.74 in/yr (400 mm/yr).

EXTREMES.--Current year: Maximum discharge, 301 ft<sup>3</sup>/s (8.52 m<sup>3</sup>/s) July 14, gage height, 4.24 ft (1.292 m); minimum, 0.26 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Oct. 9; minimum gage height, 1.12 ft (0.341 m) Oct. 11.  
Period of record: Maximum discharge, 2,200 ft<sup>3</sup>/s (62.3 m<sup>3</sup>/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 ft<sup>3</sup>/s (12.5 m<sup>3</sup>/s) on basis of contracted-opening measurement at gage height 7.15 ft (2.179 m); no flow at times during many years.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.68	5.8	6.3	9.4	6.3	7.8	35	5.1	.75	2.1	1.3
2	.48	.75	36	3.9	9.0	6.0	7.0	19	3.1	.58	1.8	3.2
3	.44	.73	3.9	3.3	7.7	5.2	56	9.6	4.3	.51	1.6	1.3
4	.50	.78	2.3	3.6	6.5	4.6	16	77	2.5	.59	1.4	.85
5	.50	.85	1.8	3.1	45	4.5	8.6	26	2.0	.55	1.5	.74
6	.43	1.0	1.7	3.2	26	4.5	7.4	13	5.7	.44	6.3	.74
7	.39	.80	1.6	12	15	4.7	6.6	15	2.2	.59	3.2	.88
8	.36	.76	54	5.4	8.8	4.7	6.2	8.4	1.6	.81	2.0	1.2
9	.38	.77	12	23	8.1	3.7	5.7	7.1	1.5	21	1.6	.86
10	.52	.70	4.2	6.9	6.6	4.3	5.7	6.1	1.4	20	1.4	.61
11	.38	.70	3.1	15	7.1	7.1	5.4	5.3	1.3	23	1.4	.52
12	.39	1.2	2.9	8.6	31	19	5.3	4.7	9.8	37	1.3	1.4
13	.46	2.7	2.6	65	16	23	4.8	17	5.4	113	1.1	1.1
14	.52	1.4	4.7	36	8.1	73	4.5	8.1	2.2	131	1.3	.64
15	.71	1.2	3.3	8.8	7.3	40	38	5.6	1.6	92	1.3	.52
16	4.6	1.0	78	7.6	7.8	13	18	21	1.4	28	1.2	.54
17	2.0	.92	34	6.4	9.5	37	8.4	9.3	1.7	19	1.6	.65
18	.97	.94	8.0	21	11	14	7.1	6.4	1.4	7.5	1.4	.64
19	.79	.95	5.8	34	8.8	105	6.9	5.4	1.2	5.2	1.0	1.1
20	.73	1.0	5.0	38	7.0	77	5.9	4.4	1.0	4.3	.85	.92
21	.68	1.2	6.2	18	6.2	19	4.6	3.6	.83	27	.84	.74
22	.68	.93	5.0	14	5.8	14	4.2	3.1	.75	5.8	.75	.66
23	.75	.83	4.1	13	18	13	4.4	2.9	.70	3.5	.68	53
24	.72	.85	4.0	12	27	13	5.0	2.8	.65	2.8	.80	73
25	.68	.96	4.0	36	28	20	34	3.5	.61	3.5	.80	51
26	.74	1.6	3.4	22	8.8	9.2	57	3.1	.99	3.3	.63	14
27	.69	1.2	3.3	8.9	7.1	7.4	11	2.5	1.0	2.2	.50	6.2
28	.71	1.1	3.4	7.7	6.5	7.3	7.8	2.2	1.3	6.9	.43	3.7
29	.70	.95	3.2	7.6	---	7.5	16	1.8	1.5	32	.40	2.7
30	.66	.86	3.2	6.7	---	25	9.1	2.4	.97	3.7	.38	2.4
31	.67	---	3.4	8.5	---	10	---	3.1	---	2.5	1.3	---
TOTAL	23.74	30.31	313.9	465.5	363.1	602.0	384.4	334.4	65.70	599.02	42.86	227.11
MEAN	.76	1.01	10.1	15.0	12.9	19.4	12.8	10.7	2.19	19.3	1.38	7.57
MAX	4.6	2.7	78	65	45	105	57	77	9.8	131	6.3	73
MIN	.36	.68	1.6	3.1	5.8	3.7	4.2	1.8	.61	.44	.38	.52
CFSM	.13	.17	1.73	2.57	2.22	3.32	2.19	1.84	.37	3.30	.24	1.29
IN.	.15	.19	2.00	2.96	2.31	3.83	2.44	2.13	.42	3.81	.27	1.44

CAL YR 1974 TOTAL 1922.52 MEAN 5.26 MAX 78 MIN .18 CFSM .90 IN 12.23  
WTR YR 1975 TOTAL 3452.04 MEAN 9.45 MAX 131 MIN .36 CFSM 1.62 IN 21.95

PEAK DISCHARGE (BASE, 120 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-16	1900	3.08	155	7-11	2315	3.19	167
3-19	2000	3.91	253	7-14	0315	4.24	301
5-04	1545	2.84	131	9-23	2315	2.73	121

## CHESTER RIVER BASIN

01493000 Unicorn Branch near Millington, Md.

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

DRAINAGE AREA.--22.3 mi<sup>2</sup> (57.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft (1.088 m) above mean sea level.

AVERAGE DISCHARGE.--27 years, 24.8 ft<sup>3</sup>/s (0.702 m<sup>3</sup>/s), 15.10 in/yr (384 mm/yr).

EXTREMES.--Current year: Maximum discharge, 365 ft<sup>3</sup>/s (10.3 m<sup>3</sup>/s) July 15, gage height, 4.60 ft (1.402 m); minimum, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Dec. 30, 31 (result of regulation).

Period of record: Maximum discharge, 1,060 ft<sup>3</sup>/s (30.0 m<sup>3</sup>/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.

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

REVISIONS (WATER YEARS).--WSP 1382: 1952(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	17	25	36	30	43	40	22	13	18	17
2	12	11	130	27	22	32	39	53	22	13	17	17
3	11	11	55	26	33	30	52	43	19	12	16	14
4	11	12	25	27	40	29	76	63	18	12	17	13
5	11	12	23	26	39	28	49	94	25	12	58	13
6	11	12	19	26	41	27	41	58	31	12	55	12
7	11	11	14	28	48	27	37	51	21	13	31	14
8	11	11	15	30	49	27	34	42	18	13	22	13
9	11	11	35	32	45	25	32	35	17	13	18	13
10	11	11	31	36	38	25	31	32	16	20	17	12
11	11	11	29	36	36	28	30	29	16	17	17	13
12	11	14	27	38	34	32	29	28	32	15	16	15
13	11	15	16	43	37	45	28	41	31	85	15	19
14	11	13	6.2	72	37	58	28	84	22	159	31	13
15	12	12	6.5	48	30	105	36	59	19	205	27	12
16	24	12	39	41	30	59	46	65	17	281	22	13
17	21	12	86	39	30	46	39	73	17	103	21	13
18	14	12	50	39	35	41	34	45	17	51	19	13
19	13	12	39	41	39	66	33	37	17	34	16	15
20	12	12	28	62	34	245	31	31	15	28	16	14
21	12	12	18	58	24	112	28	27	14	115	15	13
22	12	12	24	45	30	65	27	32	14	99	15	13
23	12	11	23	42	30	54	26	37	14	42	15	41
24	12	11	23	41	45	57	28	31	14	30	15	151
25	12	12	22	41	95	144	38	27	13	25	14	222
26	12	12	22	51	63	88	108	25	17	23	13	100
27	11	12	26	49	49	55	78	23	15	21	13	50
28	11	12	28	47	29	45	47	21	15	21	12	34
29	11	11	27	41	---	42	40	20	15	20	11	27
30	12	11	14	25	---	50	35	20	14	18	12	23
31	11	---	2.6	31	---	55	---	20	---	19	18	---
TOTAL	380	354	920.3	1213	1098	1772	1223	1286	557	1544	622	952
MEAN	12.2	11.8	29.6	39.1	39.2	57.1	40.7	41.4	18.5	49.8	20.0	31.7
MAX	24	15	130	72	95	245	108	94	32	281	58	222
MIN	11	11	2.6	25	22	25	26	20	13	12	11	12
CFSM	.55	.53	1.33	1.75	1.76	2.56	1.83	1.86	.83	2.23	.90	1.42
IN.	.63	.59	1.54	2.02	1.83	2.96	2.04	2.15	.93	2.58	1.04	1.59

CAL YR 1974 TOTAL 8644.1 MEAN 23.6 MAX 141 MIN 1.2 CFSM 1.06 IN 14.42  
WTR YR 1975 TOTAL 11921.3 MEAN 32.6 MAX 281 MIN 2.6 CFSM 1.46 IN 19.89

PEAK DISCHARGE (BASE, 180 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-02	1430	3.82	184	7-15	2400	4.60	365
3-20	0600	4.33	298	7-21	1730	3.83	186
3-25	0930	3.83	186	9-25	0630	4.27	283

01493500 Morgan Creek near Kennedyville, Md.

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, on right bank 200 ft (61 m) upstream from highway bridge, 2 mi (3 km) southwest of Kennedyville, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--10.5 mi<sup>2</sup> (27.2 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--24 years, 10.6 ft<sup>3</sup>/s (0.300 m<sup>3</sup>/s), 13.71 in/yr (348 mm/yr).

EXTREMES.--Current year: Maximum discharge, 376 ft<sup>3</sup>/s (10.6 m<sup>3</sup>/s) Mar. 19, gage height, 5.18 ft (1.579 m); minimum, 4.9 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Oct. 8, 9, 11, 12, 15; minimum gage height, 1.37 ft (0.418 m) Aug. 27, 28, 29, 30, 31, Sept. 10.

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

REMARKS.--Records good. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WRD Md. and Del. 1970: 1969.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.1	12	13	10	9.1	11	16	19	6.3	5.8	7.9
2	6.1	6.1	209	7.9	9.8	8.8	10	15	16	6.0	5.9	8.3
3	5.5	6.1	43	7.0	8.8	8.4	24	10	9.3	6.1	5.8	6.6
4	5.5	6.1	12	7.6	7.9	8.0	14	55	8.2	7.2	5.7	6.1
5	5.6	6.8	7.6	6.7	16	8.6	9.9	36	20	6.3	19	6.0
6	5.6	6.7	7.4	7.5	21	8.7	9.8	15	74	6.0	8.8	6.0
7	5.4	6.1	7.5	16	18	8.7	9.5	17	19	7.3	7.5	6.0
8	5.2	6.1	115	8.8	9.5	8.7	9.1	11	8.7	6.7	6.8	6.3
9	5.1	6.1	54	30	10	7.3	9.1	9.7	7.6	10	6.4	6.0
10	5.3	6.1	13	15	7.8	8.8	9.1	9.4	7.2	20	6.3	5.6
11	5.1	6.1	8.0	9.7	9.0	11	9.1	8.6	7.1	106	6.3	5.9
12	5.2	9.1	7.9	8.7	13	15	9.1	11	18	17	5.9	10
13	5.3	10	7.4	28	12	17	8.6	73	16	116	5.9	15
14	5.3	6.4	8.9	31	8.2	37	8.5	29	8.6	101	19	6.7
15	6.0	6.7	7.6	8.7	8.3	38	13	12	7.6	28	8.9	6.3
16	31	6.0	80	8.3	9.4	12	13	21	7.4	14	9.8	6.8
17	26	6.0	63	7.6	9.7	11	9.7	14	7.6	9.1	8.0	7.0
18	8.5	6.0	14	22	12	9.4	9.6	11	7.5	7.9	9.0	11
19	6.2	6.0	8.6	39	9.9	104	11	11	6.9	8.2	6.8	25
20	6.0	6.6	7.8	33	8.5	118	9.8	9.6	7.1	9.4	7.4	8.9
21	5.7	7.2	7.4	16	8.0	23	7.9	9.3	6.2	83	6.6	7.3
22	5.7	5.8	7.4	10	7.9	12	7.8	11	6.1	18	6.6	7.1
23	6.0	5.6	7.0	10	29	11	8.3	18	6.1	7.7	6.9	30
24	6.1	5.9	7.4	11	35	34	9.4	9.9	6.1	7.1	6.9	99
25	6.0	6.6	7.6	23	39	68	19	9.8	6.1	7.2	6.7	79
26	6.1	7.6	6.8	24	12	17	46	11	7.7	7.5	6.0	21
27	5.8	6.0	6.8	11	9.4	11	13	9.6	7.6	6.7	5.7	12
28	5.7	6.3	6.9	9.1	9.1	11	9.4	8.5	7.7	6.3	5.4	7.6
29	6.1	5.9	6.8	9.1	---	12	9.7	7.9	7.1	6.3	5.5	6.8
30	6.1	5.7	6.9	8.5	---	18	8.9	15	6.9	6.6	5.5	6.4
31	6.1	---	8.4	10	---	13	---	14	---	5.9	7.4	---
TOTAL	229.3	193.8	773.1	457.2	368.2	687.5	356.3	518.3	350.4	660.8	234.2	443.6
MEAN	7.39	6.46	24.9	14.7	13.1	22.1	11.8	16.7	11.6	21.3	7.55	14.7
MAX	31	10	209	39	39	118	46	73	74	116	19	99
MIN	5.1	5.6	6.8	6.7	7.8	7.3	7.8	7.9	6.1	5.9	5.4	5.6
CFSM	.70	.62	2.38	1.40	1.25	2.11	1.13	1.59	1.11	2.03	.72	1.41
IN.	.81	.69	2.74	1.62	1.30	2.44	1.26	1.84	1.24	2.34	.83	1.57

CAL YR 1974 TOTAL 4443.4 MEAN 12.1 MAX 209 MIN 4.0 CFSM 1.16 IN 15.74  
 WTR YR 1975 TOTAL 5272.7 MEAN 14.4 MAX 209 MIN 5.1 CFSM 1.38 IN 18.68

PEAK DISCHARGE (BASE, 200 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-02	0445	4.88	316	3-19	1945	5.18	376
12-08	1300	4.32	228				



## ELK RIVER BASIN

01495000 Big Elk Creek at Elk Mills, Md.

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

DRAINAGE AREA.--52.6 mi<sup>2</sup> (136.2 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--43 years, 69.2 ft<sup>3</sup>/s (1.960 m<sup>3</sup>/s), 17.87 in/yr (454 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,540 ft<sup>3</sup>/s (129 m<sup>3</sup>/s) July 14, gage height, 9.64 ft (2.938 m), from rating curve extended above 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 13.46 ft (4.103 m); minimum, 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) Oct. 11, 12, Nov. 27; minimum daily, 31 ft<sup>3</sup>/s (0.88 m<sup>3</sup>/s) Oct. 10, 11, 12.

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

Maximum stage known, about 19 ft (5.8 m) in June 1884, from information by local residents.

REMARKS.--Records good. Slight diurnal fluctuation caused by mills above station.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	34	35	74	68	82	97	129	668	71	86	52
2	40	35	269	65	64	77	91	121	214	63	85	51
3	37	44	75	50	60	73	115	95	96	66	82	50
4	35	41	48	50	60	69	97	348	80	88	81	46
5	35	39	42	46	79	69	86	189	174	64	97	46
6	34	42	37	46	100	70	85	128	610	60	82	45
7	33	37	36	117	105	71	83	138	138	60	84	46
8	32	35	660	63	76	72	81	103	99	60	79	45
9	32	34	156	247	69	63	80	92	86	67	75	43
10	31	34	73	84	66	65	80	87	78	103	73	40
11	31	34	57	73	60	71	80	82	75	77	73	41
12	31	38	52	68	68	84	78	80	257	65	69	48
13	33	64	49	136	71	94	75	171	479	832	69	70
14	33	40	52	106	67	126	74	142	129	1890	99	43
15	33	38	47	69	72	152	80	96	99	893	73	41
16	209	37	559	63	63	97	90	164	91	487	87	41
17	97	35	208	60	92	82	77	106	106	186	80	43
18	49	34	94	173	178	75	75	91	85	144	74	42
19	41	34	75	174	117	647	78	87	78	126	67	88
20	39	36	68	207	83	437	76	80	77	139	69	55
21	38	51	62	96	69	159	70	78	69	904	63	89
22	37	40	58	80	65	128	68	118	66	158	63	69
23	37	35	53	77	163	115	68	83	65	127	61	344
24	37	34	53	79	222	156	78	75	64	116	61	456
25	36	35	53	146	306	198	258	71	67	233	62	263
26	37	37	50	152	116	116	448	71	69	128	59	127
27	35	35	48	80	94	100	125	69	73	108	54	106
28	34	33	47	73	85	97	99	64	226	102	50	72
29	34	33	45	71	---	98	93	60	95	97	49	63
30	34	32	46	66	---	152	86	65	127	91	49	60
31	35	---	47	67	---	111	---	77	---	88	51	---
TOTAL	1342	1130	3254	2958	2738	4006	3071	3360	4640	7693	2206	2625
MEAN	43.2	37.6	104	95.4	97.7	129	102	108	154	248	71.1	87.5
MAX	209	64	660	247	306	647	448	348	668	1890	99	456
MIN	31	32	35	46	60	63	68	60	64	60	49	40
CFSM	.82	.72	2.00	1.81	1.86	2.46	1.95	2.06	2.94	4.72	1.35	1.66
IN.	.95	.80	2.30	2.09	1.94	2.83	2.17	2.38	3.28	5.44	1.56	1.86

CAL YR 1974 TOTAL 25275 MEAN 69.2 MAX 660 MIN 24 CFSM 1.32 IN 17.88  
WTR YR 1975 TOTAL 39023 MEAN 106 MAX 1890 MIN 31 CFSM 2.03 IN 27.60

PEAK DISCHARGE (BASE, 1,700 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3-19	2030	6.93	2,140	7-14	0145	9.64	4,540
6-01	0730	6.40	1,760	7-21	0300	7.92	2,940
6-06	0300	6.54	1,860				

01496000 Northeast Creek at Leslie, Md.

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

DRAINAGE AREA.--24.3 mi<sup>2</sup> (62.9 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 115.0 ft (35.05 m) above mean sea level.

AVERAGE DISCHARGE.--27 years, 35.2 ft<sup>3</sup>/s (0.997 m<sup>3</sup>/s), 19.67 in/yr (500 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,410 ft<sup>3</sup>/s (96.6 m<sup>3</sup>/s) July 21, gage height, 7.11 ft (2.167 m); minimum, 8.2 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Oct. 11; minimum daily, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Oct. 11, 12, Sept. 10, 11, 15, 16. Period of record: Maximum discharge, 4,800 ft<sup>3</sup>/s (136 m<sup>3</sup>/s) June 22, 1972, gage height, 8.41 ft (2.563 m), from rating curve extended above 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s), on basis of contracted-opening measurement at gage height 7.74 ft (2.359 m); minimum, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Sept. 8, 9, 10, 11, 12, 13, 14, 1966; minimum daily, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Sept. 9, 10, 12, 13, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by powerplant above station.

REVISIONS (WATER YEARS).--WSP 1232: 1949-51.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	13	21	49	33	31	32	89	379	27	22	15
2	16	14	420	34	31	28	29	59	75	23	22	15
3	14	17	48	25	29	26	46	37	35	23	22	16
4	14	16	28	26	27	24	34	388	27	28	22	14
5	13	16	23	24	38	25	27	95	140	22	22	13
6	13	17	23	24	78	25	26	48	404	20	21	12
7	13	14	22	96	79	26	25	53	53	21	22	13
8	12	14	942	35	43	27	25	36	33	24	20	13
9	12	13	153	186	37	22	24	31	28	53	18	12
10	12	13	39	48	30	23	23	30	26	102	18	11
11	11	13	30	45	28	26	24	28	25	38	18	11
12	11	14	28	40	35	35	23	27	206	27	17	14
13	12	22	27	115	34	43	22	94	355	776	16	20
14	12	16	33	70	29	104	21	71	47	1690	25	12
15	14	18	29	35	27	104	25	34	32	268	19	11
16	153	16	421	31	35	41	31	79	29	255	22	11
17	50	14	198	29	61	34	24	39	29	56	22	12
18	22	14	44	107	107	29	22	31	27	39	20	14
19	17	14	33	133	65	340	23	31	26	34	18	40
20	16	15	31	167	41	482	23	28	26	44	16	19
21	15	19	29	52	34	57	21	27	22	1110	15	15
22	15	15	29	42	31	43	20	37	20	57	18	18
23	15	14	26	42	142	39	20	28	20	36	23	224
24	15	14	26	49	161	76	24	25	19	33	21	362
25	14	14	26	138	198	109	136	23	18	53	18	237
26	14	15	25	101	45	42	339	23	18	35	16	84
27	14	13	23	41	34	33	46	23	23	33	15	50
28	14	14	23	35	31	31	34	21	381	26	14	29
29	13	14	23	34	---	32	33	19	98	25	13	24
30	13	13	24	31	---	82	30	21	61	24	13	22
31	13	---	24	32	---	41	---	26	---	23	14	---
TOTAL	610	448	2871	1916	1563	2080	1232	1601	2682	5025	582	1363
MEAN	19.6	14.9	92.6	61.8	55.8	67.0	41.0	51.6	89.4	162	18.7	45.4
MAX	153	22	942	186	198	482	339	388	404	1690	25	362
MIN	11	13	21	24	27	22	20	19	18	20	13	11
CFSM	.81	.61	3.81	2.54	2.30	2.76	1.69	2.13	3.68	6.67	.77	1.87
IN.	.93	.69	4.40	2.93	2.39	3.18	1.89	2.45	4.11	7.69	.89	2.09
CAL YR 1974	TOTAL	13966.6	MEAN	38.2	MAX	942	MIN	9.3	CFSM	1.57	IN	21.38
WTR YR 1975	TOTAL	21973.0	MEAN	60.2	MAX	1690	MIN	11	CFSM	2.48	IN	33.64

PEAK DISCHARGE (BASE, 800 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-08	1800	5.23	1,680	7-14	0230	6.02	2,350
12-16	2300	4.08	918	7-21	0500	7.11	3,410
3-20	0200	4.73	1,330				

## PRINCIPIO CREEK BASIN

01496200 Principio Creek near Principio Furnace, Md.

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

DRAINAGE AREA.--9.03 mi<sup>2</sup> (23.39 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--8 years, 14.0 ft<sup>3</sup>/s (0.396 m<sup>3</sup>/s), 21.05 in/yr (535 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,050 ft<sup>3</sup>/s (86.4 m<sup>3</sup>/s) July 21, gage height, 8.50 ft (2.591 m), from rating curve extended as explained below; minimum, 4.0 ft<sup>3</sup>/s (0.11 m<sup>3</sup>/s) Oct. 9, 10, 11, 12, 13.  
Period of record: Maximum discharge, 7,060 ft<sup>3</sup>/s (200 m<sup>3</sup>/s) Aug. 4, 1969, gage height, 9.26 ft (2.822 m), from rating curve extended above 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 8.89 ft (2.710 m) and 9.26 ft (2.822 m); minimum, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Oct. 4, 5, 1968, July 17, 18, 1969.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.0	15	15	13	12	13	37	74	12	10	7.1
2	5.5	5.2	146	10	12	11	12	18	17	11	10	6.8
3	5.0	7.1	13	9.7	12	10	19	14	13	12	9.8	6.8
4	5.0	5.2	9.6	9.7	11	9.8	13	136	11	12	9.6	6.0
5	5.0	6.3	8.5	9.1	16	9.8	11	27	115	10	9.6	5.8
6	4.7	6.5	8.0	11	30	10	11	18	93	9.8	11	5.9
7	4.5	5.2	7.9	28	23	10	10	16	18	9.6	9.8	5.8
8	4.2	4.7	281	12	14	9.9	9.9	14	13	9.4	9.1	5.8
9	4.2	4.7	21	51	13	8.8	9.6	13	12	40	8.6	5.3
10	4.2	4.5	13	14	12	9.5	9.7	12	11	14	8.5	5.0
11	4.1	4.5	11	16	12	10	9.5	12	11	13	8.5	5.1
12	4.2	6.3	11	13	14	15	9.1	12	70	11	8.1	7.8
13	4.4	7.4	10	39	13	13	8.8	55	146	352	8.2	6.9
14	4.5	5.4	13	18	12	44	8.6	22	18	388	11	5.3
15	5.1	5.8	10	13	11	26	11	14	15	86	8.7	5.1
16	55	5.3	169	12	17	14	11	29	14	36	9.9	5.2
17	11	5.0	24	11	20	12	9.0	15	13	21	10	5.2
18	6.5	5.0	15	41	27	11	8.9	13	13	17	10	10
19	6.0	5.0	13	37	18	170	9.3	13	15	16	8.0	18
20	5.8	5.5	12	41	13	41	8.5	12	15	72	7.6	7.1
21	5.2	6.1	11	17	12	18	7.7	12	11	229	7.3	6.4
22	5.2	5.0	11	15	12	16	7.5	15	11	19	8.5	6.8
23	5.2	4.7	10	16	53	14	7.5	15	10	16	8.3	113
24	5.2	4.9	10	17	67	34	12	12	11	19	9.2	135
25	5.2	5.2	10	49	35	25	81	11	11	24	7.8	58
26	5.2	5.3	9.6	22	16	15	47	11	12	14	7.1	28
27	5.0	4.8	9.6	14	13	13	15	11	34	13	6.4	16
28	5.0	5.0	9.4	13	13	12	13	10	259	12	6.1	11
29	5.0	4.7	9.3	13	---	13	12	9.6	30	11	6.0	10
30	5.0	4.5	9.3	12	---	29	12	10	17	11	6.0	9.6
31	5.0	---	11	13	---	14	---	10	---	11	8.0	---
TOTAL	211.1	159.8	921.2	611.5	534	659.8	426.6	628.6	1113	1530.8	266.7	529.8
MEAN	6.80	5.32	29.7	19.7	19.0	21.2	14.2	20.2	37.1	49.3	8.60	17.6
MAX	55	7.4	281	51	67	170	81	136	259	388	11	135
MIN	4.1	4.5	7.9	9.1	11	8.8	7.5	9.6	10	9.4	6.0	5.0
CFSM	.75	.59	3.29	2.18	2.11	2.36	1.57	2.25	4.11	5.47	.95	1.96
IN.	.87	.66	3.79	2.52	2.20	2.72	1.76	2.59	4.59	6.31	1.10	2.18

CAL YR 1974 TOTAL 4267.2 MEAN 11.6 MAX 281 MIN 2.8 CFSM 1.29 IN 17.58  
WTR YR 1975 TOTAL 7592.9 MEAN 20.8 MAX 388 MIN 4.1 CFSM 2.30 IN 31.28

PEAK DISCHARGE (BASE, 300 FT<sup>3</sup>/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
12-02	0200	5.43	696	6-05	2245	6.51	1,120
12-08	0945	6.39	1,070	6-13	0400	6.10	950
12-16	1300	5.17	605	6-28	1830	6.60	1,170
3-19	1715	5.31	654	7-14	0145	6.47	1,110
4-25	2130	4.63	439	7-21	0015	8.50	3,050
5-04	0915	4.70	460				

01578310 Susquehanna River at Conowingo, Md.

LOCATION.--Lat 39°39'31", long 76°10'28", Harford County, at downstream side of Conowingo Dam, 1 mile (1.6 km) southwest of Conowingo, and 9.9 miles (15.9 km) upstream from mouth.

DRAINAGE AREA.--27,100 mi<sup>2</sup> (70,190 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft (1.524 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 710,000 ft<sup>3</sup>/s (20,100 m<sup>3</sup>/s) Sept. 27, gage height, 30.92 ft (9.424 m); minimum, 692 ft<sup>3</sup>/s (19.6 m<sup>3</sup>/s) Sept. 13, 15, gage height, 7.19 ft (2.192 m).

Period of record: Maximum discharge, 1,130,000 ft<sup>3</sup>/s (32,000 m<sup>3</sup>/s) June 24, 1972, gage height, 36.83 ft (11.226 m); minimum, 144 ft<sup>3</sup>/s (4.08 m<sup>3</sup>/s) Mar. 2, 1969, gage height, 6.28 ft (1.914 m).

REMARKS.--Records good. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal (208.4 hm<sup>3</sup>); dead storage, 45,290,000,000 gal (171.4 hm<sup>3</sup>). 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.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22600	17400	27500	24900	93500	156000	70200	46200	27400	32200	23500	5340
2	18500	4210	41300	55800	94200	116000	66700	48400	34600	30500	3420	23800
3	16000	1830	39800	40200	87500	101000	69400	33100	31500	34200	1070	21800
4	10800	7370	39800	35800	80100	83900	64500	37900	29000	14800	11700	21800
5	11500	11200	27500	32800	65600	75300	65700	63400	29700	21800	15800	25600
6	3950	11500	31100	42200	60000	65000	62500	85300	48400	10600	12000	9350
7	14900	12100	17000	33200	58900	66700	75300	87700	43300	24000	13300	4090
8	16700	15300	31000	35900	39900	55700	74000	101000	81800	21200	23000	18100
9	15200	12600	57600	39500	26500	38800	72200	114000	86000	22900	985	15100
10	16200	3320	83100	53700	41900	54000	61100	91500	84100	17400	940	14900
11	17200	20500	110000	51300	31400	47100	56700	77700	66600	13400	10600	15300
12	5960	25500	105000	57600	33100	43700	42000	77600	59400	14900	16300	21400
13	1170	26800	85700	84300	35600	48300	33100	63100	68900	14100	11900	897
14	11300	25500	76300	119000	30000	51900	48200	70600	50500	46300	15700	883
15	15700	31700	62300	114000	15200	33300	42700	61700	46800	28800	15000	24300
16	19900	19600	55800	85800	11900	31500	39500	65200	55400	23000	1120	21400
17	17100	18300	77700	77500	33500	50300	32100	71400	51000	20700	1220	24500
18	18000	37000	84700	57000	31700	47800	38800	59500	54100	28400	14700	21900
19	6890	35900	83500	46300	38100	55700	28500	65000	50900	11400	14000	24300
20	1420	32100	71900	53400	50900	87700	21900	65600	45600	7340	14500	11100
21	14100	30200	62900	46000	55200	157000	37700	56000	27700	32300	13400	3530
22	14700	35600	46000	39800	60400	168000	35500	53000	22000	22100	11800	23000
23	14500	28200	47700	39000	52200	142000	33200	43900	31400	20200	931	29000
24	15500	18500	36800	37200	72200	136000	36900	39000	30100	22100	893	41100
25	17300	38900	34900	25600	215000	119000	44600	27800	27400	24600	14000	61900
26	2010	47600	36100	38700	389000	110000	53800	36200	20400	10300	12700	356000
27	1350	37000	49900	56600	330000	97800	51500	43400	36100	7800	14100	662000
28	8100	26100	46300	50600	232000	88600	60500	38600	44100	24200	12000	552000
29	13600	33900	42000	60100	---	81800	58100	36000	27900	20600	11000	383000
30	15300	24300	48900	74600	---	73000	52900	36300	39600	17800	1080	216000
31	11500	---	44000	83200	---	74900	---	22200	---	21400	1260	---
TOTAL	388950	690030	1704100	1691600	2365500	2557800	1529800	1818300	1351700	661340	313919	2653390
MEAN	12550	23000	54970	54570	84480	82510	50990	58650	45060	21330	10130	88450
MAX	22600	47600	110000	119000	389000	168000	75300	114000	86000	46300	23500	662000
MIN	1170	1830	17000	24900	11900	31500	21900	22200	20400	7340	893	883
CFSM	.46	.85	2.03	2.01	3.12	3.04	1.88	2.16	1.66	.79	.37	3.26
IN.	.53	.95	2.34	2.32	3.25	3.51	2.10	2.50	1.86	.91	.43	3.64

CAL YR 1974 TOTAL 14567507 MEAN 39910 MAX 201000 MIN 928 CFSM 1.47 IN 20.00  
WTR YR 1975 TOTAL 17726429 MEAN 48570 MAX 662000 MIN 883 CFSM 1.79 IN 24.33

## SUSQUEHANNA RIVER BASIN

01578500 Octoraro Creek near Rising Sun, Md.

**LOCATION.**--Lat 39°41'24", long 76°07'43", Cecil County, on right bank at downstream side of Porter Bridge, 300 ft (91 m) downstream from Love Run, 3.5 mi (5.6 km) west of Rising Sun, and 3.5 mi (5.6 km) upstream from mouth.

**DRAINAGE AREA.**--193 mi<sup>2</sup> (500 km<sup>2</sup>).

**PERIOD OF RECORD.**--April 1932 to September 1958, annual maximum, water years 1963-68, December 1968 to current year. Monthly discharge only for some periods, published in WSP 1302.

**GAGE.**--Water-stage recorder. Datum of gage is 73.77 ft (22.485 m) above mean sea level.

**AVERAGE DISCHARGE.**--32 years (1932-58, 1969-75), 271 ft<sup>3</sup>/s (7.67 m<sup>3</sup>/s), 19.07 in/yr (484 mm/yr), adjusted for storage and diversion since October 1951.

**EXTREMES.**--Current year: Maximum discharge, 17,300 ft<sup>3</sup>/s (490 m<sup>3</sup>/s) July 14, gage height, 14.06 ft (4.285 m); minimum, 49 ft<sup>3</sup>/s (1.39 m<sup>3</sup>/s) Nov. 29, gage height, 3.82 ft (1.164 m); minimum daily, 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) Nov. 29.

Period of record: Maximum discharge, 35,000 ft<sup>3</sup>/s (991 m<sup>3</sup>/s) Aug. 9, 1942, gage height, 17.57 ft (5.355 m), from rating curve extended above 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) on basis of velocity-area studies; maximum gage height, 18.92 ft (5.767 m) June 22, 1972; minimum, 18 ft<sup>3</sup>/s (0.51 m<sup>3</sup>/s) July 30, 31, Aug. 2, 1954; minimum daily, 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s) Aug. 2, 1954.

Floods of 1884 and 1918 reached stages of 24.3 ft (7.41 m) and 16.5 ft (5.03 m), respectively, from floodmarks.

**REMARKS.**--Records good. Slight diurnal fluctuation caused by mills above station. Flow regulated by Chester-Octoraro Reservoir (formerly Pine Grove Reservoir); beginning Feb. 22, 1951 (capacity, 2,800 10<sup>6</sup> gal or 10.60 hm<sup>3</sup>). Diversion above station by Octoraro Water Co., and from Chester-Octoraro Reservoir beginning November 1951 by Chester Municipal Authority for municipal supply of Chester and surrounding boroughs.

**REVISIONS (WATER YEARS).**--WSP 1051: Drainage area. WSP 1432: 1933, 1935, 1936(M), 1937-38, 1939(M), 1944-45, 1947(M), 1949.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	58	58	148	221	312	342	356	2140	401	285	157
2	103	58	653	159	207	294	315	383	918	333	278	159
3	87	65	324	135	195	276	328	318	411	311	269	159
4	76	67	170	125	184	255	375	835	347	342	261	150
5	69	65	118	117	220	245	311	763	515	307	268	149
6	67	70	97	111	263	240	279	461	2070	286	269	149
7	67	77	92	201	287	240	271	469	649	282	263	149
8	66	65	1420	168	245	248	263	387	421	266	243	148
9	64	63	796	366	223	224	251	334	347	1200	231	148
10	61	58	287	325	196	212	251	311	311	1010	224	140
11	59	54	182	230	184	227	251	294	290	443	222	130
12	67	58	152	199	199	238	247	286	798	315	216	132
13	59	68	138	246	201	282	239	422	2260	2030	210	247
14	58	72	138	272	176	331	239	421	806	10700	262	179
15	58	72	132	199	170	393	243	320	483	2600	228	140
16	154	70	703	174	181	353	272	405	538	1940	223	128
17	232	61	759	161	225	299	252	401	850	850	240	122
18	148	59	311	236	421	258	233	308	477	716	224	125
19	103	61	210	416	445	1170	236	285	400	632	201	182
20	85	59	176	549	348	1960	240	262	386	1070	195	176
21	77	72	158	346	266	680	219	257	342	2230	187	644
22	68	76	150	267	229	477	206	358	311	622	189	363
23	65	65	139	238	319	432	203	313	298	473	189	1140
24	68	59	133	234	605	448	224	259	286	430	179	2050
25	68	58	132	319	1080	584	611	230	307	443	177	1980
26	83	72	133	515	513	438	1520	225	286	450	176	1270
27	70	61	121	325	377	365	555	225	535	380	168	791
28	65	52	119	251	328	338	364	213	1810	357	155	416
29	63	50	115	234	---	333	318	193	1240	335	150	320
30	59	56	112	227	---	426	293	196	670	310	149	279
31	58	---	113	218	---	410	---	259	---	296	153	---
TOTAL	2563	1901	8341	7711	8508	12988	9951	10749	21502	32360	6684	12322
MEAN	82.7	63.4	269	249	304	419	332	347	717	1044	216	411
MAX	232	77	1420	549	1080	1960	1520	835	2260	10700	285	2050
MIN	58	50	58	111	170	212	203	193	286	266	149	122
(f)	+38.9	+44.6	+48.1	+47.3	+47.2	+44.9	+44.9	+47.6	+48.9	+44.8	+44.5	+49.3
MEAN#	122	108	317	296	351	464	377	395	766	1089	261	460
CFSM#	0.63	0.56	1.64	1.53	1.82	2.40	1.95	2.05	3.97	5.64	1.35	2.38
IN#	0.73	0.62	1.89	1.77	1.89	2.77	2.18	2.36	4.43	6.50	1.55	2.66

CAL YR 1974 TOTAL 71891 MEAN 197 MAX 1420 MIN 47 MEAN# 242 CFSM# 1.25 IN# 17.01  
WTR YR 1975 TOTAL 135580 MEAN 371 MAX 10700 MIN 50 MEAN# 417 CFSM# 2.16 IN# 29.35

† Diversion above station and diversion from and change in contents in Chester-Octoraro Reservoir, equivalent in cubic feet per second; furnished by Octoraro Water Co. and Chester Municipal Authority, respectively.  
\* Adjusted for diversion and change in reservoir contents.

01580000 Deer Creek at Rocks, Md.

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

DRAINAGE AREA.--94.4 mi<sup>2</sup> (244.5 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft (76.322 m) above mean sea level (city of Baltimore bench mark).

AVERAGE DISCHARGE.--49 years, 123 ft<sup>3</sup>/s (3.483 m<sup>3</sup>/s), 17.69 in/yr (449 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,950 ft<sup>3</sup>/s (140 m<sup>3</sup>/s) July 13, gage height, 10.67 ft (3.252 m); minimum, 47 ft<sup>3</sup>/s (1.33 m<sup>3</sup>/s) Nov. 27, gage height, 2.09 ft (0.637 m).  
Period of record: Maximum discharge, 13,600 ft<sup>3</sup>/s (385 m<sup>3</sup>/s) Aug. 23, 1933, gage height, 17.7 ft (5.39 m), from floodmarks, from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 13.3 ft (4.05 m) and 17.7 ft (5.39 m); minimum, 8 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Dec. 16, 1930, Jan. 26, 1930, result of regulation; minimum daily, 8.6 ft<sup>3</sup>/s (0.24 m<sup>3</sup>/s) Sept. 11, 12, 1966.  
Maximum stage known since at least 1888, that of Aug. 23, 1933.

REMARKS.--Records excellent.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	57	60	116	122	155	161	248	725	172	140	244
2	70	56	427	97	116	147	155	201	220	156	138	166
3	65	56	152	87	113	139	173	173	211	152	135	125
4	64	73	99	89	111	128	162	556	174	161	133	112
5	63	60	85	84	122	125	148	339	331	145	152	108
6	62	60	78	81	136	123	146	256	621	138	136	122
7	61	56	74	92	146	123	142	253	247	133	136	112
8	60	55	545	93	122	124	141	212	205	131	129	108
9	59	54	219	205	116	113	137	198	185	132	123	102
10	58	54	136	130	110	114	137	189	172	148	120	96
11	58	54	113	123	108	119	136	180	163	162	121	96
12	57	68	100	114	119	133	132	180	334	133	118	176
13	58	110	92	127	111	144	127	451	316	1200	117	174
14	58	67	95	123	105	164	125	281	203	1210	160	110
15	58	78	87	105	100	199	134	206	183	375	127	100
16	128	70	662	105	104	181	138	253	184	281	128	99
17	104	63	277	95	132	150	126	205	175	230	141	99
18	72	60	169	140	225	136	124	190	166	209	186	101
19	65	59	138	175	207	735	127	183	155	195	126	126
20	64	61	124	216	167	445	124	174	147	298	132	110
21	62	76	114	150	141	250	117	167	138	611	117	386
22	61	64	112	132	130	214	113	161	134	227	117	146
23	61	59	102	128	189	200	113	370	131	192	127	582
24	60	58	99	128	324	215	130	187	130	181	120	1060
25	59	60	97	186	292	227	349	175	126	185	114	1460
26	59	67	91	219	201	186	505	169	176	173	109	2390
27	58	60	88	151	175	165	206	162	383	162	104	804
28	57	59	88	138	161	161	177	149	609	157	100	428
29	57	57	86	133	---	165	168	141	256	152	98	331
30	58	55	85	126	---	214	154	143	216	146	99	287
31	58	---	86	126	---	177	---	149	---	143	143	---
TOTAL	2008	1886	4780	4014	4205	5871	4827	6901	7416	8090	3946	10360
MEAN	64.8	62.9	154	129	150	189	161	223	247	261	127	345
MAX	128	110	662	219	324	735	505	556	725	1210	186	2390
MIN	57	54	60	81	100	113	113	141	126	131	98	96
CFSM	.69	.67	1.63	1.37	1.59	2.00	1.71	2.36	2.62	2.76	1.35	3.65
IN.	.79	.74	1.88	1.58	1.66	2.31	1.90	2.72	2.92	3.19	1.55	4.08

CAL YR 1974 TOTAL 43336 MEAN 119 MAX 662 MIN 50 CFSM 1.26 IN 17.08  
WTR YR 1975 TOTAL 64304 MEAN 176 MAX 2390 MIN 54 CFSM 1.86 IN 25.34

PEAK DISCHARGE (BASE, 1,900 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1800	7.16	2,630	7-20	2400	6.88	2,460
7-13	2330	10.67	4,950	9-26	1730	10.31	4,700

## SUSQUEHANNA RIVER BASIN

01580200 Deer Creek near Kalmia, Md.

LOCATION.--Lat 39°37'16", long 76°17'57", Harford County, on left bank 50 ft (15 m) upstream from bridge on U. S. Highway 1, 1 mile (1.6 km) north of Kalmia, 6.5 miles (10.5 km) northeast of Bel Air, and 12.5 miles (20.1 km) upstream from mouth.

DRAINAGE AREA.--125 mi<sup>2</sup> (324 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 145 ft (44 m), from topographic map.

AVERAGE DISCHARGE.--8 years, 197 ft<sup>3</sup>/s (5.579 m<sup>3</sup>/s), 21.40 in/yr (544 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,820 ft<sup>3</sup>/s (165 m<sup>3</sup>/s) July 14, gage height, 10.06 ft (3.066 m); minimum, 66 ft<sup>3</sup>/s (1.87 m<sup>3</sup>/s) Nov. 27.

Period of record: Maximum discharge, 16,800 ft<sup>3</sup>/s (476 m<sup>3</sup>/s) June 22, 1972, gage height, 16.08 ft (4.901 m); minimum, 29 ft<sup>3</sup>/s (0.82 m<sup>3</sup>/s) Dec. 7, 1969, result of freezeup.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	76	78	153	157	195	215	315	886	237	186	297
2	97	75	627	124	148	185	206	279	312	212	183	264
3	91	75	215	108	140	175	222	231	265	204	178	184
4	89	89	135	109	132	165	219	666	231	218	176	165
5	89	80	112	103	162	160	195	441	389	199	221	157
6	87	80	102	99	188	160	191	329	763	188	188	178
7	85	74	96	120	204	156	187	319	323	182	186	165
8	83	72	833	117	164	158	184	274	269	180	172	158
9	81	71	318	271	154	142	179	256	245	210	162	148
10	81	70	196	181	140	142	177	245	227	197	158	137
11	79	71	153	167	136	151	176	231	216	245	158	136
12	77	82	138	153	153	165	173	229	413	193	155	197
13	79	138	127	176	146	192	168	456	540	1440	151	307
14	77	90	131	173	130	224	165	408	280	3030	221	165
15	81	94	120	140	125	272	175	267	248	574	169	147
16	155	92	853	140	143	242	186	321	698	396	167	143
17	155	82	411	130	217	199	169	273	289	317	182	142
18	101	78	234	190	262	179	165	251	239	285	264	146
19	89	76	189	252	230	876	170	242	216	264	169	218
20	87	78	169	292	200	652	165	229	204	463	173	173
21	85	94	153	200	180	322	154	220	186	1320	153	393
22	81	84	148	177	170	278	149	214	178	326	149	198
23	81	76	134	169	250	262	149	385	173	269	171	722
24	81	74	129	169	400	282	169	244	172	252	156	1420
25	79	75	125	218	360	314	365	226	169	255	150	2150
26	79	85	118	294	260	251	725	219	220	239	145	2890
27	77	75	112	196	220	221	276	211	375	220	140	1070
28	75	76	111	177	200	214	233	200	743	212	135	526
29	75	73	107	170	---	217	220	189	365	204	130	407
30	76	70	106	160	---	283	205	193	291	195	130	353
31	77	---	108	159	---	243	---	201	---	191	220	---
TOTAL	2734	2425	6588	5287	5371	7677	6332	8764	10125	12917	5298	13756
MEAN	88.2	80.8	213	171	192	248	211	283	338	417	171	459
MAX	155	138	853	294	400	876	725	666	886	3030	264	2890
MIN	75	70	78	99	125	142	149	189	169	180	130	136
CFSM	.71	.65	1.70	1.37	1.54	1.98	1.69	2.26	2.70	3.34	1.37	3.67
IN.	.81	.72	1.96	1.57	1.60	2.28	1.88	2.61	3.01	3.84	1.58	4.09

CAL YR 1974 TOTAL 56911 MEAN 156 MAX 853 MIN 66 CFSM 1.25 IN 16.94  
WTR YR 1975 TOTAL 87274 MEAN 239 MAX 3030 MIN 70 CFSM 1.91 IN 25.97

PEAK DISCHARGE (BASE, 2,500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	2100	7.34	2,830	7-21	0130	9.66	5,320
6-16	1800	8.62	4,110	9-24	1400	7.06	2,590
7-14	0300	9.99	5,730	9-25	1600	8.08	3,540
7-14	1030	10.06	5,820	9-26	2200	9.52	5,150

01581700 Winters Run near Benson, Md.

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

DRAINAGE AREA.--34.8 mi<sup>2</sup> (90.1 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--8 years, 55.2 ft<sup>3</sup>/s (1.563 m<sup>3</sup>/s), 21.54 in/yr (547 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,750 ft<sup>3</sup>/s (106 m<sup>3</sup>/s) July 14, gage height, 7.65 ft (2.332 m); minimum, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) part of each day Oct. 7-14.

Period of record: Maximum discharge, 7,600 ft<sup>3</sup>/s (215 m<sup>3</sup>/s) June 22, 1972, gage height, 11.60 ft (3.536 m); minimum, 7.2 ft<sup>3</sup>/s (0.20 m<sup>3</sup>/s) July 5, 1969.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	33	39	38	45	57	92	132	43	51	69
2	18	18	189	29	37	43	55	65	63	40	49	56
3	18	18	42	28	36	41	64	55	47	41	48	46
4	17	18	30	28	34	38	55	188	46	43	55	42
5	17	20	25	26	50	37	53	94	136	37	89	40
6	17	21	24	27	64	36	52	74	170	36	67	50
7	16	18	23	38	58	36	49	69	78	36	51	42
8	15	18	312	30	46	36	49	61	56	36	45	40
9	15	18	60	84	44	33	48	57	50	40	43	38
10	15	18	41	42	40	35	47	56	46	41	44	36
11	15	18	34	48	38	37	47	54	44	57	44	36
12	15	39	32	38	50	45	46	56	132	43	41	60
13	15	37	30	56	44	45	44	80	242	956	45	51
14	15	23	33	45	38	85	43	62	73	1050	208	35
15	16	25	29	40	36	72	49	55	59	173	60	33
16	56	21	296	34	40	54	51	75	240	106	60	33
17	30	19	71	34	49	47	46	56	79	79	65	33
18	21	19	48	60	63	44	45	54	61	67	98	45
19	18	19	41	67	55	380	49	53	58	60	53	82
20	18	21	38	80	46	114	46	48	69	62	71	48
21	18	24	35	50	43	72	43	47	51	407	47	55
22	18	19	33	43	40	66	43	46	48	89	46	49
23	18	19	30	44	63	63	43	46	46	76	53	405
24	18	19	30	44	112	82	53	44	45	73	48	647
25	18	20	30	70	91	81	144	44	43	74	44	977
26	18	22	28	62	56	62	119	44	45	67	43	663
27	18	20	28	45	50	57	59	43	60	63	52	176
28	18	19	27	43	47	56	53	40	98	61	37	115
29	18	18	26	41	---	58	52	37	74	57	36	97
30	18	18	26	37	---	85	49	43	58	55	36	87
31	18	---	29	40	---	63	---	50	---	53	81	---
TOTAL	585	624	1753	1392	1408	2048	1653	1888	2449	4121	1810	4186
MEAN	18.9	20.8	56.5	44.9	50.3	66.1	55.1	60.9	81.6	133	58.4	140
MAX	56	39	312	84	112	380	144	188	242	1050	208	977
MIN	15	18	23	26	34	33	43	37	43	36	36	33
CFSM	.54	.60	1.62	1.29	1.45	1.90	1.58	1.75	2.34	3.82	1.68	4.02
IN.	.63	.67	1.87	1.49	1.51	2.19	1.77	2.02	2.62	4.41	1.93	4.47

CAL YR 1974 TOTAL 14824 MEAN 40.6 MAX 312 MIN 15 CFSM 1.17 IN 15.85  
WTR YR 1975 TOTAL 23917 MEAN 65.5 MAX 1050 MIN 15 CFSM 1.88 IN 25.57

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1130	4.73	1,350	7-21	0145	5.13	1,620
3-19	1645	5.33	1,760	9-23	2345	4.30	1,070
6-13	0345	4.87	1,450	9-24	1715	5.39	1,800
6-16	1645	5.81	2,100	9-25	0545	5.47	1,860
7-13	1700	6.18	2,390	9-25	1430	5.68	2,010
7-13	2215	7.64	3,740	9-26	1245	6.77	2,890
7-14	0915	7.65	3,750				



## GUNPOWDER RIVER BASIN

01582000 Little Falls at Blue Mount, Md.

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

DRAINAGE AREA.--52.9 mi<sup>2</sup> (137.0 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--31 years, 67.7 ft<sup>3</sup>/s (1.917 m<sup>3</sup>/s), 17.38 in/yr (441 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,840 ft<sup>3</sup>/s (194 m<sup>3</sup>/s) Sept. 26, gage height, 15.29 ft (4.660 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on the basis of contracted-opening measurement at gage height 18.54 ft (5.651 m); minimum, 24 ft<sup>3</sup>/s (0.68 m<sup>3</sup>/s) Nov. 27.  
Period of record: Maximum discharge, 8,280 ft<sup>3</sup>/s (234 m<sup>3</sup>/s) June 22, 1972, gage height, 18.54 ft (5.651 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) Aug. 29, 1966; minimum daily, 4.5 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Sept. 11, 1966.

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by mill above station.

REVISIONS (WATER YEARS).--WSP 1111: 1944(M), 1945-47(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	34	39	62	65	73	89	138	443	94	69	150
2	37	34	217	51	62	70	87	103	140	89	66	76
3	35	34	70	48	59	67	96	93	157	91	63	62
4	35	34	53	48	55	64	87	296	116	93	63	58
5	35	36	46	46	60	63	83	173	250	86	74	57
6	34	36	43	45	70	63	82	140	316	83	68	77
7	34	34	41	51	71	64	81	126	173	81	66	60
8	33	33	299	50	62	63	80	112	136	80	62	58
9	33	33	93	107	61	58	78	106	123	79	59	54
10	32	32	67	65	57	60	78	102	115	81	59	51
11	32	32	58	65	57	62	78	98	111	88	59	51
12	32	48	54	59	64	74	76	116	218	80	58	119
13	32	53	50	67	58	70	75	126	194	299	60	75
14	33	38	53	60	55	93	74	102	134	362	107	57
15	33	49	47	55	54	103	79	96	122	153	64	54
16	67	40	348	50	57	89	78	126	115	126	65	53
17	46	37	116	48	74	78	75	100	111	108	70	53
18	39	36	81	70	107	72	75	95	106	99	68	57
19	36	35	71	78	102	344	76	93	104	93	60	65
20	36	38	64	100	81	170	73	90	108	132	60	69
21	35	45	61	74	72	113	70	87	96	174	57	205
22	35	38	60	67	68	105	69	335	92	96	56	73
23	35	36	55	66	106	101	69	212	91	88	58	270
24	34	36	53	66	127	117	82	127	90	86	58	534
25	34	38	53	119	117	112	237	115	88	88	55	708
26	35	41	50	99	88	96	188	109	130	83	53	2520
27	34	36	49	76	80	90	107	105	222	78	52	446
28	34	36	48	71	75	88	95	98	206	76	50	280
29	34	35	47	70	---	92	91	93	119	74	50	220
30	34	34	46	65	---	117	86	93	107	72	52	189
31	34	---	50	68	---	94	---	125	---	70	72	---
TOTAL	1110	1121	2482	2066	2064	2925	2694	3930	4533	3382	1933	6801
MEAN	35.8	37.4	80.1	66.6	73.7	94.4	89.8	127	151	109	62.4	227
MAX	67	53	348	119	127	344	237	335	443	362	107	2520
MIN	32	32	39	45	54	58	69	87	88	70	50	51
CFSM	.68	.71	1.51	1.26	1.39	1.78	1.70	2.40	2.85	2.06	1.18	4.29
IN.	.78	.79	1.75	1.45	1.45	2.06	1.89	2.76	3.19	2.38	1.36	4.78

CAL YR 1974 TOTAL 23190 MEAN 63.5 MAX 348 MIN 27 CFSM 1.20 IN 16.31  
WTR YR 1975 TOTAL 35041 MEAN 96.0 MAX 2520 MIN 32 CFSM 1.81 IN 24.64

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1330	4.78	1,360	7-13	2200	4.24	1,110
3-19	1730	4.67	1,310	9-24	1530	5.17	1,540
4-25	2130	4.07	1,030	9-25	1800	5.27	1,590
5-22	2300	5.90	1,900	9-26	0400	5.07	1,490
6-01	0530	4.81	1,370	9-26	1300	15.29	6,840
6-06	0030	4.81	1,370				

## GUNPOWDER RIVER BASIN

61

01583000 Slade Run near Glyndon, Md.

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

DRAINAGE AREA.--2.09 mi<sup>2</sup> (5.41 km<sup>2</sup>).

PERIOD OF RECORD.--September 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 420 ft (128 m), from topographic map.

AVERAGE DISCHARGE.--28 years, 2.32 ft<sup>3</sup>/s (0.0657 m<sup>3</sup>/s), 15.07 in/yr (383 mm/yr).

EXTREMES.--Current year: Maximum discharge, 441 ft<sup>3</sup>/s (12.5 m<sup>3</sup>/s) Sept. 26, gage height, 4.63 ft (1.411 m), from rating curve extended above 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s); on basis of slope-area measurement at gage height 3.96 ft (1.207 m); minimum, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) part of each day Oct. 10-13, Nov. 8-12, 30, gage height, 2.20 ft (0.671 m).

Period of record: Maximum discharge, 515 ft<sup>3</sup>/s (14.6 m<sup>3</sup>/s) June 22, 1972, gage height, 4.80 ft (1.463 m), from rating curve extended above 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/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.

REMARKS.--Records good.

REVISIONS.--WSP 1502: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.3	4.5	3.1	2.6	2.9	3.2	5.6	5.9	2.5	1.9	7.7
2	1.5	1.3	12	2.7	2.5	2.8	2.9	4.2	3.6	2.4	1.9	2.8
3	1.4	1.3	3.0	2.6	2.4	2.6	3.1	3.7	3.1	4.1	1.8	2.2
4	1.4	1.3	2.2	2.6	2.4	2.6	3.1	11	2.9	3.2	1.8	1.9
5	1.4	1.3	2.1	2.5	2.8	2.5	3.0	5.7	14	2.6	2.0	1.8
6	1.4	1.3	1.8	2.5	3.4	2.5	3.0	5.0	7.9	2.4	2.0	2.6
7	1.3	1.3	2.0	2.7	3.2	2.6	3.0	4.6	4.1	2.4	1.9	2.1
8	1.3	1.3	13	2.7	2.8	2.5	3.0	4.1	3.5	2.3	1.7	1.8
9	1.3	1.3	4.2	5.3	2.7	2.4	3.0	4.0	3.1	2.4	1.6	1.7
10	1.3	1.2	3.2	3.3	2.4	2.5	3.0	3.8	2.9	2.6	1.7	1.7
11	1.3	1.2	2.8	3.2	2.5	2.6	3.0	3.5	2.8	2.7	1.7	1.8
12	1.3	2.1	2.7	2.6	3.1	3.3	2.8	4.0	5.6	2.4	1.7	3.3
13	1.3	1.7	2.5	3.1	2.7	3.0	2.8	4.7	16	11	1.9	2.3
14	1.3	1.4	2.6	2.6	2.5	5.5	2.8	3.7	4.5	13	8.7	1.8
15	1.3	1.9	2.5	2.3	2.4	4.8	3.0	3.5	3.8	6.7	2.1	1.8
16	2.7	1.4	15	2.3	2.6	3.8	3.0	4.3	3.6	4.8	2.7	1.8
17	1.8	1.4	5.0	2.2	3.1	4.1	2.8	3.6	3.4	3.9	4.6	1.8
18	1.5	1.3	3.8	3.2	3.8	3.4	2.8	3.5	3.2	3.4	2.5	2.0
19	1.4	1.3	3.4	3.5	3.6	18	3.0	3.3	2.9	3.1	2.2	2.2
20	1.4	1.5	3.2	4.3	3.1	6.5	2.8	3.2	2.8	4.3	2.1	1.9
21	1.3	1.4	3.1	3.0	2.9	4.6	2.8	3.1	2.6	4.3	1.9	2.0
22	1.3	1.3	3.1	2.8	2.7	4.2	2.7	3.8	2.6	3.0	1.9	2.1
23	1.3	1.3	2.9	2.8	3.9	4.0	2.8	3.7	2.6	2.7	1.9	8.6
24	1.3	1.3	2.8	2.8	4.8	5.0	3.8	3.6	2.5	2.7	1.8	15
25	1.3	1.5	2.8	4.9	4.3	4.4	9.7	3.5	2.5	2.8	1.8	39
26	1.3	1.4	2.7	3.8	3.4	3.7	6.4	3.3	2.5	2.6	1.6	85
27	1.3	1.3	2.7	3.1	3.1	3.4	4.0	3.2	3.0	2.4	1.7	9.6
28	1.3	1.3	2.6	2.8	3.0	3.4	3.7	2.9	2.9	2.3	1.6	8.5
29	1.3	1.3	2.6	2.8	---	3.8	3.6	2.6	3.6	2.2	1.6	9.0
30	1.3	1.3	2.5	2.5	---	5.1	3.3	2.6	3.0	2.1	1.6	9.1
31	1.3	---	2.9	2.7	---	3.8	---	3.2	---	2.0	2.5	---
TOTAL	43.5	41.5	122.2	93.3	84.7	126.3	101.9	124.5	127.4	111.3	68.4	234.9
MEAN	1.40	1.38	3.94	3.01	3.03	4.07	3.40	4.02	4.25	3.59	2.21	7.83
MAX	2.7	2.1	15	5.3	4.8	18	9.7	11	16	13	8.7	85
MIN	1.3	1.2	1.8	2.2	2.4	2.4	2.7	2.6	2.5	2.0	1.6	1.7
CFSM	.67	.66	1.89	1.44	1.45	1.95	1.63	1.92	2.03	1.72	1.06	3.75
IN.	.77	.74	2.18	1.66	1.51	2.25	1.81	2.22	2.27	1.98	1.22	4.18

CAL YR 1974 TOTAL 954.57 MEAN 2.62 MAX 15 MIN .97 CFSM 1.25 IN 16.99  
WTR YR 1975 TOTAL 1279.90 MEAN 3.51 MAX 85 MIN 1.2 CFSM 1.68 IN 22.78

PEAK DISCHARGE (BASE, 90 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1545	3.41	105	9-25	2300	4.03	244
6-05	2115	3.46	117	9-26	0745	4.63	441
6-13	0245	3.69	164				

## GUNPOWDER RIVER BASIN

01583500 Western Run at Western Run, Md.

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

DRAINAGE AREA.--59.8 mi<sup>2</sup> (154.9 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft (80.095 m) above mean sea level (Baltimore County bench mark).

AVERAGE DISCHARGE.--31 years, 67.5 ft<sup>3</sup>/s (1.912 m<sup>3</sup>/s), 15.33 in/yr (389 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,990 ft<sup>3</sup>/s (226 m<sup>3</sup>/s) Sept. 26, gage height, 12.56 ft (3.828 m), from rating curve extended as explained below; minimum, 34 ft<sup>3</sup>/s (0.96 m<sup>3</sup>/s) many days in October and November. Period of record: Maximum discharge, 38,000 ft<sup>3</sup>/s (1,080 m<sup>3</sup>/s) June 22, 1972, gage height, 26.0 ft (7.92 m), from floodmarks, from rating curve extended above 3,200 ft<sup>3</sup>/s (90.6 m<sup>3</sup>/s) on basis of slope-area measurement and contracted-opening measurement at gage height 26.0 ft (7.92 m); minimum, 2.4 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) Sept. 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1502: 1945-46, 1948(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	36	43	71	71	77	96	147	388	80	61	231
2	42	36	236	59	69	74	93	110	133	75	59	101
3	40	36	79	56	66	71	100	98	108	79	58	78
4	39	36	61	57	64	69	89	289	95	92	56	69
5	39	37	53	53	73	68	86	166	205	76	63	66
6	37	37	49	53	83	68	85	136	375	73	60	98
7	37	35	47	58	87	69	83	125	189	70	59	73
8	36	35	284	57	75	70	83	109	126	69	54	69
9	35	34	109	123	73	64	81	104	112	70	52	63
10	35	34	76	77	67	65	81	100	103	73	51	58
11	34	34	66	74	67	67	81	94	100	82	52	59
12	34	46	63	68	78	80	79	102	210	72	50	80
13	34	53	59	76	74	80	78	120	332	297	51	80
14	34	39	60	71	67	129	77	96	141	410	290	62
15	35	49	55	62	66	134	82	91	120	173	83	59
16	64	41	344	62	67	103	80	110	110	146	84	59
17	51	39	141	58	75	98	77	93	106	107	110	58
18	41	38	96	83	110	86	77	90	101	96	81	60
19	39	37	82	90	102	427	79	88	95	89	70	77
20	38	39	75	123	83	223	75	84	94	97	76	65
21	37	42	71	83	76	143	73	81	87	281	66	70
22	37	37	70	78	72	125	73	102	83	98	65	85
23	37	36	65	76	91	116	74	157	81	85	66	350
24	37	36	63	76	122	132	85	101	79	80	65	600
25	37	38	62	126	125	130	191	135	77	80	62	916
26	37	41	59	118	91	106	210	106	77	77	60	3170
27	36	37	58	84	83	99	108	98	96	72	74	460
28	36	37	57	78	79	97	96	90	115	70	63	242
29	36	36	55	76	---	101	94	86	108	66	62	195
30	36	35	55	70	---	133	87	83	98	63	63	175
31	36	---	57	73	---	103	---	90	---	63	105	---
TOTAL	1191	1146	2750	2369	2256	3407	2753	3481	4152	3361	2271	7828
MEAN	38.4	38.2	88.7	76.4	80.6	110	91.8	112	138	108	73.3	261
MAX	64	53	344	126	125	427	210	289	388	410	290	3170
MIN	34	34	43	53	64	64	73	81	77	63	50	58
CFSM	.64	.64	1.48	1.28	1.35	1.84	1.54	1.87	2.31	1.81	1.23	4.36
IN.	.74	.71	1.71	1.47	1.40	2.12	1.71	2.17	2.58	2.09	1.41	4.87
CAL YR 1974	TOTAL	24769	MEAN	67.9	MAX	344	MIN	31	CFSM	1.14	IN	15.41
WTR YR 1975	TOTAL	36965	MEAN	101	MAX	3170	MIN	34	CFSM	1.69	IN	22.99

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1430	4.66	1,090	8-14	0515	4.06	1,070
3-19	2000	5.25	1,350	9-24	1445	5.23	1,720
6-06	0145	4.71	1,430	9-26	0330	9.18	4,460
7-21	0200	4.25	1,170	9-26	1200	12.56	7,990

01585100 Whitmarsh Run at White Marsh, Md.

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, on left bank at upstream side of bridge on State Highway 7, 1 mile (1.6 km) southwest of White Marsh, and 3 miles (4.8 km) upstream from mouth.

DRAINAGE AREA.--7.61 mi<sup>2</sup> (19.71 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft (11.875 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 10.8 ft<sup>3</sup>/s (0.306 m<sup>3</sup>/s), 19.27 in/yr (489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,670 ft<sup>3</sup>/s (47.3 m<sup>3</sup>/s) July 13, gage height, 8.66 ft (2.640 m); minimum, 1.4 ft<sup>3</sup>/s (0.040 m<sup>3</sup>/s) many days in October and August, gage height, 1.34 ft (0.408 m).  
Period of record: Maximum discharge, 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s) Aug. 1, 1971, gage height, 14.05 ft (4.282 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/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, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 11, 1966.

REMARKS.--Records good. Low flow affected by operations of sand and gravel plant in vicinity of gage.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1973: 1960(M), 1967-68, 1969(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	2.5	49	10	7.8	6.0	8.0	38	63	5.0	2.8	5.4
2	2.4	2.3	140	4.7	7.2	5.5	7.0	13	8.7	4.3	2.6	3.3
3	2.0	2.3	10	4.4	6.0	5.0	18	8.5	5.0	4.2	2.6	2.3
4	2.0	2.4	5.7	4.3	5.0	4.6	7.0	182	4.0	5.6	3.1	2.3
5	2.0	20	4.7	3.7	26	4.6	6.0	57	62	3.9	5.6	2.1
6	2.0	11	4.2	6.9	41	4.6	5.5	25	60	3.2	5.2	3.0
7	2.0	3.3	3.9	19	18	5.0	5.0	16	8.9	3.0	2.8	2.3
8	1.8	2.6	166	5.9	9.0	4.6	5.1	9.5	5.6	2.9	2.2	2.3
9	1.8	2.4	18	60	7.5	4.0	4.7	8.3	4.6	2.8	2.0	1.8
10	2.2	2.4	8.1	10	6.5	6.5	4.8	7.4	4.0	90	2.0	1.8
11	1.7	2.3	6.2	16	6.5	6.0	4.7	6.5	4.0	22	2.0	1.8
12	1.8	23	5.7	7.7	24	24	4.6	19	45	6.5	2.1	14
13	1.9	7.4	4.9	42	9.5	9.0	4.3	53	46	438	6.6	4.1
14	2.0	3.6	8.9	13	6.5	70	4.4	16	7.4	288	31	2.1
15	3.7	5.7	5.0	9.5	6.0	20	8.3	8.4	5.4	31	3.7	1.9
16	33	3.1	242	6.0	6.2	9.5	6.1	25	59	16	6.8	2.5
17	5.1	2.9	26	6.0	11	22	4.9	8.3	12	9.8	4.4	2.6
18	2.7	2.7	11	38	14	9.0	5.1	7.1	8.1	7.9	3.4	14
19	2.1	2.7	7.9	34	8.0	240	7.3	6.3	5.9	6.5	2.6	11
20	2.1	4.5	6.5	36	6.0	30	5.1	5.6	4.8	10	3.3	4.1
21	1.8	3.9	5.9	11	5.3	13	4.2	5.2	3.7	25	2.3	3.0
22	1.8	2.5	6.2	11	5.1	11	4.3	4.8	3.4	5.8	2.4	6.3
23	1.8	2.4	4.9	12	45	9.5	4.4	5.4	3.3	4.8	2.6	118
24	2.1	2.5	4.8	10	44	44	10	6.5	3.2	4.7	2.6	116
25	2.1	5.2	4.6	45	23	20	99	4.8	3.0	5.7	2.2	330
26	1.8	4.2	4.0	20	9.8	9.5	50	4.5	3.2	4.3	1.9	203
27	1.8	2.7	4.1	8.7	7.7	7.5	11	9.8	3.4	3.8	2.3	27
28	1.8	2.6	3.9	7.2	6.5	7.0	8.2	6.0	159	3.7	1.6	10
29	1.8	2.4	3.8	7.0	---	11	8.1	3.8	18	3.2	1.7	7.4
30	2.1	2.2	3.8	5.6	---	37	6.5	8.5	7.4	3.0	1.6	6.1
31	3.0	---	11	9.5	---	18	---	5.6	---	2.9	9.6	---
TOTAL	99.5	139.7	790.7	484.1	378.1	663.4	331.6	584.8	631.0	1027.5	127.6	911.5
MEAN	3.21	4.66	25.5	15.6	13.5	21.4	11.1	18.9	21.0	33.1	4.12	30.4
MAX	33	23	242	60	45	240	99	182	159	438	31	330
MIN	1.7	2.2	3.8	3.7	5.0	4.0	4.2	3.8	3.0	2.8	1.6	1.8
CFSM	.42	.61	3.35	2.05	1.77	2.81	1.46	2.48	2.76	4.35	.54	3.99
IN.	.49	.68	3.87	2.37	1.85	3.24	1.62	2.86	3.08	5.02	.62	4.46
CAL YR 1974	TOTAL	3553.9	MEAN	9.74	MAX	242	MIN	1.2	CFSM	1.28	IN	17.37
WTR YR 1975	TOTAL	6169.5	MEAN	16.9	MAX	438	MIN	1.6	CFSM	2.22	IN	30.16

PEAK DISCHARGE (BASE, 500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0030	5.07	940	7-10	2000	5.19	965
12-08	0715	3.84	591	7-13	1700	8.66	1,670
12-16	1130	6.23	1,190	7-13	2130	7.62	1,460
3-19	1630	7.59	1,460	7-14	0700	4.25	723
4-25	2045	4.68	844	7-14	0945	7.40	1,420
5-04	0830	4.19	705	9-25	1245	4.65	837
6-05	2315	3.67	531	9-25	1600	7.35	1,410
6-16	1645	4.53	807	9-26	1215	6.70	1,280
6-28	0830	7.68	1,480				

NOTE.--Fragmentary or no gage-height record Feb. 28 to Apr. 7.

01585200 West Branch Herring Run at Idlewylde, Md.

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

DRAINAGE AREA.--2.13 mi<sup>2</sup> (5.52 km<sup>2</sup>).

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.

AVERAGE DISCHARGE.--16 years (1957-64, 1966 to current year), 2.58 ft<sup>3</sup>/s (0.0731 m<sup>3</sup>/s), 16.45 in/yr (418 mm/yr).

EXTREMES.--Current year: Maximum discharge, 488 ft<sup>3</sup>/s (13.8 m<sup>3</sup>/s) July 10, gage height, 4.16 ft (1.268 m), from rating curve extended above 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) on the basis of slope-area measurement at gage height 6.37 ft (1.942 m); minimum, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 8, 9, gage height, 0.80 ft (0.244 m); minimum daily, 0.32 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s) Oct. 14.

Period of record: Maximum discharge, 1,740 ft<sup>3</sup>/s (49.3 m<sup>3</sup>/s) Sept. 11, 1971, gage height, 6.80 ft (2.073 m), from rating curve extended above 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 6.37 ft (1.942 m); no flow Aug. 14-24, 1957.

REMARKS.--Records good. Diurnal fluctuation (occasionally extensive) caused by ready-mixed concrete plant above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	.41	25	1.4	1.5	1.4	1.7	11	13	.89	1.1	7.3
2	.57	.47	11	.87	1.6	1.3	1.5	2.1	1.6	.89	1.1	1.1
3	.51	.44	1.3	.96	1.2	1.2	3.7	2.3	1.3	2.2	1.0	.91
4	.51	.42	.94	.85	1.1	1.3	1.4	34	1.3	.98	1.0	1.1
5	.54	7.0	.84	.78	6.3	1.3	1.4	4.5	22	.87	3.2	.75
6	.51	.91	.81	3.7	6.3	1.2	1.4	5.8	4.3	.86	4.6	1.1
7	.45	.49	1.4	1.9	2.2	1.4	1.4	2.4	1.6	.86	1.0	.84
8	.37	.47	26	2.4	1.4	1.2	1.3	2.1	1.4	1.7	.93	.68
9	.37	.53	1.7	9.2	1.3	1.1	1.3	1.9	1.2	1.1	.95	.61
10	.34	.55	1.2	1.2	1.1	3.2	1.2	2.3	1.2	31	.91	.59
11	.34	.54	1.1	4.1	1.3	2.4	1.3	1.7	2.0	3.2	.92	.63
12	.39	9.5	.99	1.2	7.4	5.8	1.3	6.8	12	2.5	1.2	7.7
13	.37	.81	.92	7.9	1.6	1.5	1.2	4.0	9.8	59	5.6	.79
14	.32	.61	2.8	1.6	1.2	16	1.1	1.6	1.5	33	12	.61
15	1.4	2.3	.88	1.1	1.2	2.4	4.2	1.5	1.4	4.5	1.2	.60
16	9.1	.56	36	1.2	1.3	1.6	1.3	6.7	1.4	3.0	3.8	.84
17	.65	.51	2.4	1.1	3.4	3.6	1.2	1.6	1.2	2.3	1.2	.67
18	.48	.48	1.6	10	2.0	1.5	1.5	1.8	1.2	2.0	.95	6.0
19	.48	.51	1.3	6.8	1.6	38	3.1	1.4	1.1	1.9	.94	2.8
20	.42	2.3	1.2	4.4	1.2	4.0	2.0	1.4	1.1	5.6	.88	.89
21	.41	.63	1.4	1.8	1.2	2.5	1.7	1.5	1.0	2.7	.90	.74
22	.44	.48	1.3	2.4	1.2	2.6	1.7	1.7	1.0	1.6	.84	5.2
23	.47	.50	1.0	2.1	9.8	2.0	1.6	1.4	.99	1.5	.92	34
24	.45	.50	1.1	1.6	9.5	8.0	6.9	2.3	.97	2.0	.85	22
25	.48	2.7	.98	7.2	2.6	2.4	19	1.4	.93	1.5	.80	33
26	.46	.68	.91	1.9	1.7	1.8	3.1	1.3	1.0	1.3	1.0	26
27	.42	.50	.91	1.4	1.5	1.6	1.6	3.5	1.7	1.3	.98	3.2
28	.43	.49	.89	1.4	1.5	1.6	1.4	1.3	13	1.2	.73	2.1
29	.42	.49	.88	1.3	---	2.4	2.0	1.2	4.7	1.2	.74	1.8
30	.44	.49	.85	1.2	---	7.9	1.5	1.9	1.2	1.1	.78	1.6
31	.44	---	5.3	3.3	---	1.8	---	9.6	---	1.1	6.4	---
TOTAL	23.57	37.27	134.90	88.26	75.2	126.0	75.0	124.0	108.09	174.85	59.42	166.15
MEAN	.76	1.24	4.35	2.85	2.69	4.06	2.50	4.00	3.60	5.64	1.92	5.54
MAX	9.1	9.5	36	10	9.8	38	19	34	22	59	12	34
MIN	.32	.41	.81	.78	1.1	1.1	1.1	1.2	.93	.86	.73	.59
CFSM	.36	.58	2.04	1.34	1.26	1.91	1.17	1.88	1.69	2.65	.90	2.60
IN.	.41	.65	2.36	1.54	1.31	2.20	1.31	2.17	1.89	3.05	1.04	2.90

CAL YR 1974 TOTAL 905.79 MEAN 2.48 MAX 36 MIN .32 CFSM 1.16 IN 15.82  
WTR YR 1975 TOTAL 1192.71 MEAN 3.27 MAX 59 MIN .32 CFSM 1.54 IN 20.83

PEAK DISCHARGE (BASE, 290 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1400	3.74	365	7-13	1930	3.89	407
6-05	2100	3.70	354	7-14	0800	3.48	299
7-10	1745	4.16	488	9-12	1600	3.45	292

01585300 Stemmers Run at Rossville, Md.

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

DRAINAGE AREA.--4.46 mi<sup>2</sup> (11.55 km<sup>2</sup>) revised. Area at site used prior to October 1, 1973, 4.94 mi<sup>2</sup> (12.79 km<sup>2</sup>).

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) above mean sea level (Baltimore County bench mark). Prior to Sept. 30, 1972, at site on old channel about 550 ft (168 m) south-east of present site at datum 2.40 ft (0.732 m) lower.

AVERAGE DISCHARGE.--15 years (1959-72, 1974-75), 6.42 ft<sup>3</sup>/s (0.182 m<sup>3</sup>/s), 19.55 in/yr (497 mm/yr).

EXTREMES.--Water year 1974: Maximum discharge, 983 ft<sup>3</sup>/s (27.8 m<sup>3</sup>/s) July 6, gage height, 3.82 ft (1.164 m); minimum, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Aug. 8, gage height, 1.10 ft (0.335 m), result of regulation; minimum daily, 0.29 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 21.

Water year 1975: Maximum discharge, 1,960 ft<sup>3</sup>/s (55.5 m<sup>3</sup>/s) July 13, gage height, 5.06 ft (1.542 m); minimum, 0.42 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Aug. 29, gage height, 1.37 ft (0.418 m).

Period of record: Maximum discharge, 5,950 ft<sup>3</sup>/s (169 m<sup>3</sup>/s) Aug. 1, 1971, gage height, 11.34 ft (3.456 m), from high-water mark in well, site and datum then in use, from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) many days in 1962, 1964, and 1966.

REMARKS.--Records good except for period of no gage-height record, which are fair. Slight diurnal fluctuation at times from unknown source.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	2.5	.80	10	2.1	1.5	5.7	1.8	6.4	1.6	.48	.68
2	9.0	.80	.80	3.0	2.5	2.3	5.3	1.6	56	1.1	.48	3.6
3	3.0	.80	.80	5.0	2.7	1.7	3.6	9.6	5.8	.83	1.9	15
4	.90	.80	.80	20	2.0	1.6	13	3.6	3.0	.72	3.2	5.4
5	.80	3.0	30	4.0	1.6	1.5	13	2.7	2.4	2.4	1.9	.82
6	.70	.80	5.0	3.5	1.6	1.6	5.2	1.9	2.1	41	.45	12
7	.70	.80	2.5	3.0	3.2	2.1	3.4	1.6	1.8	5.0	2.2	40
8	.70	.80	2.0	2.5	2.2	2.2	24	1.5	2.0	1.3	.65	1.7
9	.70	2.5	45	7.0	2.6	2.8	45	6.6	1.7	1.0	.71	1.0
10	.70	.90	6.0	15	2.7	2.9	6.1	2.5	1.5	.89	.67	.82
11	.70	.80	2.5	35	2.6	1.6	4.0	1.8	1.3	.70	.43	10
12	.70	.80	2.0	10	3.2	2.7	3.6	50	1.1	.56	.36	2.2
13	.70	.80	7.5	4.0	3.9	1.5	21	7.5	1.1	.56	.40	1.9
14	.70	.80	5.8	2.5	3.1	1.3	6.3	3.0	1.0	.54	2.8	20
15	.70	.80	2.1	2.5	2.1	1.3	4.2	2.3	.96	.54	.96	1.6
16	.70	.80	2.0	2.5	2.2	10	3.3	1.9	3.6	.45	.40	.99
17	.70	.80	3.2	2.2	3.0	4.1	3.0	5.5	1.2	.41	.39	.80
18	.70	.80	2.2	2.2	2.3	2.0	2.8	19	.89	.42	.33	.76
19	.70	.80	1.8	2.4	2.2	2.3	2.8	2.9	.78	1.6	.95	.72
20	.70	.80	84	2.2	2.4	1.6	2.6	2.1	.78	.42	1.0	.69
21	.70	.80	73	20	1.6	29	2.4	1.8	2.7	.34	.29	4.7
22	.70	.80	6.7	6.0	2.6	5.0	2.4	1.6	4.6	.34	2.6	1.3
23	.70	.80	4.7	4.0	1.7	2.9	12	8.5	7.4	.36	13	.64
24	.70	.90	4.0	3.5	1.4	2.6	3.1	4.7	1.6	2.6	.63	.57
25	.70	.90	3.0	5.0	3.3	2.2	2.8	3.0	1.1	.64	.43	.60
26	.70	.80	41	3.5	1.7	2.0	2.6	1.6	5.3	.56	16	.61
27	.70	.80	5.5	5.0	1.5	1.9	2.5	2.6	2.0	.52	1.2	.55
28	.70	8.0	3.4	3.5	1.5	1.5	2.3	2.1	8.8	.43	.92	58
29	18	2.5	3.0	3.3	---	4.3	2.0	1.7	4.7	5.9	6.7	3.6
30	1.2	1.0	2.6	2.6	---	117	1.9	6.3	1.1	5.9	.75	1.3
31	1.0	---	4.0	2.4	---	16	---	2.4	---	.64	.63	---
TOTAL	51.00	39.00	357.70	197.3	65.5	233.0	211.9	165.7	134.71	80.27	63.81	192.55
MEAN	1.65	1.30	11.5	6.36	2.34	7.52	7.06	5.35	4.49	2.59	2.06	6.42
MAX	18	8.0	84	35	3.9	117	45	50	56	41	16	58
MIN	.70	.80	.80	2.2	1.4	1.3	1.9	1.5	.78	.34	.29	.55
CFSM	.37	.29	2.58	1.43	.52	1.69	1.58	1.20	1.01	.58	.46	1.44
IN.	.43	.33	2.98	1.65	.55	1.94	1.77	1.38	1.12	.67	.53	1.61

WTR YR 1974 TOTAL 1792.44 MEAN 4.91 MAX 117 MIN .29 CFSM 1.10 IN 14.95

PEAK DISCHARGE (BASE, 500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	2130	3.54	780	7-06	2145	3.82	983
3-30	1645	3.60	820	9-28	1615	3.33	639
5-12	1730	2.48	741				

NOTE.--No gage-height record Oct. 1 to Dec. 13.

## BACK RIVER BASIN

01585300 Stemmers Run at Rossville, Md.--Continued

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	.65	64	3.8	3.2	2.5	3.1	20	25	1.8	1.1	3.1
2	.80	.65	67	1.8	3.0	2.3	2.8	5.3	4.0	1.4	1.1	1.1
3	.73	.65	3.5	1.6	2.3	2.1	7.6	3.4	2.0	1.8	1.1	.80
4	.75	.66	2.0	1.6	1.9	1.9	2.7	121	1.8	2.0	1.0	.73
5	.73	8.6	1.6	1.4	18	1.9	2.3	25	30	1.2	4.3	.70
6	.73	4.1	1.6	5.8	22	1.9	2.2	11	28	1.1	2.8	1.1
7	.72	.80	1.9	6.6	6.6	2.1	2.1	6.0	2.6	1.1	1.1	.75
8	.67	.66	92	2.6	3.6	1.9	2.0	4.1	2.2	1.1	.92	.74
9	.67	.64	4.9	33	2.8	1.6	2.0	3.5	2.0	1.1	.82	.68
10	.65	.77	2.7	3.7	2.5	2.6	1.9	3.1	1.8	90	.81	.55
11	.60	.68	2.1	7.3	2.5	2.4	1.9	2.7	1.8	8.0	.80	.63
12	.62	11	2.0	3.0	16	9.7	1.8	11	24	3.1	.77	12
13	.64	2.4	1.8	21	3.9	3.6	1.7	16	20	312	3.7	1.5
14	.62	.89	3.7	5.1	2.9	43	1.7	4.5	3.4	163	28	.75
15	2.2	2.1	1.7	2.8	2.9	8.2	4.7	3.2	2.7	12	1.5	.72
16	17	.98	137	2.6	2.8	3.8	2.4	8.6	11	6.8	4.0	.68
17	1.9	1.0	6.8	2.1	7.1	9.4	1.8	3.0	3.4	4.0	1.7	.86
18	.86	.77	3.7	23	4.8	3.5	2.0	2.6	2.8	3.5	1.2	9.9
19	.73	.77	2.9	18	3.5	167	3.4	2.4	2.3	3.0	.92	5.7
20	.71	.96	2.4	14	2.7	12	1.9	2.3	1.8	6.0	.89	1.3
21	.67	1.7	2.3	5.4	2.3	5.2	1.5	2.2	1.5	9.0	.83	.90
22	.67	1.3	2.6	5.0	2.2	4.5	1.5	2.0	1.3	2.5	.81	4.9
23	.68	1.1	1.8	5.3	26	3.8	1.5	2.6	1.3	1.8	.94	90
24	.68	1.0	1.8	4.2	23	25	7.6	2.8	1.3	1.8	.93	72
25	.68	1.2	1.7	26	6.0	8.1	70	1.9	1.1	2.0	.78	215
26	.67	2.6	1.5	6.3	3.5	3.9	16	1.8	1.3	1.8	.73	116
27	.65	1.6	1.5	3.5	2.8	3.1	3.9	1.9	1.1	1.6	1.4	8.7
28	.63	1.3	1.5	2.9	2.6	2.9	3.0	2.0	49	1.5	.60	4.1
29	.65	1.2	1.5	2.7	---	3.9	3.4	1.8	8.8	1.3	.58	3.0
30	.65	1.1	1.4	2.3	---	17	2.4	2.1	3.1	1.3	.68	2.7
31	.65	---	6.7	5.3	---	3.9	---	2.0	---	1.2	7.9	---
TOTAL	40.55	53.83	429.6	229.7	183.4	364.7	162.8	281.8	242.4	649.8	74.71	561.59
MEAN	1.31	1.79	13.9	7.41	6.55	11.8	5.43	9.09	8.08	21.0	2.41	18.7
MAX	17	11	137	33	26	167	70	121	49	312	28	215
MIN	.60	.64	1.4	1.4	1.9	1.6	1.5	1.8	1.1	1.1	.58	.55
CFSM	.29	.40	3.12	1.66	1.47	2.65	1.22	2.04	1.81	4.71	.54	4.19
IN.	.34	.45	3.58	1.92	1.53	3.04	1.36	2.35	2.02	5.42	.62	4.68

CAL YR 1974 TOTAL 1868.72 MEAN 5.12 MAX 137 MIN .29 CFSM 1.15 IN 15.58  
WTR YR 1975 TOTAL 3274.88 MEAN 8.97 MAX 312 MIN .55 CFSM 2.01 IN 27.31

PEAK DISCHARGE (BASE, 500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2345	3.69	886	7-13	1615	5.06	1,960
12-16	1030	3.67	871	7-13	2030	4.22	1,260
3-19	1545	4.36	1,370	7-14	0900	4.64	1,600
4-25	2015	3.46	728	9-25	1115	3.15	506
5-04	0815	3.19	541	9-25	1515	4.65	1,600
6-28	0715	3.22	563	9-26	1100	3.76	939
7-10	1945	4.18	1,230				

01585400 Brien Run at Stemmers Run, Md.

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

DRAINAGE AREA.--1.97 mi<sup>2</sup> (5.10 km<sup>2</sup>).

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) above mean sea level (Baltimore County bench mark).

AVERAGE DISCHARGE.--17 years, 2.49 ft<sup>3</sup>/s (0.0705 m<sup>3</sup>/s), 17.16 in/yr (436 mm/yr).

EXTREMES.--Current year: Maximum discharge, 413 ft<sup>3</sup>/s (11.7 m<sup>3</sup>/s) July 13, gage height, 4.50 ft (1.372 m), from rating curve extended as explained below; minimum, 0.51 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Oct. 14, 15, June 23, 24, 25, Aug. 28.

Period of record: Maximum discharge, 3,500 ft<sup>3</sup>/s (99.1 m<sup>3</sup>/s) Aug. 1, 1971, gage height, 10.75 ft (3.277 m), from high-water mark in well, from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/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.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.62	20	1.6	1.4	.89	1.1	8.4	7.7	.60	.64	.97
2	.63	.66	26	.81	1.3	.85	.89	2.4	1.5	.59	.66	.76
3	.72	.66	1.4	.79	1.1	.79	2.0	1.2	.80	.75	.65	.67
4	.70	.63	.95	.78	.92	.77	.95	53	.74	.70	.66	.67
5	.58	2.5	.90	.69	7.3	.76	.81	12	12	.63	2.9	.67
6	.60	1.1	.78	4.0	12	.75	.75	4.3	12	.65	1.4	.76
7	.67	.68	.62	2.6	4.1	.80	.75	2.5	1.3	.67	.75	.67
8	.58	.66	48	3.5	1.5	.79	.72	1.4	.86	.66	.68	.67
9	.58	.66	2.3	13	1.3	.72	.70	1.0	.98	.66	.64	.67
10	.58	.66	1.2	1.7	.92	1.1	.80	.93	.83	23	.66	.58
11	.58	.67	.98	2.7	1.0	.91	.72	.84	.77	3.1	.63	.58
12	.58	4.5	.78	1.3	8.2	4.0	.65	2.5	6.9	.83	.61	3.3
13	.59	1.2	.71	12	2.2	1.8	.66	13	5.7	91	1.7	.81
14	.54	.75	1.2	2.9	1.2	24	.66	2.6	.85	64	10	.63
15	2.9	1.1	.70	1.1	1.1	4.7	1.4	1.1	.76	3.6	.96	.71
16	7.8	.68	48	1.0	1.1	1.6	.82	8.2	.67	2.6	1.8	.66
17	1.0	.66	3.7	.88	2.9	4.3	.71	1.4	.67	2.1	.95	.63
18	.67	.66	1.8	12	3.1	1.7	.72	.96	.67	1.4	1.0	5.8
19	.58	.66	1.1	9.4	1.9	51	1.1	.93	.67	1.1	.76	2.3
20	.58	.85	.95	8.0	1.2	5.4	.71	.81	.67	2.2	.67	.81
21	.76	.73	.86	2.2	.96	1.7	.63	.75	.58	3.3	.67	.71
22	.58	.66	.96	2.4	.85	1.3	.58	1.0	.58	.85	.67	2.5
23	.58	.66	.78	2.7	14	1.0	.60	.96	.58	.76	.67	35
24	.58	.66	.75	2.0	9.4	13	2.8	.75	.57	.85	.67	31
25	.58	1.1	.78	15	3.9	4.3	24	.75	.56	.95	.67	94
26	.58	.77	.75	4.2	1.8	1.4	10	.75	.63	.85	.67	33
27	.58	.66	.75	1.5	1.2	1.1	1.5	1.4	.59	.76	.67	2.8
28	.58	.66	.75	1.2	.97	.97	1.1	.78	2.9	.76	.58	1.1
29	.58	.66	.75	1.1	---	1.1	1.1	.72	.67	.67	.76	1.1
30	.58	.66	.73	.99	---	6.8	.99	.84	.65	.67	.58	1.3
31	.58	---	2.9	1.9	---	1.4	---	.81	---	.65	2.1	---
TOTAL	28.78	27.78	172.83	115.94	88.82	141.70	60.92	128.98	65.35	211.91	37.43	225.83
MEAN	.93	.93	5.58	3.74	3.17	4.57	2.03	4.16	2.18	6.84	1.21	7.53
MAX	7.8	4.5	48	15	14	51	24	53	12	91	10	94
MIN	.54	.62	.62	.69	.85	.72	.58	.72	.56	.59	.58	.58
CFSM	.47	.47	2.83	1.90	1.61	2.32	1.03	2.11	1.11	3.47	.61	3.82
IN.	.54	.52	3.26	2.19	1.68	2.68	1.15	2.44	1.23	4.00	.71	4.26

CAL YR 1974 TOTAL 809.99 MEAN 2.22 MAX 48 MIN .48 CFSM 1.13 IN 15.30  
WTR YR 1975 TOTAL 1306.27 MEAN 3.58 MAX 94 MIN .54 CFSM 1.82 IN 24.67

PEAK DISCHARGE (BASE, 150 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2400	3.11	204	7-13	2015	3.01	192
12-16	1100	3.18	213	7-14	0900	3.92	319
3-19	1615	3.55	263	9-25	1145	3.37	238
7-10	1945	3.16	211	9-25	1430	4.28	377
7-13	1600	4.50	413	9-26	1215	2.96	186



01585500 Cranberry Branch near Westminster, Md.

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

DRAINAGE AREA.--3.29 mi<sup>2</sup> (8.52 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--26 years, 3.60 ft<sup>3</sup>/s (0.102 m<sup>3</sup>/s), 14.86 in/yr (377 mm/yr), unadjusted for storage and diversion.

EXTREMES.--Current year: Maximum discharge, 2,220 ft<sup>3</sup>/s (62.9 m<sup>3</sup>/s) Sept. 26, gage height, 7.47 ft (2.277 m), from rating curve extended as explained below; minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Nov. 1.  
 Period of record: Maximum discharge, 2,220 ft<sup>3</sup>/s (62.9 m<sup>3</sup>/s) Sept. 26, 1975, gage height, 7.47 ft (2.277 m), from rating curve extended above 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/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, 0.27 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Dec. 3, 1969.  
 REVISIONS.--The maximum discharge for the water year 1972 has been revised to 1,330 ft<sup>3</sup>/s (37.7 m<sup>3</sup>/s) June 22, gage height, 5.85 ft (1.783 m), superseding figure published in WRD Md. and Del., 1972.

REMARKS.--Records good. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mile (1.6 km) above station since August 1957, capacity, 113,700,000 gal (430,400 m<sup>3</sup>). Beginning October 1972 occasional large diversions past the gaging station from the reservoir through a 30-inch pipe.

REVISIONS (WATER YEARS).--WSP 1432: Drainage area, 1954-55. Monthly and yearly figures of runoff in cubic feet per second per square mile and inches for water year 1973 published in WRD, Md. and Del., 1973, should not be used. These figures do not represent runoff from the basin owing to the diversion to and releases from Cranberry Reservoir. See "REMARKS" paragraph above.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.30	3.8	1.1	2.8	2.9	1.9	10	32	4.7	1.9	7.8
2	1.7	.56	19	.62	2.7	2.8	1.7	5.4	8.8	4.4	.97	2.9
3	1.6	1.1	3.7	1.4	2.5	2.6	3.8	4.6	14	6.6	1.3	2.5
4	1.6	1.1	2.7	.49	2.3	1.4	3.1	21	7.0	5.5	.96	2.3
5	1.6	1.3	2.3	.51	2.8	.72	3.9	8.5	25	4.6	1.7	3.1
6	1.6	1.2	2.1	1.6	3.8	.81	3.8	6.8	22	4.3	2.8	3.9
7	1.6	1.2	2.1	2.7	3.5	1.7	3.7	5.8	12	4.2	2.7	2.6
8	1.4	.89	12	2.8	2.7	3.2	3.7	5.1	8.9	4.1	2.6	2.4
9	1.5	1.1	3.6	10	2.6	2.9	3.6	4.9	7.8	4.1	2.4	2.2
10	1.4	1.1	2.7	3.6	2.2	3.3	3.5	4.7	7.2	4.4	2.4	2.1
11	1.4	1.1	2.4	3.8	2.4	3.6	3.5	4.4	7.4	4.8	2.5	2.1
12	1.4	3.1	1.4	3.1	3.1	5.6	3.4	7.0	25	4.2	2.4	9.3
13	1.4	1.9	.50	4.0	2.8	4.2	3.4	6.7	14	8.6	3.5	3.3
14	1.4	1.5	.53	3.0	2.6	6.7	3.3	5.2	8.5	13	14	2.5
15	1.4	2.3	.73	2.6	2.5	9.7	3.6	4.5	7.7	6.9	3.1	2.3
16	3.8	1.6	21	2.7	3.0	6.2	3.4	9.0	7.2	5.6	3.2	2.3
17	1.8	1.4	2.8	2.4	5.3	6.2	3.2	5.0	6.8	4.6	6.2	2.3
18	1.6	1.4	1.2	3.2	9.6	4.7	3.2	4.7	6.3	4.1	3.1	2.8
19	1.6	1.3	.88	4.8	9.2	32	3.4	4.4	5.8	3.8	2.7	3.3
20	1.4	2.1	.70	5.4	5.1	11	3.1	4.1	5.5	6.1	2.6	14
21	1.4	1.8	.67	3.2	4.3	5.3	3.2	4.0	5.2	6.0	2.5	9.8
22	1.4	1.5	.64	3.2	3.9	3.1	4.3	3.9	5.0	3.8	2.4	4.3
23	1.3	1.3	1.1	3.3	7.3	2.5	3.9	3.7	5.0	3.6	2.4	28
24	1.3	1.3	.60	3.6	9.6	4.5	5.7	7.5	4.8	3.8	2.4	40
25	1.3	1.6	.60	18	6.5	3.0	20	6.4	4.7	3.5	2.3	64
26	1.3	1.5	.80	6.8	4.4	2.0	9.6	4.7	4.8	3.3	2.1	364
27	1.3	1.3	1.0	4.4	4.0	1.8	5.3	4.7	11	3.2	2.1	23
28	1.3	1.4	.51	3.9	3.3	1.8	4.7	4.1	7.1	3.1	2.0	17
29	1.4	1.3	.52	3.2	---	2.2	4.7	3.7	5.8	2.8	2.0	14
30	1.4	1.3	.51	2.8	---	4.8	4.3	3.7	5.1	2.7	2.1	10
31	1.0	---	1.7	3.0	---	2.1	---	12	---	2.7	2.6	---
TOTAL	47.3	41.85	94.79	115.22	116.8	145.33	131.9	190.2	297.4	147.1	87.93	650.1
MEAN	1.53	1.40	3.06	3.72	4.17	4.69	4.40	6.14	9.91	4.75	2.84	21.7
MAX	3.8	3.1	21	18	9.6	32	20	21	32	13	14	364
MIN	1.0	.30	.50	.49	2.2	.72	1.7	3.7	4.7	2.7	.96	2.1

CAL YR 1974 TOTAL 1367.14 MEAN 3.75 MAX 34 MIN .30  
 WTR YR 1975 TOTAL 2065.92 MEAN 5.66 MAX 364 MIN .30

PEAK DISCHARGE (BASE, 80 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1130	2.86	82	9-20	2215	3.08	95
3-19	1600	3.05	94	9-24	0915	3.05	94
4-25	2015	2.83	80	9-25	0515	3.01	91
6-01	0345	3.14	99	9-26	0100	6.01	1,450
6-05	2230	3.20	103	9-26	0630	7.47	2,220

01586000 North Branch Patapsco River at Cedarhurst, Md.

LOCATION.--Lat 39°30'00", long 76°53'00". Carroll County, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mile (1.3 km) downstream from Roaring Run, 8 miles (12.9 km) southeast of Westminster, and 16.5 miles (26.5 km) upstream from mouth.

DRAINAGE AREA.--56.6 mi<sup>2</sup> (146.6 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--30 years, 63.4 ft<sup>3</sup>/s (1.795 m<sup>3</sup>/s), 15.21 in/yr (386 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,300 ft<sup>3</sup>/s (433 m<sup>3</sup>/s) Sept. 26, gage height, 16.59 ft (5.057 m), from rating curve extended above 4,100 ft<sup>3</sup>/s (116 m<sup>3</sup>/s) on basis of contracted-opening measurement at gage height 20.75 ft (6.325 m); minimum, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) July 30, gage height, 1.33 ft (0.405 m), result of filling pond above station; minimum daily, 23 ft<sup>3</sup>/s (0.65 m<sup>3</sup>/s) Nov. 8-11.  
Period of record: Maximum discharge, 27,800 ft<sup>3</sup>/s (787 m<sup>3</sup>/s) June 22, 1972, gage height, 20.75 ft (6.325 m), from high-water mark in well, from rating curve extended above 4,100 ft<sup>3</sup>/s (116 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; minimum, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) Sept. 10, 1966, result of filling pond above station; minimum daily, 3.1 ft<sup>3</sup>/s (0.088 m<sup>3</sup>/s) Sept. 10, 12, 1966.

REMARKS.--Records good except for period of no gage-height record, which are fair. Slight diurnal fluctuation at low and medium flow caused by mill above station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal (430,400 m<sup>3</sup>). Records do not include a mean discharge of 1.66 ft<sup>3</sup>/s (0.047 m<sup>3</sup>/s) diverted above station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin.

REVISIONS (WATER YEARS).--WSP 1903: 1959-60.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	44	50	68	75	84	149	591	70	49	201
2	30	24	284	38	64	71	78	95	149	66	46	64
3	29	25	70	36	59	66	103	84	180	86	46	50
4	29	24	46	36	55	61	82	357	110	89	44	44
5	28	27	39	34	63	59	76	153	334	70	55	43
6	28	25	35	34	76	59	75	129	543	65	47	77
7	27	24	34	36	79	60	72	115	240	62	47	49
8	28	23	207	36	63	64	71	99	150	62	44	46
9	28	23	78	110	60	56	67	92	130	68	41	41
10	26	23	51	60	52	57	66	88	120	64	41	38
11	26	23	44	65	52	60	66	84	115	75	41	38
12	26	42	43	55	62	83	64	100	313	63	40	96
13	26	45	38	65	57	76	62	110	264	138	43	66
14	25	28	42	58	49	115	60	87	134	234	248	44
15	26	41	37	52	49	137	66	77	122	148	55	41
16	58	31	407	50	52	105	64	123	112	107	53	40
17	39	28	172	50	68	101	59	81	107	77	91	40
18	29	26	70	60	118	84	60	80	100	71	55	41
19	28	26	60	70	120	502	62	77	96	64	47	55
20	27	28	50	120	86	233	59	69	91	126	49	59
21	25	37	48	70	75	139	54	68	84	275	44	251
22	25	21	48	60	69	122	52	221	82	79	44	64
23	25	26	44	60	104	113	54	104	81	69	44	336
24	25	26	42	64	136	134	67	118	78	64	44	1010
25	25	27	40	201	131	124	258	154	76	64	41	1200
26	26	33	38	135	91	96	215	88	75	62	40	5240
27	26	26	36	89	85	87	98	85	99	57	38	611
28	24	27	36	80	78	85	85	79	99	55	35	332
29	24	26	36	76	---	91	83	71	85	52	35	250
30	24	26	36	69	---	131	77	69	78	52	35	217
31	24	---	36	72	---	92	---	77	---	50	69	---
TOTAL	868	842	2291	2091	2121	3338	2439	3383	4838	2684	1651	10684
MEAN	28.0	28.1	73.9	67.5	75.8	108	81.3	109	161	86.6	53.3	356
MAX	58	45	407	201	136	502	258	357	591	275	248	5240
MIN	24	23	34	34	49	56	52	68	75	50	35	38
CFSM	.49	.50	1.31	1.19	1.34	1.91	1.44	1.93	2.84	1.53	.94	6.29
IN.	.57	.55	1.51	1.37	1.39	2.19	1.60	2.22	3.18	1.76	1.09	7.02

CAL YR 1974 TOTAL 21523 MEAN 59.0 MAX 426 MIN 21 CFSM 1.04 IN 14.15  
WTR YR 1975 TOTAL 37230 MEAN 102 MAX 5240 MIN 23 CFSM 1.80 IN 24.47

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1330	5.48	1,410	7-21	0045	5.56	1,440
3-19	1830	5.73	1,520	8-14	0430	4.72	1,080
4-25	2200	4.83	1,120	9-21	0045	4.84	1,130
5-22	1915	5.65	1,490	9-24	1330	8.03	2,920
6-01	0545	5.57	1,450	9-25	1000	4.77	1,100
6-06	0130	6.27	1,800	9-26	0830	16.59	15,300

NOTE.--No gage-height record  
Dec. 17 to Jan. 23.

## PATAPSCO RIVER BASIN

01587500 South Branch Patapsco River at Henryton, Md.

LOCATION.--Lat 39°21'05", long 76°54'50", Howard County, on right bank at downstream side of bridge on Henryton Road at Henryton, 1.3 miles (2.1 km) upstream from Piney Run, 2.5 miles (4.0 km) upstream from confluence with North Branch, and 3.2 miles (5.1 km) southeast of Sykesville.

DRAINAGE AREA.--64.4 mi<sup>2</sup> (166.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 289.15 ft (88.133 m) above mean sea level.

AVERAGE DISCHARGE.--27 years, 71.6 ft<sup>3</sup>/s (2.028 m<sup>3</sup>/s), 15.10 in/yr (384 mm/yr).

EXTREMES.--Current year: Maximum discharge, 14,600 ft<sup>3</sup>/s (413 m<sup>3</sup>/s) Sept. 26, gage height, 21.16 ft (6.450 m), from rating curve extended as explained below; minimum, 22 ft<sup>3</sup>/s (0.623 m<sup>3</sup>/s) Oct. 14, gage height, 1.87 ft (0.570 m).

Period of record: Maximum discharge, 26,900 ft<sup>3</sup>/s (762 m<sup>3</sup>/s) June 22, 1972, gage height, 28.14 ft (8.577 m), from floodmarks, from rating curve extended above 1,900 ft<sup>3</sup>/s (53.8 m<sup>3</sup>/s) on basis of slope-area measurements at gage height 7.88 ft (2.402 m) and 28.14 ft (8.577 m), and contracted-opening measurements at gage heights 10.12 ft (3.085 m) and 19.40 ft (5.913 m); minimum, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Sept. 9-12, 1966.

REMARKS.--Records good except for period of no gage-height record, which are fair. Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	28	62	69	82	82	112	190	130	59	46	222
2	31	28	805	54	77	78	104	120	107	55	46	75
3	30	28	119	50	73	74	112	110	80	56	46	56
4	30	28	72	52	70	71	96	350	74	63	43	49
5	30	32	59	48	80	70	91	200	326	54	101	46
6	29	33	53	48	94	70	89	160	432	51	51	51
7	28	29	50	52	102	71	86	150	140	50	47	51
8	28	28	274	53	82	72	86	130	114	50	45	47
9	28	28	110	141	79	64	84	120	95	49	43	44
10	27	28	72	76	70	66	83	110	84	123	42	41
11	26	28	62	77	71	70	82	105	76	113	42	41
12	25	43	60	68	91	92	81	120	71	59	42	70
13	24	48	55	78	83	93	77	140	506	159	46	66
14	26	33	56	70	71	221	75	110	151	277	250	44
15	30	45	51	60	68	172	90	95	121	373	60	43
16	58	36	459	60	72	120	85	150	104	171	87	43
17	44	32	154	58	82	143	80	100	85	93	69	43
18	33	31	99	70	118	111	75	100	77	80	55	46
19	30	30	83	89	104	614	80	95	72	72	48	64
20	29	32	75	147	87	314	75	90	68	70	46	47
21	29	36	69	85	80	177	70	85	63	147	44	49
22	29	31	67	75	76	153	70	227	61	70	45	49
23	29	29	61	75	102	139	70	200	60	62	44	281
24	29	29	59	77	142	154	80	172	58	59	44	968
25	29	31	58	208	141	156	300	118	57	60	42	1570
26	29	36	54	169	99	120	240	106	70	58	42	4910
27	27	30	52	104	91	109	130	97	66	54	64	494
28	27	30	52	93	85	106	110	87	73	53	41	325
29	27	30	51	88	---	113	105	81	85	51	40	247
30	27	29	50	80	---	183	100	79	80	49	39	199
31	28	---	53	83	---	124	---	78	---	48	76	---
TOTAL	928	959	3456	2557	2472	4202	3018	4075	3586	2788	1775	10281
MEAN	29.9	32.0	111	82.5	88.3	136	101	131	120	89.9	57.3	343
MAX	58	48	805	208	142	614	300	350	506	373	250	4910
MIN	24	28	50	48	68	64	70	78	57	48	39	41
CFSM	.46	.50	1.72	1.28	1.37	2.11	1.57	2.03	1.86	1.40	.89	5.33
IN.	.54	.55	2.00	1.48	1.43	2.43	1.74	2.35	2.07	1.61	1.03	5.94
CAL YR 1974	TOTAL	24142	MEAN	66.1	MAX	805	MIN	19	CFSM	1.03	IN	13.95
WTR YR 1975	TOTAL	40097	MEAN	110	MAX	4910	MIN	24	CFSM	1.71	IN	23.16

PEAK DISCHARGE (BASE, 950 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0200	6.69	2,160	6-13	0530	5.90	1,830
12-16	1300	5.09	1,480	7-15	1800	7.22	2,400
3-19	1730	5.65	1,720	9-24	1330	8.68	3,130
5-22	2230	4.43	1,180	9-25	0730	6.05	1,890
6-05	2300	6.51	2,080	9-26	0730	21.16	14,600

NOTE.--No gage-height record April 14 to May 20.

## PATAPSCO RIVER BASIN

71

01589000 Patapsco River at Hollofield, Md.

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

DRAINAGE AREA.--285 mi<sup>2</sup> (738 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 190 ft (58 m), from topographic map. 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.

EXTREMES.--Current year: Maximum discharge, 46,500 ft<sup>3</sup>/s (1,320 m<sup>3</sup>/s) Sept. 26, gage height, 22.8 ft (6.95 m), from floodmarks; minimum, 48 ft<sup>3</sup>/s (1.36 m<sup>3</sup>/s) Nov. 9, 10, 11.  
Period of record: Maximum discharge, 80,600 ft<sup>3</sup>/s (2,280 m<sup>3</sup>/s) June 22, 1972, gage height, 31.3 ft (9.54 m), from floodmarks, from rating curve extended above 27,000 ft<sup>3</sup>/s (765 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum 6 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) Sept. 6, 1944; minimum daily, 9.6 ft<sup>3</sup>/s (0.27 m<sup>3</sup>/s) Aug. 12, 1963.

REMARKS.--Records good. Flow regulated by Liberty Reservoir 11 miles (18 km) upstream beginning July 22, 1954, usable capacity, 42,070 mil gal (159.2 hm<sup>3</sup>); dead storage, 1,260 mil gal (4.769 hm<sup>3</sup>). 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. Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	50	173	123	140	140	192	441	527	291	93	401
2	62	50	1320	100	130	134	178	401	643	220	90	161
3	58	50	206	92	123	128	205	327	428	182	89	114
4	56	50	134	94	118	120	238	1100	333	299	85	97
5	58	56	109	89	139	118	204	1160	594	261	180	89
6	58	71	99	88	169	119	180	690	2340	220	126	91
7	58	52	92	98	183	121	170	646	958	182	100	97
8	56	50	544	98	143	124	158	447	580	161	88	89
9	55	48	215	222	135	110	152	365	417	144	83	82
10	55	49	138	140	115	113	150	326	332	188	79	74
11	55	49	116	131	115	120	149	293	286	420	79	75
12	54	69	109	124	156	144	146	276	455	206	79	99
13	56	99	104	141	153	175	144	398	1460	642	80	142
14	57	64	105	133	120	334	140	318	699	1490	487	84
15	57	81	98	100	115	314	156	269	460	1530	132	77
16	127	71	903	100	120	196	152	311	359	1030	158	77
17	105	61	292	100	133	230	142	290	300	488	138	79
18	73	57	177	130	175	182	138	255	260	334	113	85
19	63	56	147	171	162	1170	144	244	283	259	98	127
20	59	59	134	265	141	548	137	218	249	220	90	97
21	57	66	123	145	130	276	131	194	213	736	84	98
22	56	57	121	135	124	237	127	336	183	471	84	100
23	55	53	110	134	164	220	125	883	170	293	83	561
24	55	53	107	137	257	256	145	593	161	217	81	2160
25	55	55	103	261	262	284	268	513	152	184	79	4450
26	54	65	97	295	172	222	786	401	161	172	75	24000
27	52	55	95	168	153	208	440	324	156	140	106	5800
28	52	54	95	151	144	260	326	270	200	125	77	2600
29	51	53	92	145	---	268	308	215	327	112	72	1600
30	52	51	92	134	---	382	268	193	441	98	71	1200
31	51	---	95	137	---	285	---	194	---	94	122	---
TOTAL	1880	1754	6345	4381	4191	7538	6199	12891	14127	11409	3401	44804
MEAN	60.6	58.5	205	141	150	243	207	416	471	368	110	1493
MAX	127	99	1320	295	262	1170	786	1160	2340	1530	487	24000
MIN	51	48	92	88	115	110	125	193	152	94	71	74
(#)	36780	34490	37250	38340	39630	43060	43470	43440	43490	43190	42630	43620
(#)	206	214	159	182	178	190	221	217	187	192	205	193

CAL YR 1973 TOTAL 108,614 MEAN 298 MAX 2,050 MIN 48 # 204  
WTR YR 1974 TOTAL 48,000 MEAN 132 MAX 1,190 MIN 40 # 195

# Month-end contents, in millions of gallons in Liberty Reservoir (contents on Sept. 30, 1974, 39,150 million gallons); records furnished by Baltimore Department of Public Works.

# See 1974 Report.

NOTE.--No gage-height record Sept. 26-30.

## 01589100 East Branch Herbert Run at Arbutus, Md.

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, on right bank at downstream side of highway bridge on Tom Day Boulevard at U. S. Route 1 in Arbutus, 0.5 mile (0.8 km) upstream from mouth, and 2 miles (3 km) south of Baltimore city limits.

DRAINAGE AREA.--2.47 mi<sup>2</sup> (6.40 km<sup>2</sup>).

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.

AVERAGE DISCHARGE.--18 years, 3.31 ft<sup>3</sup>/s (0.0937 m<sup>3</sup>/s), 18.20 in/yr (462 mm/yr).

EXTREMES.--Current year: Maximum discharge, 776 ft<sup>3</sup>/s (22.0 m<sup>3</sup>/s) July 14, gage height, 4.24 ft (1.292 m), from rating curve extended above 280 ft<sup>3</sup>/s (7.93 m<sup>3</sup>/s) on basis of computation of flow through culvert at gage height 3.67 ft (1.119 m); minimum daily, 0.56 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s) Nov. 29.  
Period of record: Maximum discharge, 1,340 ft<sup>3</sup>/s (37.9 m<sup>3</sup>/s) June 22, 1972, gage height, 6.35 ft (1.935 m), from rating curve extended above 280 ft<sup>3</sup>/s (7.93 m<sup>3</sup>/s) on basis of slope-area measurement of flood of July 20, 1956 (prior to establishment of station) at gage height 5.7 ft (1.74 m), from floodmarks, discharge, 1,090 ft<sup>3</sup>/s (30.9 m<sup>3</sup>/s); minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) July 24, Sept. 4, 11, 1966.

REMARKS.--Records good. Slight regulation at low flow from unknown source above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	61	1.8	1.4	1.5	2.2	13	18	1.4	1.9	8.1
2	1.0	.98	14	1.1	1.7	1.4	1.9	2.6	2.5	1.3	1.2	1.5
3	.90	.92	1.9	1.1	1.3	1.3	3.7	2.0	1.9	4.8	1.1	1.3
4	1.2	1.1	1.3	.99	1.2	1.3	1.8	44	1.6	1.6	1.4	1.2
5	.97	5.2	1.2	.91	7.1	1.3	1.6	6.7	7.8	1.1	24	1.1
6	.83	1.4	1.2	4.2	6.9	1.4	1.5	12	7.0	1.2	2.8	1.3
7	.93	.80	1.5	2.0	3.1	1.7	1.6	3.8	2.1	1.1	1.4	1.1
8	.90	.76	25	2.1	1.7	1.2	1.5	2.9	1.4	1.1	1.2	1.1
9	.87	.66	2.0	9.1	1.4	1.1	1.5	2.6	1.4	1.4	.95	1.2
10	.86	.63	1.4	1.4	1.3	2.2	1.5	2.3	1.4	31	.94	1.1
11	.87	.65	1.3	2.9	1.3	1.3	1.6	2.1	2.1	4.0	1.0	1.1
12	.77	7.0	1.3	1.1	8.6	6.6	1.4	5.7	9.5	2.4	.98	10
13	.69	1.2	1.2	8.8	1.8	1.7	1.3	4.3	9.0	133	3.1	1.3
14	.94	.80	2.4	1.9	1.4	21	1.4	2.1	1.9	91	15	1.1
15	2.7	1.8	1.1	1.2	1.4	3.0	5.0	1.9	1.4	3.0	1.4	1.1
16	7.4	.71	59	1.2	1.3	1.9	1.7	4.9	1.4	2.6	2.4	1.1
17	1.0	.64	3.3	1.0	2.6	8.2	1.4	1.8	1.3	2.4	1.2	1.1
18	.85	.71	2.2	8.9	2.0	2.1	1.6	1.7	1.2	2.2	1.1	6.6
19	.75	.71	1.9	7.0	1.5	56	3.2	1.7	1.2	2.0	1.1	4.0
20	.67	1.8	1.7	5.3	1.3	4.7	1.3	1.5	1.2	7.0	1.1	1.4
21	.74	.89	1.9	2.5	1.2	2.9	1.2	1.5	1.0	2.2	1.2	1.2
22	.81	.77	1.4	2.5	1.2	2.7	1.3	7.0	.97	2.0	1.2	5.4
23	.84	.64	1.3	2.2	7.5	2.3	1.5	2.4	1.0	2.0	.99	49
24	.86	.57	1.2	1.8	7.3	12	4.7	13	1.1	2.0	.94	27
25	.81	2.1	1.1	7.7	2.9	3.4	18	1.9	1.7	2.4	.94	83
26	.74	.96	1.1	2.3	1.8	2.5	4.3	1.4	4.3	1.8	1.4	75
27	.64	.77	1.1	1.5	1.7	2.2	1.9	1.4	2.0	1.8	1.3	5.6
28	.78	.66	1.0	1.4	1.7	2.0	1.7	1.3	18	1.7	.99	3.0
29	.95	.56	.98	1.4	---	2.6	5.4	1.2	6.2	1.7	.94	2.5
30	1.0	.60	1.1	1.2	---	8.1	1.7	1.3	2.0	1.8	.90	2.0
31	1.0	---	4.4	3.0	---	2.3	---	7.5	---	1.7	4.6	---
TOTAL	35.37	37.99	202.48	91.50	75.6	163.9	80.4	159.5	113.57	316.7	80.67	301.5
MEAN	1.14	1.27	6.53	2.95	2.70	5.29	2.68	5.15	3.79	10.2	2.60	10.1
MAX	7.4	7.0	61	9.1	8.6	56	18	44	18	133	24	83
MIN	.64	.56	.98	.91	1.2	1.1	1.2	1.2	.97	1.1	.90	1.1
CFSM	.46	.51	2.64	1.19	1.09	2.14	1.09	2.09	1.53	4.13	1.05	4.09
IN.	.53	.57	3.05	1.38	1.14	2.47	1.21	2.40	1.71	4.77	1.21	4.54

CAL YR 1974 TOTAL 1163.89 MEAN 3.19 MAX 61 MIN .56 CFSM 1.29 IN 17.53  
WTR YR 1975 TOTAL 1659.18 MEAN 4.55 MAX 133 MIN .56 CFSM 1.84 IN 24.99

PEAK DISCHARGE (BASE, 400 FT<sup>3</sup>/S, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2045	3.67	580	7-14	0515	3.48	512
6-28	1415	3.47	508	7-14	0745	4.24	776
7-10	1900	3.61	558	8-05	0015	3.50	518
7-13	0700	3.92	670	9-25	0215	3.14	401
7-13	1615	3.21	423	9-25	1400	3.19	416
7-13	1945	3.61	558	9-26	0930	3.81	629

## PATAPSCO RIVER BASIN

73

01589200 Gwynns Falls near Owings Mills, Md.

LOCATION.--Lat 39°26'16", long 76°46'57", Baltimore County, on left bank at downstream side of bridge on railroad siding, 0.4 mile (0.6 km) upstream from small right bank tributary, 1.2 miles (1.9 km) north of Owings Mills, and 21 miles (34 km) upstream from mouth.

DRAINAGE AREA.--4.90 mi<sup>2</sup> (12.69 km<sup>2</sup>).

PERIOD OF RECORD.--July 1958 to September 1975 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 520 ft (158 m), from topographic map. Gage destroyed by flood of Sept. 26, 1975.

AVERAGE DISCHARGE.--17 years, 5.26 ft<sup>3</sup>/s (0.149 m<sup>3</sup>/s), 14.58 in/yr (370 mm/yr).

EXTREMES.--Current year: Maximum discharge, 940 ft<sup>3</sup>/s (26.6 m<sup>3</sup>/s) Sept. 26, gage height, 4.28 ft (1.305 m), from floodmarks, from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 2.9 ft<sup>3</sup>/s (0.082 m<sup>3</sup>/s) many days in October and November.

Period of record: Maximum discharge, about 5,500 ft<sup>3</sup>/s (156 m<sup>3</sup>/s) June 22, 1972, gage height, 5.70 ft (1.737 m), from floodmarks, by contracted-opening and flow-over-road computation of peak flow at road crossing 0.5 mile (0.8 km) downstream, adjusted for flow from intervening area; minimum daily, 0.5 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Sept. 5, 8, 1966.

REMARKS.--Records fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	2.9	42	6.0	5.1	4.9	6.3	18	11	5.2	4.2	24
2	3.6	2.9	39	4.3	4.9	4.9	6.0	7.7	6.0	4.9	4.3	5.4
3	3.1	2.9	5.7	4.1	4.6	4.9	8.1	6.3	5.1	9.5	4.3	4.6
4	3.1	2.9	4.6	4.1	4.3	4.9	6.0	47	4.9	6.6	4.3	4.3
5	3.1	4.7	4.0	3.8	6.1	4.9	5.4	14	59	5.4	5.9	5.2
6	3.1	3.8	3.8	3.8	11	4.9	5.1	11	18	4.9	4.9	7.4
7	2.9	3.3	4.3	5.4	7.1	5.9	5.1	8.8	7.0	4.9	4.6	4.9
8	2.9	3.3	53	4.4	5.4	5.1	5.1	6.6	6.0	4.9	4.3	4.3
9	2.9	3.3	6.8	15	4.9	4.3	5.1	6.3	5.4	5.1	4.3	4.1
10	3.2	3.3	5.4	4.9	4.3	5.1	4.9	6.0	5.4	8.5	4.3	3.8
11	2.9	3.3	4.3	5.4	4.3	5.4	4.9	5.7	5.7	7.5	4.3	3.8
12	2.9	8.3	4.0	4.3	9.2	9.4	4.9	8.1	19	5.4	4.3	11
13	2.9	4.3	4.0	8.1	5.7	6.0	4.6	10	43	47	6.2	4.9
14	2.9	3.3	5.1	4.7	4.9	24	4.6	6.6	8.4	44	18	4.1
15	2.9	6.5	4.3	4.3	4.6	11	6.3	5.9	7.0	17	4.6	4.1
16	15	3.8	55	4.0	5.1	7.0	5.3	8.7	6.6	11	6.4	4.1
17	4.8	3.3	8.5	3.8	7.1	11	4.9	6.0	6.6	8.8	6.4	4.1
18	4.0	3.3	5.1	10	8.2	6.6	5.1	5.4	6.6	7.0	4.3	6.2
19	3.3	3.3	4.9	9.7	6.6	87	5.3	5.4	6.0	6.3	3.8	5.4
20	3.1	4.3	4.6	11	5.1	12	4.6	5.1	5.7	9.8	3.8	4.3
21	2.9	4.0	4.3	5.7	4.9	8.4	4.6	5.1	5.4	9.0	3.6	5.6
22	2.9	3.6	4.9	5.7	4.9	8.1	4.3	22	5.4	6.0	3.8	5.8
23	2.9	3.3	4.3	6.0	11	7.3	4.3	9.6	5.7	5.7	4.1	47
24	2.9	3.3	4.1	5.7	16	13	12	9.7	5.4	5.4	3.8	63
25	2.9	4.1	4.1	15	8.9	9.1	46	8.0	5.4	5.4	3.6	106
26	2.9	5.3	3.8	7.4	5.7	7.7	14	6.6	5.4	4.9	3.6	260
27	2.9	3.6	3.8	5.1	5.4	6.3	6.6	6.0	6.2	4.6	3.8	24
28	2.9	3.3	3.8	4.9	5.1	6.3	6.0	5.4	6.8	4.6	3.3	14
29	2.9	3.3	3.8	4.6	---	7.2	6.5	5.4	9.0	4.3	3.3	8.5
30	2.9	3.1	3.8	4.3	---	14	5.7	5.1	6.9	4.1	3.3	7.0
31	2.9	---	6.0	5.8	---	7.3	---	5.4	---	4.1	9.2	---
TOTAL	108.3	113.9	315.1	191.3	180.4	323.9	217.6	286.9	304.0	281.8	152.9	660.9
MEAN	3.49	3.80	10.2	6.17	6.44	10.4	7.25	9.25	10.1	9.09	4.93	22.0
MAX	15	8.3	55	15	16	87	46	47	59	47	18	260
MIN	2.9	2.9	3.8	3.8	4.3	4.3	4.3	5.1	4.9	4.1	3.3	3.8
CFSM	.71	.78	2.08	1.26	1.31	2.12	1.48	1.89	2.06	1.86	1.01	4.49
IN.	.82	.86	2.39	1.45	1.37	2.46	1.65	2.18	2.31	2.14	1.16	5.02

CAL YR 1974 TOTAL 2126.3 MEAN 5.83 MAX 68 MIN 1.8 CFSM 1.19 IN 16.14  
WTR YR 1975 TOTAL 3137.0 MEAN 8.59 MAX 260 MIN 2.9 CFSM 1.75 IN 23.81

PEAK DISCHARGE (BASE, 120 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2400	2.87	334	7-13	2030	2.54	221
12-08	1000	2.50	208	7-14	0900	2.46	196
12-16	1200	2.52	214	8-14	0230	2.38	174
3-19	1700	2.95	362	9-01	0830	2.32	158
4-25	2100	2.58	234	9-24	1300	2.74	289
5-04	0800	2.35	166	9-25	1800	2.80	310
5-22	2000	2.60	240	9-26	0100	3.64	620
6-05	2230	2.83	320	9-26	*0900	4.28	940
6-13	0430	2.67	264				

\*About.

† From floodmark.

NOTE.--No gage-height record  
Sept. 26-30.

## PATAPSCO RIVER BASIN

01589300 Gwynns Falls at Villa Nova, Md.

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, 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 miles (1.8 km) west of Baltimore city limits, and 11.5 miles (18.5 km) upstream from mouth.

DRAINAGE AREA.--32.5 mi<sup>2</sup> (84.2 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--18 years, 36.2 ft<sup>3</sup>/s (1.03 m<sup>3</sup>/s), 15.13 in/yr (384 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,210 ft<sup>3</sup>/s (119 m<sup>3</sup>/s) Sept. 26, gage height, 10.75 ft (3.277 m); minimum, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 13, 28.

Period of record: Maximum discharge, 16,200 ft<sup>3</sup>/s (459 m<sup>3</sup>/s) June 22, 1972, gage height, 21.5 ft (6.55 m), from floodmarks, from rating curve extended above 2,200 ft<sup>3</sup>/s (62.3 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; minimum, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Sept. 7, 8, 1966.

Flood of July 21, 1956, reached a stage of 12.6 ft (3.84 m), discharge, 5,270 ft<sup>3</sup>/s (149 m<sup>3</sup>/s) on basis of contracted-opening measurement.

REMARKS.--Records good. Slight diurnal fluctuation at times from unknown source above station. Small diversion for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	14	163	42	31	29	38	123	59	23	20	155
2	17	14	535	26	29	27	36	50	34	21	19	33
3	15	15	47	24	26	25	60	38	26	35	19	23
4	15	15	30	24	24	24	36	363	23	37	18	19
5	15	31	25	22	34	24	33	116	208	23	37	18
6	15	26	22	23	83	25	32	85	350	21	43	31
7	15	15	21	36	57	27	31	69	45	21	22	23
8	14	14	337	30	36	27	31	47	35	23	20	20
9	14	14	56	116	33	22	30	41	31	22	20	18
10	14	14	33	35	28	26	30	39	29	89	19	17
11	15	14	28	40	27	29	30	36	28	65	20	18
12	14	50	26	30	67	59	29	45	105	26	18	57
13	14	31	24	64	38	40	28	63	209	579	22	32
14	14	19	30	38	28	179	28	41	43	601	132	20
15	18	37	23	28	26	84	40	35	34	286	24	18
16	109	20	503	26	28	43	33	53	30	109	38	19
17	30	18	74	24	37	74	30	35	29	53	30	20
18	19	18	41	79	52	40	30	33	28	42	23	30
19	16	18	34	74	43	665	34	31	26	36	19	51
20	15	23	30	102	35	121	29	30	24	38	18	24
21	14	22	29	38	29	54	27	28	23	66	17	37
22	14	16	30	36	27	50	27	166	22	31	18	32
23	14	15	25	38	78	47	27	106	22	28	18	378
24	14	15	25	37	153	101	47	66	22	27	19	466
25	14	20	25	104	74	70	175	39	21	28	18	784
26	14	24	23	61	38	42	162	35	22	27	17	2140
27	14	16	23	35	32	37	43	34	24	24	21	134
28	13	15	23	31	30	36	35	30	35	23	18	75
29	13	14	22	30	---	42	40	26	59	21	16	55
30	13	14	22	28	---	115	33	25	47	20	16	45
31	14	---	35	36	---	45	---	25	---	20	39	---
TOTAL	567	591	2364	1357	1223	2229	1284	1953	1693	2465	798	4792
MEAN	18.3	19.7	76.3	43.8	43.7	71.9	42.8	63.0	56.4	79.5	25.7	160
MAX	109	50	535	116	153	665	175	363	350	601	132	2140
MIN	13	14	21	22	24	22	27	25	21	20	16	17
CFSM	.56	.61	2.35	1.35	1.34	2.21	1.32	1.94	1.74	2.45	.79	4.92
IN.	.65	.68	2.71	1.55	1.40	2.55	1.47	2.24	1.94	2.82	.91	5.48

CAL YR 1974 TOTAL 13549 MEAN 37.1 MAX 535 MIN 10 CFSM 1.14 IN 15.51  
WTR YR 1975 TOTAL 21316 MEAN 58.4 MAX 2140 MIN 13 CFSM 1.80 IN 24.40

PEAK DISCHARGE (BASE, 750 FT<sup>3</sup>/S, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2400	6.03	1,510	7-13	1930	7.19	2,100
12-16	1115	5.48	1,260	7-14	0730	6.20	1,590
3-19	1545	6.61	1,800	7-15	1615	4.84	990
5-04	0745	4.46	853	9-24	1300	4.39	829
5-22	1945	4.52	874	9-26	0945	10.75	4,210
6-06	0030	5.35	1,200				

## PATAPSCO RIVER BASIN

75

01589330 Dead Run at Franklintown, Md.

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

DRAINAGE AREA.--5.52 mi<sup>2</sup> (14.30 km<sup>2</sup>).

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

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

AVERAGE DISCHARGE.--16 years, 7.22 ft<sup>3</sup>/s (0.204 m<sup>3</sup>/s), 17.76 in/yr (451 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,740 ft<sup>3</sup>/s (77.6 m<sup>3</sup>/s) Sept. 26, gage height, 8.90 ft (2.713 m); minimum, 0.57 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s) Oct. 12, 13, 14, 15, Dec. 1, gage height, 0.69 ft (0.210 m).  
Period of record: Maximum discharge, 7,400 ft<sup>3</sup>/s (210 m<sup>3</sup>/s) June 22, 1972, gage height, 12.5 ft (3.81 m), from floodmarks, from rating curve extended above 1,600 ft<sup>3</sup>/s (45.3 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow at bridge 0.6 mile (1.0 km) downstream, adjusted for flow from intervening area; minimum, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 11-12, 1966, gage height, 0.57 ft (0.174 m).

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.92	152	4.9	3.6	3.0	3.6	35	21	1.9	2.3	64
2	.95	.88	51	2.3	4.2	2.7	3.3	4.7	2.9	1.9	2.2	2.6
3	.88	.88	4.6	2.3	3.0	2.5	12	3.5	2.2	8.9	1.7	1.8
4	.94	.85	2.8	2.1	2.3	2.4	3.7	128	2.0	2.1	2.0	1.5
5	.90	13	2.4	1.8	18	2.3	3.3	16	36	1.3	27	1.4
6	.88	2.1	2.3	6.2	36	2.3	3.1	27	10	1.3	31	1.9
7	.88	1.1	2.8	5.8	14	3.2	2.9	6.4	3.5	1.4	2.2	1.2
8	.90	1.0	88	3.4	4.7	2.5	2.9	4.3	2.4	2.1	1.8	1.2
9	.86	.96	5.2	26	4.0	2.3	2.9	3.8	2.4	1.6	1.6	1.2
10	.87	1.0	3.1	3.5	3.1	4.2	2.9	3.4	2.1	71	1.6	1.2
11	.71	1.1	2.6	9.1	3.1	3.0	3.0	3.1	3.1	7.6	1.9	1.5
12	.65	9.9	2.5	3.1	26	15	2.8	19	14	2.5	1.9	15
13	.62	1.9	2.3	23	4.9	3.9	2.5	20	23	391	7.9	1.7
14	.64	1.3	6.4	4.6	3.4	60	2.5	4.3	2.6	284	75	1.2
15	3.5	3.2	2.3	2.8	3.0	8.5	13	3.4	2.2	20	2.4	1.2
16	20	1.1	185	2.8	3.1	4.3	3.1	14	2.2	6.9	15	1.3
17	2.3	.88	8.5	2.8	9.6	18	2.6	3.4	2.1	3.9	2.7	1.5
18	1.6	.88	4.3	27	7.1	4.3	3.1	3.1	2.1	3.1	2.0	13
19	1.2	.88	3.3	24	4.5	204	7.0	2.9	2.1	2.6	1.7	12
20	1.1	3.1	2.9	21	3.2	12	2.2	2.7	2.2	13	1.7	1.7
21	1.1	1.1	2.9	5.0	2.9	5.4	1.9	2.6	1.9	8.1	1.8	1.5
22	1.0	.72	2.9	6.0	2.6	5.3	1.9	23	1.8	2.4	2.0	11
23	1.0	.65	2.3	6.6	27	4.1	1.9	4.6	1.8	2.3	1.6	125
24	.85	.65	2.3	5.5	60	32	18	3.0	2.1	2.3	1.6	94
25	.81	2.3	2.2	37	11	7.7	66	2.9	1.8	3.8	1.7	329
26	.90	.96	1.9	8.9	4.5	4.2	12	2.6	3.1	2.3	2.7	402
27	.83	.68	1.9	3.8	3.6	3.6	3.4	2.5	3.2	2.2	3.0	11
28	.81	.65	1.9	3.4	3.2	3.2	2.9	2.2	2.7	1.8	1.6	4.6
29	.85	.65	1.9	3.2	---	5.8	7.6	2.2	32	1.7	1.6	3.4
30	.89	.65	1.9	2.9	---	29	3.0	2.2	3.4	1.9	1.5	2.9
31	.91	---	11	9.8	---	4.2	---	7.4	---	1.9	13	---
TOTAL	51.43	55.94	567.4	270.6	275.9	464.9	201.0	363.2	193.9	858.8	217.7	1112.5
MEAN	1.66	1.86	18.3	8.73	9.85	15.0	6.70	11.7	6.46	27.7	7.02	37.1
MAX	20	13	185	37	60	204	66	128	36	391	75	402
MIN	.62	.65	1.9	1.8	2.6	2.3	1.9	2.2	1.8	1.3	1.5	1.2
CFSM	.30	.34	3.32	1.58	1.78	2.72	1.21	2.12	1.17	5.02	1.27	6.72
IN.	.35	.38	3.82	1.82	1.86	3.13	1.35	2.45	1.31	5.79	1.47	7.50

CAL YR 1974 TOTAL 2344.01 MEAN 6.42 MAX 185 MIN .62 CFSM 1.16 IN 15.80  
WTR YR 1975 TOTAL 4633.27 MEAN 12.7 MAX 402 MIN .62 CFSM 2.30 IN 31.22

PEAK DISCHARGE (BASE, 650 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2300	5.32	1,070	7-14	0815	7.73	2,070
12-16	1030	4.92	936	8-14	0245	4.08	690
3-19	1530	5.69	1,200	9-25	1500	5.67	1,190
7-10	1915	5.25	1,050	9-25	2145	5.67	1,190
7-13	0630	5.26	1,050	9-26	0930	8.90	2,740
7-13	2015	7.37	1,890				



## PATAPSCO RIVER BASIN

01589440 Jones Falls at Sorrento, Md.

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

DRAINAGE AREA.--25.2 mi<sup>2</sup> (65.3 km<sup>2</sup>).

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.

AVERAGE DISCHARGE.--9 years, 33.8 ft<sup>3</sup>/s (0.957 m<sup>3</sup>/s), 18.21 in/yr (463 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,280 ft<sup>3</sup>/s (92.9 m<sup>3</sup>/s) Sept. 26, gage height, 11.64 ft (3.548 m), from rating curve extended above 1,400 ft<sup>3</sup>/s (39.6 m<sup>3</sup>/s) on basis of slope-area measurement at gage height, 18.11 ft (5.520 m); minimum, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 11, 12.

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

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	61	32	30	31	40	69	82	28	26	92
2	16	14	231	27	29	30	39	44	56	24	26	31
3	15	15	36	26	28	28	47	38	49	26	25	25
4	15	15	29	26	27	27	45	197	46	27	24	23
5	15	19	27	25	34	27	41	89	145	24	28	21
6	15	20	26	25	44	27	39	61	220	23	35	27
7	14	15	26	29	39	27	38	53	37	22	28	25
8	13	15	154	28	32	28	37	43	34	21	25	23
9	14	15	47	56	31	26	36	40	31	22	24	21
10	13	15	35	31	28	27	36	39	29	53	23	20
11	12	15	32	33	28	28	36	38	29	42	22	21
12	13	27	31	29	40	38	34	40	58	28	23	33
13	13	23	29	40	35	33	33	48	132	336	25	25
14	13	18	31	32	29	84	33	39	40	562	82	21
15	14	22	29	28	28	51	39	37	36	145	26	20
16	50	18	280	27	28	36	37	46	34	98	30	20
17	23	17	63	26	31	43	36	38	32	58	28	20
18	18	17	44	45	36	33	35	37	31	48	25	24
19	16	16	37	44	32	328	37	36	29	43	25	40
20	16	19	34	56	29	98	34	34	27	43	22	24
21	15	19	32	35	28	56	33	33	26	56	22	28
22	15	17	31	33	27	51	33	43	26	37	22	26
23	15	16	29	33	46	45	32	49	25	35	22	216
24	14	17	28	33	88	69	40	36	24	34	22	272
25	14	18	28	53	56	58	103	35	24	35	20	482
26	14	19	27	43	39	44	94	34	24	33	19	1160
27	15	17	26	33	34	40	41	33	26	31	20	137
28	14	17	26	31	32	41	36	31	48	30	19	77
29	14	17	26	30	---	43	35	30	64	28	18	60
30	14	16	25	28	---	71	32	31	48	28	19	54
31	14	---	29	31	---	44	---	31	---	27	29	---
TOTAL	492	523	1589	1048	988	1612	1231	1452	1512	2047	804	3068
MEAN	15.9	17.4	51.3	33.8	35.3	52.0	41.0	46.8	50.4	66.0	25.9	102
MAX	50	27	280	56	88	328	103	197	220	562	82	1160
MIN	12	14	25	25	27	26	32	30	24	21	18	20
CFSM	.63	.69	2.04	1.34	1.40	2.06	1.63	1.86	2.00	2.62	1.03	4.05
IN.	.73	.77	2.35	1.55	1.46	2.38	1.82	2.14	2.23	3.02	1.19	4.53

CAL YR 1974	TOTAL	10256.5	MEAN	28.1	MAX	280	MIN	8.8	CFSM	1.12	IN	15.14
WTR YR 1975	TOTAL	16366.0	MEAN	44.8	MAX	1160	MIN	12	CFSM	1.78	IN	24.16

PEAK DISCHARGE (BASE, 600 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0045	6.49	707	7-14	0030	7.90	1,050
12-16	1130	6.49	707	7-14	0830	8.80	1,370
3-19	1530	7.37	929	9-26	0245	8.59	1,290
6-05	2345	7.07	818	9-26	1215	11.64	3,280

01590500 Bacon Ridge Branch at Chesterfield, Md.

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

DRAINAGE AREA.--6.92 mi<sup>2</sup> (17.92 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control.

AVERAGE DISCHARGE.--11 years (1942-52, 1975), 10.2 ft<sup>3</sup>/s (0.289 m<sup>3</sup>/s), 20.02 in/yr (509 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 305 ft<sup>3</sup>/s (8.64 m<sup>3</sup>/s) Sept. 26, gage height, 4.06 ft (1.237 m); minimum, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Aug. 30, gage height, 1.72 ft (0.524 m).

Period of record: Maximum discharge, 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) Aug. 2, 1944, gage height, 5.49 ft (1.673 m), from rating curve extended above 140 ft<sup>3</sup>/s (3.96 m<sup>3</sup>/s) by velocity-area studies; minimum, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Aug. 30, 1975, gage height, 1.72 ft (0.524 m).

REMARKS.--Records fair. Records include sewage from Crownsville State Hospital, which obtains its water supply from wells.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.0	4.4	10	8.0	6.7	8.8	16	11	4.3	4.3	17
2	4.3	4.7	2.4	6.7	7.1	6.7	8.4	12	7.3	3.6	4.0	7.3
3	4.0	4.7	1.5	6.3	6.7	6.7	9.8	9.2	6.3	3.8	3.6	5.0
4	4.0	4.7	1.0	6.3	5.8	6.3	7.5	2.4	5.4	5.0	3.3	4.3
5	4.0	5.8	9.0	5.8	10	6.3	7.1	1.7	5.8	4.0	7.6	4.0
6	4.0	5.4	8.0	6.2	13	6.7	7.1	12	15	3.3	6.3	4.3
7	4.0	4.7	8.0	11	13	6.7	6.7	12	6.3	3.3	5.0	4.3
8	4.3	4.7	2.2	7.1	8.4	6.7	6.7	8.8	5.0	3.6	4.3	4.3
9	4.3	4.7	1.2	1.2	8.4	6.3	6.7	8.4	4.7	3.6	3.6	4.0
10	4.3	4.7	1.0	7.9	7.1	6.7	6.7	7.9	4.7	5.2	3.6	3.6
11	4.3	4.7	9.0	7.5	7.9	7.9	6.7	7.5	4.3	19	3.6	3.6
12	4.3	6.1	8.0	6.7	11	11	6.7	10	11	6.7	3.6	4.2
13	4.3	8.6	7.5	1.4	8.9	1.2	6.7	18	9.0	6.6	3.6	5.1
14	4.3	6.3	8.0	9.0	7.1	20	7.1	9.2	5.8	9.4	11	4.0
15	4.7	6.3	7.5	8.5	6.7	19	1.4	7.9	5.0	2.6	6.3	3.6
16	20	5.4	4.0	8.0	7.5	9.8	10	1.2	4.3	13	4.7	3.6
17	13	5.4	1.5	7.0	7.9	1.5	7.9	8.4	4.3	10	5.4	3.6
18	6.3	5.4	1.2	1.0	8.4	9.8	7.9	7.9	4.3	7.9	4.7	5.2
19	5.4	5.4	1.0	1.2	7.5	4.3	7.9	7.5	4.3	7.1	4.0	9.7
20	5.4	6.5	9.0	1.4	6.7	4.1	7.5	7.1	4.0	6.7	3.6	5.4
21	5.0	7.6	9.0	9.5	6.3	1.6	7.1	6.3	3.3	2.5	3.6	4.7
22	5.0	5.4	8.0	9.0	6.3	1.3	6.7	6.3	3.3	8.2	3.6	4.9
23	5.0	5.4	7.5	8.5	10	1.1	6.7	6.7	3.3	6.3	3.3	2.7
24	5.0	5.4	7.5	8.0	10	1.9	7.5	6.3	3.0	5.8	3.3	5.6
25	5.0	6.1	7.5	1.2	8.0	3.0	1.2	8.0	3.0	5.4	3.3	8.8
26	5.0	7.1	6.5	9.0	7.1	1.3	2.2	8.9	1.5	5.4	3.3	1.48
27	4.7	4.8	7.0	7.5	6.7	1.0	9.2	7.1	6.4	5.0	3.0	5.9
28	4.7	4.8	7.0	7.0	6.7	9.8	8.4	6.3	5.4	4.7	2.6	2.1
29	4.7	4.8	7.0	7.0	---	9.8	1.2	5.4	4.7	6.5	2.6	1.2
30	4.6	4.8	7.0	7.0	---	1.4	9.2	5.4	4.3	4.7	2.6	9.2
31	5.0	---	9.0	9.0	---	9.8	---	6.3	---	4.3	1.7	---
TOTAL	167.2	165.4	371.0	269.5	229.0	409.7	258.7	295.8	179.5	377.4	144.3	535.9
MEAN	5.39	5.51	12.0	8.69	8.18	13.2	8.62	9.54	5.98	12.2	4.65	17.9
MAX	20	8.6	4.4	1.4	1.3	4.3	2.2	2.4	1.5	9.4	1.7	1.48
MIN	4.0	4.7	6.5	5.8	5.8	6.3	6.7	5.4	3.0	3.3	2.6	3.6
CFSM	.78	.80	1.73	1.26	1.18	1.91	1.25	1.38	.86	1.76	.67	2.59
IN.	.90	.89	1.99	1.45	1.23	2.20	1.39	1.59	.96	2.03	.78	2.88

WTR YR 1975 TOTAL 3403.4 MEAN 9.32 MAX 148 MIN 2.6 CFSM 1.35 IN 18.29

PEAK DISCHARGE (BASE, 185 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
7-13	2100	3.61	202	9-26	1500	4.06	305

NOTE.--No gage height record  
Nov. 29 to Dec. 31.

## PATUXENT RIVER BASIN

01591000 Patuxent River near Unity, Md.

LOCATION.--Lat 39°14'18", long 77°03'23", Montgomery County, on right bank at downstream side of bridge on State Highway 97, 0.6 mile (1 km) upstream from Cattail Creek, 0.8 mile (1.3 km) upstream from Triadelphia Reservoir, 1.1 miles (1.8 km) northeast of Unity, and 97 miles (155 km) upstream from mouth.

DRAINAGE AREA.--34.8 mi<sup>2</sup> (90.1 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 364.76 ft (111.179 m) above mean sea level (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, wire-weight gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 38.4 ft<sup>3</sup>/s (1.087 m<sup>3</sup>/s), 14.98 in/yr (380 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,680 ft<sup>3</sup>/s (217 m<sup>3</sup>/s) Sept. 26, gage height, 12.69 ft (3.868 m); minimum, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Oct. 11, 12, 13, gage height, 2.14 ft (0.652 m).  
Period of record: Maximum discharge, 21,800 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) Sept. 11, 1971, gage height, 18.60 ft (5.669 m), from rating curve extended above 870 ft<sup>3</sup>/s (24.6 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 13.58 ft (4.139 m); minimum, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Sept. 10, 11, 12, 1966, gage height, 1.66 ft (0.506 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1111: 1947. WSP 1432: 1948.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	101	28	45	50	61	97	62	24	19	80
2	12	13	653	19	40	47	57	68	50	22	19	28
3	12	13	84	16	36	44	63	57	38	22	18	21
4	12	14	44	17	34	41	53	216	34	25	17	19
5	12	17	33	15	41	41	49	103	37	22	24	17
6	12	20	28	15	49	41	48	106	48	21	20	21
7	12	14	25	17	54	42	46	97	35	20	18	23
8	11	14	191	17	43	41	45	73	33	20	16	19
9	11	13	71	62	41	36	43	65	32	21	15	17
10	11	13	41	30	35	37	42	61	32	46	15	15
11	11	13	30	31	35	40	41	56	30	68	14	16
12	11	26	27	26	51	59	40	67	47	29	15	19
13	11	28	23	32	44	59	38	92	73	57	18	21
14	11	17	22	27	35	156	37	61	36	136	120	16
15	12	26	18	22	33	126	46	55	32	65	23	15
16	24	19	242	22	35	83	42	70	29	49	32	15
17	17	16	82	19	42	99	38	55	28	38	28	16
18	13	16	47	27	60	76	38	52	27	33	21	19
19	13	15	36	41	53	289	39	50	25	30	18	28
20	12	17	30	82	44	172	36	46	23	32	17	20
21	12	20	27	39	39	105	33	43	22	65	16	20
22	12	16	26	33	37	91	32	49	22	31	16	20
23	13	15	22	30	57	82	32	99	21	27	16	124
24	13	15	21	33	83	86	41	61	21	26	16	570
25	13	15	20	126	87	87	100	52	21	29	16	737
26	13	17	18	109	61	66	139	50	28	26	15	2600
27	13	15	17	63	55	59	64	46	26	23	19	243
28	13	15	17	54	51	58	54	41	30	23	14	135
29	13	14	16	49	---	61	64	37	34	22	13	101
30	13	14	16	43	---	104	54	37	33	20	13	85
31	13	---	18	46	---	71	---	36	---	20	25	---
TOTAL	393	493	2046	1190	1320	2449	1515	2098	1009	1092	666	5080
MEAN	12.7	16.4	66.0	38.4	47.1	79.0	50.5	67.7	33.6	35.2	21.5	169
MAX	24	28	653	126	87	289	139	216	73	136	120	2600
MIN	11	13	16	15	33	36	32	36	21	20	13	15
CFSM	.36	.47	1.90	1.10	1.35	2.27	1.45	1.95	.97	1.01	.62	4.86
IN.	.42	.53	2.19	1.27	1.41	2.62	1.62	2.24	1.08	1.17	.71	5.43

CAL YR 1974 TOTAL 12763.1 MEAN 35.0 MAX 653 MIN 8.3 CFSM 1.01 IN 13.64  
WTR YR 1975 TOTAL 19351.0 MEAN 53.0 MAX 2600 MIN 11 CFSM 1.52 IN 20.69

PEAK DISCHARGE (BASE, 770 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0500	7.73	1,960	9-26	0930	12.69	7,680
9-24	1500	7.59	1,860				

01592500 Patuxent River near Laurel, Md.

LOCATION.--Lat 39°06'56", long 76°52'27", Prince Georges County, on right bank at Rocky Gorge Pumping station, 600 ft (180 m) downstream from T. Howard Duckett Reservoir, 0.7 mile (1.1 km) upstream from Walker Branch, 1.3 miles (2.1 km) northwest of Laurel, and 81 miles (130 km) upstream from mouth.

DRAINAGE AREA.--132 mi<sup>2</sup> (342 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 153.5 ft (46.79 m) above mean sea level, levels by Washington Suburban Sanitary Commission. Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mile (0.5 km) downstream at different datum. Oct. 1, 1955, to Sept. 30, 1956, non-recording 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.

EXTREMES.--Current year: Maximum discharge, 17,000 ft<sup>3</sup>/s (481 m<sup>3</sup>/s) Sept. 26, gage height, 19.84 ft (6.047 m); minimum daily, 9.6 ft<sup>3</sup>/s (0.27 m<sup>3</sup>/s) Oct. 21-23.

Period of record: Maximum discharge, about 26,000 ft<sup>3</sup>/s (736 m<sup>3</sup>/s) June 22, 1972, gage height, about 25 ft (7.6 m), from floodmarks, from rating curve extended above 6,600 ft<sup>3</sup>/s (187 m<sup>3</sup>/s) on basis on contracted-opening measurement of peak flow; minimum, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 25, 1964, (valve closed for repair); minimum daily, 1.1 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) June 26, 1956.

REMARKS.--Records good. 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 mil gal (47.3i hm<sup>3</sup>); dead storage, 80 mil gal (302,800 m<sup>3</sup>).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	16	16	22	116	116	158	260	111	15	16	122
2	85	16	62	24	116	116	208	332	111	15	16	180
3	44	16	33	18	116	93	411	332	94	15	16	82
4	14	17	14	17	116	112	329	332	33	15	16	63
5	14	17	14	17	116	53	180	332	16	15	16	46
6	14	17	14	18	53	18	180	332	16	15	16	17
7	13	17	14	18	15	18	82	332	16	15	16	17
8	13	16	14	41	15	17	16	165	16	15	16	18
9	13	15	14	63	15	17	76	76	16	15	16	18
10	12	15	14	66	15	17	116	76	16	15	16	17
11	12	16	14	66	76	17	114	76	44	15	16	18
12	12	15	14	66	116	48	76	207	65	15	16	18
13	11	15	14	66	116	87	76	319	65	161	16	17
14	11	16	14	66	116	195	59	360	55	529	16	17
15	11	15	14	66	116	419	16	199	65	270	16	17
16	11	15	14	66	116	419	16	111	65	563	16	17
17	11	16	14	66	116	307	48	111	65	595	16	17
18	11	15	14	66	116	261	65	111	65	689	16	16
19	11	16	14	66	82	436	65	111	65	106	16	15
20	11	16	14	66	116	457	65	111	65	84	16	15
21	9.6	15	14	64	116	515	65	111	65	140	17	15
22	9.6	15	14	89	116	512	65	51	47	208	16	15
23	9.6	15	14	116	116	512	95	18	15	116	16	430
24	13	15	14	141	116	512	170	18	15	65	16	179
25	17	15	14	232	199	487	208	20	15	33	16	1380
26	17	15	14	229	259	116	208	84	15	16	16	10000
27	17	15	21	231	259	115	208	111	15	16	16	1620
28	16	15	27	131	205	116	208	99	16	16	16	181
29	15	16	27	116	---	117	208	101	15	16	16	215
30	15	16	26	116	---	117	202	111	15	16	16	215
31	16	---	22	116	---	117	---	111	---	16	16	---
TOTAL	574.8	469	556	2545	3165	6459	3993	5120	1307	3835	497	14997
MEAN	18.5	15.6	17.9	82.1	113	208	133	165	43.6	124	16.0	500
MAX	86	17	62	232	259	515	411	360	111	689	17	10000
MIN	9.6	15	14	17	15	17	16	18	15	15	16	15
(#)	8150	8130	11420	11860	11860	12120	11960	11900	11800	11700	11360	12060
(#)	77.2	48.5	73.2	74.1	62.0	68.9	61.6	76.0	83.7	89.7	88.8	87.2
CAL YR 1974	TOTAL	22032.8	MEAN	60.4	MAX	700	MIN	9.6	(#)	75.5		
WTR YR 1975	TOTAL	43517.8	MEAN	119	MAX	10000	MIN	9.6	(#)	74.4		

# Combined month-end total contents, in million of gallons, in Triadelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1974: 9,070 million gallons); furnished by Washington Suburban Sanitary Commission.

# Diversion, 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, on left bank 75 ft (23 m) upstream from bridge on State Highway 32, 1 mile (1.6 km) west of Guilford, 3 miles (4.8 km) upstream from Middle Patuxent River, 4 miles (6.4 km) north of Laurel, and 20.1 miles (32.3 km) upstream from mouth.

DRAINAGE AREA.--38.0 mi<sup>2</sup> (98.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Altitude of gage is 260 ft (79.2 m), from topographic map. Prior to June 25, 1946, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 42.0 ft<sup>3</sup>/s (1.189 m<sup>3</sup>/s), 15.01 in/yr (381 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,370 ft<sup>3</sup>/s (152 m<sup>3</sup>/s) Sept. 26, gage height, 13.39 ft (4.081 m); minimum, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Oct. 13, gage height, 2.62 ft (0.799 m).  
Period of record: Maximum discharge, 12,400 ft<sup>3</sup>/s (351 m<sup>3</sup>/s) June 22, 1972, gage height, 18.38 ft (5.602 m), from high-water mark in well, from rating curve extended above 1,800 ft<sup>3</sup>/s (51.0 m<sup>3</sup>/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.

REMARKS.--Records good. Low flow affected by regulation from unknown source.

REVISIONS (WATER YEARS).--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	12	104	46	40	35	51	132	47	22	20	314
2	13	12	670	26	36	32	45	73	47	21	19	69
3	12	13	74	23	32	30	69	53	28	24	19	34
4	11	13	34	23	30	28	53	335	25	26	18	27
5	12	25	25	21	48	28	40	110	31	21	143	24
6	12	45	23	21	98	30	37	90	96	18	56	25
7	12	17	22	31	98	32	35	96	38	17	30	24
8	11	14	359	26	44	33	35	59	27	16	22	22
9	12	13	78	97	41	27	33	51	25	17	20	21
10	12	13	36	38	34	30	33	48	23	27	19	19
11	12	13	26	39	33	33	33	42	24	66	19	19
12	12	44	25	30	83	60	32	45	61	22	18	39
13	1	40	23	64	62	60	31	79	103	473	19	36
14	11	20	31	49	37	242	31	45	36	1010	336	21
15	14	28	24	30	32	118	58	38	26	129	55	20
16	74	19	516	27	33	54	44	59	24	125	46	20
17	31	17	115	25	38	99	36	39	23	59	44	20
18	17	16	46	58	54	57	35	36	22	45	30	29
19	14	15	33	79	42	515	44	35	21	37	24	69
20	14	18	30	133	35	330	41	32	21	46	22	30
21	13	21	26	52	31	79	31	30	19	125	20	23
22	12	16	27	38	30	64	28	50	18	43	20	25
23	12	14	27	36	75	59	30	105	18	32	20	350
24	12	14	25	38	182	105	38	76	18	28	19	500
25	12	15	24	97	115	105	124	78	22	30	19	747
26	12	19	22	84	52	62	181	42	42	28	18	3370
27	12	14	22	44	40	48	54	36	23	24	20	282
28	12	14	22	36	36	45	42	30	26	24	16	101
29	12	14	21	33	---	53	69	26	62	23	16	80
30	12	13	21	31	---	123	48	27	48	21	16	70
31	12	---	31	41	---	66	---	27	---	20	99	---
TOTAL	464	561	2562	1416	1511	2682	1461	2024	1044	2619	1262	6430
MEAN	15.0	18.7	82.6	45.7	54.0	86.5	48.7	65.3	34.8	84.5	40.7	214
MAX	74	45	670	133	182	515	181	335	103	1010	336	3370
MIN	11	12	21	21	30	27	28	26	18	16	16	19
CFSM	.39	.49	2.17	1.20	1.42	2.28	1.28	1.72	.92	2.22	1.07	5.63
IN.	.45	.55	2.51	1.39	1.48	2.63	1.43	1.98	1.02	2.56	1.24	6.29

CAL YR 1974 TOTAL 14367.7 MEAN 39.4 MAX 670 MIN 8.5 CFSM 1.04 IN 14.06  
WTR YR 1975 TOTAL 24036.0 MEAN 65.9 MAX 3370 MIN 11 CFSM 1.73 IN 23.53

PEAK DISCHARGE (BASE, 800 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0300	8.93	1,220	7-14	1100	9.72	1,640
12-16	1500	8.02	949	9-26	1030	13.39	5,370
3-19	1830	9.07	1,290				

## PATUXENT RIVER BASIN

81

01594600 Cocktown Creek near Huntington, Md.

LOCATION.--Lat 38°38'27", long 76°38'07", Calvert County, on right bank at downstream side of bridge 2 miles (3.2 km) northwest of Huntington, 2.8 miles (4.5 km) southeast of Lower Marlboro, and 3.5 miles (5.6 km) upstream from mouth.

DRAINAGE AREA.--3.85 mi<sup>2</sup> (9.97 km<sup>2</sup>).

PERIOD OF RECORD.--December 1956 to current year.

GAGE.--Water-stage recorder. Altitude is 40 ft (12 m), from topographic map.

AVERAGE DISCHARGE.--18 years (1957-75), 4.14 ft<sup>3</sup>/s (0.117 m<sup>3</sup>/s), 14.60 in/yr (371 mm/yr).

EXTREMES.--Water year 1974: Maximum discharge, 113 ft<sup>3</sup>/s (3.20 m<sup>3</sup>/s) Aug. 9, gage height, 4.21 ft (1.28 m); minimum daily, 0.25 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Oct. 1.

Water year 1975: Maximum discharge, 218 ft<sup>3</sup>/s (6.17 m<sup>3</sup>/s) Sept. 25, gage height, 5.72 ft (1.74 m); minimum daily, 1.1 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) Oct. 15.

Period of record: Maximum discharge, 1,120 ft<sup>3</sup>/s (31.7 m<sup>3</sup>/s) June 14, 1960, gage height, 7.96 ft (2.426 m), from rating curve extended above 150 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; no flow many days in July and August 1957, September 1963, July, August, and September 1964.

REMARKS.--Records poor.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.80	.88	8.7	3.1	3.0	7.8	2.4	2.6	1.7	.70	1.1
2	1.8	.70	.80	5.4	3.3	3.3	7.4	2.4	9.0	1.4	1.2	1.0
3	1.1	.70	.88	5.4	3.5	3.1	6.7	10	5.0	1.2	2.0	13
4	.66	.70	.88	5.9	3.4	3.0	6.5	6.0	3.6	1.1	.90	11
5	.48	2.4	1.5	5.2	3.1	3.0	8.5	5.0	2.6	.94	.80	5.8
6	.30	1.8	2.0	5.1	3.2	2.9	6.5	5.0	2.4	.89	.80	7.1
7	.30	1.4	.96	5.1	4.6	3.2	6.1	4.2	2.2	.94	3.9	13
8	.30	1.3	.96	4.4	3.8	3.2	9.1	3.4	2.7	.83	1.2	6.6
9	.30	3.3	22	6.1	3.6	3.0	29	4.7	2.3	.85	16	4.0
10	.30	1.9	3.2	5.2	4.1	3.0	8.0	3.9	1.7	.75	3.9	3.4
11	.30	1.5	2.0	5.6	3.2	2.9	7.0	3.4	1.4	.80	3.0	3.8
12	.30	1.5	1.7	4.4	3.5	3.8	6.0	10	1.4	.60	2.9	3.2
13	.30	1.5	2.7	3.9	3.9	3.1	6.0	6.3	1.2	.50	3.1	2.2
14	.30	1.7	3.0	3.7	3.5	3.0	5.5	5.1	1.2	.50	2.0	1.9
15	.30	1.7	1.9	3.9	3.3	3.0	5.0	4.0	1.2	.50	1.6	1.7
16	.30	1.5	1.9	3.7	3.4	7.4	4.6	3.0	1.2	.50	1.5	1.6
17	.30	1.4	2.3	3.5	3.6	5.1	4.2	2.6	1.2	.50	2.4	1.5
18	.30	1.3	1.7	3.4	3.2	3.5	4.0	2.2	.94	.45	2.1	1.5
19	.30	1.7	1.4	3.4	3.3	3.3	4.0	2.2	.89	.45	1.5	1.4
20	.43	1.4	5.8	3.0	3.3	3.3	3.6	2.2	.83	.45	1.2	1.4
21	.38	1.4	35	4.7	3.1	12	3.6	2.0	1.1	.45	1.2	1.9
22	.43	1.4	7.2	3.6	4.1	5.4	3.8	1.8	1.6	.45	1.2	1.8
23	.54	1.2	5.9	3.4	3.2	4.4	5.0	2.0	3.5	.45	1.1	1.6
24	.54	1.2	5.4	3.3	3.1	4.2	4.0	2.0	1.8	.45	1.1	1.5
25	.43	1.2	5.1	4.2	3.1	3.7	3.6	1.8	1.4	.45	1.1	1.5
26	.54	1.1	5.1	3.8	3.0	3.7	3.4	1.6	1.4	.45	1.5	1.4
27	.54	1.2	5.1	3.8	2.9	3.6	3.2	2.6	2.0	1.0	1.1	1.4
28	.54	1.8	4.7	3.8	3.0	3.5	3.2	2.6	2.8	.70	1.0	5.6
29	3.0	1.4	4.6	3.9	---	5.2	3.4	2.0	2.2	.60	1.0	6.1
30	1.3	.96	4.6	3.4	---	30	2.6	3.4	1.7	1.6	1.9	4.4
31	.88	---	5.9	3.4	---	12	---	3.0	---	.80	1.2	---
TOTAL	18.04	43.06	147.06	136.3	95.4	156.8	181.1	112.8	65.06	23.25	66.10	113.4
MEAN	.58	1.44	4.74	4.40	3.41	5.06	6.04	3.64	2.17	.75	2.13	3.78
MAX	3.0	3.3	35	8.7	4.6	30	29	10	9.0	1.7	16	13
MIN	.25	.70	.80	3.0	2.9	2.9	2.6	1.6	.83	.45	.70	1.0
CFSM	.15	.37	1.23	1.14	.89	1.31	1.57	.95	.56	.19	.55	.98
IN	.17	.42	1.42	1.32	.92	1.51	1.75	1.09	.63	.22	.64	1.10

CAL YR 1973 TOTAL 1397.09 MEAN 3.83 MAX 35 MIN .15 CFSM .99 IN 13.50  
WTR YR 1974 TOTAL 1158.37 MEAN 3.17 MAX 35 MIN .25 CFSM .82 IN 11.19

PEAK DISCHARGE (BASE, 60 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-09	0700	2.97	64	4-09	0115	3.86	97
12-21	0700	3.86	97	8-09	1515	4.21	113
3-30	1700	4.06	106				

NOTE.--Fragmentary or no gage-height record July 3 to Aug. 7.

## PATUXENT RIVER BASIN

01594600 Cocktown Creek near Huntington, Md.--Continued

## DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.6	8.0	3.7	5.1	5.5	9.0	18	6.8	1.5	1.5	2.2
2	1.4	1.5	5.1	3.0	5.0	5.0	9.0	10	3.7	1.5	1.5	1.8
3	1.3	1.5	2.2	3.1	4.7	5.0	14	8.0	6.5	1.5	1.5	1.5
4	1.3	1.5	2.0	3.2	4.7	4.8	10	19	3.8	1.5	1.5	1.5
5	1.8	1.5	1.9	2.8	9.8	4.8	8.0	8.0	3.3	2.0	1.5	1.5
6	1.2	1.5	1.8	3.9	8.0	4.8	7.0	12	6.1	2.0	3.5	1.3
7	1.2	1.5	1.8	5.6	6.3	5.0	7.0	8.0	3.1	2.0	2.5	1.3
8	1.2	1.5	12	3.7	5.4	4.8	6.0	7.0	2.4	1.5	2.0	1.4
9	1.2	1.5	4.6	7.5	5.2	4.8	6.0	6.0	2.4	1.3	2.0	1.2
10	1.2	1.5	3.4	4.1	4.7	4.8	6.0	5.5	2.2	5.0	2.0	1.2
11	1.2	1.5	3.0	4.0	4.9	4.8	6.0	5.5	2.2	4.4	2.0	2.1
12	1.2	2.4	2.6	3.6	7.9	10	5.0	5.5	7.9	2.6	2.0	1.8
13	1.2	2.6	2.4	10	5.7	8.6	5.0	12	4.0	32	2.0	1.6
14	1.2	1.8	2.4	6.0	4.9	22	5.0	7.0	2.8	41	2.0	1.5
15	1.1	1.5	2.4	4.5	4.8	11	13	5.5	2.0	9.7	2.0	1.4
16	3.5	1.5	21	4.4	4.8	9.1	8.0	5.5	2.0	15	19	1.5
17	2.0	1.5	5.5	3.9	4.9	16	7.0	5.5	2.0	9.8	6.1	1.5
18	1.5	1.5	4.0	6.5	5.0	10	7.0	5.5	2.0	6.0	3.6	3.4
19	1.5	1.5	3.7	7.5	4.6	33	7.0	5.5	1.5	4.0	3.0	2.3
20	1.4	1.5	3.4	11	4.3	16	9.0	5.5	1.5	3.0	2.0	1.6
21	1.4	1.8	3.4	6.5	4.1	13	6.0	5.1	1.5	2.0	1.5	1.4
22	1.4	1.5	3.3	6.0	4.0	11	6.0	4.7	1.5	2.0	1.5	1.7
23	1.4	1.5	3.3	5.7	5.1	10	6.0	4.7	1.5	2.0	1.5	33
24	1.4	1.5	3.2	5.8	16	12	6.0	4.5	1.5	2.0	1.2	33
25	1.6	1.6	3.2	8.2	9.8	9.0	18	4.6	1.5	2.0	1.2	56
26	1.4	2.6	3.1	6.3	7.0	7.0	10	4.4	6.6	2.0	1.2	25
27	1.4	1.5	3.3	5.2	6.0	7.0	8.0	4.0	2.2	1.5	1.2	12
28	1.4	1.5	3.3	5.1	5.5	7.0	7.0	3.6	2.6	1.5	1.2	9.0
29	1.4	1.5	3.2	5.1	---	7.0	7.0	3.2	2.0	1.5	1.2	7.7
30	1.4	1.5	3.1	4.6	---	12	7.0	4.7	2.0	1.5	1.2	7.0
31	1.7	---	3.6	5.1	---	10	---	3.8	---	1.5	4.0	---
TOTAL	45.3	48.9	129.2	165.6	168.2	294.8	235.0	211.8	91.1	166.8	80.1	219.4
MEAN	1.46	1.63	4.17	5.34	6.01	9.51	7.83	6.83	3.04	5.38	2.58	7.31
MAX	3.5	2.6	21	11	16	33	18	19	7.9	41	19	56
MIN	1.1	1.5	1.8	2.8	4.0	4.8	5.0	3.2	1.5	1.3	1.2	1.2
CFSM	.38	.42	1.08	1.39	1.56	2.47	2.03	1.77	.79	1.40	.67	1.90
IN.	.44	.47	1.25	1.60	1.62	2.85	2.27	2.05	.88	1.61	.77	2.12
CAL YR 1974	TOTAL	1173.61	MEAN	3.22	MAX	30	MIN	.45	CFSM	.84	IN	11.34
WTR YR 1975	TOTAL	1856.20	MEAN	5.09	MAX	56	MIN	1.1	CFSM	1.32	IN	17.93

PEAK DISCHARGE (BASE, 60 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1145	3.62	87	8-16	1930	4.57	131
2-24	1645	2.97	64	9-23	1530	3.10	68
3-19	1545	4.30	117	9-23	2315	3.93	100
4-25	1800	3.01	65	9-24	1845	4.88	150
7-13	0745	3.26	74	9-25	1600	5.72	218
7-14	0115	5.34	183	9-25	2200	3.80	94

Note.--Fragmentary or no gage-height record Mar. 22 to May 20.

## POTOMAC RIVER BASIN

83

01595000 North Branch Potomac River at Steyer, Md.

LOCATION.--Lat 39°18'07", long 79°18'26", Garrett County, on left bank 0.3 mi (0.5 km) southeast of Steyer, 0.4 mi (0.6 km) downstream from Steyer Run, 2.0 mi (3.2 km) northeast of Gorman, and at mile 81.8 (131.6 km).

DRAINAGE AREA.--73.0 mi<sup>2</sup> (189.1 km<sup>2</sup>).

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft (693.728 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 172 ft<sup>3</sup>/s (4.871 m<sup>3</sup>/s), 32.00 in/yr (813 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,250 ft<sup>3</sup>/s (92.0 m<sup>3</sup>/s) Dec. 25, gage height, 6.93 ft (2.112 m); minimum, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Aug. 2, 3, 4, 5, gage height, 2.19 ft (0.668 m).

Period of record: Maximum discharge, 6,240 ft<sup>3</sup>/s (177 m<sup>3</sup>/s) Mar. 5, 1963, gage height, 9.13 ft (2.783 m), from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s); minimum, 2.9 ft<sup>3</sup>/s (0.082 m<sup>3</sup>/s) Sept. 10, 1965, gage height, 2.03 ft (0.619 m).

Flood of Oct. 15, 1954, reached a stage of 13.0 ft (3.96 m), from floodmarks.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	33	92	2,000	610	165	200	414	142	30	11	176
2	23	34	207	821	437	138	176	373	131	26	11	179
3	24	33	180	525	316	114	243	280	114	26	10	111
4	24	31	148	432	244	104	222	815	106	51	10	85
5	24	34	89	310	244	99	187	482	85	43	14	72
6	23	42	117	240	752	107	168	377	119	48	55	79
7	23	33	139	208	448	391	156	386	92	64	26	83
8	23	33	455	177	272	623	154	264	74	67	15	63
9	23	30	396	250	229	301	163	222	66	38	12	52
10	22	28	267	197	182	237	154	204	58	38	11	44
11	22	28	231	188	183	199	139	167	66	44	14	43
12	21	70	203	162	482	344	122	160	273	35	21	52
13	21	97	207	149	318	424	106	197	213	83	16	58
14	20	76	193	117	187	339	101	167	122	48	593	44
15	21	84	173	131	191	256	101	164	97	41	577	37
16	150	70	256	129	212	238	99	264	93	37	1,290	36
17	170	64	264	151	329	305	85	200	75	31	634	36
18	120	58	211	187	517	291	78	222	65	30	313	51
19	85	63	197	233	602	588	142	249	59	37	191	77
20	64	92	200	210	420	769	151	189	58	25	137	52
21	52	123	170	167	301	449	112	151	50	65	108	61
22	46	105	160	160	237	376	106	128	45	36	91	53
23	43	99	148	123	376	347	99	148	49	24	359	377
24	40	152	371	127	456	349	492	164	40	23	178	271
25	41	304	1,900	513	360	311	1,360	120	37	35	121	173
26	42	224	854	589	267	241	1,010	136	34	25	109	180
27	37	168	523	331	220	191	510	160	73	19	142	133
28	34	141	583	259	186	171	365	148	81	15	87	106
29	32	117	494	1,180	-----	192	786	112	49	13	74	86
30	30	98	677	988	-----	286	484	120	40	12	71	76
31	32	-----	674	799	-----	224	-----	125	-----	13	94	-----
TOTAL	1,354	2,564	10,779	12,053	9,578	9,169	8,271	7,308	2,606	1,122	5,395	2,946
MEAN	43.7	85.5	348	389	342	296	276	236	86.9	36.2	174	98.2
MAX	170	304	1,900	2,000	752	769	1,360	815	273	83	1,290	377
MIN	20	28	89	117	182	99	78	112	34	12	10	36
CFSM	.60	1.17	4.77	5.33	4.68	4.05	3.78	3.23	1.19	.50	2.38	1.35
IN.	.69	1.31	5.49	6.14	4.88	4.67	4.21	3.72	1.33	.57	2.75	1.50

CAL YR 1974 TOTAL 75,755 MEAN 208 MAX 2,600 MIN 14 CFSM 2.85 IN 38.60  
WTR YR 1975 TOTAL 73,145 MEAN 200 MAX 2,000 MIN 10 CFSM 2.74 IN 37.27

PEAK DISCHARGE (BASE, 2,200 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1230	6.93	3,250	1-29	2000	5.99	2,220
1-01	0715	6.70	2,980				

NOTE.--No gage-height record  
Oct. 4 to Nov. 7.



## POTOMAC RIVER BASIN

01595200 Stony River near Mt. Storm, W. Va.

LOCATION.--Lat 39°16'10", long 79°15'45", Grant County, on left bank 100 ft (30 m) downstream from highway bridge on U. S. Highway 50, 1.0 mile (1.6 km) west of Mt. Storm, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--48.8 mi<sup>2</sup> (126.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft (778.624 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 97.4 ft<sup>3</sup>/s (2.758 m<sup>3</sup>/s), 27.10 in/yr (688 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 1,390 ft<sup>3</sup>/s (39.4 m<sup>3</sup>/s) Aug. 16, gage height, 6.21 ft (1.893 m), from rating curve extended above 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); minimum, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 12, 13; minimum gage height, 2.94 ft (0.896 m) July 3; minimum daily discharge, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 12, 13. Period of record: Maximum discharge, 3,120 ft<sup>3</sup>/s (88.4 m<sup>3</sup>/s) Mar. 19, 1963, from rating curve extended above 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); maximum gage height, 8.41 ft (2.563 m) Mar. 5, 1963, ice jam; minimum discharge, 1.8 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s) July 13, 1968, gage height, 1.98 ft (0.604 m).

REMARKS.--Records good. Flow regulated by Stony River Reservoir, 14.0 mi (22.5 km) upstream from station, capacity, 1,948,000,000 gal (7.373 hm<sup>3</sup>), of which 1,681,000,000 gal (6.363 hm<sup>3</sup>) 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.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	24	19	779	556	139	136	266	94	14	17	94
2	14	22	39	633	600	128	123	246	79	14	16	113
3	14	20	38	520	475	125	130	230	72	14	20	92
4	14	20	34	450	396	116	125	409	67	22	35	82
5	14	20	30	369	360	106	111	298	62	16	32	75
6	14	19	26	315	246	104	102	282	65	15	47	75
7	14	18	25	223	174	142	96	716	55	14	37	73
8	14	16	128	171	164	136	94	199	48	14	31	68
9	14	15	133	192	157	92	92	151	41	14	27	65
10	14	15	113	171	151	88	92	160	38	15	24	62
11	14	15	106	171	154	86	94	154	38	17	22	58
12	12	32	106	160	246	139	84	154	65	15	21	58
13	12	28	111	151	202	164	77	164	52	21	18	53
14	14	23	106	142	170	164	75	154	39	20	242	49
15	17	23	104	133	154	157	77	145	35	22	270	44
16	70	20	133	123	157	164	73	157	32	27	535	37
17	53	20	128	108	209	188	68	142	28	32	234	34
18	47	19	111	49	258	199	65	148	21	80	171	38
19	48	19	106	65	274	639	73	148	19	54	142	56
20	47	22	100	67	213	650	73	136	18	40	128	44
21	40	27	94	63	178	500	65	125	17	46	116	39
22	33	24	90	59	154	436	61	118	17	40	102	49
23	26	23	88	55	188	395	61	111	17	57	188	188
24	24	35	185	58	223	391	128	106	17	58	133	199
25	22	48	510	195	202	350	319	113	17	39	113	195
26	21	37	308	178	174	246	274	108	17	34	102	223
27	19	32	292	160	154	142	206	100	25	30	100	195
28	17	28	331	209	145	139	188	92	20	25	90	167
29	18	25	328	473	---	145	324	84	16	22	79	145
30	21	22	387	400	---	171	266	79	15	20	70	123
31	25	---	392	422	---	151	---	86	---	19	73	---
TOTAL	740	711	4701	7264	6734	6792	3752	5581	1146	870	3235	2793
MEAN	23.9	23.7	152	234	241	219	125	180	38.2	28.1	104	93.1
MAX	70	48	510	779	600	650	324	716	94	80	535	223
MIN	12	15	19	49	145	86	61	79	15	14	16	34
(f)	966	1159	1175	1399	1208	1122	1399	1175	1192	1149	1241	1241

CAL YR 1974 TOTAL 36439.9 MEAN 99.8 MAX 1170 MIN 9.5 CFSM 2.05 IN 27.77  
WTR YR 1975 TOTAL 44319.0 MEAN 121 MAX 779 MIN 12 CFSM 2.48 IN 33.78

f Month-end contents, in millions of gallons, in Stony River Reservoir, furnished by West Virginia Pulp and Paper Co.

01595500 North Branch Potomac River at Kitzmiller, Md.

LOCATION.--Lat 39°23'38", long 79°10'55", Garrett County, on left bank 0.6 mi (1.0 km) downstream from bridge on State Highway 38 in Kitzmiller, 1.5 mi (2.4 km) downstream from Wolfden Run, and at mile 68.9 (110.9 km).

DRAINAGE AREA.--225 mi<sup>2</sup> (583 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 1,572.26 ft (479.225 m) above mean sea level. 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.

AVERAGE DISCHARGE.--26 years, 447 ft<sup>3</sup>/s (12.66 m<sup>3</sup>/s), 26.98 in/yr (685 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 7,130 ft<sup>3</sup>/s (202 m<sup>3</sup>/s) Jan. 1, gage height, 7.86 ft (2.396 m); minimum, 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) Aug. 2, 3, gage height, 2.51 ft (0.765 m).  
Period of record: Maximum discharge, 33,400 ft<sup>3</sup>/s (946 m<sup>3</sup>/s) Oct. 15, 1954, gage height, 13.73 ft (4.185 m), from floodmarks, present site and datum; minimum, 4.6 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Oct. 3-7, 1953.

REMARKS.--Records good except ice affected days, which are fair. Regulation at low flow by Stony River Reservoir, 30 mi (48.3 km) above station (see station 01595200). Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	73	125	4,410	1,750	633	633	1,280	348	74	48	616
2	47	75	195	2,310	1,540	562	558	1,150	310	64	43	671
3	50	70	235	1,700	1,230	480	634	960	277	66	45	440
4	48	65	190	1,480	1,020	440	636	2,210	259	252	125	318
5	47	68	180	1,160	936	370	568	1,520	220	168	80	267
6	46	87	195	959	1,590	360	514	1,220	261	104	190	255
7	45	78	205	800	1,190	640	478	1,510	238	129	128	268
8	45	72	540	647	840	1,320	465	987	197	127	88	217
9	45	66	971	803	740	700	478	729	177	93	70	186
10	45	63	605	696	560	620	458	717	153	86	63	165
11	44	62	522	666	580	573	426	618	155	100	64	155
12	43	124	501	623	1,040	743	393	577	491	83	78	164
13	43	210	542	577	967	1,070	346	629	455	158	67	168
14	42	154	515	460	706	900	318	582	271	120	855	138
15	44	150	476	400	630	758	330	540	219	104	1,090	120
16	296	132	613	370	633	691	320	770	201	99	2,720	112
17	328	121	738	320	885	874	283	610	171	101	1,320	105
18	184	112	593	310	1,490	968	268	598	143	131	778	157
19	148	112	538	567	1,730	2,380	339	656	127	256	532	298
20	130	132	567	582	1,280	2,560	410	533	118	122	408	188
21	116	196	492	411	993	1,670	320	461	102	149	340	184
22	102	176	464	380	838	1,370	292	403	91	133	283	152
23	90	158	429	370	1,180	1,270	283	369	87	101	1,430	964
24	83	209	795	340	1,490	1,200	697	475	80	180	777	1,010
25	82	406	3,850	946	1,250	1,140	2,440	350	70	157	468	745
26	84	364	2,000	1,530	969	916	2,370	389	66	120	326	925
27	79	262	1,400	936	807	679	1,300	396	146	88	375	661
28	71	242	1,580	840	694	630	1,030	367	243	73	254	529
29	66	203	1,430	2,380	-----	640	1,830	295	119	61	211	428
30	67	160	1,800	2,460	-----	799	1,380	297	93	54	195	362
31	70	-----	1,740	1,880	-----	696	-----	310	-----	51	326	-----
TOTAL	2,677	4,402	25,026	32,313	29,558	28,652	20,797	22,508	5,888	3,604	13,777	10,968
MEAN	86.4	147	807	1,042	1,056	924	693	726	196	116	444	366
MAX	328	406	3,850	4,410	1,750	2,560	2,440	2,210	491	256	2,720	1,010
MIN	42	62	125	310	560	360	268	295	66	51	43	105

CAL YR 1974 TOTAL 176,074 MEAN 482 MAX 5,150 MIN 40 CFSM 2.14 IN 29.10  
WTR YR 1975 TOTAL 200,170 MEAN 548 MAX 4,410 MIN 42 CFSM 2.44 IN 33.09

PEAK DISCHARGE (BASE, 3,400 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1400	7.76	6,660	4-25	2145	7.10	4,340
1-01	0830	7.86	7,130	8-16	0415	7.31	4,950
1-29	2145	7.26	4,800	8-23	1245	6.90	3,820
3-19	1330	6.80	3,580				

## POTOMAC RIVER BASIN

01595800 North Branch Potomac River at Barnum, W. Va.

LOCATION.--Lat 39°26'44", long 79°06'39", Garrett County, Md., on left bank at 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.

DRAINAGE AREA.--266 mi<sup>2</sup> (689 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,152.37 ft (351.242 m) above mean sea level, adjustment of 1944.

AVERAGE DISCHARGE.--9 years, 538 ft<sup>3</sup>/s (15.24 m<sup>3</sup>/s), 27.47 in/yr (698 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,720 ft<sup>3</sup>/s (190 m<sup>3</sup>/s) Jan. 1, gage height, 8.02 ft (2.444 m); minimum, 43 ft<sup>3</sup>/s (1.22 m<sup>3</sup>/s) Aug. 3, gage height, 2.33 ft (0.710 m).  
Period of record: Maximum discharge, 12,800 ft<sup>3</sup>/s (362 m<sup>3</sup>/s) Dec. 8, 1972, gage height, 9.86 ft (3.005 m); minimum, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Oct. 2, 3, 1968, gage height, 1.69 ft (0.515 m).

REMARKS.--Records fair. Regulation at low flow by Stony River Reservoir, 39 mi (63 km) above station (see station 01595200). Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	74	145	4,600	1,910	693	680	1,400	394	88	54	774
2	53	76	140	2,600	1,630	617	640	1,280	360	72	49	812
3	55	72	250	1,900	1,270	553	700	1,060	324	70	55	530
4	54	68	220	1,550	1,050	490	720	2,580	299	260	124	384
5	53	68	185	1,200	947	420	660	1,750	257	170	91	313
6	52	79	200	1,000	1,650	410	600	1,340	284	130	190	283
7	51	80	210	850	1,270	723	550	1,630	284	140	148	309
8	51	72	600	642	900	1,500	540	1,090	233	130	101	255
9	51	68	1,000	819	820	800	540	786	208	110	79	215
10	50	64	620	728	600	700	514	773	181	95	70	191
11	50	63	540	691	620	627	470	606	172	110	70	178
12	48	130	520	656	1,090	743	431	608	479	100	88	180
13	48	220	560	609	992	1,190	382	662	542	170	79	193
14	47	160	540	501	640	986	349	620	316	130	911	164
15	48	150	500	455	640	838	355	566	254	115	1,230	141
16	210	140	620	449	650	746	355	824	225	105	2,700	130
17	350	125	780	367	911	946	315	654	199	130	1,350	124
18	195	116	620	347	1,680	1,070	295	625	172	112	800	169
19	155	110	540	603	2,050	2,600	324	696	154	308	540	362
20	130	120	580	664	1,450	2,800	471	578	137	132	420	237
21	120	185	500	452	1,100	1,900	361	509	126	132	320	218
22	106	190	480	460	925	1,500	324	442	110	156	274	184
23	92	160	440	414	1,380	1,400	314	403	100	117	1,450	1,010
24	84	190	820	387	1,820	1,300	631	516	94	181	906	1,190
25	82	380	4,100	959	1,460	1,200	2,700	390	84	172	536	873
26	84	420	2,550	1,780	1,100	1,000	2,600	422	80	142	400	1,110
27	82	270	1,400	1,130	904	800	1,500	484	160	99	475	781
28	74	260	1,700	1,030	772	720	1,050	425	270	83	329	600
29	68	210	1,500	2,120	-----	740	2,000	337	160	70	273	495
30	66	175	1,900	2,760	-----	920	1,520	324	110	62	260	416
31	70	-----	1,800	2,050	-----	780	-----	351	-----	57	470	-----
TOTAL	2,731	4,495	26,560	34,773	32,231	31,712	22,891	24,731	6,768	3,948	14,842	12,821
MEAN	88.1	150	857	1,122	1,151	1,023	763	798	226	127	479	427
MAX	350	420	4,100	4,600	2,050	2,800	2,700	2,580	542	308	2,700	1,190
MIN	47	63	140	347	600	410	295	324	80	57	49	124

CAL YR 1974 TOTAL 187,515 MEAN 514 MAX 4,800 MIN 43 CFSM 1.93 IN 26.22  
WTR YR 1975 TOTAL 218,503 MEAN 599 MAX 4,600 MIN 47 CFSM 2.25 IN 30.55

PEAK DISCHARGE (BASE, 4,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	
12-25	*	*	*	4-25	†	7.21	4,910	* Unknown, discharge probably greater than base.
1-01	†	8.02	6,720	8-16	†	7.51	5,520	† Time unknown.
1-29	†	7.32	5,130	8-23	1415	6.84	4,220	NOTE.--No gage-height record Oct. 1 to Jan. 7.
3-19	†	7.09	4,680					

## POTOMAC RIVER BASIN

87

01596500 Savage River near Barton, Md.

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, on right bank 0.9 mi (1.4 km) upstream from Bear Pen Run, 1.5 mi (2.4 km) downstream from Poplar Lick Run, 5.4 mi (8.7 km) northwest of Barton, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--49.1 mi<sup>2</sup> (127 km<sup>2</sup>).

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) above mean sea level, adjustment of 1929.

AVERAGE DISCHARGE.--27 years 74.3 ft<sup>3</sup>/s (2.104 m<sup>3</sup>/s), 20.55 in/yr (522 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,750 ft<sup>3</sup>/s (49.6 m<sup>3</sup>/s) Apr. 25, gage height, 4.33 ft (1.320 m); minimum, 2.6 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) Aug. 10, 11, gage height, 1.16 ft (0.354 m).

Period of record: Maximum discharge, 7,510 ft<sup>3</sup>/s (213 m<sup>3</sup>/s) Oct. 15, 1954, gage height, 8.45 ft (2.576 m), from rating curve extended above 1,600 ft<sup>3</sup>/s (45.3 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Sept. 3, 4, 1966, gage height, 0.96 ft (0.293 m).

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.7	14	1,200	195	110	84	232	30	12	3.3	130
2	4.1	4.5	26	590	140	89	76	210	29	9.4	3.1	85
3	4.1	5.0	86	320	105	71	98	182	28	9.0	3.0	55
4	3.6	4.6	64	211	85	63	100	714	26	46	2.8	37
5	3.2	5.2	54	144	87	58	93	457	23	26	2.8	27
6	3.2	6.1	58	110	106	54	91	265	22	17	5.1	22
7	4.5	5.7	56	93	106	115	86	184	29	13	5.7	19
8	4.1	5.0	170	79	96	225	79	135	23	12	3.4	16
9	4.1	4.5	167	123	88	179	78	138	20	11	2.9	14
10	3.9	4.5	109	149	82	137	76	145	18	10	2.6	12
11	3.6	4.0	86	261	78	107	72	115	19	15	3.3	10
12	3.6	17	77	358	71	121	66	96	53	10	3.5	15
13	4.1	20	78	223	58	191	59	81	42	9.4	3.8	13
14	3.8	14	77	145	56	208	52	68	32	10	20	10
15	3.7	12	71	112	52	158	52	65	26	16	9.5	8.6
16	20	11	88	90	52	120	51	128	23	13	13	7.8
17	18	9.7	115	66	89	117	46	114	19	12	13	7.9
18	10	8.9	96	50	290	153	43	108	16	12	11	19
19	8.1	8.2	81	6	517	717	44	94	15	13	6.6	47
20	6.9	8.7	70	76	356	864	42	78	13	9.4	5.0	34
21	6.2	12	62	66	221	446	39	65	11	8.8	4.0	32
22	5.7	13	58	62	173	285	37	56	9.9	7.5	5.5	26
23	5.7	11	50	58	494	219	36	49	9.3	6.3	32	52
24	6.0	15	99	46	881	224	74	49	8.6	5.9	34	83
25	5.7	28	751	108	594	239	663	42	7.7	12	16	141
26	5.5	25	504	336	301	191	906	37	12	7.6	12	371
27	5.4	25	262	205	188	138	363	53	37	5.6	14	201
28	5.0	29	204	147	139	111	220	38	37	4.8	9.1	117
29	5.0	20	184	307	-----	100	305	34	20	4.1	7.1	77
30	5.0	18	439	545	-----	105	256	36	15	4.0	6.2	58
31	5.0	-----	491	306	-----	90	-----	32	-----	3.4	109	-----
TOTAL	181.3	359.3	4,747	6,672	5,700	6,005	4,287	4,100	673.5	355.2	372.3	1,747.3
MEAN	5.85	12.0	153	215	204	194	143	132	22.5	11.5	12.0	58.2
MAX	20	29	751	1,200	881	864	906	714	53	46	109	371
MIN	3.2	4.0	14	46	52	54	36	32	7.7	3.4	2.6	7.8
CFSM	.12	.24	3.12	4.38	4.15	3.95	2.91	2.69	.46	.23	.24	1.19
IN.	.14	.27	3.60	5.05	4.32	4.55	3.25	3.11	.51	.27	.28	1.32

CAL YR 1974 TOTAL 25,430.5 MEAN 69.7 MAX 1,000 MIN 3.2 CFSM 1.42 IN 19.27  
WTR YR 1975 TOTAL 35,199.9 MEAN 96.4 MAX 1,200 MIN 2.6 CFSM 1.96 IN 26.67

PEAK DISCHARGE (BASE, 800 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1300	3.72	1,120	3-19	1730	3.85	1,250
1-01	0845	4.16	1,560	4-25	2145	4.33	1,750
2-24	1500	3.52	946	5-04	0915	3.48	912

## POTOMAC RIVER BASIN

01597000 Crabtree Creek near Swanton, Md.

LOCATION.--Lat 39°30'00", long 79°09'35", Garrett County, 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 mi<sup>2</sup> (43.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,529.06 ft (466.058 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--27 years, 28.8 ft<sup>3</sup>/s (0.816 m<sup>3</sup>/s), 23.42 in/yr (595 mm/yr).

EXTREMES.--Current year: Maximum discharge, 581 ft<sup>3</sup>/s (16.5 m<sup>3</sup>/s) Jan. 1, gage height, 2.90 ft (0.884 m); minimum, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Oct. 10, 11, Nov. 11, gage height, 0.76 ft (0.232 m).  
Period of record: Maximum discharge, 3,260 ft<sup>3</sup>/s (92.3 m<sup>3</sup>/s) July 12, 1949, gage height, 5.01 ft (1.527 m), from rating curve extended above 210 ft<sup>3</sup>/s (5.95 m<sup>3</sup>/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.1 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Dec. 3, 1953, gage height, 0.56 ft (0.171 m); minimum daily, 0.8 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Nov. 6, 1953.

REMARKS.--Records good. Small diversion above station by Baltimore and Ohio Railroad.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.7	2.8	393	78	47	35	90	45	5.4	5.3	51
2	1.6	1.7	5.7	196	56	38	34	80	35	4.9	4.7	58
3	1.7	1.6	18	117	44	32	40	70	29	8.1	4.7	47
4	1.7	1.6	15	84	37	27	39	160	25	29	4.4	33
5	1.6	1.8	13	57	35	24	38	130	22	19	6.0	24
6	1.6	1.9	13	46	55	23	38	100	20	15	8.4	21
7	1.6	1.7	12	39	58	40	36	80	21	12	5.2	16
8	1.6	1.6	15	33	51	88	33	65	16	11	3.9	13
9	1.6	1.6	29	46	43	80	32	50	14	9.4	3.4	11
10	1.5	1.6	23	53	34	64	32	55	13	8.8	3.2	10
11	1.5	1.6	19	67	31	52	30	45	14	8.3	6.8	9.2
12	1.6	4.2	18	83	34	55	27	40	26	6.9	6.2	11
13	1.6	4.2	20	57	31	73	24	35	24	6.7	4.4	8.6
14	1.6	3.0	20	42	24	79	22	30	23	6.6	26	7.4
15	1.7	2.6	19	34	26	64	22	25	20	8.4	39	6.6
16	7.5	2.4	22	29	27	52	19	36	17	7.0	90	6.6
17	4.8	2.3	24	24	38	57	17	40	14	6.6	56	6.3
18	2.5	2.3	23	24	111	71	17	41	13	7.9	34	14
19	2.1	2.2	22	36	183	140	21	37	11	8.9	23	20
20	2.0	2.4	21	40	138	183	19	31	10	7.3	16	18
21	1.9	2.7	20	35	95	127	18	28	9.1	7.4	13	27
22	1.8	2.7	18	31	75	95	18	24	8.3	6.0	11	26
23	1.8	2.5	16	27	145	74	19	22	7.7	6.4	20	54
24	1.8	3.3	31	25	206	67	63	20	7.1	7.7	16	87
25	1.9	5.9	202	52	157	59	202	17	6.6	20	15	85
26	1.8	5.8	137	118	105	53	194	21	6.4	15	14	102
27	1.7	4.5	80	76	77	45	110	107	13	12	17	83
28	1.7	4.7	77	55	57	39	79	76	9.3	9.9	12	55
29	1.6	3.9	76	114	-----	38	110	60	7.1	8.2	11	38
30	1.7	3.4	143	174	-----	39	100	63	6.2	7.0	12	29
31	1.7	-----	149	116	-----	36	-----	55	-----	6.0	23	-----
TOTAL	62.4	83.4	1,303.5	2,323	2,051	1,962	1,488	1,733	492.8	302.8	514.6	977.7
MEAN	2.01	2.78	42.0	74.9	73.3	63.3	49.6	55.9	16.4	9.77	16.6	32.6
MAX	7.5	5.9	202	393	206	183	202	160	45	29	90	102
MIN	1.5	1.6	2.8	24	24	23	17	17	6.2	4.9	3.2	6.3
CFSM	.12	.17	2.52	4.49	4.39	3.79	2.97	3.35	.98	.59	.99	1.95
IN.	.14	.19	2.90	5.17	4.57	4.37	3.31	3.86	1.10	.67	1.15	2.18

CAL YR 1974 TOTAL 10,894.4 MEAN 29.8 MAX 410 MIN 1.5 CFSM 1.78 IN 24.27

WTR YR 1975 TOTAL 13,294.2 MEAN 36.4 MAX 393 MIN 1.5 CFSM 2.18 IN 29.61

PEAK DISCHARGE (BASE, 330 FT<sup>3</sup>/S).--Jan. 01 (0715) 581 ft<sup>3</sup>/s (2.90 ft).

01597500 Savage River, below Savage River Dam, near Bloomington, Md.

**LOCATION.**--Lat 39°30'05", long 79°07'25", Garrett County, on left bank 0.7 mi (1.1 km) downstream from Savage River Dam, 1.1 mi (1.8 km) downstream from Crabtree Creek, 3.2 mi (5.1 km) northwest of Bloomington, and 3.7 mi (6.0 km) upstream from mouth.

**DRAINAGE AREA.**--106 mi<sup>2</sup> (275 km<sup>2</sup>).

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

**GAGE.**--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft (389.047 m) above mean sea level (Corps of Engineers bench mark).

**AVERAGE DISCHARGE.**--27 years, 166 ft<sup>3</sup>/s (4.701 m<sup>3</sup>/s), 21.27 in/yr (540 mm/yr).

**EXTREMES.**--Current year: Maximum discharge, 1,900 ft<sup>3</sup>/s (53.8 m<sup>3</sup>/s) Dec. 26, gage height, 4.92 ft (1.500 m); maximum gage height, 5.88 ft (1.792 m) Dec. 26 (backwater from temporary bridge downstream); minimum, 2.4 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) Oct. 3, gage height, 0.74 ft (0.226 m).  
Period of record: Maximum discharge, 6,530 ft<sup>3</sup>/s (185 m<sup>3</sup>/s) Oct. 16, 1954, gage height, 7.70 ft (2.347 m); minimum, 0.35 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Oct. 27, 1966, gage height, 0.57 ft (0.174 m); minimum daily, 0.6 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) July 27-31, Aug. 5, 6, 9, 10, 1951

**REMARKS.**--Records good. Diversions above station by Baltimore & Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity, 20,000 acre-ft (24.7 hm<sup>3</sup>).

**REVISIONS (WATER YEAR).**--WSP 1432: 1955.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	64	54	1,070	714	90	38	663	115	29	70	313
2	66	53	54	1,520	323	90	23	466	98	27	81	52
3	63	53	53	1,750	87	340	23	125	86	31	81	92
4	67	53	53	1,120	87	235	23	1,270	76	92	81	113
5	67	53	52	486	89	87	23	1,190	69	89	81	113
6	67	53	52	326	90	87	22	681	69	57	61	113
7	80	53	52	87	348	89	23	647	79	44	44	113
8	87	54	53	87	492	92	23	329	68	39	41	112
9	87	55	77	334	344	94	23	123	56	37	40	112
10	87	55	377	337	86	361	23	123	49	33	55	112
11	87	55	525	90	87	514	23	166	51	34	62	112
12	86	56	248	492	89	505	23	203	109	31	62	112
13	86	55	92	714	343	500	23	186	114	29	63	112
14	86	55	92	560	249	500	23	153	95	28	63	111
15	86	55	92	336	86	494	23	145	81	30	63	110
16	87	54	371	86	86	232	23	218	75	31	63	110
17	86	54	521	86	89	92	23	244	60	32	62	110
18	86	54	245	87	341	94	23	252	51	29	62	112
19	86	54	90	89	807	373	23	229	47	33	62	112
20	86	54	90	369	995	1,100	23	195	42	32	62	112
21	84	54	90	383	964	1,330	20	166	34	30	62	112
22	84	54	90	86	603	819	17	142	32	29	62	111
23	84	53	367	86	285	458	17	123	31	28	164	440
24	84	53	288	86	756	368	18	115	28	28	57	443
25	84	53	102	89	1,370	538	36	95	24	37	43	443
26	84	53	1,000	95	1,500	275	453	89	24	49	32	287
27	83	53	1,500	524	940	100	867	190	48	38	32	433
28	83	53	740	955	334	100	495	163	79	32	32	627
29	83	53	722	763	-----	102	526	134	48	40	32	618
30	83	53	574	780	-----	102	637	149	37	49	467	299
31	83	-----	821	941	-----	77	-----	129	-----	52	548	-----
TOTAL	2,509	1,624	9,537	14,814	12,584	10,238	3,560	9,103	1,875	1,199	2,790	6,171
MEAN	80.9	54.1	308	478	449	330	119	294	62.5	38.7	90.0	206
MAX	87	64	1,500	1,750	1,500	1,330	867	1,270	115	92	548	627
MIN	57	53	52	86	86	77	17	89	24	27	32	52
(†)	8,680	6,530	5,620	4,530	4,100	8,480	19,840	20,110	20,040	19,830	17,250	13,410

CAL YR 1974 TOTAL 59,678 MEAN 164 MAX 2,080 MIN 12 CFSM 1.54 IN 20.94  
WTR YR 1975 TOTAL 76,004 MEAN 208 MAX 1,750 MIN 17 CFSM 1.96 IN 26.67

† Month-end contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1974, 13,080 acre-feet).  
Records furnished by Corps of Engineers.

## POTOMAC RIVER BASIN

01598500 North Branch Potomac River at Luke, Md.

LOCATION.--Lat 39°28'45", long 79°03'55", Mineral County, W. Va., on right bank 0.2 mi (0.3 km) downstream from Savage River, 0.5 mi (0.8 km) northwest of Luke, and at mile 53.3 (85.8 km).

DRAINAGE AREA.--404 mi<sup>2</sup> (1,046 km<sup>2</sup>).

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 944.22 ft (287.798 m) above mean sea level, adjustment of 1944. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi (1.8 km) downstream at datum about 35 feet (about 11 m) lower.

AVERAGE DISCHARGE.--32 years (1899-1905, 1949-1975), 704 ft<sup>3</sup>/s (19.94 m<sup>3</sup>/s), 23.66 in/yr (601 mm/yr), adjusted for storage since 1949.

EXTREMES.--Current year: Maximum discharge, 8,040 ft<sup>3</sup>/s (228 m<sup>3</sup>/s) Jan. 1, gage height, 8.70 ft (2.652 m); minimum, 75 ft<sup>3</sup>/s (2.12 m<sup>3</sup>/s) Oct. 3, gage height, 1.07 ft (0.326 m).  
Period of record: Maximum discharge, 39,400 ft<sup>3</sup>/s (1,120 m<sup>3</sup>/s) Oct. 15, 1954, gage height, 17.15 ft (5.227 m); minimum daily, 6 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) Sept. 4, 1904.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated since 1913 by Stony River Reservoir, 45 mi (72.4 km) above station (see station 01595200), and since December 1950, by Savage River Reservoir, 5 mi (8.0 km) above station (see station 01597500). Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	141	240	6,170	2,900	901	796	2,240	551	128	126	1,190
2	119	130	203	4,610	2,200	795	682	1,920	495	109	136	985
3	120	128	321	3,980	1,500	936	741	1,310	439	108	130	691
4	125	122	283	2,990	1,260	847	787	3,940	400	415	219	552
5	123	120	245	1,880	1,140	560	708	3,280	350	369	183	465
6	122	132	260	1,490	1,860	550	638	2,290	371	208	260	428
7	130	135	273	1,040	1,770	799	598	2,460	391	192	216	452
8	139	128	496	647	1,550	1,730	575	1,650	323	184	150	391
9	139	125	1,080	1,210	1,310	1,030	578	1,010	278	164	124	346
10	137	121	994	1,210	760	1,100	562	991	241	140	124	316
11	137	119	1,100	869	800	1,230	539	902	236	147	137	302
12	136	155	817	1,200	1,220	1,290	498	876	628	143	156	307
13	135	295	677	1,420	1,510	1,840	446	911	730	182	151	315
14	134	231	656	1,150	1,080	1,600	410	852	457	196	961	285
15	134	208	613	887	820	1,440	407	756	367	155	1,300	260
16	301	197	968	592	799	1,090	418	1,130	322	148	3,230	248
17	530	179	1,390	505	1,070	1,140	383	986	277	185	1,650	242
18	298	171	930	460	2,150	1,300	360	954	232	145	961	305
19	245	165	657	740	3,150	3,390	357	1,000	205	335	651	533
20	221	178	692	1,100	2,740	4,570	519	826	184	192	510	384
21	207	242	613	908	2,290	3,590	401	709	162	164	432	357
22	191	246	585	560	1,770	2,590	353	622	143	207	369	316
23	178	220	773	550	1,810	2,110	345	559	133	151	1,300	1,450
24	170	244	1,030	527	2,920	1,760	548	653	129	218	1,080	1,860
25	167	436	4,350	979	3,110	1,960	2,830	520	113	227	622	1,440
26	166	478	3,650	2,160	2,790	1,430	3,650	545	107	218	456	1,660
27	167	328	3,270	1,630	2,070	934	2,590	707	188	152	528	1,340
28	158	325	2,640	1,980	1,280	863	1,780	636	430	125	380	1,350
29	151	270	2,390	3,060	-----	851	2,640	522	219	115	315	1,200
30	149	232	2,810	4,040	-----	1,030	2,340	528	157	117	657	813
31	151	-----	2,860	3,180	-----	923	-----	517	-----	116	1,090	-----
TOTAL	5,399	6,201	37,866	53,924	49,629	46,179	28,479	36,802	9,258	5,655	18,604	20,783
MEAN	174	207	1,221	1,739	1,772	1,490	949	1,187	309	182	600	693
MAX	530	478	4,350	6,170	3,150	4,570	3,650	3,940	730	415	3,230	1,860
MIN	119	119	203	460	760	550	345	517	107	108	124	242

CAL YR 1974 TOTAL 271,181 MEAN 743 MAX 6,350 MIN 109 CFSM 1.84 IN 24.96  
WTR YR 1975 TOTAL 318,779 MEAN 873 MAX 6,170 MIN 107 CFSM 2.16 IN 29.34

## POTOMAC RIVER BASIN

91

01599000 Georges Creek at Franklin, Md.

LOCATION.--Lat 39°29'38", long 79°02'42", Allegany County, on right bank at Franklin, and 1.2 mi (1.9 km) upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi<sup>2</sup> (187.5 km<sup>2</sup>).

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft (292.291 m) above mean sea level (Westvaco Corporation bench mark). 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.

AVERAGE DISCHARGE.--46 years (1929-75), 80.0 ft<sup>3</sup>/s (2.266 m<sup>3</sup>/s), 15.01 in/yr (381 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,020 ft<sup>3</sup>/s (57.2 m<sup>3</sup>/s) Mar. 19, gage height, 7.63 ft (2.236 m); minimum, 7.5 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Nov. 27, gage height, 3.08 ft (0.939 m), result of freezeup.

Period of record: Maximum discharge, 8,500 ft<sup>3</sup>/s (241 m<sup>3</sup>/s) Mar. 17, 1936, gage height, 9.6 ft (2.93 m), site then in use, from rating curve extended above 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Sept. 29 to Oct. 13, 1930.

Flood of Mar. 29, 1924, reached a stage of about 10 ft (3.0 m), from floodmarks, at site 95 ft (29 m) downstream.

REMARKS.--Records good. Records include about 0.5 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/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 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).

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1502: 1940.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	8.5	13	712	228	217	135	313	116	24	11	226
2	9.0	8.5	56	493	183	176	125	303	92	20	11	149
3	9.0	8.5	46	356	145	141	146	252	83	22	11	89
4	9.0	8.5	32	301	123	121	138	883	74	153	12	56
5	8.5	9.5	26	205	122	109	126	540	66	81	12	41
6	8.5	9.7	26	155	147	104	119	405	64	46	16	37
7	8.5	9.2	25	133	141	159	113	302	71	44	13	31
8	8.5	8.9	59	119	108	170	106	230	58	40	11	26
9	8.5	8.6	100	171	104	126	101	279	51	46	10	21
10	8.5	8.5	65	163	85	119	104	259	44	34	9.6	18
11	8.0	8.5	55	167	93	114	97	197	53	40	12	18
12	8.0	41	57	223	120	150	89	180	152	33	11	22
13	8.5	30	69	191	112	171	81	158	94	99	13	17
14	8.5	17	70	157	90	159	76	136	70	56	49	13
15	8.5	14	67	128	85	147	82	142	64	48	18	12
16	39	12	141	115	83	144	75	204	58	45	87	13
17	24	12	148	95	143	183	69	153	48	36	30	12
18	13	11	107	88	375	212	67	145	41	30	20	62
19	11	11	87	115	436	1,060	71	133	37	27	15	113
20	10	12	76	139	353	851	66	121	34	24	13	55
21	9.6	13	68	100	291	546	59	109	29	23	13	59
22	9.3	13	64	91	247	413	56	101	27	19	19	42
23	9.0	12	57	84	539	319	55	114	25	16	53	141
24	9.1	12	93	82	718	315	92	170	23	17	36	195
25	9.2	14	508	164	605	262	476	121	22	24	21	320
26	9.2	13	361	293	406	216	552	110	30	17	16	469
27	8.9	11	243	181	341	184	325	162	76	14	16	260
28	8.7	11	250	148	278	168	242	111	65	13	13	165
29	8.6	11	226	250	-----	167	363	121	42	12	13	121
30	8.5	11	390	367	-----	177	256	148	30	12	13	97
31	8.5	-----	410	295	-----	148	-----	122	-----	11	312	-----
TOTAL	323.6	377.9	3,995	6,281	6,701	7,548	4,462	6,724	1,739	1,126	909.6	2,900
MEAN	10.4	12.6	129	203	239	243	149	217	58.0	36.3	29.3	96.7
MAX	39	41	508	712	718	1,060	552	883	152	153	312	469
MIN	8.0	8.5	13	82	83	104	55	101	22	11	9.6	12
CFSM	.14	.17	1.78	2.80	3.30	3.36	2.06	3.00	.80	.50	.40	1.34
IN.	.17	.19	2.05	3.23	3.44	3.88	2.29	3.45	.89	.58	.47	1.49

CAL YR 1974 TOTAL 31,459.0 MEAN 86.2 MAX 683 MIN 8.0 CFSM 1.19 IN 16.16

WTR YR 1975 TOTAL 43,087.1 MEAN 118 MAX 1,060 MIN 8.0 CFSM 1.63 IN 22.14

PEAK DISCHARGE (BASE, 1,200 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1445	7.63	2,020	5-04	0545	6.65	1,390
4-25	1900	6.50	1,300				



01600000 North Branch Potomac River at Pinto, Md.

LOCATION.--Lat 39°33'59", long 78°50'25", Mineral County, W. Va., on right bank at downstream side of Western Maryland Railway bridge at Pinto, 2.8 mi (4.5 km) downstream from Mill Run, and at mile 32.6 (52.5 km).

DRAINAGE AREA.--596 mi<sup>2</sup> (1,544 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 648.23 ft (197.581 m) above mean sea level (Corps of Engineers bench mark). Prior to Dec. 10, 1938, nonrecording gage at highway bridge 250 ft (76 m) downstream at same datum.

AVERAGE DISCHARGE.--37 years, 881 ft<sup>3</sup>/s (24.95 m<sup>3</sup>/s, 20.07 in/yr (510 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 10,200 ft<sup>3</sup>/s (289 m<sup>3</sup>/s) Mar. 19, gage height, 11.63 ft (3.545 m); minimum, 116 ft<sup>3</sup>/s (3.29 m<sup>3</sup>/s) Oct. 4, gage height, 1.88 ft (0.573 m).

Period of record: Maximum discharge, 37,000 ft<sup>3</sup>/s (1,050 m<sup>3</sup>/s) Oct. 16, 1954, gage height, 23.23 ft (7.081 m); minimum, 31 ft<sup>3</sup>/s (0.88 m<sup>3</sup>/s) Dec. 18, 19, 1943, gage height, 1.37 ft (0.418 m), result of freezeup.

Flood of Mar. 29, 1924, reached a stage of about 24 ft (7.3 m), discharge, about 55,000 ft<sup>3</sup>/s or about 1,560 m<sup>3</sup>/s. Flood of Mar. 17, 1936, reached a stage of about 23.5 ft (7.16 m), from floodmarks (discharge, about 50,000 ft<sup>3</sup>/s or about 1,420 m<sup>3</sup>/s).

REMARKS.--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), and since December 1950, by Savage River Reservoir (see station 01597500). Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1332: 1943.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	167	293	6,980	3,340	1,390	1,130	2,770	848	210	141	1,790
2	128	146	449	5,460	2,640	1,220	992	2,640	762	175	160	1,420
3	135	143	444	4,480	1,880	1,200	999	1,900	668	174	160	1,040
4	132	139	400	3,440	1,590	1,260	1,140	5,410	596	443	189	795
5	136	140	318	2,230	1,460	891	1,020	4,650	529	651	262	637
6	134	139	310	1,860	1,990	820	927	3,090	494	369	245	559
7	132	154	310	1,350	2,180	963	874	2,900	562	280	318	566
8	148	145	445	1,140	1,880	2,020	831	2,330	482	283	206	508
9	152	142	1,290	1,410	1,730	1,400	812	1,510	408	288	163	441
10	150	137	1,100	1,680	1,100	1,300	802	1,550	359	228	141	395
11	148	136	1,230	1,200	1,100	1,510	771	1,320	337	234	154	373
12	149	176	1,070	1,430	1,530	1,510	713	1,260	818	240	185	379
13	148	313	854	1,770	2,070	2,170	640	1,250	1,070	883	204	380
14	149	300	867	1,530	1,600	2,000	584	1,200	698	457	806	356
15	146	239	837	1,250	1,160	1,890	579	1,060	566	317	1,450	321
16	214	230	1,190	861	1,120	1,670	586	1,470	467	297	3,170	304
17	657	208	1,850	720	1,450	1,660	536	1,330	416	288	1,920	297
18	399	196	1,380	708	2,720	1,910	495	1,270	349	248	1,200	358
19	291	187	911	958	4,220	5,390	496	1,290	310	344	819	792
20	251	192	891	1,660	3,640	6,920	653	1,130	280	325	630	577
21	227	219	812	1,450	2,910	4,860	575	976	248	237	523	491
22	212	284	764	920	2,460	3,310	493	884	219	260	449	438
23	197	254	802	860	2,350	2,830	475	849	204	218	1,100	1,480
24	188	241	1,170	825	4,170	2,170	514	1,000	192	224	1,570	2,550
25	182	362	4,580	1,030	4,240	2,470	2,700	823	182	292	821	2,000
26	181	537	4,540	2,980	3,550	1,970	5,100	774	171	303	572	2,890
27	181	391	3,810	2,030	2,820	1,370	3,380	1,020	220	224	591	1,920
28	176	333	2,900	2,350	1,890	1,240	2,340	939	645	177	490	1,810
29	167	300	2,660	2,790	-----	1,200	2,970	851	398	149	383	1,550
30	164	262	3,040	5,000	-----	1,360	2,930	957	263	144	626	1,250
31	162	-----	3,200	3,460	-----	1,320	-----	828	-----	145	1,650	-----
TOTAL	5,972	6,812	44,717	65,812	64,790	63,194	37,057	51,231	13,761	9,107	21,298	28,667
MEAN	193	227	1,442	2,123	2,314	2,039	1,235	1,653	459	294	687	956
MAX	657	537	4,580	6,980	4,240	6,920	5,100	5,410	1,070	883	3,170	2,890
MIN	128	136	293	708	1,100	820	475	774	171	144	141	297

CAL YR 1974 TOTAL 335,770 MEAN 920 MAX 8,450 MIN 128 CFSM 1.54 IN 20.95  
WTR YR 1975 TOTAL 412,418 MEAN 1,130 MAX 6,980 MIN 128 CFSM 1.90 IN 25.73

01601500 Wills Creek near Cumberland, Md.

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, on right bank at downstream side of Western Maryland Railway bridge, 2.0 mi (3.2 km) upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi<sup>2</sup> (640 km<sup>2</sup>).

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft (195.343 m) above mean sea level (Corps of Engineers bench mark). 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.

AVERAGE DISCHARGE.--46 years (1929-75), 320 ft<sup>3</sup>/s (9.062 m<sup>3</sup>/s), 17.59 in/yr (447 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,140 ft<sup>3</sup>/s (259 m<sup>3</sup>/s) Mar. 19, gage height, 9.15 ft (2.789 m); minimum, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Oct. 10, 11, 14, gage height, 1.60 ft (0.488 m).

Period of record: Maximum discharge, 38,100 ft<sup>3</sup>/s (1,080 m<sup>3</sup>/s) Mar. 17, 1936, gage height, 20.2 ft (6.16 m), from floodmarks at present site, from rating curve extended above 6,500 ft<sup>3</sup>/s (184 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 13.45 ft (4.100 m) and 20.2 ft (6.16 m); minimum, 9 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Oct. 14, 1930.

REMARKS.--Records good except those for winter months, 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, 1964-1965, 1967-75, by the U. S. Geological Survey and in the water years 1958 and 1959 by the Maryland Geological Survey. See page Slight diurnal fluctuation at low flow caused by quarry upstream.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	78	2,420	893	668	634	878	253	102	42	781
2	29	32	585	1,780	701	558	557	872	221	89	40	567
3	29	33	344	1,070	564	460	622	853	205	98	41	340
4	27	33	213	798	464	370	557	2,880	186	134	39	219
5	27	36	136	598	453	310	496	2,250	171	109	40	157
6	28	37	123	478	476	320	465	1,490	171	89	44	196
7	27	35	106	418	436	423	452	1,080	173	78	45	157
8	27	34	313	366	330	566	421	828	155	79	44	125
9	27	32	532	491	310	505	398	746	141	86	39	108
10	26	32	362	470	220	513	383	675	127	99	36	89
11	26	31	260	518	280	480	362	585	146	100	34	78
12	27	72	232	635	320	629	331	537	350	101	35	93
13	27	114	253	599	270	868	301	537	256	188	67	122
14	26	68	277	480	190	925	274	462	188	105	130	88
15	27	55	280	393	205	833	281	457	167	99	85	78
16	61	48	641	353	236	744	271	1,480	153	117	136	74
17	76	44	674	273	399	826	246	1,080	134	98	117	78
18	54	41	480	261	1,090	935	233	833	120	110	88	120
19	42	39	367	358	1,790	5,120	238	678	111	205	68	301
20	38	40	292	474	1,510	4,610	224	554	101	141	58	226
21	35	42	250	296	1,110	2,070	202	461	93	113	51	211
22	33	44	232	290	979	1,380	188	420	85	92	47	170
23	33	44	188	290	1,870	1,030	183	575	81	79	48	288
24	32	43	271	260	3,570	1,090	261	514	77	73	49	455
25	32	43	1,700	578	2,700	1,140	2,540	485	77	68	45	1,430
26	32	49	1,560	1,190	1,530	1,000	5,180	414	91	62	41	2,560
27	32	41	871	894	1,020	782	1,930	411	212	57	41	1,350
28	31	41	689	711	790	659	1,200	336	266	52	43	773
29	31	44	575	971	-----	610	1,160	344	154	49	38	525
30	32	40	776	1,910	-----	749	846	311	121	46	38	388
31	31	-----	1,060	1,260	-----	662	-----	281	-----	45	706	-----
TOTAL	1,035	1,318	14,720	21,883	24,706	31,835	21,436	24,307	4,786	2,963	2,375	12,147
MEAN	33.4	43.9	475	706	882	1,027	715	784	160	95.6	76.6	405
MAX	76	114	1,700	2,420	3,570	5,120	5,180	2,880	350	205	706	2,560
MIN	26	31	78	260	190	310	183	281	77	45	34	74
CFSM	.14	.18	1.92	2.86	3.57	4.16	2.89	3.17	.65	.39	.31	1.64
IN.	.16	.20	2.22	3.30	3.72	4.79	3.23	3.66	.72	.45	.36	1.83

CAL YR 1974 TOTAL 111,144 MEAN 305 MAX 2,820 MIN 26 CFSM 1.23 IN 16.74  
WTR YR 1975 TOTAL 163,511 MEAN 448 MAX 5,180 MIN 26 CFSM 1.81 IN 24.63

PEAK DISCHARGE (BASE, 3,500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-24	1345	6.63	4,070	4-25	2345	9.13	9,100
3-19	1900	9.15	9,140	5-04	1100	6.33	3,550

## POTOMAC RIVER BASIN

01603000 North Branch Potomac River near Cumberland, Md.

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi (3.2 km) south of Cumberland, 2.1 mi (3.4 km) downstream from Wills Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--875 mi<sup>2</sup> (2,266 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft (178.375 m) above mean sea level (Corps of Engineers bench mark). Prior to June 18, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 1,241 ft<sup>3</sup>/s (35.15 m<sup>3</sup>/s), 19.26 in/yr (489 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 18,900 ft<sup>3</sup>/s (535 m<sup>3</sup>/s) Mar. 19, gage height, 15.39 ft (4.691 m); minimum, 156 ft<sup>3</sup>/s (4.42 m<sup>3</sup>/s) Oct. 3, 4, gage height, 2.29 ft (0.698 m).

Period of record: Maximum discharge, 88,200 ft<sup>3</sup>/s (2,500 m<sup>3</sup>/s) Mar. 17, 1936, gage height, 29.1 ft (8.87 m), from rating curve extended above 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum (river only), 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Sept. 22, 1932, gage height, 2.38 ft (0.725 m); minimum daily (including flow in canal), 38 ft<sup>3</sup>/s (1.08 m<sup>3</sup>/s) Sept. 24, 1932.

Maximum stage known, 29.2 ft (8.90 m) June 1, 1889, discharge, about 89,000 ft<sup>3</sup>/s or about 2,520 m<sup>3</sup>/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft (8.66 m), discharge, about 82,000 ft<sup>3</sup>/s or about 2,320 m<sup>3</sup>/s.

REMARKS.--Records good. Regulation by Stony River Reservoir, about 79 mi (127 km) above station (see station 01595200), and since December 1950, by Savage River Reservoir (see station 01597500). Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Everts Creek, mouth of which is below station. Diversion to Chesapeake and Ohio Canal prior to 1935. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 781: 1932(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	210	437	8,580	4,820	2,300	1,960	4,020	1,150	346	191	3,000
2	170	198	1,230	8,190	3,730	1,920	1,730	3,940	1,040	290	199	2,220
3	168	181	859	6,220	2,750	1,690	1,670	3,230	923	266	208	1,500
4	173	180	686	4,820	2,240	1,830	1,840	7,790	829	556	217	1,090
5	177	178	500	3,230	2,040	1,290	1,820	7,830	743	783	315	855
6	176	177	450	2,630	2,440	1,240	1,680	5,220	685	505	287	795
7	171	186	441	1,940	2,930	1,360	1,560	4,370	753	407	376	746
8	177	189	722	1,620	2,470	2,690	1,440	3,690	673	383	286	675
9	192	175	1,770	1,920	2,310	2,110	1,340	2,510	578	403	223	586
10	191	169	1,490	2,420	1,500	1,870	1,280	2,460	517	366	187	512
11	186	164	1,550	1,870	1,390	2,120	1,230	2,070	510	375	186	471
12	188	259	1,410	2,120	1,750	2,260	1,150	1,930	1,100	386	221	486
13	187	414	1,100	2,600	2,600	3,260	1,060	1,920	1,380	1,190	303	513
14	186	427	1,150	2,230	2,090	3,220	978	1,760	949	619	783	469
15	185	339	1,140	1,730	1,540	3,020	923	1,590	774	464	1,590	421
16	285	304	1,770	1,320	1,410	2,760	914	3,030	650	458	3,400	399
17	712	280	2,820	1,080	1,860	2,710	877	2,660	575	410	2,270	394
18	543	256	2,140	1,020	3,950	3,150	812	2,270	497	398	1,370	481
19	389	242	1,340	1,240	6,470	8,790	779	2,090	443	532	921	1,050
20	332	243	1,210	2,270	5,900	13,100	798	1,800	405	506	710	907
21	297	263	1,110	1,960	4,550	7,910	852	1,510	367	382	592	736
22	280	349	1,030	1,390	3,900	5,280	796	1,370	326	360	514	646
23	260	337	943	1,270	4,340	4,360	737	1,560	299	332	702	1,470
24	246	304	1,470	1,170	8,050	3,600	720	1,530	279	292	2,050	3,350
25	238	369	4,860	1,580	7,740	3,930	3,450	1,390	280	369	935	3,910
26	233	609	7,130	4,410	5,760	3,670	11,300	1,200	293	377	656	6,280
27	231	508	5,360	3,220	4,410	2,470	6,120	1,450	454	310	605	3,660
28	231	411	3,960	3,340	3,060	2,080	3,970	1,350	886	245	588	2,910
29	218	397	3,570	3,590	-----	1,960	4,110	1,390	633	212	452	2,260
30	214	349	3,950	7,460	-----	2,220	4,400	1,460	429	198	450	1,830
31	208	-----	4,670	5,210	-----	2,250	-----	1,190	-----	197	2,460	-----
TOTAL	7,630	8,667	62,268	93,650	98,000	102,420	62,296	81,580	19,420	12,917	24,247	44,622
MEAN	246	289	2,009	3,021	3,500	3,304	2,077	2,632	647	417	782	1,487
MAX	712	609	7,130	8,580	8,050	13,100	11,300	7,830	1,380	1,190	3,400	6,280
MIN	168	164	437	1,020	1,390	1,240	720	1,190	279	197	186	394

CAL YR 1974 TOTAL 485,541 MEAN 1,330 MAX 11,700 MIN 164 CFSM 1.52 IN 20.64  
WTR YR 1975 TOTAL 617,717 MEAN 1,692 MAX 13,100 MIN 164 CFSM 1.93 IN 26.25

PEAK DISCHARGE (BASE, 10,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1-01	2200	10.98	11,500	4-26	0515	12.71	14,300
3-19	2300	15.39	18,900	5-04	1915	10.66	11,000

01603500 Evitts Creek near Centerville, Pa.

LOCATION.--Lat 39°47'23", long 78°38'48", Bedford County, on left bank 2.0 mi (3.2 km) upstream from Thomas W. Koon Dam, 3.0 mi (4.8 km) south of Centerville, 7.0 mi (11.3 km) upstream from Rock Gully Creek, and at mile 16.3 (26.2 km).

DRAINAGE AREA.--30.2 mi<sup>2</sup> (78.2 km<sup>2</sup>).

PERIOD OF RECORD.--September 1932 to current year. Prior to October 1952, published as "near Bedford Valley".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,027.59 ft (313.209 m) above mean sea level (city of Cumberland bench mark).

AVERAGE DISCHARGE.--43 years, 31.6 ft<sup>3</sup>/s (0.895 m<sup>3</sup>/s), 14.21 in/yr (361 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,310 ft<sup>3</sup>/s (37.1 m<sup>3</sup>/s) Apr. 25, gage height, 3.84 ft (1.170 m); minimum, 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) Nov. 27, gage height, 1.10 ft (0.335 m).  
Period of record: Maximum discharge, 5,240 ft<sup>3</sup>/s (148 m<sup>3</sup>/s) Mar. 17, 1936, gage height, 7.13 ft (2.173 m), from rating curve extended above 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 4.64 ft (1.414 m) and 7.13 ft (2.173 m); minimum, 0.70 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Dec. 17, 1958, gage height, 0.79 ft (0.241 m), result of freezeup.  
Maximum stage known, about 8 ft (2.4 m), from floodmark, date unknown.

REMARKS.--Records good except those for January and February, which are fair.

REVISIONS (WATER YEARS).--WSP 781: 1933(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.5	18	67	63	63	66	91	63	14	6.7	58
2	3.2	3.6	80	42	54	54	61	70	33	12	6.3	40
3	3.2	3.7	31	38	46	47	76	65	30	12	8.8	30
4	3.3	3.8	18	36	40	42	63	220	27	14	32	20
5	3.3	3.9	11	30	41	38	53	170	25	11	10	15
6	3.5	3.8	8.8	27	40	35	49	110	24	9.9	9.8	20
7	3.5	3.8	8.5	27	38	48	47	90	25	9.3	9.1	16
8	3.2	3.7	43	26	33	49	43	80	22	9.4	7.1	14
9	3.2	3.6	36	46	29	35	41	74	19	9.2	6.3	12
10	3.2	3.5	16	32	26	32	39	66	26	21	6.0	10
11	3.2	3.3	12	30	29	32	37	60	20	18	6.8	9.4
12	3.2	12	12	27	26	59	34	54	57	12	7.2	10
13	3.3	8.6	16	28	24	53	32	60	29	24	10	14
14	3.3	5.2	18	26	23	47	30	49	21	13	20	10
15	3.3	4.6	16	24	20	48	35	50	19	11	14	9.8
16	9.1	4.1	93	20	20	57	42	125	19	13	21	9.6
17	7.4	3.9	57	16	38	91	33	66	17	89	15	9.6
18	4.4	3.7	30	18	110	83	31	64	15	101	11	18
19	3.8	3.7	22	27	138	627	31	59	14	28	7.2	49
20	3.6	4.1	18	41	111	378	28	52	13	21	6.0	23
21	3.5	4.4	17	83	96	180	25	46	12	19	5.6	23
22	3.5	4.0	17	38	100	140	24	49	11	15	5.5	19
23	3.5	3.8	14	22	177	112	24	190	11	13	5.8	45
24	3.5	3.7	15	22	223	143	44	72	10	12	6.0	56
25	3.7	3.8	45	74	169	114	403	60	15	12	5.4	766
26	3.7	3.6	39	101	116	86	506	54	17	10	5.0	662
27	3.5	3.5	32	57	88	73	180	49	68	9.3	5.0	229
28	3.5	3.5	29	53	72	68	125	43	40	8.8	5.4	125
29	3.5	3.5	26	78	-----	69	115	37	20	8.1	4.6	85
30	3.6	3.4	25	97	-----	123	84	35	16	7.5	4.6	65
31	3.5	-----	29	70	-----	75	-----	33	-----	7.1	20	-----
TOTAL	116.5	127.3	852.3	1,323	1,990	3,101	2,401	2,343	738	573.6	293.2	2,472.4
MEAN	3.76	4.24	27.5	42.7	71.1	100	80.0	75.6	24.6	18.5	9.46	82.4
MAX	9.1	12	93	101	223	627	506	220	68	101	32	766
MIN	3.2	3.3	8.5	16	20	32	24	33	10	7.1	4.6	9.4
CFSM	.12	.14	.91	1.41	2.35	3.31	2.65	2.50	.81	.61	.31	2.73
IN.	.14	.16	1.05	1.63	2.45	3.82	2.96	2.89	.91	.71	.36	3.05

CAL YR 1974 TOTAL 10,038.0 MEAN 27.5 MAX 264 MIN 3.2 CFSM .91 IN 12.36  
WTR YR 1975 TOTAL 16,331.3 MEAN 44.7 MAX 766 MIN 3.2 CFSM 1.48 IN 20.12

PEAK DISCHARGE (BASE, 400 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1430	3.65	1,120	9-25	0700	3.73	1,200
4-25	2400	3.84	1,310	9-26	0330	3.54	1,010
7-17	2200	3.26	751				

## POTOMAC RIVER BASIN

01608500 South Branch Potomac River near Springfield, W. Va.

LOCATION.--Lat 39°26'49", long 78°39'16", Hampshire County, on left bank at highway bridge, 2.0 mile (3.2 km) east of Springfield, and at mile 13.4 (21.6 km).

DRAINAGE AREA.--1,471 mi<sup>2</sup> (3,810 km<sup>2</sup>).

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft (171.304 m) above mean sea level. 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 February 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.

AVERAGE DISCHARGE.--51 years (1899-1901, 1903-5, 1928-75), 1,279 ft<sup>3</sup>/s (36.22 m<sup>3</sup>/s), 11.81 in/yr (300 mm/yr).

EXTREMES.--Current year: Maximum discharge, 40,500 ft<sup>3</sup>/s (1,150 m<sup>3</sup>/s) Mar. 20, gage height, 20.34 ft (6.200 m), from rating curve extended as explained below; minimum, 163 ft<sup>3</sup>/s (4.62 m<sup>3</sup>/s) Oct. 15, gage height, 1.56 ft (0.475 m).

Period of record: Maximum discharge, 143,000 ft<sup>3</sup>/s (4,050 m<sup>3</sup>/s) Mar. 18, 1936, gage height, 34.2 ft (10.42 m), from rating curve extended above 18,000 ft<sup>3</sup>/s (510 m<sup>3</sup>/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, 29 ft<sup>3</sup>/s (0.82 m<sup>3</sup>/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.

Flood in November 1877 reached a stage of about 34 ft (10.4 m), from floodmarks, discharge, 140,000 ft<sup>3</sup>/s (3,960 m<sup>3</sup>/s).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1552: 1903-6, 1929-30(M), 1932-33(M), 1935(M), 1937-40(M), 1942-43(M), 1945(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	216	401	1840	3020	1390	3270	4400	1970	785	300	1300
2	176	212	781	2610	2860	1270	2750	3930	2990	608	297	869
3	173	212	723	2120	2610	1100	2370	3610	2320	504	273	1670
4	171	209	683	1750	2250	990	2140	5840	1810	479	253	931
5	171	209	544	1500	2030	930	1870	8860	1470	457	269	636
6	171	212	447	1260	2010	849	1620	5930	1270	668	305	510
7	171	222	385	1110	3650	840	1450	4610	1130	669	1530	513
8	168	231	478	1020	3520	930	1350	3620	1010	518	1010	524
9	168	231	3530	1010	2810	1070	1240	3150	890	565	683	443
10	168	219	3840	1080	2250	993	1160	2840	781	659	510	380
11	166	209	2310	1140	1860	957	1110	2540	707	1600	424	337
12	168	228	1680	1200	2490	957	1060	2270	734	1260	380	313
13	166	256	1850	1370	6600	1200	989	2300	720	1420	354	314
14	166	275	1930	1440	5080	1980	912	2310	707	944	390	306
15	166	308	1840	1250	3630	2800	857	2060	665	682	491	292
16	192	288	2130	1100	2840	3820	865	2140	581	591	1130	272
17	396	271	3490	980	2520	4620	857	2760	524	537	1110	254
18	921	263	3040	890	2840	4940	791	2500	490	578	781	255
19	579	253	2150	921	3150	8300	759	2390	452	1100	558	265
20	430	253	1680	1980	3020	31500	739	2380	420	844	447	274
21	354	260	1460	2740	2560	13800	737	2080	392	678	377	300
22	313	304	1270	2050	2130	7760	685	1800	374	563	336	315
23	283	418	1150	1820	1890	5640	653	1620	352	494	324	4010
24	263	401	1060	1690	2020	4420	670	1690	335	427	466	8720
25	256	385	2000	1830	2190	4350	858	1780	322	376	370	8080
26	249	412	5170	6870	2080	3760	2520	1590	327	463	304	11000
27	242	436	3960	6510	1760	3060	3240	1790	1080	630	267	6320
28	235	401	2760	4150	1540	2560	2500	1420	3300	499	239	3390
29	228	370	2380	3110	---	2270	2530	1170	1930	411	225	2170
30	222	354	2020	3490	---	2760	5200	1010	1100	356	215	1590
31	219	---	1850	3410	---	3740	---	933	---	322	296	---
TOTAL	7935	8518	58992	65241	77210	125556	47752	87323	31153	20687	14914	56553
MEAN	256	284	1903	2105	2758	4050	1592	2817	1038	667	481	1885
MAX	921	436	5170	6870	6600	31500	5200	8860	3300	1600	1530	11000
MIN	166	207	385	890	1540	840	653	933	322	322	215	254
CFSM	.17	.19	1.29	1.43	1.67	2.75	1.08	1.92	.71	.45	.33	1.28
IN.	.20	.22	1.49	1.65	1.95	3.18	1.21	2.21	.79	.52	.38	1.43
CAL YR 1974	TOTAL	498179	MEAN	1365	MAX	24800	MIN	166	CFSM	.93	IN	12.60
WTR YR 1975	TOTAL	601834	MEAN	1649	MAX	31500	MIN	166	CFSM	1.12	IN	15.22

PEAK DISCHARGE (BASE, 10,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-20	1230	20.34	40,500	9-26	1130	11.52	13,600
5-05	0115	9.69	10,300				

01609000 Town Creek near Oldtown, Md.

LOCATION.--Lat 39°33'12", long 78°33'19". Allegany County, on left bank at downstream side of highway bridge 2.0 mi (3.2 km) upstream from Sawpit Run, 3.0 mi (4.8 km) northeast of Oldtown, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--148 mi<sup>2</sup> (383 km<sup>2</sup>).

PERIOD OF RECORD.--July 1928 to September 1935, June 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 547.97 ft (167.021 m) above mean sea level, adjustment of 1929. July 1928, to September 1935, nonrecording gage on upstream side of highway bridge at datum 0.08 ft (0.024 m) lower.

AVERAGE DISCHARGE.--15 years (1928-35, 1967-75), 154 ft<sup>3</sup>/s (4.361 m<sup>3</sup>/s), 14.13 in/yr (359 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,740 ft<sup>3</sup>/s (163 m<sup>3</sup>/s) Apr. 26, gage height, 11.82 ft (3.603 m); minimum, 5.1 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Oct. 3, 4, 5, gage height, 1.93 ft (0.588 m).  
Period of record: Maximum discharge, 11,700 ft<sup>3</sup>/s (331 m<sup>3</sup>/s) June 22, 1972, gage height, 14.13 ft (4.307 m); minimum, 0.9 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Aug. 2, 3, 7-14, 1930, gage height, 1.49 ft (0.454 m).  
Flood of Mar. 17 or 18, 1936, reached a stage of 19.08 ft (5.816 m), from floodmarks, discharge, 27,000 ft<sup>3</sup>/s (765 m<sup>3</sup>/s), from rating curve extended above 9,500 ft<sup>3</sup>/s (269 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow.

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	7.4	81	124	269	294	281	454	158	104	12	172
2	6.0	7.4	925	159	230	242	250	423	103	77	12	77
3	5.4	7.3	394	136	192	203	298	349	77	63	11	58
4	5.1	7.0	206	132	150	171	322	1,300	65	67	9.9	42
5	5.1	7.7	110	116	155	149	262	1,070	57	62	26	33
6	5.7	8.4	75	98	191	143	238	641	52	48	20	28
7	6.3	8.4	55	95	196	140	214	492	54	41	15	41
8	5.7	8.1	178	95	145	196	190	358	48	38	13	34
9	6.6	8.1	315	270	130	140	167	299	43	37	13	28
10	6.6	7.7	175	333	108	131	151	280	39	35	10	24
11	6.6	7.7	107	249	120	127	141	234	39	193	11	21
12	7.3	13	89	195	153	161	129	211	140	122	11	20
13	7.5	29	75	184	140	343	116	209	225	89	15	23
14	7.7	30	75	154	114	292	107	177	113	66	25	25
15	7.6	21	76	110	106	294	107	160	80	58	18	20
16	14	17	357	108	120	397	124	229	65	53	19	18
17	20	15	608	104	150	472	117	216	57	46	20	18
18	19	13	288	90	672	582	102	191	49	42	21	20
19	15	13	179	135	949	1,330	101	182	43	38	16	41
20	11	13	133	455	833	2,530	96	157	39	34	13	84
21	12	13	107	250	589	887	83	136	34	32	12	56
22	9.2	13	95	205	503	578	76	122	30	30	10	51
23	8.1	13	80	180	840	457	74	184	28	26	9.6	99
24	8.0	12	69	145	1,370	398	88	174	28	22	9.2	194
25	8.8	11	73	215	1,180	434	799	154	30	22	9.6	1,120
26	8.8	12	110	565	697	343	3,070	130	132	20	8.9	3,190
27	8.1	11	102	397	469	283	1,000	117	246	19	8.4	1,100
28	7.7	11	98	296	356	254	651	102	570	15	7.6	475
29	7.7	11	88	261	-----	245	526	85	234	16	7.4	284
30	7.7	11	79	344	-----	345	447	82	145	14	7.0	203
31	7.4	-----	75	313	-----	332	-----	95	-----	13	17	-----
TOTAL	268.6	367.2	5,477	6,513	11,127	12,893	10,327	9,013	3,023	1,542	417.6	7,599
MEAN	8.66	12.2	177	210	397	416	344	291	101	49.7	13.5	253
MAX	20	30	925	565	1,370	2,530	3,070	1,300	570	193	26	3,190
MIN	5.1	7.0	55	90	106	127	74	82	28	13	7.0	18
CFSM	.06	.08	1.20	1.42	2.68	2.81	2.32	1.97	.68	.34	.09	1.71
IN.	.07	.09	1.38	1.64	2.80	3.24	2.60	2.27	.76	.39	.10	1.91

CAL YR 1974 TOTAL 49,303.1 MEAN 135 MAX 945 MIN 5.1 CFSM .91 IN 12.39  
WTR YR 1975 TOTAL 68,567.4 MEAN 188 MAX 3,190 MIN 5.1 CFSM 1.27 IN 17.23

PEAK DISCHARGE (BASE, 1,500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-24	2115	7.29	1,560	5-04	1630	7.96	1,880
3-20	0500	10.69	4,080	9-26	1815	11.11	4,610
4-26	*	11.82	5,740				

\* Unknown.

## POTOMAC RIVER BASIN

01610000 Potomac River at Paw Paw, W. Va.

LOCATION.--39°32'13", long 78°27'28", Allegany County, Md., on left bank 250 ft (76 m) upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi (5.3 km) downstream from Little Cacapon River, and at mile 277 (446 km).

DRAINAGE AREA.--3,109 mi<sup>2</sup> (8,052 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft (148.706 m) above mean sea level (Corps of Engineers bench mark). Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft (76 m) downstream at same datum.

AVERAGE DISCHARGE.--37 years, 3,196 ft<sup>3</sup>/s (90.51 m<sup>3</sup>/s), 13.97 in/yr (355 mm/yr).

EXTREMES.--Current year: Maximum discharge, 59,900 ft<sup>3</sup>/s (1,700 m<sup>3</sup>/s) Mar. 20, gage height, 27.66 ft (8.431 m); minimum, 360 cfs (10.2 m<sup>3</sup>/s) Oct. 4, 5, gage height, 3.44 ft (1.049 m).  
 Period of record: Maximum discharge, 111,000 ft<sup>3</sup>/s (3,140 m<sup>3</sup>/s) Oct. 16, 1942, gage height, 38.36 ft (11.692 m); minimum, 164 ft<sup>3</sup>/s (4.64 m<sup>3</sup>/s) Sept. 10, 11, 1966.  
 Maximum stage known, 54.0 ft (16.46 m) Mar. 18, 1936, discharge, 240,000 ft<sup>3</sup>/s (6,800 m<sup>3</sup>/s), from rating curve extended above 85,000 ft<sup>3</sup>/s (2,410 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow at site 5.0 mi (8.0 km) upstream at Okonoko, W. Va.

REMARKS.--Records good. Low flow affected by Stony River Reservoir (see station 01595200), and since December 1950, by Savage River Reservoir (see station 01597500).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	413	477	954	8,720	8,950	5,410	6,800	10,400	3,960	1,810	637	5,060
2	392	471	5,450	12,400	7,860	4,680	5,950	9,940	4,960	1,410	609	4,140
3	372	458	3,820	9,270	6,760	4,160	5,480	8,710	4,170	1,180	598	3,910
4	364	440	2,810	7,590	5,730	3,980	5,380	14,800	3,400	1,310	579	2,900
5	367	447	2,020	6,010	5,230	3,430	4,840	22,700	2,860	1,550	592	2,120
6	369	445	1,550	4,810	5,280	3,060	4,360	14,800	2,470	1,600	726	1,710
7	373	444	1,320	4,100	7,250	2,990	4,000	11,200	2,310	1,480	1,460	1,640
8	368	461	1,740	3,550	7,460	4,190	3,740	9,490	2,160	1,250	1,880	1,580
9	371	475	4,690	3,870	6,510	4,340	3,500	7,410	1,900	1,240	1,300	1,420
10	380	457	7,010	4,820	5,340	3,790	3,330	7,670	1,670	1,290	994	1,210
11	378	435	4,900	4,410	4,560	3,890	3,200	6,290	1,520	2,390	826	1,070
12	375	485	4,000	4,170	4,840	4,000	3,010	5,640	2,120	2,450	739	1,020
13	377	678	3,620	4,820	9,710	5,510	2,800	5,600	3,040	3,060	765	1,000
14	374	866	3,930	4,810	9,140	6,340	2,580	5,330	2,490	2,670	993	1,020
15	370	814	3,920	4,090	6,870	7,090	2,480	4,830	2,000	1,910	1,840	925
16	439	730	4,960	3,580	5,690	8,660	2,520	5,600	1,730	1,640	3,260	858
17	668	661	8,530	2,980	5,440	9,450	2,450	6,580	1,500	1,550	5,100	806
18	1,730	617	7,150	2,780	8,820	10,800	2,270	5,760	1,350	1,360	3,310	815
19	1,370	589	5,160	2,840	12,300	18,100	2,190	5,410	1,210	1,900	2,250	1,290
20	1,020	578	4,020	6,150	12,200	54,600	2,150	5,150	1,090	2,020	1,700	1,720
21	830	580	3,590	6,700	9,670	29,000	2,230	4,560	989	1,590	1,380	1,410
22	721	601	3,180	5,320	8,120	15,300	2,030	4,010	910	1,330	1,200	1,310
23	648	786	2,870	4,610	8,040	12,800	1,890	4,230	843	1,190	1,070	3,840
24	602	823	2,890	4,270	12,600	9,950	1,920	4,040	795	1,030	2,400	13,000
25	570	783	4,790	4,390	13,600	10,000	4,030	4,630	775	951	2,020	18,400
26	547	922	12,900	10,500	10,600	8,990	20,700	3,680	1,450	969	1,430	26,900
27	532	1,130	10,300	12,400	8,320	7,230	13,000	4,420	1,950	1,170	1,130	16,200
28	521	978	7,720	9,000	6,510	6,090	9,000	3,990	5,450	1,070	1,090	8,900
29	511	877	6,770	7,610	-----	5,630	8,450	3,210	4,320	877	929	6,280
30	496	824	6,230	10,800	-----	6,260	11,200	3,640	2,560	755	810	4,930
31	484	-----	6,850	10,100	-----	7,590	-----	3,130	-----	680	1,970	-----
TOTAL	17,332	19,332	149,644	191,470	223,400	287,310	147,480	216,850	67,952	46,682	45,587	137,384
MEAN	559	644	4,827	6,176	7,197	9,268	4,916	6,995	2,265	1,506	1,471	4,579
MAX	1,730	1,130	12,900	12,400	13,600	54,600	20,700	22,700	5,450	3,060	5,100	26,900
MIN	364	435	954	2,780	4,560	2,990	1,890	3,130	775	680	579	806

CAL YR 1974 TOTAL 1,199,141 MEAN 3,285 MAX 32,200 MIN 364 CFSM 1.06 IN 14.34  
 WTR YR 1975 TOTAL 1,550,423 MEAN 4,248 MAX 54,600 MIN 364 CFSM 1.37 IN 18.55

PEAK DISCHARGE (BASE, 20,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-20	1315	27.66	59,900	5-05	0400	17.60	25,800
4-26	1245	17.29	24,900	9-26	1530	19.12	30,300

01610155 Sideling Hill Creek near Bellegrove, Md.

LOCATION.--Lat 39°38'58", long 78°20'40", Washington County, on left bank at Highway bridge on Pearre Road, 1.2 mi (1.9 km) upstream from mouth, and 4.0 mi (6.4 km) south of Bellegrove.

DRAINAGE AREA.--102 mi<sup>2</sup> (264 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 440.41 ft (134.237 m) above mean sea level, adjustment of 1944.

AVERAGE DISCHARGE.--8 years, 123 ft<sup>3</sup>/s (3.483 m<sup>3</sup>/s), 16.38 in/yr (416 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,140 ft<sup>3</sup>/s (202 m<sup>3</sup>/s) Apr. 26, gage height, 9.01 ft (2.746 m); minimum, 0.15 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Aug. 29, gage height, 0.94 ft (0.287 m).  
Period of record: Maximum discharge, 14,200 ft<sup>3</sup>/s (402 m<sup>3</sup>/s) June 22, 1972, gage height, 12.44 ft (3.792 m); minimum, no flow for many days in August and September 1968.

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

REVISIONS (WATER YEARS).--WRD Md. and Del. 1970: 1967-69(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	1.7	45	61	161	180	180	231	67	67	1.3	58
2	.33	1.7	869	120	136	145	160	242	48	45	.95	43
3	.33	1.7	329	102	111	117	177	213	36	34	.76	29
4	.33	1.9	195	88	86	93	193	1,000	29	37	.84	20
5	.33	1.9	121	76	98	78	162	951	24	33	15	15
6	.33	1.9	84	64	105	73	148	507	21	23	11	11
7	.33	1.9	61	58	102	68	133	351	23	17	6.6	22
8	.33	1.9	205	58	72	84	116	232	21	15	4.5	23
9	.27	1.9	350	110	62	65	98	176	17	15	3.2	17
10	.28	1.9	193	260	58	57	85	153	14	17	2.4	12
11	.33	1.9	119	180	62	56	77	126	13	34	1.8	8.9
12	.33	4.5	89	130	73	76	68	108	101	41	1.7	7.2
13	.33	24	72	100	70	187	59	117	156	100	1.4	6.0
14	.34	28	60	78	58	189	51	91	83	85	1.8	5.0
15	.43	17	53	60	54	197	48	76	53	50	1.7	5.3
16	1.2	13	235	54	57	281	57	101	38	35	1.8	5.5
17	2.0	10	630	50	68	327	55	107	29	31	2.2	4.3
18	3.7	8.7	281	48	315	416	48	97	22	29	4.0	3.9
19	2.8	7.7	175	70	776	2,100	48	94	17	24	5.7	4.1
20	2.2	7.2	129	380	723	1,600	45	82	14	19	5.3	16
21	1.9	7.2	100	240	449	549	38	68	11	16	3.6	22
22	1.6	7.2	86	160	345	301	34	63	8.7	14	2.4	16
23	1.4	7.2	70	140	597	233	31	303	17	11	1.7	40
24	1.7	6.3	59	13	1,050	197	36	180	43	8.7	1.3	122
25	1.7	5.9	57	150	943	209	1,250	117	18	7.0	.90	940
26	1.7	5.9	59	454	490	185	3,110	89	28	5.7	.74	3,050
27	1.9	5.5	56	323	298	153	805	73	355	4.5	.99	772
28	1.9	5.1	53	230	222	138	414	58	649	3.6	.76	283
29	1.9	5.1	53	191	-----	130	335	44	205	2.8	.40	157
30	1.9	4.8	49	217	-----	177	240	39	111	2.2	.48	106
31	1.9	-----	46	196	-----	195	-----	46	-----	1.7	3.4	-----
TOTAL	36.35	200.6	4,983	4,578	7,641	8,856	8,301	6,135	2,271.7	828.2	90.62	5,824.2
MEAN	1.17	6.69	161	148	273	286	277	198	75.7	26.7	2.92	194
MAX	3.7	28	869	454	1,050	2,100	3,110	1,000	649	100	15	3,050
MIN	.27	1.7	45	48	54	56	31	39	8.7	1.7	.40	3.9
CFSM	.01	.07	1.58	1.45	2.68	2.80	2.72	1.94	.74	.26	.03	1.90
IN.	.01	.07	1.82	1.67	2.2	3.23	3.03	2.24	.83	.30	.03	2.12

CAL YR 1974 TOTAL 30,138.10 MEAN 82.6 MAX 869 MIN .27 CFSM .81 IN 10.99  
WTR YR 1975 TOTAL 49,745.67 MEAN 136 MAX 3,110 MIN .27 CFSM 1.33 IN 18.14

PEAK DISCHARGE (BASE, 1,100 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0300	3.69	1,160	5-04	1515	4.20	1,500
2-24	1900	3.75	1,200	6-27	2015	4.21	1,510
3-19	2045	7.21	4,480	9-26	1130	7.54	4,900
4-26	0130	9.01	7,140				



## POTOMAC RIVER BASIN

01613000 Potomac River at Hancock, Md.

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, on left bank 0.2 mi (0.3 km) downstream from Little Tonoloway Creek, 0.5 mi (0.8 km) downstream from bridge on U. S. Highway 522 at Hancock, 1.1 mi (1.8 km) upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239 (385 km).

DRAINAGE AREA.--4,073 mi<sup>2</sup> (10,549 km<sup>2</sup>).

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 Bureau.

GAGE.--Water-stage recorder. Datum of gage is 383.46 ft (116.879 m) above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--43 years, 4,070 ft<sup>3</sup>/s (115.3 m<sup>3</sup>/s), 13.57 in/yr (345 mm/yr).

EXTREMES.--Current year: Maximum discharge, 77,200 ft<sup>3</sup>/s (2,190 m<sup>3</sup>/s) Mar. 20, gage height, 25.44 ft (7.754 m); minimum, 445 ft<sup>3</sup>/s (12.6 m<sup>3</sup>/s) Oct. 5, gage height, 2.63 ft (0.802 m).

Period of record: Maximum discharge, 340,000 ft<sup>3</sup>/s (9,630 m<sup>3</sup>/s) Mar. 18, 1936, gage height, 47.6 ft (14.508 m), from rating curve extended above 120,000 ft<sup>3</sup>/s (3,400 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum observed, 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s) Oct. 4, 1932, gage height, 2.01 ft (0.613 m).

Maximum stage known prior to 1932, about 40 ft (12.2 m) in May 1889 (discharge, about 220,000 ft<sup>3</sup>/s or about 6,230 m<sup>3</sup>/s).

REMARKS.--Records good. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir (see station 01595200) and since December 1950, by Savage River Reservoir (see station 01597500). Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 781: 1933(M). WSP 801: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	522	611	1,150	7,760	10,200	7,390	9,520	13,200	4,430	3,000	826	3,390
2	500	602	7,430	12,709	9,470	6,280	8,210	12,500	7,620	2,230	746	6,410
3	475	596	7,720	10,700	8,690	5,510	7,280	11,400	6,430	1,790	689	5,180
4	457	584	4,890	8,910	7,560	4,910	7,030	13,300	4,920	1,570	701	4,400
5	447	575	3,600	7,430	6,540	4,620	6,440	27,300	4,000	1,710	715	3,040
6	451	575	2,650	5,730	6,130	3,970	5,690	20,800	3,390	1,920	663	2,370
7	454	566	2,150	4,950	6,620	3,640	5,130	14,800	3,070	1,870	799	2,010
8	458	558	2,340	4,180	8,830	3,660	4,740	12,300	2,840	1,720	1,700	1,940
9	458	575	4,250	4,190	8,180	4,700	4,400	9,870	2,550	1,500	1,880	1,870
10	457	597	9,310	5,600	7,250	4,740	4,110	9,330	2,260	1,530	1,420	1,640
11	470	587	7,060	5,670	5,840	4,290	3,920	8,450	2,040	1,670	1,120	1,410
12	471	643	5,440	4,950	5,380	4,340	3,720	7,340	2,290	3,540	947	1,250
13	471	705	4,610	5,240	7,600	4,910	3,480	7,050	3,410	3,290	838	1,150
14	477	923	4,800	5,710	11,700	6,560	3,230	7,130	3,610	4,050	896	1,110
15	476	1,110	4,950	5,150	9,220	7,640	3,040	6,500	2,810	2,980	1,120	1,130
16	540	1,050	5,770	4,480	7,610	9,660	3,030	6,150	2,340	2,310	2,280	1,040
17	590	935	11,300	3,790	6,640	11,400	3,040	8,370	2,050	2,060	4,920	948
18	989	860	10,800	3,400	8,480	14,000	2,900	8,050	1,810	1,890	4,870	902
19	2,130	801	7,910	3,330	14,000	18,400	2,710	7,220	1,630	1,780	3,530	936
20	1,570	775	5,840	5,230	15,800	64,700	2,620	6,640	1,460	2,420	2,560	1,530
21	1,180	741	4,880	8,380	13,000	48,800	2,600	5,990	1,320	2,380	2,020	1,890
22	984	733	4,320	7,210	10,500	23,600	2,540	5,190	1,180	2,520	1,670	1,580
23	868	747	3,860	6,010	9,840	16,500	2,340	5,240	1,080	1,990	1,450	2,050
24	799	956	3,490	5,480	13,800	13,100	2,290	5,470	1,050	1,620	1,270	13,000
25	735	996	3,880	5,330	17,300	11,800	3,460	6,030	981	1,350	2,770	25,400
26	699	956	10,800	8,420	14,000	11,300	22,400	5,520	1,110	1,490	2,260	44,700
27	673	1,130	12,700	16,700	10,800	9,390	19,500	5,010	1,940	1,810	1,720	33,100
28	656	1,300	9,680	12,200	8,980	7,090	12,600	5,810	7,020	1,670	1,390	14,800
29	639	1,130	7,890	9,940	-----	7,440	10,100	4,550	7,840	1,400	1,240	9,740
30	636	1,040	7,130	10,000	-----	7,270	12,200	4,090	4,600	1,130	1,130	7,650
31	626	-----	7,250	12,200	-----	9,620	-----	3,930	-----	949	1,140	-----
TOTAL	21,358	23,957	189,850	220,970	269,960	361,530	184,270	274,530	93,081	63,139	51,280	197,566
MEAN	689	799	6,124	7,128	9,641	11,660	6,142	8,856	3,103	2,037	1,654	6,586
MAX	2,130	1,300	12,700	16,700	17,300	64,700	22,400	27,300	7,840	4,050	4,920	44,700
MIN	447	558	1,150	3,330	5,380	3,640	2,290	3,930	981	949	663	902
CFSM	.17	.20	1.50	1.75	2.37	2.86	1.51	2.17	.76	.50	.41	1.62
IN.	.20	.22	1.73	2.02	2.47	3.30	1.68	2.51	.85	.58	.47	1.80

CAL YR 1974 TOTAL 1,462,652 MEAN 4,007 MAX 29,000 MIN 447 CFSM .98 IN 13.36  
WTR YR 1975 TOTAL 1,951,491 MEAN 5,347 MAX 64,700 MIN 447 CFSM 1.31 IN 17.82

PEAK DISCHARGE (BASE, 23,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-20	2000	25.44	77,200	5-05	1345	15.26	30,300
4-26	2100	14.74	28,400	9-26	2115	19.54	47,700

01614500 Conococheague Creek at Fairview, Md.

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, on right bank 0.7 mi (1.1 km) upstream from highway bridge in Fairview, 2.0 mi (3.2 km) upstream from Rockdale Run, 6.5 mi (10.5 km) northwest of Hagerstown, and 19.1 mi (30.7 km) upstream from mouth.

DRAINAGE AREA.--494 mi<sup>2</sup> (1,279 km<sup>2</sup>).

PERIOD OF RECORD.--June 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft (119.436 m) above mean sea level, adjustment 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.

AVERAGE DISCHARGE.--47 years, 583 ft<sup>3</sup>/s (16.51 m<sup>3</sup>/s), 16.03 in/yr (407 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,800 ft<sup>3</sup>/s (447 m<sup>3</sup>/s) Sept. 26, gage height, 14.79 ft (4.508 m); minimum, 86 ft<sup>3</sup>/s (2.44 m<sup>3</sup>/s) Oct. 15, gage height, 1.41 ft (0.430 m).  
Period of record: Maximum discharge, 32,400 ft<sup>3</sup>/s (918 m<sup>3</sup>/s) June 23, 1972, gage height, 24.5 ft (7.47 m), from floodmark, from rating curve extended above 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s) Aug. 8, Sept. 12, 1966; minimum daily, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Nov. 28, 1930.  
Maximum stage known prior to 1928, about 16.5 ft (5.03 m), present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft<sup>3</sup>/s or about 620 m<sup>3</sup>/s.

REMARKS.--Records good except those for January and February, which are fair. Low flow partly regulated by small powerplants near Mercersburg, Pa. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSF 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	103	125	425	894	1,520	1,350	1,450	1,390	658	186	421
2	106	104	1,380	430	809	1,320	1,200	1,380	734	562	182	302
3	102	102	1,410	395	723	1,160	1,210	1,130	555	509	177	271
4	100	105	746	382	654	1,010	1,170	1,960	474	508	269	216
5	100	110	509	370	643	911	997	2,290	802	476	511	194
6	100	108	403	345	672	848	913	1,890	1,020	420	305	330
7	102	105	353	345	695	813	854	1,910	913	387	259	367
8	102	104	1,280	349	580	820	803	1,530	701	516	226	272
9	101	101	1,710	1,390	480	705	749	1,330	567	458	204	223
10	101	98	935	1,680	430	657	707	1,240	494	471	189	194
11	97	99	660	1,230	440	633	675	1,090	456	428	189	180
12	98	159	544	1,040	508	758	644	1,010	1,640	538	189	180
13	94	387	480	1,250	485	1,300	606	1,040	2,700	429	190	186
14	93	235	434	1,160	390	1,050	570	898	1,410	508	566	177
15	95	206	403	820	340	1,010	567	799	1,030	506	379	162
16	136	189	1,720	720	380	1,320	575	895	836	435	307	158
17	262	165	2,910	640	443	1,620	539	813	722	439	556	154
18	177	152	1,530	580	1,090	1,710	513	708	631	391	358	158
19	140	143	1,080	594	1,860	4,990	527	667	564	380	289	318
20	123	143	860	954	2,410	10,300	561	623	510	339	244	480
21	114	177	722	720	1,840	4,680	457	581	463	316	222	1,110
22	113	167	637	620	1,540	2,900	432	551	427	305	213	560
23	110	150	543	580	1,980	2,430	416	538	403	274	200	2,730
24	108	140	500	594	3,320	2,080	431	524	423	256	189	2,410
25	107	136	480	935	4,050	2,120	1,430	539	429	250	187	8,200
26	106	133	457	2,080	2,910	1,710	6,620	564	419	242	184	14,400
27	105	125	408	1,420	2,160	1,450	3,260	502	904	224	170	11,400
28	104	127	391	1,120	1,760	1,320	2,100	469	2,270	217	163	4,610
29	106	123	374	1,020	-----	1,270	1,730	421	1,190	207	159	2,600
30	107	117	353	1,040	-----	1,660	1,460	400	818	199	167	1,890
31	105	-----	341	959	-----	1,640	-----	592	-----	191	239	-----
TOTAL	3,527	4,313	24,678	26,187	34,486	57,715	34,006	30,334	25,895	12,039	7,868	54,853
MEAN	114	144	796	845	1,232	1,862	1,134	979	863	388	254	1,828
MAX	262	387	2,910	2,080	4,050	10,300	6,620	2,290	2,700	658	566	14,400
MIN	93	98	125	345	340	633	416	400	403	191	159	154
CFSM	.23	.29	1.61	1.71	2.49	3.77	2.30	1.98	1.75	.79	.51	3.70
IN.	.27	.32	1.86	1.97	2.60	4.35	2.56	2.28	1.95	.91	.59	4.13
CAL YR 1974	TOTAL 229,643	MEAN 629	MAX 6,160	MIN 93	CFSM 1.27	IN 17.29						
WTR YR 1975	TOTAL 315,901	MEAN 865	MAX 14,400	MIN 93	CFSM 1.75	IN 23.79						

PEAK DISCHARGE (BASE, 4,300 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
2-24	2330	7.62	4,450	4-26	0700	9.91	7,390
3-20	0200	12.85	12,300	9-26	1700	14.79	15,800

## POTOMAC RIVER BASIN

01617800 Marsh Run at Grimes, Md.

LOCATION.--Lat 39°30'53", long 77°46'38", Washington County, on right bank 220 ft (67 m) upstream from bridge on Sprecher Road, 0.1 mile (0.2 km) downstream from unnamed tributary, 0.5 mile (0.8 km) southwest of Grimes, 1.5 miles (2.4 km) upstream from mouth, and 2.2 miles (3.5 km) southwest of Fairplay.

DRAINAGE AREA.--18.9 mi<sup>2</sup> (49.0 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 360 ft (110 m), from topographic map.

AVERAGE DISCHARGE.--12 years, 12.6 ft<sup>3</sup>/s (0.357 m<sup>3</sup>/s), 9.05 in/yr (230 mm/yr).

EXTREMES.--Current year: Maximum discharge, 345 ft<sup>3</sup>/s (9.77 m<sup>3</sup>/s) June 1, gage height, 3.78 ft (1.152 m); minimum daily, 3.3 ft<sup>3</sup>/s (0.093 m<sup>3</sup>/s) Nov. 27, 29, 30.

Period of record: Maximum discharge, 345 ft<sup>3</sup>/s (9.77 m<sup>3</sup>/s) June 1, 1975, gage height, 3.78 ft (1.152 m); minimum daily, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Jan. 31, 1966, result of freezeup.

REMARKS.--Records good.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.7	5.1	9.9	14	23	22	26	187	33	15	20
2	4.0	3.8	4.9	8.8	14	22	23	23	69	33	15	16
3	3.8	3.8	14	8.4	13	19	23	18	60	28	15	14
4	4.0	3.7	10	8.4	13	17	22	40	46	29	15	13
5	4.0	3.9	9.2	8.0	13	17	20	31	69	27	16	13
6	4.0	3.8	8.0	8.0	14	17	20	29	69	26	16	13
7	4.1	3.8	8.0	8.4	15	17	20	30	48	26	15	13
8	4.0	3.6	19	8.0	14	16	19	25	42	26	14	12
9	4.0	3.5	13	15	13	16	18	23	39	25	14	11
10	4.0	3.5	11	13	12	17	18	23	37	24	13	11
11	4.0	3.6	9.9	12	12	17	18	22	37	23	14	11
12	3.9	9.1	9.9	11	13	22	18	26	63	22	14	16
13	3.8	6.6	9.2	13	13	22	17	26	43	23	15	13
14	3.5	4.4	9.5	12	12	21	15	22	38	28	20	11
15	3.7	5.4	8.8	11	12	24	17	20	35	26	16	11
16	8.3	4.5	22	10	12	24	18	38	31	32	16	11
17	6.6	4.0	18	9.9	13	30	17	26	28	26	18	11
18	5.0	3.8	13	9.9	15	28	17	23	30	22	15	11
19	4.7	3.8	13	10	17	49	18	22	28	22	14	14
20	4.4	4.8	12	13	16	48	16	20	26	26	14	16
21	4.3	5.1	11	16	15	38	16	19	24	30	13	20
22	4.1	4.0	11	11	15	36	15	18	22	22	13	14
23	4.0	3.8	10	11	18	33	15	20	24	20	13	62
24	4.0	3.7	10	11	30	31	18	18	23	20	12	50
25	4.0	3.8	10	18	38	30	33	18	22	20	12	129
26	4.0	3.5	9.5	20	29	27	44	18	23	18	12	158
27	3.8	3.3	9.5	15	26	24	24	18	80	18	14	96
28	3.9	3.5	9.5	15	24	24	22	16	100	16	12	66
29	3.8	3.3	9.2	15	---	28	26	16	50	16	11	53
30	3.8	3.3	8.8	14	---	34	22	16	39	16	11	46
31	3.8	---	8.8	14	---	24	---	51	---	16	30	---
TOTAL	131.4	124.4	378.9	367.7	465	795	611	741	1432	739	457	955
MEAN	4.24	4.15	12.2	11.9	16.6	25.6	20.4	23.9	47.7	23.8	14.7	31.8
MAX	8.3	9.1	49	20	38	49	44	51	187	33	30	158
MIN	3.5	3.3	5.1	8.0	12	16	15	16	22	16	11	11
CFSM	.22	.22	.65	.63	.88	1.35	1.08	1.26	2.52	1.26	.78	1.68
IN.	.26	.24	.75	.72	.92	1.56	1.20	1.46	2.82	1.45	.90	1.88

CAL YR 1974 TOTAL 4439.4 MEAN 12.2 MAX 49 MIN 3.3 CFSM .65 IN 8.74  
WTR YR 1975 TOTAL 7197.4 MEAN 19.7 MAX 187 MIN 3.3 CFSM 1.04 IN 14.17

PEAK DISCHARGE (BASE, 60 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0330	2.06	79	6-12	0745	1.99	72
3-19	1530	1.97	70	6-27	1800	3.18	218
4-25	2230	1.95	68	8-31	1230	1.89	62
6-01	0315	3.78	345	9-23	0745	2.11	84
6-05	1930	2.81	162	9-26	1000	2.94	181

01618000 Potomac River at Shepherdstown, W. Va.

LOCATION.--Lat 39°26'04", long 77°48'07", Jefferson County, on right bank 0.1 mile (0.2 km) downstream from Rumsey Bridge at Shepherdstown, 3.3 miles (5.3 km) upstream from Antietam Creek, and at mile 184 (296 km).

DRAINAGE AREA.--5,936 mi<sup>2</sup> (15,374 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft (85.649 m) above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--36 years (1928-53, 1964-75), 6,003 ft<sup>3</sup>/s (170.0 m<sup>3</sup>/s), 13.73 in/yr (349 mm/yr).

EXTREMES.--Current year: Maximum discharge, 99,400 ft<sup>3</sup>/s (2,820 m<sup>3</sup>/s) Mar. 21, gage height, 22.19 ft (6.764 m); minimum, 629 ft<sup>3</sup>/s (17.8 m<sup>3</sup>/s) Oct. 6, 7, gage height, 1.67 ft (0.509 m).

Period of record: Maximum discharge, 335,000 ft<sup>3</sup>/s (9,490 m<sup>3</sup>/s) Mar. 19, 1936, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 200,000 ft<sup>3</sup>/s (5,660 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s) Aug. 1, 1966; minimum daily, 185 ft<sup>3</sup>/s (5.24 m<sup>3</sup>/s) July 31, 1966.

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 ft<sup>3</sup>/s (8,210 m<sup>3</sup>/s) and 168,000 ft<sup>3</sup>/s (4,760 m<sup>3</sup>/s) respectively, from rating curve extended as explained above.

REMARKS.--Records good. Some regulation at low flow by powerplants above station, Stony River Reservoir (see station 01595200), and since December 1950 by Savage River Reservoir (see station 01597500).

REVISIONS (WATER YEARS).--WSP 756: Drainage area. WSP 781: 1929(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	810	906	1400	8600	14400	12400	14900	18300	11600	6490	1840	4900
2	839	832	11000	10300	12900	10500	13200	18000	15500	4820	1710	7550
3	769	878	22600	14400	11600	9110	11600	16600	11300	3950	1510	6990
4	742	888	11200	11500	10100	7770	10600	17000	8830	3410	1620	5640
5	701	901	7460	9620	8830	7130	9950	32200	7130	3290	1730	4680
6	660	880	5510	7980	8230	6580	9020	33500	6840	3220	2000	3640
7	652	903	4260	6550	8320	5810	8040	23900	6210	3200	1710	3190
8	730	849	4140	5810	10200	5670	7460	18700	5540	3070	1670	2890
9	728	855	7730	5590	11000	6010	6870	15700	4920	3020	2380	2680
10	696	859	9620	7890	9660	6900	6410	13100	4510	2870	2530	2490
11	679	868	11700	8920	8380	6210	6040	12900	4160	3320	2120	2230
12	672	1010	8600	8230	7340	6150	5730	11100	4640	3950	1850	2050
13	689	1300	7080	7310	7610	7110	5430	10600	7730	5210	1750	1920
14	717	1590	6150	8350	12500	9300	5130	10400	8070	4840	1780	1800
15	718	1640	6260	8230	12900	10900	4870	9920	6380	5290	2120	1730
16	809	1610	6960	7190	10300	13500	4660	9430	5160	4200	2280	1710
17	990	1560	16700	6290	8950	16600	4660	10600	4510	3560	3460	1660
18	1120	1430	18600	5450	9370	19500	4640	12000	4070	3330	6750	1590
19	1330	1240	13800	5130	16300	24700	4360	10500	3680	3080	5110	1630
20	2360	1260	10100	5700	23100	73900	4210	9590	3250	3050	3870	1790
21	1860	1230	8040	9620	21300	85100	3950	8790	2910	4360	3070	3240
22	1430	1200	6840	10600	16900	42900	3900	7920	2720	7400	2570	3400
23	1210	1180	6120	9430	14700	28000	3660	7130	2550	4140	2240	5680
24	1120	1170	5450	8290	18200	21700	3540	7700	2360	3200	2010	15700
25	1010	1280	5130	7700	27200	18200	3950	7430	2550	2780	1980	39000
26	1010	1360	5920	10300	25200	17200	26700	8320	2610	2400	3310	77400
27	977	1320	15000	19000	19000	15000	37200	7080	3780	2440	2680	75600
28	948	1380	13100	19000	15100	12600	22200	7180	14300	2630	2230	35600
29	927	1590	10500	14500	---	11000	16300	7130	16000	2460	1900	20100
30	924	1570	8980	12400	---	11000	15600	5980	10100	2220	1750	13900
31	913	---	8100	15100	---	13600	---	5980	---	1930	2140	---
TOTAL	29740	35539	284050	294980	379590	542050	284780	394680	193910	113130	75670	352380
MEAN	959	1185	9163	9515	13560	17490	9493	12730	6464	3649	2441	11750
MAX	2360	1640	22600	19000	27200	85100	37200	33500	16000	7400	6750	77400
MIN	652	832	1400	5130	7340	5670	3540	5980	2360	1930	1510	1590
CFSM	.16	.20	1.54	1.60	2.28	2.95	1.60	2.14	1.09	.61	.41	1.98
IN.	.19	.22	1.78	1.85	2.38	3.40	1.78	2.47	1.22	.71	.47	2.21

CAL YR 1974 TOTAL 2182015 MEAN 5978 MAX 39300 MIN 652 CFSM 1.01 IN 13.67  
WTR YR 1975 TOTAL 2980499 MEAN 8166 MAX 85100 MIN 652 CFSM 1.38 IN 18.68

PEAK DISCHARGE (BASE, 23,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-03	0330	10.08	28,500	3-21	0300	22.19	99,400
1-27	1900	8.88	23,200	4-27	0130	13.26	43,900
2-20	1400	9.09	24,100	5-05	2230	12.32	39,200
2-25	1630	10.15	28,800	9-27	0030	20.49	87,100

01619000 Antietam Creek near Waynesboro, Pa.

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., 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 mi<sup>2</sup> (242.2 km<sup>2</sup>).

PERIOD OF RECORD.--May 1948 to September 1951, October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 550.64 ft (167.835 m) above mean sea level (Corps of Engineers bench mark). May 1948 to September 1951, nonrecording gage and crest-stage gage 100 ft (30 m) downstream at present datum.

AVERAGE DISCHARGE.--13 years (1948-51, 1965-75), 118 ft<sup>3</sup>/s (3.342 m<sup>3</sup>/s), 17.14 in/yr (435 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,850 ft<sup>3</sup>/s (137 m<sup>3</sup>/s) Sept. 26, gage height, 11.70 ft (3.566 m); minimum, 34 ft<sup>3</sup>/s (0.96 m<sup>3</sup>/s) Nov. 2, 3, 8-11, gage height, 3.17 ft (0.966 m).  
Period of record: Maximum discharge, 5,430 ft<sup>3</sup>/s (154 m<sup>3</sup>/s) June 22, 1972, gage height, 12.33 ft (3.758 m), from rating curve extended above 2,700 ft<sup>3</sup>/s (76.5 m<sup>3</sup>/s); minimum daily, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Jan. 30, 1966.

REMARKS.--Records good. Occasional regulation from mills above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	35	56	88	137	245	208	250	609	189	73	91
2	39	35	463	76	129	221	200	207	288	170	71	87
3	38	34	128	71	122	200	205	183	308	163	71	71
4	38	36	90	69	116	182	186	407	225	162	163	65
5	38	37	78	69	121	169	173	337	392	147	160	71
6	38	35	71	69	124	164	165	314	320	137	85	102
7	39	35	69	73	122	160	161	287	328	141	79	75
8	38	35	174	70	109	154	152	238	259	142	73	68
9	39	34	131	228	105	139	146	221	230	148	70	63
10	38	34	106	142	98	136	143	210	205	130	69	63
11	38	34	93	134	98	133	140	194	200	124	69	62
12	37	75	90	123	102	168	133	215	565	123	68	67
13	37	58	84	147	96	164	127	219	373	131	105	66
14	37	45	84	120	92	148	122	185	304	142	301	60
15	37	54	79	107	90	154	127	171	258	124	99	59
16	84	44	267	104	90	158	123	216	231	123	119	59
17	54	40	200	99	103	207	116	172	210	118	135	59
18	43	39	147	99	143	217	116	163	188	110	96	66
19	40	38	126	110	171	1,000	121	159	174	104	85	91
20	39	46	110	145	171	831	112	150	162	110	81	159
21	38	54	103	105	156	476	105	143	150	111	77	334
22	37	43	100	100	149	393	101	138	143	97	75	122
23	38	39	91	97	238	343	98	153	140	92	72	710
24	37	38	86	97	438	355	126	162	149	91	71	470
25	37	40	85	232	525	312	333	188	155	92	70	3,180
26	37	39	80	268	390	260	515	158	137	87	72	4,090
27	36	37	79	193	314	234	289	150	473	83	72	1,700
28	36	37	78	171	271	223	245	139	557	82	66	939
29	36	36	74	163	-----	237	223	128	276	78	64	641
30	36	36	73	157	-----	303	197	128	220	76	64	503
31	36	-----	77	149	-----	228	-----	197	-----	74	81	-----
TOTAL	1,235	1,222	3,572	3,875	4,820	8,314	5,208	6,182	8,229	3,701	2,856	14,193
MEAN	39.8	40.7	115	125	172	268	174	199	274	119	92.1	473
MAX	84	75	463	268	525	1,000	515	407	609	189	301	4,090
MIN	36	34	56	69	90	133	98	128	137	74	64	59
CFSM	.43	.44	1.23	1.34	1.84	2.87	1.86	2.13	2.93	1.27	.99	5.06
IN.	.49	.49	1.42	1.54	1.92	3.31	2.07	2.46	3.27	1.47	1.14	5.65

CAL YR 1974 TOTAL 40,544 MEAN 111 MAX 833 MIN 34 CFSM 1.19 IN 16.13  
WTR YR 1975 TOTAL 63,407 MEAN 174 MAX 4,090 MIN 34 CFSM 1.86 IN 25.23

PEAK DISCHARGE (BASE, 850 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1830	7.87	2,100	9-20	2245	5.42	862
4-25	2330	5.62	955	9-23	0815	5.87	1,070
6-01	0315	5.80	1,040	9-26	1100	11.70	4,850
6-27	2130	6.09	1,170				

01619500 Antietam Creek near Sharpsburg, Md.

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, on left bank 400 ft (120 m) downstream from Burnside Bridge, 1 mile (1.6 km) southeast of Sharpsburg, and 4 miles (6.4 km) upstream from mouth.

DRAINAGE AREA.--281 mi<sup>2</sup> (728 km<sup>2</sup>).

PERIOD OF RECORD.--June 1897 to September 1905. August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.00 ft (94.793 m) above mean sea level, adjustment of 1912. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 miles (1.9 km) upstream at datum about 12 feet (3.7 m) higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge at present datum.

AVERAGE DISCHARGE.--52 years (1897-1903, 1904-5, 1930-75), 269 ft<sup>3</sup>/s (7.618 m<sup>3</sup>/s) 13.00 in/yr (330 mm/yr), adjusted for inflow since 1930.

EXTREMES.--Current year: Maximum discharge, 10,100 ft<sup>3</sup>/s (286 m<sup>3</sup>/s) Sept. 26, gage height, 14.71 ft (4.484 m); minimum, 99 ft<sup>3</sup>/s (2.80 m<sup>3</sup>/s) Nov. 10, 11, 12, gage height, 2.35 ft (0.716 m).  
Period of record: Maximum discharge, 12,600 ft<sup>3</sup>/s (357 m<sup>3</sup>/s) July 20, 1956, gage height, 16.73 ft (5.099 m); minimum, 9.4 ft<sup>3</sup>/s (0.266 m<sup>3</sup>/s) Nov. 22, 1957, result of regulation caused by construction work above station; minimum daily, 37 ft<sup>3</sup>/s (1.05 m<sup>3</sup>/s) Jan. 30, 1966.

REMARKS.--Records good. Some diurnal fluctuation caused by powerplant above station. Since 1928, records include pumpage from Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek above station as sewage. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS)--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	109	160	267	421	626	570	567	1980	561	268	277
2	115	103	1130	253	395	582	549	569	964	510	259	274
3	114	102	560	238	380	545	545	511	833	482	249	245
4	114	103	351	232	365	510	532	737	705	487	255	219
5	115	108	294	225	369	483	498	849	759	453	400	208
6	114	110	265	222	377	470	482	731	884	426	299	256
7	114	105	245	231	384	460	467	730	730	407	264	251
8	112	104	373	231	356	456	459	636	657	427	248	224
9	112	103	454	352	341	422	442	584	600	439	241	211
10	112	101	346	429	326	407	429	563	563	445	235	200
11	116	100	311	363	320	405	420	533	536	392	236	197
12	108	167	296	356	333	428	409	539	853	382	237	218
13	107	211	279	374	332	481	392	621	930	374	232	225
14	106	144	271	371	309	446	382	534	696	416	474	199
15	110	152	260	331	302	466	387	499	628	398	344	198
16	176	141	471	320	299	497	387	618	582	396	284	194
17	195	125	647	310	310	559	371	555	549	415	344	192
18	132	119	449	304	381	605	363	501	522	369	295	196
19	115	118	391	310	442	1200	369	489	491	349	263	244
20	113	123	360	383	477	2600	360	474	473	396	249	234
21	111	143	334	342	455	1250	341	454	447	490	239	525
22	112	134	325	311	433	970	328	437	424	360	231	356
23	112	122	307	310	482	889	350	442	415	332	227	896
24	111	115	297	309	726	794	412	417	411	328	221	1090
25	110	115	288	382	1100	808	565	472	438	357	224	4630
26	108	119	276	674	917	683	1140	474	415	319	221	8970
27	108	113	265	532	755	622	716	425	920	304	231	5890
28	106	111	258	476	671	595	604	407	1730	296	216	2630
29	108	108	249	453	---	597	587	383	808	288	207	1820
30	107	108	243	446	---	687	534	372	641	281	202	1420
31	107	---	240	435	---	643	---	492	---	268	315	---
TOTAL	3617	3636	10995	10772	12758	21186	14390	16615	21584	12147	8210	32689
MEAN	117	121	355	347	456	683	480	536	719	392	265	1090
MAX	195	211	1130	674	1100	2600	1140	849	1980	561	474	8970
MIN	106	100	160	222	299	405	328	372	411	268	202	192
(/)	-13.2	-13.1	-7.1	-6.4	-6.8	-6.5	-6.4	-6.6	-7.0	-8.6	-12.6	-11.6
MEAN #	104	108	348	341	449	676	474	529	712	383	252	1078
CFSM #	.37	.38	1.24	1.21	1.60	2.41	1.69	1.88	2.53	1.36	.90	3.84
IN #	.43	.42	1.43	1.40	1.67	2.78	1.89	2.17	2.82	1.57	1.04	4.28

CAL YR 1974 TOTAL 110532 MEAN 303 MAX 1320 MIN 100 MEAN# 294 CFISM# 1.05 IN# 14.25  
WTR YR 1975 TOTAL 168599 MEAN 462 MAX 8970 MIN 100 MEAN# 453 CFISM# 1.61 IN# 21.86

PEAK DISCHARGE (BASE, 1,500 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	# Pumpage, in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
3-20	0830	8.04	3,370	6-27	2400	6.79	2,400	# Adjusted for pumpage.
6-01	0345	7.03	2,580	9-26	1230	14.71	10,100	

## POTOMAC RIVER BASIN

01636500 Shenandoah River at Millville, W. Va.

LOCATION.--Lat 39°16'55", long 77°47'22", Jefferson County, on left bank 0.4 mile (0.6 km) downstream from Cattail Run, 1.0 mile (1.6 km) upstream from Millville, 5.0 mile (8.0 km) upstream from Harpers Ferry, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--3,040 mi<sup>2</sup> (7,874 km<sup>2</sup>).

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft (89.306 m) above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--60 years (1895-1908, 1928-75), 2,665 ft<sup>3</sup>/s (75.47 m<sup>3</sup>/s), 11.90 in/yr (302 mm/yr).

EXTREMES.--Current year: Maximum discharge, 75,900 ft<sup>3</sup>/s (2,150 m<sup>3</sup>/s) Mar. 21, gage height, 18.86 ft (5.749 m); minimum, 579 ft<sup>3</sup>/s (16.4 m<sup>3</sup>/s) Oct. 14, gage height, 1.47 ft (0.448 m); minimum daily discharge, 619 ft<sup>3</sup>/s (17.5 m<sup>3</sup>/s) Oct. 14.  
Period of record: Maximum discharge, 230,000 ft<sup>3</sup>/s (6,510 m<sup>3</sup>/s) Oct. 16, 1942, gage height, 32.4 ft (9.88 m), from floodmarks; minimum, about 59 ft<sup>3</sup>/s (1.67 m<sup>3</sup>/s) Oct. 4, 1930, gage height, 0.39 ft (0.119 m); minimum daily, 194 ft<sup>3</sup>/s (5.49 m<sup>3</sup>/s) July 24, 1930.  
Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft (8.035 m), discharge, 151,000 ft<sup>3</sup>/s (4,280 m<sup>3</sup>/s).

REMARKS.--Records good. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mi (0.8 km) upstream from station.

REVISIONS (WATER YEARS).--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-2, 1905, 1907-8, 1932(M), 1935(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	693	684	1120	2070	3450	3490	6120	3500	2540	1840	1460	4410
2	705	683	11100	1900	3100	3310	5340	3850	3700	1460	1220	2980
3	682	680	6080	1840	2950	3090	4850	3820	2810	1240	1230	2220
4	662	723	3720	1790	2800	2870	4540	5490	2640	1250	1160	2280
5	660	664	2630	1720	2700	2710	4180	5730	2700	1200	1170	1920
6	635	685	2030	1620	2640	2530	3840	7010	2590	1170	1100	1620
7	659	721	1800	1610	2800	2430	3590	6180	2210	1180	2480	1530
8	653	691	1690	1540	3080	2340	3390	5120	1940	1450	4230	1440
9	648	675	2130	1550	3550	2300	3230	4360	1820	1300	2940	1560
10	651	666	5040	1550	3300	2140	3050	3830	1710	1490	2150	1520
11	654	665	5490	1570	3150	2130	2940	3490	1500	2910	1700	1360
12	655	700	3930	1570	3090	2050	2820	3440	1580	4110	1550	1190
13	660	781	3140	1640	4620	2100	2700	3650	1730	3080	1490	1190
14	619	955	2650	1800	11000	2370	2600	3400	1650	2980	1470	1120
15	678	920	2390	2020	7890	3830	2580	3560	1540	3250	1430	1070
16	718	891	2750	2200	6120	8880	2560	3390	1480	3250	1380	1030
17	758	917	3840	2140	5220	9980	2500	3240	1400	3040	1620	941
18	795	797	4530	2010	4800	11600	2460	3140	1310	3170	1930	995
19	798	772	4980	1960	4770	15900	2360	2990	1270	3150	1980	1050
20	860	758	4060	1990	4750	50000	2250	2850	1210	2320	1610	1100
21	866	769	3350	2100	4470	57400	2230	2760	1180	3590	1390	1070
22	792	753	2920	2400	4040	20700	2210	2630	1090	3040	1300	1080
23	741	753	2570	2620	3740	13900	2040	2630	1080	2200	1290	1290
24	708	716	2330	2570	3530	10400	2010	2590	1070	2310	1260	2870
25	706	752	2040	2640	3770	8510	2130	2820	1040	2020	1270	12900
26	721	736	1960	3700	4420	7500	2390	2870	1080	4100	1190	32000
27	700	720	1930	6350	4390	6520	2540	2750	1170	3270	1100	24900
28	690	721	2600	6980	3780	5590	2680	2740	1600	2370	1060	14300
29	677	658	2830	5440	---	5060	2680	2940	2210	1950	976	8760
30	699	693	2460	4500	---	5320	3210	2480	2210	1530	918	6460
31	704	---	2250	3880	---	6680	---	2220	---	1630	1870	---
TOTAL	21847	22299	102340	79270	117920	283630	92020	111470	53060	72850	48924	138156
MEAN	705	743	3301	2557	4211	9149	3067	3596	1769	2350	1578	4605
MAX	866	955	11100	6980	11000	57400	6120	7010	3700	4110	4230	32000
MIN	619	658	1120	1540	2640	2050	2010	2220	1040	1170	918	941
CFSM	.23	.24	1.09	.84	1.39	3.01	1.01	1.18	.58	.77	.52	1.51
IN.	.27	.27	1.25	.97	1.44	3.47	1.13	1.36	.65	.89	.60	1.69

CAL YR 1974 TOTAL 860720 MEAN 2358 MAX 19500 MIN 619 CFSM .78 IN 10.53  
WTR YR 1975 TOTAL 1143786 MEAN 3134 MAX 57400 MIN 619 CFSM 1.03 IN 14.00

PEAK DISCHARGE (BASE, 15,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	1130	8.52	15,400	9-26	1200	13.21	37,200
3-21	0400	18.86	75,900				

01637500 Catoctin Creek near Middletown, Md.

LOCATION.--Lat 39°25'35", long 77°33'25", Frederick County, on right bank 300 ft (91 m) downstream from bridge on State Highway 17, 1.3 miles (2.1 km) south of Middletown, 2.2 miles (3.5 km) downstream from Little Catoctin Creek and 14.8 miles (23.8 km) upstream from mouth.

DRAINAGE AREA.--66.9 mi<sup>2</sup> (173.3 km<sup>2</sup>).

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 385 ft (117.3 m), from topographic map.

AVERAGE DISCHARGE.--28 years, 73.7 ft<sup>3</sup>/s (2.087 m<sup>3</sup>/s), 14.96 in/yr (380 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,910 ft<sup>3</sup>/s (111 m<sup>3</sup>/s) Sept. 26, gage height, 8.53 ft (2.600 m); minimum, 7.0 ft<sup>3</sup>/s (0.20 m<sup>3</sup>/s) Oct. 3, 12, 13, gage height, 1.01 ft (0.308 m).

Period of record: Maximum discharge, 11,200 ft<sup>3</sup>/s (317 m<sup>3</sup>/s) June 22, 1972, gage height, 12.28 ft (3.743 m), from rating curve extended above 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) on basis of slope-area measurement at gage height, 11.18 ft (3.408 m); no flow Aug. 27 to Sept. 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: 1947-48.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	8.9	191	67	112	176	158	105	638	63	23	54
2	8.0	9.2	1050	53	101	154	145	100	180	52	22	41
3	7.4	8.9	211	46	90	138	153	100	151	45	20	25
4	7.5	8.8	139	46	74	126	128	540	117	49	21	19
5	8.1	9.9	103	44	84	112	111	300	160	40	30	16
6	8.3	10	82	42	93	104	102	240	226	33	24	26
7	8.1	10	70	46	101	99	94	200	141	30	23	27
8	7.7	9.1	249	44	80	97	87	180	117	28	21	19
9	7.8	8.8	154	187	78	77	80	170	101	26	18	15
10	7.8	8.3	111	130	68	74	76	160	87	28	17	13
11	7.6	8.3	93	153	70	72	72	150	82	26	34	12
12	7.5	45	85	133	80	111	68	210	355	25	22	27
13	7.4	57	74	146	72	124	66	220	329	83	19	50
14	7.5	24	72	120	62	110	62	150	160	94	41	21
15	8.0	32	63	94	62	138	60	124	136	74	28	16
16	38	26	450	86	62	159	56	232	121	96	32	15
17	36	19	234	78	79	234	54	158	105	81	29	15
18	17	17	166	74	114	230	52	144	89	51	25	17
19	13	16	136	78	161	1180	50	133	77	41	18	38
20	11	19	115	111	161	739	48	119	69	184	15	69
21	9.9	36	102	72	139	425	46	106	59	212	14	58
22	9.6	25	94	72	125	342	44	95	54	91	14	39
23	9.6	19	79	70	221	293	42	89	50	66	14	402
24	9.6	17	72	80	437	278	70	80	46	55	13	370
25	9.6	18	69	320	403	249	320	86	44	51	13	2710
26	9.3	21	63	293	290	198	200	79	51	44	12	2630
27	9.2	17	56	186	233	173	140	72	169	37	14	857
28	9.1	17	53	160	200	162	130	63	233	33	14	422
29	9.4	15	50	146	---	172	120	55	104	30	11	276
30	9.1	14	48	132	---	236	110	52	77	27	10	208
31	9.2	---	48	123	---	175	---	115	---	25	59	---
TOTAL	336.1	554.2	4582	3432	3852	6957	2944	4627	4328	1820	670	8507
MEAN	10.8	18.5	148	111	138	224	98.1	149	144	58.7	21.6	284
MAX	38	57	1050	320	437	1180	320	540	638	212	59	2710
MIN	7.4	8.3	48	42	62	72	42	52	44	25	10	12
CFSM	.16	.28	2.21	1.66	2.06	3.35	1.47	2.23	2.15	.88	.32	4.25
IN.	.19	.31	2.55	1.91	2.14	3.87	1.64	2.57	2.41	1.01	.37	4.73

CAL YR 1974 TOTAL 24976.9 MEAN 68.4 MAX 1050 MIN 3.9 CFSM 1.02 IN 13.89  
WTR YR 1975 TOTAL 42609.3 MEAN 117 MAX 2710 MIN 7.4 CFSM 1.75 IN 23.69

PEAK DISCHARGE (BASE, 1,200 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0200	6.63	2,550	7-20	2200	4.84	1,610
3-19	1500	6.15	2,280	9-25	1330	7.93	3,410
6-01	0130	6.48	2,470	9-26	1000	8.53	3,910
6-13	0100	4.47	1,420				

NOTE.--No gage-height record  
Apr. 11 to May 15.



## POTOMAC RIVER BASIN

01638500 Potomac River at Point of Rocks, Md.

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, on left bank at downstream side of bridge on U. S. Highway 15 at Point of Rocks, 0.3 mile (0.5 km) downstream from Catocin Creek (Virginia), 6 miles (9.7 km) upstream from Monocacy River, and at mile 159.5 (256.6 km).

DRAINAGE AREA.--9,651 mi<sup>2</sup> (24,996 km<sup>2</sup>).

PERIOD OF RECORD.--February 1895 to current year.

GAGE.--Water-stage recorder. Datum of gage is 200.54 ft (61.125 m) above mean sea level, adjustment of 1912. Prior to October 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft (0.317 m) higher.

AVERAGE DISCHARGE.--80 years, 9,296 ft<sup>3</sup>/s (263.3 m<sup>3</sup>/s), 13.08 in/yr (332 mm/yr).

EXTREMES.--Current year: Maximum discharge, 181,000 ft<sup>3</sup>/s (5,126 m<sup>3</sup>/s) Mar. 21, gage height 26.15 ft (7.971 m); minimum, 1,380 ft<sup>3</sup>/s (39.1 m<sup>3</sup>/s) Oct. 8, gage height, 0.86 ft (0.262 m).

Period of record: Maximum discharge, 480,000 ft<sup>3</sup>/s (13,600 m<sup>3</sup>/s) Mar. 19, 1936, gage height, 41.03 ft (12.506 m) from rating curve extended above 300,000 ft<sup>3</sup>/s (8,500 m<sup>3</sup>/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, 530 ft<sup>3</sup>/s (15.0 m<sup>3</sup>/s) Sept. 11, 12, 1966, gage height, 0.27 ft (0.082 m).

Flood of June 2, 1889, reached a stage of 40.2 ft (12.25 m), from floodmarks (discharge, about 460,000 ft<sup>3</sup>/s or about 13,000 m<sup>3</sup>/s, from rating curve extended as explained above).

REMARKS.--Records good. Low flow affected slightly since 1913 by Stony River Reservoir (see station 01595200) and since December 1950 by Savage River Reservoir (see station 01597500). Low flow affected extensively at times by run-of-the-river hydroelectric plants. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--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).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1770	1690	2360	10800	19000	17500	21700	21700	15200	9980	3760	8480
2	1650	1690	14900	11400	16600	14900	19600	22500	20700	7450	3280	9670
3	1600	1640	29500	16200	15200	13000	17300	21300	16000	6040	3110	10300
4	1560	1640	18800	13800	13700	11600	15800	22800	12700	5360	2860	8390
5	1540	1650	11600	11900	12300	10500	14700	33700	10800	5040	2900	7530
6	1490	1740	8660	10300	11400	9850	13400	42900	11000	4860	3170	6100
7	1450	1680	6780	8690	11500	9000	12200	33900	9480	4780	3180	5180
8	1430	1700	6730	7780	12900	8610	11300	26800	8360	4980	6370	4730
9	1450	1620	8650	7640	14900	8540	10600	22000	7460	4870	5180	4430
10	1570	1580	13200	9130	13900	9450	9960	18100	6780	4920	5040	4390
11	1500	1590	18100	11100	12300	8920	9450	17100	6110	6800	4350	3950
12	1490	1790	14100	10700	11100	8560	9040	15400	6530	8250	3920	3730
13	1470	2100	11000	9820	11300	9340	8600	15300	10500	9670	3510	3540
14	1470	2430	9390	10300	20700	11900	8150	14700	11100	8750	3460	3260
15	1470	2830	8810	10800	22400	14900	7880	14100	9120	9040	3760	3050
16	1680	2720	11300	9960	17700	20800	7680	13700	7550	8840	4060	2930
17	1890	2710	17400	9090	14900	26300	7530	13900	6600	7840	4590	2860
18	2000	2540	23800	8060	14100	30200	7440	15700	5930	6930	7760	2780
19	2050	2280	20500	7540	18700	39200	7230	14300	5380	7180	8000	2940
20	2460	2160	15800	8020	26100	109000	6880	13100	4950	6100	6210	2970
21	3130	2170	12300	11000	27100	165000	6580	12100	4590	8880	4890	3600
22	2710	2140	10500	13500	22600	79700	6400	11100	4200	11500	4240	5310
23	2370	2060	9300	12500	19500	46800	6200	10400	4030	7730	3820	6270
24	2110	1990	8320	11300	20800	36400	6050	10400	3820	6200	3510	15600
25	1980	2010	7520	11600	29100	30300	6730	10700	3700	5580	3390	47800
26	1890	2090	7480	13900	31800	26700	20100	11300	4050	6070	3850	105000
27	1840	2130	14500	21500	26600	23400	42200	10600	3980	6600	4330	118000
28	1740	2090	16300	27900	21100	19700	29500	9830	11900	5550	3690	65700
29	1780	2150	14000	21800	---	17100	21900	10600	20800	4930	3170	38300
30	1780	2320	11700	18000	---	16900	19100	9000	14600	4380	2910	27800
31	1770	---	10700	18000	---	20100	---	8090	---	3920	3130	---
TOTAL	56090	60930	394000	384030	509300	874170	391200	527120	267920	209020	129400	534590
MEAN	1809	2031	12710	12390	18190	28200	13040	17000	8931	6743	4174	17820
MAX	3130	2830	29500	27900	31800	165000	42200	42900	20800	11500	8000	118000
MIN	1430	1580	2360	7540	11100	8540	6050	8090	3700	3920	2860	2780
CFSM	.19	.21	1.32	1.28	1.88	2.92	1.35	1.76	.93	.70	.43	1.85
IN.	.22	.23	1.52	1.48	1.96	3.37	1.51	2.03	1.03	.81	.50	2.06

CAL YR 1974 TOTAL 3189610 MEAN 8739 MAX 58700 MIN 1430 CFSM .91 IN 12.29  
WTR YR 1975 TOTAL 4337770 MEAN 11880 MAX 165000 MIN 1430 CFSM 1.23 IN 16.72

PEAK DISCHARGE (BASE, 35,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-21	0930	26.15	181,000	5-06	0600	10.37	45,100
4-27	0930	10.28	44,600	9-26	2400	24.35	126,000

01639000 Monocacy River at Bridgeport, Md.

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, on right bank 60 ft (18 m) downstream from bridge on State Highway 97 at Bridgeport, 0.9 mile (1.4 km) upstream from Cattail Branch, 3.4 miles (5.5 km) northwest of Taneytown, 4.8 miles (7.7 km) downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 miles (83.7 km) upstream from mouth.

DRAINAGE AREA.--173 mi<sup>2</sup> (448 km<sup>2</sup>).

PERIOD OF RECORD.--May 1942 to current year.

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft (103.885 m) above mean sea level (Corps of Engineers bench mark). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mile (0.5 km) downstream at datum 0.98 ft (0.299 m) lower.

AVERAGE DISCHARGE.--33 years, 199 ft<sup>3</sup>/s (5.636 m<sup>3</sup>/s), 15.62 in/yr (397 mm/yr).

EXTREMES.--Current year: Maximum discharge, 13,600 ft<sup>3</sup>/s (385 m<sup>3</sup>/s) Sept. 26, gage height, 20.14 ft (6.139 m); minimum, 4.4 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Oct. 5, 6, gage height, 1.87 ft (0.570 m).

Period of record: Maximum discharge, 21,300 ft<sup>3</sup>/s (603 m<sup>3</sup>/s) June 22, 1972, gage height, 24.05 ft (7.330 m), from rating curve extended above 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) on basis of slope-conveyance study; no flow July 24-29, 1966.

Flood of Aug. 24, 1933, reached a stage of about 25 ft (7.6 m), present site and datum, from floodmarks; stage exceeded that of June 1889, from information by local residents.

REMARKS.--Records good. Occasional regulation at low flow from unknown source above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1382: 1944(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	9.7	19	164	264	245	224	458	1470	157	19	53
2	6.9	9.2	565	159	220	200	188	365	391	111	18	232
3	6.1	9.9	319	101	178	170	202	238	364	93	17	76
4	5.1	12	140	88	137	140	187	1970	207	150	17	41
5	4.6	12	84	86	153	137	141	795	470	96	110	30
6	4.5	12	89	69	199	127	126	476	588	72	46	107
7	5.2	12	58	79	314	122	113	456	630	60	28	91
8	5.6	13	523	103	206	129	104	276	258	77	24	48
9	6.0	12	428	931	160	98	94	217	174	60	19	33
10	6.1	10	170	847	95	91	86	200	138	55	16	26
11	6.1	28	109	512	95	92	83	172	117	53	15	21
12	6.2	49	100	491	105	164	78	168	1690	149	15	22
13	5.8	148	91	512	110	374	72	292	703	887	16	95
14	5.7	78	89	432	85	221	67	182	296	800	133	39
15	5.3	66	93	170	85	497	68	138	202	385	55	27
16	26	57	2030	150	90	777	77	472	158	221	32	22
17	104	37	1130	130	106	813	69	266	136	351	35	20
18	38	31	384	90	542	519	64	167	111	163	40	21
19	24	28	251	110	1430	2320	68	141	90	107	27	187
20	18	27	195	314	965	2220	70	114	78	82	22	158
21	14	57	167	200	621	598	58	94	67	114	27	1560
22	11	64	168	180	493	416	51	92	58	71	21	230
23	11	46	137	150	1140	452	49	376	53	52	18	3240
24	11	35	117	180	2070	652	54	124	54	43	18	2170
25	11	26	114	1300	1510	703	755	403	50	39	18	8860
26	10	27	108	1030	567	344	2870	287	46	41	16	10300
27	9.8	32	83	477	365	249	473	166	215	33	13	1760
28	10	28	78	366	295	221	302	117	2220	28	13	652
29	11	23	73	410	---	223	249	83	347	25	13	397
30	11	20	69	435	---	544	216	70	226	22	11	293
31	10	---	66	308	---	329	---	94	---	20	13	---
TOTAL	418.3	1018.8	8047	10574	12600	14187	7258	9469	11607	4617	885	30811
MEAN	13.5	34.0	260	341	450	458	242	305	387	149	28.5	1027
MAX	104	148	2030	1300	2070	2320	2870	1970	2220	887	133	10300
MIN	4.5	9.2	19	69	85	91	49	70	46	20	11	20
CFSM	.08	.20	1.50	1.97	2.60	2.65	1.40	1.76	2.24	.86	.16	5.94
IN.	.09	.22	1.73	2.27	2.71	3.05	1.56	2.04	2.50	.99	.19	6.63

CAL YR 1974 TOTAL 53577.2 MEAN 147 MAX 2680 MIN 3.6 CFSM .85 IN 11.52  
WTR YR 1975 TOTAL 111492.1 MEAN 305 MAX 10300 MIN 4.5 CFSM 1.76 IN 23.97

PEAK DISCHARGE (BASE, 4,800 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	2330	12.83	5,440	9-25	1400	19.04	12,000
4-26	0330	13.60	6,060	9-26	1200	20.14	13,600
9-23	1230	13.23	5,760				

## POTOMAC RIVER BASIN

01639500 Big Pipe Creek at Bruceville, Md.

LOCATION.--Lat 39°36'45", long 77°14'10", Carroll County, on left bank 300 ft (91 m) downstream from bridge on State Highway 194, 800 ft (240 m) downstream from Bruceville, 3.5 miles (5.6 km) upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi<sup>2</sup> (264 km<sup>2</sup>).

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.

AVERAGE DISCHARGE.--28 years, 109 ft<sup>3</sup>/s (3.087 m<sup>3</sup>/s), 14.51 in/yr (369 mm/yr).

EXTREMES.--Current year: Maximum discharge, 28,000 ft<sup>3</sup>/s (793 m<sup>3</sup>/s) Sept. 26, gage height, 18.98 ft (5.785 m), from rating curve extended above 3,900 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) on the basis of contracted-opening measurement at gage height 17.86 ft (5.444 m); minimum, 28 ft<sup>3</sup>/s (0.79 m<sup>3</sup>/s) Oct. 13, gage height, 1.12 ft (0.341 m).  
Period of record: Maximum discharge, 28,000 ft<sup>3</sup>/s (793 m<sup>3</sup>/s) Sept. 26, 1975, gage height, 18.98 ft (5.785 m), from rating curve extended above 3,900 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) on the basis of contracted-opening measurement at gage height 17.86 ft (5.444 m); minimum daily, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Sept. 12, 1966.

REMARKS.--Records good. Occasional diversion for irrigation above station.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	38	39	121	138	150	148	289	465	103	55	148
2	40	36	624	84	125	137	137	185	187	94	54	93
3	38	36	179	72	113	125	226	151	287	102	52	64
4	36	35	110	74	104	114	168	808	143	158	50	54
5	36	37	85	66	105	111	138	340	427	100	117	52
6	38	40	76	61	126	110	132	253	722	91	64	143
7	36	35	68	70	161	109	125	222	366	86	63	77
8	35	33	235	72	119	112	121	178	197	86	55	63
9	34	32	155	431	111	95	114	161	164	82	50	56
10	34	31	99	171	95	96	111	153	146	82	48	50
11	34	32	84	167	95	100	109	139	138	87	49	48
12	33	52	83	132	106	128	105	224	420	78	50	246
13	33	98	77	159	100	148	100	243	393	135	52	185
14	33	50	79	127	90	141	96	168	189	243	410	77
15	34	82	71	100	90	302	101	141	160	135	89	65
16	102	63	651	95	88	276	102	511	144	136	75	61
17	97	49	293	90	115	262	95	216	137	104	109	60
18	56	44	160	90	239	179	93	180	125	92	79	67
19	47	42	128	100	394	743	97	164	116	85	64	104
20	43	44	115	170	255	656	94	145	121	188	58	88
21	40	71	107	105	188	285	85	133	106	369	55	316
22	40	50	108	105	160	238	81	127	99	111	54	120
23	40	43	91	98	371	225	81	123	97	92	52	1040
24	40	40	87	110	461	273	93	111	94	83	53	1340
25	39	41	85	620	332	264	419	163	93	82	50	3490
26	39	51	77	454	216	182	655	130	96	78	47	11200
27	38	42	72	218	180	157	208	116	154	70	46	1280
28	36	41	71	180	161	151	168	109	345	68	43	570
29	36	39	66	172	---	161	156	97	201	64	41	404
30	36	37	66	151	---	258	140	95	118	59	40	324
31	38	---	64	144	---	172	---	98	---	56	52	---
TOTAL	1304	1364	4305	4809	4838	6462	4498	6173	6450	3399	2176	21885
MEAN	42.1	45.5	139	155	173	208	150	199	215	110	70.2	730
MAX	102	98	651	620	461	743	655	808	722	369	410	11200
MIN	33	31	37	61	88	95	81	95	93	56	40	48
CFSM	.41	.45	1.36	1.52	1.70	2.04	1.47	1.95	2.11	1.08	.69	7.16
IN.	.48	.50	1.57	1.75	1.76	2.36	1.64	2.25	2.35	1.24	.79	7.98

CAL YR 1974 TOTAL 40070 MEAN 110 MAX 1130 MIN 24 CFSM 1.08 IN 14.61  
WTR YR 1975 TOTAL 67663 MEAN 185 MAX 11200 MIN 31 CFSM 1.81 IN 24.68

PEAK DISCHARGE (BASE, 1,600 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1800	6.63	2,050	9-24	1000	6.34	1,900
4-25	2200	6.26	1,860	9-25	0930	10.17	4,590
9-23	0730	6.26	1,860	9-26	0630	18.98	28,000

## POTOMAC RIVER BASIN

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01640500 Owens Creek at Lantz, Md.

LOCATION.--Lat 39°40'36", long 77°27'50", Frederick County, on right bank 0.5 mile (0.8 km) west of Lantz Post Office (Deerfield station on Western Maryland Railway), 1.5 miles (2.4 km) south of Sabillasville, 4.5 miles (7.2 km) northwest of Thurmont, and 14.2 miles (22.8 km) upstream from mouth.

DRAINAGE AREA.--5.93 mi<sup>2</sup> (15.36 km<sup>2</sup>).

PERIOD OF RECORD.--October 1931 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 965 ft (294 m), from topographic map.

AVERAGE DISCHARGE.--44 years, 9.04 ft<sup>3</sup>/s (0.256 m<sup>3</sup>/s), 20.70 in/yr (526 mm/yr), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 1,400 ft<sup>3</sup>/s (39.6 m<sup>3</sup>/s) Mar. 19, gage height, 5.95 ft (1.814 m); minimum, 0.64 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Oct. 3.  
Period of record: Maximum discharge, 3,270 ft<sup>3</sup>/s (92.6 m<sup>3</sup>/s) Dec. 1, 1934, gage height, 8.4 ft (2.56 m), from rating curve extended above 750 ft<sup>3</sup>/s (21.2 m<sup>3</sup>/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.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 921: 1932(M). WSP 1202: 1935(M). WSP 1382: Drainage area. WSP 1432: 1937(M), 1943(M), 1949(P).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.1	11	9.6	12	21	21	28	50	7.9	1.9	9.3
2	.67	1.1	58	6.5	11	18	21	21	24	7.0	1.8	4.9
3	.69	1.1	13	6.0	9.9	16	21	19	27	7.4	2.4	2.5
4	.80	1.1	7.7	6.0	9.0	14	17	51	19	7.3	9.0	2.0
5	.87	1.4	5.4	5.5	9.5	13	15	35	26	6.1	4.8	2.3
6	.84	1.2	4.5	5.3	11	13	14	31	25	5.4	2.6	5.3
7	.81	1.1	4.3	6.0	9.8	13	14	27	21	5.1	2.4	2.7
8	.80	1.0	28	5.8	8.0	12	13	24	17	5.3	2.0	2.1
9	.85	.98	12	27	7.8	11	12	21	15	5.6	1.8	1.7
10	.82	1.0	8.6	14	7.5	9.6	11	20	14	5.3	1.7	1.5
11	.83	1.0	7.3	17	7.3	9.5	10	18	14	4.7	1.8	1.5
12	.80	11	6.9	13	7.4	16	10	29	49	4.8	1.8	6.4
13	.83	4.1	6.0	15	6.4	13	9.8	24	25	7.1	3.2	3.7
14	.85	2.2	7.2	12	6.0	12	9.5	20	18	9.3	7.6	2.1
15	.91	3.8	5.6	10	6.0	12	10	19	15	6.1	2.6	1.8
16	11	2.2	62	9.0	6.5	12	10	36	14	7.5	4.7	1.7
17	2.8	1.9	27	8.7	9.6	19	9.0	23	13	6.7	6.8	1.8
18	1.7	1.6	18	8.2	15	21	9.0	21	11	4.8	2.8	3.2
19	1.4	1.4	14	9.6	24	381	11	19	11	3.9	2.2	9.4
20	1.2	2.8	12	11	19	91	9.1	17	11	3.6	2.2	7.3
21	1.1	3.2	11	10	16	54	7.8	15	9.4	3.7	1.9	11
22	1.1	1.9	11	8.5	16	46	7.4	15	8.2	3.0	1.9	4.5
23	1.1	1.5	9.3	7.4	38	39	7.3	14	7.6	2.8	1.8	56
24	1.1	1.4	8.9	7.6	60	38	14	13	7.1	2.8	1.8	147
25	1.1	1.7	8.6	32	51	33	64	13	6.8	2.9	1.6	441
26	1.1	1.9	7.4	26	34	27	52	13	7.5	2.6	1.6	283
27	.99	1.4	6.9	17	27	24	31	11	37	2.4	2.5	83
28	1.0	1.3	6.6	15	24	23	26	9.6	21	2.3	1.4	51
29	1.0	1.2	6.3	16	---	25	24	8.6	11	2.2	1.3	38
30	1.0	1.1	5.9	14	---	31	20	8.6	9.3	2.0	1.5	31
31	1.0	---	6.7	13	---	23	---	22	---	2.0	4.3	---
TOTAL	41.76	59.68	407.1	371.7	468.7	1090.1	509.9	645.8	543.9	149.6	87.7	1218.7
MEAN	1.35	1.99	13.1	12.0	16.7	35.2	17.0	20.8	18.1	4.83	2.83	40.6
MAX	11	11	62	32	60	381	64	51	50	9.3	9.0	441
MIN	.67	.98	4.3	5.3	6.0	9.5	7.3	8.6	6.8	2.0	1.3	1.5
CFSM	.23	.34	2.21	2.02	2.82	5.94	2.87	3.51	3.05	.81	.48	6.85
IN.	.26	.37	2.55	2.33	2.94	6.84	3.20	4.05	3.41	.94	.55	7.65

CAL YR 1974 TOTAL 3250.53 MEAN 8.91 MAX 62 MIN .67 CFSM 1.50 IN 20.39  
WTH YR 1975 TOTAL 5594.64 MEAN 15.3 MAX 441 MIN .67 CFSM 2.58 IN 35.10

PEAK DISCHARGE (BASE, 120 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0045	3.09	170	9-25	0745	4.78	760
12-16	0945	3.13	179	9-25	1400	4.67	708
3-19	1345	5.95	1,400	9-25	2100	4.89	814
4-25	1915	3.58	296	9-26	0030	4.64	694
6-01	0130	2.86	124	9-26	0400	4.22	518
9-23	0330	2.88	128	9-26	0900	4.05	451
9-24	2200	5.79	1,300				

01641000 Hunting Creek at Jintown, Md.

LOCATION.--Lat 39°35'40", long 77°23'50", Frederick County, on right bank just downstream from highway bridge, 0.4 mile (0.6 km) southwest of Jintown, about 2.2 miles (3.5 km) southeast of Thurmont, 2.2 miles (3.5 km) upstream from Little Hunting Creek, and 5.2 miles (8.4 km) upstream from mouth.

DRAINAGE AREA.--18.4 mi<sup>2</sup> (47.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 355 ft (108 m), from topographic map.

AVERAGE DISCHARGE.--26 years, 25.2 ft<sup>3</sup>/s (0.714 m<sup>3</sup>/s), 18.60 in/yr (472 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,930 ft<sup>3</sup>/s (54.7 m<sup>3</sup>/s) Sept. 26, gage height, 5.48 ft (1.670 m); minimum, 4.1 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Aug. 28, 29, gage height, 1.61 ft (0.491 m).  
Period of record: Maximum discharge, 1,930 ft<sup>3</sup>/s (54.7 m<sup>3</sup>/s) Sept. 26, 1975, gage height, 5.48 ft (1.670 m); minimum, 0.4 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Sept. 9, 1966, gage height, 1.48 ft (0.451 m).

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.

REVISIONS (WATER YEARS).--WSP 1332: 1952.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	6.2	21	19	33	52	52	70	112	17	7.2	26
2	5.6	6.2	80	16	30	45	48	59	53	15	7.0	14
3	5.3	6.2	16	14	25	38	50	49	45	13	6.9	9.4
4	5.2	6.2	8.8	14	22	33	45	197	33	14	7.3	7.9
5	5.3	6.8	6.8	12	24	30	40	142	46	12	7.6	7.8
6	5.2	6.2	6.2	12	30	28	37	116	52	11	6.9	16
7	5.1	6.2	5.6	14	32	28	35	102	39	10	6.5	10
8	5.0	6.2	46	13	24	27	33	79	32	10	6.1	8.3
9	5.0	6.2	18	74	22	22	31	68	28	10	6.0	6.8
10	5.0	5.6	16	47	18	21	29	61	25	11	6.0	4.8
11	5.0	5.6	14	63	17	21	28	55	25	11	6.1	7.4
12	5.0	19	13	46	20	40	27	67	84	13	6.0	26
13	5.0	8.8	12	50	18	39	25	72	55	31	9.2	16
14	5.6	6.8	13	39	14	37	24	54	38	34	13	11
15	6.2	8.8	12	32	14	51	25	48	31	20	7.1	8.2
16	16	6.8	209	26	15	43	25	82	26	22	14	7.5
17	7.5	6.8	91	22	22	68	23	59	24	23	15	7.4
18	7.5	6.2	47	24	40	60	23	51	22	17	8.1	11
19	7.5	6.2	34	25	61	720	25	46	21	13	7.1	29
20	6.8	7.5	26	34	55	265	23	42	20	26	5.6	20
21	6.8	7.5	24	26	44	147	21	48	18	23	5.3	23
22	6.8	6.2	21	21	39	116	20	49	15	13	5.3	17
23	6.8	6.2	18	22	100	101	20	39	14	10	5.5	156
24	6.8	6.2	17	23	222	101	27	27	14	9.2	5.2	141
25	6.8	6.2	17	100	160	91	163	32	14	9.1	4.8	1260
26	6.8	6.2	15	105	100	70	189	31	14	8.2	4.8	1250
27	6.2	5.6	14	61	72	60	90	29	38	7.3	5.4	300
28	6.2	5.0	13	47	60	55	68	25	51	7.0	4.5	163
29	6.2	5.0	12	44	---	59	61	23	29	6.7	4.5	97
30	6.2	5.0	12	39	---	83	53	22	22	7.9	4.9	74
31	6.2	---	14	37	---	61	---	42	---	7.4	14	---
TOTAL	196.0	203.6	872.4	1121	1333	2612	1360	1886	1040	441.8	222.9	3735.5
MEAN	6.32	6.79	28.1	36.2	47.6	84.3	45.3	60.8	34.7	14.3	7.19	125
MAX	16	19	209	105	222	720	189	197	112	34	15	1260
MIN	5.0	5.0	5.6	12	14	21	20	22	14	6.7	4.5	4.8
CFSM	.34	.37	1.53	1.97	2.59	4.58	2.46	3.30	1.89	.78	.39	6.79
IN.	.40	.41	1.76	2.27	2.69	5.28	2.75	3.81	2.10	.89	.45	7.55

CAL YR 1974 TOTAL 8777.8 MEAN 24.0 MAX 209 MIN 2.9 CFSM 1.30 IN 17.75  
WTR YR 1975 TOTAL 15024.2 MEAN 41.2 MAX 1260 MIN 4.5 CFSM 2.24 IN 30.38

PEAK DISCHARGE (BASE, 350 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1000	3.79	666	4-25	2000	4.02	738
2-24	1530	3.50	550	9-25	0700	5.32	1,740
3-19	1600	5.32	1,740	9-26	0430	5.48	1,930

01641500 Fishing Creek near Lewistown, Md.

LOCATION.--Lat 39°31'35", long 77°28'00", Frederick County, on left bank immediately upstream from Fishing Creek Reservoir, 50 ft (15 m) downstream from Little Fishing Creek, 2.8 miles (4.5 km) west of Lewistown, and 9.9 miles (15.9 km) upstream from mouth.

DRAINAGE AREA.--7.29 mi<sup>2</sup> (18.88 km<sup>2</sup>).

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 735 ft (224 m), from topographic map.

AVERAGE DISCHARGE.--28 years, 11.1 ft<sup>3</sup>/s (0.314 m<sup>3</sup>/s), 20.68 in/yr (525 mm/yr).

EXTREMES.--Current year: Maximum discharge, 355 ft<sup>3</sup>/s (10.1 m<sup>3</sup>/s) Sept. 25, gage height, 3.30 ft (1.006 m), from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 3.73 ft (1.137 m); minimum, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Oct. 6, 10, 11, 12, 13, 14.

Period of record: Maximum discharge, 610 ft<sup>3</sup>/s (17.3 m<sup>3</sup>/s) June 21, 1972, gage height, 4.01 ft (1.222 m), from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 3.73 ft (1.137 m); minimum, 0.6 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Sept. 10, 11, 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1432: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	5.4	13	19	32	29	25	36	9.7	4.6	9.7
2	1.8	2.0	32	11	18	29	27	22	24	8.8	4.5	5.4
3	1.8	2.0	15	11	17	27	28	21	25	9.7	4.3	3.5
4	1.8	2.0	12	10	16	24	25	48	22	9.7	4.2	3.1
5	1.8	2.2	11	9.9	17	22	23	45	24	8.4	4.4	3.1
6	1.8	2.0	9.7	9.7	17	21	21	43	25	8.0	4.3	5.1
7	1.8	2.0	9.3	9.8	16	21	20	38	22	7.6	4.0	3.5
8	1.8	2.0	18	9.7	14	20	19	33	20	8.0	3.8	3.1
9	1.8	1.9	14	18	14	18	18	30	19	8.4	3.8	2.9
10	1.8	1.9	14	14	13	17	17	28	18	8.0	3.5	2.7
11	1.8	1.9	13	18	13	18	16	26	17	7.6	3.8	2.7
12	1.8	5.9	13	18	13	21	15	28	29	8.4	3.5	4.6
13	1.8	3.3	12	19	12	19	14	26	23	11	4.6	3.3
14	1.9	2.7	11	19	11	19	13	23	21	13	6.5	2.9
15	1.9	3.3	11	18	11	19	13	22	20	9.3	4.0	2.7
16	5.5	2.7	46	18	11	18	13	27	19	9.7	4.6	2.7
17	2.6	2.5	35	16	12	23	12	23	18	8.8	4.6	2.7
18	2.5	2.3	30	16	14	24	12	23	17	7.2	3.8	3.5
19	2.3	2.3	27	16	17	114	12	23	16	6.5	3.5	6.8
20	2.3	2.9	24	18	17	116	11	22	15	8.0	3.5	3.8
21	2.2	3.3	21	15	17	77	10	21	14	10	3.5	5.4
22	2.2	2.5	20	14	17	66	9.9	20	13	6.5	3.5	4.0
23	2.2	2.3	18	14	24	57	9.7	19	12	5.8	3.3	19
24	2.2	2.3	17	14	41	53	12	19	11	5.8	3.3	20
25	2.2	2.5	16	23	53	47	24	19	11	5.8	3.3	184
26	2.0	2.7	15	24	47	41	31	17	11	5.4	3.1	250
27	2.0	2.3	14	23	41	37	26	16	16	5.1	3.3	107
28	2.0	2.3	13	23	36	35	25	15	15	5.2	2.7	67
29	2.0	2.3	12	23	---	34	25	14	12	4.9	2.5	53
30	2.0	2.3	12	21	---	37	23	13	11	4.8	2.7	43
31	2.0	---	12	21	---	31	---	17	---	4.7	7.6	---
TOTAL	65.4	74.6	532.4	507.1	568	1137	553.6	766	556	239.8	122.6	830.2
MEAN	2.11	2.49	17.2	16.4	20.3	36.7	18.5	24.7	18.5	7.74	3.95	27.7
MAX	5.5	5.9	46	24	53	116	31	48	36	13	7.6	250
MIN	1.8	1.9	5.4	9.7	11	17	9.7	13	11	4.7	2.5	2.7
CFSM	.29	.34	2.36	2.25	2.78	5.03	2.54	3.39	2.54	1.06	.54	3.80
IN.	.33	.38	2.72	2.59	2.90	5.80	2.82	3.91	2.84	1.22	.63	4.24

CAL YR 1974 TOTAL 4103.7 MEAN 11.2 MAX 51 MIN 1.8 CFSM 1.54 IN 20.94  
WTR YR 1975 TOTAL 5952.7 MEAN 16.3 MAX 250 MIN 1.8 CFSM 2.24 IN 30.38

PEAK DISCHARGE (BASE, 100 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-19	1430	2.71	183	9-25	2400	3.30	355

## POTOMAC RIVER BASIN

01642500 Linganore Creek near Frederick, Md.

LOCATION.--Lat 39°24'55", long 77°20'00", Frederick County, on left bank 2.4 miles (3.9 km) upstream from mouth and 4 miles (6.4 km) east of Frederick.

DRAINAGE AREA.--82.3 mi<sup>2</sup> (213.2 km<sup>2</sup>).

PERIOD OF RECORD.--November 1931 to March 1932, September 1934 to current year.

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 miles (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.

AVERAGE DISCHARGE.--41 years (1934-75), 84.2 ft<sup>3</sup>/s (2.385 m<sup>3</sup>/s), 13.89 in/yr (353 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,850 ft<sup>3</sup>/s (222 m<sup>3</sup>/s) Sept. 26, gage height, 13.85 ft (4.221 m), from rating curve extended as explained below; minimum, 9.6 ft<sup>3</sup>/s (0.27 m<sup>3</sup>/s) Aug. 2, gage height, 1.48 ft (0.451 m), result of regulation; minimum daily, 18 ft<sup>3</sup>/s (0.51 m<sup>3</sup>/s) Aug. 3.  
Period of record: Maximum discharge, 20,100 ft<sup>3</sup>/s (569 m<sup>3</sup>/s) June 22, 1972, gage height, 19.46 ft (5.931 m), from high-water mark in well; from rating curve extended above 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/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 miles (4.2 km) upstream, adjusted for flow from intervening area; minimum discharge, 1.4 ft<sup>3</sup>/s (0.040 m<sup>3</sup>/s) Nov. 24, 1972, gage height, 1.10 ft (0.335 m), result of regulation.

REMARKS.--Records good. Flow regulated by Linganore Reservoir 0.5 mile (0.8 km) upstream beginning September 1972, total capacity, 883,200,000 gal (3.343 hm<sup>3</sup>).

REVISIONS (WATER YEARS).--WSP 891: 1938-39. WSP 1432: 1934, 1936, 1937(MY).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	28	71	77	117	110	149	254	463	68	63	255
2	29	28	1150	65	104	103	140	188	171	62	20	97
3	27	27	182	58	95	96	164	152	129	62	18	50
4	27	27	101	60	91	89	145	531	103	66	34	44
5	28	29	75	56	100	87	123	306	154	62	44	37
6	29	30	66	54	116	86	118	239	722	58	40	42
7	28	27	59	59	147	87	113	248	175	55	38	41
8	27	26	140	60	117	90	110	184	136	56	36	39
9	27	26	118	210	108	76	105	165	117	56	30	35
10	27	25	77	125	91	76	103	155	105	55	26	32
11	27	25	67	117	91	80	98	142	99	57	35	32
12	27	47	65	104	108	104	97	142	183	53	38	55
13	27	68	61	107	108	131	91	174	553	64	38	96
14	28	41	61	101	88	226	90	146	165	120	93	46
15	27	54	58	77	84	299	95	126	128	92	55	38
16	55	45	394	77	86	216	95	246	112	81	49	36
17	58	37	226	71	106	226	88	164	103	65	60	36
18	38	34	131	74	170	179	86	138	95	57	49	41
19	32	32	107	90	162	547	90	131	87	54	41	70
20	30	34	94	170	134	493	83	119	82	71	35	60
21	28	39	82	101	119	262	75	111	76	549	32	237
22	28	33	84	95	109	221	73	122	73	94	34	68
23	28	30	74	91	129	205	73	137	70	66	34	357
24	29	29	70	100	184	247	87	103	68	59	34	736
25	29	30	68	347	180	247	246	97	67	56	33	2220
26	29	31	64	331	140	179	524	97	72	57	32	4660
27	28	29	60	170	122	156	179	94	80	50	35	1200
28	27	28	59	141	116	150	145	87	137	48	31	438
29	28	28	57	129	---	159	156	77	100	45	28	357
30	28	27	57	116	---	235	140	77	78	46	27	173
31	28	---	57	114	---	176	---	81	---	66	57	---
TOTAL	939	994	4035	3547	3322	5638	3881	5033	4703	2450	1219	11628
MEAN	30.3	33.1	130	114	119	182	129	162	157	79.0	39.3	388
MAX	58	68	1150	347	184	547	524	531	722	549	93	4660
MIN	27	25	57	54	84	76	73	77	67	45	18	32
CFSM	.37	.40	1.58	1.39	1.45	2.21	1.57	1.97	1.91	.96	.48	4.71
IN.	.42	.45	1.82	1.60	1.50	2.55	1.75	2.27	2.13	1.11	.55	5.26
CAL YR 1974	TOTAL	30790.8	MEAN	84.4	MAX	1150	MIN	9.0	CFSM	1.03	IN	13.92
WTR YR 1975	TOTAL	47389.0	MEAN	130	MAX	4660	MIN	18	CFSM	1.58	IN	21.42

PEAK DISCHARGE (BASE, 1,400 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0600	8.19	2,460	9-25	1300	9.81	3,430
6-06	0430	6.72	1,630	9-26	1045	13.85	7,850
9-24	1230	6.47	1,490				

01643000 Monocacy River at Jug Bridge near Frederick, Md.

LOCATION.--Lat 39°24'13", long 77°21'58", Frederick County, on right bank 0.2 mile (0.3 km) upstream from Jug Bridge on U. S. Highway 40, 0.4 mile (0.6 km) downstream from Linganore Creek, 2 miles (3.2 km) east of Frederick, and 16.9 miles (27.2 km) upstream from mouth.

DRAINAGE AREA.--817 mi<sup>2</sup> (2,116 km<sup>2</sup>).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

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) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--46 years, 906 ft<sup>3</sup>/s (25.66 m<sup>3</sup>/s), 15.06 in/yr (383 mm/yr).

EXTREMES.--Current year: Maximum discharge, 61,200 ft<sup>3</sup>/s (1,730 m<sup>3</sup>/s) Sept. 26, gage height, 30.8 ft (9.39 m), from floodmark; minimum, 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) Oct. 15.  
 Period of record: Maximum discharge, 81,600 ft<sup>3</sup>/s (2,310 m<sup>3</sup>/s) June 23, 1972, gage height, 35.9 ft (10.94 m), from floodmark; minimum daily, 19 ft<sup>3</sup>/s (0.54 m<sup>3</sup>/s) Sept. 7-13, 1966.  
 Flood in June 1889 reached a stage of 30 ft (9.1 m), from floodmarks, discharge, 56,000 ft<sup>3</sup>/s (1,590 m<sup>3</sup>/s).

REMARKS.--Records good. Water-quality records for the current water year are published in Section 2 of this report as Monocacy River at Reich's Ford Bridge near Frederick, Maryland.

REVISIONS (WATER YEARS).--WSP 711: 1930.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	151	242	635	1380	1540	1520	1810	5420	860	367	718
2	172	150	3960	837	1190	1340	1330	2270	3240	712	306	1020
3	160	149	2500	680	1040	1170	1350	1540	2130	636	291	659
4	154	147	1080	588	908	1020	1510	4930	1710	798	291	417
5	151	153	730	561	834	925	1130	5700	1880	746	420	333
6	151	160	581	522	1010	885	1020	2890	5910	594	565	419
7	150	162	523	508	1410	856	954	2650	2920	527	372	660
8	148	152	1300	532	1330	862	896	1940	1940	501	324	452
9	140	148	2440	1980	999	784	840	1640	1400	521	292	352
10	139	149	1100	3370	800	693	795	1490	1150	498	263	293
11	137	145	778	1910	750	687	773	1340	1000	477	263	259
12	134	225	666	2030	800	795	746	1290	2800	483	266	350
13	133	464	632	1500	850	1590	703	1850	5510	1320	266	1090
14	133	483	584	1900	700	1430	656	1440	2090	2330	930	557
15	131	358	573	1060	650	2040	651	1150	1440	2090	863	369
16	236	362	3420	795	656	3430	661	2300	1180	1160	459	312
17	468	305	6900	734	735	3000	646	2250	1050	1450	495	291
18	413	246	2120	713	1440	2670	605	1420	936	938	564	300
19	261	222	1520	752	3030	4650	615	1250	848	709	388	528
20	211	222	1260	1270	4090	13900	620	1110	791	647	319	893
21	186	243	1070	1090	2390	4140	561	985	725	3590	281	3180
22	174	291	993	922	1910	2760	508	977	656	1010	273	1600
23	168	285	916	888	2130	2570	495	1720	611	706	270	5890
24	169	242	790	885	5320	2330	530	1090	579	602	256	10300
25	166	223	735	2070	7170	3530	1160	922	563	546	253	18900
26	164	209	698	6320	3290	2200	9560	1530	606	516	242	49000
27	164	205	635	2740	2120	1660	2930	1010	606	472	240	42000
28	159	203	585	1890	1750	1480	1820	862	3800	425	225	7700
29	156	198	556	1630	---	1440	1590	728	2470	396	211	3540
30	154	187	527	1730	---	2140	1390	659	1110	371	203	2580
31	153	---	504	1450	---	2340	---	712	---	367	335	---
TOTAL	5626	6839	40918	44492	50682	70857	38565	53455	57071	26998	11093	154962
MEAN	181	228	1320	1435	1810	2286	1286	1724	1902	871	358	5165
MAX	468	483	6900	6320	7170	13900	9560	5700	5910	3590	930	49000
MIN	131	145	242	508	650	687	495	659	563	367	203	259
CFSM	.22	.28	1.62	1.76	2.22	2.80	1.57	2.11	2.33	1.07	.44	6.32
IN.	.26	.31	1.86	2.03	2.31	3.23	1.76	2.43	2.60	1.23	.51	7.06

CAL YR 1974 TOTAL 309260 MEAN 847 MAX 13500 MIN 124 CFSM 1.04 IN 14.08  
 WTR YR 1975 TOTAL 561558 MEAN 1539 MAX 49000 MIN 131 CFSM 1.88 IN 25.57

PEAK DISCHARGE (BASE, 8,800 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-17	0600	11.57	9,760	5-05	0030	11.39	9,500
3-20	1130	15.93	17,200	9-26	*2400	†30.8	61,200
4-26	1600	13.25	12,300				

\*About.  
 † From floodmark.  
 NOTE.--No gage-height record  
 Sept. 26-28.



01643500 Bennett Creek at Park Mills, Md.

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, on left bank 75 ft (23 m) downstream from highway bridge, 0.2 mile (0.3 km) south of Park Mills, 1.8 miles (2.9 km) upstream from mouth, and 3.7 miles (6.0 km) southwest of Urbana.

DRAINAGE AREA.--62.8 mi<sup>2</sup> (162.7 km<sup>2</sup>).

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder, concrete control and crest-stage gage. Altitude of gage is 240 ft (73.2 m) from topographic map.

AVERAGE DISCHARGE.--19 years (1948-58, 1966-75), 69.5 ft<sup>3</sup>/s (1.968 m<sup>3</sup>/s), 15.03 in/yr (382 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 ft<sup>3</sup>/s (156 m<sup>3</sup>/s) Sept. 26, gage height, 10.07 ft (3.069 m); minimum daily, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Oct. 14, Nov. 9-11.  
Period of record: Maximum discharge, 32,200 ft<sup>3</sup>/s (912 m<sup>3</sup>/s) June 21, 1972, gage height, 22.1 ft (6.74 m) from floodmark, from rating curve extended above 2,700 ft<sup>3</sup>/s (76.5 m<sup>3</sup>/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, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Sept. 8, 1966, gage height, 0.80 ft (0.244 m).

REMARKS.--Records fair.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	19	130	58	80	69	90	161	80	32	25	120
2	19	19	700	42	72	65	85	115	80	30	25	36
3	18	18	100	39	66	60	95	97	55	27	24	28
4	18	18	65	40	62	54	80	329	50	30	24	24
5	19	20	55	37	70	52	74	186	65	28	26	24
6	19	21	48	37	82	53	70	170	55	24	24	35
7	19	19	43	40	95	54	68	153	45	23	24	35
8	18	18	185	40	77	54	66	115	43	26	22	33
9	19	17	94	124	74	48	65	95	41	24	21	27
10	18	17	63	71	68	50	64	90	40	150	21	22
11	18	17	53	80	64	54	64	80	40	120	22	24
12	18	47	51	67	88	85	63	90	65	40	23	27
13	18	40	45	79	81	90	59	95	60	55	22	29
14	17	26	45	70	68	300	57	100	45	250	87	23
15	18	39	40	55	62	180	69	80	39	70	28	21
16	37	26	371	54	65	110	64	100	36	50	37	21
17	27	24	148	52	78	170	59	80	35	45	33	21
18	21	23	93	56	107	110	58	75	34	42	26	28
19	19	22	76	85	98	400	61	70	32	38	24	40
20	19	24	66	170	84	250	56	65	31	42	23	24
21	18	28	59	80	76	130	51	62	30	82	22	28
22	19	22	57	75	70	120	50	60	29	40	22	28
23	19	20	49	70	89	110	50	70	28	36	22	170
24	19	20	47	75	107	115	58	60	27	34	22	500
25	19	21	45	200	102	120	196	90	35	34	22	1180
26	19	25	41	150	83	90	275	66	500	33	20	2170
27	18	20	39	100	75	82	109	62	60	31	23	350
28	18	19	39	85	71	80	91	56	60	30	19	170
29	18	19	38	80	---	90	110	54	50	28	18	120
30	19	18	38	70	---	200	90	52	55	26	18	100
31	19	---	40	83	---	100	---	51	---	26	34	---
TOTAL	603	686	2963	2364	2214	3545	2447	3029	1845	1546	803	5458
MEAN	19.5	22.9	95.6	76.3	79.1	114	81.6	97.7	61.5	49.9	25.9	182
MAX	37	47	700	200	107	400	275	329	500	250	87	2170
MIN	17	17	38	37	62	48	50	51	27	23	18	21
CFSM	.31	.36	1.52	1.21	1.26	1.82	1.30	1.56	.98	.79	.41	2.90
IN.	.36	.41	1.76	1.40	1.31	2.10	1.45	1.79	1.09	.92	.48	3.23

CAL YR 1974 TOTAL 19908 MEAN 54.5 MAX 700 MIN 15 CFSM .87 IN 11.79  
WTR YR 1975 TOTAL 27503 MEAN 75.4 MAX 2170 MIN 17 CFSM 1.20 IN 16.29

PEAK DISCHARGE (BASE, 1,200 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	Unknown	6.33	1,920	9-26	1015	10.07	5,500
9-25	1130	5.65	1,620				

NOTE.--No gage-height record  
Mar. 3 to Apr. 11, May 9 to July 18.

## 01645000 Seneca Creek at Dawsonville, Md.

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, 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 mile (0.8 km) east of Dawsonville, and 5.8 miles (9.3 km) upstream from mouth.

DRAINAGE AREA.--101 mi<sup>2</sup> (262 km<sup>2</sup>).

PERIOD OF RECORD.--September 1930 to current year.

GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.15 ft (65.273 m) above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--45 years, 97.9 ft<sup>3</sup>/s (2.773 m<sup>3</sup>/s), 13.17 in/yr (335 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,000 ft<sup>3</sup>/s (453 m<sup>3</sup>/s) Sept. 26, gage height, 12.67 ft (3.862 m); minimum, 26 ft<sup>3</sup>/s (0.74 m<sup>3</sup>/s) Oct. 13-15, gage height, 1.89 ft (0.576 m).

Period of record: Maximum discharge, 26,100 ft<sup>3</sup>/s (739 m<sup>3</sup>/s) June 22, 1972, gage height, 16.4 ft (5.00 m), from high-water mark in gage house, from rating curve extended above 3,000 ft<sup>3</sup>/s (850 m<sup>3</sup>/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 mile (8.0 km) downstream, adjusted for flow from intervening area; minimum observed, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Sept. 28, 29, 1930, gage height, 0.56 ft (0.171 m).

Flood of Sept. 12, 1971, reached a stage of 16.32 ft (4.974 m), from high-water mark in gage house, discharge, 25,900 ft<sup>3</sup>/s (733 m<sup>3</sup>/s), from rating curve extended as explained above.

REMARKS.--Records good. Small diversion at times for irrigation above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M) 1941(M): WRD Md. and Del. 1974: 1970(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	29	233	100	106	87	133	233	116	59	49	220
2	30	29	1490	68	97	83	122	149	116	54	46	66
3	28	29	175	63	90	78	136	123	79	50	44	48
4	28	29	101	65	84	75	116	479	72	54	41	43
5	29	31	80	60	100	74	104	210	100	50	41	40
6	29	58	70	58	123	75	101	198	91	43	47	44
7	29	33	64	70	150	77	97	202	74	42	42	43
8	28	31	465	68	112	77	95	140	70	48	37	41
9	28	31	165	175	108	67	92	126	66	45	35	38
10	28	30	98	96	92	71	91	121	63	292	34	35
11	28	29	82	99	92	77	90	111	63	280	35	36
12	27	70	79	86	179	121	88	129	103	72	38	39
13	26	74	72	108	140	130	84	234	96	106	35	45
14	26	41	71	97	104	538	82	144	70	474	102	35
15	26	68	64	74	97	302	117	115	62	134	47	34
16	56	45	694	74	98	160	99	140	57	101	104	35
17	48	39	207	72	108	242	98	113	56	84	105	36
18	33	36	122	79	138	159	96	103	54	76	48	52
19	30	36	102	113	115	684	102	100	51	67	42	74
20	29	41	91	274	100	392	96	95	48	255	39	44
21	30	62	83	112	93	193	86	89	47	925	39	49
22	29	40	86	102	89	169	84	84	45	106	38	49
23	30	36	74	99	106	153	84	100	44	80	38	352
24	30	36	72	103	135	163	89	86	43	74	37	1620
25	30	37	70	332	147	175	214	129	53	105	36	2570
26	30	44	64	243	100	130	349	93	944	77	34	7720
27	29	35	62	136	92	116	130	88	96	63	47	708
28	29	34	62	118	89	113	111	80	96	60	33	303
29	29	34	59	110	---	127	161	75	80	57	30	221
30	30	33	59	98	---	295	123	74	87	53	30	184
31	30	---	66	110	---	158	---	73	---	50	75	---
TOTAL	944	1200	5282	3462	3084	5361	3470	4236	3042	4036	1448	14824
MEAN	30.5	40.0	170	112	110	173	116	137	101	130	46.7	494
MAX	56	74	1490	332	179	684	349	479	944	925	105	7720
MIN	26	29	59	58	84	67	82	73	43	42	30	34
CFSM	.30	.40	1.68	1.11	1.09	1.71	1.15	1.36	1.00	1.29	.46	4.89
IN.	.35	.44	1.95	1.28	1.14	1.97	1.28	1.56	1.12	1.49	.53	5.46

CAL YR 1974 TOTAL 34418 MEAN 94.3 MAX 1490 MIN 24 CFSM .93 IN 12.68  
WTR YR 1975 TOTAL 50389 MEAN 138 MAX 7720 MIN 26 CFSM 1.37 IN 18.56

PEAK DISCHARGE (BASE, 1,300 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0500	8.23	3,470	7-10	2100	5.66	1,340
12-16	1330	6.30	1,600	7-20	2400	6.90	1,980
3-19	1915	6.40	1,660	9-26	1215	12.67	16,000
6-26	1300	7.89	2,970				

01645200 Watts Branch at Rockville, Md.

LOCATION.--Lat 39°05'03", long 77°10'38", Montgomery County, on left bank 0.2 mile (0.3 km) south of State Highway 28, 1.3 miles (2.1 km) west of post office in Rockville, and 9.4 miles (15.0 km) upstream from mouth.

DRAINAGE AREA.--3.70 mi<sup>2</sup> (9.58 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 330 ft (100 m), from topographic map.

AVERAGE DISCHARGE.--18 years, 3.99 ft<sup>3</sup>/s (0.113 m<sup>3</sup>/s), 14.64 in/yr (372 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,400 ft<sup>3</sup>/s (96.3 m<sup>3</sup>/s) Sept. 26, gage height, 7.32 ft (2.231 m), from rating curve extended as explained below; minimum, 0.35 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Oct. 13, gage height, 1.18 ft (0.360 m).

Period of record: Maximum discharge, 3,400 ft<sup>3</sup>/s (96.3 m<sup>3</sup>/s) Sept. 26, 1975, gage height, 7.32 ft (2.231 m), from rating curve extended above 280 ft<sup>3</sup>/s (7.93 m<sup>3</sup>/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, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 2, 1966, gage height, 1.10 ft (0.335 m).

REVISIONS.--The figures for maximum discharge have been revised, as shown in the following table. They supersede figures published in Water Resources Data reports indicated.

Report	Water Year	Date	Discharge (cfs)	Gage height (feet)
WRD Md. and Del.	1967	Aug. 4, 1967	954	5.58
WRD Md. and Del.	1968	Sept. 10, 1968	730	5.65
WRD Md. and Del.	1969	June 3, 1969	770	5.83
WRD Md. and Del.	1970	Aug. 14, 1970	1,660	6.55

REMARKS.--Records fair. Some regulation of low flow from unknown cause.

REVISIONS (WATER YEARS).--WSP 2103: 1965. Revised figures of discharge for the water years 1967-70, superseding those published in WRD Md. and Del., 1967-70, are given herein.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	1.2	1.3	2.2	2.0	1.9	2.2	1.6	1.4	.79	.90	1.3
2	2.8	1.4	1.3	3.0	3.0	1.9	2.1	1.9	1.3	15	.62	1.2
3	1.8	1.5	1.1	3.4	2.4	2.1	2.1	2.8	1.2	5.2	2.5	1.2
4	1.6	1.2	1.1	3.5	1.9	2.3	2.1	1.6	1.2	3.0	81	1.1
5	1.8	1.1	1.1	2.7	1.9	2.6	2.2	1.6	1.1	2.0	10	1.1
6	1.3	1.1	1.2	2.1	1.8	13	2.4	2.6	1.1	1.3	2.0	1.1
7	1.3	1.1	1.2	2.7	1.4	100	5.0	38	1.1	1.2	1.3	1.0
8	1.2	1.2	1.2	12	2.7	6.3	2.2	4.4	1.0	7.0	1.9	1.0
9	.93	1.2	1.1	3.9	2.3	4.6	2.2	3.0	1.1	2.0	1.5	1.1
10	1.2	1.6	1.9	2.8	2.3	4.0	2.2	2.3	.99	1.2	2.5	1.3
11	1.2	1.6	2.5	2.2	3.5	3.8	2.1	3.2	.96	1.4	1.3	1.1
12	1.1	1.2	1.2	2.2	2.5	3.6	2.0	2.2	.94	1.6	1.0	.93
13	1.1	1.2	1.4	2.2	2.0	3.4	2.0	2.0	.94	1.3	.90	.93
14	1.1	1.2	2.9	2.8	4.1	3.6	2.0	3.3	1.0	12	.80	.90
15	1.1	1.2	2.0	2.4	9.7	20	1.9	3.1	.96	3.0	.66	.81
16	1.3	1.2	1.6	2.0	4.3	5.0	1.8	2.3	.91	1.1	.62	.82
17	1.0	1.2	1.9	2.0	3.1	3.5	4.2	2.1	.84	1.2	.60	.85
18	2.8	1.2	4.0	1.8	3.0	3.0	2.2	1.9	.86	.95	.58	.83
19	39	1.1	2.2	1.7	2.7	2.9	1.9	3.1	.88	.87	7.3	.78
20	2.8	1.1	2.0	1.8	3.8	3.0	1.8	1.9	.82	10	6.3	.76
21	2.0	1.1	2.3	1.8	6.6	5.5	1.8	1.7	.72	2.0	1.7	1.7
22	1.7	1.1	2.0	1.9	3.1	5.8	2.2	2.3	15	1.3	1.0	.91
23	1.6	1.2	1.7	1.9	2.9	3.8	1.6	1.8	1.4	1.0	1.5	.75
24	1.5	1.2	1.6	1.8	2.3	3.0	1.7	1.6	.93	.93	53	.76
25	1.5	1.3	1.8	1.8	2.0	2.8	1.6	1.5	.81	.82	68	.70
26	1.4	1.2	1.7	1.7	1.8	2.6	2.9	1.5	.70	.80	5.9	.70
27	1.4	1.2	1.6	12	1.9	2.5	2.8	1.4	.86	.80	15	.72
28	1.2	11	1.5	3.0	2.1	2.5	1.8	1.4	.86	.80	2.5	.87
29	1.1	2.2	10	2.1	---	3.2	1.7	3.1	.97	.90	1.8	.84
30	1.2	1.5	3.5	2.0	---	2.3	1.7	1.6	2.2	1.3	1.5	.73
31	1.3	---	2.3	1.9	---	2.2	---	1.6	---	1.0	1.4	---
TOTAL	96.33	47.8	64.2	91.3	83.1	226.7	66.4	104.4	45.05	83.76	277.58	28.79
MEAN	3.11	1.59	2.07	2.95	2.97	7.31	2.21	3.37	1.50	2.70	8.95	.96
MAX	39	11	10	12	9.7	100	5.0	38	15	15	81	1.7
MIN	.93	1.1	1.1	1.7	1.4	1.9	1.6	1.4	.70	.79	.58	.70
CFSM	.84	.43	.56	.80	.80	1.98	.60	.91	.41	.73	2.42	.26
IN.	.97	.48	.65	.92	.84	2.28	.67	1.05	.45	.84	2.79	.29

WTR YR 1967 TOTAL 1215.41 MEAN 3.33 MAX 100 MIN .58 CFSM .90 IN 12.22

PEAK DISCHARGE (BASE, 220 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-07	0600	4.96	440	8-04	2000	5.58	954
6-22	1530	4.63	248	8-24	2400	5.49	840

01645200 Watts Branch at Rockville, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	1.2	1.4	2.8	2.6	2.0	2.6	1.7	1.9	1.8	.85	.50
2	.87	9.7	1.2	2.2	5.1	2.4	2.1	1.5	1.7	54	.90	.78
3	.89	1.4	38	2.4	3.5	1.7	2.1	2.3	2.5	14	.78	.75
4	.84	1.0	5.0	3.4	2.6	1.7	4.9	4.0	1.7	2.8	.76	.43
5	.80	.95	3.0	2.2	2.3	1.8	4.6	2.7	1.5	2.5	.81	.40
6	.82	.89	2.7	2.0	2.3	1.8	2.1	2.7	1.4	1.9	.79	6.1
7	.91	.92	2.8	2.0	2.2	1.7	2.0	3.4	1.3	1.7	1.8	.63
8	.93	.93	2.4	1.8	2.1	1.7	2.0	2.4	1.3	1.6	.94	.68
9	.97	.93	2.0	1.7	2.0	1.9	1.8	1.5	1.7	1.5	.72	.57
10	5.7	.93	29	1.8	1.8	1.9	1.8	1.4	1.6	1.5	3.0	100
11	1.0	.93	17	1.7	1.7	1.8	1.8	1.4	1.4	1.5	1.2	2.2
12	.87	.93	9.5	1.7	1.5	20	1.7	1.6	14	1.4	.66	1.1
13	.82	.91	3.2	2.0	1.7	15	1.6	1.4	9.7	1.4	.64	.87
14	.82	.93	2.6	77	1.7	4.6	1.6	1.5	5.4	1.4	.86	.79
15	.82	.83	2.3	5.3	1.8	6.0	1.7	1.6	2.8	1.3	.73	.74
16	.88	.85	2.2	3.2	1.8	4.3	1.5	1.8	38	1.4	.97	1.3
17	.82	1.1	2.0	2.5	1.8	29	1.5	1.5	9.3	1.2	1.3	.72
18	4.2	.98	2.0	2.6	1.6	12	1.5	1.4	3.3	1.2	.59	.71
19	1.2	.87	1.9	2.8	1.7	4.6	1.5	2.5	25	3.9	6.4	.72
20	.82	.88	1.8	2.6	1.7	3.7	1.6	1.5	4.8	1.5	1.1	.72
21	.82	.94	1.8	2.7	1.5	3.3	1.6	2.2	2.3	1.2	.65	.73
22	.82	1.4	4.5	2.4	1.7	3.0	1.5	2.2	2.1	1.2	.57	.72
23	.84	1.6	2.2	2.6	1.6	6.9	1.6	5.4	1.9	1.2	.56	.69
24	.93	1.1	1.8	2.3	1.6	3.6	6.4	6.6	4.8	1.1	.86	.69
25	10	1.3	2.1	2.0	1.5	2.8	2.3	2.0	2.0	1.1	.64	.68
26	1.3	.93	2.1	1.8	1.5	2.9	1.8	1.1	4.4	1.1	.50	.66
27	1.1	.93	1.7	1.7	1.5	2.7	2.2	14	61	1.0	.48	.58
28	1.1	.93	37	2.1	1.6	2.5	1.8	43	14	.96	.46	.57
29	1.1	.89	15	2.1	2.0	2.3	1.6	7.7	2.6	.85	.42	.55
30	1.1	1.1	4.0	4.4	---	2.3	1.8	3.0	2.2	.86	.39	.66
31	1.1	---	3.5	3.4	---	2.2	---	2.3	---	.87	.44	---
TOTAL	46.02	39.18	207.7	151.2	58.0	154.1	64.6	129.3	227.6	110.94	31.77	127.24
MEAN	1.48	1.31	6.70	4.88	2.00	4.97	2.15	4.17	7.59	3.58	1.02	4.24
MAX	10	9.7	38	77	5.1	29	6.4	43	61	54	6.4	100
MIN	.80	.83	1.2	1.7	1.5	1.7	1.5	1.1	1.3	.85	.39	.40
CFSM	.40	.35	1.81	1.32	.54	1.34	.58	1.13	2.05	.97	.28	1.15
IN.	.46	.39	2.09	1.52	.58	1.55	.65	1.30	2.29	1.12	.32	1.28

WTR YR 1968 TOTAL 1347.65 MEAN 3.68 MAX 100 MIN .39 CFSM .99 IN 13.55

PEAK DISCHARGE (BASE, 220 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-16	1800	5.40	512	7-02	1730	5.53	650
6-19	2045	5.29	416	9-10	1645	5.65	730
6-27	2230	5.53	650				

## POTOMAC RIVER BASIN

01645200 Watts Branch at Rockville, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	.72	2.5	1.5	4.4	2.6	1.5	1.3	.94	.55	13	1.0
2	.77	.74	4.2	1.3	2.3	3.1	1.6	1.2	4.9	.55	13	3.0
3	.88	.77	2.0	1.4	2.4	3.2	1.4	1.2	67	.58	11	17
4	.72	.95	11	1.3	1.7	2.7	1.4	1.2	1.8	.50	3.0	29
5	.63	.81	1.8	1.3	1.6	2.1	2.1	1.1	1.3	.51	2.2	1.2
6	.95	.82	1.5	1.3	1.6	2.1	2.1	1.1	1.1	.46	2.0	1.1
7	14	5.7	1.5	1.3	1.7	4.9	1.4	1.0	1.1	.55	2.0	1.0
8	.90	2.8	1.4	1.5	1.6	2.6	1.3	1.3	42	.73	2.0	10
9	.90	.93	1.3	1.6	2.9	2.4	1.3	7.0	3.2	.58	7.2	1.5
10	.85	13	1.1	1.3	1.6	2.1	2.2	1.2	2.0	.60	82	1.2
11	.82	1.7	1.1	1.2	1.9	1.8	1.6	1.0	1.8	.60	2.8	1.1
12	.78	22	1.1	1.2	2.2	1.7	1.3	1.0	1.6	.76	2.6	1.0
13	.75	6.8	1.3	1.2	1.7	1.7	1.2	.97	1.4	.60	2.4	.98
14	.80	3.7	11	1.2	1.3	1.6	1.2	.96	1.4	.41	2.2	.91
15	.82	2.6	2.0	1.2	1.4	1.6	1.6	.94	2.8	.35	2.0	.90
16	.82	2.0	1.6	1.2	1.4	1.6	2.5	.93	1.3	.34	1.9	.90
17	.81	1.8	1.4	1.3	1.4	1.6	1.6	.89	1.0	.33	1.8	.87
18	.91	17	1.3	3.8	1.4	1.6	1.8	.89	18	.33	36	1.6
19	12	3.4	1.7	3.2	1.4	1.6	1.5	3.5	6.0	.49	1.6	.84
20	.93	1.9	1.5	1.7	2.4	1.6	1.3	9.9	1.4	14	19	1.0
21	.72	1.7	1.3	12	1.8	1.5	1.2	7.0	1.3	1.2	1.8	.93
22	.65	1.6	9.4	3.2	1.6	1.4	3.7	1.3	1.2	1.5	1.6	.82
23	.63	1.5	4.5	2.4	17	1.3	2.0	1.2	1.2	1.4	1.5	.83
24	1.6	2.0	2.0	2.3	10	3.6	1.6	1.3	.94	.68	1.5	1.4
25	6.7	2.0	1.6	1.9	3.6	6.5	1.4	1.2	.96	.63	1.4	1.5
26	.83	1.8	1.5	1.5	2.6	1.9	1.4	1.1	.86	1.1	1.4	.80
27	.78	1.8	1.6	1.4	2.2	1.7	1.3	.94	.73	1.7	1.3	.74
28	2.1	2.3	2.7	1.3	2.0	1.6	1.6	.95	.72	14	1.2	1.2
29	.97	2.0	1.8	2.3	---	1.6	1.5	.93	.66	3.2	1.1	.81
30	.80	1.9	1.6	2.3	---	1.5	1.3	.88	.56	1.8	1.0	.71
31	.72	---	1.7	2.2	---	1.5	---	.87	---	1.5	1.0	---
TOTAL	57.32	108.74	82.0	63.8	79.1	68.3	48.9	56.25	171.17	52.53	224.5	85.84
MEAN	1.85	3.62	2.65	2.06	2.83	2.20	1.63	1.81	5.71	1.69	7.24	2.86
MAX	14	22	11	12	17	6.5	3.7	9.9	67	14	82	29
MIN	.63	.72	1.1	1.2	1.3	1.3	1.2	.87	.56	.33	1.0	.71
CFSM	.50	.98	.72	.56	.76	.59	.44	.49	1.54	.46	1.96	.77
IN.	.58	1.09	.82	.64	.80	.69	.49	.57	1.72	.53	2.26	.86

WTR YR 1969 TOTAL 1098.45 MEAN 3.01 MAX 82 MIN .33 CFSM .81 IN 11.04

PEAK DISCHARGE (BASE, 220 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-03	0030	5.83	770	8-10	0130	5.84	730
6-08	1815	5.73	640	8-18	0215	5.42	314
6-18	2200	5.36	298	9-03	2330	5.34	269

NOTE.--Fragmentary or no gage-height record July 28 to Sept. 11.

01645200 Watts Branch at Rockville, Md.--Continued

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.79	.86	5.5	2.5	1.7	5.9	2.3	1.6	1.1	1.4	.90
2	12	2.1	.77	3.6	5.6	1.8	29	2.2	1.5	6.1	1.2	.88
3	1.2	.74	.88	2.8	14	3.2	4.7	5.5	2.8	1.5	1.9	.90
4	.80	.72	.76	2.4	2.8	6.1	3.9	2.9	1.9	1.3	1.2	.89
5	.73	.68	.74	1.9	2.4	3.2	3.3	2.3	2.3	1.3	.90	.79
6	.80	.74	.76	2.0	2.3	2.2	4.1	2.1	4.7	1.1	.94	.69
7	.82	.74	12	1.8	2.2	2.1	3.7	2.1	1.7	1.0	.91	.91
8	1.4	4.7	3.9	1.6	2.1	2.0	2.9	2.1	1.4	1.1	.83	.75
9	.83	1.4	1.3	1.5	14	1.9	2.9	1.9	1.4	101	.79	2.7
10	.82	.77	42	1.4	40	1.8	2.6	1.9	1.4	20	.90	11
11	.82	.72	6.9	1.5	5.4	1.8	2.4	1.8	1.3	2.2	.87	1.2
12	.83	2.1	2.2	1.5	3.1	3.3	2.4	3.9	1.3	1.9	.86	.89
13	.86	1.1	1.7	1.5	2.5	2.4	2.8	4.0	1.3	1.6	.82	.93
14	.89	1.9	2.6	1.4	2.2	1.8	74	5.7	1.2	1.5	152	.87
15	.90	.93	1.6	1.4	2.5	1.7	19	2.0	1.3	1.4	3.4	.84
16	.84	.72	1.4	1.5	2.6	1.6	5.2	2.0	25	1.4	1.8	.82
17	.83	.72	1.3	7.0	2.8	1.7	4.0	17	2.7	1.3	1.6	.86
18	.84	.73	1.3	18	7.0	6.8	3.0	2.7	24	1.2	1.4	.99
19	.76	20	1.3	4.0	6.1	2.8	2.8	2.2	1.5	1.1	1.5	.76
20	.80	4.0	1.2	2.2	2.6	9.0	5.6	1.9	1.5	46	1.4	.72
21	3.2	1.9	1.1	2.0	2.2	3.3	3.0	1.8	18	8.7	1.3	.75
22	.69	1.6	21	1.8	2.3	11	2.6	1.6	3.4	1.7	1.2	.71
23	.64	1.6	2.4	1.6	2.2	3.8	8.0	1.7	1.6	3.3	16	.68
24	.64	1.6	1.8	1.6	2.1	2.7	10	34	1.4	2.4	1.5	.66
25	.72	1.1	1.5	1.8	2.1	2.4	3.5	32	1.5	1.6	1.3	.72
26	.72	.98	1.8	19	1.8	4.0	3.0	2.7	1.4	1.4	1.1	.80
27	.91	.86	1.7	7.8	1.9	2.7	2.8	2.0	1.4	1.3	1.2	2.8
28	.74	.83	1.6	7.2	1.8	2.2	2.7	1.8	1.2	1.3	1.1	.96
29	.72	.85	2.1	13	---	12	2.6	1.6	1.3	1.7	1.1	.80
30	.75	.84	21	4.6	---	3.3	2.4	1.5	1.2	16	1.1	.82
31	.72	---	30	2.8	---	4.0	---	1.4	---	2.3	2.0	---
TOTAL	38.99	58.46	171.47	127.7	141.1	110.3	224.8	150.6	114.2	236.8	205.52	38.99
MEAN	1.26	1.95	5.53	4.12	5.04	3.56	7.49	4.86	3.81	7.64	6.63	1.30
MAX	12	20	42	19	40	12	74	34	25	101	152	11
MIN	.64	.68	.74	1.4	1.8	1.6	2.4	1.4	1.2	1.0	.79	.66
CFSM	.34	.53	1.49	1.11	1.36	.96	2.02	1.31	1.03	2.06	1.79	.35
IN.	.39	.59	1.72	1.28	1.42	1.11	2.26	1.51	1.15	2.38	2.07	.39

WTR YR 1970 TOTAL 1618.93 MEAN 4.44 MAX 152 MIN .64 CFSM 1.20 IN 16.27

PEAK DISCHARGE (BASE, 220 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-10	1945	5.26	227	7-09	1945	6.20	1,080
5-24	2330	5.97	740	7-20	2230	6.00	750
6-16	2045	5.72	416	8-14	1800	6.55	1,660

## 01645200 Watts Branch at Rockville, Md.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.68	173	2.2	3.0	2.0	3.1	33	15	1.4	1.5	15
2	.56	.62	15	1.5	5.0	1.9	2.7	3.4	2.2	1.3	1.2	1.5
3	.59	.57	3.8	1.6	2.4	1.9	7.0	3.5	1.8	1.6	1.1	1.2
4	.62	.60	2.8	1.5	2.0	1.8	2.6	50	1.6	1.5	1.8	1.1
5	.66	5.4	1.8	1.5	4.0	1.8	2.6	3.8	11	1.2	1.9	1.1
6	.60	1.2	1.3	2.0	13	1.9	2.5	6.5	2.7	1.1	1.2	2.2
7	.69	.63	2.0	3.5	9.0	3.0	2.4	3.3	1.6	1.4	1.1	1.1
8	.64	.62	30	4.9	3.0	1.8	2.4	2.8	1.5	1.2	.97	1.2
9	.71	.62	2.5	18	2.4	1.6	2.5	2.7	1.4	1.1	.91	1.1
10	.62	.62	1.7	2.0	2.2	3.0	2.4	2.6	1.5	32	.91	.91
11	.70	.62	1.5	3.4	2.2	1.8	2.3	2.4	1.9	2.2	1.3	.92
12	.90	20	1.5	2.0	12	10	2.2	17	8.6	1.8	1.0	1.6
13	.44	1.1	1.4	9.8	3.2	3.0	2.2	5.7	12	40	.93	.93
14	.50	3.9	2.1	2.4	2.4	50	2.2	2.8	1.8	36	2.8	.81
15	2.3	6.7	1.4	1.8	2.2	5.0	21	2.5	1.6	3.0	.96	.81
16	5.0	.84	54	1.8	2.4	3.0	2.6	5.4	1.5	2.4	24	.84
17	.86	.75	3.0	1.6	5.0	16	2.3	2.3	1.5	2.0	2.7	.88
18	.60	.71	2.2	9.0	3.0	4.0	2.4	2.3	1.4	1.9	1.6	6.2
19	.60	.72	2.0	26	2.4	40	6.3	2.3	1.4	1.8	1.2	1.6
20	.61	7.3	2.2	6.0	2.0	6.2	2.2	2.1	1.3	36	1.1	.96
21	.61	1.1	3.1	2.5	1.9	3.8	2.1	2.1	1.3	11	1.0	.92
22	.65	.81	2.5	2.2	1.8	3.7	2.0	2.0	1.3	2.4	1.0	5.5
23	.71	.81	1.8	2.2	10	3.1	2.1	2.4	2.2	1.9	2.0	35
24	.68	.81	1.7	2.8	15	22	8.6	19	1.3	2.2	1.1	45
25	.62	5.2	1.7	16	4.0	4.3	42	4.0	1.4	3.6	.95	79
26	.62	1.0	1.5	3.6	2.6	2.9	8.3	2.5	1.6	1.7	.90	279
27	.62	.75	1.6	2.6	2.2	2.8	2.6	2.2	2.0	1.5	.95	6.3
28	.64	.78	1.5	2.4	2.0	2.7	3.8	2.0	5.2	1.6	.85	4.0
29	.75	.71	1.4	3.4	---	5.1	23	1.8	8.3	1.5	.80	3.2
30	.78	.83	1.3	2.0	---	30	2.7	1.9	1.5	1.5	1.1	2.8
31	.75	---	10	8.0	---	3.5	---	1.8	---	1.4	24	---
TOTAL	26.25	67.00	333.3	150.2	122.3	243.6	173.1	198.1	99.4	201.2	84.83	502.68
MEAN	.85	2.23	10.8	4.85	4.37	7.86	5.77	6.39	3.31	6.49	2.74	16.8
MAX	5.0	20	173	26	15	50	42	50	15	40	24	279
MIN	.44	.57	1.3	1.5	1.8	1.6	2.0	1.8	1.3	1.1	.80	.81
CFSM	.23	.60	2.92	1.31	1.18	2.12	1.56	1.73	.89	1.75	.74	4.54
IN.	.26	.67	3.35	1.51	1.23	2.45	1.74	1.99	1.00	2.02	.85	5.05

CAL YR 1974 TOTAL 1422.69 MEAN 3.90 MAX 173 MIN .11 CFSM 1.05 IN 14.30  
WTR YR 1975 TOTAL 2201.96 MEAN 6.03 MAX 279 MIN .44 CFSM 1.63 IN 22.13

PEAK DISCHARGE (BASE, 220 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2030	6.97	1,890	7-20	2200	6.15	373
12-16	0945	5.92	285	8-16	1830	6.15	373
3-19	1445	*6.03	220	9-25	2300	5.97	294
5-24	1745	5.67	247	9-26	0545	7.32	3,400
7-10	1830	6.49	721				

\*Backwater from log jam.

## 01646500 Potomac River near Washington, D. C.

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Maryland, on left bank just above Little Falls Dam, 1 mile (1.6 km) upstream from District of Columbia boundary line, 1.2 miles (1.9 km) upstream from Chain Bridge, 1.8 miles (2.9 km) east of Langley, Fairfax County, Virginia, and at mile 117.4 (188.9 km).  
DRAINAGE AREA.--11,560 mi<sup>2</sup> (29,940 km<sup>2</sup>).

PERIOD OF RECORD.--March 1930 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft (11.567 m) above mean sea level. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mile (1.6 km) upstream on right bank at same datum.

AVERAGE DISCHARGE.--45 years, 11,190 ft<sup>3</sup>/s (316.9 m<sup>3</sup>/s), 13.15 in/yr (334 mm/yr), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 195,000 ft<sup>3</sup>/s (5,520 m<sup>3</sup>/s) Sept. 27, gage height, 13.39 ft (4.081 m); minimum daily, 1,470 ft<sup>3</sup>/s (41.6 m<sup>3</sup>/s) Oct. 15, does not include diversion for municipal use; minimum daily (adjusted), 1,930 ft<sup>3</sup>/s (54.7 m<sup>3</sup>/s) Oct. 14, 15.

Period of record: Maximum discharge, 484,000 ft<sup>3</sup>/s (13,700 m<sup>3</sup>/s) Mar. 19, 1936, gage height, 28.1 ft (8.56 m) site then in use; minimum daily observed at gaging station, 121 ft<sup>3</sup>/s (3.43 m<sup>3</sup>/s) Sept. 9, 1966, does not include diversion of 489 ft<sup>3</sup>/s (13.8 m<sup>3</sup>/s) for municipal use; minimum daily (adjusted), 601 ft<sup>3</sup>/s (17.0 m<sup>3</sup>/s) Sept. 10, 1966, includes diversion of 449 ft<sup>3</sup>/s (12.7 m<sup>3</sup>/s) for municipal use.

Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.

REVISIONS.--Figures of maximum discharge for the water years 1973 and 1974 have been revised to 90,800 ft<sup>3</sup>/s (2,570 m<sup>3</sup>/s) Oct. 8, 1972, gage height, 9.08 ft (2.768 m) and 120,000 ft<sup>3</sup>/s (3,400 m<sup>3</sup>/s) Dec. 28, 1973, gage height, 10.36 ft (3.158 m), superseding figures published in WRD Md. and Del., 1973 and 1974.

REMARKS.--Records good. 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) and since December 1950, by Savage River Reservoir (see station 01597500). Low flow affected extensively at times by run-of-the-river hydroelectric plants.

REVISIONS.--WSP 726: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1920	1720	3130	11600	21300	20800	24300	23200	12200	13400	4100	8170	
2	1790	1680	22300	11900	19600	17800	23400	26300	25100	9760	3900	11500	
3	1690	1670	36200	13900	17800	15600	20500	25000	22500	7540	3410	11800	
4	1680	1610	26500	16300	16100	13800	18300	25400	17500	6530	3160	10400	
5	1640	1570	15900	13800	14900	12500	17300	35600	14000	6050	3090	8760	
6	1670	1690	11600	12100	13800	11700	15900	45600	14800	5670	3040	7670	
7	1590	1670	9040	10600	13900	11000	14600	40400	15500	5300	3550	6500	
8	1550	1610	9720	9280	14200	10000	13500	31500	12300	5080	3840	5870	
9	1500	1620	12300	9200	15900	9720	12700	25900	10200	5460	6110	5180	
10	1480	1660	13800	11400	16200	9850	12000	22100	9020	6180	5170	4710	
11	1500	1620	17600	13400	14700	10500	11400	19400	8020	10100	5030	4600	
12	1510	1720	17800	14000	13900	9500	10800	18500	7610	8320	4510	4130	
13	1520	2210	13700	13100	13900	9000	10300	17800	13400	10700	4040	4050	
14	1480	2600	11400	12500	16000	11500	9870	18200	16000	15400	3720	4500	
15	1470	3040	10100	12800	24700	18000	9770	16700	12800	13500	4200	3930	
16	1800	3200	13600	12100	21100	21300	9480	16200	10400	12300	4860	3430	
17	1830	3100	25000	11000	17800	29700	9210	17200	8850	11100	5170	3270	
18	2250	3020	28500	10000	16300	33300	8920	17200	7750	9670	5380	3310	
19	2490	2810	24900	9340	18000	40700	8740	14400	6810	8450	8720	3510	
20	2470	2460	20100	10500	26900	84500	8340	15900	5970	7990	7670	3570	
21	2640	2450	15800	10900	31200	154000	7890	14700	5480	13000	6030	4010	
22	3350	2290	13200	14100	26900	103000	7720	13600	5020	13600	4900	7350	
23	3110	2300	11600	14800	22800	54600	7470	13200	4550	12100	4390	9590	
24	2780	2300	10300	13800	23400	41200	7230	13700	4360	8110	3970	28200	
25	2560	2200	9210	13500	32200	35000	7350	13000	4110	6960	3610	63100	
26	2160	2140	8420	20300	37300	30700	15200	12700	5370	6280	3420	156000	
27	2020	2130	9420	22900	31200	27200	47200	13800	5560	7160	3910	186000	
28	1860	2210	17500	30500	24900	23700	36400	11900	6050	6730	4190	107000	
29	1770	2240	16100	26700	---	20600	26700	11700	23200	5900	3600	47200	
30	1760	2240	13600	21700	---	20700	22500	11600	19500	5150	3160	32000	
31	1760	---	12200	19400	---	22500	---	9930	---	4580	5650	---	
TOTAL	60600	64780	480540	447420	576900	933970	454990	612330	333930	268070	139500	759310	
MEAN	1955	2159	15500	14430	20600	30130	15170	19750	11130	8647	4500	25310	
MAX	3350	3200	36200	30500	37300	154000	47200	45600	25100	15400	8720	186000	
MIN	1470	1570	3130	9200	13800	9000	7230	9930	4110	4580	3040	3270	
(#)	450	473	435	451	464	428	462	464	492	486	518	453	
MEAN#	2405	2632	15940	14880	21060	30560	15630	20210	11620	9133	5018	25760	
CFSM#	.21	.23	1.38	1.29	1.82	2.64	1.35	1.75	1.01	.79	.43	2.23	
IN#	.24	.26	1.59	1.49	1.90	3.04	1.51	2.02	1.13	.91	.50	2.49	
CAL YR 1974 TOTAL	3707560	MEAN	10160	MAX	48400	MIN	1470	MEAN#	10620	CFSM#	.92	IN#	12.49
WTR YR 1975 TOTAL	5132340	MEAN	14060	MAX	186000	MIN	1470	MEAN#	14530	CFSM#	1.26	IN#	17.10

PEAK DISCHARGE (BASE, 45,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE
3-21	1700	12.23	166,000
4-27	0930	7.05	50,900
5-06	1800	6.83	47,100
9-27	0530	13.39	195,000

# 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 the 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

01646550 Little Falls Branch near Bethesda, Md.

LOCATION.--Lat 38°57'27", long 77°06'31", Montgomery County, on left bank at downstream side of bridge on Massachusetts Avenue, 0.3 mile (0.5 km) downstream from Willett Branch, 1.7 miles (2.7 km) upstream from mouth, and 2.0 miles (3.2 km) southwest of Bethesda.

DRAINAGE AREA.--4.1 mi<sup>2</sup> (10.6 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--June 1944 to September 1959. Annual maximum, water years 1960-61. Occasional low-flow measurements water years 1960-62. December 1961 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 169.32 ft (51.609 m) above mean sea level (Maryland State Highway Administration bench mark). Prior to Oct. 1959, water-stage recorder and concrete control at site 50 ft (15 m) upstream at same datum. Oct. 1, 1959, to Nov. 30, 1961, crest-stage gage at present site and datum.

AVERAGE DISCHARGE.--28 years (1945-49, 1963-75), 3.31 ft<sup>3</sup>/s (0.0937 m<sup>3</sup>/s), 10.96 in/yr (278 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) Sept. 26, gage height, 6.00 ft (1.829 m), from rating curve extended as explained below; minimum, 0.49 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) many days in Oct., Nov. 1, gage height, 1.32 ft (0.402 m).

Period of record: Maximum discharge, 2,680 ft<sup>3</sup>/s (75.9 m<sup>3</sup>/s) Sept. 14, 1966, gage height, 6.82 ft (2.079 m), from rating curve extended above 630 ft<sup>3</sup>/s (17.8 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 5.92 ft (1.804 m); no flow at times in 1944, 1954, 1959, minima not available Oct. 1959 to Nov. 1961.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Occasional slight regulation at low flow from unknown source above station.

REVISIONS (WATER YEARS).--WSP 1171: 1945.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.54	51	1.6	1.9	1.3	1.9	12	5.9	1.0	1.2	4.0
2	.63	.60	6.4	1.0	2.7	1.3	1.9	2.2	1.5	1.0	1.2	1.5
3	.60	.59	1.9	1.2	1.3	1.3	2.6	2.4	2.4	2.2	1.2	.90
4	.62	.65	1.7	1.0	1.3	1.3	1.7	20	1.4	3.5	3.7	.80
5	.80	2.9	1.3	1.0	8.7	1.3	1.7	2.4	4.7	.93	2.9	.75
6	.68	.62	1.0	4.4	12	1.3	1.8	6.6	2.4	.88	2.5	.70
7	.64	.57	2.0	3.2	3.4	2.6	1.8	2.2	1.2	1.2	1.2	.70
8	.60	.59	25	3.2	1.9	1.2	1.8	1.9	1.0	.96	1.1	.70
9	.62	.58	2.4	6.9	1.7	1.2	1.6	1.8	.97	2.6	1.1	.70
10	.59	.57	1.6	1.2	1.6	3.0	1.6	1.8	.97	16	1.0	.70
11	.55	.62	1.4	2.8	1.6	1.6	1.6	1.6	2.0	2.7	4.8	.70
12	.55	10	1.3	1.5	11	9.7	1.5	5.1	7.2	1.1	1.2	2.0
13	.56	.85	1.2	11	1.9	3.0	1.5	4.4	2.9	44	1.1	.90
14	.59	1.6	2.8	1.9	1.7	36	1.6	1.8	1.1	26	5.3	.75
15	7.9	3.8	1.2	1.7	1.6	3.0	9.6	1.8	1.0	11	1.1	.70
16	9.1	.65	29	1.6	1.9	2.2	1.7	5.5	1.1	3.8	11	.65
17	.83	.67	2.1	1.1	3.5	12	1.7	1.7	1.1	1.9	9.1	.65
18	.66	.67	1.2	6.7	1.9	2.2	1.9	1.8	1.1	1.7	1.4	9.0
19	.66	.66	1.3	12	1.7	41	3.2	1.8	1.1	1.5	1.1	3.0
20	.59	4.7	1.2	5.3	1.4	3.5	1.6	1.6	1.1	10	1.0	1.0
21	.60	.83	1.2	2.4	1.3	2.4	1.7	1.7	1.0	9.6	.93	.80
22	.87	.66	1.2	3.0	1.3	2.6	1.6	14	.96	1.7	.94	.70
23	.62	.57	1.1	3.8	5.5	2.0	1.6	6.1	1.1	1.5	4.1	60
24	.61	.57	1.1	2.2	12	15	4.7	5.5	1.1	5.9	.89	30
25	.61	3.4	1.1	11	2.2	2.8	14	3.6	1.0	3.1	.98	20
26	1.2	.79	1.1	2.2	1.7	2.0	2.4	1.8	1.2	1.4	.90	200
27	.57	.66	1.5	1.7	1.6	1.9	1.6	1.6	1.1	1.2	.85	4.6
28	.59	.69	1.1	3.0	1.4	1.9	4.1	1.4	5.3	1.5	.80	2.8
29	.61	.69	1.0	1.9	---	2.8	9.4	1.4	1.6	1.4	.80	2.4
30	.59	.58	1.0	1.3	---	9.4	2.1	1.3	1.2	1.3	.80	2.3
31	.70	---	5.6	3.8	---	1.6	---	1.4	---	1.2	80	---
TOTAL	36.02	41.87	154.0	106.6	91.7	174.7	87.5	120.2	57.70	163.77	146.19	354.40
MEAN	1.16	1.40	4.97	3.44	3.28	5.64	2.92	3.88	1.92	5.28	4.72	11.8
MAX	9.1	10	51	12	12	41	14	20	7.2	44	80	200
MIN	.55	.54	1.0	1.0	1.3	1.2	1.5	1.3	.96	.88	.80	.65
CFSM	.28	.34	1.21	.84	.80	1.38	.71	.95	.47	1.29	1.15	2.88
IN.	.33	.38	1.40	.97	.83	1.58	.79	1.09	.52	1.49	1.33	3.21
CAL YR 1974	TOTAL	1105.76	MEAN	3.03	MAX	51	MIN	.54	CFSM	.74	IN	10.03
WTR YR 1975	TOTAL	1534.65	MEAN	4.20	MAX	200	MIN	.54	CFSM	1.02	IN	13.92

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE	*Unknown, discharge probably greater than base.
12-01	2015	3.77	785	9-23	*	*	*	NOTE.--No gage-height record
8-31	*	*	*	9-26	Unknown	6.00	2,100	Aug. 26 to Sept. 26.

01647720 North Branch Rock Creek near Norbeck, Md.

LOCATION.--Lat 39°06'59", long 77°06'09", Montgomery County, on left bank 550 ft (168 m) downstream from bridge on Mumcaster Mill Road (State Highway 115), 0.7 mile (1.1 km) upstream from Manor Run, 1.5 miles (2.4 km) northwest of Norbeck, and 2 miles (3.2 km) upstream from mouth.

DRAINAGE AREA.--9.73 mi<sup>2</sup> (25.20 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 320 ft (98 m), from topographic map.

AVERAGE DISCHARGE.--9 years, 12.5 ft<sup>3</sup>/s (0.354 m<sup>3</sup>/s), 17.45 in/yr (443 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,500 ft<sup>3</sup>/s (70.8 m<sup>3</sup>/s) Sept. 26, gage height, 8.02 ft (2.444 m); minimum daily, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Oct. 11, 12.

Period of record: Maximum discharge, 10,100 ft<sup>3</sup>/s (286 m<sup>3</sup>/s) June 22, 1972, gage height, 14.1 ft (4.30 m), from floodmarks, from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of computation of peak flow through culvert and flow over road; minimum daily, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) July 17-18, 1969.

REMARKS.--Records good. Diversion at low flow for irrigation of golf courses above station. Water-quality records for the current water year are published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.9	97	9.1	9.1	8.1	12	40	13	4.9	5.7	17
2	2.2	1.9	124	6.1	8.3	7.8	11	15	9.1	4.3	5.4	5.6
3	2.1	1.9	9.6	5.7	7.9	7.4	14	12	6.8	4.1	5.2	4.4
4	2.2	1.9	6.5	5.9	7.4	7.1	11	84	6.2	4.9	5.0	3.9
5	2.4	10	5.5	5.3	9.7	7.1	9.9	18	8.4	4.1	4.9	3.7
6	2.2	4.4	5.1	5.3	23	7.3	9.6	20	8.4	3.7	5.1	3.9
7	2.2	2.6	4.9	6.6	17	7.6	9.4	17	8.2	3.6	4.9	3.7
8	2.0	2.1	62	7.0	10	7.5	9.3	12	5.8	4.0	4.6	3.7
9	2.0	2.1	11	21	9.6	6.6	9.2	11	5.5	3.8	4.4	3.4
10	2.1	2.1	7.3	8.1	8.0	7.0	9.3	10	5.2	27	4.3	3.2
11	1.7	2.1	6.4	8.2	8.2	7.7	9.3	9.4	5.3	14	4.2	3.2
12	1.7	6.3	6.4	7.1	20	15	9.1	12	9.4	5.2	3.9	3.5
13	1.9	4.2	5.7	13	11	11	8.8	21	12	125	3.8	3.5
14	2.1	2.5	6.3	8.7	8.4	69	8.7	13	6.1	96	6.9	3.1
15	2.3	5.9	5.6	6.6	8.0	20	17	9.9	5.4	304	4.5	3.0
16	9.0	2.9	99	6.5	8.6	11	11	13	5.0	63	12	3.1
17	3.0	2.5	15	6.3	9.5	24	9.5	9.4	5.0	16	8.0	3.2
18	2.2	2.4	8.5	11	11	12	9.1	8.9	4.8	10	4.9	4.7
19	2.0	2.3	7.5	17	9.3	169	10	8.5	4.6	8.5	4.4	6.4
20	2.0	3.0	7.0	25	8.2	26	9.6	7.8	4.2	106	4.1	4.1
21	2.0	3.7	6.6	9.6	7.7	15	8.3	7.4	3.7	139	4.0	3.7
22	2.0	2.5	7.3	8.7	7.4	13	7.9	6.9	3.9	13	3.9	4.1
23	1.9	2.3	6.4	9.1	14	12	8.1	6.9	3.8	9.4	3.8	54
24	2.2	2.4	6.2	9.7	25	23	9.9	54	3.6	8.6	3.8	72
25	2.0	2.9	6.0	36	15	18	40	23	3.6	9.2	3.6	230
26	1.9	3.3	5.5	16	9.7	12	29	13	42	8.4	3.2	840
27	2.0	2.5	5.6	9.6	8.7	11	12	9.6	6.5	7.4	3.5	57
28	2.2	2.4	5.5	8.7	8.4	10	10	7.9	6.3	7.1	2.9	17
29	2.2	2.3	5.4	8.5	---	13	17	7.0	7.7	6.7	2.8	14
30	2.0	2.2	5.4	7.8	---	36	12	6.8	9.2	6.3	2.8	13
31	1.9	---	7.2	9.4	---	14	---	6.7	---	6.1	11	---
TOTAL	72.1	91.5	567.4	322.6	308.1	615.2	361.0	501.1	226.7	1033.3	151.5	1395.1
MEAN	2.33	3.05	18.3	10.4	11.0	19.8	12.0	16.2	7.56	33.3	4.89	46.5
MAX	9.0	10	124	36	25	169	40	84	42	304	12	840
MIN	1.7	1.9	4.9	5.3	7.4	6.6	7.9	6.7	3.6	3.6	2.8	3.0
CFSM	.24	.31	1.88	1.07	1.13	2.03	1.23	1.66	.78	3.42	.50	4.78
IN.	.28	.35	2.17	1.23	1.18	2.35	1.38	1.92	.87	3.95	.58	5.33
CAL YR 1974	TOTAL	3481.37	MEAN	9.54	MAX	285	MIN	.97	CFSM	.98	IN	13.31
WTR YR 1975	TOTAL	5645.60	MEAN	15.5	MAX	840	MIN	1.7	CFSM	1.59	IN	21.58

PEAK DISCHARGE (BASE, 300 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0030	5.21	792	7-14	0930	3.49	317
12-16	1115	3.54	329	7-15	1900	6.44	1,280
3-19	1445	4.36	533	7-21	0130	4.42	569
5-24	1845	3.64	351	9-26	0745	8.02	2,500
7-13	1930	3.89	411				

01647740 North Branch Rock Creek near Rockville, Md.

LOCATION.--Lat 39°06'09", long 77°07'12", Montgomery County, on left bank 170 ft (52 m) downstream from outlet of Bernard Frank Lake, 370 ft (113 m) upstream from mouth, and 2.4 miles (3.9 km) northeast of Rockville.

DRAINAGE AREA.--12.5 mi<sup>2</sup> (32.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 270 ft (82 m), from topographic map.

AVERAGE DISCHARGE.--8 years, 17.3 ft<sup>3</sup>/s (0.490 m<sup>3</sup>/s), 18.79 in/yr (477 mm/yr).

EXTREMES.--Current year: Maximum discharge, 298 ft<sup>3</sup>/s (8.44 m<sup>3</sup>/s) Sept. 26, gage height, 5.75 ft (1.753 m); maximum gage height, 7.63 ft (2.326 m) Sept. 26 (backwater from Rock Creek); minimum discharge, 2.9 ft<sup>3</sup>/s (0.082 m<sup>3</sup>/s) Oct. 11-15, gage height, 1.11 ft (0.338 m).

Period of record: Maximum discharge, 420 ft<sup>3</sup>/s (11.9 m<sup>3</sup>/s) June 22, 1972, gage height, 6.10 ft (1.859 m); maximum gage height, 9.62 ft (2.932 m) June 22, 1972 (backwater from Rock Creek); minimum discharge, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) July 28-29, 1971, gage height, 0.64 ft (0.195 m), when drain valve at Bernard Frank Lake was closed.

REMARKS.--Records good. Flow regulated by dam above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1970: 1967-68(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	3.3	8.3	9.8	20	13	24	30	11	11	28	18
2	6.5	3.3	64	9.1	18	12	19	33	12	9.7	22	15
3	4.9	3.3	66	8.1	15	11	17	25	12	8.4	17	10
4	4.2	3.3	60	7.7	12	11	16	42	11	7.3	13	8.2
5	3.8	3.4	51	7.4	18	10	14	54	11	6.8	11	7.2
6	3.3	3.5	39	7.0	30	10	13	44	10	6.5	9.1	6.4
7	3.3	3.5	19	7.3	40	9.5	12	40	10	6.1	9.8	6.1
8	3.1	3.5	50	8.1	32	9.4	12	29	9.1	6.1	11	5.8
9	3.1	3.8	52	29	25	9.3	12	22	8.5	6.1	9.8	4.9
10	3.1	4.0	29	21	19	8.9	12	18	8.0	9.3	8.2	4.9
11	2.9	4.0	21	17	15	8.9	11	16	7.8	21	7.8	4.9
12	2.9	4.0	13	13	16	12	11	15	8.5	17	7.5	4.9
13	2.9	4.0	9.4	17	16	16	11	18	11	26	7.1	4.9
14	2.9	4.0	8.2	18	16	47	10	20	11	53	7.1	4.9
15	2.9	4.3	7.6	12	15	63	13	18	9.9	52	7.2	4.9
16	5.4	4.3	48	10	13	51	15	17	8.7	86	8.2	4.6
17	6.2	4.8	73	9.0	13	52	14	16	7.9	85	14	4.6
18	5.4	4.8	54	12	14	43	12	15	7.3	81	11	5.1
19	4.5	4.5	30	23	14	56	12	14	6.9	75	8.2	7.5
20	4.0	4.5	18	51	13	73	12	12	6.5	73	7.1	7.4
21	3.8	4.7	12	35	12	69	11	12	6.0	84	6.6	6.7
22	3.8	4.7	11	24	11	64	11	11	5.8	80	6.5	6.2
23	3.5	4.5	9.2	20	15	56	11	10	5.5	77	6.6	32
24	3.5	4.3	8.3	19	33	46	11	12	5.3	71	7.3	68
25	3.5	4.2	7.9	40	38	42	14	34	5.2	65	7.9	94
26	3.5	4.3	7.5	59	26	31	40	32	20	58	8.4	261
27	3.3	4.3	7.1	42	19	23	31	27	19	52	7.6	292
28	3.3	4.3	7.0	32	16	19	23	20	15	47	7.4	208
29	3.3	4.1	7.0	21	---	17	21	16	13	41	8.1	116
30	3.3	4.0	6.8	16	---	31	21	13	12	37	9.2	106
31	3.3	---	7.3	18	---	31	---	12	---	33	14	---
TOTAL	122.4	121.5	811.6	622.5	544	955.0	466	697	294.9	1291.3	313.7	1330.1
MEAN	3.95	4.05	26.2	20.1	19.4	30.8	15.5	22.5	9.83	41.7	10.1	44.3
MAX	9.0	4.8	73	59	40	73	40	54	20	86	28	292
MIN	2.9	3.3	6.8	7.0	11	8.9	10	10	5.2	6.1	6.5	4.6
CFSM	.32	.32	2.10	1.61	1.55	2.46	1.24	1.80	.79	3.34	.81	3.54
IN.	.36	.36	2.42	1.85	1.62	2.84	1.39	2.07	.88	3.84	.93	3.96

CAL YR 1974 TOTAL 4425.0 MEAN 12.1 MAX 90 MIN 2.2 CFSM .97 IN 13.17  
 WTR YR 1975 TOTAL 7570.0 MEAN 20.7 MAX 292 MIN 2.9 CFSM 1.66 IN 22.53

01648000 Rock Creek at Sherrill Drive, Washington, D. C.

LOCATION.--Lat 38°58'21", long 77°02'25", District of Columbia, on left bank 125 ft (38 m) downstream from new Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 miles (12 km) upstream from mouth.

DRAINAGE AREA.--62.2 mi<sup>2</sup> (161.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 148.87 ft (45.376 m) above mean sea level, datum of 1929.

AVERAGE DISCHARGE.--46 years, 60.5 ft<sup>3</sup>/s (1.713 m<sup>3</sup>/s), 13.21 in/yr (336 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,050 ft<sup>3</sup>/s (200 m<sup>3</sup>/s) Sept. 26, gage height, 13.16 ft (4.011 m), from floodmark; minimum, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Oct. 9-15, gage height, 1.29 ft (0.393 m).  
Period of record: Maximum discharge, 12,500 ft<sup>3</sup>/s (354 m<sup>3</sup>/s) June 22, 1972, gage height, 16.2 ft (4.94 m), from floodmark, from rating curve extended above 5,640 ft<sup>3</sup>/s (160 m<sup>3</sup>/s) on basis of contracted-opening measurements at gage heights 13.19 ft (4.020 m) and 16.2 ft (4.94 m); minimum, 0.5 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Oct. 1-7, 1930, gage height, 1.04 ft (0.317 m).

REMARKS.--Records good. Flow affected by two upstream reservoirs which control flow from about 25 mi<sup>2</sup> (65 km<sup>2</sup>), Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968.

REVISIONS (WATER YEARS).--WSP 1432: 1933(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	19	355	64	52	52	78	189	71	45	52	208
2	24	19	877	39	55	49	67	78	57	38	48	57
3	21	19	149	37	48	46	74	65	51	34	69	38
4	20	20	119	35	45	43	62	328	46	38	72	30
5	19	33	92	32	94	42	55	113	111	29	106	27
6	16	52	65	38	138	42	54	122	82	28	37	34
7	16	37	48	62	117	49	52	108	31	27	26	26
8	16	37	458	42	71	45	73	78	31	29	26	24
9	15	34	113	122	62	41	67	67	30	92	23	23
10	15	29	76	57	55	48	64	60	31	263	22	22
11	15	27	57	60	51	46	49	55	34	282	24	26
12	15	112	48	46	140	100	48	65	90	51	27	54
13	15	58	41	117	72	65	46	113	102	578	21	29
14	15	30	55	64	60	426	45	69	37	722	34	21
15	37	70	35	48	54	145	107	57	34	343	24	21
16	240	22	497	43	51	102	57	92	31	537	161	19
17	32	20	140	41	55	192	54	54	30	157	159	19
18	21	19	104	76	67	96	54	51	30	136	44	84
19	19	19	78	88	54	754	67	49	29	113	32	86
20	18	32	58	171	51	213	55	48	28	124	27	26
21	17	44	49	78	48	157	48	45	27	446	23	22
22	17	19	55	71	45	140	47	142	26	149	22	30
23	16	18	42	62	100	119	47	62	26	133	22	534
24	16	17	39	58	140	187	57	343	26	122	21	537
25	19	25	38	154	104	119	149	512	26	136	21	853
26	17	40	35	133	74	86	154	104	126	96	21	3700
27	17	19	35	82	62	67	71	74	82	82	23	662
28	18	19	35	64	55	60	62	62	98	74	19	528
29	18	19	32	55	---	69	115	52	60	69	21	304
30	19	18	32	51	---	174	122	48	54	62	19	247
31	19	---	55	69	---	92	---	45	---	57	783	---
TOTAL	812	946	3912	2159	2020	3866	2100	3350	1537	5092	2029	8291
MEAN	26.2	31.5	126	69.6	72.1	125	70.0	108	51.2	164	65.5	276
MAX	240	112	877	171	140	754	154	512	126	722	783	3700
MIN	15	17	32	32	45	41	45	45	26	27	19	19
CFSM	.42	.51	2.03	1.12	1.16	2.01	1.13	1.74	.82	2.64	1.05	4.44
IN.	.49	.57	2.34	1.29	1.21	2.31	1.26	2.00	.92	3.05	1.21	4.96

CAL YR 1974 TOTAL 23802 MEAN 65.2 MAX 877 MIN 12 CFSM 1.05 IN 14.24  
WTR YR 1975 TOTAL 36114 MEAN 98.9 MAX 3700 MIN 15 CFSM 1.59 IN 21.60

PEAK DISCHARGE (BASE, 1,200 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0300	8.37	2,230	7-13	2400	6.66	1,540
3-19	2015	6.74	1,570	7-16	0245	7.66	1,930
5-25	0215	7.38	1,820	8-31	0900	6.25	1,390
7-11	0115	6.03	1,310	9-26	Unknown	13.16	7,050

01649500 Northeast Branch Anacostia River at Riverdale, Md.

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, on right bank 200 ft (61 m) downstream from bridge on Riverdale Road, 1.8 miles (2.9 km) downstream from Indian Creek, and 1.8 miles (2.9 km) upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 mi<sup>2</sup> (188.6 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.68 ft (3.865 m) above mean sea level (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942, to Mar. 22, 1966, and Apr. 12, 1967, to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft (4.267 m) above mean sea level. Mar. 23, 1966, to Apr. 11, 1967, nonrecording gage 600 ft (183 m) downstream from bridge at datum 9.25 ft (2.819 m) above mean sea level.

AVERAGE DISCHARGE.--37 years, 82.9 ft<sup>3</sup>/s (2.348 m<sup>3</sup>/s), 15.46 in/yr (393 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,800 ft<sup>3</sup>/s (306 m<sup>3</sup>/s) Sept. 26, gage height, 10.57 ft (3.222 m), from rating curve extended above 4,700 ft<sup>3</sup>/s (133 m<sup>3</sup>/s) on basis of the average of contracted-opening and slope-area measurements of peak flow; minimum daily, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Oct. 12-14.

Period of record: Maximum discharge, 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s), revised, June 22, 1972, gage height, 9.52 ft (2.902 m), from rating curve extended above 3,800 ft<sup>3</sup>/s (108 m<sup>3</sup>/s) on basis of the average of contracted-opening and slope-area measurements at gage height, 9.52 ft (2.902 m); maximum gage height, 12.93 ft (3.941 m) Oct. 16, 1942; minimum daily discharge, 1.4 ft<sup>3</sup>/s (0.040 m<sup>3</sup>/s) Sept. 12, 1966.

Maximum stage known, about 15.5 ft (4.724 m) at datum 14.00 ft (4.267 m) above mean sea level, Aug. 23, or 24, 1933, from floodmarks, discharge, 10,500 ft<sup>3</sup>/s (297 m<sup>3</sup>/s), from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s) on basis of velocity-area study.

REVISIONS.--The maximum discharge for water year 1972 has been revised to 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s) June 22, 1972, gage height, 9.52 ft (2.902 m), superseding figure published in WRD Md. and Del., 1972.

REMARKS.--Records good. Some regulation at low flow by sand and gravel plants above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1969: 1967(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	577	81	79	50	75	249	105	33	31	111
2	20	23	780	53	75	49	63	127	46	24	32	133
3	19	22	136	46	64	44	78	85	37	24	30	81
4	19	21	76	46	57	44	62	490	31	27	35	51
5	20	32	66	42	155	43	56	180	45	23	116	41
6	21	26	61	60	226	43	55	157	114	20	119	61
7	1	23	61	85	202	47	53	144	41	62	39	39
8	14	22	626	63	101	48	51	87	31	65	29	34
9	20	22	180	190	76	41	49	68	28	43	25	31
10	19	21	83	69	70	50	48	62	26	334	23	26
11	18	21	64	68	58	57	48	55	26	249	25	33
12	17	112	59	57	162	154	48	61	99	59	27	89
13	17	68	54	216	108	118	46	103	85	2010	24	62
14	17	32	69	139	71	581	46	72	36	2950	65	33
15	70	56	54	78	58	275	136	52	30	1000	42	27
16	198	30	813	61	58	108	66	113	35	1500	227	27
17	64	29	260	58	68	227	51	63	29	200	111	26
18	29	24	86	130	83	111	48	49	28	65	52	74
19	23	24	61	188	68	1070	57	44	27	50	36	75
20	23	43	50	294	56	488	50	41	25	120	31	49
21	22	46	47	134	52	143	43	39	23	350	30	32
22	23	28	48	98	51	112	41	56	22	90	31	50
23	23	24	40	92	115	102	41	55	20	70	33	900
24	23	25	42	91	195	386	49	307	20	60	32	1120
25	23	42	41	272	139	278	185	288	21	65	33	2420
26	23	43	38	229	68	118	202	107	1010	60	26	6830
27	23	34	39	107	54	87	80	53	121	50	25	618
28	23	33	40	71	50	78	53	38	64	48	23	191
29	23	30	38	66	---	74	114	33	78	43	23	118
30	23	28	35	61	---	165	70	31	53	40	25	87
31	24	---	67	88	---	98	---	32	---	33	427	---
TOTAL	927	1007	4691	3333	2619	5289	2064	3341	2356	9767	1827	13469
MEAN	29.9	33.6	151	108	93.5	171	68.8	108	78.5	315	58.9	449
MAX	198	112	813	294	226	1070	202	490	1010	2950	427	6830
MIN	17	21	35	42	50	41	41	31	20	20	23	26
CFSM	.41	.46	2.07	1.48	1.28	2.35	.95	1.48	1.08	4.33	.81	6.17
IN.	.47	.51	2.40	1.70	1.34	2.70	1.05	1.71	1.20	4.99	.93	6.88
CAL YR 1974	TOTAL	31297	MEAN	85.7	MAX	1490	MIN	14	CFSM	1.18	IN	15.99
WTR YR 1975	TOTAL	50690	MEAN	139	MAX	6830	MIN	17	CFSM	1.91	IN	25.90

PEAK DISCHARGE (BASE, 2,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2215	5.42	2,830	7-14	0730	8.47	6,000
12-16	1115	4.89	2,250	7-16	+	+	+
3-19	1600	5.93	3,440	8-16	1930	5.17	2,120
5-24	1615	5.06	2,430	9-24	1215	5.17	2,120
6-26	0615	6.85	3,880	9-26	0315	10.18	9,450
7-10	2045	5.23	2,180	9-26	1200	10.57	10,800
7-13	1930	8.01	5,300				

+ Unknown.

01650500 Northwest Branch Anacostia River near Colesville, Md.

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, on right bank 400 ft (120 m) upstream from bridge on State Highway 183, 1.5 miles (2.4 km) southwest of Colesville, 3 miles (4.8 km) upstream from Burnt Mills, 10 miles (16.1 km) upstream from Sligo Creek and 12.5 miles (20.1 km) upstream from confluence with North-east Branch.

DRAINAGE AREA.--21.1 mi<sup>2</sup> (54.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1923 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 264.85 ft (80.726 m) above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE (UNADJUSTED).--52 years, 22.4 ft<sup>3</sup>/s (0.634 m<sup>3</sup>/s), 14.42 in/yr (366 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,640 ft<sup>3</sup>/s (188 m<sup>3</sup>/s) July 15, gage height, 12.24 ft (3.731 m), from high-water mark in well; minimum, 3.2 ft<sup>3</sup>/s (0.091 m<sup>3</sup>/s) Oct. 14, gage height, 1.58 ft (0.482 m).

Period of record: Maximum discharge, 11,000 ft<sup>3</sup>/s (312 m<sup>3</sup>/s) June 22, 1972, gage height, 15.89 ft (4.843 m), from high-water mark in well, from rating curve extended above 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/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.

REMARKS.--Records good. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District August 1939 to August 1960. Diversions at low flow since 1962 for irrigation of golf courses above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1432: 1924(M), 1925-26, 1929-30(M), 1933(M), 1939(P), 1940(M), 1943-46, 1948-49(P). WSP 1903: Drainage area.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.1	149	19	18	16	23	77	19	9.9	9.4	80
2	4.4	6.1	244	12	17	15	21	30	16	8.8	9.0	17
3	4.1	5.8	22	11	16	14	25	23	13	8.2	8.8	12
4	4.1	7.1	14	11	15	13	20	173	12	9.7	9.3	11
5	5.1	12	11	10	25	14	18	38	15	8.4	12	9.3
6	4.8	14	10	11	66	15	18	41	20	7.3	9.9	8.8
7	4.8	7.4	9.9	16	46	15	17	35	11	7.1	9.1	8.8
8	4.4	5.5	222	14	23	15	17	23	10	9.0	7.9	8.0
9	4.4	5.5	29	50	20	13	16	21	9.9	20	7.4	7.6
10	4.1	5.8	16	17	17	15	16	20	9.8	77	6.8	6.8
11	3.5	5.5	13	18	17	16	16	18	10		7.4	7.2
12	3.5	16	13	14	53	30	16	21	22	12	7.7	10
13	3.5	11	12	37	25	23	15	46	23	225	7.2	9.3
14	3.5	7.1	16	21	18	176	15	27	12	253	12	7.1
15	13	14	12	17	17	54	31	19	11	1130	8.4	6.8
16	49	7.7	257	14	17	26	20	31	10	107	22	7.2
17	11	6.9	35	13	20	64	17	20	10	34	15	7.4
18	6.5	6.1	19	29	23	27	17	18	9.7	23	9.2	18
19	6.5	6.1	16	44	19	388	21	18	9.3	18	8.3	22
20	6.5	8.7	14	65	16	61	18	16	8.8	42	7.6	10
21	5.8	8.6	14	23	15	30	15	15	7.6	116	7.9	8.5
22	6.1	6.1	15	20	15	26	15	15	7.3	24	7.8	11
23	6.1	6.1	12	20	41	24	15	14	7.2	17	8.2	157
24	6.1	6.5	12	22	68	52	19	112	6.4	15	8.2	202
25	7.1	8.2	12	91	37	41	68	44	6.3	17	7.8	605
26	7.1	8.3	11	44	21	24	61	24	91	15	6.9	2060
27	5.8	6.1	11	21	18	21	24	18	14	13	6.6	66
28	6.5	6.1	11	19	17	20	20	15	16	12	6.1	28
29	6.5	5.8	11	17	---	23	34	14	11	11	6.1	22
30	6.5	5.8	11	15	---	77	23	13	15	10	6.1	20
31	6.5	---	10	20	---	27	---	13	---	9.7	70	---
TOTAL	221.2	232.0	1263.9	755	720	1375	671	1012	443.3	2286.1	336.1	3453.8
MEAN	7.14	7.73	40.8	24.4	25.7	44.4	22.4	32.6	14.8	73.7	10.8	115
MAX	49	16	257	91	68	388	68	173	91	1130	70	2060
MIN	3.5	5.5	9.9	10	15	13	15	13	6.3	7.1	6.1	6.8
CFSM	.34	.37	1.93	1.16	1.22	2.10	1.06	1.55	.70	3.49	.51	5.45
IN.	.39	.41	2.23	1.33	1.27	2.42	1.18	1.78	.78	4.03	.59	6.09
CAL YR 1974 TOTAL	7112.0			MEAN 19.5	MAX 488	MIN 3.0	CFSM .92	IN 12.54				
WTF YR 1975 TOTAL	12769.4			MEAN 35.0	AX 2060	MIN 3.5	CFSM 1.66	IN 22.51				

PEAK DISCHARGE (BASE, 600 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0300	7.75	1,070	7-13	1930	6.28	718
12-08	1030	6.10	680	7-14	0900	6.15	690
12-16	1200	6.49	759	7-15	*1800	12.24	6,640
3-19	1600	7.68	1,050	9-26	Unknown	11.62	5,690
5-24	1930	5.71	611				

\*About.

01651000 Northwest Branch Anacostia River near Hyattsville, Md.

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mile (1.3 km) downstream from Sligo Branch, 1 mile (1.6 km) west of Hyattsville, and 1.6 miles (2.6 km) upstream from mouth.

DRAINAGE AREA.--49.4 mi<sup>2</sup> (127.9 km<sup>2</sup>).

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.30 ft (5.273 m) above mean sea level, adjustment of 1912. 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.

AVERAGE DISCHARGE.--37 years, 44.4 ft<sup>3</sup>/s (1.257 m<sup>3</sup>/s), 12.21 in/yr (310 mm/yr) unadjusted.

EXTREMES.--Current year: Maximum discharge, 14,800 ft<sup>3</sup>/s (419 m<sup>3</sup>/s) Sept. 26, gage height, 11.17 ft (3.405 m); minimum, 7.0 ft<sup>3</sup>/s (0.20 m<sup>3</sup>/s) Oct. 11, 13, 15.

Period of record: Maximum discharge, 18,000 ft<sup>3</sup>/s (510 m<sup>3</sup>/s) June 22, 1972, gage height, 14.47 ft (4.410 m), from rating curve extended above 4,000 ft<sup>3</sup>/s (113 m<sup>3</sup>/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, 0.2 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Sept. 11, 1966.

REMARKS.--Records good. Prior to June 1961 low flow regulated by storage at Burnt Mills Dam, 7 miles (11.2 km) above station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses above station. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 971: 1942(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	379	42	35	29	42	176	91	18	19	468
2	9.3	12	431	23	37	27	39	53	38	16	18	48
3	8.7	12	47	21	30	27	50	40	32	16	18	29
4	8.2	11	28	21	26	25	39	375	24	19	28	24
5	8.6	23	22	19	94	25	34	69	48	15	110	22
6	9.7	23	21	34	123	26	33	94	61	13	50	30
7	8.8	15	20	41	97	30	32	75	25	14	20	19
8	8.5	12	507	29	42	27	32	42	23	77	18	18
9	8.4	11	66	110	35	23	31	38	22	30	16	16
10	8.9	11	34	32	33	32	31	36	21	324	15	15
11	7.9	12	27	40	30	30	31	33	23	126	19	30
12	7.5	67	25	27	119	85	30	46	98	25	16	72
13	7.5	31	23	118	49	48	29	85	89	870	15	29
14	7.6	15	38	47	34	404	29	56	30	992	50	16
15	54	39	23	28	30	109	94	33	27	502	18	15
16	128	18	549	27	30	49	39	75	34	955	220	24
17	25	14	77	27	40	151	31	35	24	64	110	16
18	15	14	39	66	44	51	30	31	24	43	25	110
19	12	14	31	97	33	758	40	30	24	33	16	70
20	12	30	28	148	29	168	34	28	21	111	27	25
21	11	24	25	51	28	62	28	26	18	260	14	19
22	11	13	29	44	26	53	27	171	15	45	15	51
23	12	12	24	38	75	48	28	52	15	32	16	716
24	12	12	23	38	135	184	37	215	15	36	15	646
25	12	23	22	143	72	95	154	163	14	50	15	1720
26	12	23	20	89	36	48	140	51	184	34	13	5050
27	11	14	21	38	30	41	40	37	28	27	14	250
28	11	13	21	32	29	38	35	30	86	26	12	100
29	12	13	19	30	---	44	91	27	37	22	11	80
30	12	12	19	27	---	156	40	26	25	20	11	75
31	12	---	47	47	---	54	---	27	---	19	744	---
TOTAL	494.6	555	2685	1574	1421	2947	1370	2275	1216	4834	1707	9803
MEAN	16.0	18.5	86.6	50.8	50.8	95.1	45.7	73.4	40.5	156	55.1	327
MAX	128	67	549	148	135	758	154	375	184	992	744	5050
MIN	7.5	11	19	19	26	23	27	26	14	13	11	15
CFSM	.32	.37	1.75	1.03	1.03	1.93	.93	1.49	.82	3.16	1.12	6.62
IN.	.37	.42	2.02	1.19	1.07	2.22	1.03	1.71	.92	3.64	1.29	7.38

CAL YR 1974 TOTAL 16643.5 MEAN 45.6 MAX 954 MIN 6.1 CFSM .92 IN 12.53  
WTR YR 1975 TOTAL 30881.6 MEAN 84.6 MAX 5050 MIN 7.5 CFSM 1.71 IN 23.25

PEAK DISCHARGE (BASE, 1,700 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2100	5.85	2,160	8-31	0130	5.97	2,310
3-19	1430	6.07	2,440	8-31	1145	5.87	2,180
7-10	1945	6.04	2,400	9-01	0715	5.63	1,900
7-13	1900	6.08	2,450	9-24	1130	5.49	1,730
7-14	0415	6.51	3,030	9-25	2300	9.74	9,940
7-16	0115	7.69	4,990	9-26	0830	11.17	14,800
8-16	1915	5.94	2,330				

01653500 Henson Creek at Oxon Hill, Md.

LOCATION.--Lat 38°47'16", long 76°58'42", Prince Georges County, on left bank 100 ft (30 m) downstream from bridge on Tucker Road, 1.0 mile (1.6 km) south of Oxon Hill, and 1.4 miles (2.3 km) upstream from Carey Branch and mouth.

DRAINAGE AREA.--16.7 mi<sup>2</sup> (43.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 62 ft (18.9 m), from topographic map.

AVERAGE DISCHARGE.--27 years, 19.6 ft<sup>3</sup>/s (0.555 m<sup>3</sup>/s), 15.94 in/yr (405 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,720 ft<sup>3</sup>/s (77.0 m<sup>3</sup>/s) Sept. 26, gage height, 7.12 ft (2.170 m); minimum, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Oct. 8, 9, 12, gage height, 0.47 ft (0.143 m).  
Period of record: Maximum discharge, 3,440 ft<sup>3</sup>/s (97.4 m<sup>3</sup>/s) Aug. 4, 1971, gage height, 7.63 ft (2.326 m), from rating curve extended above 520 ft<sup>3</sup>/s (14.7 m<sup>3</sup>/s) on basis of slope-area measurement at gage heights 6.63 ft (2.021 m) and 7.27 ft (2.216 m); no flow at times during some summer months in 1954, 1955, 1957, 1962-64, and 1966.

REMARKS.--Records good. Some diversion above station for irrigation of truck farm. Some regulation at low flow by sand and gravel plant above station.

REVISIONS (WATER YEARS).--WSP 1232: 1949(M), 1950.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.5	224	16	16	10	18	99	26	3.2	4.8	99
2	3.3	4.9	145	9.0	16	9.7	17	25	8.3	2.8	4.4	18
3	3.2	4.3	19	8.7	13	8.2	20	19	16	2.6	4.1	9.7
4	3.3	4.4	10	8.6	12	8.7	15	75	7.8	8.3	5.3	7.5
5	3.9	12	8.2	7.6	44	8.5	15	24	7.9	3.3	13	6.5
6	3.6	5.5	7.1	13	53	8.9	14	31	23	2.8	14	12
7	3.1	5.2	7.1	19	31	9.7	13	25	7.5	3.0	5.6	11
8	2.7	8.2	128	10	19	9.4	13	16	5.8	4.7	3.8	7.5
9	2.9	4.3	22	44	17	8.3	13	15	5.0	2.8	3.8	5.6
10	2.8	4.6	13	13	14	11	13	14	4.7	16	3.8	4.9
11	3.0	4.0	11	15	14	12	12	12	5.1	26	3.4	5.5
12	3.1	16	10	11	31	54	12	13	33	12	2.9	6.8
13	3.0	10	9.4	69	17	29	11	25	11	349	3.0	7.6
14	2.7	5.1	12	23	14	193	10	14	6.9	495	115	4.6
15	11	11	8.9	14	14	38	48	12	5.5	83	9.7	4.1
16	51	5.6	226	12	13	22	16	29	4.4	45	53	4.1
17	10	5.1	31	11	15	87	13	13	4.3	26	78	4.4
18	6.0	4.7	18	24	16	25	13	12	4.4	17	57	11
19	6.1	5.0	14	48	13	320	14	10	4.2	13	8.9	25
20	6.1	9.9	13	64	11	67	12	9.5	5.0	17	6.8	12
21	5.4	10	13	27	11	34	8.8	9.2	3.6	32	6.2	7.0
22	5.6	6.1	11	24	11	31	9.3	30	3.1	11	5.9	5.4
23	5.2	4.8	9.3	22	19	27	9.9	26	3.0	9.3	23	247
24	5.2	4.4	9.9	21	17	121	13	46	2.3	8.2	7.6	216
25	4.8	8.8	10	57	14	47	56	22	3.4	11	5.9	662
26	4.8	10	7.8	28	11	26	33	13	13	7.6	4.8	1120
27	4.1	4.8	11	17	10	22	15	9.8	4.6	5.5	4.2	103
28	4.1	5.2	10	15	9.9	20	13	8.5	19	7.1	4.0	41
29	3.8	4.4	8.8	15	---	20	46	8.8	9.5	6.5	3.0	28
30	3.9	4.8	8.5	13	---	49	18	7.8	4.5	5.2	5.6	24
31	4.5	---	14	18	---	21	---	8.3	---	5.2	154	---
TOTAL	186.1	197.6	1050.0	696.9	495.9	1357.4	534.0	681.9	261.8	1242.1	624.5	2720.2
MEAN	6.00	6.59	33.9	22.5	17.7	43.8	17.8	22.0	8.73	40.1	20.1	90.7
MAX	51	16	226	69	53	320	56	99	33	495	154	1120
MIN	2.7	4.0	7.1	7.6	9.9	8.2	8.8	7.8	2.3	2.6	2.9	4.1
CFSM	.36	.39	2.03	1.35	1.06	2.62	1.07	1.32	.52	2.40	1.20	5.43
IN.	.41	.44	2.34	1.55	1.10	3.02	1.19	1.52	.58	2.77	1.39	6.06
CAL YR 1974	TOTAL	6657.8	MEAN	18.2	MAX	435	MIN	1.3	CFSM	1.09	IN	14.83
WTR YR 1975	TOTAL	10048.4	MEAN	27.5	MAX	1120	MIN	2.3	CFSM	1.65	IN	22.38

PEAK DISCHARGE (BASE, 450 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-01	2245	5.24	1,250	7-14	0915	6.17	1,830
12-16	1130	3.83	651	8-14	0445	3.27	486
3-19	1715	4.81	1,040	9-24	2015	3.52	557
3-24	1815	3.15	454	9-26	0030	7.03	2,610
7-13	1915	4.53	915	9-26	1045	7.12	2,720



01653600 Piscataway Creek at Piscataway, Md.

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, on left bank 70 ft (21 m) upstream from bridge on State Highway 223, at Piscataway, 0.4 mile (0.6 km) upstream from Tinker Creek, and 4.8 miles (7.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 mi<sup>2</sup> (102.3 km<sup>2</sup>).

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.

AVERAGE DISCHARGE.--10 years (1966-75), 48.5 ft<sup>3</sup>/s (1.374 m<sup>3</sup>/s), 16.67 in/yr (423 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) Sept. 26, gage height, 10.48 ft (3.194 m), from rating curve extended as explained below; minimum, 2.4 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) Oct. 8, 9, 11, 13, 15, gage height, 2.35 ft (0.716 m).

Period of record: Maximum discharge, 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) Sept. 26, 1975, gage height, 10.48 ft (3.194 m), from rating curve extended above 1,700 ft<sup>3</sup>/s (48.1 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow at bridge 100 ft (30 m) upstream; no flow at times in 1966 and 1970.

REMARKS.--Records good below 100 ft<sup>3</sup>/s and fair above. Water-quality records for the current water year published in Section 2 of this report.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.8	76	36	43	29	56	131	50	12	14	225
2	3.5	5.3	362	22	42	28	52	69	25	9.8	13	68
3	3.1	5.0	53	20	39	26	56	52	35	8.1	12	44
4	2.9	5.6	29	21	36	25	48	125	28	11	11	32
5	3.5	9.3	22	19	58	24	45	65	25	9.5	40	27
6	3.7	12	19	19	92	25	44	80	38	6.9	36	32
7	3.5	6.2	18	40	78	25	43	65	23	6.6	21	39
8	2.8	5.6	180	25	53	26	42	40	18	7.0	14	34
9	2.7	5.0	65	60	48	22	41	37	17	7.4	12	24
10	2.6	5.0	34	35	43	25	40	35	16	8.9	11	20
11	2.7	5.0	27	31	43	31	39	30	15	20	11	20
12	2.9	8.0	24	26	62	59	38	35	70	28	11	24
13	3.0	21	22	84	54	82	35	48	48	253	11	27
14	2.8	9.3	22	69	43	275	34	35	25	1110	182	17
15	3.7	11	19	40	41	215	77	30	19	470	35	16
16	46	8.8	266	35	41	71	53	60	16	176	32	16
17	21	7.2	217	31	40	188	43	48	16	231	60	16
18	8.8	6.9	53	40	44	83	41	40	15	73	61	26
19	6.2	6.9	42	64	40	308	43	33	15	57	22	50
20	5.3	7.2	36	139	34	521	40	29	12	49	17	25
21	5.0	11	32	65	32	105	33	26	10	53	16	19
22	5.0	7.2	29	54	32	85	31	33	9.0	39	14	20
23	5.3	6.2	26	48	40	78	32	55	8.3	32	19	318
24	5.6	6.5	25	52	45	118	34	45	7.9	29	16	733
25	7.2	7.6	25	83	43	175	62	90	6.8	34	16	1300
26	8.4	15	22	74	33	75	71	35	15	28	12	2980
27	8.0	8.8	22	50	30	63	43	28	13	23	9.2	915
28	6.5	7.6	24	46	29	60	37	23	34	21	7.4	292
29	4.8	6.9	22	44	---	60	59	25	44	28	6.5	182
30	4.8	6.2	21	40	---	86	46	23	18	18	38	141
31	4.8	---	22	42	---	64	---	22	---	16	587	---
TOTAL	200.6	238.1	1856	1454	1258	3057	1358	1492	692.0	2875.2	1367.1	7682
MEAN	6.47	7.94	59.9	46.9	44.9	98.6	45.3	48.1	23.1	92.7	44.1	256
MAX	46	21	362	139	92	521	77	131	70	1110	587	2980
MIN	2.6	4.8	18	19	29	22	31	22	6.8	6.6	6.5	16
CFSM	.16	.20	1.52	1.19	1.14	2.50	1.15	1.22	.58	2.35	1.12	6.48
IN.	.19	.22	1.75	1.37	1.18	2.88	1.28	1.41	.65	2.71	1.29	7.23
CAL YR 1974	TOTAL	14278.28	MEAN	39.1	MAX	668	MIN	.17	CFSM	.99	IN	13.45
WTR YR 1975	TOTAL	23530.00	MEAN	64.5	MAX	2980	MIN	2.6	CFSM	1.63	IN	22.16

PEAK DISCHARGE (BASE, 450 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-02	0830	6.31	493	8-31	1700	6.72	711
3-19	2330	6.81	750	9-26	0030	10.48	5,000
7-14	1200	8.39	1,780				

## POTOMAC RIVER BASIN

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01661050 St. Clement Creek near Clements, Md.

LOCATION.--Lat 38°28'00", long 76°43'31", St. Marys County, on left bank 60 ft (18 m) downstream from bridge on State Highway 242, 0.5 mile (0.8 km) north of Clements, 2.3 miles (3.7 km) upstream from mouth, and 5.7 miles (9.2 km) northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi<sup>2</sup> (47.9 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8 ft (2.4 m), from topographic map. Prior to Jan. 3, 1969, water-stage recorder 140 ft downstream at different datum.

AVERAGE DISCHARGE.--7 years, 21.1 ft<sup>3</sup>/s (0.598 m<sup>3</sup>/s), 15.49 in/yr (393 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,120 ft<sup>3</sup>/s (88.4 m<sup>3</sup>/s) Sept. 25, gage height, 6.27 ft (1.911 m); minimum, 1.8 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s) Oct. 13, 14, gage height, 0.94 ft (0.287 m).  
Period of record: Maximum discharge, 4,350 ft<sup>3</sup>/s (123 m<sup>3</sup>/s) June 22, 1972, gage height, 6.55 ft (1.996 m), from rating curve extended above 420 ft<sup>3</sup>/s (11.9 m<sup>3</sup>/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 7, 8, 1970, gage height, 0.69 ft (0.210 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WRD Md. and Del. 1971: 1969(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.0	18	18	17	13	22	73	53	7.9	6.9	19
2	3.4	5.6	41	12	18	15	20	38	24	6.0	6.3	15
3	2.1	5.7	17	9.7	16	13	34	23	28	5.7	5.7	7.2
4	2.1	5.8	8.3	13	14	11	27	76	19	12	5.1	5.1
5	2.5	5.7	7.0	12	56	11	19	36	11	8.7	5.1	4.5
6	2.6	6.2	6.9	12	46	12	19	25	13	6.3	20	4.4
7	2.6	5.3	6.3	38	37	11	18	41	10	5.7	11	4.8
8	2.4	5.1	100	15	22	13	18	22	7.8	6.0	6.9	7.7
9	2.3	5.0	43	69	19	10	17	18	7.1	5.7	6.3	6.1
10	2.3	4.8	13	21	15	12	17	16	6.7	6.6	5.7	4.5
11	2.3	4.8	11	20	16	20	17	14	6.4	35	6.3	4.3
12	2.3	6.7	10	17	52	33	16	13	37	27	6.6	18
13	2.4	14	9.3	122	30	44	16	34	30	511	6.0	25
14	2.0	8.8	8.6	75	18	166	16	20	10	581	6.6	6.6
15	2.3	7.7	7.8	20	16	95	54	14	7.9	186	6.9	5.1
16	53	7.4	136	16	16	31	35	23	6.9	79	9.1	5.0
17	29	6.6	80	15	16	261	22	20	7.2	47	13	5.8
18	7.3	6.3	18	18	20	147	19	15	9.6	43	7.6	11
19	5.4	6.3	14	30	17	151	20	14	14	25	5.8	22
20	4.6	6.6	12	76	14	190	19	12	7.1	20	4.6	9.0
21	4.2	9.3	13	32	13	44	16	11	5.5	18	4.6	6.7
22	4.3	7.2	12	22	12	34	15	9.5	4.5	14	4.6	5.7
23	4.7	6.2	11	22	13	30	16	9.2	4.2	13	3.9	104
24	4.8	6.0	10	22	18	31	17	54	3.9	12	4.0	156
25	4.8	6.3	10	33	26	34	22	121	4.0	12	4.2	518
26	4.8	11	9.2	29	15	25	31	20	160	12	3.4	661
27	4.8	7.8	9.6	18	13	22	18	14	76	10	2.7	142
28	4.7	7.0	14	16	13	22	16	12	25	9.5	2.3	38
29	4.6	6.3	11	16	---	22	19	9.3	13	8.7	2.2	24
30	4.6	6.0	10	14	---	50	19	9.5	10	7.2	2.4	20
31	5.2	---	11	14	---	30	---	12	---	7.2	18	---
TOTAL	193.4	203.5	688.0	866.7	598	1603	634	828.5	621.8	1748.2	203.8	1865.5
MEAN	6.24	6.78	22.2	28.0	21.4	51.7	21.1	26.7	20.7	56.4	6.57	62.2
MAX	53	14	136	122	56	261	54	121	160	581	20	661
MIN	2.0	4.8	6.3	9.7	12	10	15	9.2	3.9	5.7	2.2	4.3
CFSM	.34	.37	1.20	1.51	1.16	2.79	1.14	1.44	1.12	3.05	.36	3.36
IN.	.39	.41	1.38	1.74	1.20	3.22	1.27	1.67	1.25	3.52	.41	3.75
CAL YR 1974 TOTAL	5546.0											
WTR YR 1975 TOTAL	10054.4											
MEAN 15.2												
MAX 236												
MIN 1.1												
CFSM .82												
IN 11.15												
MEAN 27.5												
MAX 661												
MIN 2.0												
CFSM 1.49												
IN 20.22												

PEAK DISCHARGE (BASE, 150 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-08	1400	3.07	176	5-24	2330	3.58	226
12-16	1700	3.83	259	6-26	1600	3.77	251
1-13	1830	3.66	236	7-13	1330	5.54	1,210
3-14	1900	3.76	249	7-14	0300	5.44	1,060
3-17	1600	4.37	356	9-24	0130	3.18	185
3-19	2200	4.13	308	9-25	2330	6.27	3,120

## POTOMAC RIVER BASIN

01661500 St. Marys River at Great Mills, Md.

LOCATION.--Lat 38°14'36", long 76°30'13", St. Marys County, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mile (0.5 km) downstream from Western Branch, and 12.0 miles (19.3 km) upstream from mouth.

DRAINAGE AREA.--24.0 mi<sup>2</sup> (62.2 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10 ft (3 m), from topographic map.

AVERAGE DISCHARGE.--29 years, 23.0 ft<sup>3</sup>/s (0.651 m<sup>3</sup>/s), 13.01 in/yr (330 mm/yr).

EXTREMES.--Current year: Maximum discharge, 804 ft<sup>3</sup>/s (22.8 m<sup>3</sup>/s) Mar. 19, gage height, 7.02 ft (2.140 m); minimum, 2.7 ft<sup>3</sup>/s (0.076 m<sup>3</sup>/s) Oct. 8, Aug. 5, 29-30, gage height, 1.33 ft (0.405 m).  
Period of record: Maximum discharge, 7,950 ft<sup>3</sup>/s (225 m<sup>3</sup>/s) Aug. 20, 1969, gage height, 13.34 ft (4.066 m), from rating curve extended above 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) on basis of contracted-opening measurement at gage height 12.08 ft (3.682 m); minimum, 0.2 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Sept. 7, 1966, gage height, 1.13 ft (0.344 m).

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 1702: 1946, 1948-49, 1955, 1957-58.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.8	10	16	21	16	41	66	40	7.1	3.9	5.3
2	3.9	4.6	27	12	21	18	29	54	22	5.6	3.8	14
3	3.6	4.9	14	9.8	20	16	42	36	61	4.7	3.6	9.9
4	3.4	5.0	9.0	12	19	14	38	78	26	7.3	3.4	6.3
5	3.6	5.1	7.4	11	106	14	28	71	15	8.6	2.9	4.8
6	3.7	4.8	6.7	11	102	14	24	44	15	6.8	10	4.4
7	3.6	4.6	6.2	38	96	14	22	81	13	5.5	14	4.8
8	3.3	4.7	57	23	52	15	20	40	9.4	5.2	7.7	11
9	3.4	4.7	30	49	33	13	19	29	8.2	4.9	6.1	11
10	3.4	4.6	14	30	26	14	20	22	7.4	4.2	5.0	6.8
11	3.4	4.7	9.9	73	22	20	18	20	7.0	3.6	4.6	5.3
12	3.5	5.1	8.7	59	52	22	18	18	18	32	4.3	15
13	3.5	8.4	7.9	250	54	32	16	33	24	103	4.3	41
14	3.4	8.0	8.7	176	31	149	16	24	12	178	4.3	15
15	3.4	6.6	7.8	61	25	124	57	18	8.8	124	4.3	8.3
16	6.1	5.5	204	37	22	51	47	19	7.2	50	31	6.8
17	7.9	5.5	108	29	22	333	30	19	7.0	75	38	6.4
18	5.6	5.4	33	26	25	163	24	16	6.9	163	14	48
19	4.4	5.6	20	33	24	350	24	15	7.9	41	8.1	108
20	4.0	5.9	16	91	22	306	28	14	7.7	21	6.2	26
21	4.0	6.5	16	70	18	110	21	13	5.9	16	5.2	14
22	4.0	5.9	14	43	17	62	18	11	4.8	9.2	4.8	9.4
23	4.3	5.9	11	35	17	41	18	11	4.4	6.5	4.5	87
24	4.4	5.2	10	33	20	37	18	10	4.1	7.1	4.3	251
25	4.4	5.6	10	77	24	35	25	14	4.1	7.0	4.3	135
26	4.4	8.7	9.0	81	18	27	65	13	34	7.1	3.9	127
27	4.3	7.0	9.4	37	16	24	36	12	32	6.1	3.5	92
28	4.3	6.4	13	26	24	22	26	10	20	5.6	3.1	53
29	4.3	6.9	10	22	---	22	24	8.3	10	5.3	2.9	27
30	4.4	6.1	9.5	20	---	117	22	8.7	7.6	4.8	2.8	17
31	4.5	---	9.9	19	---	79	---	11	---	4.4	2.9	---
TOTAL	129.9	172.7	727.1	1509.8	949	2274	834	839.0	450.4	929.6	221.7	1170.5
MEAN	4.19	5.76	23.5	48.7	33.9	73.4	27.8	27.1	15.0	30.0	7.15	39.0
MAX	7.9	8.7	204	250	106	350	65	81	61	178	38	251
MIN	3.3	4.6	6.2	9.8	16	13	16	8.3	4.1	3.6	2.8	4.4
CFSM	.17	.24	.98	2.03	1.41	3.06	1.16	1.13	.63	1.25	.30	1.63
IN.	.20	.27	1.13	2.34	1.47	3.52	1.29	1.30	.70	1.44	.34	1.81
CAL YR 1974	TOTAL	5998.7	MEAN 16.4	MAX 342	MIN 1.9	CFSM .68	IN 9.30					
WTR YR 1975	TOTAL	10207.7	MEAN 28.0	MAX 350	MIN 2.8	CFSM 1.17	IN 15.82					

PEAK DISCHARGE (BASE, 400 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-16	1800	4.64	416	3-17	1500	5.33	518
1-13	2000	5.13	488	3-19	2230	7.02	804

## MONONGAHELA RIVER BASIN

03075500 Youghiogheny River near Oakland, Md.

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, on left bank 200 ft (61 m) downstream from Baltimore & Ohio Railroad bridge, 250 ft (76 m) downstream from Little Youghiogheny River, 1.2 mi (1.9 km) northwest of Oakland, and 1.5 mi (2.4 km) upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi<sup>2</sup> (347 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.11 ft (717.228 m) above mean sea level, unadjusted. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE.--34 years, 293 ft<sup>3</sup>/s (8.298 m<sup>3</sup>/s), 29.69 in/yr (754 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,940 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) Dec. 25, gage height, 7.23 ft (2.204 m); minimum, 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) Oct. 13, 14, 15, gage height, 1.97 ft (0.600 m).

Period of record: Maximum discharge, 11,800 ft<sup>3</sup>/s (334 m<sup>3</sup>/s) Oct. 16, 1954, gage height, 12.16 ft (3.706 m); minimum daily, 2.5 ft<sup>3</sup>/s (0.071 m<sup>3</sup>/s) Oct. 4, 1953.

Flood in March 1936 reached a stage of 15.3 ft (4.66 m), from floodmarks.

REMARKS.--Records good except those for winter months, which are fair. Town of Oakland diverted an average of 0.4 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) for water supply. The diversion is returned above station as sewage.

REVISIONS (WATER YEARS).--WSP 1113: 1947(M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	33	150	2,760	1,040	313	410	669	351	52	31	912
2	29	32	230	1,790	815	260	350	639	313	44	27	882
3	29	32	188	962	594	214	471	503	248	41	25	592
4	29	31	145	769	447	178	465	1,380	235	111	32	411
5	27	35	134	536	388	146	404	1,080	186	166	40	307
6	26	46	138	418	1,060	163	353	758	235	75	155	263
7	25	40	146	351	907	520	319	619	241	114	87	263
8	24	40	730	296	537	1,340	303	433	184	76	46	186
9	23	36	1,120	389	390	777	308	346	157	64	33	148
10	23	34	692	338	326	552	286	299	127	122	27	119
11	22	33	493	312	298	427	259	252	135	94	38	103
12	21	68	413	289	627	529	225	221	658	72	61	183
13	20	150	419	268	639	842	193	221	570	74	54	174
14	20	115	393	211	370	678	168	208	359	65	762	115
15	21	114	355	208	321	537	175	185	269	56	828	94
16	165	95	438	185	349	447	178	321	234	66	1,620	84
17	211	90	523	165	583	592	149	250	177	55	1,360	82
18	94	87	417	159	1,020	519	135	260	139	44	688	133
19	66	86	355	382	1,140	583	198	297	120	38	418	218
20	55	114	345	395	844	1,230	274	234	115	35	284	160
21	48	188	314	293	600	885	206	201	90	62	208	293
22	42	164	290	255	452	660	188	173	76	62	159	207
23	39	147	264	218	777	633	181	155	68	38	1,430	600
24	40	229	542	201	1,080	541	564	156	62	41	1,340	593
25	41	545	2,720	608	885	541	2,000	170	56	236	647	441
26	47	459	2,210	1,490	634	432	2,430	192	52	145	419	402
27	43	329	1,020	837	471	348	1,160	191	113	71	447	319
28	38	272	1,030	568	368	308	747	162	154	54	286	261
29	35	214	866	1,210	-----	326	1,010	210	79	43	229	213
30	34	172	1,040	1,840	-----	502	834	589	61	37	236	179
31	34	-----	1,020	1,170	-----	464	-----	379	-----	33	531	-----
TOTAL	1,403	4,030	19,140	19,873	17,962	16,487	14,943	11,753	5,864	2,286	12,548	8,937
MEAN	45.3	134	617	641	642	532	498	379	195	73.7	405	298
MAX	211	545	2,720	2,760	1,140	1,340	2,430	1,380	658	236	1,620	912
MIN	20	31	134	159	298	146	135	155	52	33	25	82
CFSM	.34	1.00	4.60	4.78	4.79	3.97	3.72	2.83	1.46	.55	3.02	2.22
IN.	.39	1.12	5.31	5.52	4.99	4.58	4.15	3.26	1.63	.63	3.48	2.48

CAL YR 1974 TOTAL 118,156 MEAN 324 MAX 4,150 MIN 20 CFSM 2.42 IN 32.80  
WTR YR 1975 TOTAL 135,226 MEAN 370 MAX 2,760 MIN 20 CFSM 2.76 IN 37.54

PEAK DISCHARGE (BASE, 2,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1815	7.23	3,940	4-26	0300	6.40	2,960
1-01	1430	6.71	3,310	8-23	1815	6.17	2,720
1-30	0200	5.83	2,360				

03076000 Deep Creek Reservoir near Oakland, Md.

LOCATION.--Lat 39°30'34", long 79°23'28". Garrett County, on Deep Creek at Dam, 1.8 mi (2.9 km) upstream from mouth and 7 mi (11.3 km) north of Oakland, Md.

DRAINAGE AREA.--64.7 mi<sup>2</sup> (167.6 km<sup>2</sup>).

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, month-end contents published in WSP 1305, and October 1950 to September 1955, month-end contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at mean sea level, unadjusted.

EXTREMES.--Maximum contents during year, 88,900 acre-ft (110 hm<sup>3</sup>) June 2, elevation, 2460.90 ft (750.082 m); minimum, 59,800 acre-ft (73.7 hm<sup>3</sup>) Nov. 30, elevation, 2,452.60 ft (747.552 m).  
Period of record: Maximum contents, 93,258 acre-ft (115 hm<sup>3</sup>) July 24, 25, 1949, elevation, 2,462.075 ft (750.440 m); minimum observed, 11,763 acre-ft (14.5 hm<sup>3</sup>) Sept. 30, 1925, elevation, 2,433.45 ft (741.716 m).

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925. Usable capacity, 92,975 acre-ft (115 hm<sup>3</sup>) between elevations 2,425 ft (739.1 m), top of intake to outlet tunnel, and 2,462 ft (750.4 m), crest of spillway. Dead storage, 13,085 acre-ft (16.1 hm<sup>3</sup>). Figures given herein represent usable contents. Reservoir is used for hydroelectric power. Records furnished by Pennsylvania Electric Co.

MONTH-END ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	2,455.30	68,700	-
Oct. 31.....	2,453.70	63,400	- 5,300
Nov. 30.....	2,452.60	59,800	- 3,600
Dec. 31.....	2,454.80	67,000	+ 7,200
CAL YR 1974.....	-	-	-11,900
Jan. 31.....	2,458.20	78,900	+11,900
Feb. 28.....	2,459.30	83,000	+ 4,100
Mar. 31.....	2,459.50	83,700	+ 700
Apr. 30.....	2,460.30	86,700	+ 3,000
May 31.....	2,460.70	88,100	+ 1,400
June 30.....	2,459.90	85,200	- 2,900
July 31.....	2,458.80	81,100	- 4,100
Aug. 31.....	2,458.40	79,700	- 1,400
Sept. 30.....	2,458.20	78,900	- 800
WTR YR 1975.....	-	-	+10,200

## 03076500 Youghiogheny River at Friendsville, Md.

LOCATION.--Lat 39°39'13", long 79°24'31". Garrett County, on left bank 0.7 mi (1.1 km) upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi (2.4 km) upstream from Bear Creek.

DRAINAGE AREA.--295 mi<sup>2</sup> (764 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft (453.338 m) above mean sea level. 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.

AVERAGE DISCHARGE.--41 years (1898-1904, 1940-75), 641 ft<sup>3</sup>/s (18.15 m<sup>3</sup>/s), 29.51 in/yr (750 mm/yr), adjusted for storage since 1940.

EXTREMES.--Current year: Maximum discharge, 5,760 ft<sup>3</sup>/s (163 m<sup>3</sup>/s) Jan. 1, gage height, 6.06 ft (1.847 m); minimum, 34 ft<sup>3</sup>/s (0.96 m<sup>3</sup>/s) Oct. 12, 13, 14, gage height, 1.94 ft (0.591 m).

Period of record: Maximum discharge, 13,000 ft<sup>3</sup>/s (368 m<sup>3</sup>/s) Oct. 16, 1954, gage height, 8.99 ft (2.740 m), from rating curve extended above 5,800 ft<sup>3</sup>/s (164 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum daily, 8.2 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Sept. 11, 1966.

Maximum stage since 1898, 14.2 ft (4.33 m) Mar. 29, 1924, from floodmarks, site and datum then in use or 10.2 ft (3.11 m), present site and datum; discharge, about 15,600 ft<sup>3</sup>/s or about 440 m<sup>3</sup>/s, from rating curve extended as explained above.

REMARKS.--Records good. Low and medium flow regulated since 1925 by Deep Creek Reservoir (see station 03076000). Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951 (M).

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	144	277	5,180	1,870	987	1,120	1,280	691	261	173	1,790
2	182	87	352	3,530	1,380	851	961	1,310	914	239	62	1,660
3	137	59	398	2,180	1,190	770	1,110	893	723	209	60	1,260
4	175	108	349	1,590	990	683	1,210	2,370	660	118	189	885
5	102	159	337	1,130	890	613	972	2,240	594	234	214	701
6	44	159	321	1,040	1,770	631	719	1,720	648	160	279	431
7	87	174	323	888	1,800	1,080	863	1,480	509	290	322	455
8	140	168	927	776	1,180	2,480	781	1,190	404	279	225	525
9	135	93	1,980	981	832	1,390	792	1,050	533	245	70	475
10	136	70	1,270	946	796	1,310	775	612	476	308	71	418
11	137	126	914	712	722	1,090	734	501	462	317	195	331
12	91	184	836	690	980	1,290	592	585	1,010	156	223	513
13	41	314	857	774	1,320	1,960	399	607	1,130	127	218	401
14	76	302	695	664	899	1,630	474	605	585	247	833	251
15	137	293	636	611	619	1,250	503	558	443	225	1,330	283
16	190	205	854	568	575	832	449	711	597	219	2,020	322
17	453	165	1,090	510	1,130	1,310	452	491	528	224	2,080	318
18	291	236	913	382	2,040	1,240	424	432	534	211	1,210	327
19	169	248	807	652	2,530	1,380	369	705	472	77	747	539
20	109	285	844	970	1,970	2,500	510	622	433	62	563	320
21	154	364	584	755	1,440	1,960	532	555	206	244	447	392
22	159	355	542	671	1,080	1,430	484	446	158	239	380	447
23	175	250	652	595	1,290	1,160	472	472	316	203	1,350	829
24	153	281	1,040	546	2,390	1,420	989	276	303	188	2,310	1,030
25	140	830	4,240	939	2,080	1,500	3,840	322	291	336	1,150	859
26	105	887	3,930	2,600	1,620	1,200	4,240	563	287	341	755	757
27	79	633	2,140	1,630	1,310	1,020	2,390	889	373	153	841	555
28	113	444	1,870	1,250	1,100	900	1,600	688	365	233	599	443
29	149	462	1,550	2,020	-----	856	1,680	766	192	204	492	492
30	167	322	2,140	3,330	-----	962	1,600	1,650	281	192	349	446
31	163	-----	2,200	2,200	-----	1,180	-----	896	-----	181	1,040	-----
TOTAL	4,568	8,407	35,868	41,310	37,863	38,865	32,036	27,485	15,118	6,722	20,797	18,455
MEAN	147	280	1,157	1,333	1,352	1,254	1,068	887	504	217	671	615
MAX	453	887	4,240	5,180	2,530	2,500	4,240	2,370	1,130	341	2,310	1,790
MIN	41	59	277	382	575	613	369	276	158	62	60	251
(#)	-86.2	-60.5	+117	+194	+73.6	+11.4	+50.4	+22.8	-48.8	-66.6	-22.8	-13.5
MEAN#	61	220	1,274	1,527	1,426	1,265	1,118	910	455	150	648	602
CFSM#	.21	.75	4.32	5.18	4.83	4.29	3.79	3.08	1.54	.51	2.20	2.04
IN#	.24	.84	4.98	5.97	5.03	4.95	4.23	3.55	1.72	.59	2.54	2.28

CAL YR 1974 TOTAL 244,192 MEAN 669 MAX 6,910 MIN 35 MEAN# 653 CFSM# 2.21 IN# 30.05  
WTR YR 1975 TOTAL 287,494 MEAN 788 MAX 5,180 MIN 41 MEAN# 802 CFSM# 2.72 IN# 36.90

# 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

03076600 Bear Creek at Friendsville, Md.

LOCATION.--Lat 39°39'22", long 79°23'41", Garrett County, on right bank 0.2 mi (0.3 km) downstream from bridge on Accident-Friendsville Road, 0.6 mi (1.0 km) downstream from South Branch Bear Creek, 0.8 mi (1.3 km) southeast of Friendsville, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--48.9 mi<sup>2</sup> (126.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,555 ft (474 m), from topographic map.

AVERAGE DISCHARGE.--11 years, 83.7 ft<sup>3</sup>/s (2.370 m<sup>3</sup>/s), 23.24 in/yr (590 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,960 ft<sup>3</sup>/s (55.5 m<sup>3</sup>/s) Apr. 25, gage height, 5.51 ft (1.679 m); minimum, 4.4 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Oct. 14, gage height, 0.68 ft (0.207 m).

Period of record: Maximum discharge, 4,650 ft<sup>3</sup>/s (132 m<sup>3</sup>/s) Sept. 14, 1971, gage height, 9.6 ft (2.93 m), from floodmarks, from rating curve extended above 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Sept. 12, 1966, gage height, 0.42 ft (0.128 m).

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

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.3	21	1,370	243	119	141	189	53	16	9.3	319
2	5.1	5.3	34	608	159	98	120	162	56	15	8.7	201
3	5.4	5.3	37	402	120	84	147	131	46	34	8.4	111
4	5.4	5.3	33	314	109	73	130	521	45	90	14	76
5	5.3	5.7	31	226	97	66	120	455	41	42	10	59
6	5.3	5.9	30	148	284	63	109	326	43	28	15	61
7	5.1	5.4	31	121	279	213	97	248	47	24	12	49
8	5.0	5.2	190	101	181	357	93	164	41	22	9.0	42
9	5.0	5.0	261	140	137	260	103	131	37	21	8.0	36
10	4.9	4.9	145	134	87	171	108	110	33	20	8.7	32
11	4.8	4.7	104	169	93	131	102	93	35	24	21	32
12	4.8	11	90	176	100	246	93	83	80	18	16	75
13	4.8	17	96	135	87	385	83	76	50	18	11	67
14	4.9	12	97	106	71	351	74	67	46	18	37	53
15	4.8	11	90	94	76	272	72	70	41	35	24	45
16	25	9.3	110	80	86	190	68	107	35	21	38	42
17	20	8.6	129	71	228	185	61	82	32	18	39	38
18	10	8.2	108	78	480	167	57	80	29	16	28	47
19	8.0	8.0	95	141	563	277	66	78	27	14	21	51
20	7.1	8.2	92	145	420	532	64	69	25	14	18	43
21	6.4	9.9	85	108	299	407	58	63	23	21	15	44
22	5.9	11	80	93	201	310	55	57	22	15	18	40
23	5.8	11	74	81	370	217	55	52	21	12	36	68
24	5.8	23	237	76	504	257	233	48	20	12	27	79
25	5.8	53	1,110	303	443	301	1,070	54	19	22	21	82
26	5.8	49	619	498	321	249	1,060	60	18	16	21	89
27	5.8	37	375	321	223	155	534	93	35	12	29	82
28	5.6	32	277	226	145	126	355	61	30	11	19	74
29	5.5	26	241	427	-----	118	348	63	21	10	18	63
30	5.4	22	406	451	-----	160	254	72	19	9.7	19	55
31	5.4	-----	456	330	-----	153	-----	59	-----	10	303	-----
TOTAL	209.3	425.2	5,784	7,673	6,406	6,693	5,930	3,924	1,070	658.7	882.1	2,155
MEAN	6.75	14.2	187	248	229	216	198	127	35.7	21.2	28.5	71.8
MAX	25	53	1,110	1,370	563	532	1,070	521	80	90	303	319
MIN	4.8	4.7	21	71	71	63	55	48	18	9.7	8.0	32
CFSM	.14	.29	3.82	5.07	4.68	4.42	4.05	2.60	.73	.43	.58	1.47
IN.	.16	.32	4.40	5.84	4.87	5.09	4.51	2.99	.81	.50	.67	1.64

CAL YR 1974 TOTAL 29,712.1 MEAN 81.4 MAX 1,110 MIN 4.7 CFSM 1.66 IN 22.60  
WTR YR 1975 TOTAL 41,810.3 MEAN 115 MAX 1,370 MIN 4.7 CFSM 2.35 IN 31.81

PEAK DISCHARGE (BASE, 600 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1130	5.12	1,710	2-04	1430	4.33	1,220
1-01	0630	5.38	1,870	2-19	0645	3.42	648
1-25	1930	3.48	687	4-25	2030	5.51	1,960
1-29	1945	3.42	648	5-04	0615	3.36	611

03078000 Casselman River at Grantsville, Md.

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, on left bank at downstream side of highway bridge, 0.3 mi (0.5 km) upstream from Slaubaugh Run, 0.7 mi (1.1 km) downstream from U. S. Highway 40, and 1.0 mi (1.6 km) northeast of Grantsville.

DRAINAGE AREA.--62.5 mi<sup>2</sup> (161.9 km<sup>2</sup>).

PERIOD OF RECORD.--July 1947 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,089.03 ft (636.736 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--28 years, 118 ft<sup>3</sup>/s (3.342 m<sup>3</sup>/s), 25.64 in/yr (651 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,660 ft<sup>3</sup>/s (75.3 m<sup>3</sup>/s) Jan. 1, gage height, 5.62 ft (1.713 m); minimum, 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) Oct. 15, gage height, 1.02 ft (0.311 m).

Period of record: Maximum discharge, 8,400 ft<sup>3</sup>/s (238 m<sup>3</sup>/s) Oct. 15, 1954, gage height, 10.70 ft (3.261 m), from rating curve extended above 1,600 ft<sup>3</sup>/s (73.6 m<sup>3</sup>/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.

REMARKS.--Records good except those for winter periods which are fair. Water-quality records for the current water year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1143: 1948.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	7.4	21	1,790	243	171	162	250	67	22	6.4	362
2	4.2	6.5	39	662	201	151	140	251	85	18	5.7	174
3	4.7	6.9	70	382	168	115	160	230	63	18	5.4	101
4	4.7	7.9	78	318	143	100	140	770	58	89	11	68
5	4.7	7.4	71	229	151	90	130	430	51	51	8.0	53
6	4.7	7.6	67	184	315	110	125	300	58	30	17	59
7	4.2	7.1	65	162	232	313	115	200	99	22	18	50
8	4.2	6.6	240	143	180	463	110	160	68	20	9.8	41
9	3.8	6.4	260	263	157	228	105	190	57	19	6.9	35
10	3.8	6.4	150	235	96	184	157	170	46	19	6.0	29
11	3.4	6.4	120	286	136	157	125	130	48	21	9.0	29
12	3.8	50	109	313	136	282	110	115	143	18	12	116
13	3.8	40	124	223	131	444	100	100	89	15	11	78
14	3.8	30	111	174	117	286	94	84	60	37	43	47
15	5.7	22	100	150	115	211	100	92	50	108	35	38
16	36	16	116	144	101	180	94	150	46	54	53	38
17	42	14	136	140	184	222	86	100	39	42	57	37
18	20	12	110	141	425	252	84	80	34	26	34	80
19	13	12	100	197	606	459	90	70	32	21	18	163
20	8.8	14	96	171	332	710	82	64	33	17	12	85
21	7.8	22	94	160	230	367	76	58	27	17	9.9	74
22	7.2	23	91	140	215	288	74	50	23	15	11	59
23	6.6	20	128	110	627	271	74	60	31	12	144	152
24	6.9	44	309	120	833	360	234	105	27	11	83	152
25	6.9	90	1,050	268	568	339	1,150	60	20	24	38	253
26	7.1	68	580	418	324	232	1,030	58	20	33	28	320
27	7.1	46	303	218	235	190	400	95	87	16	49	173
28	6.4	38	286	174	190	168	276	64	89	12	29	127
29	6.1	34	277	584	-----	174	427	72	40	9.2	20	100
30	6.2	30	554	643	-----	239	277	87	28	7.7	19	84
31	6.1	-----	505	324	-----	194	-----	72	-----	7.0	315	-----
TOTAL	257.5	701.6	6,360	9,466	7,391	7,950	6,327	4,717	1,618	830.9	1,124.1	3,177
MEAN	8.31	23.4	205	305	264	256	211	152	53.9	26.8	36.3	106
MAX	42	90	1,050	1,790	833	710	1,150	770	143	108	315	362
MIN	3.4	6.4	21	110	96	90	74	50	20	7.0	5.4	29
CFSM	.13	.37	3.28	4.88	4.22	4.10	3.38	2.43	.86	.43	.58	1.70
IN.	.15	.42	3.79	5.63	4.40	4.73	3.77	2.81	.96	.49	.67	1.89

CAL YR 1974 TOTAL 38,858.4 MEAN 106 MAX 1,680 MIN 3.4 CFSM 1.70 IN 23.13  
WTR YR 1975 TOTAL 49,920.1 MEAN 137 MAX 1,790 MIN 3.4 CFSM 2.19 IN 29.71

PEAK DISCHARGE (BASE, 1,000 FT<sup>3</sup>/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-25	1430	4.29	1,470	4-25	2130	5.32	2,370
1-01	0900	5.62	2,660	5-04	0915	3.85	1,130
1-29	2100	3.83	1,120				



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 the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1975

					Measurements	
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Dis-charge (cfs)
Choptank River basin						
01491180	Watts Creek near Denton, Md.	Lat 38°52'29", long 75°47'38", Caro- line County, at bridge on State Highway 474, 1.6 miles southeast of Denton.	<sup>a</sup> 11	1964-75	9-11-75	2.09
Chester River basin						
01492980	Cypress Branch at Millington, Md.	Lat 39°15'28", long 75°50'01", Kent County, at bridge on State Highway 291, 0.04 mile east of Millington.	<sup>a</sup> 38	1964-66 1968-75	9-11-75	5.95
Elk River basin						
01495550	Perch Creek near Elkton, Md.	Lat 39°34'16", long 75°48'53", Cecil County, at bridge on U. S. Highway 213, 2.5 miles south of Elkton.	<sup>a</sup> 6.0	1964-75	9-12-75	1.56
Northeast River basin						
01496050	Little North- east Creek at Mechanic Valley, Md.	Lat 39°38'26", long 75°55'49", Cecil County, at highway bridge, 0.8 mile northwest of Mechanic Valley.	<sup>a</sup> 14	1964-75	9-12-75	5.96
Susquehanna River basin						
01579875	Deer Creek at Gorsuch Mills, Md.	Lat 39°42'21", long 76°35'15", Balti- more County, at bridge on West Liberty Road, at Gorsuch Mills.	<sup>a</sup> 25	1975	10-15-74 5-29-75	17.9 50.0
01579900	Big Branch at Harkins, Md.	Lat 39°41'53", long 76°27'59", Harford County, at bridge on State Route 517, 0.8 mile west of Harkins.	6.39	1975	10-24-74 5-29-75	4.59 9.22
01579925	Little Deer Creek near Federal Hill, Md.	Lat 39°39'42", long 76°26'55", Harford County, at bridge on State Route 165, 1.9 miles northeast of Federal Hill.	14.0	1975	10-24-74 5-29-75	7.45 16.6
Gunpowder River basin						
01581960	Beetree Run at Bentley Springs, Md.	Lat 39°40'23", long 76°40'31", Balti- more County, at bridge on Bentley Road in Bentley Springs.	9.72	1975	10-15-74 5-29-75	6.77 16.0
01581980	Third Mine Branch near Stablers- ville, Md.	Lat 39°39'27", long 76°37'24", Balti- more County, at bridge on Ensor Road, 0.6 miles northwest of Stablersville.	5.27	1975	5-29-75	8.49

<sup>a</sup>Approximately.

Discharge measurements made at low-flow partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Dis- charge (cfs)
Gunpowder River basin--Continued						
01582900	Greene Branch at Phoenix, Md.	Lat 39°30'22", long 76°36'50", Balti- more County, at bridge on Phoenix Road, 0.6 mile northwest of Phoenix.	4.45	1973, 1975	6-14-73 8-09-73 9-06-73 10-25-74 7-31-75	7.94 4.49 3.12 2.60 5.16
01583100	Piney Run at Dover, Md.	Lat 39°31'17", long 76°46'00", Balti- more County, at bridge on State Route 128, 0.7 mile north of Dover.	12.3	1975	5-29-75	15.1
Patapsco River basin						
01585700	Deep Run at Lawndale, Md.	Lat 39°32'06", long 76°52'33", Carroll County, at bridge on county highway, 1.0 mile north of Lawndale.	6.70	1975	8-01-75	6.60
01586550	Middle Run near Finksburg, Md.	Lat 39°27'44", long 76°54'30", Carroll County, at bridge on Louisville Road, 1.5 miles east of Gamber.	6.18	1973, 1975	6-15-73 8-10-73 9-07-73 8-01-75	9.36 4.92 4.11 6.70
01587070	South Branch Patapsco River at Woodbine, Md.	Lat 39°21'44", long 77°04'00", Carroll County, at bridge on county highway, 0.3 mile west of Woodbine.	11.4	1975	11-11-74 7-31-75 	3.39 5.96
01587170	Gillis Falls at Woodbine, Md.	Lat 39°21'48", long 77°03'59", Carroll County, at bridge on dirt road, 0.3 mile northwest of Woodbine.	19.4	1975	11-11-74 7-31-75	7.57 13.7
01589080	Deep Run at Hanover, Md.	Lat 39°11'24", long 76°43'12", Howard County, at bridge on county highway, 0.3 mile southeast of Hanover.	18.0	1975	8-21-75	5.66
01589230	Red Run near Owings Mills, Md.	Lat 39°24'17", long 76°46'45", Balti- more County, at bridge on Pointer Mill Road, 1.1 miles south of Owings Mills.	7.39	1975	7-29-75	4.96
Patuxent River basin						
01590900	Cabin Branch near Florence, Md.	Lat 39°16'36", long 77°06'20", Howard County, at bridge on light-duty road, 23 miles south of Florence.	8.36	1975	8-04-75 9-16-75	5.24 4.99
01591700	Hawlings River near Sandy Spring, Md.	Lat 39°10'29", long 77°01'22", Mont- gomery County, 100 feet downstream from bridge on State Route 650, 1.7 miles north of Sandy Spring.	27.0	1975	8-04-75 9-16-75	14.8 11.1
01594300	Towers Branch at Conaways, Md.	Lat 39°02'00", long 76°41'38", Anne Arundel County, at bridge on Evergreen Road, 0.7 mile north of Conaways.	5.69	1975	8-21-75	1.72
01594525	Collington Branch at Upper Marl- boro, Md.	Lat 38°49'16", long 76°44'40", Prince Georges County, at railroad bridge, 0.1 mile above mouth at Upper Marlboro.	22.9	1964-66, 1975	8-13-75	5.15
Potomac River basin						
01601325	Jennings Run at Corriganville, Md.	Lat 39°41'36", long 78°47'17", Alle- gany County, at bridge on State Route 36 at Corriganville.	37.7	1975	5-29-75 6-23-75 	35.5 13.6
01605425	Mill Run at Oldtown, Md.	Lat 39°32'26", long 78°36'43", Alle- gany County, at bridge on county highway, 0.1 mile south of Oldtown.	10.6	1975	6-04-75 6-25-75	3.94 .80
01605475	Seven Springs Run at Old- town, Md.	Lat 39°32'29", long 78°36'28", Alle- gany County, at bridge on county highway at Oldtown.	9.16	1975	6-04-75 6-25-75	5.72 .44

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements made at low-flow partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Dis- charge (cfs)
Potomac River basin--Continued						
01610060	Fifteen Mile Creek near Piney Grove, Md.	Lat 39°41'13", long 78°27'17", Alle- gany County, at bridge on light- duty road, 4.3 miles southwest of Piney Grove.	20.2	1975	6-03-75 6-25-75	8.13 .51
01610065	Deep Run near Little Orleans, Md.	Lat 39°39'12", long 78°27'09", Alle- gany County, at bridge on light- duty road, 3.9 miles northwest of Little Orleans.	6.26	1975	6-03-75 6-25-75	1.48 .17
01610075	Fifteen Mile Creek at Little Orleans, Md.	Lat 39°37'41", long 78°23'22", Alle- gany County, at bridge on light- duty road at Little Orleans.	61.6	1975	6-03-75 6-25-75	19.9 2.78
*01610150	Bear Creek at Forest Park, Md.	Lat 39°42'07", long 78°19'02", Wash- ington County, at upstream side of culvert on U.S. Route 40, 0.9 mile west of Forest Park.	10.4	1975	6-03-75 6-25-75	4.41 4.47
*01613150	Ditch Run near Hancock, Md.	Lat 39°41'30", long 78°07'57", Wash- ington County, at upstream side of culvert on U.S. Route 40, 2.7 miles east of Hancock.	4.80	1975	6-03-75 6-25-75	1.39 .61
01619300	Beaver Creek at Benevola, Md.	Lat 39°33'04", long 77°40'55", Wash- ington County, at bridge on light- duty road at Benevola.	22.9	1975	8-04-75	22.5
01619350	Little Beaver Creek at Ben- evola, Md.	Lat 39°32'48", long 77°40'39", Wash- ington County, at bridge on U.S. Route 40 (Alternate) at Benevola.	8.70	1975	8-04-75	6.94
01636730	Israel Creek at Weverton, Md.	Lat 39°19'45", long 77°41'03", Wash- ington County, at bridge on light- duty road at Weverton.	13.2	1975	8-04-75	6.38
01638600	Tuscarora Creek at Tuscarora, Md.	Lat 39°15'06", long 77°28'49", Fred- erick County, at bridge on light- duty road, 0.7 mile southwest of Tuscarora.	20.3	1975	8-13-75	9.50
01639420	Deep Run at Union Mills, Md.	Lat 39°40'08", long 77°00'41", Carroll County, at bridge on light-duty road, 0.7 miles east of Union Mills.	5.46	1975	8-01-75	2.59
01639440	Silver Run near Silver Run, Md.	Lat 39°40'38", long 77°05'37", Carroll County, at bridge on light-duty road, 2.6 miles west of Silver Run.	8.77	1975	8-01-75	3.44
01639465	Bear Branch near Mayberry, Md.	Lat 39°38'07", long 77°07'41", Carroll County, at bridge on State Route 32, 1.6 miles west of Mayberry.	13.9	1975	8-01-75	7.85
01640600	Owens Creek near Thurmont, Md.	Lat 39°38'26", long 77°23'40", Fred- erick County, at bridge on county highway, 1.2 miles northwest of Thurmont.	14.4	1975	11-11-74 8-04-75	2.13 9.64
01640650	Little Owens Creek near Thurmont, Md.	Lat 39°38'58", long 77°23'41", Fred- erick County, at bridge on light- duty road, 2.0 miles northeast of Thurmont.	6.16	1975	11-11-74 8-04-75	.75 2.62
01641900	Tuscarora Creek near Frederick, Md.	Lat 39°27'52", long 77°24'11", Fred- erick County, 0.1 mile upstream from U.S. Route 15 bridge, 2.0 miles north of Frederick.	16.5	1975	11-11-74 8-04-75	3.30 6.90

\*Also crest stage partial record station.

Discharge measurements made at low-flow partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Dis- charge (cfs)
Potomac River basin--Continued						
01642050	Israel Creek near Walkersville, Md.	Lat 39°28'27", long 77°20'26", Frederick County, at bridge on Crum Road, 1.1 miles southeast of Walkersville.	<sup>a</sup> 29	1964-66, 1975	8-04-75	14.8
01642450	Bens Branch near New Market, Md.	Lat 39°24'58", long 77°16'45", Frederick County, at bridge on light-duty road, 2.3 miles north of New Market.	11.8	1975	8-04-75	5.16
01643400	Little Bennett Creek at Hyattstown, Md.	Lat 39°16'46", long 77°18'54", Montgomery County, at bridge on State Highway 355, at Hyattstown.	12.8	1968-69, 1975	8-04-75 9-16-75	4.56 3.35
01643615	Broad Run near Elmer, Md.	Lat 39°07'06", long 77°28'52", Montgomery County, at bridge on River Road, 1.2 miles south of Elmer.	14.2	1975	8-13-75	2.05
01644425	Bucklodge Branch near Dawsonville, Md.	Lat 39°09'11", long 77°20'30", Montgomery County, at bridge on light-duty road, 1.7 miles north of Dawsonville.	8.47	1975	8-13-75	3.15
01644480	Goshen Branch at Goshen, Md.	Lat 39°12'10", long 77°12'06", Montgomery County, 0.7 mile west of Goshen.	7.63	1975	8-04-75 9-16-75	4.62 3.59
01645050	Dry Seneca Creek near Seneca, Md.	Lat 39°05'38", long 77°20'15", Montgomery County, at bridge on Montevideo Road, 1.1 miles northwest of Seneca.	19.2	1975	8-13-75	3.10
01653625	Tinkers Creek at Piscataway, Md.	Lat 38°42'50", long 76°58'16", Prince Georges County, at bridge on Gallahan Road, 0.8 mile north of Piscataway.	15.9	1975	8-11-75	3.95
01660905	Zekiah Swamp Run near Malcom, Md.	Lat 38°36'52", long 76°49'59", Charles County, at bridge on State Route 382, 2.4 miles west of Malcom.	12.1	1975	8-13-75	7.19
*01660930	Clark Run near Bel Alton, Md.	Lat 38°28'21", long 76°57'22", Charles County, at bridge on Newtown Road, 1.5 miles northeast of Bel Alton.	10.4	1975	8-11-75	3.03
Monongahela River basin						
03075475	Little Youghiogheny River at Loch Lynn Heights, Md.	Lat 39°23'54", long 79°22'11", Garrett County, at bridge on State Route 41, 0.4 mile northeast of Loch Lynn Heights.	13.2	1975	5-29-75 6-23-75	16.0 6.52
03075900	Cherry Creek near McHenry, Md.	Lat 39°32'20", long 79°18'55", Garrett County, 200 feet east of Rock Lodge Road, 2.4 miles southeast of McHenry.	12.3	1973, 1975	6-12-73 7-10-73 8-30-73 5-29-75 6-23-75	5.73 1.97 3.16 24.6 4.97
03076590	South Branch Bear Creek near Friendsville, Md.	Lat 39°39'11", long 79°23'66", Garrett County at bridge on light-duty road, 1.2 miles southeast of Friendsville.	16.8	1975	5-29-75 6-23-75	20.3 6.83
03077925	North Branch Casselman River near Grantsville, Md.	Lat 39°40'08", long 79°10'43", Garrett County, at bridge on State Route 495, 2.3 miles southwest of Grantsville.	24.4	1975	5-29-75 6-23-75	42.2 27.4
03077950	South Branch Casselman River near Grantsville, Md.	Lat 39°40'05", long 79°10'42", Garrett County, 250 feet upstream from confluence with North Branch Casselman River, 2.2 miles southwest of Grantsville.	20.8	1975	5-29-75 6-23-75	18.7 6.94

<sup>a</sup> Approximately.

\* Also crest stage partial record station.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1975

						Annual maximum	
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Dis-charge (cfs)
Delaware River basin							
01478950	Pike Creek near Newark, Del.	Lat 39°42'11", long 75°41'41", New Castle County, on right upstream wingwall of bridge on State Highway 2, 0.4 mile upstream from mouth, and 2.6 miles northeast of Newark.	6.04	1969-75	7-21-75	6.25	745
01479200	Mill Creek at Hockessin, Del.	Lat 39°46'31", long 75°41'26", New Castle County, 20 ft above bridge on Brackenville Road, and 0.9 mile southeast of Hockessin, and about 7.0 miles upstream from mouth.	**4.19	1966-75	7-21-75	7.45	625
01479950	Red Clay Creek tributary near Yorklyn, Del.	Lat 39°47'50", long 75°39'33", New Castle County, 8 ft above culvert, 400 ft upstream from mouth, and 1.1 miles southeast of Yorklyn.	.38	1966-75	7-20-75	5.44	62
01481200	Brandywine Creek tributary near Centerville, Del.	Lat 39°50'08", long 75°35'57", New Castle County, 30 ft above culvert on State Highway 100, 1,000 ft upstream from mouth, and 1.4 miles northeast of Centerville.	.97	1966-75	7-20-75	6.27	195
01481450	Willow Run at Rockland, Del.	Lat 39°47'32", long 75°33'16", New Castle County, 15 ft above culvert on Country Club Drive, 0.5 mile upstream from mouth, and 1.0 mile east of Rockland.	.37	1966-75	6-12-75	7.23	204
01482310	Doll Run at Red Lion, Del.	Lat 39°35'53", long 75°39'43", New Castle County, 10 ft above culvert on secondary road, 0.7 mile upstream from mouth, and 0.7 mile south of Red Lion.	<sup>a</sup> 1.2	1966-75	9-24-75	5.97	243
Smyrna River basin							
01483290	Paw Paw Branch tributary near Clayton, Del.	Lat 39°18'41", long 75°40'08", New Castle County, 6 ft above culverts on road No. 483, 1,000 ft upstream from mouth, and 2.4 miles northwest of Clayton.	<sup>a</sup> 1.3	1966-75	7-10-75	7.70	197
01483400	Sawmill Branch tributary near Blackbird, Del.	Lat 39°20'57", long 75°38'31", New Castle County, 10 ft above culvert on U.S. Highway 13, 1.3 miles upstream from mouth, and 1.8 miles southeast of Blackbird.	<sup>a</sup> 6	1966-75	7-10-75	4.67	35
Leipsic River basin							
01483500	Leipsic River near Cheswold, Del.	Lat 39°13'58", long 75°37'57", Kent County, 75 ft below highway bridge on road No. 91, 0.4 mile downstream from confluence of Taylor and Pinks Branches, and 2.6 miles northwest of Cheswold.	9.35	1931-33# 1943-57# 1958-75	9-24-75	3.62	203
St. Jones River basin							
01483720	Puncheon Branch at Dover, Del.	Lat 39°08'25", long 75°32'20", Kent County, 10 ft above bridge on New Burton Road, 1.5 miles upstream from mouth, and at Dover.	<sup>a</sup> 2.3	1966-75	7-13-75	6.39	520

See footnotes at end of table, p.

Annual maximum discharge at crest-stage partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (cfs)
Murderkill River basin							
01484002	Murderkill River tributary near Felton, Del.	Lat 38°58'19", long 75°33'31", Kent County, 6 ft above culvert on road No. 426, 0.5 mile up- stream from mouth, and 2.9 miles south of Felton.	<sup>a</sup> 1.0	1966-75	7-13-75	3.93	15
01484050	Pratt Branch near Felton, Del.	Lat 39°00'37", long 75°31'46", Kent County, 20 ft upstream from bridge on road No. 33, 2.3 miles upstream from mouth, and 2.6 miles east of Felton.	3.29	1966-75	7-13-75	9.11	162
Broadkill River basin							
01484270	Beaverdam Creek near Milton, Del.	Lat 38°45'41", long 75°16'03", Sus- sex County, 10 ft upstream from culvert on road No. 88, 2.5 miles east of Milton, and 3.2 miles up- stream from mouth.	6.10	1966-75	4-03-75	4.23	32
Indian River basin							
01484550	Pepper Creek at Dagsboro, Del.	Lat 38°32'50", long 75°14'39", Sus- sex County, at downstream side of bridge on State Highway 26, 3.5 miles upstream from Vines Creek, and at Dagsboro.	8.78	1960-75	7-25-75	6.28	521
Wicomico River basin							
01486100	Andrews Branch near Delmar, Md.	Lat 38°26'15", long 75°31'46", Wicomico County, at culvert on Rum Ridge Road, 1.2 miles above Williams Pond, and 2.8 miles southeast of Delmar.	<sup>a</sup> 4.1	1967-75	3-20-75	6.78	118
Nanticoke River basin							
01486980	Toms Dam Branch near Greenwood, Del.	Lat 38°48'04", long 75°33'28", Sus- sex County, 16 ft above bridge on State Highway 16, 1.5 miles east of Greenwood, and 3.7 miles up- stream from mouth.	<sup>a</sup> 6.4	1966-75	3-19-75	5.44	56
01487500	Trap Pond Outlet near Laurel, Del.	Lat 38°31'40", long 75°28'58", Sus- sex County, 200 ft downstream from Trap Pond Dam and 5 miles southeast of Laurel.	16.7	1951-71 <sup>#</sup> 1972-73 1975	7-26-75	3.90	560
01487900	Meadow Branch near Delmar, Del.	Lat 38°29'05", long 75°35'16", Sus- sex County, 14 ft above culverts on road No. 503B, 2.1 miles north- west of Delmar, and 3.1 miles up- stream from confluence with Holly Branch.	<sup>a</sup> 3.9	1967-75	3-19-75	5.63	89
01488000	Holly Ditch near Laurel, Del.	Lat 38°32'20", long 75°35'55", Sus- sex County, 10 ft above culverts on Road No. 494, 1.5 miles south- west of Laurel, and 2.6 miles up- stream from mouth.	2.19	1951-56 <sup>#</sup> 1959-75	3-19-75	4.52	35
Choptank River basin							
01490490	Beachy Neidig Ditch near Willow Grove, Del.	Lat 39°04'57", long 75°39'27", Kent County, 10 ft above culverts on road No. 226, 1,000 ft up- stream from mouth, and 1.8 miles northwest of Willow Grove.	<sup>a</sup> 2.3	1966-75	7-13-75	6.41	<sup>#</sup>
01490600	Meredith Branch near Sandtown, Del.	Lat 39°02'23", long 75°41'52", Kent County, at downstream side of bridge on State Highway 10, 0.7 mile upstream from mouth, and 1.2 miles east of Sandtown.	<sup>a</sup> 8.4	1966-75	7-13-75	5.80	431

See footnotes at end of table, p.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (cfs)
Choptank River basin--Continued							
01490800	Oldtown Branch at Goldsboro, Md.	Lat 39°01'23", long 75°47'16", Caroline County, at upstream side of culvert on State High- way 313, 0.7 mile upstream from mouth, and 0.7 mile south of Goldsboro.	3.9	1967-75	3-19-75	5.62	202
01491010	Sangston Prong near Whiteleys- burg, Del.	Lat 38°58'25", long 75°43'32", Kent County, 10 ft above culvert on road No. 269, 0.7 mile up- stream from mouth, and 1.2 miles north of Whiteleysburg.	<sup>a</sup> 1.9	1966-75	7-13-75	8.71	484
01491050	Spring Branch near Greens- boro, Md.	Lat 38°56'34", long 75°47'25", Caroline County, at culvert on Knife Box Road, 2.0 miles above mouth, and 2.2 miles southeast of Greensboro.	<sup>a</sup> 3.8	1967-75	2-02-73 7-14-75	<sup>b</sup> 6.25 <sup>b</sup> 7.65	<sup>c</sup> 80 150
01492050	Gravel Run at Beulah, Md.	Lat 38°40'54", long 75°53'53", Dor- chester County, at upstream side of culvert on State Highway 16, 0.3 mile north of Beulah, and 0.6 mile upstream from mouth.	8.4	1966-75	1-14-68 7-13-75	4.98 7.41	<sup>c</sup> 95 690
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 miles northeast of Car- michael, and 2.4 miles upstream from mouth.	8.09	1952-56 <sup>†</sup> 1957-75	3-19-75	4.45	233
01492550	Mill Creek near Skipton, Md.	Lat 38°55'00", long 76°03'42", Talbot County, at upstream side of culvert on U.S. Route 50, 1.5 miles north of Skipton, and 2.7 miles upstream from mouth.	<sup>a</sup> 4.6	1966-75	7-14-75	5.66	163
Chester River basin							
01494020	Browns Branch tributary near Church Hill, Md.	Lat 39°10'05", long 75°58'41", Queen Annes County, at upstream side of culvert on John Powell Road, 0.6 mile upstream from mouth, and 1.8 miles north of Church Hill.	<sup>a</sup> 1.7	1971-75	3-19-75	7.18	130
Susquehanna River basin							
01577940	Broad Creek tributary at Whiteford, Md.	Lat 39°42'30", long 76°21'49", Har- ford County, at upstream side of culvert on State Highway 165, 0.8 mile upstream from mouth, and 1.0 mile southwest of Whiteford.	.77	1971-75	7-13-75	6.78	164
01579000	Basin Run at Liberty Grove, Md.	Lat 39°39'30", long 76°06'10", Cecil County, on left bank 100 ft upstream from highway bridge, 0.9 mile east of Liberty Grove, and 3.0 miles upstream from mouth.	5.31	1948-58 <sup>†</sup> 1965-75	7-21-75	6.41	2,120
Gunpowder River basin							
01582510	Piney Creek near Hereford, Md.	Lat 39°34'38", long 76°40'39", Bal- timore County, at upstream side of culvert on Interstate Route 83, 1.1 miles southwest of Hereford, 5.3 miles upstream from mouth.	<sup>a</sup> 1.5	1962-75	9-26-75	<sup>b</sup> 10.48	380
01583495	Western Run tributary at Western Run, Md.	Lat 39°31'01", long 76°41'04", Bal- timore County, at upstream side of culvert on Western Run Road, 0.05 mile above mouth, and 0.3 mile northwest of Western Run.	.26	1966-75	9-26-75	<sup>d</sup> 9.72	195

See footnotes at end of table, p.

Annual maximum discharge at crest-stage partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis- charge (cfs)
Gunpowder River basin--Continued							
01583580	Baisman Run at Broadmoor, Md.	Lat 39°28'45", long 76°40'42", Bal- timore County, at upstream side of bridge on Ivy Hill Road, 0.3 mile upstream from mouth, and 1.8 miles west of Cockeysville.	1.47	1965-69# 1970-75	9-26-75	4.11	292
01584500	Little Gunpowder Falls at Laurel Brook, Md.	Lat 39°30'18", long 76°25'56", Bal- timore County, 750 ft upstream from bridge on Bottom Road, 5 miles southwest of Bel Air, and 10.5 miles upstream from mouth.	36.1	1927-70# 1971-75	7-13-75	8.39	6,140
Patapsco River basin							
01587050	Hay Meadow Branch trib- utary at Poplar Springs, Md.	Lat 39°20'55", long 77°06'02", How- ard County, at upstream side of culvert on U.S. Route 40, 0.4 mile northwest of Poplar Springs, and 0.5 mile above mouth.	.54	1966-75	9-26-75	6.01	168
01589240	Gwynns Falls at McDonogh, Md.	Lat 39°23'28", long 76°45'56", Bal- timore County, at bridge on McDonogh Road, 0.3 mile upstream from Horsehead Branch, at McDonogh.	19.3	1958-75	9-26-75	9.58	2,100
Patuxent River basin							
01593350	Little Patuxent River trib- utary at Guilford Downs, Md.	Lat 39°13'39", long 76°50'41", How- ard County, at upstream side of culvert on U.S. Route 29 at Guilford Downs, 0.3 mile above mouth, and 4.1 miles north of Guilford.	.95	1966-75	9-26-75	13.42	412
Potomac River basin							
01601000	Wills Creek be- low Hyndman, Pa.	Lat 39°48'43", long 78°43'00", Bed- ford County, 150 ft above county highway bridge, 150 ft downstream from Pennsylvania Railroad bridge, 0.35 mile downstream from Little Wills Creek and 0.5 mile south of Hyndman.	146	1951-67# 1968-75	4-25-75	7.92	5,870
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 mile northeast of Pratt, and 1.0 mile upstream from Kifer Hollow.	.70	1971-75	4-25-75	12.15	72
*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 mile upstream from mouth, and 0.9 mile west of Forest Park.	10.4	1965-69 1971-75	4-25-75	7.14	650
*01613150	Ditch Run near Hancock, Md.	Lat 39°41'30", long 78°07'57", Washington County, at upstream side of culvert on U.S. Route 40, 0.3 mile above mouth, and 2.7 miles east of Hancock.	a4.8	1965-75	3-19-75	6.71	303
01613160	Potomac River tributary near Han- cock, Md.	Lat 39°41'27", long 78°07'38", Washington County, at upstream side of culvert on Md. Route 615, 0.3 mile upstream from mouth, and 3.0 mile east of Hancock.	a1.2	1965-75	10-25-67 1969 4-04-73 4-25-75	4.07 e 3.54 4.52	c78 f<47 c44 115

See footnotes at end of table, p.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations during water year 1975

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Potomac River basin--Continued							
01619475	Dog Creek tributary near Locust Grove, Md.	Lat 39°27'57", long 77°39'31", Washington County, at upstream side of culvert on Md. Route 67, 0.4 mile upstream from mouth, and 1.3 miles north of Locust Grove.	0.10	1966-75 <sup>8</sup>	9-26-75	5.50	34
01637000	Little Catoctin Creek at Harmony, Md.	Lat 39°28'54", long 77°32'17", Frederick County, at upstream side of bridge on county road, 0.9 mile southwest of Harmony, and 2.8 miles upstream from mouth.	8.8	1948-58 <sup>4</sup> 1959-75	8-18-69 2-13-71 12-08-72 3-30-74 6-01-75	3.00 2.98 3.21 3.39 4.47	<sup>c</sup> 390 <sup>c</sup> 390 <sup>c</sup> 360 <sup>c</sup> 410 860
01639095	Piney Creek tributary at Taneytown, Md.	Lat 39°39'53", long 77°09'59", Carroll County, at upstream side of culvert under Pennsylvania Railroad, 0.1 mile upstream from mouth, and 0.6 mile northeast of Taneytown.	.62	1967-75	9-26-75	<sup>b</sup> 11.97	300
01640000	Little Pipe Creek at Avondale, Md.	Lat 39°33'40", long 77°02'38", Carroll County, at private bridge 0.1 mile below Copps Branch, and 0.5 mile northwest of Avondale.	8.10	1948-56 <sup>4</sup> 1959-64 1967-75	9-26-75	9.94	2,240
01640700	Owens Creek tributary near Rocky Ridge, Md.	Lat 39°37'16", long 77°20'26", Frederick County, at upstream side of culvert on Appolds Crossing Road, 0.8 mile upstream from mouth, and 1.6 miles northwest of Rocky Ridge.	<sup>a</sup> 1.2	1967-75	9-26-75	<sup>b</sup> 10.71	310
01642400	Dollyhyde Creek at Libertytown, Md.	Lat 39°28'55", long 77°13'38", Frederick County, at upstream side of culvert on State Highway 26, 0.9 mile east of Libertytown, and 2.7 miles upstream from mouth.	<sup>a</sup> 2.7	1967-75	9-26-75	9.80	920
01644420	Bucklodge Branch tributary near Barnesville, Md.	Lat 39°12'42", long 77°21'02", Montgomery County, at upstream side of culvert on Barnesville Road, 0.6 mile upstream from mouth, and 1.6 miles southeast of Barnesville.	.27	1967-75	9-26-75	11.14	209
01650050	Northwest Branch Anacostia River at Norwood, Md.	Lat 39°07'36", long 77°01'15", Montgomery County, 20 ft downstream from bridge on Ednor Road, 0.2 mile downstream from tributary, and 0.4 mile east of Norwood.	2.45	1967-74 <sup>4</sup> 1975	9-25-75	5.31	1,320
01650085	Nursery Run at Cloverly, Md.	Lat 39°07'05", long 77°00'24", Montgomery County, 300 ft upstream from culvert on Bryants Nursery Road, 350 ft upstream from mouth, and 0.8 mile northwest of Cloverly.	0.35	1967-74 <sup>4</sup> 1975	8-25-67 8-03-71 9-25-75	3.46 3.56 4.55	<sup>c</sup> 195 <sup>c</sup> 220 560
01650190	Batchellors Run at Oakdale, Md.	Lat 39°07'21", long 77°03'37", Montgomery County, 70 ft downstream from culvert at Batchellors Forest Road, 0.2 mile upstream from small tributary, and 0.8 mile southeast of Oakdale.	0.47	1967-75	8-24-67 6-19-68 8-09-69 5-24-70 8-03-71 6-21-72 7-21-73 3-30-74 7-15-75	2.19 2.24 2.83 1.99 3.50 4.09 2.51 2.17 4.36	135 142 240 108 <sup>h</sup> 400 <sup>h</sup> 620 140 76 750
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 miles southeast of Pomonkey, and 12.6 miles upstream from mouth.	57.7	1949-72 <sup>4</sup> 1973-75	9-26-75	7.40	8,700

See footnotes at end of table, p.

Annual maximum discharge at crest-stage partial-record stations during water year 1975

					Annual maximum		
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Gage height (feet)	Discharge (cfs)
Potomac River basin--Continued							
01660900	Wolf Den Branch near Cedarville, Md.	Lat 38°38'29", long 76°49'02", Charles County, at upstream side of culvert on Forest Road, 1.5 miles upstream from mouth, and 1.6 miles southwest of Cedarville.	82.3	1966-75	9-25-75	9.64	750
*01660930	Clark Run near Bel Alton, Md.	Lat 38°28'21", long 76°57'22", Charles County, at downstream side of bridge on Newtown Road, 1.5 miles northeast of Bel Alton, and 1.8 miles upstream from mouth.	10.4	1966-75	2-13-66 10-19-66 1-14-68 8-03-69 4-14-70 8-27-71 6-22-72 8-21-73 3-30-74 7-14-75	5.61 5.77 5.84 5.43 6.67 6.79 18.91 6.90 6.89 8.48	<sup>c</sup> 180 <sup>c</sup> 200 <sup>c</sup> 210 <sup>c</sup> 170 <sup>c</sup> 350 <sup>c</sup> 410 <sup>f</sup> 4,800 <sup>c</sup> 440 <sup>c</sup> 440 2,190
01661430	Glebe Branch at Valley Lee, Md.	Lat 38°11'40", long 76°31'13", St. Marys County, at upstream side of culvert on private road, 200 ft downstream from culvert on Md. State Highway 244, 0.2 mile upstream from mouth, and 0.3 mile west of Valley Lee.	80.3	1968-75	7-17-75	5.87	<sup>h</sup> 40
Monongahela River basin							
03075450	Little Youghiogheny River tributary near Deer Park, Md.	Lat 39°24'37", long 79°21'00", Garrett County, at upstream side of culvert on Md. Route 135, 0.7 mile upstream from mouth, and 1.6 miles southwest of Deer Park.	.57	1965-75	1-01-75	5.11	34
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 feet upstream from mouth, and 2.4 miles south of Hoyes Run.	.53	1965-75	1-01-75	5.14	38
03076505	Youghiogheny River tributary near Friendsville, Md.	Lat 39°39'48", long 79°25'42", Garrett County, at culvert on Md. Route 42, 1.3 miles west of Friendsville, and 0.1 mile upstream from mouth.	.22	1965-75	4-25-75	3.57	14
03077700	North Branch Casselman River tributary at Foxtown, Md.	Lat 39°37'58", long 79°14'36", Garrett County, at upstream side of culvert on Dunghill Road, at Foxtown, and 2.0 miles upstream from mouth.	81.0	1965-75	1-01-75	5.06	49
03078500	Big Piney Run near Salisbury, Pa.	Lat 39°43'34", long 79°02'55", Somerset County, 660 ft upstream from Little Piney Run, and 2.5 miles southeast of Salisbury.	24.5	1932-70 <sup>†</sup> 1974-75	4-25-75	4.76	1,410

\* Also a low-flow partial-record station.

\*\* 0.15 sq mi is probably noncontributing.

† Not determined.

‡ Operated as a continuous-record station.

a Approximately.

b Affected by backwater from debris.

c Revised.

d Affected by backwater from Western Run.

e Peak stage did not reach bottom of gage.

f Corrected.

g May have occurred 9-25-75.

h About.

i From floodmarks.

## 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 1975

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Delaware River basin						
Mill Creek	White Clay Creek	Lat 39°46'49", long 75°41'50", New Castle County, at downstream side of bridge on Mill Creek Road, 0.5 miles south of Hockessin, Del.	*3.69	1974	10-21-74 11-12-74 2-04-75 4-07-75 5-20-75	0.88 .52 2.30 2.91 2.36
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 miles northwest of Spring Gap, Md.	--	1958-74	8-27-75	9.78
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 miles southwest of Flintstone, Md.	--	1958-74	8-27-75	1.21
Hoffman Drainage Tunnel	Braddock Run	Lat 39°38', long 78°54', Allegany County, upstream from Highway 55, 0.5 mile southwest of Clarysville, Md., and 2.1 miles southeast of Frostburg, Md.	--	1944, #1958-59, 1964, 1965, 1967-74	8-27-75	16.0

\* 0.15 sq mi is probably noncontributing.

# Measured by Maryland Geological Survey.

## 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 mean sea level, 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 stages at tidal crest-stage partial-record stations

Station No.	Station Name	Location	Period of Record	Date	Annual Maximum Elevation above mean sea level (feet)
01483335	Duck Creek at Smyrna, Del.	Lat 39°18'31", long 75°36'34", Kent County, at bridge, on U.S. Highway 13, on north edge of Smyrna, about 1,000 ft (305 m) north of traffic light at junction of Route 300 and U.S. Highway 13, on downstream right wingwall of bridge.	1966-75	12-01-74	5.11
01484085	Murderkill River at Bowers, Del.	Lat 39°03'30", long 75°23'51", Kent County, at Faulkner's Landing in Bowers, on left bank, 10 ft (3 m) southeast of southeast corner of restaurant on Faulkner's Pier.	1966-75	12-01-74	8.56
01484235	Cedar Creek near Slaughter Beach, Del.	Lat 38°56'06", long 75°19'26", Sussex County, at bridge No. S-164 on State Highway 36, 1.79 mi (2.88 km) northwest of Slaughter Beach, and 6 mi (10 km) from traffic light at junction of state routes 14 and 36 in Milford, Del.	1966-75	12-01-74	5.59
01484595	Indian River at Oak Orchard, Del.	Lat 38°35'45", long 75°10'24", Sussex County, at Hanes Landing, 2.05 mi (3.30 km) southeast of junction of state routes 24 and 5, at Oak Orchard.	1966-75	12-01-74	4.82

## **SECTION 2. WATER QUALITY RECORDS**

## WATER-QUALITY STATION RECORDS

## NORTH ATLANTIC SLOPE BASINS

## DELAWARE BAY

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N. J.

LOCATION.--Lat 39°18'19", long 75°22'37", Cumberland County, water-quality recorder on light ship in bay opposite Bombay Hook Island, Del., and 3.0 miles (4.8 km) south southwest of mouth of Cohansey River, N. J.

PERIOD OF RECORD.--Chemical analyses: April 1969 to September 1975.

Water temperatures: October 1970 to September 1975.

REMARKS.--Missing continuous water-quality records result of malfunction of sensor or sampling mechanism. Observed extremes of specific conductance and water temperature available in the WRD district office at Trenton, N. J.

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25200	18300	22800	27900	22700	25400	---	---	---	22500	16100	19500
2	25100	20500	23200	27600	22700	24900	---	---	---	23000	12800	17400
3	25400	19500	22800	28100	23600	25500	---	---	---	23100	15600	19300
4	26700	18700	23200	27400	23000	25400	---	---	---	22400	16400	20100
5	25700	19600	23300	27100	22500	24800	---	---	---	22200	15800	19600
6	24800	18800	22400	27400	22400	24700	---	---	---	23500	15000	20400
7	25200	18600	22300	28500	23200	25700	---	---	---	23100	15600	19900
8	26900	19800	23000	30900	24300	27600	---	---	---	23300	16900	20400
9	27200	20700	24200	30600	24200	28500	---	---	---	23800	17500	20600
10	26000	19700	24000	31100	26200	29200	---	---	---	24800	16100	21000
11	27600	20400	24100	31100	26700	---	---	---	---	24200	16800	20200
12	26700	19200	24400	---	---	---	23300	14600	---	20600	12700	17400
13	27400	21600	24500	---	---	---	23200	15400	19200	20900	13100	17500
14	28300	22700	25500	---	---	---	23100	14800	19000	18700	10700	15000
15	26700	21200	24100	---	---	---	23000	13700	18900	18000	8920	14000
16	26900	21200	23800	---	---	---	26700	16500	21600	17600	8830	13500
17	27600	21400	23900	---	---	---	20900	12000	17200	14700	8190	12000
18	26400	20800	23300	---	---	---	19000	8610	14100	18300	10100	14100
19	26900	19900	23900	---	---	---	18300	8210	13700	17400	10200	14000
20	25900	20700	23700	---	---	---	17600	10100	13900	17000	11800	14200
21	25600	19600	23100	---	---	---	20400	11800	15900	20100	7590	14900
22	25600	17400	22300	---	---	---	19700	11000	15700	22400	9960	15700
23	25700	17500	22100	---	---	---	20700	10000	16100	21400	11900	17300
24	28100	19600	23600	---	---	---	20800	10800	16800	21900	13400	18800
25	27900	19300	24200	---	---	---	21600	13900	18500	23900	17200	20700
26	26500	20500	23900	---	---	---	22400	14300	19200	23200	14900	18700
27	26400	22400	24400	26500	20000	---	23800	16800	20500	20000	11600	15400
28	27700	23500	25800	27600	23200	---	23500	18200	20400	22200	13600	17500
29	28300	22700	26100	---	---	---	23500	18200	20600	22500	12600	17400
30	27200	23500	25500	---	---	---	23900	17000	20200	17800	10300	14500
31	27900	23500	25500	---	---	---	24000	17000	20200	19600	11300	15700
MONTH	28300	17400	23840	---	---	---	---	---	---	24800	7590	17310

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N.J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19000	11300	15400	13500	4700	8270	15200	6860	11500	23300	16100	19700
2	17300	10700	14500	12100	5120	8540	15900	7690	12600	22200	14900	19400
3	16100	8770	13100	12400	4310	8250	18600	3410	12100	22500	14400	19000
4	17000	8990	13500	12500	6000	9010	16700	3090	9410	22100	14300	18800
5	22500	11700	16700	16900	6480	10800	26500	10900	18500	22400	14100	18900
6	20600	11700	16600	18400	8520	13200	27200	21400	24400	23500	12700	18900
7	20600	12800	16700	18300	10000	14400	29400	22200	25500	21900	13500	18800
8	20000	11600	16700	18700	12000	15000	30400	22600	26200	21900	13400	18400
9	18300	11300	16000	19500	13600	16300	31300	22500	27200	22700	14600	19200
10	20400	13000	16900	21400	12700	18000	30900	25400	28000	23300	14100	19100
11	21800	14500	18500	23000	15600	19600	30600	24800	27200	22700	15900	18400
12	22400	15700	19400	23100	18000	20400	29200	23500	26600	21600	14200	17900
13	20800	12700	17700	22400	17500	20100	28100	22100	25200	21000	13800	16800
14	19300	11300	15700	24200	18300	21300	27100	19200	24400	19400	11300	16300
15	21000	14400	17400	23500	16900	20100	27700	17500	---	20700	12400	16700
16	22100	15200	18900	22200	16200	19300	---	---	---	19300	11900	15600
17	21500	15800	19100	22100	16100	19400	---	---	---	17700	11700	14700
18	23000	15400	19500	23300	14900	19500	---	---	---	18000	11800	14900
19	21400	14000	18800	23500	16800	20200	---	---	---	17500	11400	14900
20	21500	12100	17900	20800	9420	15300	---	---	---	17300	10100	14500
21	22400	11800	18100	16800	8070	12400	22600	17800	---	18200	11100	14900
22	22500	13600	19100	16700	8670	13300	26400	17700	22000	20100	12400	15500
23	23200	14300	19800	17900	6650	13100	26400	18600	22400	20800	12300	15700
24	24300	16300	20300	18700	8020	14300	25100	18400	21900	20400	11400	15500
25	21600	13300	17600	17100	10800	14000	26200	18400	21400	20100	13400	16200
26	16200	5160	11000	15500	6040	10900	24300	16700	20500	20700	13100	16700
27	13600	4340	8060	16500	6740	10700	25700	16100	20300	20000	12400	16300
28	13500	4530	8480	18200	8740	12900	24200	15600	21100	18600	13500	16200
29	---	---	---	19700	10100	14900	24000	15400	20800	20100	12200	16100
30	---	---	---	20400	9960	15000	24800	16100	20500	20100	12400	16500
31	---	---	---	14900	6480	11400	---	---	---	19300	12500	16100
MONTH	24300	4340	16480	24200	4310	14830	31300	3090	---	23500	10100	16990
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18000	10800	15100	21900	13100	16700	21200	10900	16200	26000	21900	24300
2	17600	8240	13900	22500	9810	---	23000	10900	17700	25700	20800	23400
3	20900	9250	15000	---	---	---	23900	13700	19300	25900	20100	22800
4	20800	10600	15800	---	---	---	25100	15400	20600	26200	21300	23500
5	24300	11700	18300	---	---	---	25400	18800	22200	27100	21200	23500
6	23000	15700	19600	---	---	---	25700	19200	22700	25200	20900	23100
7	21800	15000	18800	---	---	---	28100	20100	23500	26400	19900	23100
8	25700	14600	19000	---	---	---	27600	19100	23300	26500	16300	23200
9	26000	15900	20200	---	---	---	27400	20000	23400	26000	19900	22900
10	24000	16200	20500	---	---	---	26900	19600	23300	25900	20700	23200
11	25200	15600	19500	---	---	---	25900	20400	23400	25100	20300	22300
12	23500	14100	18000	---	---	---	26000	21000	23500	23100	18600	21200
13	19500	13000	16600	---	---	---	25900	21000	23600	23500	16900	20400
14	19500	12400	16100	---	---	---	25400	19000	22600	24200	18500	21100
15	19000	12300	15700	---	---	---	24500	18600	---	25600	18600	21700
16	17100	11300	14600	---	---	---	---	---	---	24900	19200	22100
17	16800	11100	14100	---	---	---	---	---	---	24800	19200	22200
18	17300	9880	14100	---	---	---	---	---	---	26200	20300	23200
19	18800	10600	14100	---	---	---	---	---	---	25100	21000	23100
20	20300	10400	13900	---	---	---	---	---	---	23900	19300	22500
21	20300	11300	15100	---	---	---	---	---	---	24600	19300	22200
22	19300	11600	15400	---	---	---	---	---	---	24500	20600	22700
23	18000	10700	14300	18400	9810	---	---	---	---	24300	19800	22400
24	16600	11800	13900	17600	9460	13700	---	---	---	24000	18900	21800
25	17900	11600	14700	17100	9250	13200	---	---	---	23000	17800	20500
26	20100	12200	16100	15600	9880	13100	---	---	---	21400	13500	18500
27	19600	12800	16400	18500	10400	14500	---	---	---	19400	10300	14500
28	20100	11800	16300	18400	9020	14200	---	---	---	18700	7190	12400
29	19500	12500	16300	18400	9630	14500	24200	18300	---	19300	6980	13200
30	20000	14100	16800	19400	10600	15000	23800	18400	21300	19700	9220	14600
31	---	---	---	19500	12100	15500	26700	20800	23400	---	---	---
MONTH	26000	8240	16270	---	---	---	---	---	---	27100	6980	21190

## DELAWARE BAY

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N.J.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N.J.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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



## DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DEL.

LOCATION.--Lat 39°45'39", long 75°31'10", New Castle County, at gaging station 100 ft (30 m) east of intersection of 44th and Pine Streets in Clifton Park, 700 ft (213 m) downstream from highway bridge on North Market Street in Wilmington, 0.2 mile (0.3 km) downstream from Matson Run, and 2.3 miles (3.7 km) upstream from mouth.

DRAINAGE AREA.--7.46 mi<sup>2</sup> (19.32 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1974 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT.							
21...	1155	1.4	249	8.0	4.0	4.5	12.8
NOV.							
11...	1250	1.0	253	7.8	16.0	8.5	12.0
DEC.							
03...	1105	4.3	220	7.4	5.0	7.0	11.2
24...	1330	2.3	257	7.4	5.5	11.5	11.7
JAN.							
13...	1045	36	148	7.6	5.5	3.0	12.6
FEB.							
04...	1010	2.7	309	6.9	.5	-1.5	14.5
25...	1410	16	228	7.2	9.0	11.0	12.1
MAR.							
18...	1215	4.5	252	7.6	6.5	6.5	--
APR.							
07...	1210	3.7	251	7.2	6.0	7.0	14.3
30...	1850	3.8	240	8.7	15.5	16.5	10.5
MAY							
20...	1800	3.7	257	8.5	22.0	26.5	10.1
JUNE							
09...	1455	4.0	269	7.8	19.0	23.0	11.9
30...	1330	3.1	178	7.8	22.0	25.5	10.4
AUG.							
11...	1330	1.4	290	8.3	23.5	26.5	11.1
SEP.							
03...	1350	.77	350	8.0	19.0	21.5	12.0
22...	1145	.90	279	7.6	15.5	18.0	12.9

## 01480000 RED CLAY CREEK AT WOODDALE, DEL.

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

DRAINAGE AREA.--47.0 mi<sup>2</sup> (121.7 km<sup>2</sup>).

PERIOD OF RECORD.--Water temperatures: April 1953 to September 1975.

EXTREMES.--1974-75:

Water temperatures: Maximum, 23.5°C Aug. 4, 26, 27; minimum, freezing point Feb. 10, 14, 15.

Period of record:

Water temperatures: Maximum, 30.5°C July 17, Aug. 2, 6, 1955, July 19, 1963; minimum, freezing point on many days during winter periods.

## CHEMICAL ANALYSIS, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT. 08...	1130	27	303	7.6	12.0	12.0	10.3
NOV. 11...	1640	29	260	8.2	8.5	12.5	11.5
DEC. 19...	1200	66	274	7.5	3.0	3.5	12.6
FEB. 04...	1200	57	285	6.5	1.0	-1.0	13.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

## DELAWARE RIVER BASIN

01480000 RED CLAY CREEK AT WOODDALE, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.

LOCATION.--Lat 39°52'09", long 75°35'35", Delaware County, at gaging station located on left bank 27 ft (8 m) upstream from Pennsylvania Railroad Bridge at Chadds Ford, and 1,200 ft (366 m) downstream from highway bridge on U. S. Highway 1. Sediment samples collected at Pennsylvania Railroad Bridge.

DRAINAGE AREA.--287 mi<sup>2</sup> (743 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: March 1964 to September 1975.

Water temperatures: October 1964 to September 1975.

Sediment records: July 1963 to September 1975.

## EXTREMES.--1974-75:

Specific conductance: Maximum, 370 micromhos Feb. 6; minimum, 136 micromhos Apr. 26.

pH: Maximum, 9.8 April 9; minimum, 6.2 June 6, July 14.

Dissolved oxygen: Maximum, 15.6 mg/l Apr. 5; minimum, 4.7 mg/l July 10.

Water temperatures: Maximum, 24.5°C June 19, 24, 25, Aug. 3, 4; minimum, freezing point Feb. 13, 14.

Sediment concentrations: Maximum daily, 760 mg/l June 6; minimum daily, 1 mg/l Apr. 11-13, 16, 17.

Sediment discharge: Maximum daily, 8,500 tons (7,710 t) July 14; minimum daily, 1.2 tons (1.1 t) Apr. 13.

## Period of record:

Specific conductance (1965-75): Maximum, 445 micromhos Oct. 25, 1971; minimum, 71 micromhos June 23, 1972.

pH (1965-66, 1972-75): Maximum, 9.8 Apr. 9, 1975; minimum, 6.2 June 6, July 14, 1975.

Dissolved oxygen (1971-75): Maximum, 16.5 mg/l Jan. 13, 1973; minimum, 4.7 mg/l July 10, 1975.

Water temperatures: Maximum, 29.0°C Aug. 9, 17, 1965; minimum daily, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 2,000 mg/l (estimated) Feb. 8, 1965; minimum daily, 1 mg/l on many days.

Sediment discharge: Maximum daily, 20,000 tons (18,100 t) (estimated) Feb. 8, 1965; minimum daily, 0 tons (0 t) Oct. 7, 8, 1967.

REMARKS.--Unpublished records of specific conductance, pH, and temperature of sediment samples available in the WRD district office at Harrisburg, Pa. Sediment data from 01481500 Brandywine Creek at Wilmington, Del., are used in computation of sediment records. Streamflow records for the current water year are published in Section 1 of this report.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ORGANIC CARBON (C)	FECAL COLI- FORM (COL. PER 100 ML)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ORGANIC CARBON (C)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.					APR.				
07...	1020	160	--	340	03...	0735	877	2.4	--
15...	1425	156	4.2	260	10...	1330	497	--	E40
22...	0955	172	--	270	17...	0900	475	2.6	--
30...	0910	156	7.0	E110	23...	0920	398	1.7	260
NOV.					30...	0830	569	2.5	520
06...	0800	172	6.4	610	MAY				
13...	1245	318	5.0	--	09...	0805	551	3.3	300
21...	1245	214	3.5	150	15...	0930	514	3.4	500
25...	1200	180	2.8	190	28...	1000	406	3.1	350
DEC.					JUNE				
04...	0835	241	7.5	43000	02...	0830	820	12	310
10...	1500	458	5.3	1600	10...	1130	501	3.2	--
18...	1530	480	4.6	900	18...	0850	597	5.2	3400
27...	1500	304	6.2	44	26...	1500	681	11	385
31...	1045	276	4.4	1500	30...	1330	631	4.6	410
JAN.					JULY				
08...	0815	410	2.7	1600	17...	0900	1280	3.4	350
17...	1400	385	6.8	E75	24...	0800	728	--	E120
30...	1415	463	2.9	700	30...	1500	514	2.4	270
FEB.					AUG.				
04...	1115	406	1.8	1800	04...	1600	450	1.6	E120
12...	0900	406	--	1700	13...	1000	402	1.0	--
19...	0900	765	--	--	20...	1130	398	--	570
28...	1320	607	2.2	E65	26...	1100	351	1.1	360
MAR.					SEP.				
12...	1500	450	1.6	340	03...	1230	281	1.0	485
21...	0950	1210	4.1	--	10...	1130	259	1.1	E110
26...	0855	843	5.2	--	17...	0800	259	2.0	290

E ESTIMATED.

## DELAWARE RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	257	218	246	318	299	311	267	258	262	330	249	261
2	279	255	269	314	297	302	267	214	236	342	236	269
3	283	277	280	300	287	294	232	217	221	242	235	238
4	291	277	284	292	280	286	251	234	245	259	243	252
5	293	279	284	292	277	282	261	248	256	258	249	253
6	291	285	287	291	282	286	269	253	261	260	246	253
7	287	276	281	294	280	286	284	262	274	332	243	259
8	292	278	283	298	291	294	273	141	196	332	245	262
9	296	284	290	298	285	289	209	160	191	247	190	219
10	297	288	292	293	283	289	232	209	219	227	190	208
11	302	290	295	289	271	278	262	233	241	240	228	234
12	302	286	296	279	268	276	265	240	252	245	234	240
13	305	287	295	273	247	261	297	246	253	237	224	233
14	288	276	282	263	253	257	292	250	262	340	231	276
15	291	277	284	272	261	267	269	255	262	277	256	265
16	298	237	263	280	264	271	284	148	218	269	256	262
17	237	216	224	277	272	274	184	148	165	268	256	261
18	252	229	242	273	262	266	221	186	206	266	224	252
19	281	252	267	285	266	272	233	222	228	301	220	242
20	281	274	278	283	274	278	237	234	235	296	219	243
21	281	270	274	284	268	275	243	238	240	266	246	259
22	284	273	---	277	270	275	241	234	237	273	255	261
23	---	---	---	276	265	269	241	233	237	303	259	282
24	295	285	---	274	266	268	250	237	243	268	262	265
25	300	288	293	274	262	266	243	237	240	279	252	258
26	296	283	289	275	261	267	243	231	238	273	221	238
27	298	286	291	274	270	272	245	237	240	242	228	233
28	296	283	286	278	265	271	249	238	---	248	242	245
29	294	277	283	274	270	272	---	---	---	259	244	248
30	297	285	292	272	257	263	---	---	---	284	259	270
31	315	288	297	---	---	---	266	252	---	286	277	280
MONTH	315	216	280	318	247	277	297	141	235	342	190	252
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	322	282	294	256	251	254	235	229	232	221	212	217
2	315	282	291	255	249	252	233	229	231	212	202	206
3	290	277	281	258	249	251	296	215	234	216	211	212
4	286	277	283	264	255	258	231	212	217	218	196	209
5	304	258	280	266	256	262	247	217	233	209	187	197
6	370	301	335	263	256	260	251	225	231	222	212	218
7	340	278	296	263	257	260	245	219	233	231	216	222
8	277	268	272	266	261	263	310	224	242	235	225	230
9	274	266	269	264	258	261	262	231	237	243	236	240
10	280	270	274	267	258	263	237	223	230	241	236	238
11	276	268	272	283	263	268	230	222	225	239	230	236
12	276	263	269	279	263	267	231	220	225	239	230	236
13	289	266	277	271	251	260	232	225	228	238	215	228
14	319	286	295	263	248	252	232	221	226	232	213	223
15	329	299	308	364	263	312	238	227	233	240	230	236
16	313	294	300	284	245	267	237	223	229	237	210	227
17	323	299	313	255	245	251	228	223	226	230	209	219
18	303	281	296	255	250	252	233	227	230	238	229	234
19	278	252	260	255	141	225	233	226	230	239	230	236
20	254	245	249	202	139	164	228	221	224	250	239	246
21	262	253	257	226	204	220	225	219	223	250	237	244
22	267	260	263	230	227	228	233	222	227	246	214	227
23	265	240	254	232	228	230	233	225	228	252	225	240
24	247	203	234	231	228	---	238	221	233	254	250	252
25	225	186	205	---	---	---	215	157	192	256	250	252
26	246	226	238	229	227	---	181	136	157	265	244	251
27	275	241	250	233	230	232	204	186	197	266	259	262
28	303	252	275	233	231	232	216	204	208	264	258	261
29	---	---	---	236	231	233	217	212	215	265	260	263
30	---	---	---	233	220	230	218	213	216	271	260	267
31	---	---	---	232	221	224	---	---	---	267	233	257
MONTH	370	186	275	364	139	248	310	136	223	271	187	235

## DELAWARE RIVER BASIN

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01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	223	221	---	232	223	227	252	246	250	280	270	274
2	198	178	---	242	232	236	253	248	250	282	266	270
3	212	199	206	243	233	239	253	250	252	276	267	270
4	216	201	206	241	227	234	253	238	249	296	276	283
5	215	204	210	235	231	233	253	236	243	292	274	284
6	---	---	---	239	232	236	253	244	250	286	280	282
7	---	---	---	238	233	236	262	253	258	282	272	278
8	---	---	---	246	236	242	260	249	254	282	272	277
9	257	254	---	248	241	244	264	256	260	279	268	274
10	261	255	258	245	237	242	262	257	260	285	276	280
11	261	257	259	256	237	245	264	254	259	287	274	280
12	260	204	232	256	244	---	262	256	259	285	278	282
13	205	170	190	---	---	---	264	258	261	281	220	241
14	255	209	232	---	---	---	266	259	262	270	238	262
15	277	239	254	---	---	---	261	254	257	277	266	272
16	259	246	252	---	---	---	263	248	256	290	272	279
17	247	221	235	213	210	---	251	232	240	294	285	291
18	236	220	226	220	213	216	255	244	249	297	285	292
19	238	232	235	223	217	219	260	257	258	289	280	283
20	237	229	232	230	220	225	264	260	---	284	256	269
21	262	231	248	---	---	---	---	---	---	284	166	201
22	300	245	286	---	---	---	---	---	---	241	208	229
23	300	235	246	---	---	---	---	---	---	244	188	210
24	250	235	242	240	233	---	---	---	---	209	187	199
25	278	231	248	---	---	---	---	---	---	218	184	199
26	300	228	247	---	---	---	280	266	---	235	221	226
27	240	222	230	---	---	---	273	266	269	242	228	232
28	240	180	206	---	---	---	277	270	273	252	237	246
29	200	160	184	---	---	---	283	276	280	262	252	256
30	220	197	209	252	249	---	292	275	281	266	261	262
31	---	---	---	253	247	250	285	277	280	---	---	---
MONTH	300	160	232	---	---	---	292	232	---	297	166	259

PH (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

## DELAWARE RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

PM (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	7.0	7.1	7.4	7.2	7.3	8.3	8.1	8.2	7.6	7.2	7.3
2	7.2	7.0	7.1	7.5	7.2	7.3	8.6	8.1	8.3	7.6	7.1	7.3
3	7.2	7.0	7.1	7.6	7.3	7.4	8.3	7.8	7.9	8.1	7.1	7.5
4	7.2	7.1	7.1	7.7	7.5	7.5	8.0	7.8	7.9	7.5	7.0	7.2
5	7.4	7.0	7.2	7.6	7.1	7.4	8.5	7.8	8.0	7.4	7.1	7.2
6	7.5	7.2	7.3	7.5	7.2	7.3	8.4	6.9	8.0	7.5	7.1	7.3
7	7.7	7.3	7.4	7.4	7.2	7.3	8.5	7.8	8.1	7.5	7.1	7.3
8	7.5	7.3	7.4	7.7	7.2	7.4	9.5	7.8	8.5	7.9	7.1	7.4
9	7.5	7.3	7.4	7.7	7.4	7.6	9.8	8.4	9.1	8.0	7.2	7.6
10	7.5	7.3	7.4	7.6	7.3	7.4	9.3	7.6	8.5	7.6	7.2	---
11	7.5	7.3	7.4	7.8	7.3	7.5	8.3	7.1	7.7	---	---	---
12	7.4	7.1	7.3	7.6	7.2	7.4	8.4	7.1	7.8	---	---	---
13	7.5	7.2	7.4	8.4	7.2	7.7	8.5	7.2	7.9	---	---	---
14	7.5	7.3	7.4	8.2	7.2	7.5	8.9	7.3	8.2	---	---	---
15	7.5	7.3	7.4	7.7	7.2	7.4	8.7	7.6	8.0	---	---	---
16	7.6	7.2	7.4	7.6	7.2	7.4	8.8	7.4	8.1	---	---	---
17	7.5	7.2	7.4	8.4	7.2	7.7	8.7	7.8	---	---	---	---
18	7.3	7.1	7.2	8.5	7.3	7.9	---	---	---	---	---	---
19	7.3	6.9	7.1	8.3	7.0	7.6	---	---	---	7.7	7.1	---
20	7.3	7.1	7.2	7.6	7.3	7.4	---	---	---	7.8	7.0	7.3
21	7.5	7.2	7.3	7.9	7.6	7.8	---	---	---	7.4	7.0	7.2
22	7.5	7.2	7.3	7.9	7.7	7.8	---	---	---	7.0	6.7	6.9
23	7.4	7.0	7.1	8.0	7.0	7.9	---	---	---	7.5	7.0	7.1
24	7.0	6.8	6.9	7.9	7.8	---	---	---	---	7.5	7.1	7.2
25	7.0	6.8	6.9	---	---	---	7.9	7.1	7.7	7.2	6.8	7.0
26	7.1	7.0	7.1	8.2	7.8	---	7.6	7.4	7.4	7.3	6.7	7.0
27	7.2	7.0	7.1	8.1	8.0	8.1	7.8	7.5	7.6	7.7	7.0	7.2
28	7.4	7.1	7.2	8.1	8.0	8.0	7.6	7.2	7.4	7.8	7.1	7.4
29	---	---	---	8.3	7.8	8.0	7.3	7.0	7.2	7.9	7.2	7.5
30	---	---	---	8.3	8.2	8.2	8.2	7.0	7.4	7.5	7.1	7.2
31	---	---	---	8.4	8.2	8.3	---	---	---	7.1	6.9	7.0
MONTH	7.7	6.8	7.2	8.5	7.0	7.6	---	---	---	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	6.6	---	7.5	7.1	7.4	9.0	7.5	8.2	7.7	7.3	7.4
2	6.7	6.4	---	7.5	7.3	7.4	9.1	7.5	8.2	7.8	7.3	7.5
3	6.9	6.7	6.8	7.5	7.3	7.4	9.1	7.5	8.3	7.9	7.4	7.6
4	6.9	6.7	6.8	7.5	7.4	7.4	9.3	7.5	8.4	7.7	7.3	7.5
5	6.9	6.3	6.7	7.7	7.4	7.5	8.3	7.4	7.8	7.9	7.3	7.6
6	6.6	6.2	6.4	7.7	7.5	7.6	7.6	7.4	7.5	7.6	7.2	7.4
7	6.9	6.6	6.8	7.8	7.3	7.5	7.8	7.4	7.6	7.7	7.2	7.4
8	7.0	6.9	6.9	7.9	7.3	7.6	8.1	7.4	7.7	7.8	7.2	7.5
9	7.0	6.9	7.0	7.7	7.3	7.5	8.3	7.4	7.8	8.0	7.3	7.6
10	7.4	6.8	7.2	7.5	7.2	7.3	8.5	7.5	7.9	8.2	7.3	7.7
11	7.7	7.3	7.5	7.6	7.0	7.2	8.5	7.4	7.8	8.2	7.4	7.8
12	7.4	7.0	7.2	7.5	7.1	7.3	8.6	7.5	7.9	8.4	7.7	8.0
13	7.2	6.9	7.1	7.3	6.5	6.7	8.5	7.3	7.9	7.6	7.2	7.3
14	7.5	7.1	7.3	6.7	6.2	6.4	8.0	7.5	7.7	7.6	7.3	7.4
15	7.5	7.3	7.4	6.8	6.4	6.6	8.2	7.5	7.8	7.8	7.4	7.6
16	7.6	7.4	7.4	7.0	6.7	6.9	8.3	7.9	8.1	7.8	7.5	7.6
17	7.8	7.2	7.6	7.5	7.0	7.1	8.7	8.1	8.4	8.1	7.5	7.8
18	7.7	7.3	7.5	7.2	7.0	7.1	8.7	7.8	8.3	8.1	7.6	7.8
19	7.6	7.3	7.4	7.1	7.0	7.1	8.2	7.4	7.8	8.0	7.4	7.6
20	7.5	7.2	7.3	7.1	7.0	7.1	7.8	6.9	7.3	7.7	7.2	7.4
21	7.6	7.2	7.4	7.0	6.7	---	7.3	6.8	7.0	7.5	6.9	7.1
22	7.7	7.3	7.4	7.2	7.0	7.1	7.3	6.9	7.0	7.4	7.1	7.3
23	7.9	7.2	7.5	7.3	7.1	7.1	7.5	6.9	7.1	7.4	7.0	7.1
24	8.2	7.3	7.6	7.4	7.1	7.3	7.1	6.8	6.9	7.1	6.9	7.0
25	7.8	7.1	7.4	7.4	6.9	7.1	7.3	6.8	7.0	7.0	6.7	6.9
26	7.5	7.1	7.3	7.5	7.2	7.3	7.9	6.8	7.3	7.3	6.8	7.0
27	7.3	7.2	7.3	7.5	7.3	7.4	7.9	7.3	7.6	7.3	7.1	7.2
28	7.4	7.2	7.3	7.7	7.3	7.4	7.9	7.3	7.6	7.2	7.1	7.2
29	7.5	7.2	7.4	7.9	7.3	7.5	8.0	7.3	7.6	7.3	7.1	7.2
30	7.5	7.2	7.4	8.5	7.3	7.8	7.7	7.3	7.5	7.3	7.2	7.2
31	---	---	---	8.7	7.5	8.0	7.5	7.3	7.4	---	---	---
MONTH	8.2	6.2	7.2	8.7	6.2	7.3	9.3	6.8	7.7	8.4	6.7	7.4

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.1	8.2	8.7	7.8	6.4	6.9	---	---	---	---	---	---
2	9.8	9.0	9.4	7.1	6.0	6.4	12.1	10.8	11.5	10.7	10.7	---
3	10.7	9.7	10.2	---	---	---	12.0	10.9	11.5	11.9	10.8	11.5
4	11.2	10.6	10.9	---	---	---	12.9	12.1	---	11.2	10.7	---
5	10.9	10.1	10.5	---	---	---	11.3	10.8	11.1	11.0	10.8	---
6	10.4	9.4	10.0	8.9	7.7	---	11.4	10.8	11.1	11.9	11.0	11.5
7	10.2	9.1	9.6	10.1	8.5	9.4	11.3	11.0	---	11.2	10.7	---
8	10.5	9.1	9.8	11.3	9.5	10.4	---	---	---	12.9	11.9	---
9	11.0	9.4	10.1	11.9	10.2	11.0	---	---	---	12.3	11.0	11.8
10	11.2	9.5	10.2	12.4	10.8	11.5	12.6	11.8	---	12.9	12.1	12.6
11	11.2	9.4	10.1	12.9	11.0	11.9	12.9	12.2	12.6	12.3	10.6	11.4
12	11.0	9.0	9.8	12.1	9.9	11.2	12.5	10.9	11.6	11.5	10.6	11.1
13	9.8	8.4	8.9	10.7	9.0	10.0	11.5	10.1	10.6	12.0	11.4	---
14	9.2	8.0	8.4	11.8	10.4	11.1	10.1	9.7	9.9	11.4	10.8	---
15	9.9	7.7	8.7	12.5	10.8	11.8	10.7	9.9	10.4	11.8	11.6	---
16	9.2	8.3	8.7	13.4	12.1	12.8	10.3	9.4	---	11.9	11.3	---
17	9.6	9.2	9.4	14.0	12.9	13.3	---	---	---	14.0	11.4	12.9
18	10.2	9.1	9.7	14.1	12.9	13.4	10.4	10.2	---	14.3	13.3	13.9
19	13.1	10.2	11.7	13.2	11.8	12.6	10.8	10.3	10.6	13.7	13.2	---
20	13.9	12.8	13.3	11.7	9.5	10.6	10.6	10.2	10.4	---	---	---
21	13.6	12.4	12.9	11.0	9.2	10.2	11.0	9.8	10.2	14.7	10.7	11.2
22	12.9	12.3	---	12.9	10.8	12.1	11.1	9.8	10.1	12.9	12.4	---
23	---	---	---	14.4	12.7	13.6	10.9	10.4	10.6	12.7	12.2	12.5
24	11.3	10.6	---	14.3	12.9	13.7	11.0	9.4	10.0	12.7	12.1	12.3
25	10.8	9.8	10.4	13.9	12.0	12.8	9.4	9.1	---	12.0	10.9	11.5
26	10.1	9.4	9.7	13.8	12.0	---	---	---	---	12.2	11.0	11.7
27	10.1	9.2	9.5	11.8	10.7	11.2	12.3	11.8	---	12.7	12.1	12.5
28	10.0	9.1	9.5	11.4	10.7	---	12.1	11.5	---	12.6	12.1	12.5
29	9.7	8.4	9.0	11.0	10.7	---	---	---	---	12.0	10.9	11.5
30	8.8	7.7	8.2	11.3	10.7	---	---	---	---	12.3	10.9	11.6
31	7.9	6.8	7.3	---	---	---	---	---	---	13.0	12.0	12.5
MONTH	13.9	6.8	9.8	14.4	6.0	---	---	---	---	14.7	10.6	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.3	11.7	12.0	12.1	10.4	11.6	10.6	9.2	10.0
2	---	---	---	13.0	11.9	12.4	11.4	10.0	10.6	11.4	10.4	10.8
3	10.8	10.7	---	12.8	12.7	---	11.7	9.7	10.5	11.6	9.8	10.5
4	11.7	10.8	---	---	---	---	14.3	11.8	13.5	9.9	8.7	9.4
5	12.0	11.1	11.5	13.3	12.3	---	15.6	13.9	14.9	10.5	10.0	10.2
6	11.9	10.8	11.2	12.5	11.4	12.2	14.5	13.2	14.0	11.0	9.7	10.3
7	13.5	11.9	12.9	11.8	10.8	11.3	14.4	12.3	13.6	10.3	9.4	9.8
8	13.3	12.7	13.0	11.6	10.3	11.0	14.0	11.7	12.9	10.7	8.5	9.7
9	14.4	13.1	13.9	13.7	11.4	12.8	13.5	11.4	12.4	9.7	8.6	---
10	13.8	12.9	13.4	13.9	12.8	13.4	13.5	11.3	12.3	---	---	---
11	12.8	12.2	---	13.3	11.9	12.8	14.2	11.7	12.8	---	---	---
12	12.9	12.6	---	11.8	11.0	11.4	13.5	11.2	12.3	---	---	---
13	---	---	---	11.4	10.5	10.8	13.5	11.1	12.3	---	---	---
14	11.0	10.8	---	11.9	10.5	11.1	14.7	11.3	13.0	---	---	---
15	---	---	---	12.6	11.7	12.2	12.8	10.8	11.9	---	---	---
16	---	---	---	12.4	11.4	11.9	13.7	11.5	12.5	---	---	---
17	11.9	11.0	11.5	11.8	10.8	11.3	13.2	10.6	11.7	---	---	---
18	11.1	10.5	10.8	11.5	10.5	---	12.5	9.7	11.1	---	---	---
19	11.9	10.8	11.5	---	---	---	11.4	9.5	10.5	---	---	---
20	13.0	11.9	12.5	---	---	---	12.7	9.6	11.1	---	---	---
21	13.5	12.4	13.0	11.2	10.5	---	13.7	10.6	12.0	---	---	---
22	13.4	12.1	12.8	10.7	10.1	10.5	14.3	10.7	12.4	---	---	---
23	11.9	10.2	11.1	10.6	10.0	10.3	14.0	10.5	11.9	---	---	---
24	10.3	9.7	10.2	10.5	10.1	---	11.1	9.2	10.2	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	12.1	10.9	11.5	---	---	---	---	---	---
27	---	---	---	13.6	12.2	12.9	---	---	---	---	---	---
28	12.6	11.9	---	13.6	12.5	13.1	11.3	10.3	---	9.4	7.6	---
29	---	---	---	12.5	11.3	12.1	11.2	9.9	10.5	9.4	7.9	8.5
30	---	---	---	11.3	10.7	11.0	11.8	10.0	10.9	8.4	7.9	---
31	---	---	---	12.8	11.2	12.1	---	---	---	---	---	---
MONTH	---	---	---	13.9	10.0	---	15.6	9.2	12.1	---	---	---



## DELAWARE RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	7.6	7.3	7.4	9.2	8.2	8.7	9.4	9.1	9.3
2	9.3	8.0	---	7.5	6.8	7.2	8.6	7.8	8.2	9.4	8.6	9.1
3	8.3	7.5	7.9	6.8	6.4	6.7	8.3	7.3	7.8	9.3	8.7	9.0
4	7.8	7.5	7.6	6.6	6.3	6.5	8.0	7.1	7.6	9.5	9.1	9.3
5	7.7	7.1	7.4	6.3	6.0	6.2	7.7	7.0	7.3	9.7	8.7	9.2
6	7.6	7.2	7.4	6.0	5.8	5.9	7.8	7.1	7.3	9.0	8.6	8.8
7	8.4	7.4	7.8	6.1	5.7	5.9	9.0	7.9	8.4	9.2	8.8	9.0
8	9.1	8.2	8.7	5.9	5.4	5.6	9.3	8.2	8.8	9.3	8.6	9.0
9	9.3	8.3	---	5.4	4.9	5.1	8.3	7.7	8.0	9.0	8.4	8.7
10	---	---	---	5.7	4.7	5.1	8.2	7.8	8.0	9.9	8.6	9.1
11	11.7	11.1	---	5.8	5.3	5.5	7.8	7.3	7.6	9.6	9.1	9.4
12	11.9	11.2	11.5	---	---	---	7.5	6.9	7.3	9.2	8.2	8.7
13	11.7	11.1	11.4	---	---	---	7.7	7.0	7.4	9.4	8.6	9.0
14	11.7	11.0	11.4	---	---	---	7.7	7.1	7.4	10.4	9.5	9.9
15	11.2	10.6	10.8	---	---	---	7.4	7.1	7.2	10.5	9.8	10.1
16	10.9	10.1	10.5	---	---	---	7.8	7.2	7.5	10.2	9.1	9.7
17	10.4	10.0	10.2	---	---	---	8.0	7.8	7.9	9.4	8.3	8.8
18	10.1	8.7	9.4	---	---	---	8.1	7.2	7.6	8.7	8.3	8.5
19	8.8	7.8	8.2	---	---	---	7.7	7.1	7.4	8.4	7.9	8.1
20	7.6	7.2	7.4	---	---	---	7.6	7.2	7.4	7.9	7.2	7.6
21	7.4	6.8	7.1	2.2	---	---	8.2	7.5	7.9	7.8	7.2	7.5
22	7.7	7.0	7.4	---	---	---	7.8	7.3	7.6	8.4	7.9	8.1
23	9.6	6.8	8.3	---	---	---	7.8	7.3	7.5	8.8	8.2	8.7
24	9.5	8.1	8.7	7.9	7.7	---	7.8	7.4	7.6	8.9	8.8	8.8
25	8.2	7.1	7.6	8.1	7.8	7.9	7.6	7.2	---	9.2	8.8	9.0
26	7.6	6.4	7.1	8.5	7.9	8.2	7.8	7.3	---	9.0	7.8	8.4
27	8.0	7.3	7.7	8.7	8.0	---	7.7	7.2	7.4	8.2	7.8	8.0
28	8.2	7.2	7.7	---	---	---	8.0	7.5	7.8	8.8	8.2	8.5
29	8.0	7.0	7.5	---	---	---	8.4	7.9	8.1	9.5	8.7	9.0
30	7.6	7.2	7.4	9.8	9.1	---	8.3	8.1	8.2	9.5	8.6	9.0
31	---	---	---	10.1	8.7	9.4	9.1	8.2	8.6	---	---	---
MONTH	11.9	6.4	8.6	---	---	---	9.3	6.9	7.8	10.5	7.2	8.8

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.0	4.0	4.0	6.0	5.0	5.5	11.5	7.0	9.5	15.0	11.5	13.5
2	4.5	3.5	4.0	5.5	4.5	5.0	12.0	10.0	11.0	13.0	11.0	12.0
3	4.0	2.0	3.5	4.5	3.0	3.5	11.5	8.0	10.5	15.5	11.5	13.5
4	3.0	1.5	2.0	4.0	1.5	3.0	7.0	4.0	5.0	15.5	12.0	14.0
5	3.0	1.0	2.0	6.0	3.0	4.5	5.5	3.0	4.5	13.5	11.5	12.5
6	5.0	3.5	4.0	8.0	5.0	6.5	8.0	4.0	5.5	14.0	11.5	13.0
7	5.5	4.0	5.0	8.5	7.0	8.0	8.0	5.0	6.5	15.5	13.0	14.0
8	4.0	2.0	3.0	9.0	7.0	8.5	9.5	6.5	8.0	17.0	13.5	15.5
9	3.5	2.0	3.0	7.0	4.0	5.5	10.5	8.0	9.5	16.5	14.0	15.0
10	2.0	1.0	1.5	5.0	4.0	4.5	10.0	8.5	9.5	16.0	13.5	14.5
11	3.0	1.5	2.0	6.5	4.5	5.5	10.0	7.0	8.5	16.0	13.5	15.0
12	3.0	0.5	2.0	7.0	5.5	6.5	10.5	8.5	9.5	16.0	14.0	15.5
13	1.5	0.0	1.0	9.5	7.0	8.0	10.5	8.5	9.5	16.0	15.0	15.5
14	1.5	0.0	1.0	9.0	5.0	6.5	10.5	8.0	9.5	17.0	14.5	15.5
15	2.0	0.5	1.5	6.5	4.5	5.5	10.5	9.0	9.5	19.5	16.0	18.0
16	5.0	3.0	4.0	6.5	5.5	6.0	11.0	8.5	9.5	19.0	18.0	18.5
17	5.5	4.5	5.0	9.5	6.5	8.0	14.0	10.0	12.0	19.0	16.5	18.0
18	6.0	5.0	5.5	9.0	6.5	8.0	13.5	11.5	12.5	18.5	17.0	17.5
19	6.5	5.5	6.0	10.5	9.0	9.5	14.0	12.0	13.5	19.5	16.0	18.0
20	5.5	4.5	5.0	10.5	9.5	10.0	13.5	11.5	12.5	21.0	18.0	19.5
21	5.5	4.0	5.0	9.5	8.0	9.0	12.0	10.0	11.0	21.5	19.5	20.5
22	6.5	4.5	5.5	10.5	9.0	9.5	13.0	9.5	11.5	22.0	20.0	21.0
23	8.5	6.0	7.0	10.0	9.0	---	14.0	10.5	12.5	23.5	21.0	22.0
24	9.0	8.5	8.5	---	---	---	14.5	13.5	14.0	24.0	21.0	22.5
25	8.5	8.0	8.5	---	---	---	15.0	11.5	14.0	23.0	18.0	20.0
26	7.0	6.0	6.5	9.0	8.0	---	14.5	11.5	13.5	18.0	16.5	17.0
27	6.0	5.0	5.5	8.0	5.5	6.5	14.0	11.5	13.0	21.0	17.0	19.5
28	6.0	4.5	5.5	7.0	5.5	6.5	13.5	11.0	12.0	21.0	18.5	20.0
29	---	---	---	10.0	7.0	8.0	12.0	11.5	11.5	20.5	18.0	19.5
30	---	---	---	10.5	9.5	10.0	15.0	11.0	13.0	19.5	18.5	19.0
31	---	---	---	9.0	6.5	8.0	---	---	---	19.5	18.0	19.0
MONTH	9.0	0.0	4.0	10.5	1.5	7.0	15.0	3.0	10.5	24.0	11.0	17.0
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.5	19.0	19.5	21.0	19.0	20.0	23.5	20.5	22.0	16.0	15.5	16.0
2	20.5	18.0	19.5	22.0	19.0	20.5	24.0	21.5	23.0	17.0	15.5	16.0
3	20.5	19.0	20.0	23.0	20.0	21.5	24.5	22.0	23.5	18.0	16.0	17.0
4	20.5	18.5	19.5	21.5	20.0	21.0	24.5	23.0	23.5	16.5	16.0	16.5
5	19.5	17.0	18.5	22.0	20.0	21.0	24.0	21.5	23.0	18.0	15.5	16.5
6	19.0	16.5	18.0	21.0	20.0	21.0	23.0	19.5	21.5	18.0	16.5	17.5
7	19.0	17.0	18.0	22.0	20.0	21.0	19.5	18.0	18.5	17.0	16.5	16.5
8	17.0	15.5	16.5	23.0	21.0	22.0	19.0	16.0	17.5	18.0	16.0	17.0
9	20.5	15.0	16.0	23.0	21.0	21.5	20.5	18.0	19.5	18.0	16.5	17.0
10	16.5	14.5	15.5	23.0	20.5	21.5	20.0	18.5	19.5	16.5	15.0	15.5
11	16.0	14.5	15.5	23.0	21.0	21.5	21.0	19.5	20.0	15.5	14.0	15.0
12	15.5	14.5	15.0	22.0	21.0	21.5	22.0	19.5	21.0	17.0	15.0	16.0
13	18.0	15.0	16.0	21.5	20.0	20.5	22.0	20.5	21.5	16.0	14.5	15.5
14	18.5	16.0	17.0	21.5	20.0	21.0	22.0	20.5	21.5	14.5	12.0	13.5
15	19.0	16.5	18.0	21.5	20.5	21.0	21.5	20.5	21.0	13.0	11.5	12.0
16	19.0	18.0	18.5	21.5	20.0	20.5	21.5	19.5	20.5	13.0	11.5	12.5
17	19.0	17.0	17.5	22.0	20.5	21.5	19.5	19.0	19.0	15.5	12.0	14.0
18	23.5	19.0	21.0	23.5	21.0	22.0	21.0	18.5	19.5	15.5	15.0	15.5
19	24.5	21.5	23.0	23.0	21.5	22.0	21.0	19.5	20.5	16.5	15.5	16.0
20	24.0	22.0	23.0	23.0	21.5	22.5	21.5	19.5	20.5	18.0	16.0	17.0
21	23.0	21.0	22.0	24.0	21.5	22.5	21.0	19.5	20.0	18.0	16.5	17.0
22	22.0	20.0	21.0	23.5	21.5	22.5	21.5	20.0	21.0	16.0	15.0	15.5
23	23.5	20.0	21.5	23.0	20.5	22.0	21.5	20.0	21.0	15.5	14.5	14.5
24	24.5	21.5	23.0	23.5	21.0	22.0	21.0	20.0	20.5	14.5	14.0	14.5
25	24.5	22.0	23.5	23.0	21.0	22.0	23.0	20.5	21.5	15.0	14.0	14.5
26	23.5	20.0	21.5	21.0	19.5	20.5	22.0	20.5	21.5	18.0	15.0	16.5
27	20.0	18.5	19.5	21.0	19.0	20.0	21.5	20.5	21.0	18.0	17.0	17.5
28	20.5	19.5	20.0	22.0	19.5	20.5	20.5	19.5	20.0	17.0	15.5	16.0
29	21.5	20.5	21.0	23.0	20.0	21.5	19.5	18.0	19.0	16.0	14.5	15.5
30	21.5	20.5	21.0	21.5	20.0	21.0	19.0	18.5	19.0	16.0	14.5	15.5
31	---	---	---	22.0	19.5	21.0	18.5	16.0	17.5	---	---	---
MONTH	24.5	14.5	19.5	24.0	19.0	21.5	24.5	16.0	20.5	18.0	11.5	15.5

## DELAWARE RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	223	25	15	161	6	2.6	161	6	2.6
2	201	16	8.7	160	9	3.9	502	80	108
3	193	20	10	189	9	4.6	342	30	28
4	176	19	9.0	169	12	5.5	239	8	5.2
5	172	16	7.4	168	14	6.4	203	5	2.7
6	168	17	7.7	164	10	4.4	192	4	2.1
7	164	20	8.9	164	10	4.4	191	3	1.5
8	156	15	6.3	155	8	3.3	2310	635	5400
9	151	11	4.5	154	5	2.1	1140	175	539
10	156	13	5.5	153	4	1.7	478	35	45
11	144	16	6.2	151	6	2.4	395	15	16
12	147	14	5.6	178	10	4.8	356	9	8.7
13	147	11	4.4	327	20	18	340	12	11
14	147	15	6.0	210	7	4.0	329	8	7.1
15	147	17	6.7	194	7	3.7	310	7	5.9
16	555	80	120	185	9	4.5	1250	190	850
17	463	40	50	177	6	2.9	1290	120	418
18	254	21	14	168	9	4.1	504	28	38
19	210	16	9.1	169	8	3.7	427	12	14
20	197	23	12	172	8	3.7	396	12	13
21	188	20	10	203	7	3.8	371	9	9.0
22	176	16	7.6	194	5	2.6	353	8	7.6
23	180	14	6.8	173	6	2.8	330	5	4.5
24	197	12	6.4	172	9	4.2	324	9	7.9
25	170	12	5.5	172	5	2.3	321	8	6.9
26	171	13	6.0	185	9	4.5	308	8	6.7
27	169	14	6.4	165	6	2.7	295	6	4.8
28	162	13	5.7	172	5	2.3	291	6	4.7
29	162	10	4.4	162	8	3.5	280	4	3.0
30	158	8	3.4	156	10	4.2	283	5	3.8
31	182	8	3.9	---	---	---	279	5	3.8
TOTAL	6086	---	383.1	5322	---	123.6	14790	---	7578.5
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	392	10	11	475	6	7.7	568	12	18
2	409	12	13	463	6	7.5	534	9	13
3	323	7	6.1	446	6	7.2	507	5	6.8
4	311	6	5.0	434	6	7.0	476	4	5.1
5	295	6	4.8	440	5	6.5	462	6	7.5
6	281	5	3.8	519	13	18	457	4	4.9
7	467	18	23	551	19	28	456	3	3.7
8	391	13	14	480	9	12	464	4	5.0
9	951	90	250	458	4	4.9	427	3	3.5
10	531	52	75	426	3	3.5	423	3	3.4
11	474	25	32	426	4	4.6	440	5	5.9
12	443	20	24	442	4	4.8	478	9	12
13	571	25	39	438	5	5.9	555	13	19
14	610	28	46	410	6	6.6	550	14	21
15	520	13	18	410	6	6.6	613	10	17
16	460	6	7.5	426	3	3.5	619	6	10
17	390	7	7.4	475	8	10	537	3	4.4
18	583	40	63	754	28	57	504	4	5.4
19	800	60	130	787	20	42	1760	180	2000
20	1040	70	197	636	10	17	4730	380	6100
21	578	22	34	519	6	8.4	1190	38	122
22	523	13	14	488	5	6.6	956	24	62
23	501	11	15	803	85	180	873	15	35
24	493	11	15	1340	190	800	944	42	107
25	461	18	32	1910	330	1900	1180	80	255
26	424	75	187	806	68	148	820	27	60
27	569	24	37	663	25	45	714	12	23
28	519	17	24	601	14	23	689	11	20
29	519	13	18	---	---	---	680	6	11
30	506	12	16	---	---	---	869	25	59
31	484	8	10	---	---	---	734	15	30
TOTAL	16519	---	1375.6	17066	---	3371.3	25209	---	9049.6

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01481000 BRANDYWINE CREEK AT CHADDS FORD. PA.--Continued

TOTAL DISCHARGE FOR YEAR (FT<sup>3</sup>/S-DAYS) 214462 TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 67557.1

## DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, at gaging station on right bank in Rockford Park, 0.2 mile (0.3 km) downstream from Henry Clay Bridge, in Wilmington, and 4.2 miles (6.8 km) upstream from mouth. Sediment samples are collected at the Henry Clay Bridge.

DRAINAGE AREA.--314 mi<sup>2</sup> (813 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1950, November 1951 to September 1952, October 1956 to September 1975.

Water temperatures: November 1956 to September 1961, February 1971 to September 1973, October 1974 to September 1975.

Sediment records: December 1946 to September 1961, July 1962 to September 1975.

EXTREMES, --1974-75:

Sediment concentrations: Maximum daily, 780 mg/l June 6; minimum daily, 1 mg/l Apr. 12, 14.

Sediment discharge: Maximum daily, 9,000 tons (8,160 t) Mar. 20, minimum daily, 1.4 tons (1.3 t) Apr. 14.

Period of record:

Water temperatures (1956-61, 1971-73): Maximum, 30.0°C June 17, 1957; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 1,700 mg/l Feb. 14, 1966, minimum daily, 1 mg/l on many days.

Sediment discharge: Maximum daily, 35,700 tons (32,400 t), Feb. 14, 1971; minimum daily, less than 0.50 ton (0.45 t) on many days.

REMARKS.--Published and unpublished chemical-quality data and specific conductance, pH, and temperature of sediment samples available in WRD office at Towson, Md. Streamflow records for the current water year are published in Section 1 of this report. Sediment data for station 01481000 Brandywine Creek at Chadds Ford, Pa., are used in computation of sediment records.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
OCT.								
01...	0945	209	11	800	80	15	6.4	9.5
NOV.								
05...	1130	194	--	--	--	--	--	--
DEC.								
03...	1350	389	--	--	--	--	--	--
JAN.								
02...	1120	512	11	490	50	17	6.9	14
FEB.								
03...	1045	470	--	--	--	--	--	--
MAR.								
03...	1625	614	--	--	--	--	--	--
APR.								
01...	1145	807	11	320	30	15	6.0	7.8
MAY								
02...	1420	883	--	--	--	--	--	--
JUNE								
05...	1400	652	--	--	--	--	--	--
JULY								
01...	1600	654	--	--	--	--	--	--
AUG.								
01...	1515	572	10	350	30	16	6.5	8.5
SEP.								
02...	1340	291	--	--	--	--	--	--

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)
OCT. 01...	64	19	210	7.8	10.4	14.0	10	10.4
NOV. 05...	--	--	244	7.8	16.0	15.5	--	9.3
DEC. 03...	--	--	198	7.5	4.5	7.0	--	12.0
JAN. 02...	71	32	207	6.4	3.0	3.5	4	12.7
FEB. 03...	--	--	230	7.0	2.0	1.0	--	14.1
MAR. 03...	--	--	205	7.0	3.5	-2.5	--	13.7
APR. 01...	62	29	192	8.1	7.0	14.5	3	12.6
MAY 02...	--	--	99	7.8	11.0	18.0	--	11.7
JUNE 05...	--	--	153	7.8	19.0	22.0	--	10.0
JULY 01...	--	--	195	7.8	20.5	26.5	--	9.8
AUG. 01...	67	23	200	8.1	22.5	31.5	1	10.3
SEP. 02...	--	--	218	7.6	18.0	27.5	--	11.2

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
DEC. 16...	1600	3270	5.0	272	2400	42	58
JULY 13...	0800	4320	--	1060	12400	32	46

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
DEC. 16...	77	85	94	98	99	100	--
JULY 13...	62	84	93	97	98	99	100

## DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

[illegible]

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	245	20	13	172	10	4.6	182	8	3.9
2	218	15	8.8	172	12	5.6	865	120	280
3	208	12	6.7	206	9	5.0	455	40	49
4	190	11	5.6	192	9	4.7	285	25	19
5	186	11	5.5	188	11	5.6	244	14	9.2
6	183	12	5.9	189	12	6.1	228	10	6.2
7	179	13	6.3	182	10	4.9	223	12	7.2
8	172	13	6.0	176	11	5.2	2470	750	6890
9	168	10	4.5	174	11	5.2	1500	200	810
10	170	12	5.5	173	9	4.2	556	38	57
11	161	12	5.2	177	8	3.8	452	16	20
12	157	13	5.5	196	13	6.9	406	10	11
13	160	15	6.5	406	27	30	380	7	7.2
14	158	14	6.0	263	12	8.5	370	14	14
15	158	15	6.4	216	9	5.2	350	10	9.5
16	816	110	242	203	9	4.9	1860	250	2000
17	590	38	61	192	8	4.1	1720	200	929
18	309	16	13	187	6	3.0	631	36	61
19	246	10	6.6	183	6	3.0	517	14	20
20	223	8	4.8	186	7	3.5	466	12	15
21	212	9	5.2	226	8	4.9	433	12	14
22	190	10	5.1	219	7	4.1	411	10	11
23	189	10	5.1	194	7	3.7	384	9	9.3
24	189	9	4.6	188	8	4.1	375	11	11
25	184	11	5.5	197	10	5.3	371	10	10
26	182	13	6.4	203	12	6.6	359	13	13
27	180	10	4.9	189	10	5.1	341	12	11
28	175	12	5.7	188	7	3.6	336	14	13
29	175	9	4.3	184	6	3.0	324	10	8.7
30	171	8	3.7	176	6	2.9	324	9	7.9
31	195	9	4.7	---	---	---	322	10	8.7
TOTAL	6939	---	480.0	5997	---	167.3	18140	---	11335.8
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	437	10	12	516	6	8.4	683	7	13
2	481	13	17	501	6	8.1	646	5	8.7
3	380	8	8.2	477	8	10	614	5	8.3
4	363	5	4.9	453	7	8.6	568	6	9.2
5	342	5	4.6	510	10	14	537	8	12
6	328	7	6.2	563	12	18	533	7	10
7	538	15	22	598	12	19	531	10	14
8	465	12	15	518	15	21	544	12	18
9	1110	85	300	485	13	17	492	11	15
10	661	63	112	449	9	11	484	11	14
11	553	18	27	440	8	9.5	506	9	12
12	528	10	14	461	10	12	547	8	12
13	628	20	34	453	8	9.8	693	14	26
14	691	25	47	415	7	7.8	685	13	24
15	502	8	11	423	6	6.9	795	14	30
16	473	7	8.9	440	5	5.9	768	9	19
17	439	10	12	489	7	9.2	663	6	11
18	607	50	82	733	23	46	622	5	8.4
19	966	65	170	767	14	29	1990	230	2760
20	1150	75	233	673	8	15	5310	550	9000
21	676	20	37	554	6	9.0	1490	75	302
22	606	12	20	513	8	11	1100	30	89
23	568	10	15	746	90	200	1020	10	28
24	559	9	14	1380	220	950	1110	19	57
25	677	20	37	2440	400	2800	1470	60	238
26	1070	70	202	893	60	145	1000	14	38
27	644	19	33	779	18	38	921	11	27
28	571	14	22	720	10	19	889	9	22
29	565	9	14	---	---	---	873	9	21
30	552	7	10	---	---	---	1010	12	33
31	526	8	11	---	---	---	936	10	25
TOTAL	18656	---	1555.8	18389	---	4458.2	30030	---	12904.6



## DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued  
SUSPENDED-SEDIMENT DISCHARGE. WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

APRIL				MAY				JUNE			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	817	7	15	757	4	8.2	2890	535	4700		
2	763	7	14	885	10	24	1020	130	358		
3	866	15	35	719	5	9.7	740	30	60		
4	865	29	68	1280	31	136	655	12	21		
5	648	14	24	1150	35	109	1100	120	356		
6	624	8	13	868	9	21	2610	780	5500		
7	598	6	9.7	937	10	25	930	80	201		
8	571	5	7.7	776	7	15	741	35	70		
9	554	3	4.5	687	5	9.3	666	20	36		
10	573	3	4.6	660	3	5.3	606	15	25		
11	565	2	3.1	630	5	8.5	570	18	28		
12	550	1	1.5	613	5	8.3	1890	120	725		
13	528	2	2.9	1010	30	75	3780	470	4400		
14	514	1	1.4	791	17	36	1220	100	329		
15	516	2	2.8	651	7	12	919	40	99		
16	610	5	8.2	1030	30	80	853	23	53		
17	539	4	5.8	828	18	40	923	40	100		
18	510	3	4.1	670	9	16	804	22	48		
19	519	3	4.2	633	7	12	842	38	86		
20	514	5	6.9	558	6	9.0	824	25	56		
21	481	4	5.2	607	11	18	686	26	48		
22	461	4	5.0	826	30	67	629	18	31		
23	450	3	3.6	629	40	68	596	13	21		
24	518	5	7.0	533	11	16	578	10	16		
25	1760	180	1000	502	8	11	655	14	25		
26	3230	325	3300	502	5	6.8	674	33	60		
27	1030	35	97	481	7	9.1	678	33	60		
28	856	5	12	446	8	9.6	1320	175	650		
29	776	5	10	422	6	6.8	1610	400	1850		
30	704	6	11	476	14	18	867	110	257		
31	---	---	---	561	18	27	---	---	---		
TOTAL	22510	---	4687.2	22118	---	916.6	32376	---	20269		
JULY				AUGUST				SEPTEMBER			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	665	35	63	550	15	22	309	6	5.0		
2	586	27	43	541	15	22	307	7	5.8		
3	566	25	38	516	11	15	294	8	6.4		
4	658	40	71	507	8	11	280	8	6.0		
5	557	37	56	657	15	27	277	9	6.7		
6	577	30	47	562	11	17	273	7	5.2		
7	518	18	25	562	10	15	280	6	4.5		
8	496	12	16	514	9	12	273	6	4.4		
9	660	60	107	479	9	12	265	6	4.3		
10	598	20	32	466	8	10	249	5	3.4		
11	518	18	25	459	6	7.4	245	5	3.3		
12	481	17	22	439	7	8.3	271	8	5.9		
13	3490	635	6850	446	7	8.4	514	60	83		
14	6570	475	8600	507	11	15	297	13	10		
15	4790	270	3550	446	9	11	263	10	7.1		
16	2280	150	923	562	18	27	257	7	4.9		
17	1300	45	158	548	12	18	259	8	5.6		
18	964	28	73	472	11	14	253	6	4.1		
19	847	23	53	426	11	13	369	14	14		
20	857	30	90	420	10	11	335	12	11		
21	2920	330	4000	401	8	8.7	1020	230	700		
22	875	38	90	389	9	9.5	492	35	46		
23	792	22	47	371	10	10	2100	220	1400		
24	741	16	32	365	10	9.9	3250	310	3000		
25	1390	115	500	365	12	12	2230	140	1000		
26	764	37	76	359	12	12	1160	70	219		
27	689	20	37	326	11	9.7	948	36	92		
28	634	18	31	311	12	10	631	24	41		
29	609	13	21	301	9	7.3	540	19	28		
30	583	12	19	301	8	6.5	496	15	20		
31	567	14	21	305	8	6.6	---	---	---		
TOTAL	38542	---	25716	13873	---	398.3	18737	---	6746.6		
TOTAL DISCHARGE FOR YEAR (FT <sup>3</sup> /S-DAYS)				246307	TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)				89635.4		

## 01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.

LOCATION.--Lat 39°41'18", long 75°31'06", New Castle County, at center of the navigational channel at bridge between Pigeon Point, Del. and Deepwater Point, N. J. Water-quality recorder (39°41'21", 75°31'19") at tidal gaging station located on channel side of west tower of south bridge.

DRAINAGE AREA.--11,030 mi<sup>2</sup> (28,570 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1975.  
Water temperatures: October 1956 to September 1975.

## EXTREMES.--1974-75:

Dissolved oxygen: Maximum, 11.6 mg/l Mar. 10.

Water temperatures: Maximum, 29.5 °C Aug. 3; minimum, 3.5°C Feb. 13-17.

## Period of record:

Specific conductance: Maximum, 14,600 micromhos Oct. 6, 1957; minimum, 100 micromhos on many days.

Dissolved oxygen (1962-75): Maximum, 13.5 mg/l Dec. 29, 1969; minimum, 0 mg/l on many days during summer.

Water temperatures (1956-75): Maximum, 31.0 °C Aug. 9, 1968; minimum, freezing point on many days during winter periods.

REMARKS.--Samples collected approximately 3 feet from surface. Records of discharge are available for 01463500 Delaware River at Trenton, N. J. in, "Water Resources Data for New Jersey, Section 1, Surface Water Records."

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	5940	860	2920	3120	640	1890			
2	---	---	---	5340	900	2920	5360	1260	2980			
3	---	---	---	6180	1300	3320	4860	580	2440			
4	---	---	---	6260	1460	3540	2080	540	1130			
5	---	---	---	5720	1440	3520	4320	660	1980			
6	---	---	---	5820	1340	3490	3940	700	2220			
7	2480	440	---	5920	1440	3640	4200	680	2290			
8	2860	360	1420	6340	1640	3890	4220	820	2410			
9	3120	520	1660	7040	2200	4290	2260	520	972			
10	3180	560	1660	7260	2180	4550	560	480	---			
11	3520	460	1620	7780	2460	5220	---	---	---			
12	3280	580	1890	8460	3720	5830	---	---	---			
13	3460	480	1910	7960	3060	5520	---	---	---			
14	4320	840	2540	6260	3020	---	---	---	---			
15	4080	340	2040	---	---	---	---	---	---			
16	2880	320	1410	---	---	---	---	---	---			
17	2800	260	1400	---	---	---	---	---	---			
18	2080	200	1070	2480	660	---	---	---	---			
19	2560	280	1200	2100	620	1310	---	---	---			
20	1900	240	1080	2320	680	1390	---	---	---			
21	1620	220	868	1800	560	1180	---	---	---			
22	2820	260	1260	1180	540	745	---	---	---			
23	2640	320	1360	1920	600	1140	---	---	---			
24	3840	500	1760	1860	620	1100	---	---	---			
25	3360	620	1880	1520	580	863	---	---	---			
26	3900	460	1760	940	420	684	---	---	---			
27	3240	460	1850	1540	560	876	---	---	---			
28	4240	580	2000	2600	560	1080	---	---	---			
29	---	---	---	2060	560	1090	---	---	---			
30	4420	780	---	2440	560	1210	---	---	---			
31	5100	760	2670	---	---	---	---	---	---			
MONTH	---	---	---	8460	420	2610	---	---	---			

## DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	260	190	225	---	---	---	750	200	360
2	---	---	---	230	170	203	200	180	---	650	180	330
3	---	---	---	210	170	186	250	170	195	520	200	---
4	---	---	---	190	170	181	---	---	---	---	---	---
5	---	---	---	210	170	188	---	---	---	---	---	---
6	---	---	---	220	180	195	---	---	---	---	---	---
7	290	270	---	220	180	194	---	---	---	---	---	---
8	400	270	289	240	180	195	---	---	---	---	---	---
9	320	270	285	200	180	190	---	---	---	---	---	---
10	380	200	285	520	190	233	---	---	---	---	---	---
11	420	280	317	490	160	253	---	---	---	---	---	---
12	530	270	334	1020	160	343	---	---	---	---	---	---
13	520	270	335	870	170	361	---	---	---	---	---	---
14	310	200	285	830	180	328	880	200	---	510	410	---
15	400	280	314	1320	190	367	2180	160	718	610	400	452
16	490	290	348	570	200	280	2020	160	695	500	390	429
17	480	290	352	820	200	323	2650	180	1030	450	380	409
18	560	300	378	1010	230	373	2190	160	970	450	360	400
19	510	300	342	1130	230	500	1830	170	774	420	240	333
20	360	300	314	360	220	246	1230	200	543	290	220	250
21	350	300	316	260	230	245	760	170	387	310	220	250
22	390	300	327	260	230	248	1320	180	510	290	220	---
23	440	320	345	250	220	233	1310	180	532	---	---	---
24	430	320	342	250	220	226	1340	160	600	---	---	---
25	440	310	343	240	210	---	1560	220	699	---	---	---
26	320	260	296	---	---	---	1270	350	853	---	---	---
27	290	230	258	---	---	---	780	350	568	---	---	---
28	260	220	238	250	190	---	930	200	571	---	---	---
29	---	---	---	---	---	---	1010	200	383	---	---	---
30	---	---	---	---	---	---	1020	220	389	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	560	200	---	1320	160	---	---	---	---	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	440	260	327	290	250	266	---	---	---
2	250	210	---	430	240	314	360	250	282	---	---	---
3	280	210	233	510	250	320	500	250	311	---	---	---
4	300	210	236	1280	250	384	910	260	379	---	---	---
5	440	210	267	630	260	---	1240	170	458	---	---	---
6	480	210	257	---	---	---	1430	170	496	---	---	---
7	290	210	235	---	---	---	1330	180	638	---	---	---
8	310	230	242	2820	340	---	1940	180	793	---	---	---
9	420	230	---	4380	390	1680	2180	190	733	---	---	---
10	---	---	---	4060	460	1960	1940	180	848	---	---	---
11	---	---	---	5060	880	2290	1970	210	1030	---	---	---
12	---	---	---	6870	1290	2900	1880	130	520	---	---	---
13	---	---	---	4440	830	2230	750	100	---	---	---	---
14	---	---	---	1890	340	956	---	---	---	---	---	---
15	---	---	---	940	360	603	---	---	---	---	---	---
16	---	---	---	480	220	301	---	---	---	---	---	---
17	310	220	---	370	230	270	---	---	---	---	---	---
18	330	200	242	340	220	257	---	---	---	4930	2610	---
19	310	190	237	330	230	258	---	---	---	6180	2170	4180
20	310	200	230	390	210	261	---	---	---	6180	2030	4180
21	390	200	245	250	200	214	---	---	---	5770	2000	3890
22	430	180	255	270	200	219	---	---	---	5700	1710	3600
23	430	190	250	240	200	---	---	---	---	5030	1200	3000
24	360	210	---	270	200	225	---	---	---	3110	870	---
25	---	---	---	260	200	228	---	---	---	---	---	---
26	---	---	---	230	200	213	---	---	---	---	---	---
27	---	---	---	240	200	218	---	---	---	---	---	---
28	---	---	---	250	210	223	---	---	---	---	---	---
29	---	---	---	280	210	242	---	---	---	---	---	---
30	450	270	---	260	240	253	---	---	---	---	---	---
31	---	---	---	320	240	263	---	---	---	---	---	---
MONTH	---	---	---	6870	200	677	---	---	---	---	---	---

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

PH (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

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

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

PH (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	4.4	.9	2.4	9.8	6.4	8.3	9.0	7.4	8.2
2	---	---	---	3.5	.3	1.8	10.4	8.6	9.5	8.7	8.0	---
3	---	---	---	3.9	.3	1.7	9.9	7.9	9.0	---	---	---
4	---	---	---	3.5	.2	1.7	9.5	7.7	8.8	---	---	---
5	---	---	---	5.3	.3	2.3	10.3	8.2	9.3	---	---	---
6	---	---	---	6.0	.6	2.9	9.9	7.8	8.8	9.0	8.1	---
7	5.6	3.2	---	7.1	1.0	3.9	9.7	7.5	8.6	9.0	7.6	8.4
8	6.4	3.0	4.6	6.7	2.1	---	9.8	7.7	8.9	8.9	7.7	8.4
9	6.1	3.2	4.5	---	---	---	8.9	6.9	7.9	9.2	7.6	8.4
10	5.5	2.9	4.0	---	---	---	8.1	6.7	7.5	9.3	7.3	8.2
11	5.3	2.4	3.6	5.9	3.6	---	8.6	7.3	7.7	8.8	7.1	8.0
12	5.1	2.1	3.3	6.2	3.2	4.9	9.4	7.4	8.1	8.1	6.9	7.4
13	4.2	1.3	2.9	6.1	3.3	4.8	9.9	7.6	8.5	7.6	6.9	7.3
14	4.9	1.8	3.2	5.5	3.4	---	9.3	7.6	8.5	8.0	7.2	7.5
15	4.0	1.2	2.7	---	---	---	9.2	8.3	8.9	8.8	7.6	8.0
16	5.4	1.9	3.4	---	---	---	9.6	8.6	9.2	9.1	8.0	8.4
17	4.6	1.8	3.3	---	---	---	9.5	8.4	9.0	9.3	8.4	8.9
18	4.0	1.4	2.9	6.2	2.9	---	9.1	8.4	8.7	9.1	8.7	8.9
19	5.3	2.0	3.5	5.2	2.8	3.9	8.9	8.6	8.7	9.0	8.6	8.7
20	5.1	1.7	3.4	5.8	2.9	4.0	9.0	8.4	8.6	8.9	8.6	8.7
21	5.1	2.4	3.7	6.0	2.9	4.5	8.7	8.3	8.4	9.4	8.4	9.2
22	7.2	2.7	4.7	6.7	4.3	5.2	8.6	8.3	8.4	9.5	8.9	9.2
23	6.6	3.5	4.9	7.9	4.7	6.1	8.5	8.2	8.4	9.9	8.9	9.4
24	7.4	3.5	5.1	6.9	4.3	---	8.5	8.1	8.4	9.8	9.4	9.6
25	6.3	3.4	4.9	---	---	---	8.7	8.0	8.4	9.6	9.3	9.4
26	6.3	3.2	4.5	6.9	5.6	---	9.2	8.1	8.6	9.8	9.3	9.5
27	5.5	3.1	4.3	8.0	5.8	6.6	9.3	8.0	8.6	10.3	9.6	10.1
28	6.7	3.1	4.5	8.6	5.4	6.5	9.2	7.8	8.4	10.4	10.0	10.2
29	---	---	---	7.7	5.4	6.4	9.1	7.7	8.3	10.2	9.9	10.1
30	4.6	1.9	---	8.3	5.5	6.8	8.9	7.5	8.2	10.4	9.9	10.2
31	4.4	1.4	2.7	---	---	---	9.5	7.6	8.4	10.4	9.6	9.9
MONTH	---	---	---	8.6	.2	---	10.4	6.4	8.5	10.4	6.9	8.9

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DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## DELAWARE RIVER BASIN

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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



## DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.

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

DRAINAGE AREA.--11,222 mi<sup>2</sup> (29,065 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1975.

## EXTREMES.--1974-75:

Water temperatures: Maximum, 29.5°C Aug. 5; minimum, 1.5°C Feb. 14.

## Period of record:

Water temperatures: Maximum, 29.5°C Aug. 5, 1975; minimum, freezing point on many days during winter periods.

REMARKS.--Missing continuous water-quality records result of malfunction of sensor or sampling mechanism.

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7240	3840	5210	14300	7280	10100	17600	9320	---	7480	2760	4910
2	7120	4040	5290	13000	7280	9400	---	---	---	4720	1680	3100
3	6560	3880	4820	14800	7920	10200	---	---	---	9480	2680	6260
4	7520	4080	5430	14100	7440	10500	---	---	---	7360	3000	4870
5	7080	4760	5690	11700	6880	9060	---	---	---	7120	2480	4480
6	6360	4440	5160	12200	6560	8580	16300	7880	---	7920	2400	4450
7	6480	4360	5130	11900	6800	8950	15100	10700	13300	8160	2840	5380
8	7320	4640	5600	14300	7120	9940	16800	11000	14100	10200	2960	5740
9	6320	3160	4000	14000	8240	11000	13200	6520	9980	9120	3080	6080
10	11600	2560	5630	12900	8360	10700	10000	7400	9170	10000	2600	6250
11	12300	4880	7160	13500	8680	10700	7080	1880	4710	8240	2280	5200
12	10100	4880	7250	12600	8960	10700	7000	1440	2840	3960	1320	2380
13	12100	5160	7310	11900	8480	10200	5520	1160	2120	3800	1120	2160
14	12800	5720	8510	10100	7680	8620	6160	1000	2090	2840	560	1340
15	11500	5720	8020	7840	6400	7170	6040	960	2170	2520	440	870
16	10400	5080	7040	6640	5240	5960	8640	1760	3730	2000	480	760
17	11200	4720	7400	6480	4840	5550	5440	720	2450	560	360	445
18	8560	4880	---	12900	4840	8580	1600	560	1030	3520	360	1680
19	---	---	---	11500	9000	10100	4160	520	1300	1360	640	962
20	---	---	---	10600	9040	---	4600	760	1410	1600	440	787
21	---	---	---	---	---	---	6080	1080	3000	8040	920	4190
22	---	---	---	---	---	---	6680	1240	2810	7280	5000	6090
23	---	---	---	---	---	---	6760	960	2940	7240	4160	5770
24	---	---	---	---	---	---	7320	880	3380	10100	4800	6970
25	---	---	---	---	---	---	11400	1520	5210	10000	5120	7470
26	---	---	---	---	---	---	11800	2240	5780	7880	4680	6290
27	---	---	---	14700	10600	---	14700	2560	6760	4640	3280	4020
28	---	---	---	16300	12800	14500	10200	2880	4980	4760	760	2670
29	---	---	---	15100	12800	13800	11800	2840	6240	5600	720	1990
30	---	---	---	17000	7080	12800	9160	3440	6070	1800	640	1090
31	14100	7360	---	---	---	---	8400	2560	4780	1800	560	947
MONTH	---	---	---	17000	4840	---	17600	520	4890	10200	360	3730

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2240	520	885	320	280	282	440	320	370	4880	1920	2910
2	1200	440	690	280	240	270	600	360	388	5280	1680	3010
3	880	440	563	280	200	240	2720	200	820	5920	1640	3360
4	1200	360	530	560	200	253	---	---	---	6640	1880	3490
5	5600	480	1930	3000	200	1420	---	---	---	6400	1880	3620
6	6920	840	2770	4840	520	1970	---	---	---	9240	2040	4530
7	5880	960	2060	4720	480	1980	---	---	---	6720	1720	3290
8	6840	720	2300	2920	640	1400	---	---	---	7720	1360	3000
9	4720	600	1610	7160	880	3600	---	---	---	6440	1400	2880
10	6280	640	2240	9640	5080	7490	14900	7160	---	5920	1360	2620
11	7360	1200	3060	8040	7080	7460	15900	6200	9480	5000	1280	2370
12	6000	1440	2980	7600	6600	7100	15700	5560	8810	5800	1400	2590
13	6520	1440	3160	7600	6560	7030	12400	5680	8450	5200	1480	2370
14	3240	1000	1660	6640	6280	6470	10600	8080	9140	4080	1400	2100
15	4840	1120	2280	6800	6360	6610	10800	4360	7170	4560	1440	2240
16	5640	1880	3470	6360	5960	6170	11000	4560	7020	2840	1240	1700
17	5560	2480	3640	5920	2640	4570	13500	5000	8590	1920	1000	1290
18	6880	3400	4980	7520	2840	4390	14000	5080	8060	1520	880	1170
19	6800	2040	4360	7080	2720	4820	12000	4520	6780	1600	880	1200
20	6280	1600	3130	6600	1360	2830	9080	3080	5030	1480	960	1220
21	7160	1440	3270	2280	840	1270	6880	2400	4040	2080	560	1040
22	7840	1240	3470	2160	840	1080	10000	2200	4620	4320	520	1070
23	8000	1400	3310	1000	640	825	9680	2600	4760	4080	520	1230
24	7320	1320	3270	2000	480	798	8320	2760	4940	3160	560	1180
25	5040	920	2470	960	360	585	9120	2760	4650	4360	560	1500
26	1320	320	638	520	360	448	9280	2040	4280	6280	840	2190
27	400	280	328	560	360	410	8360	1760	3140	4600	1080	2090
28	320	240	283	480	360	378	8360	1760	3230	3960	1160	1890
29	---	---	---	1480	560	882	7760	1840	3280	4240	1440	2170
30	---	---	---	2040	760	1420	7000	1840	3180	4200	1440	2720
31	---	---	---	1720	360	708	---	---	---	4120	1960	2670
MONTH	8000	240	2330	9640	200	2750	15900	200	---	9240	520	2280
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3840	1440	2280	---	---	---	7720	880	3210	14100	10300	12500
2	2640	920	1430	8840	2000	---	9800	1600	4600	14600	9640	11900
3	5120	1000	2700	10200	2400	5930	12400	2480	6100	14500	8000	10900
4	9120	1640	4190	13400	2360	7730	13400	2440	7100	16000	7760	11700
5	12300	2760	6500	16000	4160	9770	14400	3760	---	15600	7880	10500
6	10800	2920	6510	17400	5200	10200	11600	3960	6860	16300	7800	11200
7	10300	2280	4930	17000	5800	10600	10800	5120	8120	15400	7760	10500
8	7880	1360	3670	15900	6160	10200	12900	9480	---	15700	8320	11000
9	10800	1200	---	16900	8840	11800	---	---	---	14800	8200	11200
10	---	---	---	14300	7400	10200	---	---	---	14500	8280	10700
11	---	---	---	12800	7360	9680	---	---	---	15000	8440	11200
12	---	---	---	13000	7960	10100	---	---	---	13000	8160	10100
13	---	---	---	12500	8320	9850	---	---	---	14600	6520	9340
14	---	---	---	9640	4560	6950	---	---	---	14600	6480	9390
15	---	---	---	6200	3680	5230	---	---	---	14700	7640	9940
16	---	---	---	5520	2200	3280	---	---	---	13800	8960	10800
17	2480	720	---	2200	840	1620	---	---	---	13400	8200	10500
18	2720	680	1220	2280	680	1130	---	---	---	13000	8360	9890
19	2640	680	1120	2520	640	1050	---	---	---	11600	9240	10300
20	---	---	---	2920	600	1010	11000	6040	---	11100	9520	10300
21	---	---	---	1480	480	815	12000	5880	8050	10800	9120	9770
22	---	---	---	1560	600	800	12500	6040	8150	11800	6720	8990
23	1960	840	---	1160	440	768	11400	5680	7720	10500	6640	8250
24	2920	760	1230	3200	440	1010	12200	5880	8770	9960	5080	7630
25	3200	760	1400	3680	400	972	11300	6120	8040	7360	3360	5600
26	4520	920	1950	1200	400	623	11500	5960	8430	6520	1920	4190
27	4480	1200	---	2760	520	1180	10900	5760	7850	3080	1600	2140
28	---	---	---	3360	760	1610	10900	5400	7470	2840	1640	1980
29	---	---	---	3840	520	1310	13200	5720	8610	4840	1240	2330
30	---	---	---	5520	520	2090	12300	6720	9070	6400	1160	2980
31	---	---	---	6160	640	2470	15700	6200	10500	---	---	---
MONTH	---	---	---	17400	400	4830	---	---	---	16300	1160	8920

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

PH (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible]

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

pH (UNITS), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITRE, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.5	6.7	7.1	8.0	6.6	7.4	11.3	10.3	10.8	10.1	9.4	9.8
2	7.6	6.6	7.1	7.6	6.2	7.1	10.3	9.7	10.0	10.8	9.7	10.4
3	8.1	7.0	7.6	7.4	6.2	6.8	11.4	10.0	10.6	11.0	10.3	10.7
4	8.7	7.5	8.0	7.9	6.0	7.1	11.7	11.1	11.4	10.9	10.3	10.6
5	8.4	7.4	8.0	7.6	6.4	7.1	11.4	9.5	---	10.8	10.3	10.6
6	8.3	7.2	7.7	7.9	6.3	7.1	11.0	10.4	---	11.0	10.3	10.7
7	8.3	7.1	7.7	8.1	6.6	7.6	10.9	10.2	10.6	11.1	10.6	10.8
8	8.8	7.5	8.2	9.1	7.3	8.3	11.0	10.4	10.7	11.3	10.4	10.8
9	8.3	7.6	---	9.2	8.0	8.7	10.8	9.9	10.3	11.3	10.4	10.8
10	8.7	7.3	---	9.0	8.0	8.7	10.4	9.4	9.9	11.3	10.3	10.7
11	8.7	6.9	8.0	9.0	7.9	8.6	9.9	8.6	9.3	11.2	10.1	10.6
12	8.5	6.8	7.8	8.9	8.0	8.6	10.4	8.3	9.1	10.4	9.5	10.1
13	8.7	6.9	7.7	8.9	8.2	8.6	9.9	8.2	8.8	10.4	9.5	9.9
14	8.4	7.2	7.9	8.9	8.4	8.7	9.8	8.2	8.7	10.3	9.4	9.8
15	8.3	7.1	7.7	9.1	8.5	8.9	9.8	8.3	8.8	10.9	9.6	10.2
16	9.0	7.9	8.4	9.1	8.6	8.9	10.7	9.2	9.7	10.8	10.2	10.5
17	8.7	7.2	8.1	9.1	8.6	8.8	10.0	9.1	9.5	12.4	10.6	11.5
18	8.6	7.7	---	8.9	8.3	8.7	9.9	9.1	9.5	11.6	11.0	11.3
19	---	---	---	8.8	8.2	8.5	9.8	9.5	9.6	11.6	11.0	11.2
20	---	---	---	8.8	8.3	---	10.0	9.5	9.7	12.1	11.0	11.6
21	---	---	---	---	---	---	9.9	9.6	9.7	12.3	11.5	11.9
22	---	---	---	---	---	---	10.1	9.6	9.8	12.2	11.0	11.5
23	---	---	---	---	---	---	10.1	9.4	9.7	11.8	10.9	11.3
24	---	---	---	---	---	---	9.7	9.3	9.5	11.8	10.8	11.2
25	---	---	---	---	---	---	10.1	9.4	9.7	11.7	10.6	11.2
26	---	---	---	---	---	---	10.3	9.7	10.0	11.6	10.8	11.2
27	---	---	---	10.4	9.7	---	10.6	9.8	10.1	12.2	11.1	11.5
28	---	---	---	10.4	9.7	10.1	10.3	9.8	10.0	11.6	10.9	11.2
29	---	---	---	10.4	9.7	10.1	10.3	9.7	10.0	11.3	10.7	11.0
30	---	---	---	10.7	9.8	10.3	10.2	9.5	9.9	11.5	10.9	11.2
31	8.1	6.8	---	---	---	---	10.2	9.5	9.8	11.1	10.8	11.0
MONTH	---	---	---	10.7	6.0	---	11.7	8.2	9.8	12.4	9.4	10.9

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITRE, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.1	10.7	10.9	10.5	10.1	10.3	10.2	9.7	9.9	9.3	8.5	8.9
2	11.0	10.4	10.7	10.5	10.1	10.3	10.1	9.8	10.0	9.3	8.3	8.7
3	10.9	10.3	10.6	11.1	10.3	10.7	10.2	9.9	---	9.0	8.0	8.5
4	11.0	10.3	10.8	11.9	10.7	11.2	---	---	---	9.2	7.9	8.6
5	12.0	10.9	11.3	11.6	11.0	11.2	---	---	---	9.0	8.0	8.4
6	12.0	10.8	11.3	11.5	11.0	11.2	---	---	---	9.1	7.8	8.3
7	11.7	10.8	11.2	11.2	11.0	11.1	---	---	---	8.6	7.5	7.9
8	11.9	11.0	11.4	11.7	11.0	11.3	---	---	---	8.1	6.6	7.3
9	11.8	11.1	11.5	12.2	11.6	11.8	---	---	---	7.5	6.2	6.8
10	12.2	11.5	11.8	12.1	11.7	11.9	11.2	10.6	---	6.9	5.8	6.4
11	12.3	11.4	11.8	11.9	11.5	11.7	11.3	10.4	10.7	6.6	5.6	6.2
12	12.1	11.4	11.7	11.8	11.4	11.6	11.2	10.2	10.5	7.3	5.9	6.7
13	12.2	11.5	11.9	11.7	11.2	11.5	11.0	10.0	10.3	7.3	6.5	6.9
14	12.4	11.8	12.1	11.9	11.3	11.7	10.8	9.9	10.2	6.9	6.3	6.7
15	12.4	12.0	12.1	11.9	11.5	11.7	10.8	10.1	10.4	7.1	6.1	6.7
16	12.5	11.7	12.1	11.8	11.2	11.5	11.1	10.1	10.5	6.9	6.1	6.4
17	12.3	11.6	12.0	11.7	10.8	11.3	11.4	10.1	10.7	6.5	5.7	6.2
18	12.4	11.5	12.0	11.4	10.8	11.1	11.6	10.0	10.5	6.2	5.6	6.0
19	12.3	11.3	11.7	11.4	10.8	11.2	11.1	9.8	10.2	6.0	5.4	5.7
20	11.9	11.1	11.4	11.3	10.5	10.9	10.3	9.7	9.9	6.3	5.2	5.7
21	11.8	10.9	11.2	10.7	10.0	10.3	10.2	9.6	9.9	5.6	4.9	5.3
22	11.6	10.6	11.1	10.3	9.7	10.0	10.7	9.6	9.9	5.7	4.8	5.3
23	11.6	10.5	11.0	9.8	9.2	9.5	10.5	9.4	9.8	6.0	5.0	5.4
24	11.3	10.4	10.8	9.8	8.7	9.2	10.1	9.1	9.6	6.2	4.9	5.5
25	11.1	10.0	10.6	9.0	8.2	8.6	10.2	8.9	9.3	6.0	5.1	5.6
26	11.8	10.3	10.9	9.4	8.4	9.0	10.0	8.5	9.2	6.0	5.1	5.5
27	11.0	10.0	10.6	9.7	9.2	9.5	9.8	8.5	9.0	6.1	4.9	5.6
28	10.8	10.1	10.4	9.8	9.3	9.5	9.7	8.8	9.2	6.5	5.3	5.8
29	---	---	---	9.5	9.3	9.4	10.2	8.6	9.1	6.5	5.5	5.9
30	---	---	---	9.6	9.2	9.4	9.8	8.6	9.0	6.3	5.6	6.0
31	---	---	---	10.1	9.2	9.8	---	---	---	6.1	5.4	5.8
MONTH	12.5	10.0	11.3	12.2	8.2	10.6	11.6	8.5	---	9.3	4.8	6.6
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.9	5.3	5.6	---	---	---	5.2	4.1	4.5	6.6	6.1	6.3
2	5.9	5.2	5.6	6.6	5.7	---	5.0	4.1	4.4	6.5	5.7	6.1
3	5.8	5.1	5.5	6.7	5.7	6.1	4.8	3.9	4.3	6.5	5.9	6.1
4	6.0	5.2	5.6	7.0	5.4	6.0	4.9	3.9	4.3	6.5	5.9	6.3
5	6.6	5.6	6.1	6.6	5.0	5.8	5.3	4.0	---	6.4	6.0	6.2
6	6.7	5.8	6.2	6.1	4.9	5.5	4.7	4.1	4.4	6.3	5.8	6.1
7	6.6	5.8	6.2	5.3	4.4	4.8	5.0	4.4	4.8	6.1	5.6	5.9
8	6.7	5.6	6.2	5.7	4.8	5.1	5.4	4.7	5.0	6.6	5.6	6.1
9	6.7	4.9	5.8	5.8	4.9	5.2	5.3	4.8	5.0	6.8	6.0	6.3
10	6.0	5.0	5.4	5.5	4.6	5.1	5.0	4.6	4.8	6.8	6.2	6.5
11	5.8	4.8	5.4	5.7	4.7	5.1	5.1	4.4	4.7	7.1	6.3	6.7
12	5.8	5.2	5.6	5.3	4.5	4.9	4.9	4.3	4.6	7.5	6.9	7.2
13	5.4	4.7	5.1	5.4	4.6	5.0	4.7	4.2	4.4	7.7	7.2	7.4
14	5.1	3.9	4.6	5.1	4.5	4.8	5.0	4.5	4.8	7.8	7.3	7.6
15	5.6	3.7	4.8	4.6	3.3	4.2	4.9	4.6	---	8.0	7.5	7.7
16	5.3	3.8	4.9	4.1	2.9	3.7	---	---	---	7.9	7.5	7.7
17	5.4	3.8	4.6	4.0	2.8	3.5	---	---	---	7.8	7.4	7.6
18	5.2	4.3	4.7	4.1	2.7	3.5	---	---	---	7.9	7.1	7.5
19	4.9	3.8	4.4	4.1	2.9	3.6	---	---	---	7.7	6.9	7.3
20	---	---	---	4.2	3.3	3.8	5.1	4.5	---	7.3	6.8	7.0
21	---	---	---	4.4	3.6	4.1	5.1	4.4	4.6	7.1	6.6	6.9
22	---	---	---	4.5	3.3	3.9	4.9	4.4	4.7	7.1	6.1	6.6
23	7.1	5.9	---	4.7	3.2	3.9	5.4	4.6	4.9	7.0	6.3	6.7
24	6.9	6.1	6.5	4.9	4.2	4.5	5.2	4.8	5.0	7.1	6.6	6.9
25	7.2	5.9	6.4	4.8	4.4	4.6	5.4	4.7	5.0	7.2	6.7	6.9
26	6.7	6.0	6.3	5.3	4.5	4.9	5.4	4.6	4.9	7.2	6.1	6.8
27	6.4	5.8	---	5.3	4.5	4.8	5.5	4.8	5.0	6.3	5.2	5.8
28	---	---	---	5.1	4.5	4.8	5.7	5.0	5.3	6.1	4.9	5.6
29	---	---	---	5.3	4.4	4.8	5.9	4.9	5.3	6.0	5.1	5.6
30	---	---	---	5.1	4.3	4.7	5.8	5.1	5.5	6.0	5.3	5.6
31	---	---	---	5.0	4.1	4.5	6.5	5.8	6.2	---	---	---
MONTH	7.2	3.7	---	7.0	2.7	4.7	6.5	3.9	---	8.0	4.9	6.6

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

## DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued  
 TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

## 01483200 BLACKBIRD CREEK AT BLACKBIRD, DEL.

LOCATION.--Lat 39°21'58", long 75°40'10", New Castle County, at gaging station 15 ft (5 m) downstream from highway bridge, 0.5 mile (0.8 km) upstream from Barlow Branch, 0.6 mile (1.0 km) southwest of Blackbird, 5.6 miles (9.0 km) northwest of Smyrna, and 13.8 miles (22.2 km) upstream from mouth.

DRAINAGE AREA.--3.85 mi<sup>2</sup> (9.97 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1974 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT.							
07...	1240	1.5	84	7.5	15.5	22.0	9.5
NOV.							
11...	1040	2.0	93	7.0	9.5	9.0	10.2
DEC.							
30...	1625	4.0	87	6.8	5.5	8.5	10.7
JAN.							
22...	1015	7.5	84	6.4	2.0	.5	11.7
FEB.							
21...	1335	4.8	98	6.4	6.0	11.5	12.1
MAY							
21...	1020	4.6	87	7.4	21.0	21.5	9.2
JULY							
03...	1120	1.3	85	9.2	26.5	29.0	8.9
AUG.							
11...	1545	1.6	87	9.4	28.0	27.5	8.5
SEP.							
17...	1050	1.2	90	7.7	17.5	20.5	10.1

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LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, at gaging station 150 ft (46 m) upstream from Division Street Bridge in Dover, 1,950 feet (594 m) downstream from Silver Lake, and 12.5 miles (20.1 km) upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1972, October 1973 to September 1975.

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
OCT.								
01...	1505	9.8	19	1200	90	11	2.4	11
NOV.								
07...	1000	12	--	--	--	--	--	--
DEC.								
03...	1640	66	--	--	--	--	--	--
JAN.								
02...	1515	32	16	1100	60	8.5	2.8	7.5
FEB.								
03...	1620	47	--	--	--	--	--	--
MAR.								
04...	0930	37	--	--	--	--	--	--
APR.								
01...	1720	82	11	1100	80	7.5	2.2	6.0
MAY								
05...	0935	186	--	--	--	--	--	--
JUNE								
03...	0925	33	--	--	--	--	--	--
AUG.								
01...	1720	17	14	2700	140	8.6	2.6	7.1
SEP.								
03...	1015	22	--	--	--	--	--	--

[illegible]



## ST. JONES RIVER BASIN

01483700 ST. JONES RIVER AT DOVER, DEL.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)
OCT.								
01...	37	9	157	7.1	20.0	16.0	30	9.2
NOV.								
07...	--	--	166	7.0	13.0	10.5	--	9.4
DEC.								
03...	--	--	232	7.3	6.0	7.0	--	12.3
JAN.								
02...	33	19	125	5.6	5.0	5.0	80	11.2
FEB.								
03...	--	--	122	7.1	3.5	2.0	--	11.9
MAR.								
04...	--	--	109	7.0	3.5	-3.5	--	11.0
APR.								
01...	28	14	105	7.0	10.0	16.0	58	10.5
MAY								
05...	--	--	109	7.0	13.0	10.0	--	10.3
JUNE								
03...	--	--	120	7.0	23.5	20.5	--	8.7
AUG.								
01...	32	8	124	7.3	30.5	30.5	90	9.3
SEP.								
03...	--	--	150	6.9	22.0	16.5	--	9.3

## MISPILLION RIVER BASIN

01484100 BEAVERDAM BRANCH AT HOUSTON, DEL.

LOCATION.--Lat 38°54'20", long 75°30'49", Kent County, at gaging station 15 ft (5 m) upstream from bridge on State Highway 384, 0.8 mile (1.3 km) south of Houston, 2,000 ft (610 m) upstream from unnamed stream, and 1.2 miles (1.9 km) upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi<sup>2</sup> (7.33 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, DECEMBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT.							
10...	1540	1.0	65	7.3	13.5	21.5	8.3
NOV.							
08...	1015	.80	68	6.7	9.0	10.0	9.2
DEC.							
26...	1110	2.8	79	6.2	8.0	3.5	11.0
JAN.							
24...	1225	5.8	90	6.3	8.0	9.5	10.1
FEB.							
18...	1340	5.8	91	6.2	9.5	11.0	10.8
MAY							
13...	1145	5.3	78	6.5	15.5	21.5	8.8
JUNE							
17...	1355	3.7	73	6.7	16.5	28.0	9.2
JULY							
14...	1420	71	49	6.0	22.0	28.0	4.9
15...	1315	44	54	6.0	21.5	26.0	4.7
16...	1250	50	52	5.9	22.0	25.5	4.5
AUG.							
12...	1245	3.9	73	6.4	16.5	27.5	7.7

01484300 SOWBRIDGE BRANCH NEAR MILTON, DEL.

LOCATION.--Lat 38°48'51", long 75°19'39", Sussex County, at gaging station at downstream side of highway bridge, 1 mile (1.6 km) downstream from Reynolds Pond, 2.5 miles (4.0 km) north of Milton, and 0.7 mile (1.1 km) upstream from mouth.

DRAINAGE AREA.--7.08 mi<sup>2</sup> (18.34 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT.							
03...	1210	3.8	87	7.4	12.0	7.5	11.0
DEC.							
26...	1345	7.2	92	6.4	6.0	4.5	11.7
JAN.							
14...	1205	13	85	6.6	4.0	4.0	13.5
FEB.							
19...	1140	13	94	6.0	8.0	11.5	11.5
APR.							
08...	1210	15	75	6.9	8.0	11.0	12.5
MAY							
13...	1350	14	83	7.5	22.5	21.5	11.0
JUNE							
16...	1140	11	85	7.0	25.5	24.5	7.7
JULY							
17...	1230	30	64	--	23.5	25.5	--
18...	1330	25	66	6.5	25.5	27.0	--
AUG.							
05...	1450	9.5	88	6.8	28.0	29.5	8.7
SEP.							
19...	1240	6.4	89	7.2	20.0	23.0	9.2

## POCOMOKE RIVER BASIN

01485000 POCOMOKE RIVER NEAR WILLARDS, MD.

LOCATION.--Lat 38°23'20", long 75°19'30", Worcester County, at gaging station 30 ft (9 m) downstream from bridge on State Highway 346, 0.6 mile (1.0 km) upstream from Burnt Mill Branch, 1.3 miles (2.1 km) east of Willards, 1.3 miles (2.1 km) west of Whalesville, and 50.3 miles (80.9 km) upstream from mouth.

DRAINAGE AREA.--60.5 mi<sup>2</sup> (156.7 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT.							
04...	1725	13	91	7.5	8.5	14.0	10.2
NOV.							
19...	1430	13	93	6.7	8.5	15.0	9.5
DEC.							
16...	1615	194	146	5.9	9.0	14.0	8.7
FEB.							
26...	1355	116	122	4.5	8.0	11.5	10.0
MAR.							
20...	1730	728	95	5.7	10.5	13.5	--
21...	1125	610	116	4.5	8.5	13.0	--
APR.							
11...	1420	73	106	6.0	8.0	10.5	10.0
MAY							
16...	1030	60	104	6.4	17.0	20.0	8.2
JUNE							
26...	1245	25	95	6.7	20.5	25.5	8.7
AUG.							
07...	1645	85	88	6.3	20.0	23.0	7.7

## POCOMOKE RIVER BASIN

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD.

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

DRAINAGE AREA.--44.9 mi<sup>2</sup> (116.3 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT. 04...	1135	6.9	72	7.4	7.5	10.0	9.5
NOV. 19...	0940	6.9	66	6.6	6.0	7.0	8.8
DEC. 17...	1345	53	82	5.5	6.0	12.0	8.9
JAN. 15...	1645	291	81	5.7	1.5	-5	11.7
FEB. 20...	1430	81	80	4.8	6.0	8.5	9.8
APR. 10...	1520	47	60	5.9	8.5	8.0	8.5
MAY 15...	1600	31	66	6.1	18.0	22.0	7.9
JUNE 12...	1300	6.4	67	6.5	16.0	19.0	8.0
AUG. 06...	1225	9.5	67	6.8	22.5	27.5	6.3
SEP. 25...	1345	34	66	6.2	20.0	25.0	7.7

## MANOKIN RIVER BASIN

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD.

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

DRAINAGE AREA.--4.80 mi<sup>2</sup> (12.43 km<sup>2</sup>), revised.

PERIOD OF RECORD.--Chemical analyses: October 1974 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT. 22...	1510	.96	157	7.0	11.5	12.5	--
NOV. 21...	0910	.71	153	6.5	6.5	8.0	9.2
JAN. 15...	1040	14	106	4.7	2.5	.5	10.2
FEB. 20...	0955	7.4	124	5.6	6.0	5.5	11.5
MAR. 21...	1335	28	78	4.7	12.0	16.5	--
APR. 10...	1120	4.7	130	6.6	9.5	6.5	11.0
22...	1155	5.9	106	6.5	13.0	14.5	14.1
MAY 15...	1300	3.1	128	6.6	22.0	27.0	11.6
JUNE 18...	1430	1.1	142	6.8	28.0	33.0	11.9
AUG. 07...	1115	2.1	146	6.5	21.0	21.5	8.0
SEP. 23...	1535	1.3	142	6.8	18.0	20.0	11.2

## WICOMICO RIVER BASIN

191

01486500 BEAVERDAM CREEK NEAR SALISBURY, MD.

LOCATION.--Lat 38°21'05", long 75°34'11", Wicomico County, at gaging station, 0.6 mile (1.0 km) upstream from Beaglin Branch, 2 miles (3 km) southeast of Salisbury, and 0.8 mile (1.3 km) upstream from mouth.

DRAINAGE AREA.--19.5 mi<sup>2</sup> (50.2 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
OCT. 05...	0915	7.9	10	80	0	2.5	1.0	7.7
NOV. 21...	1100	7.8	16	340	10	3.5	1.2	8.0
JAN. 03...	1105	12	15	220	0	6.0	1.9	8.0
29...	1515	34	--	--	--	--	--	--
FEB. 27...	1200	27	12	370	60	4.6	1.5	6.8
APR. 11...	1155	28	13	350	30	5.0	1.9	6.7
MAY 16...	1210	27	11	540	30	10	2.9	4.1
JUNE 19...	1340	13	14	400	10	3.9	1.4	8.5
AUG. 10...	1525	16	14	350	20	4.5	1.6	8.0

DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LINITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)
OCT. 05...	1.8	18	15	4.2	8.9	.1	.49	.01	45
NOV. 21...	1.9	19	16	1.7	7.9	.0	1.2	.02	50
JAN. 03...	2.0	14	11	11	10	.1	1.2	.02	61
29...	--	--	--	--	--	--	--	--	--
FEB. 27...	2.2	16	13	8.3	9.2	.2	1.3	.05	53
APR. 11...	1.8	20	16	4.0	9.8	.1	1.6	.02	52
MAY 16...	3.2	19	16	5.1	9.8	.2	1.1	.02	56
JUNE 19...	1.8	25	21	2.3	9.5	.2	.85	.01	54
AUG. 10...	1.9	22	18	2.2	6.8	.1	.93	.01	50

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)
OCT. 05...	10	0	78	7.9	11.5	7.5	4	11.6
NOV. 21...	14	0	78	7.2	8.5	9.0	20	11.5
JAN. 03...	23	11	98	5.9	4.5	5.5	20	13.3
29...	--	--	98	5.8	9.0	20.5	--	11.4
FEB. 27...	18	5	93	5.8	10.0	9.0	30	10.6
APR. 11...	20	4	72	6.9	10.0	11.0	27	11.2
MAY 16...	37	21	84	7.1	21.0	18.5	35	9.2
JUNE 19...	16	0	83	8.0	29.0	30.5	22	10.0
AUG. 10...	18	0	87	7.5	25.5	28.5	25	9.7

## NANTICOKE RIVER BASIN

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DEL.

LOCATION.--Lat 38°43'45", long 75°33'41", Sussex County, at gaging station, 1,100 feet (335 m) downstream from Gum Branch, 2.5 miles (4.0 km) southeast of Bridgeville, and 50.5 miles (81.3 km) upstream from mouth.

DRAINAGE AREA.--75.4 mi<sup>2</sup> (195.3 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1972, December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

						DIS-		DIS-	
		INSTAN-	DIS-	TOTAL	TOTAL	SOLVED	SOLVED		
		TANEOUS	SOLVED	IRON	MAN-	CAL-	MAG-		
		DIS-	SILICA	(FE)	GANESE	CIUM	NE-		
		CHARGE	(SI02)	(UG/L)	(MN)	(CA)	SIUM		
DATE	TIME	(CFS)	(MG/L)	(UG/L)	(UG/L)	(MG/L)	(MG)	(NA)	
OCT.									
02...	1035	29	16	780	90	4.5	1.8	18	
NOV.									
18...	1120	26	--	--	--	--	--	--	
DEC.									
16...	1255	71	--	--	--	--	--	--	
JAN.									
03...	1355	52	18	520	40	4.2	1.8	6.8	
FEB.									
18...	1145	141	--	--	--	--	--	--	
APR.									
08...	1615	159	17	490	60	5.1	1.9	6.7	
JUNE									
11...	1440	86	--	--	--	--	--	--	
JULY									
17...	1620	316	--	--	--	--	--	--	
18...	1140	241	--	--	--	--	--	--	
AUG.									
04...	1215	91	15	890	50	4.9	2.0	8.1	
DATE	DIS-	BICAR-	ALKA-	DIS-	DIS-	DIS-	TOTAL	TOTAL	DIS-
	SOLVED	BONATE	LINITY	SOLVED	SOLVED	SOLVED	NITRITE	PHOS-	SOLVED
	PO-	(HCO3)	AS	SULFATE	CHLO-	FLUO-	PLUS	PHORUS	SOLIDS
	SIUM		CAC03	(SO4)	RIDE	RIDE	NITRATE	(P)	(SUM OF
	(K)		(MG/L)	(MG/L)	(CL)	(F)	(N)	(MG/L)	CONSTI-
	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	TUENTS)
OCT.									
02...	4.2	18	15	3.3	25	.1	.83	.17	82
NOV.									
18...	--	--	--	--	--	--	--	--	--
DEC.									
16...	--	--	--	--	--	--	--	--	--
JAN.									
03...	1.7	10	8	5.6	7.7	.0	2.7	.05	51
FEB.									
18...	--	--	--	--	--	--	--	--	--
APR.									
08...	1.9	9	7	7.1	9.0	.2	3.0	.05	53
JUNE									
11...	--	--	--	--	--	--	--	--	--
JULY									
17...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
AUG.									
04...	1.9	15	12	4.3	7.9	.1	2.5	.01	52
DATE	HARD-	NON-	SPE-	PH	TEMPER-	AIR	COLOR	DIS-	
	NESS	CAR-	CIFIC		ATURE	TEMPER-	(PLAT-	SOLVED	
	(CA,MG)	BONATE	CON-		(DEG C)	ATURE	INUM-	OXYGEN	
	(MG/L)	NESS	DUCT-	(MICRO-	(UNITS)	(DEG C)	COBALT	(MG/L)	
	(MG/L)		ANCE	MHOS)			UNITS)		
OCT.									
02...	19	4	166	6.5	12.0	9.5	2	6.2	
NOV.									
18...	--	--	104	6.4	6.0	13.0	--	8.7	
DEC.									
16...	--	--	90	6.2	9.0	14.5	--	10.0	
JAN.									
03...	18	10	88	5.6	5.0	6.5	6	10.5	
FEB.									
18...	--	--	94	5.9	9.0	11.5	--	11.0	
APR.									
08...	21	13	78	6.4	13.0	8.5	9	12.4	
JUNE									
11...	--	--	91	6.9	19.0	24.5	--	8.2	
JULY									
17...	--	--	83	6.1	23.0	31.0	--	--	
18...	--	--	87	6.2	21.5	28.0	--	--	
AUG.									
04...	20	8	102	6.6	22.0	30.5	12	8.0	

01488500 MARSHYOPE CREEK NEAR ADAMSVILLE, DEL.

LOCATION.--Lat 38°50'59", long 75°40'24", Kent County, at gaging station 45 ft (14 m) upstream from highway bridge, 1.4 miles (2.3 km) upstream from Cattail Branch, 1.6 miles (2.6 km) northeast of Adamsville, and 4.9 miles (7.9 km) northwest of Greenwood.

DRAINAGE AREA.--43.9 mi<sup>2</sup> (113.7 km<sup>2</sup>). Area at site used prior to Oct. 1, 1971, 44.8 mi<sup>2</sup> (116.0 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
OCT.								
02...	1400	16	22	1300	80	5.8	1.4	6.9
DEC.								
09...	1035	39	--	--	--	--	--	--
JAN.								
06...	1515	38	24	1300	150	5.3	1.7	7.5
MAR.								
10...	1210	49	--	--	--	--	--	--
APR.								
04...	1640	154	17	2900	100	4.8	1.4	4.8
MAY								
28...	1230	58	--	--	--	--	--	--
JUNE								
17...	1200	44	--	--	--	--	--	--
JULY								
14...	1725	1480	--	--	--	--	--	--
16...	1500	531	--	--	--	--	--	--
AUG.								
04...	1440	48	23	2900	100	6.5	1.9	7.6

DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LINIT- AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
02...	1.5	18	15	13	9.2	.1	.50	.03	69
DEC.									
09...	--	--	--	--	--	--	--	--	--
JAN.									
06...	1.2	14	11	12	8.4	.1	.90	.03	67
MAR.									
10...	--	--	--	--	--	--	--	--	--
APR.									
04...	1.7	7	6	9.8	6.5	.3	1.0	.11	50
MAY									
28...	--	--	--	--	--	--	--	--	--
JUNE									
17...	--	--	--	--	--	--	--	--	--
JULY									
14...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
AUG.									
04...	1.6	19	16	8.9	7.2	.1	1.2	.03	66

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)
OCT.								
02...	20	5	102	7.6	14.0	15.5	2	12.4
DEC.								
09...	--	--	102	6.3	8.0	6.5	--	9.5
JAN.								
06...	20	9	93	5.9	7.0	7.5	9	10.4
MAR.								
10...	--	--	101	6.2	4.5	4.5	--	12.3
APR.								
04...	18	12	79	5.5	9.5	6.5	70	12.3
MAY								
28...	--	--	98	6.8	21.5	23.5	--	9.5
JUNE								
17...	--	--	92	6.8	22.0	26.5	--	8.8
JULY								
14...	--	--	56	4.1	22.5	26.5	--	4.7
16...	--	--	63	5.9	23.0	25.5	--	--
AUG.								
04...	24	8	103	6.7	28.0	31.5	24	10.7

## NANTICOKE RIVER BASIN

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD.

LOCATION.--Lat 38°42'44", long 75°47'34", Caroline County, at gaging station 25 ft (8 m) downstream from highway bridge on Nichols Road, 1.6 miles (2.6 km) northwest of Federalsburg, and 0.9 mile (1.4 km) upstream from mouth.

DRAINAGE AREA.--7.10 mi<sup>2</sup> (18.39 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT.							
05...	1420	1.3	154	7.1	11.0	21.0	8.6
DEC.							
06...	1115	1.8	160	6.3	5.0	5.5	10.3
18...	1600	9.7	153	6.6	5.5	1.5	10.4
JAN.							
30...	1300	14	144	5.8	7.5	8.5	11.0
MAR.							
10...	1345	6.9	145	6.2	4.5	2.5	12.4
APR.							
14...	1205	7.4	140	7.2	8.0	11.0	12.0
MAY							
28...	1420	4.4	144	6.8	18.0	26.0	8.0
JULY							
03...	1930	3.7	148	6.9	20.0	22.5	9.5
AUG.							
08...	1630	5.6	144	6.8	18.0	24.5	9.0
SEP.							
18...	1510	2.0	161	7.3	16.0	19.0	10.3

## TRANSQUAKING RIVER BASIN

01490000 CHICAMACOMICO RIVER NEAR SALEM, MD.

LOCATION.--Lat 38°30'43", long 75°52'51", Dorchester County, at gaging station 30 ft (9 m) downstream from Big Mill Pond dam, 1.6 miles (2.6 km) east of Salem, 3.5 miles (5.6 km) northwest of Vienna, and 13 miles (21 km) upstream from mouth.

DRAINAGE AREA.--15.0 mi<sup>2</sup> (38.8 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT.							
05...	1115	5.1	62	7.5	11.0	16.5	10.1
NOV.							
21...	1410	5.8	61	6.7	7.5	8.0	11.2
DEC.							
18...	1430	15	77	5.9	4.5	4.0	9.9
JAN.							
30...	0900	23	80	5.4	7.5	9.5	10.9
FEB.							
27...	1530	22	76	4.8	8.5	9.0	10.5
APR.							
14...	1435	17	69	7.0	13.0	14.5	10.8
MAY							
30...	1125	11	67	6.5	22.5	27.5	8.5
JULY							
02...	1400	13	64	6.2	24.5	26.5	8.0
AUG.							
08...	1215	21	69	6.1	22.0	23.0	5.0
SEP.							
29...	1435	18	78	6.6	19.0	21.5	9.4

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, at gaging station, 0.1 mile (0.2 km) upstream from Gravelly Branch, 2 miles (3.2 km) northeast of Greensboro, and 60 miles (97 km) upstream from mouth.

DRAINAGE AREA.--113 mi<sup>2</sup> (293 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)
NOV.												
04...	1500	27	14	--	--	--	--	14	3.4	7.7	2.7	35
25...	1100	25	15	--	--	--	--	12	2.9	8.4	2.4	30
DEC.												
23...	1400	146	18	910	440	70	50	8.2	2.7	6.0	2.0	10
JAN.												
23...	1035	323	13	--	--	--	--	6.5	2.3	4.8	2.0	7
FEB.												
24...	0930	259	12	--	--	--	--	7.0	2.3	5.0	2.0	10
MAR.												
25...	1415	764	9.3	2300	300	70	50	7.6	1.2	3.8	2.3	9
APR.												
02...	1200	190	--	--	--	--	--	--	--	--	--	--
MAY												
08...	1400	303	11	--	--	--	--	6.3	2.3	4.0	1.6	8
27...	1300	126	17	--	--	--	--	8.5	1.8	5.4	1.9	18
JUNE												
24...	1300	56	17	2500	340	50	40	9.7	2.6	7.3	2.0	24
JULY												
28...	1300	129	17	--	--	--	--	8.0	2.4	5.7	2.1	18
SEP.												
05...	1245	42	17	--	--	--	--	12	3.2	6.6	2.4	24
DATE	ALKA- LITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
NOV.												
04...	29	17	13	.2	.33	.26	.04	100	89	49	20	159
25...	25	16	13	.1	1.3	.20	.05	107	85	42	17	158
DEC.												
23...	8	19	7.9	.2	.75	.36	.05	95	69	32	23	114
JAN.												
23...	6	18	6.0	.2	.80	.44	.06	86	56	26	20	98
FEB.												
24...	8	16	8.2	.2	.73	.54	.10	84	58	27	19	101
MAR.												
25...	7	13	7.6	.3	.54	.99	.20	71	50	24	17	75
APR.												
02...	--	--	--	--	--	--	--	--	--	--	--	96
MAY												
08...	7	13	8.6	.2	--	--	--	86	51	25	19	84
27...	15	16	11	.3	.92	.64	.14	77	71	29	14	112
JUNE												
24...	20	14	12	.3	1.2	.40	.10	84	77	35	15	121
JULY												
28...	15	12	7.5	.3	.88	.68	.03	86	64	30	15	108
SEP.												
05...	20	16	12	.0	1.4	.21	.05	114	81	43	23	144



## 01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	WEATHER	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	TOTAL PHYTO- PLANK- TON (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS DRY WEIGHT G/SQ M	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M	FECAL COLI- FORM (COL. PER 100 ML)
NOV.												
04...	7.3	17.0	24.5	1	3	7.7	120	--	--	--	--	50
25...	7.2	6.0	13.0	3	5	10.2	73	--	--	--	--	130
DEC.												
23...	6.4	4.0	8.0	0	8	11.0	380	1.5	2.3	.1	.3	28
JAN.												
23...	6.4	2.0	2.5	1	10	12.5	760	--	--	--	--	110
FEB.												
24...	5.6	9.0	20.5	58	50	9.5	650	--	--	--	--	480
MAR.												
25...	6.2	12.5	17.0	3	75	8.5	680	--	--	--	--	2000
APR.												
02...	--	11.0	--	--	--	--	--	.50	1.6	.8	.1	--
MAY												
08...	6.4	16.0	20.5	0	15	8.5	500	--	--	--	--	180
27...	6.7	19.5	27.0	2	8	8.5	270	--	--	--	--	170
JUNE												
24...	7.0	24.0	30.5	3	12	8.2	510	2.5	12	20	1.8	62
JULY												
28...	6.8	21.5	26.5	1	13	7.7	410	--	--	--	--	1300
SEP.												
05...	7.3	20.0	23.5	1	6	8.2	3400	--	--	--	--	--
DATE	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)
NOV.												
04...	86	--	--	--	--	--	--	--	--	--	--	--
25...	45	--	--	--	--	--	--	--	--	--	--	--
DEC.												
23...	200	3.9	0	0	0	1	0	0	0	0	0	0
JAN.												
23...	180	--	--	--	--	--	--	--	--	--	--	--
FEB.												
24...	920	--	--	--	--	--	--	--	--	--	--	--
MAR.												
25...	>2500	11	2	1	0	0	0	0	2	1	0	10
APR.												
02...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
08...	39	--	--	--	--	--	--	--	--	--	--	--
27...	130	--	--	--	--	--	--	--	--	--	--	--
JUNE												
24...	250	4.6	0	0	0	0	<10	<10	1	0	10	0
JULY												
28...	300	--	--	--	--	--	--	--	--	--	--	--
SEP.												
05...	--	--	--	--	--	--	--	--	--	--	--	--
DATE	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	
NOV.												
04...	--	--	--	--	--	--	--	--	1	.07	100	
25...	--	--	--	--	--	--	--	--	5	.34	90	
DEC.												
23...	0	3	<.5	<.5	0	0	20	20	2	.79	100	
JAN.												
23...	--	--	--	--	--	--	--	--	1	.96	100	
FEB.												
24...	--	--	--	--	--	--	--	--	27	19	98	
MAR.												
25...	5	2	<.5	<.5	1	1	30	20	71	146	96	
APR.												
02...	--	--	--	--	--	--	--	--	--	--	--	
MAY												
08...	--	--	--	--	--	--	--	--	18	15	93	
27...	--	--	--	--	--	--	--	--	10	3.4	90	
JUNE												
24...	1	1	<.5	<.5	0	0	30	10	12	1.8	100	
JULY												
28...	--	--	--	--	--	--	--	--	16	5.6	96	
SEP.												
05...	--	--	--	--	--	--	--	--	3	.34	100	

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	162	140	---	106	99	93	107	92	110	126	139
2	---	162	134	---	---	103	96	100	88	114	127	136
3	---	167	100	---	109	106	100	93	86	125	130	135
4	---	163	99	---	108	108	93	91	85	128	132	140
5	---	162	113	---	108	112	81	84	119	134	65	143
6	---	160	121	---	103	114	90	74	111	138	56	---
7	---	158	124	---	94	114	94	83	110	138	74	142
8	---	158	132	---	95	116	99	86	104	140	85	141
9	---	164	122	---	---	117	105	88	109	142	98	146
10	---	162	124	---	98	118	108	94	115	136	108	147
11	---	158	124	---	102	118	113	86	120	135	116	147
12	---	158	128	---	102	120	114	93	122	136	122	147
13	---	155	130	---	104	112	116	101	115	130	125	141
14	---	154	135	---	100	103	118	104	106	---	128	144
15	---	154	130	---	---	90	118	93	102	45	125	147
16	---	158	124	---	---	73	114	93	108	51	129	140
17	---	157	94	---	---	80	101	93	114	59	125	143
18	---	157	92	---	---	86	100	86	113	65	128	147
19	---	153	100	---	---	91	102	91	106	74	130	146
20	---	154	107	---	---	72	105	98	99	81	130	---
21	---	153	112	---	---	61	106	104	108	78	130	150
22	---	153	117	---	---	67	112	104	117	53	134	149
23	---	150	114	98	---	76	116	93	121	62	134	133
24	---	153	---	104	---	80	117	90	121	77	134	80
25	---	158	---	101	---	67	118	97	132	79	136	61
26	---	168	---	---	---	67	106	105	133	82	138	68
27	---	160	---	97	---	77	77	112	134	93	136	75
28	---	163	---	95	96	88	82	116	137	108	137	85
29	---	163	---	99	---	94	87	94	138	114	138	98
30	157	162	---	101	---	99	94	117	134	119	139	107
31	160	---	---	103	---	100	---	121	---	124	136	---
TOTAL	---	159	---	---	---	94	103	96	113	102	121	128

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	17.0	---	---	4.5	7.0	9.0	15.0	23.0	20.5	23.5	21.0
2	---	16.0	---	---	---	6.0	11.0	13.0	21.5	20.0	24.5	20.0
3	---	18.0	---	---	2.0	4.0	13.0	13.0	21.0	22.0	25.0	20.0
4	---	18.0	---	---	1.5	2.5	8.0	15.0	21.0	23.0	27.5	21.0
5	---	18.0	---	---	2.0	3.0	5.0	14.0	21.0	23.0	24.0	21.5
6	---	16.0	---	---	3.0	4.5	8.0	13.0	21.0	23.0	24.5	---
7	---	13.0	---	---	4.5	7.0	7.0	15.0	21.0	23.0	23.0	22.0
8	---	11.0	---	---	2.0	8.0	7.0	15.0	19.5	23.0	21.0	21.0
9	---	11.0	---	---	---	6.5	8.0	16.0	18.0	23.5	21.0	21.0
10	---	10.0	---	---	0.5	4.0	10.0	17.0	18.5	23.0	22.0	18.0
11	---	9.0	---	---	1.0	5.0	8.0	19.0	19.0	23.0	23.0	20.0
12	---	11.0	---	---	4.0	6.0	9.0	18.0	20.0	22.5	23.0	22.0
13	---	11.0	---	---	1.0	7.0	11.0	19.0	20.0	22.0	23.5	21.0
14	---	10.0	---	---	0.5	8.0	8.0	18.0	20.5	---	24.0	17.5
15	---	9.0	---	---	---	5.5	10.0	19.0	23.0	23.5	24.0	15.5
16	---	7.0	---	---	---	6.0	9.0	19.5	22.5	24.0	24.0	16.0
17	---	7.0	---	---	---	7.0	10.0	19.0	23.0	24.5	23.5	17.0
18	---	7.0	---	---	---	7.0	12.0	19.0	23.0	24.0	23.0	17.5
19	---	8.0	---	---	---	9.0	14.0	18.0	23.5	25.0	23.0	18.5
20	---	9.0	---	---	---	11.0	14.0	19.0	24.0	25.0	23.0	---
21	---	8.0	---	---	---	10.0	13.0	20.0	23.0	25.0	22.5	21.0
22	---	8.0	---	---	---	10.5	11.5	22.0	22.0	25.0	24.0	19.5
23	---	5.0	4.0	2.0	---	11.0	11.0	22.5	22.0	25.0	23.5	18.0
24	8.0	7.0	---	---	---	12.0	15.0	23.0	23.0	25.0	23.0	16.0
25	---	8.0	---	6.0	---	12.5	17.0	23.0	25.0	25.0	23.0	20.0
26	---	5.0	---	---	---	12.0	16.0	19.0	24.5	23.0	24.5	21.0
27	---	---	---	5.0	---	8.0	15.0	19.5	23.0	21.0	25.0	21.0
28	---	---	---	5.5	---	7.0	16.0	21.0	22.5	22.0	24.0	19.0
29	---	---	---	5.5	---	8.0	14.5	22.0	23.0	23.0	22.0	17.0
30	15.0	---	---	7.5	---	11.0	14.0	21.0	23.0	23.0	22.0	17.0
31	15.0	---	---	6.5	---	8.5	---	22.0	---	23.0	22.5	---
AVG	---	10.5	---	---	---	7.5	11.0	18.5	22.0	23.5	23.5	19.5

## CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

NOV. 4, 1974  
 1500 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

120 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
.CHLOROPHYCEAE			
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		8	6
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		38	31
..PENNALES	PENNATE		
...FRAGILARIACEAE			
....SYNEDRA		46	37
...GOMPHONEMACEAE			
....GOMPHONEMA		8	6
...NAVICULACEAE	NAVICULOID		
....NAVICULA		23	19

NOV. 25, 1974  
 1100 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

73 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...FRAGILARIACEAE			
....SYNEDRA		15	20
...NAVICULACEAE	NAVICULOID		
....NAVICULA		36	50
...NITZSCHACEAE			
....NITZSCHIA		22	30

DEC. 23, 1974  
 1400 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

380 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		15	4
..PENNALES	PENNATE		
...NAVICULACEAE	NAVICULOID		
....NAVICULA		7	2
...NITZSCHACEAE			
....NITZSCHIA		15	4
CYANOPHYTA	BLUE-GREEN ALGAE		
.MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLARIACEAE			
....LYNGHYA		290	77
....OSCILLATORIA		52	13

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

JAN. 23, 1975  
 1035 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

760 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...SCENEDESMACEAE			
....CRUCIGENIA		11	1
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....MELOSIRA		11	1
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		11	1
...GOMPHONEMATACEAE			
....GOMPHONEMA		11	1
...NAVICULACEAE	NAVICULOID		
....STAURONEIS		44	6
...NITZSCHACEAE			
....NITZSCHIA		11	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIAACEAE			
....LYNGBYA		660	87

FEB. 24, 1975  
 0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

650 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...OCCYSTACEAE			
....TETRAEDRON		22	3
...SCENEDESMACEAE			
....SCENEDESMUS		45	7
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		45	7
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		22	3
...GOMPHONEMATACEAE			
....GOMPHONEMA		90	14
...NAVICULACEAE	NAVICULOID		
....NAVICULA		200	31
...NITZSCHACEAE			
....NITZSCHIA		200	31
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS		22	3

## CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued

BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

MAR. 25, 1975  
1415 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

680 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		110	16
....MELOSIRA		36	5
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		36	5
...EUNOTIACEAE			
....EUNOTIA		110	16
...GOMPHONEMACEAE			
....GOMPHONEMA		110	16
...NAVICULACEAE	NAVICULOID		
....NAVICULA		220	32
...NITZSCHIACEAE			
....NANTZSCHIA		36	5
....NITZSCHIA		36	5

MAY 8, 1975  
1400 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
.CHLOROPHYCEAE			
..ZYGNEMALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
....STAUSTRUM		13	3
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		13	3
....MELOSIRA		52	10
..PENNALES	PENNATE		
...FRAGILARIACEAE			
....SYNEDRA		90	18
...GOMPHONEMACEAE			
....GOMPHONEMA		52	10
...NAVICULACEAE	NAVICULOID		
....NAVICULA		150	31
...NITZSCHIACEAE			
....NITZSCHIA		90	18
.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSONOMADALES			
...OCHROMONADACEAE			
....DINORRYON		39	8

MAY 27, 1975  
1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

270 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....MELOSIRA		18	7
..PENNALES	PENNATE		
...EUNOTIACEAE			
....EUNOTIA		73	27
...FRAGILARIACEAE			
....FRAGILARIA		18	7
....SYNEDRA		18	7
...GOMPHONEMACEAE			
....GOMPHONEMA		55	20
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA		18	7
....NAVICULA		73	27

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

JUNE 24, 1975  
 1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

510 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		360	70
....MELOSIRA		51	10
..PENNALES	PENNATE		
...NAVICULACEAE	NAVICULOID		
....NAVICULA		51	10
....PINNULARIA		51	10

JULY 28, 1975  
 1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

420 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OCCYSTACEAE			
....ANKISTRODESMUS		13	3
....CLOSTERIOPSIS		13	3
....DICTYOSPHAERIUM		52	13
...SCENEDESMACEAE			
....SCENEDESMUS		26	6
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....COSCINODISCUS		13	3
....MELOSIRA		39	9
..PENNALES	PENNATE		
...EUNOTIACEAE			
....EUNOTIA		39	9
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA			0
....NAVICULA		91	22
....PINNULARIA		13	3
....STAURONEIS			0
...NITZSCHACEAE			
....NITZSCHIA		52	13
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
....EUGLENA		39	9
....TRACHELOMONAS		26	6

## CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

SEP. 5, 1975  
 1245 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3,400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...COELASTRACEAE			
....COELASTRUM		550	16
...OCCYSTACEAE			
....ANKISTRODESMUS		240	7
...SELENASTRUM		34	1
..TETRASPORALES			
...PALMELLACEAE			
....SPHAEROCYSTIS		1,100	32
..ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
....COSMARIUM		34	1
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		100	3
..PENNALES	PENNATE		
...NAVICULACEAE	NAVICULOID		
....NAVICULA		69	2
...NITZSCHIA			
....NITZSCHIA		100	3
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE		
...CHRYSOMONADALES			
...OCHROMONADACEAE			
....DINOBRYON		240	7
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS		890	26
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
....EUGLENA		34	1

## 01492000 BEAVERDAM BRANCH AT MATTHEWS, MD.

LOCATION.--Lat 38°48'41", long 75°58'15", Talbot County, at gaging station 50 ft (15 m) upstream from bridge on State Highway 328, 1 mile (2 km) west of Matthews, 6 miles (10 km) northeast of Easton, and 1.2 miles (1.9 km) upstream from mouth.

DRAINAGE AREA.--5.85 mi<sup>2</sup> (15.15 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1974 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT. 11...	1625	.38	158	7.4	12.0	21.5	8.8
DEC. 09...	1300	8.4	138	6.3	8.0	6.5	9.9
JAN. 20...	1100	45	137	6.2	3.0	.5	11.2
FEB. 28...	1215	6.5	119	6.4	4.0	6.0	12.3
APR. 09...	1555	5.6	114	7.0	11.5	16.5	11.2
MAY 30...	1605	2.0	132	7.0	19.0	24.0	8.3
JUNE 23...	1250	.82	144	7.1	19.5	25.5	8.2
AUG. 14...	1610	1.5	142	7.3	23.0	25.5	7.8
SEP. 18...	1250	.62	165	7.4	15.0	20.0	10.6

## CHESTER RIVER BASIN

## 01493000 UNICORN BRANCH NEAR MILLINGTON, MD.

LOCATION.--Lat 39°14'59", long 75°51'40", Kent County, at gaging station 20 ft (6 m) upstream from bridge on State Highway 313, 1.4 miles (2.3 km) southwest of Millington, and 0.9 mile (1.4 km) upstream from mouth.

DRAINAGE AREA.--22.3 mi<sup>2</sup> (57.8 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1974 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
OCT. 11...	1035	11	110	7.8	14.0	15.0	10.9
DEC. 05...	1650	29	102	6.5	4.0	2.0	10.0
JAN. 06...	1040	27	116	7.0	3.5	2.5	13.3
FEB. 22...	1500	46	99	6.0	2.0	3.0	12.3
APR. 21...	1510	22	112	6.2	7.0	12.5	12.1
MAY 17...	1355	38	107	7.0	12.0	18.5	11.5
JULY 21...	1210	27	99	7.2	22.0	25.5	8.0
AUG. 03...	1600	13	112	--	26.5	23.0	9.0
SEP. 13...	1445	15	106	7.6	28.0	32.0	8.5
SEP. 17...	1410	13	112	8.0	18.0	23.0	12.4



## CHESTER RIVER BASIN

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD.

LOCATION.--Lat 39°16'48", long 76°00'54", Kent County, at gaging station 200 ft (61 m) upstream from highway bridge, 2 miles (3 km) southwest of Kennedyville, and 4.5 miles (7.2 km) upstream from mouth.

DRAINAGE AREA.--10.5 mi<sup>2</sup> (27.2 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: July 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)
NOV. 15...	1015	7.0	--	--	--	--	--	--
DEC. 04...	1315	10	8.2	3400	330	9.5	3.2	7.0
JAN. 06...	1215	6.4	11	2000	470	11	3.2	4.5
22...	1220	10	9.3	2300	350	11	3.4	4.5
MAR. 07...	1455	9.0	8.2	2000	320	10	2.8	4.5
APR. 17...	1110	9.8	7.2	2000	240	11	2.1	4.3
MAY 21...	1415	9.6	13	3400	340	4.9	1.4	6.8
JULY 03...	1400	6.3	--	--	--	--	--	--
AUG. 14...	1100	25	7.6	6500	390	8.4	2.3	2.9

DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LINITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV. 15...	--	--	--	--	--	--	--	--	--
DEC. 04...	3.0	34	28	6.6	7.7	.1	1.2	.27	62
JAN. 06...	2.4	34	28	4.8	9.2	.1	1.9	.07	63
22...	4.8	31	25	7.6	9.2	.0	1.9	.20	65
MAR. 07...	2.8	35	29	4.9	9.6	.2	1.9	.12	60
APR. 17...	2.8	32	26	5.2	11	.2	1.8	.07	60
MAY 21...	1.8	34	28	4.8	9.4	.2	1.9	.13	59
JULY 03...	--	--	--	--	--	--	--	--	--
AUG. 14...	5.4	28	23	6.7	5.7	.1	.99	.05	53

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CUBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)
NOV. 15...	--	--	136	7.1	6.5	5.0	--	10.0
DEC. 04...	37	9	130	7.8	2.5	4.0	60	11.2
JAN. 06...	41	13	127	6.2	1.0	8.0	30	11.9
22...	41	16	134	6.4	1.5	2.0	40	12.8
MAR. 07...	37	8	120	6.5	8.0	13.0	20	11.7
APR. 17...	36	10	127	7.2	9.0	16.0	9	13.5
MAY 21...	18	0	126	7.4	20.5	29.0	12	8.3
JULY 03...	--	--	116	7.3	21.0	30.0	--	8.5
AUG. 14...	30	7	109	6.9	21.5	25.5	45	7.0

## 01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD.

LOCATION.--Lat 39°23'38", long 79°10'55", Garrett County, temperature recorder at gaging station on left bank 0.6 mile (1.0 km) downstream from bridge on State Highway 38 in Kitzmiller, 1.5 miles (2.4 km) downstream from Wolfden Run, and at mile 68.9 (110.9 km).

DRAINAGE AREA.--225 mi<sup>2</sup> (583 km<sup>2</sup>).

PERIOD OF RECORD.--Water temperatures: August 1961 to September 1975.

## EXTREMES.--1974-75:

Water temperatures: Maximum, 28.5°C Aug. 1, 2; minimum, freezing point on several days during November, December and March.

Period of record:

Water temperatures: Maximum, 32.0°C Aug. 15, 16, 18, 1965; minimum, freezing point on many days during winter periods.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01595500 NORTH BRANCH POTOMAC RIVER AT KITZMILLER, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	4.0	12.0	10.0	19.5	17.5	25.5	18.5	28.5	21.0	17.0	17.0
2	9.5	5.5	13.0	12.0	19.0	15.5	25.0	18.0	28.5	21.5	19.0	17.0
3	9.0	3.0	13.0	12.0	19.0	16.5	25.0	18.5	28.0	21.5	20.0	17.0
4	4.0	1.0	12.0	10.0	19.5	17.0	21.0	18.0	25.0	20.0	21.0	17.5
5	2.5	1.0	11.0	10.0	19.5	17.0	23.5	16.5	23.0	21.0	21.0	17.5
6	3.5	1.0	12.5	9.0	19.5	17.5	23.5	19.0	21.0	19.5	20.0	18.0
7	3.5	1.5	13.5	12.0	18.5	17.0	21.5	19.0	23.5	18.5	17.5	16.5
8	6.5	2.5	14.0	12.0	17.0	16.5	23.0	18.5	24.0	16.5	20.5	16.5
9	6.5	3.5	14.0	13.5	19.5	16.5	22.5	19.5	24.0	16.5	20.5	17.5
10	7.0	5.0	14.5	13.5	20.0	17.0	23.0	19.5	22.0	20.0	19.5	16.0
11	7.5	4.5	15.5	14.5	19.5	19.5	23.0	18.5	21.5	19.0	19.0	16.5
12	6.0	4.5	15.5	15.5	19.5	19.5	23.0	23.0	24.5	18.5	18.5	16.5
13	6.0	3.0	15.5	15.5	19.5	17.0	23.0	23.0	26.0	19.5	16.0	16.0
14	7.0	3.0	15.5	15.0	18.5	17.0	23.0	23.0	23.5	20.0	16.0	16.0
15	6.0	5.5	15.0	15.0	22.0	17.0	23.0	23.0	20.0	18.5	16.0	16.0
16	7.5	4.5	15.0	15.0	23.0	19.0	23.5	23.0	18.5	18.0	16.0	15.5
17	11.0	5.5	15.0	14.5	22.5	17.5	25.0	23.0	19.0	18.0	16.5	15.5
18	10.0	8.0	14.5	14.5	21.0	18.5	24.0	23.5	20.0	17.5	16.5	16.0
19	12.0	9.0	17.5	14.5	24.5	18.5	23.5	23.5	20.0	17.5	17.0	15.5
20	10.0	7.5	17.5	16.0	25.0	20.0	23.5	23.5	20.0	18.5	17.5	15.5
21	9.5	6.0	19.5	15.5	25.0	20.5	25.0	23.5	22.0	18.0	16.5	15.0
22	8.5	6.5	21.0	17.5	25.0	20.5	26.0	23.5	22.0	20.0	15.5	15.0
23	10.0	6.0	19.5	18.0	26.5	21.0	24.0	21.0	22.0	18.5	15.0	15.0
24	10.0	10.0	18.5	16.5	26.5	21.5	25.5	20.5	20.5	18.5	15.0	14.5
25	10.0	9.5	20.0	17.5	27.0	21.0	24.0	21.0	21.5	19.5	14.5	14.5
26	10.0	8.0	20.5	17.5	23.0	20.0	24.5	20.5	23.5	19.5	14.5	14.0
27	10.0	7.0	19.0	17.5	20.0	18.5	24.5	22.5	23.0	21.5	14.0	14.0
28	9.0	8.5	20.0	17.5	21.0	17.5	26.0	22.5	22.0	20.0	14.0	13.5
29	11.0	8.0	19.5	19.5	24.5	18.0	26.0	22.0	20.0	18.0	13.5	13.5
30	11.0	10.0	20.0	19.5	24.5	19.0	25.5	20.0	20.5	18.0	14.0	13.5
31	---	---	20.0	19.0	---	---	28.0	21.0	20.0	17.0	---	---
MONTH	12.0	1.0	21.0	9.0	27.0	15.5	28.0	16.5	28.5	16.5	21.0	13.5

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, W. VA.

LOCATION.--Lat 39°26'44", long 79°06'39", Garrett County, Md., at gaging station, at Barnum, W. Va., 0.4 mile (0.6 km) upstream from Folly Run, and 4.0 miles (6.4 km) southwest of Piedmont, W. Va.

DRAINAGE AREA.--266 mi<sup>2</sup> (689 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LINITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)
NOV. 15...	1045	141	5.4	500	1000	50	8.4	2.9	1.5	0	0	160
JAN. 07...	1225	855	4.7	2900	610	18	5.0	2.0	.9	0	0	78
29...	1035	1400	4.6	5000	640	22	4.8	3.4	.4	0	0	90
APR. 10...	1440	488	4.8	2400	660	31	6.6	2.4	.7	0	0	120
MAY 20...	1030	587	4.9	1900	600	23	4.9	1.7	.9	0	0	84
JUNE 12...	1135	562	5.5	6800	920	55	7.7	2.6	1.4	0	0	190
JULY 16...	1310	104	6.4	430	1100	61	12	3.0	1.3	0	0	210
AUG. 21...	1315	314	6.9	3400	1000	36	8.0	2.0	1.1	0	0	140
SEP. 30...	0925	414	5.5	1300	680	24	6.1	1.8	1.0	0	0	89

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL ACIDITY AS CACO <sub>3</sub> (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
NOV. 15...	4.2	.2	.27	.01	233	160	160	5.0	355	--	3.0	2
JAN. 07...	2.2	.1	.45	.14	111	66	66	20	--	--	4.5	2
29...	6.1	.1	.56	.09	132	75	75	25	--	--	4.5	7
APR. 10...	4.2	.4	.45	.04	171	100	100	25	--	4.1	7.0	2
MAY 20...	4.7	.2	.34	.03	125	78	78	10	229	4.3	16.5	1
JUNE 12...	3.2	.0	.43	.09	266	170	170	25	410	4.2	17.0	2
JULY 16...	3.5	.2	.32	.03	299	200	200	65	--	3.8	22.0	1
AUG. 21...	1.7	.2	.37	.10	197	120	120	74	--	3.4	21.5	1
SEP. 30...	2.7	.1	.37	.01	130	85	85	--	--	4.5	13.0	1

## POTOMAC RIVER BASIN

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.

LOCATION.--Lat 39°28'45", long 79°03'55", Mineral County, W. Va., temperature recorder at gaging station on right bank, 0.2 mile (0.3 km) downstream from Savage River, 0.5 mile (0.8 km) northwest of Luke, and at mile 53.3 (85.8 km).

DRAINAGE AREA.--404 mi<sup>2</sup> (1,046 km<sup>2</sup>).

PERIOD OF RECORD.--Water temperatures: December 1961 to December 1962, July to September 1963, December 1963 to September 1973, October 1974 to September 1975.

## EXTREMES.--1974-75:

Water temperatures: Maximum, 32.5°C July 31; minimum, freezing point on many days during winter period.

Period of record:

Water temperatures: Maximum, 33.0°C July 3, 1966; minimum, freezing point on many days during winter periods.

## TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	3.0	3.5	4.5	2.5	3.5	9.5	5.0	7.0	10.0	9.0	10.0
2	4.0	3.0	3.5	3.0	1.0	2.0	10.5	6.5	8.5	13.0	10.5	12.0
3	3.5	2.5	3.0	1.5	0.0	0.5	10.0	5.5	8.5	12.0	10.0	11.0
4	2.5	0.5	1.5	1.5	0.5	1.0	5.0	2.5	4.0	11.0	10.0	10.5
5	3.0	0.5	1.5	3.0	0.5	1.5	3.5	1.5	2.5	10.0	9.5	10.0
6	4.0	3.0	3.5	4.5	1.5	3.0	4.5	1.5	3.0	12.0	8.5	10.0
7	3.0	0.5	2.0	4.5	3.5	4.0	3.5	2.0	2.5	13.0	9.5	11.0
8	1.5	0.0	0.5	4.5	2.5	3.5	7.0	2.5	4.5	13.5	10.0	12.0
9	1.5	0.0	0.5	2.5	0.5	1.5	7.5	4.0	6.0	13.5	11.5	12.5
10	0.0	0.0	0.0	2.0	1.0	1.5	7.5	5.5	6.0	14.5	11.5	12.5
11	2.0	0.0	0.5	3.0	1.5	2.5	8.5	5.0	6.5	---	---	---
12	2.5	1.5	2.0	5.5	3.0	4.0	7.5	5.0	6.0	---	---	---
13	1.5	0.0	1.0	6.0	5.5	5.5	7.0	4.0	5.5	---	---	---
14	1.0	0.0	0.5	5.0	2.0	3.0	7.0	3.5	5.5	---	---	---
15	2.0	0.0	1.0	4.0	2.0	3.0	6.5	6.0	6.5	---	---	---
16	3.0	1.5	2.0	5.0	2.5	4.0	9.0	5.0	6.5	---	---	---
17	3.5	3.0	3.0	6.0	4.5	5.0	11.0	6.0	8.5	---	---	---
18	5.0	3.0	4.0	6.5	4.0	5.5	10.0	8.5	9.0	---	---	---
19	4.5	3.0	4.0	6.0	5.5	6.0	12.5	8.5	10.0	---	---	---
20	3.5	2.5	3.0	8.0	5.5	6.5	10.5	8.5	9.5	---	---	---
21	4.0	1.5	3.0	8.0	5.5	7.0	10.0	6.5	8.5	---	---	---
22	5.0	2.5	3.5	8.0	7.5	8.0	8.0	6.5	7.5	---	---	---
23	6.0	4.5	5.5	9.5	7.5	8.5	9.5	6.0	8.0	---	---	---
24	7.5	6.0	6.5	9.0	8.5	8.5	10.5	9.5	10.0	---	---	---
25	7.5	4.0	5.5	9.0	7.5	8.5	10.0	9.0	9.5	---	---	---
26	4.5	2.5	4.0	7.0	4.5	5.5	10.0	8.0	9.0	---	---	---
27	4.5	2.5	3.5	4.5	2.5	3.5	10.0	7.0	8.5	---	---	---
28	3.5	2.0	3.0	6.0	3.5	5.0	9.0	8.5	8.5	---	---	---
29	---	---	---	8.0	6.0	6.5	10.5	7.5	8.5	---	---	---
30	---	---	---	8.0	6.0	7.5	10.5	9.0	9.5	---	---	---
31	---	---	---	7.0	3.5	5.0	---	---	---	---	---	---
MONTH	7.5	0.0	2.5	9.5	0.0	4.5	12.5	1.5	7.0	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	27.5	23.5	25.0	32.0	28.5	29.0	18.0	17.5	17.5
2	---	---	---	27.0	23.0	25.0	30.5	28.5	29.5	20.0	17.5	18.5
3	---	---	---	26.5	23.0	25.0	30.0	28.0	29.0	21.0	18.0	19.5
4	---	---	---	25.0	23.0	23.5	30.0	27.5	28.5	---	---	---
5	---	---	---	25.0	22.0	23.5	31.0	27.0	29.0	---	---	---
6	---	---	---	26.0	23.0	24.0	31.0	26.5	28.5	20.0	17.5	18.5
7	---	---	---	25.0	23.5	24.0	30.5	27.5	29.0	17.5	15.5	16.5
8	---	---	---	25.5	23.0	24.5	29.5	27.5	28.5	20.5	15.5	17.5
9	---	---	---	25.0	23.5	24.5	30.5	27.5	29.0	19.5	17.5	19.0
10	---	---	---	25.0	23.0	23.5	31.5	28.0	30.0	19.5	19.5	19.5
11	---	---	---	25.0	22.5	23.5	---	---	---	---	---	---
12	---	---	---	24.0	22.5	23.5	---	---	---	---	---	---
13	---	---	---	23.5	22.5	23.0	---	---	---	---	---	---
14	---	---	---	24.5	22.5	23.5	---	---	---	---	---	---
15	---	---	---	25.0	23.5	24.5	---	---	---	---	---	---
16	---	---	---	26.5	24.0	25.0	---	---	---	---	---	---
17	---	---	---	27.0	25.0	26.0	---	---	---	---	---	---
18	---	---	---	27.0	25.0	26.0	---	---	---	---	---	---
19	---	---	---	27.0	25.5	26.0	---	---	---	---	---	---
20	---	---	---	27.0	25.5	26.0	---	---	---	---	---	---
21	---	---	---	28.5	26.0	27.5	---	---	---	---	---	---
22	---	---	---	29.5	26.0	28.0	---	---	---	---	---	---
23	---	---	---	29.5	26.5	27.5	---	---	---	---	---	---
24	---	---	---	29.0	27.5	28.0	---	---	---	---	---	---
25	---	---	---	29.0	26.0	27.5	---	---	---	---	---	---
26	25.5	24.0	24.5	30.0	26.0	28.0	---	---	---	---	---	---
27	24.0	23.0	23.5	30.5	27.5	28.5	---	---	---	---	---	---
28	24.0	22.5	23.0	31.0	27.0	28.5	---	---	---	---	---	---
29	26.0	23.0	24.5	31.0	27.5	29.5	---	---	---	---	---	---
30	26.0	23.5	24.5	32.0	28.5	30.0	---	---	---	---	---	---
31	---	---	---	32.5	28.5	30.5	---	---	---	---	---	---
MONTH	---	---	---	32.5	22.0	26.0	---	---	---	---	---	---

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.

LOCATION.--Lat 39°37'16", long 78°46'24", Allegany County, at gaging station, at Wiley Ford Bridge, 2.0 miles (3.2 km) south of Cumberland, 2.1 miles (3.4 km) downstream from Wills Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--875 mi<sup>2</sup> (2,266 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1975.

Water temperatures: October 1964 to September 1975.

Sediment records: October 1964 to September 1975.

EXTREMES.--1974-75:

Water temperatures: Maximum 32.0°C Aug. 1, 2; minimum 3.5°C Feb. 13, 14.

Sediment concentrations: Maximum daily, 874 mg/l May 4; minimum daily, 1 mg/l Jan. 17.

Sediment discharge: Maximum daily, 21,500 tons (19,500 t) May 4; minimum daily, 2.9 tons (2.6 t) Jan. 17.

Period of record:

Water temperatures: Maximum, 33.0°C July 13, 14, 1966, July 16, 18, Aug. 19, 23, 1968; minimum freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 1,600 mg/l Feb. 13, 1966; minimum daily, 1 mg/l Jan. 17, 1975.

Sediment discharge: Maximum daily, 61,000 tons (55,300 t) Mar. 6, 1967; minimum daily, 2.1 tons (1.9 t) Aug. 27, 1971.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975.

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)
OCT.												
02...	1345	169	5.7	1200	870	100	16	46	3.3	67	55	230
NOV.												
01...	1420	215	4.5	960	820	72	12	49	5.0	67	55	180
JAN.												
03...	1500	5790	5.0	4400	430	15	4.2	5.4	1.1	3	2	51
FEB.												
04...	1200	2200	5.1	1200	370	22	6.0	8.2	1.3	21	17	65
MAR.												
04...	1335	1880	5.5	470	40	28	8.0	8.2	1.3	20	16	82
31...	1445	2230	5.6	1100	330	25	6.8	5.8	1.3	23	19	67
MAY												
01...	1315	4060	5.7	1200	260	20	5.3	5.7	1.4	21	17	55
JUNE												
02...	1445	1030	5.4	910	570	44	11	11	1.9	36	30	110
JULY												
01...	1345	344	6.2	1500	830	66	13	19	2.5	39	32	180
AUG.												
04...	1410	222	6.2	1300	730	110	16	50	4.8	60	49	230
SEP.												
02...	1145	2200	6.7	1300	270	22	5.5	5.0	2.1	27	22	46

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CORALT UNITS)
OCT.											
02...	88	.3	.84	.11	522	320	260	850	--	13.5	30
NOV.											
01...	78	.2	.22	.08	434	230	170	710	--	16.5	40
JAN.											
03...	8.4	.2	.69	.07	92	55	52	--	--	4.0	30
FEB.											
04...	13	.1	.68	.04	131	80	62	--	--	2.5	20
MAR.											
04...	15	.2	.70	.03	158	100	86	276	--	2.5	4
31...	12	.1	.65	.04	135	90	72	--	7.2	6.0	4
MAY											
01...	10	.3	.73	.05	114	72	55	194	7.5	10.5	4
JUNE											
02...	19	.1	.38	.05	220	160	130	376	7.4	20.0	4
JULY											
01...	34	.1	.53	.05	340	220	190	540	7.4	25.5	5
AUG.											
04...	95	.3	.39	.03	542	340	290	--	7.6	28.5	25
SEP.											
02...	6.7	.2	.77	.03	108	78	55	--	7.5	17.0	1

## 01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	18.5	5.5	---	---	7.0	10.0	10.0	16.0	25.5	32.0	19.0
2	18.5	18.5	6.0	10.0	6.5	7.0	10.0	12.0	15.5	21.0	32.0	21.0
3	18.5	18.5	6.5	---	5.5	4.5	---	---	15.5	25.5	29.0	21.0
4	18.5	20.0	---	10.0	---	4.5	6.5	11.0	15.5	26.0	30.0	23.5
5	19.0	17.0	6.5	11.0	5.5	5.5	6.5	10.0	16.5	26.5	26.5	23.5
6	19.5	18.5	6.5	7.0	---	---	6.5	---	15.5	25.5	20.0	21.0
7	20.0	18.5	7.0	4.5	4.5	5.5	8.0	11.5	16.0	24.0	20.0	21.0
8	---	18.5	---	4.5	4.5	6.5	8.0	13.0	16.5	24.0	---	22.0
9	17.0	18.5	---	5.5	4.5	5.5	10.0	13.0	20.0	---	25.5	22.0
10	18.5	18.5	6.5	7.0	4.5	4.5	10.0	13.0	20.0	24.5	24.0	21.0
11	18.5	20.0	---	10.0	5.5	5.5	10.0	14.0	20.0	24.0	24.5	22.0
12	18.5	14.5	6.5	---	---	---	11.0	14.5	20.0	24.0	25.5	22.0
13	18.5	4.5	6.0	10.0	3.5	8.0	10.0	14.5	20.0	24.0	29.0	21.0
14	18.5	4.5	6.5	6.5	3.5	8.0	10.0	---	24.0	24.0	26.5	20.0
15	---	4.5	6.5	6.5	4.5	---	10.0	13.0	26.5	---	18.0	20.0
16	---	4.5	---	6.5	---	8.0	10.0	---	25.5	25.5	22.0	20.0
17	18.5	4.5	---	7.0	5.5	10.0	10.0	13.0	24.5	25.5	22.0	20.0
18	18.5	4.5	6.5	6.5	6.5	9.0	10.0	13.0	25.5	25.5	23.5	21.0
19	18.5	4.5	7.0	---	5.5	10.0	10.0	15.5	29.0	29.0	24.0	20.0
20	---	4.5	6.5	5.5	5.5	10.0	10.0	15.5	29.0	29.0	24.0	20.0
21	---	4.5	---	5.5	7.0	10.0	10.0	---	29.0	29.0	24.0	20.0
22	18.5	4.5	---	6.5	5.5	10.0	10.0	---	29.0	29.5	24.5	20.0
23	18.5	4.5	---	---	10.0	10.0	11.5	15.5	29.5	30.5	24.5	19.5
24	18.5	5.5	---	6.5	11.0	10.0	12.0	15.5	29.5	30.5	25.5	20.0
25	---	---	7.0	6.5	---	---	---	15.5	29.5	29.5	25.5	20.0
26	---	---	7.0	6.5	11.0	10.0	---	15.5	24.0	28.0	25.5	19.5
27	---	---	7.0	---	7.0	9.0	12.0	16.5	24.0	28.0	25.5	18.5
28	18.0	---	7.0	7.0	7.0	---	12.0	15.5	24.0	28.0	25.5	18.5
29	16.5	4.5	7.0	7.0	---	9.0	12.0	15.5	23.5	---	24.5	18.5
30	18.5	5.5	7.0	7.0	---	9.0	11.5	18.5	24.0	29.5	23.0	19.5
31	---	---	---	---	---	9.0	---	18.5	---	31.0	21.0	---
AVG	---	11.0	---	---	6.0	8.0	10.0	14.0	22.5	26.5	25.0	20.5



## POTOMAC RIVER BASIN

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	186	15	7.5	210	21	12	437	36	46
2	170	16	7.3	198	19	10	1230	37	123
3	168	19	8.6	181	21	10	859	40	93
4	173	19	8.9	180	24	12	686	68	126
5	177	20	9.6	178	23	11	500	44	59
6	176	18	8.6	177	24	11	450	25	30
7	171	21	9.7	186	28	14	441	16	19
8	177	20	9.6	189	37	19	722	32	62
9	192	20	10	175	28	13	1770	36	164
10	191	21	11	169	22	10	1490	10	40
11	186	23	12	164	22	9.7	1550	24	100
12	188	25	13	259	34	24	1410	20	76
13	187	23	12	414	40	45	1100	14	42
14	186	22	11	427	36	42	1150	17	53
15	185	25	12	339	38	35	1140	9	28
16	285	28	22	304	42	34	1770	38	201
17	712	37	73	280	44	33	2820	41	312
18	543	31	45	256	40	28	2140	24	139
19	389	26	27	242	37	24	1340	8	29
20	332	26	23	243	30	20	1210	2	6.5
21	297	27	22	263	20	14	1110	8	24
22	280	26	20	349	18	17	1030	16	45
23	260	27	19	337	18	16	943	14	36
24	246	27	18	304	18	15	1470	38	151
25	238	25	16	369	29	29	4860	39	405
26	233	24	15	609	45	74	7130	10	193
27	231	24	15	508	39	54	5360	26	372
28	231	24	15	411	37	41	3960	38	405
29	218	24	14	397	41	44	3570	14	135
30	214	21	12	349	39	37	3950	17	181
31	208	19	11	---	---	---	4670	25	315
TOTAL	7630	---	517.8	8667	---	757.7	62268	---	4010.5
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8580	349	8420	4820	69	898	2300	18	112
2	8190	342	7530	3730	35	352	1920	20	104
3	6220	370	6210	2750	14	104	1690	20	91
4	4820	370	4820	2240	9	54	1830	70	346
5	3230	206	1850	2040	24	132	1290	45	157
6	2630	42	298	2440	14	92	1240	10	33
7	1940	11	58	2930	18	142	1360	30	110
8	1620	13	57	2470	14	93	2690	120	872
9	1920	8	41	2310	9	56	2110	46	262
10	2420	11	72	1500	22	89	1870	24	121
11	1870	7	35	1390	19	71	2120	30	172
12	2120	16	92	1750	12	57	2260	24	146
13	2600	16	112	2600	22	154	3260	54	475
14	2230	13	78	2090	16	90	3220	32	278
15	1730	13	61	1540	9	37	3020	27	220
16	1320	3	11	1410	16	61	2760	38	283
17	1080	1	2.9	1860	22	110	2710	45	329
18	1020	3	8.3	3950	52	625	3150	50	425
19	1240	24	85	6470	162	2860	8790	398	13200
20	2270	19	116	5900	70	1130	13100	354	14200
21	1960	6	32	4550	30	369	7910	115	2470
22	1390	4	15	3900	43	453	5280	75	1070
23	1270	4	14	4340	73	991	4360	60	706
24	1170	4	13	8050	220	4780	3600	65	632
25	1580	8	41	7740	108	2260	3930	50	531
26	4410	49	593	5760	62	964	3670	40	396
27	3220	32	278	4410	48	572	2470	35	233
28	3340	24	216	3060	50	413	2080	60	337
29	3590	25	244	---	---	---	1960	80	423
30	7460	90	1780	---	---	---	2220	135	809
31	5210	86	1210	---	---	---	2250	180	1090
TOTAL	93650	---	34393.2	98000	---	18009	102420	---	40633

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued  
SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY). WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1960	110	582	4020	80	868	1150	21	65
2	1730	22	103	3940	12	128	1040	25	70
3	1670	50	225	3230	100	872	923	24	60
4	1840	42	209	7790	874	21500	829	20	45
5	1820	30	147	7830	860	18900	743	19	38
6	1680	40	181	5220	390	5500	685	28	52
7	1560	40	168	4370	200	2360	753	19	39
8	1440	18	70	3690	60	598	673	12	22
9	1340	10	36	2510	8	54	578	13	20
10	1280	10	35	2460	20	133	517	14	20
11	1230	10	33	2070	22	123	510	15	21
12	1150	10	31	1930	17	89	1100	32	95
13	1060	14	40	1920	18	93	1380	34	127
14	978	15	40	1760	19	90	949	14	36
15	923	12	30	1590	19	82	774	20	42
16	914	16	39	3030	40	327	650	18	32
17	877	20	47	2660	24	172	575	14	22
18	812	27	59	2270	16	98	497	13	17
19	779	30	63	2090	15	85	443	14	17
20	798	21	45	1800	19	92	405	14	15
21	852	25	58	1510	26	106	367	15	15
22	796	38	82	1370	25	92	326	17	15
23	737	18	36	1560	29	122	299	16	13
24	720	60	117	1530	30	124	279	22	17
25	3450	536	6240	1390	24	90	280	20	15
26	11300	592	18800	1200	17	55	293	16	13
27	6120	315	5340	1450	24	94	454	23	28
28	3970	335	3590	1350	20	73	886	58	139
29	4110	425	4720	1390	42	158	633	41	70
30	4400	350	4160	1460	30	118	429	25	29
31	---	---	---	1190	18	58	---	---	---
TOTAL	62296	---	45326	81580	---	53254	19420	---	1209

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	346	20	19	191	18	9.3	3000	350	2840
2	290	18	14	199	23	12	2220	125	749
3	266	19	14	208	22	12	1500	28	113
4	556	45	68	217	22	13	1090	25	74
5	783	66	140	315	26	22	855	28	65
6	505	38	52	287	27	21	795	28	60
7	407	28	31	376	29	29	746	29	58
8	383	28	29	286	23	18	675	31	57
9	403	25	27	223	25	15	586	28	44
10	366	20	20	187	15	7.6	512	25	35
11	375	20	20	186	17	8.5	471	26	33
12	386	26	27	221	28	17	486	28	37
13	1190	100	328	303	27	22	513	29	40
14	619	62	104	783	46	109	469	26	33
15	464	37	46	1590	222	977	421	26	30
16	458	26	32	3400	258	2730	399	26	28
17	410	21	23	2270	154	944	394	31	33
18	398	26	28	1370	42	155	481	37	48
19	532	26	37	921	16	40	1050	43	122
20	506	35	48	710	10	19	907	35	86
21	382	24	25	592	11	18	736	29	58
22	360	19	18	514	53	74	646	28	49
23	332	23	21	702	107	177	1470	92	481
24	292	22	17	2050	125	856	3350	200	1810
25	369	21	21	935	34	86	3910	120	1270
26	377	22	22	656	26	46	6280	155	2670
27	310	22	18	605	19	31	3660	105	1040
28	245	17	11	588	24	38	2910	50	393
29	212	16	9.2	452	18	22	2260	40	244
30	198	18	9.6	450	44	68	1830	30	148
31	197	16	8.5	2460	274	2140	---	---	---
TOTAL	12917	---	1287.3	24247	---	8736.4	44622	---	12748

**TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 220881.9**

## POTOMAC RIVER BASIN

01613000 POTOMAC RIVER AT HANCOCK, MD.

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, at U.S. Highway 522 at Hancock, 0.5 mile (0.8 km) upstream from gaging station, 0.3 mile (0.5 km) upstream from Little Tonoloway Creek, 1.6 miles (2.6 km) upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239 (385 km).

DRAINAGE AREA.--4,073 mi<sup>2</sup> (10,549 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1972.

Water temperatures: July 1952 to February 1964, July 1966 to September 1975.

EXTREMES.--1973-75:

Water temperatures: Maximum, 31.5°C Aug. 2; minimum, 1.5°C on several days during December to February.

Period of record:

Water temperatures: Maximum, 34.0°C July 22, 1952; minimum, freezing point on many days during winter periods.

REMARKS.--Records fair, probably because of friction in recorder. Temperature recorder at gaging station 0.5 mile downstream from sampling site.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

01613000 POTOMAC RIVER AT HANCOCK, MD.---Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	7.0	---	---	23.0	22.5	25.0	23.5	30.5	27.5	22.0	21.5
2	9.5	8.5	---	---	22.5	21.0	25.5	24.0	31.5	28.0	21.5	20.0
3	9.5	9.5	---	---	22.0	21.5	26.5	25.0	31.0	29.0	21.5	20.0
4	9.5	8.0	---	---	22.5	21.0	26.0	25.0	31.0	28.5	22.0	21.0
5	8.0	6.5	---	---	22.5	22.0	27.0	25.0	30.5	28.5	22.5	21.5
6	6.5	5.5	---	---	23.0	22.5	27.0	25.5	29.5	25.0	22.5	22.5
7	6.5	6.0	---	---	23.0	21.5	27.0	26.0	26.0	23.0	22.0	21.0
8	8.0	6.5	---	---	21.5	20.5	26.5	25.0	25.5	23.5	22.5	21.0
9	8.5	7.5	---	---	21.5	19.5	26.5	26.0	25.5	23.5	23.0	22.0
10	9.0	8.5	---	---	22.0	20.5	26.5	26.0	25.5	24.5	22.0	20.5
11	9.5	8.5	---	---	22.0	20.0	26.5	25.0	25.0	24.5	22.0	20.5
12	10.0	9.5	---	---	20.0	18.5	26.0	25.0	27.0	24.0	22.0	21.0
13	10.0	9.0	---	---	21.5	20.0	25.0	23.5	27.5	26.0	21.0	18.5
14	9.5	8.5	16.0	15.0	22.5	21.0	23.5	23.0	27.5	26.0	19.0	17.0
15	9.5	8.5	16.0	16.0	24.5	22.5	24.0	23.0	26.5	26.0	18.0	17.5
16	10.0	9.5	17.5	16.0	25.0	24.5	24.0	24.0	26.0	25.0	17.5	17.0
17	12.0	10.0	17.5	17.0	26.0	24.5	25.5	24.0	25.0	24.5	19.5	17.0
18	12.0	11.5	17.5	17.0	27.0	25.5	26.5	25.0	24.5	23.5	19.0	18.5
19	12.5	11.5	18.5	17.5	28.0	26.5	27.5	26.0	24.5	23.5	20.5	18.0
20	12.5	11.5	20.0	18.5	28.5	27.5	27.5	27.0	25.5	24.5	20.0	20.0
21	13.0	11.5	22.0	20.0	28.5	27.5	28.0	26.5	26.0	24.5	20.5	19.5
22	12.5	12.0	22.0	22.0	28.5	27.0	28.0	27.0	26.5	25.5	20.0	18.5
23	13.0	11.5	23.0	22.0	29.0	27.5	28.5	27.0	26.5	25.0	18.5	16.5
24	---	---	23.0	22.5	29.0	28.0	30.0	28.0	26.5	24.5	17.0	16.0
25	---	---	23.0	21.5	29.0	28.0	29.5	29.0	26.5	26.0	16.0	15.5
26	---	---	21.5	20.5	27.5	25.5	29.0	27.0	27.5	26.0	15.5	15.5
27	---	---	21.5	21.0	25.5	20.0	27.5	25.5	27.5	26.0	16.0	15.5
28	---	---	22.0	21.0	21.5	20.0	28.5	26.5	27.0	25.0	16.0	16.0
29	---	---	22.0	21.5	23.0	21.5	29.0	26.5	26.5	25.5	16.0	16.0
30	---	---	22.5	22.0	24.0	23.0	29.0	27.0	26.0	25.0	16.0	16.0
31	---	---	23.0	22.0	---	---	29.0	26.5	25.5	21.5	---	---
MONTH	---	---	---	---	29.0	18.5	30.0	23.0	31.5	21.5	23.0	15.5

## 01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, at highway bridge at Fairview, 0.7 mile (1.1 km) downstream from gaging station, 1.3 miles (2.1 km) upstream from Rockdale Run, 6.0 miles (9.7 km) northwest of Hagerstown, and 18.4 miles (29.6 km) upstream from mouth.

DRAINAGE AREA.--495 mi<sup>2</sup> (1,282 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1975.

Water temperatures: November 1966 to September 1975.

Sediment records: October 1966 to September 1975.

## EXTREMES: 1974-75:

Water temperatures: Maximum, 24°C several days during July, August; freezing point Feb. 9.

Sediment concentrations: Maximum daily, 392 mg/l Dec. 19; minimum daily, 1 mg/l on several days during November, February, and April.

Sediment discharge: Maximum daily, 9,520 tons (8,640 t) Mar. 20; minimum daily, 0.38 ton (0.34 t) Nov. 24.

Period of record:

Water temperatures: Maximum, 30°C July 17, 1969; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 1,050 mg/l Oct. 25, 1971; minimum daily, 1 mg/l, on many days during 1967, 1970-75.

Sediment discharge: Maximum daily, 73,000 tons (66,200 t) June 23, 1972; minimum daily, 0.17 ton (0.15 t) Nov. 24, 26, 27, 1966.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) *(UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- RONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT. 07...	1305	103	.2	140	20	60	13	10	3.1	213	175	23
NOV. 11...	1500	97	.2	70	20	58	13	11	2.6	201	165	26
DEC. 16...	1400	1280	6.9	3000	1800	34	7.9	5.2	2.7	105	86	19
JAN. 23...	1350	591	6.4	240	1000	40	9.0	6.5	1.7	130	107	20
FEB. 24...	1345	3050	6.2	2000	150	29	7.0	3.8	2.6	85	70	19
APR. 09...	1220	753	4.9	170	20	43	9.0	4.6	1.7	139	114	19
MAY 13...	1310	1020	4.6	490	30	35	7.1	3.8	1.7	124	102	4.5
JUNE 17...	1600	735	7.0	570	50	47	9.0	4.9	2.1	154	126	18
JULY 23...	1220	274	3.7	250	20	56	11	6.4	2.3	188	154	19
AUG. 28...	1235	162	3.6	160	10	60	11	7.7	2.9	234	192	23

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT. 07...	14	.2	2.3	.18	229	200	29	453	--	13.0	--	2
NOV. 11...	14	.2	1.5	.22	224	200	34	410	--	7.0	--	5
DEC. 16...	6.9	.1	2.3	.22	134	120	31	--	--	4.5	6.5	20
JAN. 23...	11	.1	2.6	.07	159	140	30	--	--	5.0	--	9
FEB. 24...	8.4	.3	2.1	.18	118	100	32	--	--	8.5	16.5	30
APR. 09...	9.4	.3	2.5	.06	160	140	30	--	8.2	8.5	--	3
MAY 13...	5.6	.1	1.7	.08	124	120	15	--	8.0	16.0	21.0	3
JUNE 17...	9.1	.1	3.0	.10	173	150	28	322	8.2	21.0	26.0	2
JULY 23...	9.2	.2	3.1	.13	200	190	31	--	8.6	23.5	--	2
AUG. 28...	11	.3	3.1	.18	235	200	3	--	8.3	21.0	--	2

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	11.0	3.0	5.0	3.0	4.0	9.0	10.0	20.0	22.0	23.0	23.0
2	11.0	11.0	4.0	5.0	4.0	4.0	9.0	10.0	19.0	22.0	23.0	23.0
3	11.0	12.0	4.0	4.0	4.0	4.0	9.0	10.0	20.0	22.0	23.0	23.0
4	11.0	12.0	4.0	4.0	4.0	3.0	9.0	10.0	19.0	22.0	23.0	23.0
5	12.0	9.0	3.0	5.0	3.0	3.0	9.0	10.0	19.0	21.0	23.0	23.0
6	12.0	9.0	3.0	4.0	3.0	4.0	9.0	10.0	20.0	21.0	22.0	23.0
7	12.0	8.0	4.0	4.0	2.0	4.0	8.0	10.0	19.0	22.0	---	23.0
8	11.0	8.0	4.0	3.0	1.0	4.0	9.0	11.0	19.0	21.0	22.0	22.0
9	12.0	9.0	4.0	3.0	0.0	5.0	10.0	10.0	19.0	22.0	23.0	22.0
10	12.0	8.0	3.0	3.0	1.0	4.0	10.0	11.0	20.0	22.0	23.0	23.0
11	12.0	9.0	3.0	3.0	2.0	4.0	10.0	10.0	18.0	21.0	22.0	22.0
12	12.0	8.0	4.0	5.0	1.0	4.0	10.0	15.0	19.0	21.0	23.0	22.0
13	12.0	8.0	4.0	6.0	1.0	5.0	10.0	14.0	20.0	21.0	---	21.0
14	12.0	9.0	4.0	3.0	1.0	4.0	10.0	15.0	20.0	21.0	---	21.0
15	12.0	8.0	4.0	2.0	1.0	5.0	10.0	15.0	19.0	21.0	22.0	21.0
16	12.0	8.0	4.0	3.0	1.0	5.0	9.0	15.0	19.0	22.0	23.0	21.0
17	11.0	8.0	4.0	4.0	2.0	5.0	9.0	15.0	20.0	22.0	23.0	21.0
18	11.0	9.0	4.0	4.0	2.0	5.0	9.0	15.0	20.0	22.0	23.0	21.0
19	10.0	6.0	4.0	4.0	2.0	5.0	10.0	17.0	19.0	22.0	23.0	21.0
20	10.0	6.0	4.0	3.0	2.0	5.0	10.0	19.0	19.0	22.0	23.0	21.0
21	9.0	6.0	4.0	1.0	2.0	6.0	10.0	20.0	20.0	22.0	23.0	20.0
22	9.0	6.0	4.0	1.0	6.0	8.0	10.0	20.0	20.0	23.0	23.0	19.0
23	9.0	6.0	4.0	1.0	2.0	8.0	10.0	20.0	20.0	22.0	24.0	18.0
24	9.0	5.0	4.0	1.0	2.0	9.0	10.0	20.0	20.0	23.0	24.0	18.0
25	9.0	4.0	4.0	2.0	5.0	9.0	11.0	20.0	22.0	23.0	24.0	18.0
26	9.0	3.0	4.0	2.0	4.0	8.0	10.0	20.0	21.0	22.0	23.0	17.0
27	9.0	3.0	4.0	2.0	4.0	8.0	10.0	19.0	21.0	22.0	24.0	18.0
28	9.0	3.0	4.0	4.0	4.0	8.0	10.0	19.0	22.0	22.0	24.0	16.0
29	9.0	3.0	4.0	4.0	---	8.0	10.0	19.0	21.0	22.0	24.0	15.0
30	9.0	3.0	4.0	3.0	---	9.0	10.0	19.0	21.0	24.0	24.0	16.0
31	9.0	---	4.0	3.0	---	9.0	---	19.0	---	22.0	24.0	---
AVG	10.5	7.5	4.0	3.5	2.5	5.5	9.5	15.0	20.0	22.0	23.0	20.5

## POTOMAC RIVER BASIN

01614500 CONOCOCHEAQUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	113	6	1.8	103	4	1.1	125	4	1.4
2	106	4	1.1	104	5	1.4	1380	58	266
3	102	4	1.1	102	4	1.1	1410	24	90
4	100	6	1.6	105	3	.85	746	70	141
5	100	4	1.1	110	3	.89	509	137	188
6	100	4	1.1	108	4	1.2	403	14	15
7	102	4	1.1	105	4	1.1	353	9	8.6
8	102	5	1.4	104	5	1.4	1280	61	264
9	101	8	2.2	101	6	1.6	1710	74	342
10	101	12	3.3	98	7	1.9	935	59	149
11	97	10	2.6	99	5	1.3	660	29	52
12	98	9	2.4	159	11	4.7	544	14	21
13	94	9	2.3	387	23	24	480	25	32
14	93	14	3.5	235	20	13	434	26	30
15	95	14	3.6	206	6	3.3	403	14	15
16	136	12	4.4	189	4	2.0	1720	41	303
17	262	15	11	165	4	1.8	2910	96	767
18	177	6	2.9	152	2	.82	1530	60	245
19	140	2	.76	143	1	.39	1080	392	1140
20	123	2	.66	143	1	.39	860	258	599
21	114	5	1.5	177	1	.48	722	30	58
22	113	4	1.2	167	1	.45	637	50	86
23	110	5	1.5	150	2	.81	543	256	375
24	108	5	1.5	140	1	.38	500	66	89
25	107	5	1.4	136	4	1.5	480	20	26
26	106	6	1.7	133	2	.72	457	14	17
27	105	8	2.3	125	2	.68	408	32	35
28	104	5	1.4	127	2	.69	391	42	44
29	106	4	1.1	123	2	.66	374	19	19
30	107	4	1.2	117	2	.63	353	38	36
31	105	3	.85	---	---	---	341	17	16
TOTAL	3527	---	65.57	4313	---	71.24	24678	---	5470.0
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	425	17	20	894	9	22	1520	11	45
2	430	21	24	809	6	13	1320	2	7.1
3	395	43	46	723	4	7.8	1160	4	13
4	382	23	24	654	5	8.8	1010	10	27
5	370	46	46	643	4	6.9	911	26	64
6	345	32	30	672	7	13	848	30	69
7	345	70	65	695	10	19	813	21	46
8	349	245	231	580	6	9.4	820	10	22
9	1390	300	1030	480	2	2.6	705	5	9.5
10	1680	85	386	430	2	2.3	657	7	12
11	1230	48	159	440	3	3.6	633	6	10
12	1040	44	124	508	5	6.9	758	26	53
13	1250	32	108	485	4	5.2	1300	140	491
14	1160	23	72	390	5	5.3	1050	60	170
15	820	19	42	340	2	1.8	1010	23	63
16	720	10	19	380	1	1.0	1320	56	200
17	640	6	10	443	1	1.2	1620	62	271
18	580	5	7.8	1090	6	18	1710	28	129
19	594	40	64	1860	42	222	4990	155	3180
20	954	31	80	2410	38	247	10300	336	9520
21	720	11	21	1840	67	333	4680	108	1460
22	620	15	25	1540	39	162	2900	50	392
23	580	6	9.4	1980	63	367	2430	36	236
24	594	2	3.2	3320	163	1610	2080	20	112
25	935	10	39	4050	110	1200	2120	23	132
26	2080	30	168	2910	20	157	1710	20	92
27	1420	16	61	2160	22	128	1450	18	70
28	1120	20	60	1760	18	86	1320	87	310
29	1020	16	44	---	---	---	1270	76	261
30	1040	11	31	---	---	---	1660	31	139
31	959	11	28	---	---	---	1640	21	93
TOTAL	26187	---	3077.4	34486	---	4659.8	57715	---	17698.6

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD.--Continued  
 SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1350	60	219	1450	24	94	1390	188	718
2	1200	92	298	1380	10	37	734	134	266
3	1210	31	101	1130	20	61	555	88	132
4	1170	15	47	1960	48	264	474	23	29
5	997	12	32	2290	58	359	802	82	215
6	913	20	49	1890	46	235	1020	133	366
7	854	8	18	1910	16	83	913	120	296
8	803	8	17	1530	16	66	701	70	132
9	749	4	8.1	1330	49	176	567	39	60
10	707	3	5.7	1240	41	137	494	20	27
11	675	8	15	1090	16	47	456	33	41
12	644	9	16	1010	12	33	1640	134	759
13	606	8	13	1040	10	28	2700	196	1490
14	570	5	7.7	898	11	27	1410	85	324
15	567	7	11	799	51	110	1030	40	111
16	575	10	16	895	34	82	836	25	56
17	539	10	15	813	11	24	722	23	45
18	513	2	2.8	708	9	17	631	24	41
19	527	1	1.4	667	4	7.2	564	20	30
20	501	1	1.4	623	4	6.7	510	17	23
21	457	4	4.9	581	4	6.3	463	10	13
22	432	5	5.8	551	6	8.9	427	20	23
23	416	3	3.4	538	5	7.3	403	10	11
24	431	8	9.3	524	3	4.2	423	10	11
25	1430	34	205	539	6	8.7	429	16	19
26	6620	168	3040	564	14	21	419	13	15
27	3260	90	809	502	11	15	904	172	619
28	2100	49	278	469	4	5.1	2270	213	1340
29	1730	34	159	421	3	3.4	1190	134	431
30	1460	35	138	400	11	12	818	48	106
31	---	---	---	592	48	97	---	---	---
TOTAL	34006	---	5546.5	30334	---	2082.8	25895	---	7749
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	658	33	59	186	5	2.5	421	32	36
2	562	22	33	182	7	3.4	302	18	15
3	509	18	25	177	4	1.9	271	15	11
4	508	19	26	269	41	30	216	9	5.2
5	476	16	21	511	139	205	194	11	5.8
6	420	11	12	305	130	107	330	16	14
7	387	20	21	259	51	36	367	16	16
8	516	59	82	226	55	34	272	8	5.9
9	458	48	59	204	14	7.7	223	8	4.8
10	471	68	86	189	8	4.1	194	5	2.6
11	428	50	58	189	6	3.1	180	5	2.4
12	538	45	65	189	8	4.1	180	5	2.4
13	429	67	78	190	9	4.6	186	4	2.0
14	508	36	49	566	75	127	177	5	2.4
15	506	19	26	379	76	78	162	4	1.8
16	435	14	16	307	40	33	158	2	.85
17	439	15	18	556	30	45	154	2	.83
18	391	22	23	358	37	36	158	5	2.1
19	380	23	24	289	11	8.6	318	15	13
20	339	17	16	244	9	5.9	480	25	42
21	316	23	20	222	7	4.2	1110	213	652
22	305	16	13	213	7	4.0	560	50	76
23	274	16	12	200	24	13	2730	228	1760
24	256	21	15	189	22	11	2410	243	1590
25	250	12	8.1	187	8	4.0	8200	248	5750
26	242	10	6.5	184	7	3.5	14400	150	5830
27	224	9	5.4	170	5	2.3	11400	70	2260
28	217	2	1.2	163	3	1.3	4610	59	736
29	207	3	1.7	159	8	3.4	2600	50	351
30	199	4	2.2	167	25	11	1890	50	255
31	191	3	1.5	239	42	27	---	---	---
TOTAL	12039	---	883.6	7868	---	861.6	54853	---	19446.08

TOTAL DISCHARGE FOR YEAR (FT<sup>3</sup>/S-DAYS) 315901

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 67612.19



## POTOMAC RIVER BASIN

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, at gaging station on left bank 400 ft (120 m) downstream from Burnside Bridge, 1 mile (1.6 km) southeast of Sharpsburg, and 4.0 miles (6.4 km) upstream from mouth. Chemical samples collected from Burnside Bridge.

DRAINAGE AREA.--281 mi<sup>2</sup> (728 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1975.  
Water temperatures: October 1962 to September 1975.

EXTREMES.--1974-75:

Water temperatures: Maximum, 23.0°C Aug. 3-6; minimum, 3.5°C several days during November to January.

Period of record:

Water temperatures: Maximum, 28.0°C on several days in 1963, 1968, and 1969; freezing point on many days during winter periods.

REMARKS.--Temperature records poor, probably because of friction in recorder.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)
OCT. 22...	0905	113	6.6	70	0	72	13	10	4.0	233	191	31
NOV. 15...	1320	164	5.9	230	30	62	14	12	3.9	218	179	25
DEC. 23...	1000	307	8.0	500	60	61	13	7.4	2.5	205	168	26
JAN. 29...	1030	451	7.8	1100	380	58	12	7.3	3.0	191	157	26
MAR. 11...	1200	406	7.4	270	30	61	13	6.5	2.9	213	175	27
APR. 10...	1220	447	5.9	430	40	67	14	6.4	2.5	202	166	28
MAY 15...	1045	495	6.7	530	40	59	11	6.3	2.6	187	153	24
JULY 17...	0945	406	8.0	1500	80	68	13	7.7	3.4	213	175	23
AUG. 26...	1245	217	7.9	260	10	69	16	6.8	3.1	256	210	25

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT. 22...	18	.3	3.4	.96	270	230	42	540	7.9	6.0	5
NOV. 15...	17	.3	3.6	.52	248	210	34	475	7.5	7.0	10
DEC. 23...	13	.2	3.5	.23	232	210	38	500	8.2	4.5	9
JAN. 29...	13	.2	3.4	.20	221	190	38	460	7.6	6.0	8
MAR. 11...	13	.3	4.0	.30	236	210	31	510	8.3	5.5	7
APR. 10...	12	.2	3.6	.21	236	230	59	500	8.1	9.0	3
MAY 15...	11	.2	3.0	.18	213	190	39	425	7.8	15.0	2
JULY 17...	10	.2	3.3	.18	238	220	49	405	7.8	19.0	7
AUG. 26...	12	.4	3.9	.24	266	240	28	410	8.1	22.0	1

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	8.0	11.5	11.5	19.5	18.5	18.5	18.0	22.0	21.5	19.5	18.5
2	10.5	9.0	13.0	11.5	18.5	17.0	18.5	17.5	22.5	22.0	18.5	18.5
3	10.5	9.0	14.0	12.5	17.0	16.5	18.5	18.5	23.0	22.5	18.5	18.5
4	9.0	7.5	14.0	13.5	17.5	16.5	18.5	18.5	23.0	23.0	19.0	18.5
5	7.5	5.5	13.5	13.0	17.5	17.0	18.5	18.0	23.0	23.0	19.0	19.0
6	7.0	5.5	13.0	12.0	17.5	17.0	19.0	18.5	23.0	21.5	19.0	19.0
7	7.0	7.0	14.5	12.5	17.5	16.5	19.0	19.0	21.5	20.5	19.0	19.0
8	8.0	7.0	15.0	13.0	16.5	15.0	19.0	19.0	20.5	20.0	19.5	19.0
9	9.0	7.5	15.0	14.0	15.0	14.5	19.0	19.0	20.0	20.0	19.5	19.5
10	9.5	9.0	14.5	13.5	16.0	15.0	19.0	19.0	20.0	20.0	19.5	18.5
11	10.0	9.5	15.0	14.0	16.0	15.5	19.0	18.5	20.5	20.0	18.5	18.5
12	10.0	10.0	15.0	15.0	15.5	15.5	18.5	18.5	20.5	20.5	19.5	18.5
13	10.0	9.5	15.0	14.5	17.0	15.5	18.5	18.5	21.5	20.5	19.0	16.5
14	10.5	9.0	16.0	14.0	17.5	16.5	18.5	18.0	21.5	21.0	16.5	16.0
15	10.5	10.5	16.5	15.0	18.5	17.0	18.0	18.0	21.0	21.0	16.0	15.5
16	10.5	10.0	17.0	16.5	18.5	18.5	18.0	18.0	21.0	21.0	15.5	15.5
17	12.0	10.5	17.0	16.5	18.5	18.0	19.0	19.0	21.0	21.0	15.5	15.5
18	12.0	11.5	16.5	16.5	19.0	17.5	20.0	19.0	21.0	20.5	16.5	15.5
19	12.0	12.0	17.5	16.5	19.5	19.0	20.5	20.0	20.5	20.5	16.5	16.5
20	12.0	11.5	19.0	17.5	19.5	19.5	21.0	20.5	21.0	20.5	17.5	16.5
21	12.0	11.5	19.5	18.5	19.5	19.5	22.0	21.0	21.0	21.0	18.0	17.5
22	12.0	11.5	19.5	19.0	19.5	19.0	22.0	21.5	21.0	21.0	18.0	17.5
23	12.0	11.0	20.0	19.0	19.5	19.5	21.5	21.5	21.0	20.5	17.5	16.5
24	12.0	12.0	20.0	20.0	20.5	19.5	22.0	21.5	20.5	20.5	16.5	16.5
25	13.0	12.0	20.0	18.0	20.5	20.0	22.0	22.0	22.0	20.5	16.5	16.5
26	13.0	13.0	18.0	17.5	20.5	19.5	22.0	20.5	22.5	22.0	16.5	16.5
27	13.0	11.5	17.5	17.0	19.5	18.0	20.5	20.5	22.5	22.5	16.5	16.0
28	13.0	12.0	18.0	17.0	18.0	17.5	20.5	20.5	22.5	21.5	16.0	15.5
29	12.0	12.0	18.5	18.0	18.5	17.5	21.0	20.5	21.5	21.5	15.0	15.0
30	12.0	11.5	19.0	18.5	18.5	18.0	21.0	21.0	21.5	21.5	15.5	15.0
31	---	---	19.5	19.0	---	---	21.0	21.0	21.5	19.5	---	---
MONTH	13.0	5.5	20.0	11.5	20.5	14.5	22.0	17.5	23.0	19.5	19.5	15.0

## 01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, at gaging station at bridge on U. S. Highway 15 at Point of Rocks, 0.3 mile (0.5 km) downstream from Catoctin Creek (Virginia), 6 miles (9.7 km) upstream from Monocacy River and at mile 159.5 (256.6 km).

DRAINAGE AREA.--9,651 mi<sup>2</sup> (24,996 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1975.

Water temperatures: October 1960 to September 1975.

Sediment records: October 1960 to September 1975.

EXTREMES.--1974-75:

Sediment concentrations: Maximum daily, 864 mg/l Mar. 21; minimum daily, 4 mg/l Mar. 9, 12.

Sediment discharge: Maximum daily, 385,000 tons (349,000 t) Mar. 21; minimum daily, 42 tons (38 t) Oct. 4.

Period of record:

Water temperatures: Maximum, 33.5°C Aug. 24, 1964; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 2,350 mg/l Apr. 3, 1970; minimum daily, 1 mg/l on many days most years.

Sediment discharge: Maximum daily, 689,000 tons (625,000 t) June 23, 1972; minimum daily, 2 tons (1.8 t) on many days during 1964, 1966-69.

REMARKS.--Water temperatures measured once daily in field at time of sampling.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT. 23...	1235	2370	1.3	140	20	60	11	28	3.2	164	135	83
NOV. 14...	1025	2270	2.5	400	60	46	9.7	14	3.3	137	112	50
DEC. 23...	1415	9110	7.5	360	60	25	5.8	5.1	1.6	68	56	26
FEB. 03...	1050	15200	6.0	1100	80	21	5.1	4.8	1.7	54	44	26
MAR. 06...	1530	9760	7.2	370	70	25	5.7	4.7	1.6	81	66	30
APR. 14...	1200	8140	4.9	280	40	35	7.2	5.7	1.7	92	75	36
MAY 16...	1410	13800	7.1	1000	70	27	5.3	4.2	2.2	69	57	29
JULY 18...	1215	6890	6.6	420	30	38	8.2	7.7	2.6	126	103	27
AUG. 27...	1205	4380	5.1	330	50	44	9.0	7.8	2.5	127	104	41
SEP. 27...	1345	120000	7.2	5400	360	20	3.6	2.3	2.8	56	46	17

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT. 23...	27	.1	.83	.51	294	200	61	580	7.7	12.0	6
NOV. 14...	19	.2	.73	.44	212	150	42	430	8.3	8.5	10
DEC. 23...	7.8	.2	1.3	.28	113	86	31	250	7.1	4.0	20
FEB. 03...	7.9	.1	1.1	.05	99	73	29	220	7.1	3.5	9
MAR. 06...	8.1	.2	1.5	.04	122	86	19	275	7.7	5.5	6
APR. 14...	9.1	.2	1.3	.03	145	120	42	295	8.8	9.0	3
MAY 16...	6.8	.0	.92	.09	116	89	33	240	6.9	17.5	8
JULY 18...	6.3	.1	1.3	.09	159	130	25	265	7.4	25.5	6
AUG. 27...	8.9	.2	1.1	.06	181	150	43	340	8.2	26.5	2
SEP. 27...	4.1	.2	.96	.22	85	65	19	146	7.4	18.0	35

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	16.0	7.0	5.0	5.0	8.0	---	13.0	24.0	26.0	30.0	23.0
2	14.0	16.0	---	5.0	5.0	6.0	---	14.0	23.0	27.0	---	24.0
3	12.0	---	5.0	5.0	5.0	4.0	---	15.0	23.0	---	32.0	23.0
4	12.0	18.0	4.0	5.0	4.0	5.0	9.0	17.0	23.0	26.0	30.0	24.0
5	14.0	16.0	4.0	---	3.0	---	8.0	16.0	25.0	26.0	30.0	24.0
6	15.0	14.0	5.0	5.0	5.0	8.0	8.0	16.0	24.0	28.0	26.0	23.0
7	15.0	12.0	---	5.0	4.0	7.0	8.0	16.0	24.0	26.0	---	24.0
8	15.0	---	6.0	5.0	---	6.0	9.0	16.0	23.0	---	27.0	---
9	15.0	13.0	---	5.0	3.0	5.0	10.0	17.0	22.0	27.0	27.0	24.0
10	15.0	11.0	3.0	5.0	3.0	---	11.0	---	---	26.0	26.0	23.0
11	16.0	12.0	4.0	7.0	3.0	6.0	11.0	17.0	---	---	---	23.0
12	---	11.0	5.0	---	---	6.0	10.0	---	21.0	26.0	---	22.0
13	---	10.0	5.0	5.0	3.0	6.0	10.0	17.0	22.0	24.0	---	---
14	17.0	9.0	5.0	---	3.0	---	12.0	19.0	23.0	---	---	21.0
15	16.0	---	5.0	---	3.0	5.0	11.0	20.0	---	26.0	---	20.0
16	14.0	---	6.0	---	4.0	7.0	12.0	20.0	24.0	25.0	---	---
17	16.0	---	---	---	4.0	7.0	---	20.0	25.0	26.0	---	21.0
18	14.0	8.0	---	4.0	5.0	8.0	---	20.0	28.0	25.0	---	20.0
19	11.0	9.0	5.0	---	5.0	8.0	---	---	29.0	---	---	21.0
20	10.0	---	5.0	---	5.0	9.0	13.0	22.0	29.0	---	---	23.0
21	10.0	7.0	4.0	---	7.0	9.0	13.0	23.0	28.0	29.0	27.0	22.0
22	11.0	7.0	4.0	---	---	---	12.0	24.0	28.0	---	27.0	---
23	12.0	7.0	4.0	2.0	8.0	9.0	13.0	24.0	28.0	30.0	25.0	19.0
24	11.0	7.0	6.0	3.0	8.0	10.0	15.0	---	30.0	29.0	27.0	---
25	13.0	6.0	5.0	4.0	8.0	10.0	15.0	---	30.0	---	---	---
26	12.0	4.0	4.0	4.0	---	8.0	15.0	23.0	26.0	---	---	17.0
27	11.0	4.0	5.0	4.0	---	---	13.0	25.0	24.0	---	26.5	17.0
28	10.0	5.0	4.0	4.0	8.0	9.0	13.0	---	24.0	28.0	---	17.0
29	12.0	---	5.0	5.0	---	9.0	13.0	24.0	23.0	---	---	17.0
30	13.0	---	5.0	6.0	---	9.0	13.0	25.0	24.0	---	28.0	18.0
31	15.0	---	5.0	6.0	---	10.0	---	26.0	---	30.0	24.0	---
AVG	13.5	---	5.0	---	5.0	7.5	11.5	19.5	25.0	---	---	21.5

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
DEC. 03...	1840	28200	5.0	237	18000	36	52	70	82
MAR. 21...	1210	177000	9.0	893	427000	--	36	67	81
APR. 27...	1230	44200	13.0	298	35600	34	49	64	78
JUNE 02...	1615	21700	23.0	153	8960	46	59	73	86
SEP. 26...	2135	125000	17.0	421	142000	37	48	62	76
26...	2235	161000	17.0	382	166000	--	44	61	80
DATE		SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
DEC. 03...		88	--	91	93	96	100	--	--
MAR. 21...		87	--	95	99	100	--	--	--
APR. 27...		88	--	96	97	98	98	99	100
JUNE 02...		92	--	97	98	99	100	--	--
SEP. 26...		85	94	--	95	97	100	--	--
26...		84	--	90	95	97	100	--	--

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1770	22	105	1690	46	210	2360	31	198
2	1650	22	98	1690	40	183	14900	72	3440
3	1600	12	52	1640	38	168	29500	328	26100
4	1560	10	42	1640	34	151	18800	159	8490
5	1540	11	46	1650	42	187	11600	68	2130
6	1490	16	64	1740	42	197	8660	55	1290
7	1450	15	59	1680	37	168	6780	49	897
8	1430	17	66	1700	42	193	6730	51	927
9	1450	25	98	1620	45	197	8650	45	1050
10	1570	44	187	1580	43	183	13200	56	2000
11	1500	42	170	1590	37	159	18100	73	3570
12	1490	26	105	1790	54	261	14100	58	2210
13	1470	19	75	2100	52	295	11000	48	1430
14	1470	12	48	2430	40	262	9390	43	1090
15	1470	14	56	2830	38	290	8810	44	1050
16	1680	19	86	2720	35	257	11300	56	1710
17	1890	15	77	2710	36	263	17400	83	4120
18	2000	13	70	2540	41	281	23800	105	6750
19	2050	13	72	2280	36	222	20500	87	4820
20	2460	20	133	2160	33	192	15800	58	2470
21	3130	21	177	2170	33	193	12300	47	1560
22	2710	10	73	2140	32	185	10500	42	1190
23	2370	19	122	2060	33	184	9300	32	804
24	2110	40	228	1990	36	193	8320	14	314
25	1980	54	289	2010	33	179	7520	8	162
26	1890	71	362	2090	36	203	7480	10	202
27	1840	72	358	2130	36	207	14500	22	952
28	1740	67	315	2090	30	169	16300	113	4970
29	1780	59	284	2150	33	192	14000	66	2490
30	1780	51	245	2320	31	194	11700	26	821
31	1770	58	277	---	---	---	10700	16	462
TOTAL	56090	---	4439	60930	---	6218	394000	---	89669
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	10800	15	437	19000	27	1390	17500	32	1510
2	11400	18	554	16600	35	1570	14900	21	845
3	16200	30	1310	15200	26	1070	13000	12	421
4	13800	56	2090	13700	20	740	11600	17	532
5	11900	35	1120	12300	14	465	10500	9	255
6	10300	18	501	11400	6	185	9850	12	319
7	8690	12	282	11500	6	186	9000	8	194
8	7780	8	168	12900	12	418	8610	6	139
9	7640	5	103	14900	14	563	8540	4	92
10	9130	5	123	13900	15	563	9450	9	230
11	11100	12	360	12300	12	399	8920	7	169
12	10700	16	462	11100	5	150	8560	4	92
13	9820	13	345	11300	6	183	9340	7	177
14	10300	17	473	20700	41	2450	11900	11	353
15	10800	22	642	22400	72	4350	14900	16	644
16	9960	21	565	17700	51	2440	20800	34	2000
17	9090	18	442	14900	27	1090	26300	54	3830
18	8060	9	196	14100	14	533	30200	67	5460
19	7540	6	122	18700	22	1110	39200	147	16200
20	8020	9	195	26100	59	4160	109000	658	214000
21	11000	18	585	27100	80	5850	165000	864	385000
22	13500	44	1600	22600	50	3050	79700	356	80000
23	12500	28	945	19500	25	1320	46800	181	22900
24	11300	13	397	20800	30	1680	36400	120	11800
25	11600	9	282	29100	92	7560	30300	96	7850
26	13900	15	563	31800	125	10700	26700	76	5480
27	21500	47	2850	26600	78	5600	23400	54	3410
28	27900	93	7010	21100	46	2620	19700	38	2020
29	21800	53	3120	---	---	---	17100	29	1340
30	18000	29	1410	---	---	---	16900	38	1730
31	18000	29	1410	---	---	---	20100	40	2170
TOTAL	384030	---	30662	509300	---	62395	874170	---	771162

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued  
 SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	21700	31	1820	21700	53	3110	15200	237	10300
2	19600	30	1590	22500	50	3040	20700	257	14400
3	17300	35	1630	21300	46	2650	16000	146	6310
4	15800	35	1490	22800	50	3080	12700	75	2570
5	14700	27	1070	33700	113	10800	10800	57	1660
6	13400	22	796	42900	174	20200	11000	90	2670
7	12200	16	527	33900	103	9430	9480	67	1710
8	11300	11	336	26800	66	4780	8360	59	1330
9	10600	10	286	22000	38	2260	7460	60	1210
10	9960	11	296	18100	24	1170	6780	59	1080
11	9450	12	306	17100	45	2080	6110	47	775
12	9040	9	220	15400	43	1790	6530	53	934
13	8600	17	395	15300	34	1400	10500	99	2810
14	8150	27	594	14700	29	1150	11100	80	2400
15	7880	15	319	14100	23	876	9120	50	1230
16	7680	31	643	13700	38	1410	7550	48	978
17	7530	34	691	13900	55	2060	6600	44	784
18	7440	30	603	15700	62	2630	5930	40	640
19	7230	26	508	14300	34	1310	5380	38	552
20	6880	25	464	13100	33	1170	4950	39	521
21	6580	24	426	12100	32	1050	4590	42	521
22	6400	24	415	11100	58	1740	4200	40	454
23	6200	21	352	10400	27	758	4030	38	413
24	6050	19	310	10400	27	758	3820	35	361
25	6730	24	436	10700	30	867	3700	31	310
26	20100	115	7640	11300	30	915	4050	25	273
27	42200	343	39100	10600	32	916	3980	22	236
28	29500	211	16800	9830	28	743	11900	93	3780
29	21900	95	5620	10600	33	944	20800	245	13800
30	19100	56	2890	9000	42	1020	14600	93	3670
31	---	---	---	8090	45	983	---	---	---
TOTAL	391200	---	88573	527120	---	87090	267920	---	78682
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9980	81	2180	3760	40	406	8480	83	1900
2	7450	56	1130	3280	44	390	9670	91	2380
3	6040	38	620	3110	47	395	10300	122	3390
4	5360	33	478	2860	22	170	8390	78	1770
5	5040	36	490	2900	15	117	7530	75	1520
6	4860	39	512	3170	16	137	6100	69	1140
7	4780	29	374	3180	17	146	5180	65	909
8	4980	21	282	6370	62	1070	4730	62	792
9	4870	22	289	5180	29	406	4430	48	574
10	4920	29	385	5040	25	340	4390	42	498
11	6800	31	569	4350	24	282	3950	43	459
12	8250	52	1160	3920	22	233	3730	38	383
13	9670	53	1380	3510	22	208	3540	34	325
14	8750	45	1060	3460	21	196	3260	33	290
15	9040	52	1270	3760	20	203	3050	32	264
16	8840	46	1100	4060	22	241	2930	32	253
17	7840	42	889	4590	24	297	2860	33	255
18	6930	40	748	7760	49	1030	2780	32	240
19	7180	67	1300	8000	40	864	2940	35	278
20	6100	55	906	6210	31	520	2970	55	441
21	8880	94	2250	4890	24	317	3600	68	661
22	11500	98	3040	4240	28	321	5310	72	1030
23	7730	82	1710	3820	27	278	6270	57	965
24	6200	71	1190	3510	19	180	15600	54	2270
25	5580	60	904	3390	24	220	47800	166	26100
26	6070	51	865	3850	46	478	105000	568	161000
27	6600	41	731	4330	60	701	118000	253	80600
28	5550	38	569	3690	52	518	65700	158	28000
29	4930	57	759	3170	46	394	38300	107	11100
30	4380	62	733	2910	38	299	27800	60	4500
31	3920	52	550	3130	38	321	---	---	---
TOTAL	209020	---	30423	129400	---	11678	534590	---	334287
TOTAL DISCHARGE FOR YEAR (FT <sup>3</sup> /S-DAYS)			4337770	TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)			1595278		

## POTOMAC RIVER BASIN

01639000 MONOCACY RIVER AT BRIDGEPORT, MD.

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, at bridge on Maryland State Highway 97, 60 feet (18 m) upstream from gaging station at Bridgeport, 0.9 mile (1.4 km) upstream from Cattail Branch, 3.4 miles (5.5 km) northwest of Taneytown, 4.8 miles (7.7 km) downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 miles (83.7 km) upstream from mouth.

DRAINAGE AREA.--173 mi<sup>2</sup> (448 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: April 1948 to June 1951, July 1969 to September 1972, October 1973 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT.											
07...	1015	5.0	--	--	--	--	--	--	--	--	.32
21...	1015	13	--	--	--	--	--	--	--	--	.49
NOV.											
05...	1015	12	--	--	--	--	--	--	--	--	.16
18...	1215	30	--	--	--	--	--	--	--	--	.79
DEC.											
03...	1000	340	--	--	--	--	--	--	--	--	2.6
17...	1030	908	15	5.2	4.0	2.2	27	22	26	7.8	3.3
JAN.											
06...	1015	57	--	--	--	--	--	--	--	--	2.3
21...	1045	20	--	--	--	--	--	--	--	--	1.6
FEB.											
03...	1015	155	--	--	--	--	--	--	--	--	2.8
18...	1000	494	--	--	--	--	--	--	--	--	1.9
MAR.											
03...	1115	175	--	--	--	--	--	--	--	--	1.6
17...	0945	872	19	4.9	5.7	1.7	38	31	28	11	1.6
31...	1000	324	--	--	--	--	--	--	--	--	1.1
APR.											
21...	1000	57	--	--	--	--	--	--	--	--	.53
MAY											
05...	1000	720	--	--	--	--	--	--	--	--	1.3
19...	1000	143	--	--	--	--	--	--	--	--	.64
JUNE											
09...	1010	170	--	--	--	--	--	--	--	--	1.3
23...	1015	52	22	5.7	7.0	1.9	73	60	19	8.1	.67
JULY											
15...	0945	372	--	--	--	--	--	--	--	--	1.5
28...	1010	26	--	--	--	--	--	--	--	--	.65
AUG.											
11...	1015	15	--	--	--	--	--	--	--	--	.77
25...	0940	18	--	--	--	--	--	--	--	--	.15
26...	1000	--	--	--	--	--	--	--	--	--	--
SEP.											
09...	1030	32	--	--	--	--	--	--	--	--	1.4
22...	1000	231	19	5.8	5.0	3.4	50	41	23	7.1	1.4

01639000 MONOCACY RIVER AT BRIDGEPORT, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
OCT.										
07...	.00	.30	.21	.31	200	20	360	7.5	12.0	17.5
21...	.02	1.8	.50	.91	191	2	360	6.9	5.0	2.5
NOV.										
05...	.00	.16	.29	.45	203	22	350	7.2	14.5	15.5
18...	.01	.23	.18	.27	163	2	295	7.8	4.0	10.0
DEC.										
03...	.04	.43	.25	.31	132	48	230	7.3	3.0	6.0
17...	.03	.42	.41	.22	120	52	190	7.2	4.0	6.0
JAN.										
06...	.03	.11	.26	.15	155	0	275	7.1	.0	.0
21...	.01	.16	.26	.11	152	12	235	6.8	.0	-4.0
FEB.										
03...	.04	.14	.30	.11	159	17	290	7.0	.0	3.5
18...	.06	.58	.09	.25	146	24	275	6.8	.5	7.0
MAR.										
03...	.03	.10	.22	.08	110	2	195	6.8	1.0	.0
17...	.04	.17	.29	.15	111	30	200	7.1	4.0	6.5
31...	.02	.17	.31	.12	115	10	195	6.9	5.0	2.0
APR.										
21...	.03	.04	.36	.14	136	7	220	7.8	10.0	10.0
MAY										
05...	.03	.19	.59	.15	111	26	160	7.1	12.0	11.0
19...	.01	.03	.32	.11	129	15	200	7.6	18.0	21.5
JUNE										
09...	.04	.01	.39	.15	142	35	210	7.5	16.0	18.0
23...	.01	.01	.51	.12	131	5	200	7.5	23.0	27.0
JULY										
15...	.04	.05	.75	.21	135	34	205	7.4	20.5	23.0
28...	.01	.05	.35	.16	138	11	240	7.7	23.0	26.0
AUG.										
11...	.05	.03	.43	.23	152	16	250	7.6	23.0	27.0
25...	.02	.07	.80	.29	173	26	290	8.6	24.0	29.0
26...	--	--	--	--	--	--	--	8.7	26.0	--
SEP.										
09...	.04	.03	.44	.28	173	3	255	7.6	20.0	20.0
22...	.03	.00	1.0	.19	139	48	190	7.4	17.0	16.0

DATE	WEATHER	TUR- BID- ITY (JTU).	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.										
07...	1	9	9.1	14	2.1	7.6	.9	180	110	6.1
21...	0	4	8.4	22	3.7	1.3	.0	120	63	7.4
NOV.										
05...	51	10	5.8	19	3.2	12	.4	190	260	7.6
18...	3	4	12.2	18	1.8	.0	2.5	360	270	7.2
DEC.										
03...	1	70	12.5	33	5.5	7.3	2.3	828000	858000	13
17...	1	--	12.6	25	3.0	4.7	2.0	4300	820000	5.3
JAN.										
06...	1	5	13.7	8	1.5	.7	.2	41	100	3.4
21...	3	8	14.5	13	1.6	1.8	.5	630	81600	4.4
FEB.										
03...	1	5	14.4	9	.8	1.0	1.4	897	450	3.8
18...	3	9	14.6	16	3.5	3.2	7.6	82600	10000	3.6
MAR.										
03...	1	4	14.1	8	.3	.0	.0	57	8410	3.7
17...	2	30	13.0	16	2.1	1.4	5.0	2000	83700	3.8
31...	0	25	12.4	19	2.0	2.0	5.0	540	600	5.7
APR.										
21...	1	2	10.6	7	2.0	3.5	6.7	820	87	4.0
MAY										
05...	50	--	9.9	22	2.4	3.7	8.7	3000	6800	6.8
19...	1	6	9.0	14	1.5	--	--	230	130	4.4
JUNE										
09...	1	7	9.1	15	1.4	.6	.0	560	380	6.5
23...	0	3	7.6	9	.8	7.1	.0	170	120	5.4
JULY										
15...	51	21	8.2	28	1.9	.0	.0	5700	6100	9.8
28...	0	2	7.1	11	1.3	6.4	.0	410	250	1.2
AUG.										
11...	1	8	6.8	17	1.6	7.2	.0	310	270	9.6
25...	0	15	9.4	23	3.0	72	.0	--	--	6.2
26...	0	--	--	--	--	--	--	270	920	--
SEP.										
09...	0	5	7.0	17	1.5	1.6	.0	400	410	10
22...	0	30	8.9	28	2.8	.0	.0	89000	817000	9.1

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).



## POTOMAC RIVER BASIN

01641810 MONOCACY RIVER NEAR WALKERSVILLE, MD.

LOCATION.--Lat 39°28'47", long 77°23'18", Frederick County at Biggs Ford Bridge on Biggs Ford Road, 2.0 miles (3.2 km) west of Walkersville, 4.7 miles (7.6 km) north of Frederick, 9.3 miles (15.0 km) upstream from Lingamore Creek, and 26.5 miles (42.6 km) upstream from mouth.

DRAINAGE AREA.--637 mi<sup>2</sup> (1,650 km<sup>2</sup>) approximately.

PERIOD OF RECORD.--Chemical analyses: February 1974 to September 1975.

REMARKS.--Records of discharge given are based on records for station 01643000 Monocacy River at Jug Bridge near Frederick, adjusted on the basis of the drainage area ratio.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)
OCT.											
07...	1240	118	160	270	20	33	6.8	6.0	2.8	107	88
21...	1230	144	70	200	100	32	7.6	9.6	3.5	103	84
NOV.											
05...	1230	120	320	400	70	40	10	6.6	3.0	109	89
18...	1445	173	0	200	50	26	5.7	7.2	3.3	85	70
DEC.											
04...	1010	819	650	940	80	22	5.7	5.0	3.9	49	40
17...	1240	7290	3100	3600	270	14	4.7	3.0	2.8	29	24
JAN.											
08...	1230	415	30	130	10	24	5.8	5.0	1.2	65	53
21...	1230	785	160	300	20	20	5.8	8.5	2.1	51	42
FEB.											
03...	1145	810	80	210	20	20	4.9	6.5	1.6	48	39
18...	1130	1110	220	390	40	21	4.9	6.5	2.1	56	46
MAR.											
03...	1250	899	120	180	20	16	4.7	4.4	1.4	48	39
17...	1215	2460	750	1300	60	20	4.5	4.8	1.9	45	37
31...	1130	1770	430	540	40	17	4.7	4.5	1.7	47	39
APR.											
21...	1200	468	60	330	20	21	5.3	4.8	1.3	66	54
MAY											
05...	1200	3610	1600	1800	90	15	4.3	3.2	2.0	42	34
19...	1200	967	310	560	40	19	5.0	4.0	1.2	64	53
JUNE											
09...	1230	1080	640	900	60	22	4.5	4.2	1.9	68	56
23...	1145	472	200	290	20	21	5.3	4.6	1.7	78	64
JULY											
15...	1130	1630	1200	1800	110	26	5.2	4.2	4.1	64	53
28...	1200	315	270	400	40	34	6.4	5.4	2.1	93	76
AUG.											
11...	1245	201	80	140	20	34	6.3	5.7	2.1	98	80
25...	1100	197	580	770	130	33	7.2	5.7	2.4	100	82
26...	1030	--	--	--	--	--	--	--	--	--	--
SEP.											
09...	1230	268	600	510	60	38	6.6	6.2	3.8	92	75
22...	1130	1040	2200	3300	230	22	5.0	3.5	4.0	59	48

## POTOMAC RIVER BASIN

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01641810 MONOCACY RIVER NEAR WALKERSVILLE, MD.--Continued  
CHEMICAL ANALYSES, OCTOBER 1974 TO SEPTEMBER 1975

DATE	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	WEATHER	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.										
07...	13.0	20.0	3	5	11.2	5	1.9	5.4	1.1	100
21...	5.5	7.0	0	5	11.6	14	1.8	3.9	.0	120
NOV.										
05...	15.5	17.5	3	10	7.8	11	3.0	22	2.1	160
18...	5.0	12.0	3	3	13.6	12	1.5	3.2	4.0	480
DEC.										
04...	2.0	4.0	0	40	12.6	22	3.4	4.9	1.4	6000
17...	4.0	7.5	1	100	12.2	33	4.3	9.3	2.0	812000
JAN.										
08...	.5	.5	2	4	13.0	4	2.0	1.1	.1	120
21...	.0	-4.0	2	10	13.9	11	1.8	2.6	.9	1500
FEB.										
03...	1.0	1.5	2	5	14.4	6	.6	.1	1.2	67
18...	2.0	6.5	3	20	14.0	13	2.6	45	29	81800
MAR.										
03...	2.0	-.5	1	5	14.4	3	.1	.5	.6	812
17...	4.0	11.0	1	40	12.6	19	2.2	2.0	4.0	2400
31...	6.0	5.0	0	25	12.2	16	2.2	2.6	6.2	1200
APR.										
21...	11.0	14.0	1	2	12.2	9	1.7	5.0	9.4	32
MAY										
05...	12.0	10.5	50	40	10.1	23	3.2	4.0	8.7	87000
19...	17.0	26.0	1	11	9.4	12	1.2	--	--	480
JUNE										
09...	16.0	23.0	1	20	9.2	13	1.5	.0	.0	730
23...	23.0	31.0	0	4	8.6	5	.2	2.5	.0	230
JULY										
15...	21.0	27.0	2	46	8.0	33	3.1	1.6	.0	813000
28...	23.5	31.0	0	6	8.3	12	1.4	1.0	.0	360
AUG.										
11...	23.0	30.0	1	4	8.8	11	1.2	3.3	.0	160
25...	23.5	29.5	0	20	9.9	19	3.9	85	.0	--
26...	27.0	--	0	--	--	--	--	--	--	500
SEP.										
09...	21.0	22.0	0	15	8.0	7	2.2	.2	.0	1100
22...	17.5	22.0	1	120	8.6	36	4.1	.0	.0	880000

DATE	STREP- TOCOC (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.										
07...	100	2.4	0	<1	1	0	0	0	0	20
21...	76	5.1	0	<1	0	0	10	1	1	170
NOV.										
05...	130	4.5	0	1	0	<10	10	2	0	70
18...	180	4.7	0	0	0	<10	0	0	0	0
DEC.										
04...	820000	8.2	0	1	0	0	0	4	1	0
17...	833000	7.5	0	3	0	0	10	9	0	20
JAN.										
08...	360	2.9	--	1	0	0	0	0	0	0
21...	2500	5.0	0	2	0	0	0	2	0	0
FEB.										
03...	120	2.8	0	0	0	0	0	1	0	10
18...	8800	4.1	0	1	1	0	0	3	0	10
MAR.										
03...	820	1.7	0	0	0	<10	0	2	0	10
17...	819000	6.0	0	2	0	0	0	4	0	10
31...	6400	4.1	0	0	0	0	0	4	0	0
APR.										
21...	67	2.5	0	0	0	0	0	1	0	0
MAY										
05...	823000	8.9	0	2	0	<10	0	3	0	20
19...	150	3.8	0	0	0	10	10	3	0	20
JUNE										
09...	560	5.3	0	1	0	10	10	3	0	20
23...	120	3.2	0	0	0	10	10	2	0	10
JULY										
15...	813000	6.6	0	2	0	0	10	7	0	20
28...	260	4.6	0	1	0	10	10	6	0	10
AUG.										
11...	200	2.0	0	0	0	<10	10	2	1	0
25...	--	8.4	0	0	0	10	0	4	0	20
26...	560	--	--	--	--	--	--	--	--	--
SEP.										
09...	400	6.3	0	1	0	<10	10	7	1	10
22...	827000	9.4	0	3	0	<10	10	11	0	30

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## POTOMAC RIVER BASIN

01641810 MONOCACY RIVER NEAR WALKERSVILLE, MD.--Continued

CHEMICAL ANALYSES, OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
07...	16	8.5	2.2	.00	.13	.15	.10	160	9	290	8.7
21...	25	16	1.5	.00	.19	.29	.31	174	3	310	7.7
NOV.											
05...	14	12	1.2	.03	.12	.17	.17	147	20	260	7.5
18...	22	12	1.8	.00	.22	.17	.21	147	4	270	8.2
DEC.											
04...	26	11	2.7	.03	.26	.49	.23	134	38	230	7.3
17...	20	6.1	2.4	.04	.72	.58	.47	105	166	160	7.2
JAN.											
08...	23	11	2.6	.02	.03	.49	.09	123	2	250	7.4
21...	23	13	2.3	.02	.23	.31	.14	140	15	225	7.4
FEB.											
03...	24	12	2.7	.02	.05	.71	.07	129	8	235	7.4
18...	20	12	2.3	.02	.20	.22	.14	127	22	245	7.4
MAR.											
03...	23	8.5	2.0	.01	.05	.16	.05	104	6	190	7.3
17...	24	9.1	1.7	.03	.16	.46	.16	104	50	200	7.3
31...	16	8.5	1.4	.02	.15	.27	.13	109	27	180	7.3
APR.											
21...	15	9.1	1.5	.02	.03	.11	.05	128	7	198	8.8
MAY											
05...	15	4.7	1.3	.03	.20	.73	.20	107	62	155	7.1
19...	17	7.6	1.6	.04	.03	.28	.09	129	20	183	7.6
JUNE											
09...	17	8.0	2.0	.04	.00	.42	.12	128	45	205	7.4
23...	13	8.6	2.0	.01	.01	.40	.08	127	6	210	7.9
JULY											
15...	18	9.3	1.8	.04	.06	1.0	.28	129	90	195	7.5
28...	15	8.4	2.4	.01	.00	.40	.12	142	15	245	8.0
AUG.											
11...	13	9.0	2.2	.01	.01	.19	.10	153	12	255	8.2
25...	15	8.9	1.8	.03	.05	.83	.14	148	44	250	9.0
26...	--	--	--	--	--	--	--	--	--	240	8.8
SEP.											
09...	17	10	2.1	.01	.00	.38	.16	170	24	260	8.0
22...	14	6.1	1.3	.03	.06	1.1	.21	136	197	180	7.4

## POTOMAC RIVER BASIN

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01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.  
(Formerly published as 01643000 Monocacy River at Jug Bridge, near Frederick, Md.)

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, at Reich's Ford Bridge, 1 mile (1.6 km) downstream from U. S. Highway 40, 1.2 miles (1.9 km) downstream from gaging station, 2 miles (3.2 km) southeast of Frederick, and 16.6 miles (26.7 km) upstream from mouth.

DRAINAGE AREA.--817 mi<sup>2</sup> (2,116 km<sup>2</sup>), upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1975.

Water temperatures: October 1960 to September 1975.

Sediment records: October 1960 to September 1975.

EXTREMES.--1974-75:

Water temperatures: Maximum, 31.0°C Aug. 1, 4; minimum, freezing point Jan. 21.

Sediment concentrations: Maximum daily, 1,020 mg/l May 4; minimum daily, 1 mg/l Feb. 11-17.

Sediment discharge: Maximum daily, 43,200 tons (39,200 t) Sept. 26; minimum daily, 1.6 tons (1.5 t) Nov. 28.

Period of record:

Water temperatures (1960-72, 75): Maximum, 31.0°C Aug. 1, 4, 1975; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 2,000 mg/l July 10, 1970; minimum daily, 1 mg/l on many days.

Sediment discharge: Maximum daily, 134,000 tons (122,000 t) June 22, 1972; minimum daily, less than 0.50 ton (0.45 t) on many days.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of heavy local runoff. Records of discharge are given for station 01643000 Monocacy River at Jug Bridge, near Frederick, Md. Water temperatures measured in field at time of sampling.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	DIS- SOLVED MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)
OCT.											
09...	1300	139	--	100	200	30	39	--	7.5	--	7.7
23...	1315	175	--	60	190	110	38	--	7.9	--	9.5
NOV.											
06...	1400	163	--	150	230	90	12	--	22	--	8.2
20...	1000	217	--	60	260	50	31	--	5.8	--	8.7
DEC.											
04...	1215	1010	--	1000	1500	110	22	--	5.8	--	5.2
17...	1400	5851	--	3500	4200	330	15	--	4.8	--	3.1
JAN.											
08...	1430	532	--	40	150	10	28	--	6.1	--	6.9
21...	1415	967	--	160	330	40	21	--	5.7	--	8.5
FEB.											
03...	1330	1025	--	110	200	20	30	--	5.5	--	8.2
18...	1315	1480	--	300	500	50	24	--	5.1	--	6.9
MAR.											
03...	1445	1145	--	140	210	20	21	--	4.9	--	4.8
17...	1430	3460	--	780	1500	80	21	--	4.6	--	5.3
31...	1330	2120	--	480	600	50	19	--	4.8	--	4.7
APR.											
21...	1400	472	--	90	150	30	27	--	5.9	--	5.3
MAY											
05...	1345	4080	--	1200	1500	110	15	--	4.2	--	3.3
19...	1330	1220	--	470	800	60	21	--	5.3	--	4.4
JUNE											
10...	0930	1220	--	780	1000	70	25	--	4.7	--	4.8
23...	1315	605	--	420	510	50	32	--	5.8	--	5.3
JULY											
15...	1300	1910	--	1400	2400	160	22	--	5.4	--	4.7
28...	1320	408	--	370	550	80	40	--	6.7	--	6.1
AUG.											
12...	1230	258	--	110	230	60	39	--	6.5	--	6.8
25...	1230	252	--	490	650	120	38	--	7.5	--	6.9
26...	1115	242	--	--	--	--	--	--	--	--	--
SEP.											
09...	1330	340	--	590	690	80	37	--	7.4	--	7.1
22...	1300	1260	--	2200	3400	180	21	--	3.4	--	3.5
26...	1500	54400	5.4	--	5100	250	--	12	--	2.1	--

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
09...	--	3.2	--	115	94	18	15	--	2.4	.04	.98
23...	--	5.0	--	122	100	23	17	--	2.2	.03	.49
NOV.											
06...	--	3.4	--	129	106	18	14	--	1.4	.07	.55
20...	--	3.1	--	105	86	21	14	--	2.0	.02	.55
DEC.											
04...	--	4.1	--	55	45	24	11	--	2.5	.03	.39
17...	--	2.8	--	33	27	19	6.1	--	2.2	.05	.85
JAN.											
08...	--	1.2	--	80	66	22	13	--	2.7	.02	.23
21...	--	2.1	--	58	48	21	14	--	2.4	.02	.25
FEB.											
03...	--	1.7	--	60	49	24	16	--	2.8	.02	.14
18...	--	2.2	--	65	53	19	12	--	2.4	.02	.25
MAR.											
03...	--	1.6	--	58	48	19	9.5	--	2.2	.02	.15
17...	--	2.1	--	47	39	22	10	--	1.8	.04	.16
31...	--	1.8	--	54	44	17	9.7	--	1.7	.02	.18
APR.											
21...	--	1.5	--	77	63	15	11	--	1.9	.02	.14
MAY											
05...	--	2.1	--	44	36	15	5.2	--	1.3	.04	.23
19...	--	1.5	--	68	56	17	8.5	--	1.7	.04	.05
JUNE											
10...	--	2.0	--	77	63	17	8.2	--	2.3	.04	.03
23...	--	2.0	--	93	76	14	11	--	2.3	.03	.12
JULY											
15...	--	4.3	--	68	56	18	10	--	2.0	.05	.10
28...	--	2.5	--	110	90	17	10	--	2.8	.04	.00
AUG.											
12...	--	2.6	--	116	95	15	12	--	2.4	.05	.09
25...	--	2.8	--	126	103	16	11	--	1.9	.05	.01
26...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
09...	--	4.0	--	102	84	18	12	--	2.2	.04	.09
22...	--	4.2	--	58	48	17	5.4	--	1.4	.04	.10
26...	1.6	--	2.8	41	34	8.9	4.2	.2	.88	--	--

DATE	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)
OCT.										
09...	.00	.42	194	--	9	--	--	340	8.0	13.0
23...	.18	.44	194	--	6	--	--	345	7.6	9.0
NOV.										
06...	.18	.36	173	--	9	--	--	310	7.4	14.0
20...	.26	.43	178	--	8	--	--	300	7.8	7.0
DEC.										
04...	.45	.30	133	--	57	--	--	230	7.6	3.0
17...	.25	.61	111	--	242	--	--	160	7.3	5.0
JAN.										
08...	.51	.20	125	--	1	--	--	290	7.5	1.5
21...	.41	.18	140	--	16	--	--	240	7.3	.0
FEB.										
03...	.22	.12	143	--	12	--	--	265	7.5	2.0
18...	.27	.17	129	--	29	--	--	255	7.5	3.0
MAR.										
03...	.22	.10	97	--	4	--	--	205	7.4	3.0
17...	.69	.17	104	--	54	--	--	200	7.4	5.0
31...	.33	.15	118	--	39	--	--	200	7.3	7.0
APR.										
21...	.24	.11	141	--	16	--	--	225	8.6	12.0
MAY										
05...	.87	.21	106	--	68	--	--	155	7.1	12.5
19...	.33	.13	131	--	30	--	--	200	7.6	18.0
JUNE										
10...	.59	.16	139	--	52	--	--	220	7.5	17.0
23...	.54	.14	149	--	14	--	--	240	7.8	24.0
JULY										
15...	1.0	.33	145	--	152	--	--	215	7.5	21.0
28...	.60	.19	163	--	28	--	--	285	7.8	24.0
AUG.										
12...	.31	.24	173	--	3	--	--	295	7.7	24.0
25...	1.4	.25	174	--	44	--	--	290	9.2	24.0
26...	--	--	--	--	--	--	--	290	8.6	27.0
SEP.										
09...	.55	.22	190	--	30	--	--	295	7.8	22.0
22...	1.1	.23	138	--	174	--	--	180	7.6	18.0
26...	--	.35	--	57	--	39	5	88	7.1	--

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	AIR TEMPER- ATURE (DEG C)	WEATHER	COLOR (PLAT- INUM- COBALT UNITS)	TUR- RID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.										
09...	13.5	0	--	5	9.6	9	3.8	36	2.0	51
23...	15.0	2	--	4	10.4	13	4.1	.7	.0	812
NOV.										
06...	14.5	2	--	6	7.2	19	4.7	14	2.0	82800
20...	10.5	64	--	5	10.7	13	4.5	1.5	.0	110
DEC.										
04...	5.0	0	--	50	12.4	25	4.3	24	7.0	3500
17...	6.5	2	--	200	12.0	40	5.3	14	5.5	814000
JAN.										
08...	4.0	1	--	4	12.8	7	2.4	1.1	.1	100
21...	.0	2	--	10	14.2	11	2.3	3.7	.8	51
FEB.										
03...	1.5	1	--	5	14.2	6	1.0	.9	1.8	81
18...	7.0	3	--	20	13.8	15	2.8	11	42	5200
MAR.										
03...	1.0	1	--	5	14.2	5	.8	.3	.3	811
17...	12.0	0	--	40	12.4	17	2.6	1.0	3.3	1700
31...	7.0	0	--	30	11.9	17	3.0	1.9	4.4	8670
APR.										
21...	14.0	0	--	3	12.2	9	1.6	3.1	6.5	<1
MAY										
05...	13.0	3	--	45	10.0	26	.3	4.0	7.7	87000
19...	25.5	1	--	13	9.2	12	1.8	--	--	450
JUNE										
10...	20.5	2	--	20	8.4	16	2.9	.0	.0	1200
23...	33.0	0	--	5	8.4	8	1.6	2.3	.0	120
JULY										
15...	27.5	2	--	37	7.6	36	3.8	3.2	8.0	814000
28...	31.0	0	--	12	7.7	13	2.6	8.1	.0	600
AUG.										
12...	27.0	0	--	4	6.8	10	2.2	2.0	.0	2000
25...	32.0	0	--	15	14.8	28	6.4	120	.0	--
26...	--	0	--	--	--	--	--	--	--	890
SEP.										
09...	21.5	0	--	14	7.1	12	3.0	.0	.0	1300
22...	22.5	2	--	80	8.2	33	5.1	3.2	.0	823000
26...	--	--	60	--	--	--	--	--	--	--

DATE	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.										
09...	68	4.1	0	0	0	0	0	3	0	60
23...	814	2.2	0	1	0	<10	0	2	0	20
NOV.										
06...	2600	5.7	1	1	0	0	0	5	0	20
20...	90	4.6	0	0	1	0	0	3	0	0
DEC.										
04...	812000	9.3	0	1	0	0	0	5	1	0
17...	859000	8.8	0	4	0	0	10	11	0	30
JAN.										
08...	110	3.4	0	0	0	0	0	2	1	20
21...	83	4.2	0	2	0	0	0	3	0	0
FEB.										
03...	81	3.7	0	0	0	0	0	2	0	0
18...	816000	3.4	0	1	1	0	0	5	0	0
MAR.										
03...	820	3.7	0	0	0	<10	0	4	0	0
17...	1700	3.7	0	1	0	0	0	3	0	10
31...	81200	4.3	0	0	0	<10	0	7	0	10
APR.										
21...	81	3.3	0	0	0	0	0	3	0	0
MAY										
05...	814000	6.5	0	2	0	0	0	7	0	10
19...	37	6.0	0	1	0	10	10	3	0	20
JUNE										
10...	210	8.7	0	1	0	10	10	3	0	10
23...	91	3.5	0	0	0	0	0	1	0	10
JULY										
15...	9500	2.6	0	3	0	0	10	7	0	20
28...	320	8.2	0	1	0	10	0	6	0	10
AUG.										
12...	680	3.2	0	0	0	<10	10	6	0	10
25...	--	11	0	0	0	<10	0	4	0	10
26...	390	--	--	--	--	--	--	--	--	--
SEP.										
09...	370	8.9	0	1	0	0	10	6	2	10
22...	819000	13	0	3	0	10	10	10	0	20
26...	--	--	--	--	--	--	--	--	--	--

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## POTOMAC RIVER BASIN

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	17.0	---	5.0	5.0	---	11.0	12.5	21.0	23.0	31.0	19.0
2	---	---	---	5.0	4.0	5.0	13.0	---	21.0	24.0	28.0	20.0
3	12.5	18.0	---	4.5	2.0	4.0	---	16.0	21.0	23.0	29.0	21.0
4	13.5	18.0	4.5	3.0	2.0	3.5	---	15.0	22.5	25.0	31.0	---
5	15.0	17.5	---	3.0	2.0	4.0	8.0	13.0	21.0	---	27.0	24.0
6	13.0	15.0	4.0	---	---	8.0	9.0	15.0	---	24.0	24.0	---
7	15.5	14.0	5.0	4.0	---	6.0	10.0	16.0	18.5	25.0	24.0	---
8	14.0	13.0	---	4.0	4.0	7.0	9.5	17.5	18.0	26.0	---	---
9	15.0	11.0	4.0	4.0	2.0	4.0	9.0	---	19.0	25.0	24.0	22.0
10	16.0	10.0	5.0	5.0	2.0	4.0	12.0	17.0	17.0	24.0	24.0	21.0
11	---	10.0	3.0	8.0	4.0	5.0	12.0	18.0	18.5	24.0	24.0	---
12	17.0	10.0	6.0	7.0	3.0	5.5	12.0	17.0	19.0	26.0	24.0	---
13	---	9.0	5.0	6.0	2.0	7.0	12.0	17.0	21.0	22.5	---	---
14	18.0	8.5	6.0	3.0	3.0	6.0	12.0	19.0	22.0	22.5	25.0	---
15	17.0	8.0	5.0	2.0	3.0	6.0	10.5	20.0	23.0	23.0	24.0	---
16	14.5	8.0	5.0	2.0	---	5.5	12.0	20.0	23.0	25.0	25.0	---
17	16.5	7.0	5.0	2.0	4.0	7.0	14.0	19.0	23.0	24.0	24.0	---
18	---	7.0	4.0	2.0	3.0	7.0	13.0	19.0	25.0	---	26.0	---
19	11.0	7.0	3.5	1.0	4.0	7.0	13.0	20.5	26.0	25.0	27.0	---
20	8.0	8.0	4.0	---	3.5	6.5	12.0	22.0	---	27.0	25.0	---
21	8.0	7.0	4.5	0.0	4.0	8.0	13.0	23.0	28.0	25.0	25.0	---
22	11.5	7.0	5.0	4.0	5.0	8.0	13.0	24.0	28.0	---	---	18.0
23	11.5	6.0	---	5.0	7.0	7.0	---	24.0	25.0	26.0	---	---
24	13.5	9.0	5.0	6.0	9.0	6.5	16.0	24.0	28.0	26.0	---	---
25	12.5	6.0	---	4.0	10.0	7.0	15.5	21.0	---	24.0	24.0	---
26	13.5	4.5	---	---	9.0	---	13.5	20.0	24.0	25.0	27.0	18.5
27	13.0	5.0	4.0	5.0	7.0	7.0	14.5	21.0	24.0	26.0	26.0	---
28	18.0	---	4.0	3.0	7.0	6.5	---	22.0	23.0	26.0	26.0	---
29	11.0	---	5.0	6.0	---	8.5	13.0	23.0	22.0	26.0	24.5	---
30	15.0	---	7.0	5.0	---	9.0	13.0	---	23.0	27.5	25.0	---
31	16.0	---	5.0	5.0	---	9.0	---	25.0	---	27.0	24.5	---
AVG	14.0	10.0	---	4.0	4.5	6.5	12.0	19.5	22.5	25.0	25.5	---

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued  
 SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	191	54	28	151	12	4.9	242	32	34
2	172	37	17	150	11	4.5	3960	353	3980
3	160	23	9.9	149	13	5.2	2500	220	1580
4	154	21	8.7	147	24	9.5	1080	80	233
5	151	15	6.1	153	21	8.7	730	40	79
6	151	21	8.6	160	11	4.8	581	30	47
7	150	18	7.3	162	11	4.8	523	18	25
8	148	14	5.6	152	35	14	1300	70	359
9	140	12	4.5	148	63	26	2440	105	692
10	139	13	4.9	149	28	11	1100	38	113
11	137	18	6.7	145	14	5.5	778	26	55
12	134	24	8.7	225	30	18	666	38	68
13	133	25	9.0	464	53	66	632	23	39
14	133	21	7.5	483	40	52	584	15	24
15	131	20	7.1	358	16	15	573	25	39
16	236	31	20	362	7	6.8	3420	282	4300
17	468	49	62	305	3	2.5	6900	516	11900
18	413	45	50	246	4	2.7	2120	80	458
19	261	26	18	222	27	16	1520	35	144
20	211	19	11	222	27	16	1260	20	68
21	186	16	8.0	243	14	9.2	1070	20	58
22	174	11	5.2	291	11	8.6	993	22	59
23	168	7	3.2	285	8	6.2	916	13	32
24	169	11	5.0	242	7	4.6	790	7	15
25	166	12	5.4	223	6	3.6	735	6	12
26	164	12	5.3	209	4	2.3	698	5	9.4
27	164	17	7.5	205	3	1.7	635	4	6.9
28	159	9	3.9	203	3	1.6	585	3	4.7
29	156	11	4.6	198	4	2.1	556	4	6.0
30	154	13	5.4	187	4	2.0	527	7	10
31	153	14	5.8	---	---	---	504	10	14
TOTAL	5626	---	359.9	6839	---	335.8	40918	---	24464.0
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	635	12	21	1380	10	37	1540	12	50
2	837	13	29	1190	6	19	1340	9	33
3	680	7	13	1040	5	14	1170	10	32
4	588	6	9.5	908	4	9.8	1020	9	25
5	561	7	11	834	5	11	925	10	25
6	522	8	11	1010	15	41	885	11	26
7	508	9	12	1410	27	103	856	13	30
8	532	14	20	1330	9	32	862	13	30
9	1980	182	1220	999	3	8.1	784	11	23
10	3370	138	1410	800	2	4.3	693	10	19
11	1910	45	232	750	1	2.0	687	9	17
12	2030	30	164	800	1	2.2	795	25	58
13	1500	30	122	850	1	2.3	1590	48	204
14	1900	30	161	700	1	1.9	1430	17	66
15	1060	12	34	650	1	1.8	2040	39	213
16	795	10	21	656	1	1.8	3430	106	995
17	734	7	14	735	1	2.0	3000	72	582
18	713	5	9.6	1440	11	43	2670	43	310
19	752	7	14	3030	78	683	4650	194	3980
20	1270	24	82	4090	208	2430	13900	621	25100
21	1090	16	47	2390	32	207	4140	76	896
22	922	9	22	1910	24	124	2760	38	283
23	888	5	12	2130	62	489	2570	36	250
24	885	7	17	5320	266	3900	2330	44	294
25	2070	104	966	7170	395	8120	3530	153	1540
26	6320	607	10700	3290	76	688	2200	36	214
27	2740	148	1140	2120	24	137	1660	16	72
28	1890	21	107	1750	17	80	1480	12	48
29	1630	14	62	---	---	---	1440	15	58
30	1730	23	107	---	---	---	2140	46	266
31	1450	11	43	---	---	---	2340	39	246
TOTAL	44492	---	16833.1	50682	---	17194.2	70857	---	35985



## POTOMAC RIVER BASIN

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued  
SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

APRIL					MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	1520	25	103	1810	76	467	5420	600	9740	
2	1330	18	65	2270	144	975	3240	293	2660	
3	1350	22	80	1540	145	573	2130	205	1180	
4	1510	19	77	4930	1020	16200	1710	123	568	
5	1130	10	31	5700	349	7610	1880	156	912	
6	1020	8	22	2890	130	1010	5910	606	10100	
7	954	8	21	2650	95	680	2920	228	1800	
8	896	5	12	1940	48	251	1940	125	655	
9	840	8	18	1640	65	288	1400	82	310	
10	795	15	32	1490	70	282	1150	87	270	
11	773	16	33	1340	95	344	1000	125	338	
12	746	13	26	1290	62	216	2400	267	3000	
13	703	14	27	1850	130	649	5510	263	4610	
14	656	11	19	1440	58	226	2090	75	423	
15	651	12	21	1150	40	124	1440	53	206	
16	661	12	21	2300	196	1170	1180	37	118	
17	606	10	17	2250	80	486	1050	31	88	
18	605	10	16	1420	100	383	936	29	73	
19	615	17	28	1250	140	473	848	27	62	
20	620	13	22	1110	83	249	791	29	62	
21	561	14	21	985	35	93	725	33	65	
22	508	14	19	977	35	92	656	23	41	
23	495	14	19	1720	202	958	611	16	26	
24	530	20	29	1090	115	338	579	15	23	
25	1160	57	308	922	82	204	563	18	27	
26	9560	528	14200	1530	219	977	606	21	34	
27	2930	70	600	1010	85	232	606	65	119	
28	1820	35	172	862	48	112	3800	513	5490	
29	1590	27	116	728	38	75	2470	221	1480	
30	1390	20	75	659	48	85	1110	190	569	
31	---	---	---	712	78	157	---	---	---	
TOTAL	38565	---	16250	53455	---	35979	57071	---	45049	

JULY					AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	860	84	195	367	32	32	718	65	138	
2	712	33	63	306	20	17	1020	90	248	
3	636	25	43	291	19	15	659	70	125	
4	798	63	142	291	23	18	417	56	63	
5	746	71	143	420	35	40	333	38	34	
6	594	49	75	565	31	47	419	45	55	
7	527	33	47	372	23	23	660	94	164	
8	501	21	28	324	21	18	452	58	71	
9	521	18	25	292	19	15	352	39	37	
10	498	19	26	263	50	36	293	35	28	
11	477	19	24	263	56	40	259	33	23	
12	483	22	29	266	24	17	350	72	102	
13	1320	200	683	266	22	16	1090	471	1430	
14	2330	200	1240	930	219	649	557	122	184	
15	2090	173	1090	863	127	303	369	70	70	
16	1160	42	132	459	60	74	312	61	51	
17	1450	250	971	495	71	95	291	45	35	
18	938	150	380	564	75	114	300	44	36	
19	709	125	239	388	40	42	528	55	78	
20	647	86	160	319	23	20	893	166	398	
21	3590	667	6920	281	22	17	3180	658	6200	
22	1010	300	847	273	24	18	1600	231	1270	
23	706	69	131	270	24	18	5890	389	7590	
24	602	45	73	256	25	17	10300	209	6120	
25	546	28	41	253	26	18	18900	285	16100	
26	516	27	38	242	27	18	49000	343	43200	
27	472	27	34	240	31	20	42000	136	17200	
28	425	29	33	225	37	22	7700	73	1580	
29	396	28	30	211	35	20	3540	47	449	
30	371	24	24	203	31	17	2580	30	209	
31	367	31	31	335	40	36	---	---	---	
TOTAL	26998	---	13941	11093	---	1852	154962	---	103288	

TOTAL DISCHARGE FOR YEAR (FT <sup>3</sup> /S-DAYS)				561558	TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)				311531.0
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## 01645000 SENECA CREEK AT DAWSONVILLE, MD.

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, at gaging station 60 ft (18 m) downstream from bridge on State Highway 28, 150 ft (46 m) downstream from mouth of Great Seneca Creek, 0.5 mile (0.8 km) east of Dawsonville, and 5.8 miles (9.3 km) upstream from mouth.

DRAINAGE AREA.--101 mi<sup>2</sup> (262 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LINITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)
OCT. 18...	1050	34	8.1	170	20	14	4.5	5.0	3.6	44	36	10
NOV. 13...	1315	69	7.1	420	60	12	3.8	5.0	4.0	39	32	9.3
DEC. 16...	1410	1620	5.1	8000	460	7.8	2.6	5.1	3.4	21	17	9.0
JAN. 30...	1055	108	7.9	310	70	9.3	3.5	5.7	2.0	28	23	7.7
MAR. 05...	1510	78	8.3	350	90	8.0	2.2	5.4	1.4	28	23	5.2
APR. 09...	1315	99	6.8	360	50	9.6	3.9	5.4	1.2	26	21	6.6
MAY 14...	1415	147	7.9	630	60	10	3.1	3.9	1.8	30	25	9.7
JUNE 24...	1030	43	9.5	470	60	9.1	3.1	4.8	1.7	36	30	2.8
AUG. 22...	1340	39	8.3	400	50	13	3.5	4.4	2.3	39	32	2.8

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT. 18...	11	.1	.69	.03	78	54	17	150	7.3	11.5	10
NOV. 13...	9.8	.2	1.1	.05	70	46	14	130	7.5	8.5	10
DEC. 16...	10	.1	1.2	.59	53	30	13	120	6.7	6.0	20
JAN. 30...	10	.1	2.1	.09	60	38	15	140	7.2	5.0	9
MAR. 05...	10	.1	2.1	.01	54	29	6	115	7.2	5.5	8
APR. 09...	9.3	.2	1.9	.01	56	40	19	130	6.9	8.5	5
MAY 14...	7.2	.2	1.1	.38	59	38	13	120	7.3	17.5	12
JUNE 24...	6.6	.1	1.6	.04	55	36	6	100	7.4	21.5	2
AUG. 22...	6.6	.2	1.5	.03	60	47	15	119	7.5	22.0	1

01645500 POTOMAC RIVER AT GREAT FALLS, MD.

LOCATION.--Lat 39°00'03", long 77°14'56", Montgomery County, on left bank in the intake building for the Washington Aqueduct at the diversion dam at Great Falls, and at river mile 126.1 (202.9 km).

DRAINAGE AREA.--11,430 mi<sup>2</sup> (29,600 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: February 1973 to September 1975.

Biological analyses: March 1973 to September 1975.

Water temperatures: March 1973 to September 1975.

Specific conductance: March 1973 to September 1975.

EXTREMES: 1974-75:

Water temperature: Maximum, 31.5°C June 25, 26, Aug. 3, 4; minimum, freezing point Jan. 22.

Period of record:

Water temperature: Maximum, 32.0°C on several days during 1973; minimum, freezing point Jan. 22, 1975.

REMARKS.--Records of discharge are given for station 01646500 Potomac River near Washington, D. C. (unadjusted for diversions).

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)
OCT.												
22...	1040	3380	.1	--	--	--	--	52	11	23	3.4	145
NOV.												
19...	1030	2850	1.1	--	--	--	--	48	9.6	23	3.5	150
DEC.												
18...	1045	28500	6.4	3500	170	230	20	23	5.0	5.7	2.2	65
JAN.												
08...	1000	9340	--	--	--	--	--	--	--	--	--	--
22...	1120	14200	5.6	--	--	--	--	28	6.5	8.2	2.0	85
FEB.												
19...	1030	17100	6.0	--	--	--	--	24	5.4	5.3	1.9	69
MAR.												
18...	1030	33200	5.6	1600	40	100	20	25	5.8	5.9	1.8	82
APR.												
22...	1030	7700	.1	--	--	--	--	31	8.4	6.5	1.5	112
MAY												
21...	1115	14800	4.7	--	--	--	--	27	6.0	5.0	1.8	82
JUNE												
24...	1030	4460	4.3	520	30	50	20	32	8.7	9.4	2.2	93
JULY												
29...	1000	5960	6.5	--	--	--	--	42	9.3	11	2.6	137
AUG.												
27...	1045	3820	3.8	--	--	--	--	37	9.9	9.4	2.6	110
SEP.												
23...	1100	8880	5.3	1400	90	80	10	31	7.0	7.6	3.8	98
DATE	ALKA- LITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT.												
22...	119	66	22	.2	.39	.73	.08	261	249	--	180	56
NOV.												
19...	123	66	19	.2	.67	.57	.11	273	244	--	160	36
DEC.												
18...	53	26	7.5	.1	1.3	1.1	.32	131	108	--	78	25
JAN.												
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	70	28	10	.2	1.4	.34	.02	152	130	--	97	27
FEB.												
19...	57	23	8.1	.2	1.1	.20	.08	118	108	--	82	26
MAR.												
18...	67	28	10	.2	1.0	.57	.18	146	123	--	86	19
APR.												
22...	92	32	9.9	.2	.76	.42	.05	163	145	--	110	20
MAY												
21...	67	30	7.2	.2	.80	.33	.07	141	122	20	92	25
JUNE												
24...	76	38	12	.1	.41	.88	.08	173	153	--	120	39
JULY												
29...	112	31	11	.2	.62	.63	.10	202	181	--	140	31
AUG.												
27...	90	44	11	.0	.54	.56	.08	224	172	25	130	43
SEP.												
23...	80	26	9.2	.1	1.3	.68	.14	162	138	--	110	26

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	WEATHER	TURBIDITY (JTU)	TOTAL PHYTOPLANKTON (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	UNCORRECTED PERI-PHYTON CHLORO-PHYLL A MG/SQ M	UNCORRECTED PERI-PHYTON CHLORO-PHYLL B MG/SQ M	FECAL COLIFORM (COL. PER 100 ML)
OCT. 22...	455	8.5	10.5	10.5	0	7	75000	--	--	--	--	812
NOV. 19...	400	8.6	8.0	9.5	2	7	35000	--	--	--	--	55
DEC. 18...	195	7.8	4.5	4.5	1	80	3600	--	--	--	--	20000
JAN. 08...	--	--	--	--	--	--	--	2.3	3.8	1.5	.3	--
22...	260	7.8	.5	1.0	2	9	820	--	--	--	--	180
FEB. 19...	220	7.6	5.5	12.0	1	20	3200	--	--	--	--	90
MAR. 18...	210	7.7	7.0	6.0	3	30	3900	1.0	1.3	.7	.0	210
APR. 22...	260	8.8	12.5	9.5	3	5	27000	--	--	--	--	89
MAY 21...	221	7.8	22.5	31.0	1	10	29000	--	--	--	--	65
JUNE 24...	260	8.6	27.5	29.0	0	8	62000	2.1	7.8	8.0	.9	27
JULY 29...	315	8.6	27.0	27.0	0	8	32000	--	--	--	--	55
AUG. 27...	315	8.5	27.5	30.0	0	15	57000	--	--	--	--	48
SEP. 23...	270	8.0	19.5	17.0	60	30	8900	4.9	8.1	23	4.5	2800

DATE	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)
OCT. 22...	410	--	--	--	--	--	--	--	--	--	--	--
NOV. 19...	130	--	--	--	--	--	--	--	--	--	--	--
DEC. 18...	37000	4.8	2	0	0	1	<10	0	3	0	0	10
JAN. 08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	400	--	--	--	--	--	--	--	--	--	--	--
FEB. 19...	180	--	--	--	--	--	--	--	--	--	--	--
MAR. 18...	400	--	2	1	0	0	<10	<10	2	0	0	0
APR. 22...	87	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	120	--	--	--	--	--	--	--	--	--	--	--
JUNE 24...	240	5.6	0	0	0	0	10	0	1	0	10	0
JULY 29...	160	--	--	--	--	--	--	--	--	--	--	--
AUG. 27...	450	--	--	--	--	--	--	--	--	--	--	--
SEP. 23...	6100	6.1	1	0	0	0	<10	<10	0	0	0	10

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDE D GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDE D GROSS BETA AS CS-137 (PC/L)
OCT.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
19...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
18...	10	4	<.5	<.5	0	0	30	10	--	--	--	--
JAN.												
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
18...	9	5	<.5	<.5	1	0	20	10	--	--	--	--
APR.												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	<1.1	1.1	2.7	1.4
JUNE												
24...	6	5	<.5	<.5	0	0	10	0	--	--	--	--
JULY												
29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
27...	--	--	--	--	--	--	--	--	<1.5	1.2	4.0	.9
SEP.												
23...	10	11	<.5	<.5	0	0	10	0	--	--	--	--

DATE	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDE D GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT.							
22...	--	--	--	--	11	100	100
NOV.							
19...	--	--	--	--	8	62	100
DEC.							
18...	--	--	--	--	208	16000	97
JAN.							
22...	--	--	--	--	16	613	100
FEB.							
19...	--	--	--	--	25	1150	98
MAR.							
18...	--	--	--	--	59	5290	98
APR.							
22...	--	--	--	--	20	416	100
MAY							
21...	2.1	1.3	.05	.11	32	1280	100
JUNE							
24...	--	--	--	--	12	145	--
JULY							
29...	--	--	--	--	43	692	100
AUG.							
27...	3.1	.8	.03	.21	30	309	98
SEP.							
23...	--	--	--	--	58	1390	93

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	379	365	372	418	401	409	385	254	368	197	189	193
2	376	365	370	425	403	416	254	91	173	206	196	199
3	374	363	366	428	416	422	297	167	241	212	206	210
4	380	367	376	423	413	417	271	174	209	209	201	206
5	396	380	387	418	408	413	190	173	180	198	196	197
6	407	390	398	415	408	412	198	186	194	197	186	190
7	407	398	401	418	389	405	212	199	205	192	186	189
8	403	393	398	415	394	406	214	179	202	201	192	195
9	408	388	398	410	380	397	202	173	191	220	201	211
10	407	392	397	390	375	382	214	191	202	221	213	217
11	397	383	388	397	374	385	237	214	227	213	186	195
12	395	383	388	390	372	380	237	200	213	214	196	205
13	410	395	400	374	362	370	223	201	212	215	208	210
14	419	407	412	375	345	363	226	223	224	216	209	212
15	426	416	421	371	335	359	226	224	226	221	216	218
16	425	411	416	339	324	330	224	136	197	227	223	226
17	415	393	408	363	337	352	181	147	164	228	222	225
18	407	392	400	372	361	368	198	110	171	232	225	228
19	407	384	400	383	367	374	197	172	179	237	233	236
20	384	360	373	386	381	385	186	174	180	239	215	228
21	381	361	371	403	379	392	196	186	192	238	228	232
22	408	383	406	403	358	380	201	195	198	253	231	234
23	425	407	418	372	361	365	210	201	204	246	236	241
24	455	425	446	384	366	376	213	208	211	240	231	235
25	470	455	465	380	367	375	217	213	215	239	222	232
26	469	462	466	380	363	370	222	216	218	222	203	211
27	462	452	457	380	352	365	232	222	225	197	163	172
28	462	452	457	372	362	368	246	234	240	213	180	199
29	465	455	460	374	366	370	236	209	227	206	195	199
30	465	403	427	376	372	374	209	190	197	206	190	198
31	410	390	401	---	---	---	200	193	195	192	188	190
MONTH	470	360	408	428	324	383	385	91	209	253	163	211
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	201	192	197	180	170	175	209	189	200	172	164	168
2	204	198	200	186	180	183	210	197	203	174	169	172
3	205	196	203	192	186	189	199	197	198	180	168	175
4	201	130	187	195	192	194	201	197	199	179	150	164
5	164	129	150	202	195	199	201	199	200	162	146	153
6	197	162	172	208	202	205	205	201	203	168	150	157
7	225	191	203	213	208	211	207	205	206	154	148	152
8	224	220	222	219	212	216	212	206	209	160	152	155
9	222	220	221	226	219	221	217	213	215	169	160	164
10	224	219	223	237	226	230	221	217	220	178	169	174
11	231	224	228	239	233	237	224	221	222	188	179	183
12	225	204	215	232	221	228	226	223	225	192	189	190
13	211	205	209	228	213	221	229	225	228	188	181	185
14	230	210	220	226	153	198	233	228	231	190	181	184
15	232	218	227	206	154	178	232	225	229	207	191	198
16	218	213	216	212	201	208	235	223	231	207	201	203
17	217	207	213	201	191	196	236	230	234	203	184	197
18	207	201	203	200	189	194	240	232	236	204	185	192
19	205	203	204	191	152	178	246	234	239	210	204	208
20	206	195	204	163	150	157	246	243	245	206	202	204
21	193	178	185	148	124	135	249	241	245	206	203	204
22	178	172	174	142	127	134	243	237	242	207	203	206
23	178	173	176	154	142	148	248	240	245	206	200	204
24	183	167	177	164	153	160	249	246	248	207	176	201
25	170	158	165	174	162	168	249	239	244	207	165	196
26	162	156	159	186	161	178	239	170	206	213	207	210
27	166	163	165	188	186	188	175	135	157	214	212	213
28	171	164	167	195	188	191	162	134	151	217	212	214
29	---	---	---	198	195	197	155	145	150	220	216	218
30	---	---	---	195	177	187	169	155	162	227	219	225
31	---	---	---	190	184	188	---	---	---	231	226	229
MONTH	232	129	196	239	124	190	249	134	214	231	146	190

## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	229	220	227	208	186	195	302	285	295	276	238	260
2	214	168	185	216	207	211	303	290	298	321	277	298
3	218	186	207	240	214	226	307	290	301	327	294	312
4	219	204	211	243	232	239	305	283	293	322	267	288
5	215	205	212	255	239	248	304	285	295	293	273	283
6	220	205	213	258	249	254	298	280	289	335	277	308
7	203	175	182	272	252	263	297	274	285	328	273	298
8	207	180	197	284	263	276	308	281	296	290	266	281
9	224	208	214	294	272	287	333	288	311	279	263	272
10	229	220	224	297	251	282	333	311	324	299	163	278
11	232	224	228	266	189	214	330	285	307	288	267	281
12	230	226	229	285	207	250	323	308	316	299	274	290
13	229	168	215	298	268	291	---	---	---	304	283	295
14	189	146	159	269	185	236	---	---	---	310	286	299
15	227	191	212	232	210	216	---	---	---	296	262	278
16	229	226	228	214	206	210	---	---	---	271	254	264
17	229	221	225	261	236	247	---	---	---	291	262	280
18	237	227	230	263	242	253	---	---	---	300	281	292
19	250	236	241	254	230	241	---	---	---	309	290	298
20	255	248	251	274	249	261	---	---	---	328	296	315
21	259	250	255	266	112	185	---	---	---	335	313	324
22	260	246	254	268	162	197	---	---	---	320	212	277
23	257	244	251	270	184	236	---	---	---	189	165	187
24	252	245	248	269	251	264	---	---	---	228	112	163
25	256	244	249	262	241	247	---	---	---	140	114	126
26	255	214	247	271	238	250	304	282	294	---	---	---
27	256	187	225	288	266	279	297	273	286	---	---	---
28	253	201	230	291	281	286	302	287	295	---	---	---
29	268	201	231	298	281	288	306	274	292	---	---	---
30	222	186	207	296	279	289	288	257	272	200	181	192
31	---	---	---	297	285	291	271	223	250	---	---	---
MONTH	268	146	223	298	112	249	---	---	---	335	112	271

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.5	19.5	17.5	17.0	17.5	6.5	5.0	5.5	6.5	5.5	6.0
2	18.5	17.0	18.0	19.0	17.5	18.5	8.0	6.5	7.0	6.0	4.5	5.5
3	17.0	14.5	15.5	19.5	18.5	19.0	6.5	5.5	6.0	5.5	4.5	5.0
4	14.5	13.5	14.0	19.5	19.0	19.0	5.5	4.5	5.0	5.0	4.5	4.5
5	15.0	14.0	14.5	19.5	18.5	19.0	5.0	4.0	4.5	5.0	4.0	4.5
6	16.5	15.0	16.0	18.5	16.5	17.5	5.0	4.0	4.5	5.0	4.0	4.5
7	17.5	16.5	17.0	16.5	14.0	15.5	5.0	4.5	4.5	5.0	4.0	4.5
8	17.0	16.0	16.5	14.0	13.0	13.5	7.0	5.0	6.5	5.0	4.0	4.5
9	16.5	16.0	16.0	13.0	12.5	13.0	7.0	5.5	6.5	6.5	5.0	5.5
10	17.0	16.0	16.5	12.5	12.0	12.5	5.5	4.5	5.0	6.0	5.5	5.5
11	17.5	16.5	17.0	12.5	11.5	12.0	4.5	3.5	4.0	7.5	5.5	6.5
12	18.0	17.5	18.0	12.5	11.5	12.0	5.5	4.0	4.5	7.5	7.0	7.5
13	19.0	18.0	18.5	12.0	11.0	11.5	5.5	4.5	5.0	7.5	6.5	6.5
14	19.5	19.0	19.0	11.0	10.0	10.5	6.0	5.0	5.5	6.0	4.5	5.0
15	19.5	19.0	19.0	11.0	9.5	10.0	5.5	4.5	5.0	4.0	3.0	3.5
16	19.0	17.5	18.5	9.5	8.0	9.0	7.0	5.5	6.0	3.5	2.5	3.0
17	17.5	16.5	17.0	9.5	8.0	8.5	6.5	6.0	6.0	3.0	2.0	2.5
18	17.5	15.5	16.5	9.0	8.0	8.5	6.0	5.0	5.5	2.5	2.0	2.5
19	15.5	14.5	15.0	9.5	8.5	8.5	5.0	4.5	5.0	2.5	2.0	2.0
20	14.5	12.5	13.5	10.0	9.5	10.0	5.0	4.5	4.5	3.0	2.0	2.5
21	12.5	11.0	11.5	10.0	8.0	9.0	5.0	4.5	4.5	2.0	1.5	2.0
22	12.5	10.5	11.0	8.0	7.0	7.5	5.0	4.5	4.5	1.5	0.5	1.0
23	13.0	11.0	12.0	7.5	7.0	7.5	5.5	4.0	4.5	2.5	1.0	---
24	13.5	12.0	12.5	8.5	7.5	8.0	5.5	5.0	5.0	3.0	2.0	---
25	14.0	13.0	13.5	9.0	7.5	8.5	6.0	5.5	6.0	4.5	3.0	---
26	14.5	14.0	14.5	7.5	6.0	6.5	5.5	5.0	5.5	4.5	3.0	---
27	14.0	14.0	14.0	5.5	5.0	5.5	5.5	5.0	5.0	3.0	2.5	---
28	14.5	13.5	14.0	5.5	5.0	5.5	5.5	5.0	5.0	3.5	3.0	---
29	14.5	14.0	14.5	5.5	5.0	5.0	5.5	5.0	5.0	5.5	3.5	---
30	15.5	14.5	15.0	5.5	5.0	5.0	6.5	5.5	6.0	5.5	4.5	---
31	17.0	15.5	16.5	---	---	---	6.0	5.5	5.5	5.5	5.0	---
MONTH	20.0	10.5	15.5	19.5	5.0	11.0	8.0	3.5	5.0	7.5	0.5	---

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.0	5.0	---	8.0	6.5	7.0	11.0	9.0	9.0	13.5	13.0	13.5
2	5.0	4.5	---	7.0	6.0	6.5	12.0	9.5	10.5	15.0	13.0	13.5
3	5.0	4.0	---	5.5	4.5	5.5	11.5	9.5	11.0	15.5	13.5	14.5
4	4.5	3.0	---	5.5	4.0	4.5	9.5	8.0	9.0	15.5	14.0	15.0
5	3.0	2.5	---	6.0	4.0	5.0	8.5	7.0	7.5	15.5	14.5	15.0
6	3.0	3.0	---	6.5	4.5	5.5	9.0	6.5	7.5	15.5	14.5	15.0
7	4.0	3.0	---	7.0	6.0	6.5	9.0	7.5	8.0	16.0	14.5	15.0
8	3.5	3.0	---	7.0	5.5	6.0	10.0	7.5	8.5	17.0	15.0	16.0
9	3.5	3.0	---	6.0	4.5	5.5	11.0	8.0	9.5	17.0	16.0	16.5
10	3.0	2.0	---	5.5	5.0	5.0	12.0	9.5	10.5	18.0	16.0	17.0
11	3.0	2.0	---	5.5	4.5	5.0	11.5	10.0	11.0	19.0	16.5	17.5
12	3.0	2.5	---	6.0	5.5	5.5	12.0	10.5	11.0	18.5	17.5	18.0
13	3.0	2.5	---	7.5	6.0	6.5	12.0	10.5	11.0	19.5	18.0	18.5
14	3.0	2.0	---	7.5	5.0	6.5	12.0	10.5	11.5	20.0	17.5	18.5
15	2.5	2.0	---	6.0	5.0	5.5	12.0	11.0	11.5	20.5	18.5	19.5
16	2.5	3.0	---	6.5	5.5	6.0	12.5	10.5	11.5	21.0	19.5	20.0
17	3.5	3.0	---	7.5	6.0	6.5	14.5	11.5	12.5	20.5	19.5	20.0
18	4.5	3.5	---	7.5	6.5	7.0	14.0	13.0	13.5	20.0	19.0	19.5
19	6.5	5.5	5.5	8.5	7.0	7.5	15.0	14.0	14.5	21.5	19.0	20.0
20	5.5	5.0	5.5	9.0	8.5	8.5	15.0	13.0	14.0	22.5	20.0	21.0
21	5.5	4.5	5.0	9.0	8.5	9.0	15.0	13.0	14.0	23.5	21.0	21.5
22	6.5	5.0	5.5	9.0	9.0	9.0	14.5	13.0	13.5	25.0	22.5	23.5
23	7.5	6.0	6.5	10.0	9.0	9.5	15.0	13.0	14.0	26.0	23.0	24.5
24	9.0	7.0	8.0	9.5	9.5	9.5	16.5	14.5	15.5	25.5	24.0	25.0
25	9.5	9.0	9.5	10.5	9.5	10.0	17.0	16.0	16.5	24.5	23.0	24.0
26	9.0	8.5	9.0	10.0	9.0	9.5	17.0	15.0	16.0	23.0	21.5	22.5
27	8.0	7.5	8.0	9.0	8.5	8.5	15.5	13.5	14.5	23.5	21.0	22.0
28	7.5	7.0	7.0	9.0	7.5	8.5	14.0	13.5	14.0	24.5	22.0	23.0
29	---	---	---	9.0	8.5	8.5	13.5	13.5	13.5	24.0	22.5	23.5
30	---	---	---	10.0	9.0	9.5	13.5	13.0	13.5	24.5	22.5	23.5
31	---	---	---	9.5	8.0	9.0	---	---	---	25.0	23.5	24.0
MONTH	9.5	2.0	---	10.5	4.0	7.0	17.0	6.5	12.0	26.0	13.0	19.5
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.0	24.5	24.5	25.5	23.0	24.0	31.0	28.5	29.5	23.5	22.5	23.0
2	24.0	21.5	22.5	26.5	23.0	24.5	32.0	29.5	30.5	23.0	22.0	22.5
3	23.5	21.5	22.5	27.0	25.0	26.0	32.5	30.0	31.0	24.5	22.0	23.0
4	24.0	22.0	23.0	26.5	25.5	26.0	32.5	30.5	31.5	24.5	22.5	23.5
5	24.0	22.0	23.0	27.5	25.0	26.0	32.0	30.0	31.0	25.0	23.0	24.0
6	24.0	22.5	23.0	28.0	25.5	26.5	32.0	29.0	30.0	24.5	24.0	24.0
7	22.5	20.5	21.5	28.0	26.5	27.0	28.5	26.5	27.5	24.0	23.5	23.5
8	21.0	20.0	20.5	27.5	26.0	27.0	28.0	25.5	27.0	25.0	23.0	23.5
9	21.5	19.0	20.0	28.0	26.5	27.5	28.5	26.0	27.0	25.0	23.5	24.0
10	22.5	20.0	20.5	28.5	26.5	27.5	28.0	26.5	27.0	24.5	22.5	23.5
11	22.0	20.5	21.0	28.0	22.5	24.5	28.0	26.5	27.0	23.5	22.0	23.0
12	20.5	20.0	20.5	26.5	23.0	24.5	27.5	26.5	27.0	23.5	23.0	23.5
13	22.5	20.0	21.0	26.5	24.5	25.5	29.5	27.5	28.5	23.0	21.0	21.5
14	22.5	20.0	21.0	24.5	22.5	23.5	29.0	27.5	28.0	21.5	19.5	20.5
15	25.0	21.5	23.0	24.0	23.0	23.5	29.0	27.5	28.0	21.0	19.0	20.0
16	25.0	23.0	24.0	25.0	23.5	23.5	28.5	27.5	28.0	20.0	19.0	19.5
17	26.0	23.5	24.5	26.0	24.5	25.5	28.0	26.0	27.0	21.5	19.0	20.0
18	27.5	25.0	26.0	27.5	25.0	26.0	28.5	26.5	27.5	21.5	20.5	21.0
19	28.5	26.0	27.0	27.5	26.0	27.0	28.5	27.0	28.0	21.0	20.0	20.5
20	29.5	27.5	28.5	28.5	27.0	27.5	28.5	26.5	27.5	23.5	21.0	22.0
21	29.0	27.0	28.0	28.5	24.0	26.0	28.0	26.5	27.0	23.5	22.5	23.0
22	28.5	26.0	27.0	28.0	26.0	27.0	27.5	26.5	27.0	22.5	21.0	21.5
23	28.5	26.0	27.5	29.5	26.5	28.0	27.5	26.0	27.0	21.0	18.5	20.0
24	30.0	27.0	27.5	29.5	28.0	28.5	27.0	25.5	26.0	19.0	17.0	18.0
25	30.5	28.5	29.5	29.0	27.5	28.0	28.5	25.5	26.5	17.5	16.5	16.5
26	30.5	26.0	28.0	28.0	25.5	27.0	30.0	27.0	27.5	---	---	---
27	25.5	24.0	25.0	28.0	25.5	27.0	30.0	27.5	29.0	---	---	---
28	26.0	24.0	25.0	28.5	26.5	27.5	30.0	27.5	28.5	---	---	---
29	26.0	22.5	23.5	29.5	27.0	27.5	29.0	27.0	28.0	---	---	---
30	24.5	22.5	23.5	30.0	27.5	29.0	29.0	27.0	28.0	17.5	16.0	16.5
31	---	---	---	30.0	28.0	29.0	28.5	23.5	26.0	---	---	---
MONTH	30.5	19.0	24.0	30.0	22.5	26.5	32.5	23.5	28.0	25.0	16.0	21.5



## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

OCT. 22, 1974  
 1040 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

75,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OCCYSTACEAE			
....ANKISTRODESMUS		2,300	3
...SCENEDESMACEAE			
....SCENEDESMUS		3,700	5
...ZYGNEATALES			
....DESMIDIACEAE	PLACODERM UESMIDS		
....CLOSTERIUM			0
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		65,000	87
....MELOSIRA		3,200	4
..PENNALES	PENNATE		
...FRAGILARIACEAE			
....SYNEDRA			0

NOV. 19, 1974  
 1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

35,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OCCYSTACEAE			
....ANKISTRODESMUS		1,100	3
...SELENASTRUM		960	3
...SCENEDESMACEAE			
....ACTINASTRUM		380	1
...SCENEDESMUS		1,500	4
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		380	1
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		30,000	86
..PENNALES	PENNATE		
...CYMBELLACEAE			
....CYMBELLA			0
...DIATOMACEAE			
....DIATOMA			0
...FRAGILARIACEAE			
....SYNEDRA			0
...NAVICULACEAE	NAVICULOID		
....NAVICULA			0
...SURIPELLACEAE			
....SURIPELLA			0

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DEC. 18, 1974  
 1045 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3.600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...CHARACIACEAE			
....SCHRUEDERIA		130	4
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....MELOSIRA		270	7
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....COCCONEIS		130	4
...DIATOMACEAE			
....DIATOMA		130	4
...FRAGILARIACEAE			
....SYNEDRA		130	4
...GOMPHONEMACEAE			
....GOMPHONEMA		400	11
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA		130	4
....NAVICULA		1,300	37
...NITZSCHIACEAE			
....NITZSCHIA		930	26

JAN. 22, 1975  
 1120 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

820 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		250	30
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		21	2
...DIATOMACEAE			
....DIATOMA		21	2
...NAVICULACEAE	NAVICULOID		
....NAVICULA		290	35
...NITZSCHIACEAE			
....NITZSCHIA		250	30

## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

FEB. 19, 1975

1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3,200 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OCCYSTACEAE			
....ANKISTRODESMUS		23	1
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....COSCINODISCUS		140	4
....CYCLOTELLA		93	3
....MELOSIRA		47	1
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....COCCONEIS		23	1
....RHODIOSPHEA		47	1
...CYMBELLACEAE			
....CYMBELLA		140	4
...DIATOMACEAE			
....DIATOMA		210	7
...EUNOTIACEAE			
....EUNOTIA		190	6
...FRAGILARIACEAE			
....SYNEDRA		540	17
...GOMPHONEMACEAE			
....GOMPHONEMA		140	4
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA		23	1
....NAVICULA		260	8
....PINNULARIA		120	4
...NITZSCHIACEAE			
....NITZSCHIA		210	7
...SURIPELLACEAE			
....SURIPELLA		23	1
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIALES			
....LYNGBYA		930	30

MAR. 18, 1975

1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		460	12
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....COCCONEIS		77	2
....RHODIOSPHEA		150	4
...CYMBELLACEAE			
....CYMBELLA		230	6
...DIATOMACEAE			
....DIATOMA		150	4
...FRAGILARIACEAE			
....SYNEDRA		770	20
...GOMPHONEMACEAE			
....GOMPHONEMA		460	12
...NAVICULACEAE	NAVICULOID		
....NAVICULA		1,400	35
...NITZSCHIACEAE			
....NITZSCHIA		230	6

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

APR. 22, 1975  
 1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

27,000 CELLS/ML

ORGANISM_NAME	COMMON_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...SCENEDESMACEAE			
....ACTINASTRUM		890	3
....SCENEDESMUS		1,500	6
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		520	2
...VOLVOCAEAE			
....PANDORINA		1,200	4
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCEAE			
....CYCLOTELLA		21,000	79
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		220	1
...RHOILOSOPHENIA		150	1
...DIATOMACEAE			
....DIATOMA		150	1
...FRAGILARIACEAE			
...SYNEDRA		150	1
...GOMPHONEMACEAE			
....GOMPHONEMA		150	1
...NAVICULACEAE	NAVICULOID		
....NAVICULA		220	1
...NITZSCHACEAE			
....NITZSCHIA		600	2

MAY 21, 1975  
 1115 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

29,000 CELLS/ML

ORGANISM_NAME	COMMON_NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...SCENEDESMACEAE			
....SCENEDESMUS		3,200	11
...ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
....COSMARIUM			0
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCEAE			
....CYCLOTELLA		23,000	78
..PENNALES	PENNATE		
...DIATOMACEAE			
....DIATOMA			0
...FRAGILARIACEAE			
....ASTERTIONELLA		550	2
...SYNEDRA			0
...NAVICULACEAE	NAVICULOID		
....NAVICULA		550	2
...NITZSCHACEAE			
....NITZSCHIA		690	2
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE		
...CHRYSONOMADACEAE			
....MALLOMONAS			0
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS		550	2
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
....TRACHELOMONAS			0

## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

JUNE 24, 1975  
 1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

62,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...COELASTRACEAE			
....COELASTRUM		9,700	16
...OCCYSTACEAE			
....ANKISTRODESMUS		2,400	4
....CHODATELLA		610	1
...OOCYSTIS		2,400	4
....SELENASTRUM		1,200	2
...SCENEDESMACEAE			
....SCENEDESMUS		25,000	40
....TETRASTRUM		2,400	4
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		610	1
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		9,100	15
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....COCCONEIS		610	1
...NAVICULACEAE	NAVICULOID		
....NAVICULA		610	1
...NITZSCHACEAE			
....NITZSCHIA		1,200	2
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
....CHROOCOCCACEAE			
....ANACYSTIS		2,400	4
....GOMPHOSPHERIA		3,600	6

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

JULY 29, 1975  
 1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

33,000 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...COELASTRACEAE			
...COELASTRUM		2,200	7
...HYDRODICTYACEAE			
...PEDIASTRUM			0
...OCCYSTACEAE			
...ANKISTRODESMUS		550	2
...DICTYOSPHAERIUM		4,400	13
...TETRAEDRON		270	1
...SCENEDESMACEAE			
...SCENEDESMUS		12,000	36
..ZYGNEATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
...COSMARIUM		270	1
CHRYCOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
...CYCLOTELLA		2,700	8
..PENNALES	PENNATE		
...FRAGILARIACEAE			
...SYNEDRA			0
...GOMPHONEMACEAE			
...GOMPHONEMA		270	1
...NAVICULACEAE	NAVICULOID		
...GYROSIGMA		270	1
...NITZSCHIA			
...NITZSCHIA		1,400	4
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
...AGMENELLUM		8,800	27
...ANACYSTIS			0
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
..EUGLENALES			
...EUGLENACEAE			
...TRACHELOMONAS			0

## POTOMAC RIVER BASIN

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued  
 BIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

AUG. 27, 1975  
 1045 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

58,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOCOCCALES			
...HYDRODICTYACEAE			
...PEDIASTRUM			0
...OCCYSTACEAE			
....ANKISTRODES MUS		1,100	2
....DICTYOSPHAERIUM		3,400	6
....KIRCHNERIELLA		2,800	5
....OOCYSTIS		1,100	2
....TETRAEDRON		1,100	2
...SCENEDESMACEAE			
....ACTINASTRUM		10,000	18
....CRUCIGENIA			0
...SCENEDESMUS		13,000	22
....TETRASTRUM		1,100	2
..TETRASPORALES			
...PALMELLACEAE			
...SPHAEROCYSTIS		2,300	4
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		3,100	5
....MELOSIRA		5,400	9
..PENNALES	PENNATE		
...ACHNANTHACEAE			0
...RHODIOSIPHONIA			0
...GOMPHONEMATACEAE			0
....GOMPHONEMA			
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA			0
....NAVICULA		560	1
...NITZSCHACEAE			
....NITZSCHIA		1,400	2
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS			0
....COCCOCHLOPIS		11,000	20

SEP. 23, 1975  
 1100 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

9,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOCOCCALES			
...OCCYSTACEAE			
....ANKISTRODES MUS		660	7
...SCENEDESMACEAE			
....SCENEDESMUS		760	8
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		1,300	15
....MELOSIRA		760	8
..PENNALES	PENNATE		
...FUNOTIACEAE			
....FUNOTIA		95	1
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA			0
....NAVICULA		190	2
...NITZSCHACEAE			
....NITZSCHIA		660	7
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...NOSTOCACEAE			
....ANABAENA			0
...OSCILLATORIACEAE			
....OSCILLATORIA		4,500	51

01647720 NORTH BRANCH ROCK CREEK NEAR NORBECK, MD.

LOCATION.--Lat 39°06'59", long 77°06'09", Montgomery County, at gaging station 550 ft (168 m) downstream from bridge on Muncaster Mill Road (State Highway 115), 0.7 mile (1.1 km) upstream from Manor Run, 1.5 miles (2.4 km) northwest of Norbeck, and 2 miles (3.2 km) upstream from mouth.

DRAINAGE AREA.--9.73 mi<sup>2</sup> (25.20 km<sup>2</sup>).

PERIOD OF RECORD.--Sediment records: November 1966 to September 1975 (partial-record station), discontinued.

## SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)
NOV.			
05...	10	8	.35
DEC.			
16...	99	187	109
JAN.			
19...	17	44	4.8
20...	25	57	5.5
25...	36	103	14
FEB.			
12...	20	63	5.0
MAR.			
24...	23	174	19
MAY			
01...	40	213	54
06...	20	49	5.1
13...	21	32	2.2
JUNE			
01...	13	121	6.7
26...	42	641	206
SEP.			
23...	54	123	21
24...	72	149	49
25...	230	244	217
26...	840	334	1170
27...	57	30	5.7

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
SEP. 24...	1310	194	464	243	22	34	47	63	79	96	98	100



## POTOMAC RIVER BASIN

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.

LOCATION.--Lat 39°06'09", long 77°07'12", Montgomery County, at gaging station 170 ft (52 m) downstream from outlet of Bernard Frank Lake, 370 ft (113 m) upstream from mouth, and 2.4 miles (3.9 km) northeast of Rockville.

DRAINAGE AREA.--12.5 mi<sup>2</sup> (32.4 km<sup>2</sup>).

PERIOD OF RECORD.--Sediment records: September 1967 to September 1975.

## EXTREMES.--1974-75:

Sediment concentrations: Maximum daily, 116 mg/l Dec. 2; minimum daily, 6 mg/l Mar. 11, 13.

Sediment discharge: Maximum daily, 62 tons (56 t) Sept. 26; minimum daily, 0.07 tons (0.06 t) Nov. 6.

## Period of record:

Sediment concentrations: Maximum daily, 450 mg/l Nov. 2, 1967; minimum daily, 3 mg/l Jan. 24, 1972.

Sediment discharge: Maximum daily, 358 tons (325 t) June 22, 1972; minimum daily, 0 tons (0 t) July 29, 1971.

REMARKS.--Flow regulated by dam above station; drain valve open at times; variable backwater at times from Rock Creek.

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9.0	25	.61	3.3	16	.14	8.3	33	1.3
2	6.5	25	.44	3.3	10	.09	64	116	19
3	4.9	26	.34	3.3	12	.11	66	50	8.9
4	4.2	21	.24	3.3	15	.13	60	40	6.5
5	3.8	28	.29	3.4	11	.10	51	25	3.4
6	3.3	35	.31	3.5	7	.07	39	20	2.1
7	3.3	21	.19	3.5	8	.08	19	15	.77
8	3.1	15	.13	3.5	12	.11	50	25	3.4
9	3.1	18	.15	3.8	20	.21	52	30	4.2
10	3.1	31	.26	4.0	23	.25	29	20	1.6
11	2.9	29	.23	4.0	24	.26	21	27	1.5
12	2.9	20	.16	4.0	23	.25	13	21	.74
13	2.9	27	.21	4.0	18	.19	9.4	15	.38
14	2.9	19	.15	4.0	16	.17	8.2	19	.42
15	2.9	18	.14	4.3	18	.21	7.6	18	.37
16	5.4	10	.15	4.3	17	.20	48	19	2.9
17	6.2	13	.22	4.8	19	.25	73	35	6.9
18	5.4	7	.10	4.8	17	.22	54	36	5.2
19	4.5	12	.15	4.5	21	.26	30	33	2.7
20	4.0	22	.24	4.5	19	.23	18	24	1.2
21	3.8	31	.32	4.7	14	.18	12	22	.71
22	3.8	31	.32	4.7	17	.22	11	20	.59
23	3.5	27	.26	4.5	14	.17	9.2	21	.52
24	3.5	26	.25	4.3	15	.17	8.3	16	.36
25	3.5	24	.23	4.2	13	.15	7.9	16	.34
26	3.5	19	.18	4.3	8	.09	7.5	18	.36
27	3.3	14	.12	4.3	17	.20	7.1	20	.38
28	3.3	13	.12	4.3	20	.23	7.0	17	.32
29	3.3	21	.19	4.1	9	.10	7.0	16	.30
30	3.3	43	.38	4.0	7	.08	6.8	18	.33
31	3.3	36	.32	---	---	---	7.3	15	.30
TOTAL	122.4	---	7.40	121.5	---	5.12	811.6	---	77.99

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9.8	16	.42	20	14	.76	13	11	.39
2	9.1	16	.39	18	13	.63	12	13	.42
3	8.1	16	.35	15	12	.49	11	12	.36
4	7.7	15	.31	12	12	.39	11	10	.30
5	7.4	13	.26	18	13	.63	10	9	.24
6	7.0	10	.19	30	15	1.2	10	8	.22
7	7.3	14	.28	40	11	1.2	9.5	8	.21
8	8.1	13	.28	32	11	.95	9.4	9	.23
9	29	16	1.3	25	16	1.1	9.3	9	.23
10	21	13	.74	19	15	.77	8.9	9	.22
11	17	14	.64	15	14	.57	8.9	6	.14
12	13	13	.46	16	16	.69	12	7	.23
13	17	11	.50	16	16	.69	16	6	.26
14	18	16	.78	16	14	.60	47	7	.89
15	12	13	.42	15	16	.65	63	11	1.9
16	10	13	.35	13	17	.60	51	12	1.7
17	9.0	12	.29	13	15	.53	52	15	2.1
18	12	11	.36	14	12	.45	43	12	1.4
19	23	9	.56	14	13	.49	56	13	2.0
20	51	11	1.5	13	15	.53	73	27	5.3
21	35	14	1.3	12	14	.45	69	55	10
22	24	15	.97	11	13	.39	64	56	9.7
23	20	17	.92	15	12	.49	56	44	6.7
24	19	18	.92	33	11	.98	46	33	4.1
25	40	18	1.9	38	10	1.0	42	30	3.4
26	59	28	4.5	26	11	.77	31	27	2.3
27	42	17	1.9	19	14	.72	23	20	1.2
28	32	16	1.4	16	14	.60	19	17	.87
29	21	20	1.1	---	---	---	17	17	.78
30	16	16	.69	---	---	---	31	20	1.7
31	18	13	.63	---	---	---	31	19	1.6
TOTAL	622.5	---	26.61	544	---	19.32	955.0	---	61.09
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	24	19	1.2	30	14	1.1	11	17	.50
2	19	18	.92	33	16	1.4	12	18	.58
3	17	17	.78	25	14	.95	12	19	.62
4	16	18	.78	42	14	1.6	11	20	.59
5	14	21	.79	54	15	2.2	11	20	.59
6	13	20	.70	44	18	2.1	10	20	.54
7	12	15	.49	40	18	1.9	10	20	.54
8	12	14	.45	29	17	1.3	9.1	20	.49
9	12	12	.39	22	16	.95	8.5	20	.46
10	12	11	.36	18	16	.78	8.0	20	.43
11	11	10	.30	16	15	.65	7.8	20	.42
12	11	11	.33	15	14	.57	8.5	20	.46
13	11	11	.33	18	13	.63	11	22	.65
14	10	10	.27	20	10	.54	11	23	.68
15	13	11	.39	18	15	.73	9.9	25	.67
16	15	11	.45	17	14	.64	8.7	25	.59
17	14	9	.34	16	12	.52	7.9	25	.53
18	12	8	.26	15	12	.49	7.3	25	.49
19	12	9	.29	14	9	.34	6.9	24	.45
20	12	10	.32	12	10	.32	6.5	24	.42
21	11	9	.27	12	10	.32	6.0	24	.39
22	11	13	.39	11	10	.30	5.8	23	.36
23	11	10	.30	10	11	.30	5.5	23	.34
24	11	8	.24	12	13	.42	5.3	23	.33
25	14	8	.30	34	11	1.0	5.2	22	.31
26	40	8	.86	32	15	1.3	20	21	1.1
27	31	15	1.3	27	19	1.4	19	20	1.0
28	23	19	1.2	20	13	.70	15	17	.69
29	21	16	.91	16	12	.52	13	14	.49
30	21	12	.68	13	14	.49	12	11	.36
31	---	---	---	12	13	.42	---	---	---
TOTAL	466	---	16.59	697	---	26.88	294.9	---	16.07

## POTOMAC RIVER BASIN

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

[illegible]

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD.

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, at gaging station 400 ft (120 m) upstream from bridge on State Highway 183, 1.5 miles (2.4 km) southwest of Colesville, 3 miles (4.8 km) upstream from Burnt Mills, 10 miles (16.1 km) upstream from Sligo Branch, and 12.5 miles (20.1 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--21.1 mi<sup>2</sup> (54.6 km<sup>2</sup>).

PERIOD OF RECORD.--Sediment records: October 1962 to September 1975.

## EXTREMES.--1974-75:

Sediment concentrations: Maximum daily, 704 mg/l Sept. 25; minimum daily, 2 mg/l on several days during November and March.

Sediment discharge: Maximum daily, 3,650 tons (3,310 t) Sept. 26; minimum daily, 0.03 ton (0.03 t) Nov. 8-11. Period of record:

Sediment concentrations: Maximum daily, 4,340 mg/l Aug. 25, 1965, minimum daily, no flow on several days during August and September 1966.

Sediment discharge: Maximum daily, 7,340 tons (6,660 t), revised, June 22, 1972 (revised); minimum daily, no flow on several days during August and September 1966.

REVISIONS.--The maximum daily sediment discharge and the date for water year 1972 have been revised to 7,340 tons (6,600 t) June 22, 1972, superseding figures published in WRD Md. and Del., 1972.

REVISIONS.--Revised figures for sediment discharge for water year 1972 superseding those previously published are given herewith: June 21, 1972, 5,480 tons; June monthly total 14,529.45 tons; 1972 water year total 30,989.27 tons.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
SEP. 24....	1235	88	17.0	1444	343	14	19	26
		SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
SEP. 24....	35	44	54	61	69	76	85	92

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD.--Continued  
 SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.4	4	.05	6.1	7	.12	149	552	636
2	4.4	4	.05	6.1	11	.18	244	250	357
3	4.1	4	.04	5.8	3	.05	22	26	1.5
4	4.1	4	.04	7.1	2	.04	14	22	.83
5	5.1	4	.06	12	6	.19	11	20	.59
6	4.8	4	.05	14	10	.38	10	18	.49
7	4.8	4	.05	7.4	4	.08	9.9	18	.48
8	4.4	4	.05	5.5	2	.03	222	624	482
9	4.4	4	.05	5.5	2	.03	29	60	4.7
10	4.1	4	.04	5.8	2	.03	16	26	1.1
11	3.5	5	.05	5.5	2	.03	13	22	.77
12	3.5	5	.05	16	6	.26	13	18	.63
13	3.5	5	.05	11	8	.24	12	16	.52
14	3.5	5	.05	7.1	8	.15	16	16	.69
15	13	40	5.8	14	17	.64	12	12	.39
16	49	89	14	7.7	8	.17	257	354	342
17	11	8	.24	6.9	8	.15	35	32	3.0
18	6.5	4	.07	6.1	7	.12	19	15	.77
19	6.5	4	.07	6.1	7	.12	16	11	.48
20	6.5	4	.07	8.7	20	.47	14	9	.34
21	5.8	4	.06	8.6	18	.42	14	8	.30
22	6.1	4	.07	6.1	16	.26	15	7	.28
23	6.1	4	.07	6.1	14	.23	12	7	.23
24	6.1	4	.07	6.5	13	.23	12	7	.23
25	7.1	4	.08	8.2	11	.24	12	7	.23
26	7.1	5	.10	8.3	12	.27	11	6	.18
27	5.8	4	.06	6.1	14	.23	11	6	.18
28	6.5	4	.07	6.1	16	.26	11	6	.18
29	6.5	4	.07	5.8	18	.28	11	5	.15
30	6.5	4	.07	5.8	16	.25	11	5	.15
31	6.5	4	.07	---	---	---	10	15	.41
TOTAL	221.2	---	21.72	232.0	---	6.15	1263.9	---	1836.80
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	10	.51	18	9	.44	16	4	.17
2	12	7	.23	17	8	.37	15	3	.12
3	11	6	.18	16	8	.35	14	3	.11
4	11	6	.18	15	8	.32	13	3	.11
5	10	6	.16	25	15	1.0	14	2	.08
6	11	6	.18	66	40	7.1	15	2	.08
7	16	6	.26	46	20	2.5	15	9	.36
8	14	8	.30	23	15	.93	15	8	.32
9	50	63	12	20	12	.65	13	6	.21
10	17	9	.41	17	12	.55	15	4	.16
11	18	8	.39	17	10	.46	16	3	.13
12	14	7	.26	53	25	3.6	30	60	4.9
13	37	29	4.0	25	15	1.0	23	30	1.9
14	21	10	.57	18	14	.68	176	567	483
15	17	7	.32	17	13	.60	54	30	4.4
16	14	7	.26	17	13	.60	26	10	.70
17	13	7	.25	20	14	.76	64	61	13
18	29	34	5.0	23	14	.87	27	15	1.1
19	44	42	12	19	12	.62	388	631	1100
20	65	108	30	16	11	.48	61	50	8.2
21	23	12	.75	15	10	.41	30	28	2.3
22	20	10	.54	15	9	.36	26	22	1.5
23	20	10	.54	41	40	4.4	24	16	1.0
24	22	11	.65	68	85	21	52	123	27
25	91	141	42	37	15	1.5	41	34	3.8
26	44	47	8.0	21	10	.57	24	9	.58
27	21	15	.85	18	6	.29	21	10	.57
28	19	11	.56	17	4	.18	20	10	.54
29	17	10	.46	---	---	---	23	15	.93
30	15	9	.36	---	---	---	77	206	67
31	20	10	.54	---	---	---	27	30	2.2
TOTAL	755	---	122.71	720	---	52.59	1375	---	1726.47

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	23	17	1.1	77	40	8.3	19	30	1.5
2	21	15	.85	30	14	1.1	16	20	.86
3	25	40	2.7	23	12	.75	13	15	.53
4	20	36	1.9	173	150	70	12	10	.32
5	18	32	1.6	38	20	2.1	15	40	1.6
6	18	28	1.4	41	30	3.3	20	60	3.2
7	17	24	1.1	35	40	3.8	11	30	.89
8	17	20	.92	23	25	1.6	10	15	.41
9	16	18	.78	21	21	1.2	9.9	10	.27
10	16	16	.69	20	20	1.1	9.8	8	.21
11	16	14	.60	18	20	.97	10	15	.41
12	16	13	.56	21	20	1.1	22	64	4.8
13	15	12	.49	46	170	23	23	164	14
14	15	11	.45	27	20	1.5	12	10	.32
15	31	70	5.9	19	15	.77	11	6	.18
16	20	14	.76	31	40	3.3	10	5	.14
17	17	10	.46	20	12	.65	10	5	.14
18	17	6	.28	18	11	.53	9.7	4	.10
19	21	8	.45	18	10	.49	9.3	4	.10
20	18	7	.34	16	9	.39	8.8	4	.10
21	15	6	.24	15	8	.32	7.6	4	.08
22	15	5	.20	15	11	.45	7.3	4	.08
23	15	5	.20	14	13	.49	7.2	4	.08
24	19	8	.41	112	511	529	6.4	4	.07
25	68	167	63	44	137	24	6.3	6	.10
26	61	113	37	24	12	.78	91	573	281
27	24	15	.97	18	10	.49	14	50	1.9
28	20	10	.54	15	8	.32	16	30	1.3
29	34	50	4.6	14	8	.30	11	16	.48
30	23	12	.75	13	8	.28	15	20	.81
31	---	---	---	13	8	.28	---	---	---
TOTAL	671	---	131.24	1012	---	682.66	443.3	---	315.98
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9.9	16	.43	9.4	12	.30	80	239	91
2	8.8	15	.36	9.0	12	.29	17	25	1.1
3	8.2	14	.31	8.8	10	.24	12	15	.49
4	9.7	13	.34	9.3	15	.38	11	14	.42
5	8.4	12	.27	12	40	1.3	9.3	13	.33
6	7.3	11	.22	9.9	15	.40	8.8	12	.29
7	7.1	10	.19	9.1	10	.25	8.8	12	.29
8	9.0	10	.24	7.9	8	.17	8.0	10	.22
9	20	30	1.6	7.4	8	.16	7.6	10	.21
10	77	250	52	6.8	7	.13	6.8	10	.18
11	17	190	8.7	7.4	7	.14	7.2	9	.18
12	12	140	4.5	7.7	6	.12	10	20	.54
13	225	431	508	7.2	6	.12	9.3	15	.38
14	253	333	354	12	30	.97	7.1	10	.19
15	1130	253	2730	8.4	10	.23	6.8	10	.18
16	107	150	43	22	351	60	7.2	9	.18
17	34	40	3.7	15	149				

## OHIO RIVER BASIN

## MONONGAHELA RIVER BASIN

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD.

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, temperature recorder at gaging station on left bank 0.7 mile (1.1 km) upstream from bridge on State Highway 42 at Friendsville, and 1.5 miles (2.4 km) upstream from Bear Creek.

DRAINAGE AREA.--295 mi<sup>2</sup> (764 km<sup>2</sup>).

PERIOD OF RECORD.--Water temperatures: October 1962 to September 1975 (discontinued).

EXTREMES.--1973-75:

Water temperatures: Maximum, 26.5°C Aug. 4; minimum, freezing point Dec. 1-3, 9, Jan. 20.

Period of record:

Water temperatures: Maximum, 29.5°C June 27, 28, 1969; minimum, freezing point on many days during winter periods.

## TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	3.5	3.5	4.5	2.5	3.0	8.0	4.5	6.0	13.0	11.5	12.0
2	4.0	3.0	3.5	3.0	1.5	2.0	9.5	5.5	7.5	13.5	11.5	12.5
3	3.0	2.0	2.5	2.0	0.5	1.5	8.5	5.0	7.0	13.5	11.0	12.5
4	2.0	0.5	1.5	3.0	0.5	1.5	5.5	3.0	4.0	12.5	11.0	12.0
5	3.0	1.0	2.0	4.0	0.5	2.0	3.5	2.5	3.0	11.5	10.5	11.0
6	3.5	2.5	3.0	5.0	1.5	3.0	4.0	2.0	3.0	12.5	10.0	11.0
7	2.5	1.5	2.0	4.5	3.0	4.0	4.5	2.5	3.5	13.0	10.5	11.5
8	2.5	0.5	1.5	4.5	2.5	3.5	6.5	2.5	4.5	14.0	10.5	12.5
9	1.5	0.5	1.5	3.0	1.0	2.0	7.0	3.5	5.5	15.0	12.0	13.5
10	1.0	0.5	0.5	3.0	2.0	2.5	6.5	5.5	6.0	16.0	12.0	14.0
11	2.5	1.0	1.5	4.0	2.5	3.0	7.5	4.5	6.5	16.5	13.0	15.0
12	2.5	2.0	2.0	5.5	3.5	4.0	7.5	5.0	6.0	15.5	13.5	14.0
13	2.0	0.5	1.5	5.5	4.5	5.5	7.5	5.0	6.5	14.0	12.0	13.0
14	2.0	0.5	1.0	4.5	3.5	4.0	8.0	4.5	6.5	15.0	11.0	13.0
15	2.5	0.5	1.5	3.5	2.5	3.0	7.0	6.0	6.5	15.0	13.0	13.5
16	3.5	2.0	3.0	5.0	2.5	4.0	8.5	5.5	7.0	15.5	13.0	14.0
17	4.0	3.0	3.5	6.0	4.5	5.0	10.5	6.5	8.5	15.5	12.5	14.5
18	4.5	3.5	4.0	6.5	4.0	5.5	10.0	8.0	9.0	15.5	14.0	15.0
19	4.5	3.5	4.5	6.5	5.0	6.0	11.5	9.0	10.0	17.0	14.5	15.5
20	3.5	3.0	3.5	7.0	5.5	6.5	10.5	9.0	9.5	18.0	15.0	16.0
21	4.5	2.5	3.5	7.5	5.5	6.5	10.0	7.5	8.5	20.0	15.0	17.0
22	5.5	3.0	4.0	8.0	6.5	7.5	9.0	7.0	8.0	21.5	16.0	18.5
23	6.0	4.5	5.5	9.5	6.5	8.0	10.5	7.5	9.0	21.0	16.5	18.0
24	6.5	6.0	6.5	8.5	8.0	8.5	11.0	9.0	10.0	20.5	16.0	18.5
25	7.0	4.0	5.5	8.5	6.0	7.5	10.5	10.0	10.5	21.0	19.0	20.0
26	4.5	3.0	4.0	5.5	4.0	5.0	11.0	9.5	10.0	20.0	17.5	19.0
27	4.5	3.0	3.5	4.5	2.5	3.5	11.0	9.5	10.0	19.0	15.5	17.0
28	4.5	2.5	3.5	5.5	3.5	4.5	10.0	9.5	9.5	18.5	15.5	16.5
29	---	---	---	7.5	5.0	6.5	12.0	9.0	10.5	17.5	14.5	15.5
30	---	---	---	7.0	5.0	6.5	12.5	11.5	11.5	17.5	15.5	16.5
31	---	---	---	6.0	3.0	5.0	---	---	---	19.0	17.0	18.0
MONTH	7.0	0.5	3.0	9.5	0.5	4.5	12.5	2.0	7.5	21.5	10.0	15.0
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	17.0	17.5	22.5	17.0	19.0	24.5	19.0	---	18.0	17.0	17.5
2	17.5	15.0	16.0	22.0	16.5	19.0	24.5	19.0	---	18.5	17.0	18.0
3	18.0	15.0	16.0	22.0	17.0	19.0	26.0	21.0	---	19.0	17.0	18.0
4	18.0	14.5	16.0	21.0	17.5	19.0	26.5	21.0	---	19.5	17.5	18.5
5	19.0	15.5	17.0	24.0	19.5	21.5	22.5	20.0	---	20.0	17.0	18.5
6	19.0	15.5	16.5	23.5	20.5	22.0	20.5	19.0	---	19.0	17.5	18.5
7	16.0	15.0	15.5	22.0	18.0	20.5	22.5	18.5	---	18.5	16.0	17.0
8	15.5	14.5	15.0	22.5	17.0	19.0	21.5	17.5	---	20.0	16.0	18.0
9	17.0	13.5	15.0	21.0	18.0	19.5	22.0	17.0	---	20.0	17.5	18.5
10	18.0	14.0	16.0	21.5	17.5	18.5	23.0	19.0	---	19.5	15.0	17.5
11	16.5	15.5	16.0	20.5	17.0	18.5	21.5	18.5	---	19.5	17.0	18.0
12	16.5	15.5	16.0	19.5	16.5	18.0	21.5	18.5	---	19.0	16.0	17.5
13	17.0	15.0	16.0	21.0	19.0	19.5	22.5	19.0	---	16.0	14.5	15.0
14	18.5	15.5	17.0	22.0	19.0	20.0	21.0	19.5	---	15.0	12.5	14.0
15	21.5	16.0	19.0	21.0	18.5	19.0	20.0	20.0	---	15.0	13.0	14.0
16	21.0	18.0	19.5	21.5	17.5	19.0	20.0	19.5	---	16.0	14.0	15.0
17	21.0	17.0	18.5	22.5	17.5	19.5	19.5	19.0	---	17.5	15.0	16.5
18	20.5	17.5	18.5	23.0	18.0	20.0	20.5	18.5	---	17.0	16.0	16.0
19	23.0	16.5	18.5	23.0	18.0	20.0	20.5	18.5	19.5	18.0	15.5	16.5
20	22.5	16.5	18.5	22.0	19.5	21.0	21.0	19.5	20.0	17.5	16.0	17.0
21	22.5	17.0	20.0	24.0	19.5	21.5	22.0	18.5	20.0	17.5	15.5	16.5
22	24.5	21.5	23.0	22.5	18.0	---	23.0	20.0	21.0	15.5	14.0	15.0
23	25.5	19.5	22.5	22.5	18.0	---	22.5	20.5	21.0	15.0	14.0	14.5
24	23.5	18.5	20.0	23.0	19.0	---	21.5	20.5	21.0	15.0	13.5	14.0
25	23.5	18.0	20.0	21.5	18.0	---	21.5	20.0	21.0	15.0	14.0	14.5
26	21.0	17.5	19.0	21.5	18.0	---	23.0	20.5	21.5	15.5	14.0	14.5
27	19.0	17.5	17.5	22.0	19.0	---	22.5	20.0	21.5	15.0	14.0	14.5
28	22.0	17.0	19.5	23.5	19.5	---	22.0	19.5	20.5	14.5	13.0	14.0
29	23.5	20.0	22.0	22.0	18.0	---	21.0	19.5	20.0	15.0	12.0	13.5
30	24.0	18.5	21.5	22.0	18.0	---	21.0	19.5	20.0	15.0	13.0	14.0
31	---	---	---	23.5	18.5	---	20.5	17.5	19.0	---	---	---
MONTH	25.5	13.5	18.0	24.0	16.5	---	26.5	17.0	---	20.0	12.0	16.0



## 03078000 CASSELMAN RIVER AT GRANTSVILLE, MD.

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, at gaging station on left bank at downstream side of highway bridge, 0.3 mile (0.5 km) upstream from Slaubough Run, 0.7 mile (1.1 km) downstream from U. S. Highway 40, and 1.0 mile (1.6 km) northeast of Grantsville.

DRAINAGE AREA.--62.5 mi<sup>2</sup> (161.9 km<sup>2</sup>).

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1975.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO <sub>3</sub> ) (MG/L)	ALKA- LITY AS CACO <sub>3</sub> (MG/L)	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L)
OCT.												
04...	1245	4.8	2.1	110	990	20	6.4	4.6	1.3	24	20	44
DEC.												
12...	1345	104	4.0	1700	420	12	2.8	6.1	1.1	9	7	21
JAN.												
16...	1020	135	3.9	270	200	8.8	2.1	3.1	.6	14	11	20
FEB.												
24...	1010	820	3.0	780	160	11	1.6	2.2	1.2	7	6	16
APR.												
02...	1150	140	3.6	290	150	11	1.2	3.2	.8	9	7	19
MAY												
20...	1035	99	3.7	280	80	7.5	1.9	2.2	.9	13	11	18
JUNE												
11...	1145	40	3.7	450	80	10	2.6	3.8	1.0	15	12	21
JULY												
15...	1000	115	3.3	4400	240	9.8	2.1	2.5	1.4	14	11	16
AUG.												
19...	1145	18	3.7	810	80	15	4.0	3.9	1.6	23	19	31
SEP.												
18...	1210	47	3.8	750	80	14	3.7	5.8	1.3	24	20	23

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.												
04...	9.0	.2	.20	.10	99	76	57	200	--	5.5	--	2
DEC.												
12...	12	.1	.82	.02	64	42	34	--	--	.5	--	4
JAN.												
16...	5.8	.1	.62	.01	51	31	19	--	7.3	.5	--	4
FEB.												
24...	6.9	.2	.60	.03	46	34	28	--	7.3	4.5	6.0	20
APR.												
02...	6.8	.2	.61	.02	50	32	25	--	6.6	6.5	--	1
MAY												
20...	4.4	.1	.35	.02	45	27	16	83	7.6	16.0	--	6
JUNE												
11...	8.7	.0	.31	.03	58	36	23	110	7.2	15.5	--	8
JULY												
15...	4.5	.1	.53	.27	47	33	22	89	6.9	17.0	--	27
AUG.												
19...	6.1	.1	.61	.09	77	54	35	--	7.1	20.0	--	2
SEP.												
18...	13	.1	.39	.06	77	50	31	--	7.6	15.0	--	1

## ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES

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## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
DELAWARE RIVER BASIN										
01477875 - CHRISTINA RIVER AT HUNTING HILLS, NEWARK, DE (LAT 39 41 24 LONG 075 46 41)										
OCT., 1974										
31...	1550	--	15	--	90	--	30	12	3.7	6.2
01477960 - CHRISTINA RIVER AT ROLLING GREEN, NEWARK, DE (LAT 39 39 13 LONG 075 45 18)										
OCT., 1974										
31...	1630	--	15	--	250	--	60	11	4.3	10
01478500 - WHITE CLAY CREEK ABOVE NEWARK, DEL. (LAT 39 42 50 LONG 075 45 35.01)										
OCT., 1974										
08...	1300	39	--	--	--	--	--	--	--	--
NOV.										
01...	1215	45	9.8	--	90	--	40	20	8.4	6.5
12...	1000	46	--	--	--	--	--	--	--	--
DEC.										
19...	1545	97	--	--	--	--	--	--	--	--
FEB., 1975										
06...	1100	118	--	--	--	--	--	--	--	--
MAR.										
14...	1155	122	--	--	--	--	--	--	--	--
APR.										
16...	1440	108	--	--	--	--	--	--	--	--
SEP.										
16...	1425	56	--	--	--	--	--	--	--	--
01478700 - WHITE CLAY CREEK BELOW NEWARK, DE (LAT 39 41 33 LONG 075 43 23)										
NOV., 1974										
01...	1130	47	10	--	110	--	70	24	8.0	7.0
01478880 - TRIB. TO WHITE CLAY CR. NR. NEWARK, DEL. (LAT 39 41 01 LONG 075 42 37.01)										
APR., 1975										
03...	1315	23	4.3	2400	--	150	--	12	2.9	4.8
01479000 - WHITE CLAY CREEK NEAR NEWARK, DEL. (LAT 39 42 00 LONG 075 41 10)										
OCT., 1974										
07...	1630	48	--	--	--	--	--	--	--	--
NOV.										
01...	1100	48	10	--	120	--	90	24	8.0	6.8
12...	1610	54	--	--	--	--	--	--	--	--
DEC.										
19...	1415	117	--	--	--	--	--	--	--	--
FEB., 1975										
06...	1415	184	--	--	--	--	--	--	--	--
APR.										
03...	1215	249	--	--	--	--	--	--	--	--
SEP.										
15...	1235	69	--	--	--	--	--	--	--	--
01479955 - RED CLAY CREEK AT ASHLAND, DE (LAT 39 47 55 LONG 075 39 30)										
OCT., 1974										
31...	0930	23	14	--	200	--	90	25	9.9	30
01480019 - RED CLAY CREEK AT STANTON, DE (LAT 39 42 34 LONG 075 38 38)										
NOV., 1974										
01...	1000	38	14	--	230	--	130	22	9.4	27
01481280 - BRANDYWINE CREEK AT SMITH BRIDGE, DE (LAT 39 50 12 LONG 075 34 46)										
OCT., 1974										
31...	1030	--	9.2	--	190	--	70	21	8.2	12

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINIT- AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE PLUS NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)
------	--	--------------------------------------	--	--	---	--	--	--	---	--

DELAWARE RIVER BASIN

01477875 - CHRISTINA RIVER AT HUNTING HILLS, NEWARK, DE (LAT 39 41 24 LONG 075 46 41)

OCT., 1974										
31...	2.6	29	24	14	8.4	.2	1.4	--	.02	.58

01477960 - CHRISTINA RIVER AT ROLLING GREEN, NEWARK, DE (LAT 39 39 13 LONG 075 45 18)

OCT., 1974										
31...	3.0	36	30	14	14	.3	1.3	--	.03	.57

01478500 - WHITE CLAY CREEK ABOVE NEWARK, DEL. (LAT 39 42 50 LONG 075 45 35.01)

OCT., 1974										
08...	--	--	--	--	--	--	--	--	--	--
NOV.										
01...	3.4	72	59	20	12	.1	2.2	--	.02	.53
12...	--	--	--	--	--	--	--	--	--	--
DEC.										
19...	--	--	--	--	--	--	--	--	--	--
FEB., 1975										
06...	--	--	--	--	--	--	--	--	--	--
MAR.										
14...	--	--	--	--	--	--	--	--	--	--
APR.										
16...	--	--	--	--	--	--	--	--	--	--
SEP.										
16...	--	--	--	--	--	--	--	--	--	--

01478700 - WHITE CLAY CREEK BELOW NEWARK, DE (LAT 39 41 33 LONG 075 43 23)

NOV., 1974										
01...	3.4	70	57	22	15	.1	1.6	--	.10	.73

01478880 - TRIB. TO WHITE CLAY CR. NR. NEWARK, DEL. (LAT 39 41 01 LONG 075 42 37.01)

APR., 1975										
03...	2.6	22	18	17	7.4	.3	--	.51	--	--

01479000 - WHITE CLAY CREEK NEAR NEWARK, DEL. (LAT 39 42 00 LONG 075 41 10)

OCT., 1974										
07...	--	--	--	--	--	--	--	--	--	--
NOV.										
01...	3.4	68	56	21	13	.2	1.8	--	.05	.50
12...	--	--	--	--	--	--	--	--	--	--
DEC.										
19...	--	--	--	--	--	--	--	--	--	--
FEB., 1975										
06...	--	--	--	--	--	--	--	--	--	--
APR.										
03...	--	--	--	--	--	--	--	--	--	--
SEP.										
15...	--	--	--	--	--	--	--	--	--	--

01479955 - RED CLAY CREEK AT ASHLAND, DE (LAT 39 47 55 LONG 075 39 30)

OCT., 1974										
31...	5.8	89	73	33	45	.2	1.8	--	.06	1.1

01480019 - RED CLAY CREEK AT STANTON, DE (LAT 39 42 34 LONG 075 38 38)

NOV., 1974										
01...	5.2	78	64	31	41	.2	1.6	--	.05	.85

01481280 - BRANDYWINE CREEK AT SMITH BRIDGE, DE (LAT 39 50 12 LONG 075 34 46)

OCT., 1974										
31...	3.4	73	60	23	17	.2	1.6	--	.06	.72

## ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES

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## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
------	---	--	--	---	------------------------------------	---	--	---------------	-----------------------------	------------------------------------

## DELAWARE RIVER BASIN

01477875 - CHRISTINA RIVER AT HUNTING HILLS, NEWARK, DE (LAT 39 41 24 LONG 075 46 41)

OCT., 1974 31...	.20	.01	87	77	45	21	--	7.2	16.0	--
---------------------	-----	-----	----	----	----	----	----	-----	------	----

01477960 - CHRISTINA RIVER AT ROLLING GREEN, NEWARK, DE (LAT 39 39 13 LONG 075 45 18)

OCT., 1974 31...	.24	.22	99	90	45	16	--	7.1	14.5	--
---------------------	-----	-----	----	----	----	----	----	-----	------	----

01478500 - WHITE CLAY CREEK ABOVE NEWARK, DEL. (LAT 39 42 50 LONG 075 45 35.01)

OCT., 1974 08...	--	--	--	--	--	--	235	8.2	11.0	13.0
NOV. 01...	.88	.07	133	116	85	25	--	7.6	15.5	--
12...	--	--	--	--	--	--	135	7.7	7.0	14.0
DEC. 19...	--	--	--	--	--	--	232	7.6	3.0	4.0
FEB., 1975 06...	--	--	--	--	--	--	264	7.8	3.0	3.5
MAR. 14...	--	--	--	--	--	--	215	7.2	4.5	.5
APR. 16...	--	--	--	--	--	--	211	8.8	9.5	15.0
SEP. 16...	--	--	--	--	--	--	230	7.7	13.0	19.5

01478700 - WHITE CLAY CREEK BELOW NEWARK, DE (LAT 39 41 33 LONG 075 43 23)

NOV., 1974 01...	.09	.08	133	125	93	35	--	7.3	15.5	--
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01478880 - TRIB. TO WHITE CLAY CR. NR. NEWARK, DEL. (LAT 39 41 01 LONG 075 42 37.01)

APR., 1975 03...	.19	---	--	62	42	24	120	6.4	9.5	11.5
---------------------	-----	-----	----	----	----	----	-----	-----	-----	------

01479000 - WHITE CLAY CREEK NEAR NEWARK, DEL. (LAT 39 42 00 LONG 075 41 10)

OCT., 1974 07...	--	--	--	--	--	--	228	8.1	14.0	18.0
NOV. 01...	.08	.06	129	121	93	37	--	7.3	15.5	--
12...	--	--	--	--	--	--	226	7.9	10.5	12.0
DEC. 19...	--	--	--	--	--	--	223	7.4	3.5	6.5
FEB., 1975 06...	--	--	--	--	--	--	222	7.3	3.5	7.0
APR. 03...	--	--	--	--	--	--	163	6.8	10.0	12.0
SEP. 15...	--	--	--	--	--	--	230	7.9	13.5	17.0

01479955 - RED CLAY CREEK AT ASHLAND, DE (LAT 39 47 55 LONG 075 39 30)

OCT., 1974 31...	.48	.36	228	208	100	30	--	7.3	15.0	--
---------------------	-----	-----	-----	-----	-----	----	----	-----	------	----

01480019 - RED CLAY CREEK AT STANTON, DE (LAT 39 42 34 LONG 075 38 38)

NOV., 1974 01...	.20	.15	199	189	94	30	--	7.6	15.0	--
---------------------	-----	-----	-----	-----	----	----	----	-----	------	----

01481280 - BRANDYWINE CREEK AT SMITH BRIDGE, DE (LAT 39 50 12 LONG 075 34 46)

OCT., 1974 31...	.26	.22	142	130	86	26	--	7.2	14.5	--
---------------------	-----	-----	-----	-----	----	----	----	-----	------	----

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	DIS- SOLVED CAD- MIUM (UG/L)	DIS- SOLVED CHRO- MIUM (UG/L)	DIS- SOLVED COBALT (UG/L)	DIS- SOLVED COPPER (UG/L)	DIS- SOLVED LEAD (UG/L)	DIS- SOLVED NICKEL (UG/L)	DIS- SOLVED ZINC (UG/L)
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DELAWARE RIVER BASIN

01477875 - CHRISTINA RIVER AT HUNTING HILLS, NEWARK, DE (LAT 39 41 24 LONG 075 46 41)

OCT., 1974									
31...	--	--	0	0	3	0	1	0	50

01477960 - CHRISTINA RIVER AT ROLLING GREEN, NEWARK, DE (LAT 39 39 13 LONG 075 45 18)

OCT., 1974									
31...	--	--	0	0	0	0	1	3	10

01478500 - WHITE CLAY CREEK ABOVE NEWARK, DEL. (LAT 39 42 50 LONG 075 45 35.01)

OCT., 1974									
08...	--	11.7	--	--	--	--	--	--	--
NOV.									
01...	--	--	0	0	0	0	0	0	20
12...	--	11.5	--	--	--	--	--	--	--
DEC.									
19...	--	12.3	--	--	--	--	--	--	--
FEB., 1975									
06...	--	13.2	--	--	--	--	--	--	--
MAR.									
14...	--	13.0	--	--	--	--	--	--	--
APR.									
16...	--	14.9	--	--	--	--	--	--	--
SEP.									
16...	--	13.5	--	--	--	--	--	--	--

01478700 - WHITE CLAY CREEK BELOW NEWARK, DE (LAT 39 41 33 LONG 075 43 23)

NOV., 1974									
01...	--	--	1	<10	0	10	2	2	1300

01478880 - TRIB. TO WHITE CLAY CR. NR. NEWARK, DEL. (LAT 39 41 01 LONG 075 42 37.01)

APR., 1975									
03...	35	9.3	--	--	--	--	--	--	--

01479000 - WHITE CLAY CREEK NEAR NEWARK, DEL. (LAT 39 42 00 LONG 075 41 10)

OCT., 1974									
07...	--	9.8	--	--	--	--	--	--	--
NOV.									
01...	--	--	1	0	0	0	2	2	650
12...	--	--	--	--	--	--	--	--	--
DEC.									
19...	--	12.2	--	--	--	--	--	--	--
FEB., 1975									
06...	--	13.0	--	--	--	--	--	--	--
APR.									
03...	--	10.7	--	--	--	--	--	--	--
SEP.									
15...	--	13.6	--	--	--	--	--	--	--

01479955 - RED CLAY CREEK AT ASHLAND, DE (LAT 39 47 55 LONG 075 39 30)

OCT., 1974									
31...	--	6.9	1	0	0	10	0	2	800

01480019 - RED CLAY CREEK AT STANTON, DE (LAT 39 42 34 LONG 075 38 38)

NOV., 1974									
01...	--	--	1	10	0	10	2	1	470

01481280 - BRANDYWINE CREEK AT SMITH BRIDGE, DE (LAT 39 50 12 LONG 075 34 46)

OCT., 1974									
31...	--	--	0	0	0	0	1	11	20

## ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)
DELAWARE RIVER BASIN										
01481490 - BRANDYWINE CR. AT HAGLEY MUSEUM, WILMINGTON, DE (LAT 39 46 23 LONG 075 34 39)										
OCT., 1974										
31...	1245	167	9.2	--	210	--	100	24	8.0	10
01481550 - BRANDYWINE CR. BELOW ALAPOCAS RUN AT WILMINGTON (LAT 39 45 10 LONG 075 32 58)										
OCT., 1974										
31...	1430	--	8.9	--	180	--	60	23	7.6	12
PATAPSCO RIVER BASIN										
01587500 - SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD. (LAT 39 21 05 LONG 076 54 50)										
OCT., 1974										
29...	1500	30	6.8	230	--	70	--	11	3.2	5.2
JAN., 1975										
14...	1545	66	7.5	350	--	50	--	10	3.3	7.1
01589000 - PATAPSCO RIVER AT HOLLOFIELD, MD. (LAT 39 18 36 LONG 076 47 34)										
OCT., 1974										
29...	1130	61	9.0	350	--	120	--	15.	4.2	6.6
JAN., 1975										
14...	1515	116	9.8	380	--	70	--	13	3.9	10
POTOMAC RIVER BASIN										
01600000 - NORTH BRANCH POTOMAC RIVER AT PINTO, MD. (LAT 39 33 59 LONG 078 50 25)										
JAN., 1975										
03...	1225	4740	4.9	2500	--	400	--	15	4.1	5.0
MAR.										
03...	1425	1070	5.3	2400	--	900	--	46	9.9	12
JUNE										
02...	1400	746	6.3	600	--	970	--	43	9.0	14
SEP.										
02...	1215	1510	6.6	4800	--	900	--	37	8.0	5.9

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)
------	--	--------------------------------------	--	--	---	--	-----------------------------------	--	---	--

DELAWARE RIVER BASIN

01481490 - BRANDYWINE CR. AT HAGLEY MUSEUM, WILMINGTON, DE (LAT 39 46 23 LONG 075 34 39)

OCT., 1974										
31...	3.4	70	57	23	17	.2	1.6	--	.08	.69

01481550 - BRANDYWINE CR. BELOW ALAPOCAS RUN AT WILMINGTON (LAT 39 45 10 LONG 075 32 58)

OCT., 1974										
31...	3.4	70	57	23	17	.2	8.1	--	.04	.61

PATAPSCO RIVER BASIN

01587500 - SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD. (LAT 39 21 05 LONG 076 54 50)

OCT., 1974										
29...	2.0	34	28	5.3	7.5	.1	--	1.5	--	--
JAN., 1975										
14...	2.2	26	21	8.3	15	.1	--	2.0	--	--

01589000 - PATAPSCO RIVER AT HOLLOFIELD, MD. (LAT 39 18 36 LONG 076 47 34)

OCT., 1974										
29...	2.4	47	39	12	9.0	.2	--	1.2	--	--
JAN., 1975										
14...	2.1	36	30	11	22	.2	--	1.8	--	--

POTOMAC RIVER BASIN

01600000 - NORTH BRANCH POTOMAC RIVER AT PINTO, MD. (LAT 39 33 59 LONG 078 50 25)

JAN., 1975										
03...	1.1	2	2	51	8.5	.1	--	.66	--	--
MAR.										
03...	1.6	8	7	130	24	.2	--	.70	--	--
JUNE										
02...	1.8	5	4	130	25	.1	--	.32	--	--
SEP.										
02...	1.8	9	7	110	5.4	.1	--	.54	--	--

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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DATE	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
------	---	--	--	--	-------------------------------------	---	--	---------------	-----------------------------	------------------------------------

DELAWARE RIVER BASIN

01481490 - BRANDYWINE CR. AT HAGLEY MUSEUM, WILMINGTON, DE (LAT 39 46 23 LONG 075 34 39)

OCT., 1974										
31...	.21	.18	141	130	93	35	--	7.2	15.5	--

01481550 - BRANDYWINE CR. BELOW ALAPOCAS RUN AT WILMINGTON (LAT 39 45 10 LONG 075 32 58)

OCT., 1974										
31...	.22	.20	138	130	89	32	--	7.9	16.5	--

PATAPSCO RIVER BASIN

01587500 - SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD. (LAT 39 21 05 LONG 076 54 50)

OCT., 1974										
29...	.08	--	--	58	41	13	118	--	10.5	--
JAN., 1975										
14...	.15	--	--	66	39	17	--	--	2.0	--

01589000 - PATAPSCO RIVER AT HOLLOFIELD, MD. (LAT 39 18 36 LONG 076 47 34)

OCT., 1974										
29...	.13	--	--	82	55	16	151	--	10.5	--
JAN., 1975										
14...	.08	--	--	90	49	19	--	--	2.5	--

POTOMAC RIVER BASIN

01600000 - NORTH BRANCH POTOMAC RIVER AT PINTO, MD. (LAT 39 33 59 LONG 078 50 25)

JAN., 1975										
03...	.04	--	--	91	54	53	--	--	4.0	1.0
MAR.										
03...	.07	--	--	233	160	150	--	--	3.0	--
JUNE										
02...	.11	--	--	232	140	140	385	6.1	21.0	--
SEP.										
02...	.22	--	--	180	130	120	--	7.2	19.0	--

01646500 - POTOMAC RIVER NEAR WASHINGTON, D.C. (LAT 38 56 58 LONG 77 07 40)

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
SEP.							
27...	1427	186000	404	203000	--	44	68
27...	1445	186000	462	232000	38	52	66



ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	DIS- SOLVED CAD- MIUM (UG/L)	DIS- SOLVED CHRO- MIUM (UG/L)	DIS- SOLVED COBALT (UG/L)	DIS- SOLVED COPPER (UG/L)	DIS- SOLVED LEAD (UG/L)	DIS- SOLVED NICKEL (UG/L)	DIS- SOLVED ZINC (UG/L)
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DELAWARE RIVER BASIN

01481490 - BRANDYWINE CR. AT HAGLEY MUSEUM, WILMINGTON, DE (LAT 39 46 23 LONG 075 34 39)

OCT., 1974									
31...	--	--	0	0	0	0	0	8	20

01481550 - BRANDYWINE CR. BELOW ALAPOCAS RUN AT WILMINGTON (LAT 39 45 10 LONG 075 32 58)

OCT., 1974									
31...	--	--	0	0	0	0	2	7	40

PATAPSCO RIVER BASIN

01587500 - SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD. (LAT 39 21 05 LONG 076 54 50)

OCT., 1974									
29...	4	--	--	--	--	--	--	--	--
JAN., 1975									
14...	9	--	--	--	--	--	--	--	--

01589000 - PATAPSCO RIVER AT HOLLOFIELD, MD. (LAT 39 18 36 LONG 076 47 34)

OCT., 1974									
29...	3	--	--	--	--	--	--	--	--
JAN., 1975									
14...	7	--	--	--	--	--	--	--	--

POTOMAC RIVER BASIN

01600000 - NORTH BRANCH POTOMAC RIVER AT PINTO, MD. (LAT 39 33 59 LONG 078 50 25)

JAN., 1975									
03...	10	--	--	--	--	--	--	--	--
MAR.									
03...	8	--	--	--	--	--	--	--	--
JUNE									
02...	6	--	--	--	--	--	--	--	--
SEP.									
02...	1	--	--	--	--	--	--	--	--

01646500 - POTOMAC RIVER NEAR WASHINGTON, D.C. (LAT 38 56 58 LONG 77 07 40)

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1975

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
SEP.							
27...	85	91	--	95	97	99	100
27...	79	87	94	--	95	98	100

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

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FIELD DETERMINATIONS

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
DELAWARE RIVER BASIN							
01478000 - CHRISTINA RIVER AT COOCHS BRIDGE, DEL. (LAT 39 38 16 LONG 075 43 46)							
OCT., 1974							
07...	1435	22	158	7.3	12.5	24.5	9.5
DEC.							
05...	1100	24	170	7.0	2.5	3.0	12.0
30...	1400	19	153	6.7	5.0	11.0	10.9
JAN., 1975							
31...	1550	28	180	7.3	4.5	2.0	12.0
MAR.							
05...	1255	27	158	7.0	2.5	4.5	12.3
APR.							
07...	1640	19	143	7.4	7.5	7.5	12.5
JUNE							
06...	1130	145	89	7.0	17.5	26.5	9.2
SEP.							
15...	1040	22	142	6.8	14.0	15.0	9.9

01478050 - CHRISTINA RIVER AT CHRISTIANA, DE. (LAT 39 39 13 LONG 075 40 17.01)

DEC., 1974							
05...	1215	16	145	6.8	3.5	3.0	11.6
JAN., 1975							
31...	1015	35	152	6.3	4.5	1.0	12.0
MAR.							
05...	1040	30	134	7.6	2.5	.0	13.0
JUNE							
05...	1750	127	125	7.1	20.0	19.0	9.9
13...	1540	383	91	--	20.0	25.0	8.9

01479197 - MILL CREEK AT MILL CREEK ROAD AT HOCKESSIN, DE (LAT 39 46 49 LONG 075 41 50.01)

OCT., 1974							
21...	1355	.88	212	8.1	4.5	6.0	12.6
NOV.							
12...	1215	.52	311	7.5	9.0	15.0	5.7
JAN., 1975							
13...	1230	30	204	7.9	4.5	1.5	11.1
FEB.							
04...	1355	2.3	222	--	1.0	1.5	14.2
MAR.							
14...	1310	10	432	7.7	3.0	.5	12.5
APR.							
07...	1400	2.9	200	8.0	6.5	7.5	15.1
MAY							
20...	1600	2.4	209	8.2	21.5	29.0	9.1

01480100 - LITTLE MILL CREEK AT ELSMERE, DEL. (LAT 39 44 05 LONG 075 35 14)

OCT., 1974							
08...	0930	1.9	250	7.4	8.5	7.5	10.4
NOV.							
12...	1330	2.6	238	8.0	12.0	15.0	14.0
DEC.							
19...	1040	5.3	228	7.2	3.0	2.0	12.5
JAN., 1975							
31...	1410	13	322	6.2	5.0	3.0	11.7
MAR.							
26...	1530	9.0	207	7.8	11.0	6.0	11.0
APR.							
03...	1055	70	109	6.2	11.0	12.5	9.9
16...	1100	5.9	196	8.0	9.5	10.0	16.4
SEP.							
15...	1425	2.8	223	8.4	17.5	18.0	16.7

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
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FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
MURDERKILL RIVER BASIN							
01484000 - MURDERKILL RIVER NEAR FELTON, DEL. (LAT 38 58 33 LONG 075 34 03)							
NOV., 1974							
08...	1145	4.4	231	7.1	10.0	13.0	6.5
DEC.							
16...	1100	43	120	6.6	10.0	8.0	9.4
JAN., 1975							
24...	1400	36	128	6.2	5.0	11.0	10.3
FEB.							
18...	1520	35	130	6.8	7.5	11.0	10.0
MAY							
16...	1655	58	114	6.7	17.5	22.5	6.4
JULY							
14...	1145	482	--	5.8	21.5	24.5	6.7
16...	1125	126	70	6.0	22.0	27.5	5.6
18...	1530	54	99	6.5	22.0	26.5	--

INDIAN RIVER BASIN

01484500 - STOCKLEY BRANCH AT STOCKLEY, DEL. (LAT 38 38 19 LONG 075 20 31)							
OCT., 1974							
03...	1405	1.9	95	7.2	9.0	8.0	9.9
DEC.							
27...	1430	4.8	101	6.3	8.0	7.0	10.2
JAN., 1975							
14...	1550	15	99	6.0	5.0	-1.0	10.5
FEB.							
19...	1340	13	98	5.6	10.0	12.5	10.7
MAY							
13...	1725	8.3	93	6.5	18.0	19.0	7.5
JUNE							
16...	1355	5.0	95	6.6	19.0	27.0	7.7
AUG.							
05...	1650	6.0	92	6.6	20.0	30.0	7.5
SEP.							
19...	1550	4.2	92	7.0	17.5	23.5	9.1

POCOMOKE RIVER BASIN

01485060 - BURNT MILLS BRANCH AT WILLARDS, MD. (LAT 38 12 10 LONG 075 20 15.01)							
NOV., 1974							
19...	1615	5.8	111	6.5	10.0	13.0	9.3
DEC.							
16...	1435	139	160	5.9	9.0	14.0	7.9
JAN., 1975							
16...	1345	52	177	5.2	3.5	1.0	11.0
FEB.							
26...	1200	39	158	5.4	7.5	11.0	10.1
APR.							
11...	1525	24	77	6.3	10.0	11.0	10.0
MAY							
14...	1625	35	126	6.5	23.0	21.0	11.3
JUNE							
26...	1130	8.1	120	6.2	22.0	25.5	8.8
01485100 - FRANKLIN BRANCH AT TIMMONSTOWN, MD. (LAT 38 20 54 LONG 075 18 06.01)							
NOV., 1974							
20...	1015	.03	220	6.8	8.0	14.0	6.5
DEC.							
17...	1035	24	134	6.0	7.0	7.0	8.1
JAN., 1975							
16...	1245	12	163	5.2	2.5	1.5	8.7
FEB.							
26...	1600	8.2	145	5.0	8.0	14.0	9.1
MAY							
14...	1505	1.3	193	6.8	20.0	25.0	9.3
JUNE							
26...	1355	.19	227	6.8	22.0	25.5	5.8
AUG.							
06...	0950	.65	205	6.6	22.5	26.5	5.7

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FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
POCOMOKE RIVER BASIN--Continued							
01485240 - COONFOOT BRANCH NEAR NEWARK, MD. (LAT 38 14 27 LONG 075 20 36.01)							
NOV., 1974							
20...	1220	.34	135	6.2	10.5	13.5	8.2
DEC.							
17...	1200	6.4	144	5.9	6.5	9.5	8.6
JAN., 1975							
15...	1350	11	110	4.6	3.0	2.0	11.0
FEB.							
20...	1240	5.5	138	5.0	6.0	6.0	10.3
MAY							
14...	1245	1.7	140	6.3	19.0	22.5	10.4
JUNE							
12...	1445	.81	127	6.2	17.5	19.0	8.1
AUG.							
07...	1330	.70	129	6.5	20.0	21.5	8.6
SEP.							
10...	1520	1.4	104	6.2	20.0	21.5	7.0
01485670 - PUSEY BRANCH NEAR LONGRIDGE, MD. (LAT 38 16 00 LONG 075 32 10.01)							
DEC., 1974							
17...	1650	5.0	96	4.8	6.5	5.5	6.0
JAN., 1975							
29...	1230	4.2	79	4.2	7.0	16.5	7.5
FEB.							
27...	1040	3.7	77	4.0	5.0	8.5	9.2
MAY							
14...	0905	.48	65	5.6	14.5	17.0	4.5
01485680 - PUSEY BRANCH NEAR WHITEBURG, MD. (LAT 38 14 16 LONG 075 32 30.01)							
NOV., 1974							
20...	1420	.16	72	5.4	14.0	10.5	--
DEC.							
17...	1450	15	114	4.7	7.5	12.0	--
JAN., 1975							
29...	1335	12	94	3.8	9.0	17.0	--
FEB.							
27...	0925	11	81	3.7	6.5	3.0	--
MAY							
14...	1010	2.6	62	4.6	16.0	20.5	--
AUG.							
06...	1335	.11	67	4.9	24.5	27.5	--

ANALYSES OF MISCELLANEOUS SURFACE-WATER SAMPLES  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

FIELD DETERMINATIONS

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)
ELK RIVER BASIN							
01495000 - BIG ELK CREEK AT ELK MILLS, MD. (LAT 39 39 26 LONG 075 49 20)							
OCT., 1974							
08...	1500	32	122	8.0	12.0	13.5	10.3
DEC.							
05...	1420	41	135	7.3	2.0	5.0	12.0
20...	1500	66	123	7.2	4.0	5.0	12.0
JAN., 1975							
28...	1510	76	130	6.5	4.0	6.5	12.8
MAR.							
11...	1350	70	118	7.0	4.0	5.5	13.3
APR.							
18...	1350	75	116	8.2	11.5	16.0	12.3
SEP.							
09...	1510	45	118	7.2	20.0	20.0	10.0
01495500 - LITTLE ELK CREEK AT CHILDS, MD. (LAT 39 38 30 LONG 075 52 00)							
NOV., 1974							
15...	1525	17	145	8.0	7.0	6.0	12.3
FEB., 1975							
06...	0915	56	235	7.2	2.5	2.0	13.6
NORTHEAST RIVER BASIN							
01496000 - NORTHEAST CREEK AT LESLIE, MD. (LAT 39 37 40 LONG 075 56 40)							
OCT., 1974							
08...	1730	12	134	8.2	12.0	13.5	9.6
NOV.							
13...	0945	28	132	7.9	8.5	8.0	--
DEC.							
20...	1315	30	140	7.5	4.0	5.0	12.4
FEB., 1975							
05...	1540	40	735	7.8	1.5	3.0	13.5
MAR.							
13...	1555	36	138	7.6	7.0	13.5	12.6
APR.							
18...	1210	23	92	8.3	12.0	16.0	13.0
SEP.							
09...	1225	12	133	7.4	18.5	19.0	12.1
PRINCIPIO CREEK BASIN							
01496200 - PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD. (LAT 39 37 34 LONG 076 02 27)							
OCT., 1974							
09...	1045	4.2	138	7.9	9.0	12.5	11.9
NOV.							
13...	1130	7.0	144	7.9	10.5	10.0	--
DEC.							
20...	0940	12	136	7.3	3.0	1.5	13.0
FEB., 1975							
05...	1130	15	128	7.3	2.0	2.0	14.1
MAR.							
13...	1030	13	140	7.7	6.0	9.0	12.0
APR.							
15...	1140	9.9	132	7.7	8.0	6.5	11.7
SEP.							
08...	1135	5.9	141	7.4	18.0	22.5	11.0
SUSQUEHANNA RIVER BASIN							
01578500 - OCTORARO CREEK NEAR RISING SUN, MD. (LAT 39 41 24 LONG 076 07 43)							
OCT., 1974							
09...	1420	64	172	8.8	12.0	17.5	12.8
NOV.							
13...	1420	72	165	8.7	9.0	9.5	--
DEC.							
20...	1115	179	170	7.6	3.0	3.5	12.3
FEB., 1975							
05...	1330	225	173	7.3	1.5	2.5	13.4
MAR.							
13...	1315	286	162	7.4	6.5	14.0	12.0
APR.							
15...	1410	234	160	8.2	8.0	6.0	12.4
SEP.							
08...	1410	154	177	8.1	20.0	23.0	11.5

## WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
SUSQUEHANNA RIVER BASIN									
01580000 - DEER CREEK AT ROCKS, MARYLAND (LAT 39 37 49 LONG 076 24 13.01)									
OCT., 1974					APR., 1975				
24... 1100	57	6.0	12.5		16... 1400	136	10.0	14.0	
DEC.					MAY				
11... 1415	104	2.0	2.5		20... 1300	175	18.5	30.5	
JAN., 1975					AUG.				
23... 1500	123	4.0	3.0		07... 1015	137	18.0	18.0	
MAR.					SEP.				
05... 1400	120	3.0	4.0		11... 1330	100	16.0	19.0	
01580200 - DEER CREEK NEAR KALMIA, MD. (LAT 39 37 16 LONG 076 17 57)									
OCT., 1974					MAY, 1975				
30... 1045	77	11.0	15.0		20... 1545	230	20.5	27.0	
DEC.					JUNE				
13... 1430	125	5.0	8.0		27... 1015	185	19.5	19.0	
JAN., 1975					AUG.				
23... 1040	170	3.0	3.5		07... 1300	191	20.0	19.0	
MAR.					SEP.				
06... 1045	160	3.5	3.5		11... 1015	130	16.0	15.0	
APR.									
16... 1125	189	9.0	10.0						
BUSH RIVER BASIN									
01581700 - WINTERS RUN NEAR BENSON, MD. (LAT 39 31 12 LONG 076 22 24)									
NOV., 1974					MAY, 1975				
04... 1000	17	14.5	22.0		20... 1030	47	17.5	24.0	
DEC.					JUNE				
02... 1625	87	6.0	5.0		30... 1130	57	20.5	27.0	
11... 1145	33	1.5	5.5		JULY				
JAN., 1975					16... 1320	107	20.5	--	
17... 1350	45	.5	.5		AUG.				
MAR.					04... 1040	49	18.5	23.5	
05... 1100	35	1.5	.5		SEP.				
20... 1520	99	9.0	14.0		11... 1530	37	18.5	24.0	
APR.									
17... 1345	46	14.0	16.0						
GUNPOWDER RIVER BASIN									
01582000 - LITTLE FALLS AT BLUE MOUNT, MD. (LAT 39 36 16 LONG 076 37 16)									
OCT., 1974					MAY, 1975				
01... 1450	40	14.0	15.5		14... 1045	104	13.5	20.0	
25... 1155	34	8.0	16.5		JUNE				
DEC.					26... 1310	134	20.0	22.5	
09... 1310	88	5.5	3.5		JULY				
JAN., 1975					17... 1310	108	20.0	28.0	
27... 1025	79	2.5	2.0		AUG.				
MAR.					05... 1035	74	21.0	23.0	
04... 1130	66	.0	.0		13... 1115	59	20.5	26.0	
APR.					SEP.				
08... 1300	80	8.0	10.0		10... 1145	53	15.0	15.0	
01583000 - SLADE RUN NEAR GLYNDON, MD. (LAT 39 29 40 LONG 076 47 45)									
DEC., 1974					MAY, 1975				
05... 1025	2.0	3.0	5.0		14... 0950	3.6	15.0	21.0	
JAN., 1975					JUNE				
23... 1525	2.7	5.0	4.5		18... 1010	3.2	18.5	26.5	
MAR.					JULY				
05... 1450	2.5	7.0	7.0		30... 0950	2.2	19.0	27.5	
APR.									
08... 1025	2.7	6.0	4.0						
01583500 - WESTERN RUN AT WESTERN RUN, MD. (LAT 39 30 38 LONG 076 40 37)									
OCT., 1974					MAY, 1975				
01... 1630	44	14.5	11.5		15... 1000	92	15.0	17.5	
23... 1435	36	9.0	18.0		JUNE				
DEC.					26... 1055	75	21.0	23.0	
10... 1055	74	2.5	-5		JULY				
JAN., 1975					17... 1050	111	19.5	24.5	
16... 1105	62	1.0	.0		AUG.				
FEB.					05... 1400	65	25.0	25.5	
26... 1055	93	4.0	3.5		SEP.				
APR.					10... 0945	60	15.0	12.0	
08... 1020	84	6.0	6.0						

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
GUNPOWDER RIVER BASIN--Continued									
01585100 - WHITEMARSH RUN AT WHITE MARSH, MD. (LAT 39 22 15 LONG 076 26 46)									
OCT., 1974					MAY, 1975				
31...	1025	2.1	16.0	19.0	13...	1010	21	17.5	21.0
DEC.					JUNE				
06...	1455	4.4	5.5	5.5	23...	1030	3.6	25.0	26.0
JAN., 1975					JULY				
15...	1050	10	.5	-1.5	31...	1450	3.0	32.0	29.0
17...	1050	8.8	.5	.0	SEP.				
FEB.					12...	1225	2.2	22.5	24.0
28...	1430	6.7	8.0	4.0					
APR.									
07...	1030	5.4	6.0	7.0					
BACK RIVER BASIN									
01585200 - WEST BRANCH HERRING RUN AT IDLEWYLDE, MD. (LAT 39 22 25 LONG 076 35 35)									
OCT., 1974					MAY, 1975				
21...	1410	.33	11.0	8.0	13...	1425	1.8	19.5	20.0
DEC.					JUNE				
10...	1530	1.2	3.0	.0	26...	0930	1.2	22.0	23.0
JAN., 1975					SEP.				
14...	1030	1.3	1.0	-5.0	09...	1030	.66	20.0	20.0
14...	1435	1.4	2.0	-3.5					
FEB.									
25...	1545	1.9	10.0	8.5					
01585300 - STEMMERS RUN AT ROSSVILLE, MD. (LAT 39 20 28 LONG 076 29 17)									
DEC., 1974					JUNE, 1975				
05...	1500	1.6	3.5	5.0	23...	1530	1.2	28.0	28.5
FEB., 1975					JULY				
28...	1015	2.7	3.0	2.5	31...	1020	1.3	24.0	29.5
MAY					SEP.				
12...	1300	2.6	20.0	26.0	10...	1550	.53	24.5	22.0
01585400 - BRIEN RUN AT STEMMERS RUN, MD. (LAT 39 20 01 LONG 076 28 23)									
OCT., 1974					MAY, 1975				
31...	1300	.61	16.0	21.0	12...	1500	.81	18.5	21.5
DEC.					JUNE				
06...	1205	.64	4.5	5.0	23...	1300	.53	22.0	25.0
JAN., 1975					JULY				
15...	1600	1.1	4.0	-.5	31...	1215	.64	21.0	24.0
FEB.					SEP.				
28...	1200	.94	5.5	3.0	12...	1025	.56	19.0	21.5
APR.									
07...	1340	.70	10.0	10.0					
PATAPSCO RIVER BASIN									
01585500 - CHANBERRY BRANCH NEAR WESTMINSTER, MD. (LAT 39 35 35 LONG 076 58 05)									
OCT., 1974					APR., 1975				
25...	1400	1.3	11.5	15.5	08...	1345	3.8	9.5	10.5
DEC.					MAY				
05...	1345	2.4	4.0	6.0	14...	1500	4.8	19.0	24.0
JAN., 1975					JUNE				
23...	1315	2.9	4.0	4.5	18...	1300	5.7	19.5	31.0
MAR.					JULY				
06...	1400	.83	9.0	15.0	30...	1415	2.7	20.0	28.0
01586000 - NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD. (LAT 39 30 00 LONG 076 53 00)									
OCT., 1974					MAY, 1975				
04...	1015	27	7.0	7.5	14...	1240	96	17.0	24.0
25...	1130	25	9.0	14.0	JUNE				
DEC.					20...	1440	91	23.0	28.0
06...	1105	37	1.5	5.0	JULY				
JAN., 1975					30...	1205	56	21.5	24.0
23...	1030	58	1.5	1.5	SEP.				
MAR.					12...	1030	42	19.0	21.5
06...	1040	59	3.0	7.0	29...	1440	236	14.5	22.5
APR.									
07...	1045	73	5.0	--					

## WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
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## PATAPSCO RIVER BASIN--Continued

01589200 - GWYNNS FALLS NEAR OWINGS MILLS, MD. (LAT 39 26 16 LONG 076 46 57)

NOV., 1974					APR., 1975				
01...	1420	2.8	16.0	24.0	16...	1450	5.1	13.0	13.0
DEC.					MAY				
13...	1015	4.0	5.5	6.5	16...	1000	11	15.0	17.0
MAR., 1975					AUG.				
07...	1000	4.6	5.0	7.0	01...	1245	4.3	20.0	27.5

01589300 - GWYNNS FALLS AT VILLA NOVA, MD. (LAT 39 20 45 LONG 076 44 01)

NOV., 1974					MAY, 1975				
01...	1130	13	15.5	22.0	16...	1345	54	18.0	23.0
DEC.					JULY				
12...	1430	26	5.5	8.0	18...	1000	42	21.0	28.0
JAN., 1975					AUG.				
24...	1050	34	2.5	6.0	01...	1030	20	23.0	29.5
MAR.					SEP.				
04...	1545	27	3.5	.5	15...	1020	18	14.0	16.0
20...	1300	98	9.0	10.0	29...	1115	60	14.5	19.0
APR.									
16...	1045	32	9.0	11.0					

01589330 - DEAD RUN AT FRANKLINTOWN, MD. (LAT 39 18 40 LONG 076 43 02)

DEC., 1974					MAY, 1975				
03...	1440	6.9	7.0	7.0	12...	1445	3.0	20.0	24.0
JAN., 1975					JUNE				
14...	1100	3.6	.0	-5.0	16...	1520	2.1	23.5	25.5
FEB.					JULY				
26...	1520	4.1	9.0	11.0	29...	1300	1.5	24.0	29.0
APR.					SEP.				
03...	1330	14	11.5	5.5	11...	1300	1.4	19.5	23.0

01587500 - SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD. (LAT 39 21 05 LONG 076 54 50)

OCT., 1974					MAY, 1975				
29...	1435	27	10.5	17.0	21...	1240	89	19.0	26.0
DEC.					JUNE				
04...	1445	67	3.0	4.0	17...	1350	83	20.5	26.0
FEB., 1975					AUG.				
28...	1415	91	5.0	6.5	08...	1120	46	19.0	21.0
APR.					SEP.				
03...	1605	129	9.5	3.0	12...	1325	43	20.0	24.0

01589000 - PATAPSCO RIVER AT HOLLOFIELD, MD. (LAT 39 18 36 LONG 076 47 34)

OCT., 1974					MAY, 1975				
29...	1100	50	10.5	18.0	13...	1130	412	17.0	21.0
NOV.					JUNE				
13...	1230	66	9.0	15.0	17...	1045	302	22.5	24.5
DEC.					JULY				
04...	1200	134	4.0	4.0	18...	1155	336	24.0	26.0
JAN., 1975					AUG.				
14...	1415	126	2.5	-4.5	08...	1245	88	23.5	19.5
MAR.					SEP.				
04...	1425	121	4.0	3.0	11...	1525	79	21.0	23.0
APR.									
07...	1500	170	6.5	3.5					

01589100 - E. BR. HERBERT RUN AT ARBUTUS, MD. (LAT 39 14 24 LONG 076 41 33)

OCT., 1974					JUNE, 1975				
16...	1055	42	14.5	11.5	16...	1110	1.5	22.0	22.0
24...	1215	.94	11.5	13.5	JULY				
DEC.					29...	1140	1.7	23.0	27.0
03...	1215	1.7	7.5	7.5	SEP.				
APR., 1975					11...	1030	1.0	19.0	21.5
03...	1045	14	11.0	10.0					
MAY									
12...	1220	2.1	18.0	26.0					



## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
PATAPSCO RIVER BASIN--Continued									
01589440 - JONES FALLS AT SORHENTO, MD. (LAT 39 23 30 LONG 076 39 42)									
OCT.. 1974					MAY . 1975				
04...	1150	15	9.0	11.0	15...	1410	38	17.5	22.0
16...	1300	74	13.0	12.0	JUNE				
23...	1030	15	7.0	14.0	16...	1215	35	19.0	25.0
DEC.					JULY				
02...	0930	127	6.0	5.0	07...	1500	22	20.0	25.0
09...	1000	46	6.0	4.0	16...	1500	72	21.0	--
JAN.. 1975					18...	1400	49	21.0	30.0
14...	1300	30	3.0	-3.5	AUG.				
FEB.					06...	0930	60	20.0	23.5
26...	1445	37	7.0	7.5	SEP.				
MAR.					09...	1250	22	19.0	22.0
20...	1115	92	8.0	12.0					
21...	1225	56	7.5	--					

PATUXENT RIVER BASIN									
01591000 - PATUXENT RIVER NEAR UNITY, MD. (LAT 39 14 18 LONG 077 03 23)									
OCT.. 1974					APR.. 1975				
16...	0955	22	13.5	12.5	08...	1245	46	7.5	8.0
NOV.					MAY				
12...	1130	16	9.5	11.0	12...	1020	53	14.0	25.0
DEC.					JUNE				
04...	0935	43	3.0	3.5	26...	1410	31	20.0	23.0
17...	1330	73	4.5	7.0	AUG.				
JAN.. 1975					28...	1150	14	19.5	23.0
27...	1455	60	4.0	9.0					
MAR.									
03...	1325	42	3.0	--					

01592500 - PATUXENT RIVER NEAR LAUREL, MD. (LAT 39 06 56 LONG 076 52 27)									
OCT.. 1974					FEB.. 1975				
17...	0950	11	16.5	14.0	26...	1415	240	4.5	9.0
DEC.					APR.				
17...	0840	14	5.5	2.0	07...	1125	104	6.0	6.0
JAN.. 1975					SEP.				
27...	1005	211	4.0	3.5	11...	1345	18	21.0	24.0

01593500 - LITTLE PATUXENT RIVER AT GUILFORD, MD. (LAT 39 10 04 LONG 076 51 07)									
OCT.. 1974					APR.. 1975				
16...	1440	94	14.0	15.5	08...	1005	33	5.0	5.0
DEC.					MAY				
17...	1055	96	4.5	5.0	12...	1205	38	17.0	22.5
JAN.. 1975					JUNE				
27...	1145	42	4.0	6.5	23...	1030	19	21.5	28.5
MAR.									
04...	1450	29	4.0	4.5					

01594600 - COCKTOWN CREEK NEAR HUNTINGTOWN, MD. (LAT 38 38 27 LONG 076 38 07)									
OCT.. 1974					JAN.. 1975				
31...	1530	1.7	16.0	26.0	29...	1200	4.9	7.0	17.0
NOV.					MAR.				
26...	1420	1.5	2.0	11.0	12...	1050	4.9	5.0	9.5
DEC.					MAY				
16...	1520	31	9.0	--	20...	1455	5.6	18.0	29.0
17...	1200	5.2	6.0	11.0					

POTOMAC RIVER BASIN									
01595000 - NORTH BRANCH POTOMAC RIVER AT STEYER, MD. (LAT 39 18 07 LONG 079 18 26)									
OCT.. 1974					JUNE, 1975				
04...	0830	23	3.0	-3.0	12...	0840	275	15.0	21.0
NOV.					JULY				
07...	0945	34	7.0	3.5	16...	1020	37	19.0	20.0
DEC.					AUG.				
13...	1215	202	3.5	2.5	19...	0830	196	16.5	13.0
JAN.. 1975					SEP.				
14...	1055	103	.5	-15.0	18...	0850	37	15.0	13.0
APR.									
02...	0835	176	4.5	1.0					

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

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WATER YEAR, OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
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## POTOMAC RIVER BASIN--Continued

01595500 - N B POTOMAC R AT KITZMILLER, MD. (LAT 39 23 38 LONG 079 10 55)

OCT.. 1974					MAY , 1975				
02...	0905	46	9.0	8.5	01...	1105	1320	10.0	18.0
NOV.					JUNE				
01...	1035	71	10.5	16.0	19...	1345	124	24.5	31.0
FEB.. 1975					JULY				
03...	1040	1170	2.5	-2.0	01...	1035	75	19.0	16.0
MAR.					SEP.				
04...	1000	453	.0	--	04...	1200	318	18.5	--
31...	0845	677	1.5	-1.0	05...	1450	272	21.0	26.5

01595800 - NORTH BR. POTOMAC RIVER AT BARNUM, W. VA. (LAT 39 26 44 LONG 079 06 39)

OCT.. 1974					APR.. 1975				
09...	1500	51	13.5	14.0	10...	1355	488	7.0	11.0
NOV.					29...	1130	2520	8.5	10.5
15...	1045	141	3.0	-2.0	MAY				
DEC.					20...	1140	576	16.5	23.0
27...	1400	1340	4.0	6.5	JUNE				
JAN.. 1975					12...	1300	562	17.0	22.0
07...	1215	842	4.5	--	JULY				
29...	1035	1360	4.5	--	16...	1300	104	22.0	24.0
30...	1210	2720	4.0	4.0	AUG.				
MAR.					21...	1305	314	21.5	25.0
06...	1125	406	1.0	1.0					

01596500 - SAVAGE RIVER NEAR BARTON, MD. (LAT 39 34 05 LONG 079 06 10)

OCT.. 1974					MAY , 1975				
07...	1245	4.3	8.0	7.0	16...	1245	126	14.0	19.0
NOV.					JUNE				
11...	1105	3.6	4.0	8.0	13...	1035	42	13.5	15.0
DEC.					JULY				
23...	1155	47	.5	-2.0	23...	1100	6.8	17.5	19.0
JAN.. 1975					AUG.				
28...	1055	145	3.5	2.0	25...	1300	15	21.0	25.0
MAR.					SEP.				
21...	1340	414	6.5	9.0	17...	1115	7.5	13.5	15.0
APR.									
02...	1000	81	3.5	4.0					

01597000 - CRABTREE CREEK NEAR SWANTON, MD. (LAT 39 30 00 LONG 079 09 35)

OCT.. 1974					MAY , 1975				
07...	1130	1.5	8.5	8.0	16...	1450	36	14.5	21.5
NOV.					JUNE				
11...	1225	1.6	6.0	11.0	13...	1210	23	13.0	15.0
DEC.					JULY				
23...	1320	18	1.0	.0	23...	1240	5.5	17.0	21.0
JAN.. 1975					AUG.				
28...	1225	54	5.0	2.5	25...	1430	15	19.0	27.5
FEB.					SEP.				
19...	1245	192	4.5	1.0	17...	0915	6.3	12.5	13.0
APR.									
02...	1300	35	6.0	8.0					

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
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## POTOMAC RIVER BASIN--Continued

01597500 - SAVAGE R, BELOW SAVAGE R DAM, NR BLOOMINGTON, M (LAT 39 30 05 LONG 079 07 25)

OCT., 1974					MAR., 1975				
02...	1215	72	12.5	11.0	31...	1200	63	6.5	3.5
NOV.					APR.				
01...	1255	53	12.0	18.0	02...	1415	22	9.0	11.0
JAN., 1975					MAY				
03...	1020	1870	4.5	-2.0	02...	1155	681	7.0	17.5
21...	1115	527	2.5	-6.0	JUNE				
28...	1420	1010	3.0	3.0	13...	1315	111	18.5	21.0
MAR.					JULY				
04...	1205	87	3.0	-2.0	01...	1230	28	18.0	20.0
21...	1110	1570	5.5	7.5					

01598500 - NORTH BRANCH POTOMAC RIVER AT LUKE MD. (LAT 39 28 45 LONG 079 03 55)

OCT., 1974					MAR., 1975				
02...	1410	125	11.5	8.5	03...	1120	1010	.5	--
NOV.					31...	1240	853	4.5	10.0
01...	1415	114	13.5	18.0	MAY				
DEC.					01...	1435	2240	12.0	20.0
03...	1220	322	2.5	4.0	JUNE				
FEB., 1975					19...	1120	188	23.5	30.0
03...	1225	1440	3.0	3.0	25...	1115	115	26.5	26.5

01599000 - GEORGES CREEK AT FRANKLIN, MD. (LAT 39 29 38 LONG 079 02 42)

OCT., 1974					MAR., 1975				
02...	0950	8.6	8.5	4.0	31...	1000	143	4.0	2.0
NOV.					MAY				
01...	1005	8.2	12.0	18.0	01...	0950	356	9.5	11.5
JAN., 1975					JULY				
03...	1000	340	3.5	.5	01...	0905	26	17.5	20.0
FEB.					SEP.				
03...	0930	137	1.0	-3.0	02...	1120	154	17.0	16.0
04...	1050	124	.5	-1.5					
MAR.									
03...	1245	140	2.0	-2.5					
20...	1015	880	5.0	8.5					

01600000 - NORTH BRANCH POTOMAC RIVER AT PINTO, MD. (LAT 39 33 59 LONG 078 50 25)

OCT., 1974					MAR., 1975				
02...	1145	125	13.5	7.0	31...	1225	1370	6.0	6.0
NOV.					MAY				
01...	1210	169	17.5	25.5	01...	1200	2960	11.0	16.0
DEC.					JUNE				
03...	1145	451	3.5	2.0	05...	1145	531	21.0	25.0
JAN., 1975					JULY				
03...	1225	4740	4.0	1.0	01...	1135	204	24.5	22.0
FEB.					SEP.				
03...	1240	1930	4.0	4.5	02...	1215	1510	19.0	--
MAR.					10...	1355	382	20.0	20.0
03...	1425	1070	3.0	--					

01601500 - WILLS CREEK NEAR CUMBERLAND, MD. (LAT 39 40 07 LONG 078 47 18)

OCT., 1974					MAY, 1975				
08...	1235	26	9.5	6.5	12...	1525	514	14.5	20.0
NOV.					JUNE				
14...	0935	69	6.5	6.0	10...	1205	124	16.0	15.0
DEC.					JULY				
23...	1520	169	2.0	4.0	15...	1335	97	21.0	23.5
JAN., 1975					AUG.				
28...	1445	717	2.5	5.5	19...	1325	73	18.0	20.0
FEB.					20...	1240	58	20.0	18.0
26...	0930	1580	5.0	3.0	SEP.				
APR.					17...	0930	86	14.5	13.0
08...	1345	420	7.5	9.0					

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

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WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
POTOMAC RIVER BASIN--Continued									
01603000 - NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD. (LAT 39 37 16 LONG 078 46 24)									
OCT., 1974					MAY, 1975				
02...	1345	169	13.5	7.0	01...	1315	4070	10.5	--
NOV.					JUNE				
01...	1415	215	16.5	26.0	04...	1200	808	20.0	22.0
DEC.					JULY				
03...	1345	790	3.0	2.0	01...	1435	344	25.5	25.0
JAN., 1975					AUG.				
03...	1500	5790	4.0	.5	04...	1400	222	28.5	27.0
FEB.					SEP.				
03...	1310	2680	6.0	5.0	09...	1415	580	22.0	20.0
MAR.									
04...	1335	1880	2.5	--					
31...	1445	2220	6.0	7.0					

01603500 - EVITTS CR NR CENTERVILLE, PA. (LAT 39 47 23 LONG 078 38 48)									
OCT., 1974					MAY, 1975				
08...	1005	3.4	6.5	2.5	12...	1120	54	13.5	18.5
NOV.					JUNE				
14...	1005	5.2	5.5	6.0	10...	0950	16	13.0	15.0
DEC.					JULY				
11...	1305	10	2.0	8.5	16...	1030	14	18.5	19.5
JAN., 1975					AUG.				
27...	1015	56	1.5	-1.0	19...	1020	7.2	17.0	18.0
FEB.					SEP.				
26...	1205	116	3.0	5.0	17...	1045	9.6	13.5	15.0
APR.									
01...	1410	66	8.0	11.0					

01609000 - TOWN CREEK NEAR OLDTOWN, MD. (LAT 39 33 12 LONG 078 33 19)									
OCT., 1974					MAY, 1975				
08...	1455	5.8	12.0	13.5	21...	1000	138	19.5	21.5
09...	1100	6.8	9.5	7.5	JUNE				
NOV.					18...	1245	47	25.0	27.0
08...	1500	8.2	8.0	11.0	JULY				
DEC.					22...	1355	30	27.0	27.5
17...	1530	541	4.5	5.5	AUG.				
JAN., 1975					29...	1340	7.4	23.5	26.0
27...	1300	377	2.5	2.0	SEP.				
FEB.					26...	1115	3240	15.0	17.5
25...	1230	1160	7.0	5.5					
APR.									
09...	1050	168	6.5	7.0					

01610000 - POTOMAC RIVER AT PAW PAW, W. VA. (LAT 39 32 13 LONG 078 27 28.01)									
OCT., 1974					MAY, 1975				
08...	1240	371	14.5	12.0	22...	1145	3990	21.5	28.5
24...	1310	597	9.5	8.5	JUNE				
DEC.					05...	1015	2840	22.0	23.0
18...	1100	7190	4.0	2.0	24...	1020	821	31.0	28.0
JAN., 1975					AUG.				
22...	1220	5260	1.5	3.0	05...	1200	546	28.0	27.5
APR.									
28...	1105	9270	11.5	14.5					

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
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## POTOMAC RIVER BASIN--Continued

01610155 - SIDELING HILL CREEK NEAR BELLEGROVE, MD. (LAT 39 38 58 LONG 078 20 40)

OCT., 1974					MAY, 1975				
08...	1000	.32	9.0	7.0	14...	1005	93	14.5	17.0
NOV.					JUNE				
11...	0935	1.9	4.5	2.5	17...	1210	30	20.0	25.0
DEC.					JULY				
17...	1225	618	4.5	7.0	24...	1030	9.0	25.0	27.0
JAN., 1975					AUG.				
24...	1405	130	.5	7.0	29...	1030	.34	21.0	23.0
FEB.					SEP.				
25...	1025	978	7.5	4.0	26...	1445	3800	15.0	21.0
APR.									
08...	1030	115	4.0	2.0					

01613000 - POTOMAC RIVER AT HANCOCK MARYLAND (LAT 39 41 49 LONG 078 10 39)

OCT., 1974					MAY, 1975				
07...	1540	444	16.0	19.0	13...	1640	6920	17.0	19.0
NOV.					JUNE				
11...	1245	572	8.5	10.0	17...	1040	2080	24.0	22.0
22...	1030	733	5.0	--	JULY				
DEC.					24...	1445	1640	28.0	30.5
17...	0805	10800	4.5	4.5	AUG.				
JAN., 1975					06...	1125	635	27.0	19.5
24...	1150	5230	2.0	6.0	SEP.				
APR.					24...	0935	13400	16.5	--
08...	1120	4690	6.0	7.0					

01614500 - CONOCOCHIEGUE CREEK AT FAIRVIEW, MD. (LAT 39 42 29 LONG 077 50 00)

OCT., 1974					APR., 1975				
07...	1315	103	13.0	14.0	09...	1210	753	8.5	8.0
22...	1050	115	4.5	3.0	MAY				
NOV.					13...	1310	1020	16.0	21.0
11...	1455	97	7.0	12.0	JUNE				
DEC.					17...	1600	735	21.0	26.0
16...	1400	1280	4.5	6.5	JULY				
JAN., 1975					23...	1215	274	23.5	27.0
23...	1230	591	5.0	4.0	AUG.				
FEB.					28...	1230	162	21.0	25.0
24...	1345	3050	8.5	16.5					

01617800 - MARSH RUN AT GRIMES, MD. (LAT 39 30 53 LONG 077 46 38)

OCT., 1974					APR., 1975				
21...	1313	4.2	7.5	9.0	10...	1025	19	8.5	10.0
NOV.					MAY				
15...	1132	5.9	7.0	6.5	15...	0913	19	13.0	22.0
DEC.					JULY				
19...	1420	13	5.0	4.0	16...	1530	24	18.5	24.5
JAN., 1975					AUG.				
29...	0825	15	6.0	10.0	26...	1715	11	21.5	30.0
MAR.									
11...	1510	16	7.5	--					

01618000 - POTOMAC RIVER AT SHEPHERDSTOWN, W. VA. (LAT 39 26 04 LONG 077 48 07)

OCT., 1974					DEC., 1974				
22...	1010	1320	11.0	8.0	20...	0925	9930	3.5	6.0

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

J1

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
POTOMAC RIVER BASIN--Continued									
01619000 - ANTIETAM CREEK NEAR WAYNESBORO, PA. (LAT 39 42 59 LONG 077 36 28)									
OCT.. 1974					MAY . 1975				
07... 1055	36	12.0	17.0		13... 1015	212	13.5	18.5	
NOV.					JUNE				
11... 1700	34	9.5	12.0		18... 0900	192	16.0	21.0	
DEC.					28... 1120	485	16.5	24.0	
16... 1055	200	6.5	6.0		JULY				
JAN.. 1975					23... 1020	94	17.5	29.5	
23... 1625	97	6.5	6.0		AUG.				
FEB.					28... 1550	66	19.0	26.0	
24... 1015	293	9.5	16.0		SEP.				
APR.					18... 1220	60	14.5	18.0	
09... 0925	147	5.0	2.0						

01619500 - ANTIETAM CREEK NEAR SHARPSBURG, MD. (LAT 39 27 01 LONG 077 43 52)									
OCT.. 1974					APR.. 1975				
21... 1545	108	8.5	8.0		10... 1220	426	9.0	--	
NOV.					MAY				
15... 1320	164	7.0	--		15... 1045	495	15.0	--	
DEC.					JULY				
23... 1000	297	4.5	1.5		17... 0900	381	19.0	24.5	
JAN.. 1975					AUG.				
29... 1030	451	6.0	--		26... 1210	217	22.0	30.0	

01637500 - CATOCTIN CREEK NEAR MIDDLETOWN, MD. (LAT 39 25 35 LONG 077 33 25)									
OCT.. 1974					MAY . 1975				
21... 0935	9.5	3.5	1.5		15... 1435	132	17.0	23.0	
DEC.					AUG.				
19... 1010	140	2.5	3.0		27... 1015	12	22.0	22.5	
MAR.. 1975									
07... 1110	95	5.0	9.5						

01638500 - POTOMAC RIVER AT POINT OF ROCKS MD (LAT 39 16 25 LONG 077 32 35.01)									
NOV.. 1974									
18... 1305	28	5.0	6.5						

01639000 - MONOCACY RIVER AT BRIDGEPORT, MD. (LAT 39 40 43 LONG 077 14 06)									
NOV.. 1974					APR.. 1975				
18... 1305	28	5.0	6.5		09... 1450	94	10.5	9.0	
DEC.					MAY				
11... 1335	89	2.0	7.0		20... 1015	119	21.0	25.0	
JAN.. 1975					JUNE				
15... 1500	132	1.0	-2.0		24... 1435	57	27.0	28.5	
MAR.					AUG.				
03... 1105	178	1.5	.0		07... 1340	27	-20.0	24.0	

01639500 - BIG PIPE CREEK AT BRUCEVILLE, MD. (LAT 39 36 45 LONG 077 14 10)									
NOV.. 1974					MAY . 1975				
18... 1050	44	4.0	5.0		20... 1230	154	20.0	26.0	
DEC.					JUNE				
11... 1130	82	1.0	6.0		24... 1100	92	23.5	27.0	
JAN.. 1975					AUG.				
15... 1130	82	.5	-2.5		07... 1200	60	22.0	20.0	
APR.									
09... 1120	114	8.0	7.5						

01640500 - OWENS CREEK AT LANTZ, MD. (LAT 39 40 36 LONG 077 27 50)									
NOV.. 1974					MAY . 1975				
01... 0930	1.1	11.5	18.0		16... 1320	32	16.0	21.0	
DEC.					JUNE				
10... 0950	8.4	1.0	.0		24... 1705	6.1	20.5	25.0	
JAN.. 1975					JULY				
16... 1515	9.3	3.5	1.5		10... 1405	4.8	20.5	26.5	
FEB.					AUG.				
27... 1100	28	3.0	1.5		06... 1255	2.7	20.0	19.0	
APR.									
10... 1530	11	7.0	12.5						

## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
POTOMAC RIVER BASIN--Continued									
01641000 - HUNTING CREEK AT JIMTOWN, MD. (LAT 39 35 40 LONG 077 23 50)									
NOV., 1974					APR., 1975				
01... 1235	5.7	14.5	21.0		10... 1155	30	7.0	6.0	
DEC.					MAY				
10... 1210	17	2.0	-1.0		20... 1425	43	19.0	26.0	
JAN., 1975					JUNE				
16... 1225	24	3.0	2.0		25... 1245	14	21.5	24.0	
FEB.					AUG.				
27... 1115	72	5.0	6.0		07... 1015	6.6	19.0	20.0	
MAR.									
21... 1230	142	8.0	15.0						
01641500 - FISHING CREEK NEAR LEWISTOWN, MD. (LAT 39 31 35 LONG 077 28 00)									
OCT., 1974					MAR., 1975				
31... 1525	1.5	12.0	19.0		21... 1405	75	8.0	12.0	
NOV.					APR.				
01... 0735	2.0	11.0	11.5		14... 1525	14	8.0	12.0	
DEC.					MAY				
09... 1535	14	5.0	.0		16... 1055	30	13.0	17.0	
JAN., 1975					JUNE				
16... 0930	17	4.0	-1.5		25... 1030	12	16.5	22.5	
FEB.					AUG.				
02... 1310	41	7.0	7.0		06... 1055	4.2	18.0	21.0	
01642500 - LINGANORE CREEK NEAR FREDERICK, MD. (LAT 39 24 55 LONG 077 20 00)									
OCT., 1974					MAY, 1975				
31... 1235	27	13.0	--		15... 1125	122	19.0	22.0	
DEC.					JUNE				
09... 1140	112	5.0	3.5		19... 1210	88	23.0	27.0	
FEB., 1975					JULY				
28... 1135	111	6.0	4.0		31... 1235	43	24.0	26.0	
APR.					SEP.				
11... 1220	99	8.5	11.5		15... 1145	36	19.0	14.0	
01643000 - MONOCACY R AT JUG BRIDGE NR FREDERICK, MD. (LAT 39 23 16 LONG 077 22 48)									
OCT., 1974					JULY, 1975				
23... 1205	175	9.0	15.0		11... 1050	474	23.0	21.5	
JAN., 1975					31... 1440	353	26.0	28.0	
17... 1320	690	2.5	2.5		AUG.				
APR.					12... 1055	257	23.0	25.0	
14... 1250	642	9.0	11.5		SEP.				
JULY					10... 1450	286	20.0	21.0	
03... 1150	633	23.5	27.5						
01643020 - MONOCACY R. AT REICHS FORD BR NEAR FREDERICK, MD (LAT 39 23 16 LONG 077 22 40.01)									
OCT., 1974					JULY, 1975				
23... 1205	175	9.0	15.0		11... 1100	474	23.0	21.5	
JAN., 1975					31... 1440	353	26.0	28.0	
17... 1335	690	2.5	2.5		AUG.				
APR.					12... 1055	257	23.0	25.0	
14... 1300	642	9.0	11.5		SEP.				
JULY					10... 1450	286	20.0	21.0	
03... 1200	633	23.5	27.5						
01643500 - BENNETT CREEK AT PARK MILLS, MD. (LAT 39 17 40 LONG 077 24 30)									
OCT., 1974					MAY, 1975				
18... 1319	20	11.5	10.5		16... 1109	142	14.5	20.0	
DEC.					AUG.				
18... 1212	85	4.0	4.0		25... 1045	22	21.0	27.0	
MAR., 1975									
05... 1325	52	3.5	--						
01645000 - SENECA CREEK AT DAWSONVILLE, MD. (LAT 39 07 41 LONG 077 20 13)									
OCT., 1974					JUNE, 1975				
18... 0923	33	11.0	9.5		24... 1030	43	21.5	28.0	
JAN., 1975					AUG.				
30... 1020	100	5.0	4.0		25... 1430	42	22.0	31.0	
APR.									
09... 1230	98	8.0	9.0						

## WATER YEAR, OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
POTOMAC RIVER BASIN--Continued									
01645200 - WATTS BRANCH AT ROCKVILLE, MD. (LAT 39 05 03 LONG 077 10 38)									
OCT., 1974					MAR., 1975				
15...	1130	.63	16.0	23.0	25...	1400	4.0	13.0	23.0
NOV.					APR.				
13...	0955	1.1	8.0	7.5	09...	0948	2.5	6.0	6.0
DEC.					MAY				
17...	1555	2.9	6.0	7.0	14...	1105	2.7	16.0	20.0
JAN., 1975					JUNE				
28...	1440	2.4	6.0	11.0	26...	1140	1.7	21.0	23.5
MAR.					AUG.				
06...	1120	1.8	5.0	9.5	29...	1000	.79	20.0	22.5
20...	1104	5.9	9.0	9.5					

01646550 - LITTLE FALLS BRANCH NEAR BETHESDA, MD. (LAT 38 57 27 LONG 077 06 31)									
OCT., 1974					MAR., 1975				
21...	1205	.63	8.5	9.0	04...	1130	1.4	2.0	3.0
NOV.					APR.				
15...	1455	.92	9.0	6.0	08...	1250	2.7	9.5	14.0
JAN., 1975					JUNE				
13...	1240	39	4.5	5.0	18...	1325	1.2	25.5	34.5
28...	1205	1.7	6.0	16.0					

01647740 - N BR ROCK CREEK NR ROCKVILLE, MD. (LAT 39 06 09 LONG 077 07 12)									
NOV., 1974					MAR., 1975				
01...	1430	3.1	18.5	27.5	20...	1310	73	6.5	22.0
08...	1115	2.3	12.5	11.5	APR.				
DEC.					01...	1235	22	8.5	16.5
10...	1545	25	4.5	2.0	MAY				
JAN., 1975					13...	1422	18	17.0	29.5
07...	1150	7.8	4.0	5.5	JULY				
FEB.					14...	1410	51	21.0	--
14...	1335	16	3.5	1.0					
MAR.									
07...	1355	9.8	6.5	17.5					
11...	1155	9.2	5.0	7.0					

01648000 - ROCK CREEK AT SMERRILL DRIVE, WASHINGTON, D. C. (LAT 38 58 21 LONG 077 02 25)									
OCT., 1974					APR., 1975				
18...	1200	21	13.0	16.0	08...	1540	72	9.5	15.0
NOV.					MAY				
21...	1450	26	8.0	5.0	12...	1500	62	18.0	27.0
DEC.					JUNE				
18...	1030	103	3.0	3.0	18...	1030	36	22.0	27.0
19...	1430	74	4.5	15.0					
JAN., 1975									
28...	1510	66	5.0	18.0					

01649500 - N.E. BR. ANACOSTIA RIVER AT RIVERDALE, MD. (LAT 38 57 37 LONG 076 55 34)									
OCT., 1974					MAR., 1975				
17...	1125	60	13.0	15.0	21...	1430	138	12.0	18.5
22...	1550	24	12.0	25.0	27...	1355	82	7.0	14.5
NOV.					APR.				
01...	1145	23	17.0	24.5	01...	1605	74	14.0	14.5
06...	0855	28	13.0	12.5	10...	1155	49	10.0	12.5
13...	1155	55	11.0	11.0	17...	1545	51	18.0	25.0
22...	1420	25	9.5	13.0	23...	1155	41	13.5	28.5
29...	1045	30	3.0	4.0	MAY				
DEC.					01...	1225	343	12.0	15.0
02...	1045	744	7.0	6.0	02...	0925	135	12.0	14.5
03...	1340	104	7.0	9.5	02...	1630	108	16.0	18.0
09...	1130	175	6.5	7.0	16...	1035	123	18.0	21.0
20...	1545	50	6.0	15.0	21...	1100	41	22.2	26.0
JAN., 1975					JUNE				
09...	1545	138	8.0	14.0	16...	1200	27	25.0	31.0
15...	1440	69	2.0	7.0	20...	1300	25	31.0	30.0
21...	1310	124	2.0	7.0	JULY				
27...	1435	84	7.0	11.0	10...	1030	46	24.0	28.5
FEB.					AUG.				
07...	1020	210	3.5	7.5	15...	0930	53	24.0	25.5
11...	1540	57	6.0	16.5	SEP.				
19...	1155	66	9.5	13.0	10...	0945	28	17.0	16.5
24...	1320	122	11.0	20.0					
MAR.									
06...	1205	42	6.0	11.0					
11...	1040	49	4.0	4.0					



## TEMPERATURE DATA AT GAGING STATIONS AT THE TIME OF DISCHARGE MEASUREMENTS

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
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## POTOMAC RIVER BASIN--Continued

01650500 - N W BR ANACOSTIA R NR COLESVILLE, MD (LAT 39 03 55 LONG 077 01 48)

NOV., 1974					FEB., 1975				
29...	0900	6.1	2.0	--	21...	1200	15	3.5	9.0
JAN., 1975					APR.				
07...	1455	15	3.5	11.5	01...	1005	21	7.5	16.0
FEB.					MAY				
14...	1000	17	1.0	-0.5	14...	0936	28	14.0	20.0
18...	1215	23	5.0	8.5					

01653500 - HENSON CREEK AT OXON HILL, MD. (LAT 38 47 16 LONG 076 58 42)

OCT., 1974					APR., 1975				
15...	1335	4.2	19.5	25.0	17...	1220	12	11.0	19.0
NOV.					MAY				
25...	1350	4.4	8.0	7.0	19...	1305	11	19.0	27.0
DEC.					JUNE				
02...	0945	85	7.0	9.0	17...	1125	6.2	22.0	25.5
02...	1300	63	7.0	9.0	AUG.				
03...	1100	19	6.0	7.5	12...	1530	3.9	25.0	29.5
20...	1110	13	4.5	7.0					
MAR., 1975									
07...	1115	9.6	7.0	16.0					

01653600 - PISCATAWAY CREEK AT PISCATAWAY, MD. (LAT 38 42 20 LONG 076 58 00)

NOV., 1974					MAR., 1975				
25...	1130	6.0	8.0	16.0	20...	1110	605	8.5	11.5
DEC.					APR.				
02...	1330	418	7.0	9.0	07...	1550	47	8.0	17.0
03...	0940	54	6.0	8.0	MAY				
JAN., 1975					19...	1600	33	17.0	24.0
08...	1140	25	4.5	11.0	JULY				
FEB.					09...	1130	6.1	22.0	29.0
03...	1045	40	3.5	8.0	AUG.				
MAR.					11...	1515	12	22.0	--
07...	1340	26	6.5	16.5					
17...	1545	280	7.0	12.0					

01661050 - ST. CLEMENT CREEK NEAR CLEMENTS, MARYLAND (LAT 38 20 00 LONG 076 43 31)

OCT., 1974					APR., 1975				
25...	1500	5.3	12.0	22.0	16...	1255	29	9.5	20.0
DEC.					MAY				
04...	1435	8.4	5.0	10.0	14...	1800	19	17.0	24.0
JAN., 1975					JULY				
07...	1410	33	4.5	11.0	01...	1500	8.7	20.0	28.5
FEB.					AUG.				
04...	1640	15	1.5	-2.0	19...	1200	5.6	22.0	28.0
05...	1410	57	2.0	--					
MAR.									
13...	1145	47	7.0	18.0					

01661500 - ST. MARYS RIVER AT GREAT MILLS, MD. (LAT 38 14 36 LONG 076 30 13)

OCT., 1974					APR., 1975				
23...	1315	4.2	9.0	21.0	14...	1415	17	10.0	22.0
DEC.					MAY				
04...	1645	8.0	4.5	6.0	15...	0855	18	17.0	18.0
JAN., 1975					JULY				
07...	1035	44	4.5	4.5	02...	0900	5.7	18.5	21.0
30...	1435	20	8.0	13.5					
MAR.									
18...	1405	136	5.5	--					

## MONONGAHELA RIVER BASIN

03075500 - YOUGHIOGHENY RIVER NEAR OAKLAND, MD. (LAT 39 25 19 LONG 079 25 32)

OCT., 1974					MAY, 1975				
03...	1625	30	9.0	1.0	15...	1320	166	14.0	18.5
NOV.					JUNE				
06...	1445	49	11.0	5.0	10...	1410	120	18.0	22.0
DEC.					JULY				
13...	0950	429	3.5	2.0	16...	0825	53	19.0	16.0
JAN., 1975					AUG.				
13...	1610	266	1.5	-4.5	18...	1600	664	19.0	26.5
FEB.					SEP.				
25...	0945	926	5.0	-1.0	15...	1400	90	14.0	19.0
APR.									
01...	1605	396	8.0	13.0					

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)	DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMPER- ATURE (DEG C)
MONONGAHELA RIVER BASIN--Continued									
03076500 - YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD. (LAT 39 39 13 LONG 079 24 31)									
OCT., 1974					MAY, 1975				
03...	1030	70	9.0	2.0	15...	0800	336	13.0	17.5
NOV.					JUNE				
06...	0825	73	11.0	7.5	10...	0905	297	14.5	18.5
DEC.					JULY				
12...	1025	704	2.5	3.0	15...	1015	93	18.5	19.5
JAN., 1975					AUG.				
13...	0840	605	2.0	-1.0	18...	0815	1050	18.5	23.0
FEB.					SEP.				
24...	1210	2020	6.5	8.0	15...	0850	215	13.0	11.0
APR.									
01...	0835	799	4.0	8.5					

03076600 - BEAR CREEK AT FRIENDSVILLE, MD. (LAT 39 39 22 LONG 079 23 41)									
OCT., 1974					MAY, 1975				
03...	1200	5.4	6.0	2.0	15...	1130	59	12.5	23.0
NOV.					JUNE				
06...	1220	6.1	1.0	10.0	10...	1140	33	14.5	18.5
DEC.					JULY				
12...	1215	88	4.0	5.0	15...	1145	34	17.0	21.0
JAN., 1975					AUG.				
13...	1205	134	2.5	-3.0	18...	1130	29	18.0	22.0
FEB.					SEP.				
24...	1420	524	8.5	10.0	15...	1105	44	10.5	10.5
APR.									
01...	1155	143	6.0	10.5					

03078000 - CASSELMAN RIVER AT GRANTSVILLE, MD. (LAT 39 42 08 LONG 079 08 12)									
OCT., 1974					MAY, 1975				
04...	1215	4.8	5.5	4.0	05...	1400	424	9.5	10.5
NOV.					20...	1035	99	16.0	--
07...	1155	7.2	7.5	4.5	JUNE				
DEC.					11...	1130	40	15.5	14.0
12...	1340	104	.5	5.0	JULY				
JAN., 1975					15...	0940	115	17.0	17.5
16...	1015	135	.5	-1.5	AUG.				
FEB.					19...	1135	14	20.0	23.0
24...	1010	820	4.5	6.0	SEP.				
MAR.					18...	1200	47	15.0	15.0
APR.									
02...	1145	140	6.5	16.0					

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## DELAWARE WELLS

LOCAL IDENTIFIER	LATITUDE, LONGITUDE, SEQUENCE NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE MSL)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
KENT COUNTY									
JE12 1	390902075290101	124PNPN	75-07-22	23	500	16	170	10	10
KC31 1	390224075391601	124PNPN	75-02-20	55	380	39	410	<5	13
SUSSEX COUNTY									
DC34 5	393755075364801	217PTMC	75-08-29	28	579	--	--	--	7.0

## MARYLAND WELLS

## ANNE ARUNDEL COUNTY

BF 54 733421	390715076260801	217PPSC	74-10-11	18	240	13	11000	80	1.3
CC 95 700556	390248076403601	211MGTY	75-09-17	131	121	8.4	170	10	6.0
CF 117 734309	390142076282501	217PPSC	75-05-20	116	497	7.7	1600	250	6.0

## CAROLINE COUNTY

CD 49	385908075480901	124PNPN	75-08-06	45	359	38	--	--	--
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## CARROLL COUNTY

AE 1 10525	394200076551201	--	75-08-12	1010	100	5.4	50	0	3.0
AE 25 710121	394114076581101	--	75-09-29	945	238	--	--	--	5.0
AE 25A	394113076581301	--	75-09-29	940	--	--	--	--	6.2
AE 26 710149	394108076581601	--	75-09-29	900	95	--	--	--	2.9
AE 34 732192	394222076582001	--	75-08-12	820	106	19	100	10	14
AE 38 720382	394229076572801	--	75-09-30	890	51	--	--	--	15
AE 42 732259	394035076582801	--	75-08-12	820	245	7.3	140	10	8.4
AE 44 670262	394103076551501	--	75-08-13	780	67	6.5	70	30	--
AE 46 680345	394037076560901	--	75-08-13	760	140	13	40	330	12
AE 47 690376	394047076562401	--	75-08-13	790	190	26	30	200	6.7
AE 48 720414	394043076551801	--	75-08-13	760	112	7.9	2300	70	66
AE 51 700311	394103076580901	--	75-09-29	820	80	--	--	--	7.0
AE 53 720115	394038076571801	--	75-09-30	900	160	--	--	--	12
AE 57 720799	394047076580001	--	75-09-29	840	150	--	--	--	5.4
AE 65 732620	394230076591901	--	75-09-30	860	100	--	--	--	3.1
AF 42 710030	394215076503801	--	75-08-20	720	70	4.2	770	50	1.0
AF 47 720131	394042076542201	--	75-08-13	840	113	5.9	90	0	3.5
AF 51 670610	394252076525801	--	75-08-13	880	100	5.9	730	40	4.3
AF 66 670198	394300076505001	--	75-08-25	815	167	17	210	20	22
AF 67 670220	394248076522501	--	75-08-20	740	80	10	230	10	32
AF 68 670203	394100076521101	--	75-09-02	860	293	8.2	780	160	7.0
AF 69 670170	394144076521601	--	75-08-20	800	159	6.6	90	10	5.5
AF 75 690275	394107076503501	--	75-08-20	940	120	5.2	60	30	3.0
AG 6 710247	394106076493501	--	75-08-21	760	175	6.9	340	20	2.6

NOTE.--THE COLUMN HEADING, "DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)," IS THE LOWERMOST POINT AT WHICH WATER CAN ENTER A FULLY CASED WELL. AQUIFER CODES APPEAR IN THE COLUMN "GEOLOGIC UNIT." THE AQUIFER CODES AND GEOLOGIC NAMES OF THE FORMATIONS IN WHICH THE WELLS ARE FINISHED ARE AS FOLLOWS:

124 PNPN - PINEY POINT FORMATION  
 211 MGTY - MAGOTHY FORMATION  
 217 PPSC - PATAPSCO FORMATION  
 217 PTMC - POTOMAC FORMATION

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## DELAWARE WELLS

LOCAL IDENTIFIER	DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	BICAR- BONATE (HCO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
KENT COUNTY										
JE12 1	75-07-22	5.9	120	7.9	307	374	3.9	3.3	1.0	--
KC31 1	75-02-20	6.6	75	8.4	253	309	1.8	2.8	.5	.01
SUSSEX COUNTY										
DC34 5	75-08-29	.8	30	2.8	80	98	--	--	--	--

## MARYLAND WELLS

## ANNE ARUNDEL COUNTY

BF 54 733421	74-10-11	.8	1.5	1.2	0	0	34	2.1	.1	.01
CC 95 700556	75-09-17	4.0	4.1	1.6	0	0	1.0	6.3	.1	--
CF 117 734309	75-05-20	3.2	1.0	1.7	2	2	36	.6	.1	--

## CAROLINE COUNTY

CD 49	75-08-06	--	--	--	374	456	--	3.1	--	--
-------	----------	----	----	----	-----	-----	----	-----	----	----

## CARROLL COUNTY

AE 1 10525	75-08-12	2.0	1.8	.4	7	8	.5	2.0	.1	--
AE 25 710121	75-09-29	1.0	--	--	25	30	--	2.8	--	--
AE 25A	75-09-29	2.1	--	--	22	27	--	2.7	--	--
AE 26 710149	75-09-29	1.0	--	--	8	10	--	5.3	--	--
AE 34 732192	75-08-12	4.3	5.6	.8	21	25	.5	5.1	.2	--
AE 38 720382	75-09-30	3.1	--	--	33	40	--	8.6	--	--
AE 42 732259	75-08-12	1.0	1.3	.2	15	18	2.0	1.0	.2	--
AE 44 670262	75-08-13	--	--	--	7	9	.9	1.9	.2	--
AE 46 680345	75-08-13	3.5	3.8	.7	14	17	2.8	1.2	.1	--
AE 47 690376	75-08-13	3.8	2.3	1.3	13	16	7.6	1.6	.1	--
AE 48 720414	75-08-13	8.3	40	1.2	117	143	2.8	110	.2	--
AE 51 700311	75-09-29	2.9	--	--	7	8	--	4.0	--	--
AE 53 720115	75-09-30	5.0	--	--	37	45	--	4.2	--	--
AE 57 720799	75-09-29	2.5	--	--	7	9	--	2.8	--	--
AE 65 732620	75-09-30	.6	--	--	10	12	--	3.9	--	--
AF 42 710030	75-08-20	.2	.8	.1	3	4	.2	.8	.0	--
AF 47 720131	75-08-13	.8	.9	.2	11	13	.2	1.4	.1	--
AF 51 670610	75-08-13	2.9	2.1	.4	9	11	.2	.8	.1	--
AF 66 670198	75-08-25	8.9	5.2	.6	36	44	16	8.2	.0	--
AF 67 670220	75-08-20	2.8	2.6	.4	69	84	4.3	3.6	.1	--
AF 68 670203	75-09-02	3.5	3.1	.3	30	36	1.3	4.4	.0	--
AF 69 670170	75-08-20	4.3	2.0	1.3	5	6	.7	2.6	.3	--
AF 75 690275	75-08-20	2.5	4.7	.6	4	5	.4	5.0	.0	--
AG 6 710247	75-08-21	.5	1.5	.2	9	11	.4	1.7	.1	--

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## DELAWARE WELLS

LOCAL IDENTIFIER	DATE OF SAMPLE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
KENT COUNTY										
JE12 1	75-07-22	.01	.03	352	49	0	590	8.2	16.0	2
KC31 1	75-02-20	.04	.08	299	60	0	470	--	--	10
SUSSEX COUNTY										
DC34 5	75-08-29	--	--	--	21	0	--	--	16.5	--

## MARYLAND WELLS

## ANNE ARUNDEL COUNTY

BF 54 733421	74-10-11	.01	.02	55	7	7	161	3.5	14.5	20
CC 95 700556	75-09-17	7.0	.01	32	31	31	--	4.5	12.5	1
CF 117 734309	75-05-20	.05	.06	57	28	27	--	5.7	18.0	0

## CAROLINE COUNTY

CD 49	75-08-06	--	--	--	--	--	--	--	17.0	--
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## CARROLL COUNTY

AE 1 10525	75-08-12	1.4	.01	19	16	9	--	--	--	1
AE 25 710121	75-09-29	.18	--	--	17	0	--	6.9	--	--
AE 25A	75-09-29	.13	--	--	24	2	--	6.9	--	--
AE 26 710149	75-09-29	.43	--	--	11	3	--	6.5	--	--
AE 34 732192	75-08-12	8.6	.03	62	53	32	--	--	--	1
AE 38 720382	75-09-30	4.2	--	--	50	17	--	6.8	--	--
AE 42 732259	75-08-12	.79	.04	30	25	10	--	--	--	0
AE 44 670262	75-08-13	5.2	.01	--	--	--	--	6.8	--	1
AE 46 680345	75-08-13	4.0	.05	45	44	30	--	5.9	--	0
AE 47 690376	75-08-13	3.3	.01	57	32	19	--	6.8	--	0
AE 48 720414	75-08-13	4.6	.05	307	200	82	--	7.4	--	1
AE 51 700311	75-09-29	2.3	--	--	29	23	--	6.8	--	--
AE 53 720115	75-09-30	.53	--	--	51	14	--	6.8	--	--
AE 57 720799	75-09-29	4.3	--	--	24	16	--	6.8	--	--
AE 65 732620	75-09-30	.55	--	--	10	0	--	6.9	--	--
AF 42 710030	75-08-20	.13	.01	9	3	0	--	6.0	--	1
AF 47 720131	75-08-13	.02	.01	19	12	1	--	6.2	--	1
AF 51 670610	75-08-13	4.4	.01	22	23	14	--	5.9	--	0
AF 66 670198	75-08-25	8.9	.01	100	92	56	--	6.6	--	1
AF 67 670220	75-08-20	4.2	.01	97	91	23	--	7.4	--	1
AF 68 670203	75-09-02	1.3	.01	46	32	2	--	6.8	--	0
AF 69 670170	75-08-20	7.4	.01	26	31	27	--	6.2	--	1
AF 75 690275	75-08-20	3.4	.01	24	18	14	--	5.5	--	1
AG 6 710247	75-08-21	.71	.01	19	9	0	--	5.8	--	1

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	LATITUDE, LONGITUDE, SEQUENCE NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE MSL)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
CARROLL COUNTY									
AG 10 670217	394141076494201	--	75-08-21	740	188	7.5	540	20	8.9
AG 12 720236	394311076482601	--	75-08-21	870	117	6.8	60	30	1.4
AG 23 720006	394032076481601	--	75-08-22	860	105	6.1	30	10	4.5
BD 160	393541077033801	--	75-05-21	580	--	7.3	70	10	5.5
BD 162	393529077015501	--	75-09-15	640	--	--	--	--	16
BD 163 732917	393533077034201	--	75-09-19	600	85	--	--	--	11
BF 71 731308	393904076503401	--	75-08-20	860	125	6.5	80	10	9.1
BF 111 670105	393945076511201	--	75-08-20	840	97	6.3	690	70	6.0
BF 138 670231	393936076513301	--	75-08-21	850	68	5.8	100	10	6.0
BF 142	393810076531701	--	75-08-27	890	--	5.1	60	20	6.0
CC 42 731889	393242077054901	--	75-05-16	540	175	14	30	40	69
CC 62 710253	393150077060701	--	75-05-15	580	96	13	200	20	95
CD 36 731106	393247077045101	--	75-05-15	450	65	6.8	60	0	75
CD 202	393225077023801	--	75-05-15	620	--	8.1	70	10	34
CD 212 733252	393258077032101	--	75-09-14	540	300	--	--	--	39
DC 10 731002	392536077050701	--	75-09-17	540	300	--	--	--	40
DC 56 720545	392508077070601	--	75-09-18	730	145	--	--	--	13
DC 91 72 783	392924077062401	--	75-04-22	825	72	--	--	--	3.0
DC 123 730741	392924077062401	--	75-05-20	690	133	6.0	50	10	13
DC 125 731261	392510077072601	--	75-09-18	680	110	--	--	--	7.0
DC 127 73 380	392553077053001	--	75-04-15	783	300	--	--	--	23
DC 131 731615	392724077065501	--	75-05-15	780	80	7.4	10	0	3.8
DC 133 731850	392713077052001	--	75-09-14	830	120	--	--	--	24
DC 142 731005	392647077061401	--	75-09-22	710	188	--	--	--	1.0
DC 148 72 375	392855077065001	--	75-09-22	730	98	--	--	--	1.9
DC 152 67 297	392740077050501	--	75-09-18	840	75	--	--	--	11
DC 154 730154	392735077065301	--	75-05-15	795	66	6.6	150	10	2.2
DC 166	392621077061001	--	75-09-18	860	128	--	--	--	28
DC 167 2114	392818077065801	--	75-05-15	700	--	6.7	20	0	1.5
DD 33 68 9	392750077071001	--	75-09-22	870	137	--	--	--	19
DD 117 731860	392756077043701	--	75-05-20	780	115	6.3	90	40	2.9
DD 149 670027	392745077005601	--	75-05-20	800	125	5.0	70	40	4.0
DD 151 670132	392831077012301	--	75-05-19	800	74	10	90	20	8.1
DD 156 680096	392921077042001	--	75-05-19	760	120	5.9	240	20	7.0
DD 182	392536077000501	--	75-09-02	710	81	11	190	10	6.0
DD 189 71 426	392634077023901	--	75-05-15	735	100	10	40	0	3.7
EC 29 732389	392652077032501	--	75-09-15	780	150	--	--	--	14
EC 56 720578	392453077050401	--	75-04-22	770	200	--	--	--	4.0
EC 59 70 363	392448077072901	--	75-09-18	780	90	--	--	--	48
	392315077072001	--	75-05-20	720	150	11	60	20	2.5

NOTE.--THE COLUMN HEADING, "DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)," IS THE LOWERMOST POINT AT WHICH WATER CAN ENTER A FULLY CASED WELL.

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER		DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	BICAR- BONATE (HCO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
CARROLL COUNTY											
AG 10	670217	75-08-21	1.0	1.3	.3	24	29	3.3	.7	.1	--
AG 12	720236	75-08-21	.2	1.0	.2	6	7	1.6	.8	.2	--
AG 23	720006	75-08-22	2.2	5.0	.8	3	4	.1	8.0	.2	--
BD 160		75-05-21	1.7	1.7	.5	11	14	1.0	3.3	.1	--
BD 162		75-09-15	5.9	--	--	26	32	--	3.9	--	--
BD 163	732917	75-09-19	2.2	--	--	21	26	--	3.9	--	--
BF 71	731308	75-08-20	5.6	2.2	.5	11	13	2.2	4.1	.0	--
BF 111	670105	75-08-20	4.0	2.0	1.3	2	2	3.4	3.7	.1	--
BF 138	670231	75-08-21	2.6	1.7	.7	4	5	.5	3.6	.1	--
BF 142		75-08-27	4.9	3.5	1.0	7	8	3.4	7.9	.0	--
CC 42	731889	75-05-16	15	13	.5	150	183	36	47	.0	--
CC 62	710253	75-05-15	11	7.2	.4	176	215	55	36	.2	--
CD 36	731106	75-05-15	7.9	3.0	.6	194	236	15	7.7	.1	--
CD 202		75-05-15	3.3	1.3	.3	89	109	8.5	2.8	.1	--
CD 212	733252	75-09-14	5.0	--	--	80	97	--	5.7	--	--
		75-09-17	5.0	--	--	83	101	--	3.9	--	--
DC 10	731002	75-09-18	1.0	--	--	21	25	--	.7	--	--
DC 56	720545	75-09-22	1.5	--	--	5	6	--	4.1	--	--
DC 91	72 783	75-05-20	1.9	2.4	.6	28	34	1.2	5.7	.3	--
DC 123	730741	75-09-18	2.0	--	--	14	17	--	10	--	--
DC 125	731261	75-09-15	7.0	--	--	48	59	--	4.6	--	--
DC 127	73 380	75-05-15	2.2	2.6	.7	11	14	1.6	3.9	.0	--
DC 131	731615	75-09-14	7.4	--	--	14	17	--	140	--	--
DC 133	731850	75-09-22	.2	--	--	6	7	--	2.0	--	--
DC 142	731005	75-09-22	.5	--	--	5	6	--	2.0	--	--
DC 148	72 375	75-09-18	7.5	--	--	7	9	--	25	--	--
DC 152	67 297	75-05-15	1.3	1.4	.4	8	10	1.3	2.6	.1	--
DC 154	730154	75-09-18	7.6	--	--	3	4	--	47	--	--
DC 166		75-05-15	1.1	1.1	.5	9	11	1.6	1.6	.0	--
DC 167	2114	75-09-22	4.1	--	--	5	6	--	5.5	--	--
DD 33	68 9	75-05-20	1.7	2.3	.7	6	7	.1	4.5	.1	--
DD 117	731860	75-05-20	4.5	1.7	.9	13	16	.6	6.4	.2	--
DD 149	670027	75-05-19	1.9	2.6	.3	13	16	.7	2.7	.1	--
DD 151	670132	75-05-19	5.2	5.1	12	9	11	2.9	13	.2	--
DD 156	680096	75-09-02	1.0	2.8	.7	10	12	.7	1.9	.0	--
DD 182		75-05-15	2.5	2.7	.6	11	13	1.0	3.1	.1	--
DD 189	71 426	75-09-15	6.0	--	--	--	--	--	--	--	--
EC 29	732389	75-09-22	5.6	--	--	2	3	--	5.1	--	--
EC 56	720578	75-09-18	2.4	--	--	121	148	--	140	--	--
EC 59	70 363	75-05-20	1.6	1.6	.1	4	5	8.5	2.0	.2	--

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

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WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
CARROLL COUNTY										
AG 10 670217	75-08-21	.66	.03	37	26	3	--	7.1	--	1
AG 12 720236	75-08-21	.04	.01	16	4	0	--	5.5	--	1
AG 23 720006	75-08-22	3.5	.01	29	20	17	--	5.5	--	1
BD 160	75-05-21	3.3	.02	28	21	9	61	8.0	16.0	3
BD 162	75-09-15	--	--	--	64	38	--	6.9	--	--
BD 163 732917	75-09-19	2.7	--	--	37	15	--	6.9	--	--
BF 71 731308	75-08-20	6.5	.03	37	46	35	--	6.0	--	1
BF 111 670105	75-08-20	4.1	.01	28	31	30	--	5.3	--	1
BF 138 670231	75-08-21	3.9	.01	23	26	22	--	4.8	--	1
BF 142	75-08-27	4.4	.03	36	35	29	--	5.7	--	1
CC 42 731889	75-05-16	1.0	.01	285	230	84	510	6.5	16.0	3
CC 62 710253	75-05-15	2.4	.01	324	280	110	561	7.7	--	1
CD 36 731106	75-05-15	2.5	.03	232	220	26	432	7.9	--	1
CD 202	75-05-15	2.0	.04	112	99	10	213	8.0	16.0	1
CD 212 733252	75-09-14	--	--	--	120	38	--	8.0	--	--
DC 10 731002	75-09-17	--	--	--	120	38	--	8.0	--	--
DC 56 720545	75-09-18	1.1	--	--	37	16	--	7.3	--	--
DC 91 72 783	75-09-22	2.4	--	--	14	9	51	6.2	--	--
DC 123 730741	75-05-20	1.8	.03	48	40	12	90	7.2	16.0	2
	75-09-18	.08	--	--	26	12	--	5.8	--	--
DC 125 731261	75-09-15	--	--	--	86	38	--	7.2	--	--
DC 127 73 380	75-05-15	2.4	.00	29	19	7	53	6.8	--	1
DC 131 731615	75-09-14	--	--	--	90	76	--	6.1	--	--
DC 133 731850	75-09-22	.24	--	--	3	0	17	6.3	--	--
DC 142 731005	75-09-22	1.3	--	--	7	2	29	5.9	--	--
DC 148 72 375	75-09-18	11	--	--	58	51	--	6.2	--	--
DC 152 67 297	75-05-15	1.6	.01	21	11	3	36	6.9	14.5	1
DC 154 730154	75-09-18	2.6	--	--	100	98	--	5.3	--	--
DC 166	75-05-15	.57	.01	20	8	0	25	7.8	11.0	1
DC 167 2114	75-09-22	11	--	--	64	59	115	5.8	--	--
DD 33 68 9	75-05-20	3.9	.03	22	14	9	58	6.4	17.5	1
DD 117 731860	75-05-20	4.6	.02	31	29	15	89	6.6	--	1
DD 149 670027	75-05-19	4.5	.02	34	28	15	79	6.8	14.0	2
DD 151 670132	75-05-19	9.6	.01	57	39	30	165	6.3	14.0	3
DD 156 680096	75-09-02	2.2	.03	30	19	9	--	6.0	--	0
DD 182	75-05-15	3.4	.02	30	20	9	59	6.3	--	1
DD 189 71 426	75-09-15	--	--	--	60	--	--	6.7	--	--
EC 29 732389	75-09-22	9.8	--	--	33	31	92	5.8	--	--
EC 56 720578	75-09-18	3.5	--	--	130	8	--	8.0	--	--
EC 59 70 363	75-05-20	.03	.18	30	13	9	36	6.4	16.0	2



## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	LATITUDE, LONGITUDE, SEQUENCE NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE MSL)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
<b>CARROLL COUNTY</b>									
EC 74 2271	392439077064601	--	75-05-19	580	64	6.0	20	20	3.7
EC 82 700323	392447077060601	--	75-09-22	765	224	--	--	--	4.9
ED 34 670144	392430077005101	--	75-09-02	640	96	11	100	20	13
ED 90 71 46	392443077043501	--	75-05-21	700	130	4.8	90	30	2.2
ED 93 67 254	392238077032501	--	75-05-20	680	65	6.1	70	10	2.6
ED 110 690101	392256077014301	--	75-05-19	570	65	14	70	10	12
<b>CHARLES COUNTY</b>									
C6 18 730560	383120076451401	211MGTY	75-01-30	160	707	8.6	740	20	19
<b>HARFORD COUNTY</b>									
BA 87 32052	393528076304801	300STRS	75-09-02	640	155	14	290	70	14
BB 97 73 403	393632076272901	300UMFC	74-11-18	590	150	--	160	10	--
BB 98 72 101	393723076253601	300UMFC	74-11-25	320	62	12	300	0	2.0
BC 28 73 404	393749076212501	300UMFC	74-11-26	405	175	20	160	0	29
BD 77 67 499	393534076185901	300BLMR	74-11-15	420	96	--	70	10	--
CA 27 5613	393445076303001	400BLMR	74-10-18	550	91	32	480	70	11
CB 145 72 502	393211076270101	300LPLC	74-10-29	520	82	--	0	10	--
CB 146 72 687	393210076270101	300LPLC	74-10-29	525	170	--	240	60	--
CB 147 72 688	393209076270201	300LPLC	74-10-29	525	230	--	150	0	--
CB 149 72 689	393206076270101	300LPLC	74-10-29	520	170	--	120	40	--
CB 151 72 814	393207076260901	300LPLC	74-10-29	530	170	--	60	10	--
CB 163 73 645	393205076270301	300LPLC	74-10-29	505	245	--	500	10	--
CB 164 73 647	393205076270001	300LPLC	74-10-29	510	97	--	670	20	--
CB 166 73 644	393206076270501	300LPLC	74-10-29	500	160	--	150	0	--
CC 68 66 788	393330076204201	300BLMR	74-11-08	360	56	--	10	0	--
CC 70 70 355	393331076203001	300BLMR	74-11-08	365	92	--	10	0	--
CC 71 72 483	393332076202801	300BLMR	74-11-08	370	51	--	100	0	--
CC 72 66 759	393332076202501	300BLMR	74-11-08	370	50	--	60	0	--
CD 43 68 159	393342076160001	300PRDP	74-11-08	360	68	--	10	0	--
CD 51 69 175	393332076160901	300PRDP	74-11-08	400	53	--	40	0	--
CD 52 68 408	393333076160901	300PRDP	74-11-08	405	80	--	40	0	--
CD 59 66 537	393337076160301	300PRDP	74-11-08	380	75	--	60	0	--
CD 63 68 460	393332076160701	300PRDP	74-11-08	380	70	--	70	0	--
CD 81 69 636	393042076173101	400JMSR	74-11-04	255	125	--	180	1000	--
CD 82 67 397	393041076172901	400JMSR	74-11-06	260	148	--	3300	30	--
CD 83 70 473	393040076172801	400JMSR	74-11-06	260	235	--	60	5400	--
CD 84 66 666	393040076172701	400JMSR	74-11-06	250	90	--	830	100	--

NOTE.--THE COLUMN HEADING, "DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)," IS THE LOWERMOST POINT AT WHICH WATER CAN ENTER A FULLY CASSED WELL. AQUIFER CODES APPEAR IN THE COLUMN "GEOLOGIC UNIT." THE AQUIFER CODES AND GEOLOGIC NAMES OF THE FORMATIONS IN WHICH THE WELLS ARE FINISHED ARE AS FOLLOWS:

211 MGTY - MAGOTHY FORMATION  
 300 BLMR - BALTIMORE GABBRO COMPLEX  
 300 LPLC - LOWER PELITIC SCHIST OF WISSAHICKON FORMATION  
 300 PRDP - PORT DEPOSIT GNEISS  
 300 STRS - SETTERS FORMATION  
 300 UMFC - ULTRAMATIC ROCKS  
 400 BLMR - BALTIMORE GNEISS  
 400 JMSR - JAMES RUN GNEISS

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WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

**MARYLAND WELLS--Continued**

[illegible]

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
CARROLL COUNTY										
EC 74 2271	75-05-19	.17	.01	25	13	3	38	6.2	--	2
EC 82 700323	75-09-22	7.9	--	--	20	13	74	6.2	--	--
ED 34 670144	75-09-02	7.7	.01	55	49	36	--	6.5	--	0
ED 90 71 46	75-05-21	.01	.02	22	13	3	36	6.7	--	2
ED 93 67 254	75-05-20	14	.01	93	44	5	277	7.2	15.0	1
ED 110 690101	75-05-19	11	.03	71	60	46	197	6.6	14.5	1
CHARLES COUNTY										
CG 18 730560	75-01-30	.15	.08	164	80	0	--	7.4	19.5	4
HARFORD COUNTY										
BA 87 32052	75-09-02	24	.01	79	110	100	--	--	--	0
BB 97 73 403	74-11-18	4.4	--	--	--	--	--	--	--	--
BB 98 72 101	74-11-25	1.3	.03	167	170	14	--	--	--	2
BC 28 73 404	74-11-26	12	.02	249	200	86	--	--	--	3
BD 77 67 499	74-11-15	2.6	--	--	--	--	--	--	--	--
CA 27 5613	74-10-18	4.2	.06	100	43	8	119	--	--	1
CB 145 72 502	74-10-29	2.0	--	--	--	--	70	6.0	--	--
CB 146 72 687	74-10-29	2.6	--	--	--	--	60	6.9	--	--
CB 147 72 688	74-10-29	3.4	--	--	--	--	60	7.0	--	--
CB 149 72 689	74-10-29	4.2	--	--	--	--	50	6.1	--	--
CB 151 72 814	74-10-29	4.3	--	--	--	--	55	6.3	--	--
CB 163 73 645	74-10-29	2.9	--	--	--	--	55	6.8	--	--
CB 164 73 647	74-10-29	.02	--	--	--	--	65	6.7	--	--
CB 166 73 644	74-10-29	3.0	--	--	--	--	60	6.4	--	--
CC 68 66 788	74-11-08	.59	--	--	--	--	--	7.1	--	--
CC 70 70 355	74-11-08	.49	--	--	--	--	--	7.0	--	--
CC 71 72 483	74-11-08	.71	--	--	--	--	--	7.3	--	--
CC 72 66 759	74-11-08	.49	--	--	--	--	--	7.2	--	--
CD 43 68 159	74-11-08	.01	--	--	--	--	--	6.3	--	--
CD 51 69 175	74-11-08	3.3	--	--	--	--	--	6.0	--	--
CD 52 68 408	74-11-08	2.7	--	--	--	--	--	6.2	--	--
CD 59 66 537	74-11-08	2.0	--	--	--	--	--	6.2	--	--
CD 63 68 460	74-11-08	4.9	--	--	--	--	--	6.0	--	--
CD 81 69 636	74-11-04	2.9	--	--	--	--	480	6.4	--	--
CD 82 67 397	74-11-06	3.9	--	--	--	--	125	6.7	--	--
CD 83 70 473	74-11-06	.51	--	--	--	--	170	7.3	--	--
CD 84 66 666	74-11-06	.16	--	--	--	--	190	6.9	--	--

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

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WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	LATITUDE, LONGITUDE, SEQUENCE NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE MSL)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
<b>HARFORD COUNTY</b>									
CD 92 72 853	393040076173001	400JMSR	74-11-06	270	85	--	1100	100	--
CD 109 66 890	393035076172401	400JMSR	74-11-06	260	80	--	20	0	--
CD 110 69 332	393034076172501	400JMSR	74-11-06	260	40	--	70	0	--
DC 45 66 715	392724076214901	400JMSR	74-10-23	220	100	--	5600	80	--
DC 49 67 464	392714076215301	300PRDP	74-10-23	205	29	--	60	20	--
DC 50 68 51	392722076220301	300PRDP	74-10-21	230	40	--	100	80	--
DC 51 68 328	392718076215301	217PTMC	74-10-21	220	44	--	80	80	--
DC 53 70 398	392734076221001	217PTMC	74-10-23	250	35	--	20	0	--
DC 55 72 574	392725076214601	300PRDP	74-10-23	240	198	--	7200	140	--
DC 56 73 621	392731076215301	300PRDP	74-10-21	240	175	--	130	80	--
DC 76 236	392718076221101	300PRDP	74-10-23	190	200	--	13000	450	--
DC 80 68 525	392717076220501	300PRDP	74-10-23	230	85	--	40	10	--
<b>PRINCE GEORGES COUNTY</b>									
GF 35 730295	383832076414701	211MGTY	75-02-05	40	552	9.2	700	10	37
HF 40 730298	383348076411301	217PPSC	75-01-24	26	870	9.5	1300	20	23
HF 41 730297	383348076411302	211MGTY	75-01-14	26	658	8.7	770	20	30
HF 42 730294	383348076411303	125AQUI	74-12-20	28	376	12	170	10	27
<b>ST. MARYS COUNTY</b>									
FF 35 731496	380918076254001	125AQUI	75-08-19	15	--	11	120	10	3.0
<b>WORCESTER COUNTY</b>									
AE 23 730513	382621075174201	122MNKN	75-09-17	40	280	28	5200	110	12
AE 24 730512	382621075174202	122MNKN	75-09-17	40	200	28	12000	90	76
AE 25 730514	382621075174203	122PCMK	75-09-19	40	118	31	13000	120	86
AM 33 72 59	382630075032201	122MNKN	74-11-18	5.0	450	--	--	--	--
		122MNKN	74-11-20	5.0	450	--	13000	--	--
		122MNKN	75-06-11	5.0	450	--	--	--	--
		122MNKN	75-06-17	5.0	450	--	--	--	--
		122MNKN	75-07-30	5.0	450	--	--	--	--
		122MNKN	75-08-27	5.0	450	--	--	--	--
		122MNKN	75-08-28	5.0	450	--	--	--	--
		122MNKN	75-09-03	5.0	450	--	--	--	--
		122MNKN	75-09-05	5.0	450	--	--	--	--
		122MNKN	75-09-10	5.0	450	--	--	--	--
DE 36 730515	381457075174101	122MNKN	75-09-11	30	330	30	2600	110	36

NOTE.--THE COLUMN HEADING, "DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT)," IS THE LOWERMOST POINT AT WHICH WATER CAN ENTER A FULLY CASED WELL. AQUIFER CODES APPEAR IN THE COLUMN "GEOLOGIC UNIT." THE AQUIFER CODES AND GEOLOGIC NAMES OF THE FORMATIONS IN WHICH THE WELLS ARE FINISHED ARE AS FOLLOWS:

122 MNKN - MANOKIN  
 125 AQUI - AQUIA FORMATION  
 211 MGTY - MAGOTHY FORMATION  
 217 PPSC - PATAPSCO FORMATION  
 217 PTMC - POTOMAC FORMATION  
 300 PRDP - PORT DEPOSIT GNEISS  
 400 JMSR - JAMES RUN GNEISS

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	BICAR- BONATE (HC03) (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
HARFORD COUNTY										
CD 92 72 853	74-11-06	--	--	--	--	--	--	--	--	.02
CD 109 66 890	74-11-06	--	--	--	--	--	--	--	--	.77
CD 110 69 332	74-11-06	--	--	--	--	--	--	--	--	.99
DC 45 66 715	74-10-23	--	--	--	--	--	--	--	--	.02
DC 49 67 464	74-10-23	--	--	--	--	--	--	--	--	.23
DC 50 68 51	74-10-21	--	--	--	--	--	--	--	--	.09
DC 51 68 328	74-10-21	--	--	--	--	--	--	--	--	.05
DC 53 70 398	74-10-23	--	--	--	--	--	--	--	--	.11
DC 55 72 574	74-10-23	--	--	--	--	--	--	--	--	.00
DC 56 73 621	74-10-21	--	--	--	--	--	--	--	--	.00
DC 76 236	74-10-23	--	--	--	--	--	--	--	--	.00
DC 80 68 525	74-10-23	--	--	--	--	--	--	--	--	.05
PRINCE GEORGES COUNTY										
GF 35 730295	75-02-05	9.6	7.5	7.7	146	178	2.4	1.1	.4	--
MF 40 730298	75-01-24	13	15	8.8	139	170	3.3	1.2	.8	--
MF 41 730297	75-01-14	11	14	9.3	147	179	3.3	1.1	.4	--
MF 42 730294	74-12-20	14	4.9	14	128	156	10	.9	.3	--
ST. MARYS COUNTY										
FF 35 731496	75-08-19	1.9	140	7.8	301	367	13	2.4	1.5	--
WORCESTER COUNTY										
AE 23 730513	75-09-17	2.6	9.4	2.9	56	68	1.7	7.5	.1	--
AE 24 730512	75-09-17	2.6	7.4	1.3	221	270	2.3	10	.2	--
AE 25 730514	75-09-19	1.8	8.3	.7	238	290	3.0	12	.1	--
AH 33 72 59	74-11-18	--	--	--	--	--	--	88	--	--
	74-11-20	--	--	--	--	--	--	79	--	--
	75-06-11	--	--	--	--	--	2.1	88	--	--
	75-06-17	--	--	--	--	--	2.1	88	--	--
	75-07-30	--	--	--	--	--	1.2	89	--	--
	75-08-27	--	--	--	--	--	1.6	90	--	--
	75-08-28	--	--	--	--	--	1.5	90	--	--
	75-09-03	--	--	--	--	--	1.6	90	--	--
	75-09-05	--	--	--	--	--	1.7	91	--	--
	75-09-10	--	--	--	--	--	1.0	89	--	--
DE 36 730515	75-09-11	5.1	29	3.7	172	210	1.8	9.3	.3	--

## ANALYSES OF MISCELLANEOUS GROUND-WATER SAMPLES

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WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

## MARYLAND WELLS--Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
<b>HARFORD COUNTY</b>										
CD 92 72 853	74-11-06	.15	--	--	--	--	135	6.7	--	--
CD 109 66 890	74-11-06	.76	--	--	--	--	95	6.5	--	--
CD 110 69 332	74-11-06	1.0	--	--	--	--	62	6.1	--	--
DC 45 66 715	74-10-23	.02	--	--	--	--	110	6.3	--	--
DC 49 67 464	74-10-23	.23	--	--	--	--	120	6.2	--	--
DC 50 68 51	74-10-21	.09	--	--	--	--	145	6.7	--	--
DC 51 68 328	74-10-21	.05	--	--	--	--	100	6.2	--	--
DC 53 70 398	74-10-23	.11	--	--	--	--	110	6.5	--	--
DC 55 72 574	74-10-23	.01	--	--	--	--	150	6.9	--	--
DC 56 73 621	74-10-21	.01	--	--	--	--	300	7.5	--	--
DC 76 236	74-10-23	.01	--	--	--	--	170	6.4	--	--
DC 80 68 525	74-10-23	.04	--	--	--	--	60	5.8	--	--
<b>PRINCE GEORGES COUNTY</b>										
GF 35 730295	75-02-05	.01	.08	163	130	0	--	7.5	17.6	6
HF 40 730298	75-01-24	.03	2.4	158	110	0	--	6.2	21.5	8
HF 41 730297	75-01-14	.03	.35	166	120	0	--	6.5	19.5	5
HF 42 730294	74-12-20	.01	.38	160	130	0	--	7.8	17.8	1
<b>ST. MARYS COUNTY</b>										
FF 35 731496	75-08-19	--	.55	362	15	0	--	8.4	19.0	1
<b>WORCESTER COUNTY</b>										
AE 23 730513	75-09-17	.04	.13	98	41	0	--	--	13.7	85
AE 24 730512	75-09-17	.01	.50	261	200	0	--	--	13.7	20
AE 25 730514	75-09-19	.02	.45	286	220	0	--	--	13.5	230
AM 33 72 59	74-11-18	--	--	--	--	--	--	--	--	--
	74-11-20	--	--	--	--	--	--	--	--	--
	75-06-11	--	--	--	--	--	--	--	--	--
	75-06-17	--	--	--	--	--	--	--	--	--
	75-07-30	--	--	--	--	--	--	--	--	--
	75-08-27	--	--	--	--	--	--	--	--	--
	75-08-28	--	--	--	--	--	--	--	--	--
	75-09-03	--	--	--	--	--	--	--	--	--
	75-09-05	--	--	--	--	--	--	--	--	--
	75-09-10	--	--	--	--	--	--	--	--	--
DE 36 730515	75-09-11	.06	.25	219	110	0	340	--	15.5	14

### **SECTION 3. GROUND WATER RECORDS**

## DELAWARE

## Kent County

391026075304901. Local number Id55-1. City of Dover. White Oak Rd., Dover. Drilled observation artesian well in Piney Point aquifer, diam 2-1/2 in (6.4 cm), depth 349 ft (106 m), cased 0-329 ft (0-100 m), screened 329-349 ft (100-106 m). Lsd 20 ft (6.1 m) above msl. MP top of casing, at lsd. Highest water level 67.40 ft (20.54 m) below lsd, May 5, 1970; lowest 111.20 ft (33.89 m) below lsd, Sept. 28, 29, 1975. Records available: 1969-75. Water levels influenced by pumping in the Dover area.

Water level at noon, water year October 1974 to September 1975											
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep
5	102.4	100.1	97.4	93.7	93.3	94.6	92.5	96.7	99.1	101.3	102.6
10	102.7	100.8	97.1	93.3	93.3	94.2	92.8	97.1	92.2	101.3	109.5
15	102.0	100.3	97.0	93.2	93.6	93.3	92.1	96.3	99.6	101.3	110.3
20	101.6	99.1	96.7	93.2	93.5	92.4	92.9	96.7	99.7	101.5	108.7
25	100.8	99.1	96.1	93.2	93.6	92.4	93.9	98.0	101.4	102.0	109.4
Eom	100.5	98.2	94.6	93.7	94.0	92.3	95.7	98.6	101.9	101.8	111.1

e Estimated.

390935075320001. Local number Jd 14-1. City of Dover. Division St., Dover. Drilled former public supply well in Cheswold aquifer of Miocene age, diam 12 in (30 cm), depth 227 ft (69 m), cased 0-195 ft (0-59 m), screened 195-230 ft (59-70 m). Lsd 35 ft (10.7 m) above msl. MP top of casing at lsd. Highest water level 105.2 ft (32.1 m) below lsd, May 5, 1975; lowest 131.4 ft (40.1 m) below lsd, Sept. 2, 1972. Records available: 1972-75. Water levels influenced by pumping in the Dover area.

Water level at noon, water year October 1974 to September 1975											
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep
5	119.4	117.2	115.0	109.9	113.7	112.3	110.8	106.0	112.0	111.4	113.5
10	119.5	116.1	114.5	112.8	113.4	109.9	112.4	108.2	111.8	112.4	113.4
15	117.9	118.8	115.2	112.8	114.5	110.9	111.5	108.8	112.7	111.8	111.9
20	118.0	117.8	117.6	110.8	114.4	111.8	111.0	109.1	113.5	111.2	113.5
25	119.2	115.6	110.0	114.0	112.0	111.0	111.7	108.8	113.0	112.4	113.0
Eom	116.7	113.6	109.0	115.1	113.9	108.1	108.5	109.7	112.2	113.6	113.1

390607075331501. Local number Jd42-3. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Camden. Bored observation water-table well in sand of Pleistocene age, diam 1-1/4 in (3.2 cm), depth 11 ft (3.4 m), well point 8.5-11 ft (2.6-3.4 m). Lsd about 44 ft (13.4 m) above msl. MP top of casing, at lsd. Highest water level 2.69 ft (0.82 m) below lsd, July 18, 1975; lowest 9.16 ft (2.79 m) below lsd, Oct. 30, 1951. Records available: 1950-61, 1971-75. 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.

Date	Water level	Date	Water level	Date	Water level
Oct. 24, 1974	6.98	Feb. 24, 1975	5.92	June 24, 1975	5.15
Nov. 25	7.41	Mar. 25	4.79	July 18	2.69
Dec. 23	7.25	Apr. 24	5.08	Aug. 22	4.44
Jan. 23, 1975	6.52	May 23	4.76	Sept. 24	4.80

385041075395601. Local number Mc51-1. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Adamsville. Bored observation water-table well in sand of Pleistocene age, diam 2 in (5.1 cm), depth 19 ft (5.8 m), well point 15-19 ft (4.6-5.8 m). Lsd about 55 ft (16.8 m) above msl. MP top of casing, at lsd. Highest water level 4.52 ft (1.38 m) below lsd, July 16, 1975; lowest 15.24 ft (4.65 m) below lsd, Jan. 24, 1969. Records available: 1958-75. This is a replacement well and is located about 60 ft (18.3 m) north of original well.

Date	Water level	Date	Water level	Date	Water level
Mar. 4, 1975	10.28	May 28, 1975	9.23	Aug. 4, 1975	5.79
Mar. 10	10.57	June 17	9.40		
Apr. 14	9.14	July 16	4.52		

385310075331301. Local number Md22-1. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Williamsville. Bored observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 17 ft (5.2 m), well point 14-17 ft (4.3-5.2 m). Lsd about 58 ft (17.7 m) above msl. MP top of casing, at lsd. Highest water level 1.07 ft (0.33 m) below lsd, July 14, 1975; lowest 11.14 ft (3.40 m) below lsd, Jan. 6, 1966. Records available: 1958-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 5, 1974	8.70	Feb. 18, 1975	2.53	July 14, 1975	1.07
Nov. 8	9.36	Apr. 21	2.90	July 16	1.18
Dec. 26	5.75	May 16	2.85	Aug. 12	4.20
Jan. 22, 1975	2.60	June 17	3.88	Sept. 30	5.06



## DELAWARE--Continued

## New Castle County

393854075415401. Local number Db24-10. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Ogletown. Bored observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 24 ft (7.3 m), well point 21-24 ft (6.4-7.3 m). Lsd about 77 ft (23.5 m) above msl. MP top of casing, at lsd. Highest water level 4.88 ft (1.49 m) below lsd, May 12, 1958; lowest 17.43 ft (5.31 m) below lsd, Feb. 10, 1966. Records available: 1957-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 7, 1974	12.66	Mar. 5, 1975	8.97	June 25, 1975	7.05
Dec. 5	13.55	Apr. 7	7.29	Sept. 15	10.03
Dec. 30	12.38	May 20	7.05		
Jan. 31, 1975	10.52	June 5	7.33		

391949075410701. Local number Hb14-1. Dept. of Highways and Transportation (formerly State Highway Dept.). At Prices Corners. Bored observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 19 ft (5.8 m), well point 16-19 ft (4.9-5.8 m). Lsd about 72 ft (21.9 m) above msl. MP top of casing, at lsd. Highest water level 1.49 ft (0.45 m) below lsd, Apr. 7, 1958; lowest 11.95 ft (3.64 m) below lsd, Aug. 31, 1966. Records available: 1957-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 7, 1974	7.35	Feb. 21, 1975	5.28	July 14, 1975	3.44
Dec. 4	7.74	Apr. 18	4.37	Aug. 13	5.03
Dec. 30	7.08	May 21	4.25	Sept. 17	6.55
Jan. 22, 1975	5.85	July 3	5.83		

## Sussex County

384930075370201. Local number Nc13-3. University of Delaware, College of Agricultural Sciences. Near Greenwood. Drilled artesian observation well in Piney Point aquifer, diam 6 in (15 cm), depth 630 ft (192 m), cased 0-620 ft (0-189 m), screened 620-630 ft (189-192 m). Lsd 62.5 ft (19.1 m) above msl. MP top of casing, 3.0 ft (0.9 m) above lsd. Highest water level 69.70 ft (21.24 m) below lsd, Jan. 1, 1971; lowest 74.67 ft (22.76 m) below lsd, Sept. 15, 1975. Records available: 1970-75.

Water level at noon, water year October 1974 to September 1975												
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	73.69	73.49	73.78	73.72	73.50	73.85	73.75	73.76	73.88	74.13	74.14	74.49
10	73.58	73.67	73.63	73.65	73.75	73.85	73.85	73.93	74.15	74.09	74.25	74.56
15	73.58	73.68	73.70	73.60	73.79	73.87	73.81	73.90	73.98	74.06	74.28	74.66
20	73.58	73.36	73.58	73.44	73.68	73.48	73.85	73.95	74.10	73.95	74.41	74.45
25	73.54	73.63	73.40	73.20	73.53	73.60	73.88	74.03	74.18	74.00	74.36	74.35
Eom	73.67	73.88	73.75	73.75	73.72	73.82	73.95	73.90	74.20	74.20	74.48	74.45

384639075353101. Local number Nc45-1. P. H. Cannon. Near Greenwood. Driven observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 15 ft (4.6 m), screened 14-15 ft (4.3-4.6 m). Lsd about 43 ft (13.1 m) above msl. MP top of casing, 1.00 ft (0.30 m) above lsd. Highest water level 6.67 ft (2.03 m) below lsd, Jan. 30, 1952; lowest 14.48 ft (4.41 m) below lsd, Nov. 18, 1974. Records available: 1950-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 2, 1974	14.35	Feb. 18, 1975	12.24	July 17, 1975	11.95
Nov. 18	14.48	Apr. 11	11.73	Aug. 4	11.91
Dec. 18	14.05	May 16	12.28	Sept. 29	13.39
Jan. 16, 1975	13.54	June 11	12.68		

384955075192801. Local number Ng11-1. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Jefferson Crossroads. Bored observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 19 ft (5.8 m), well point 16-19 ft (4.9-5.8 m). Lsd 24 ft (7.3 m) above msl. MP top of casing, at lsd. Highest water level 8.43 ft (2.57 m) below lsd, July 17, 1975; lowest 14.64 ft (4.46 m) below lsd, Jan. 7, 1966. Records available: 1959-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1974	13.02	Feb. 19, 1975	11.60	July 17, 1975	8.43
Nov. 14	13.48	Apr. 8	10.33	Aug. 5	9.35
Dec. 26	13.48	May 13	10.45	Sept. 19	11.26
Jan. 14, 1975	13.07	June 16	10.16		

## DELAWARE--Continued

## Sussex County--Continued

383730075213501. Local number Pf24-2. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Stockley. Drilled observation water-table well in sand of Pleistocene age, diam 4 in (10 cm), depth 49 ft (14.9 m), cased 0-46 ft (0-14.0 m), screened 46-49 ft (14.0-14.9 m). Lsd about 50 ft (15.2 m) above msl. MP top of casing, 3.00 ft (0.91 m) above lsd. Highest water level 7.15 ft (2.18 m) below lsd, Dec. 25, 1972; lowest 11.46 ft (3.49 m) below lsd, Oct. 20, 1970. Records available: 1970-75.

Water level at noon, water year October 1974 to September 1975												
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	e10.7	10.91	10.65	....	8.00	8.36	7.16	7.85	8.75	9.65	8.33	9.35
10	e10.8	10.95	10.27	....	8.08	8.50	7.43	8.00	8.96	9.77	8.38	9.40
15	e10.8	10.97	10.06	....	8.12	8.30	7.62	8.15	9.01	8.13	8.65	9.36
20	e10.8	10.96	9.51	....	8.13	7.35	7.54	8.33	9.17	7.57	8.75	9.43
25	e10.9	11.03	9.31	7.90	8.08	7.26	7.74	8.47	9.35	7.72	8.95	9.10
Eom	10.91	11.06	....	8.04	8.16	7.59	7.86	8.68	9.48	8.03	9.23	8.98
e Estimated.												

383138075260201. Local number Qe44-1. Dept. of Highways and Transportation (formerly State Highway Dept.). Near Whaleys Crossroads. Bored observation water-table well in sand of Pleistocene age, diam 1 in (2.5 cm), depth 25 ft (7.6 m), well point 22-25 ft (6.7-7.6 m). Lsd about 50 ft (15.2 m) above msl. MP top of casing, at lsd. Highest water level 4.99 ft (1.52 m) below lsd, March 20, 1963; lowest 12.18 ft (3.71 m) below lsd, Oct. 16, 1962, Sept. 8, 1964. Records available: 1959-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1974	8.44	Feb. 19, 1975	5.20	Aug. 10, 1975	6.05
Nov. 18	9.14	Apr. 8	5.39		
Dec. 27	6.42	May 13	6.18		
Jan. 14, 1975	5.43	June 18	7.05		

## MARYLAND

## City of Baltimore

391617076322001. Local number 2S5E-1. U.S. Army. Fort Holabird. Holabird Ave. and Pumphrey St. Drilled unused artesian well in sand of the Patuxent Formation of Early Cretaceous age, diam 12 in (30 cm), depth 290 ft (88 m), cased to unknown depth. Lsd 30 ft (9 m), previously reported 32 ft (10 m), above msl. MP top of casing, 1.80 ft (0.55 m) above lsd. Highest water level 57.70 ft (17.59 m) below lsd, Jan. 31, 1967; lowest 103.70 ft (31.61 m) below lsd, Oct. 15, 1948. Records available: 1934, 1943-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 10, 1974	64.54	Feb. 11, 1975	60.25	June 12, 1975	63.70
Nov. 13	59.20	Mar. 26	59.60	July 30	60.88
Dec. 30	59.45	May 2	64.74		

## Allegany County

394024078273401. Local number All-Ah 1. Green Ridge State Forest. On Fifteenmile Creek. Drilled unused (previously reported public-supply) artesian(?) well in sedimentary rocks of the Jennings Formation of Late Devonian age, diam 8 in (20 cm), depth 113 ft (34 m), cased to unknown depth. Lsd 720 ft (219 m) above msl. MP top of sanitary seal in casing, 0.30 ft (0.09 m) above lsd (since Mar. 13, 1969). Highest water level 1.93 ft (0.59 m) below lsd, Feb. 24, 1975; lowest 440 ft (12 m) below lsd, Nov. 19, 1969, Feb. 12, 1970. Records available: 1949-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 7, 1974	6.24	Jan. 23, 1975	2.95	June 17, 1975	3.84
Nov. 11	6.30	Feb. 24	1.93	July 22	4.51
Dec. 16	4.04	Apr. 8	3.22	Aug. 28	5.39
Jan. 2, 1975	3.89	May 13	3.25	Sept. 25	3.19
a Well being pumped.					

## Anne Arundel County

391208076353501. Local number AA-Ad 10. U.S. Army Reserve Center. Curtis Bay. Drilled unused artesian well in sand of the Patapsco Formation of Early and Late Cretaceous age, diam 8 to 6 in (20 to 15 cm), depth 109 ft (33 m), length of casing and screen unknown. Lsd 45 ft (14 m) above msl. MP top of casing, 1.00 ft (0.30 m) above lsd. Highest water level 29.96 ft (9.13 m) below lsd, June 18, 1953; lowest 36.56 (11.14 m) below lsd, Mar. 21, 1944. Records available: 1944, 1946-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 10, 1974	32.66	Feb. 11, 1975	32.57	June 12, 1975	32.15
Nov. 13	32.78	Mar. 26	32.98	July 30	32.40
Dec. 30	32.86	May 2	32.51		

## MARYLAND--Continued

Anne Arundel County--Continued

390303076463201. Local number AA-Cb 1. U.S. Army. Fort George G. Meade. Duvall Bridge Rd. Drilled unused artesian well in sand of the Patuxent Formation of Early Cretaceous age, diam 6 in (15 cm), depth 505 ft (154 m), cased to 485 ft (148 m), screened 485-505 ft (148-154 m). Lsd 126 ft (38 m) above msl. MP hole in well cap, at lsd. Highest water level 40.60 ft (12.37 m) below lsd, May 1, 1962; lowest 67.98 ft (20.72 m) below lsd, Aug. 7, 1974. Records available 1962-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1974	63.90	Jan. 29, 1975	62.63	June 27, 1975	63.47
Oct. 17	63.64	Mar. 4	60.70	Aug. 21	65.06
Nov. 12	63.22	Apr. 7	60.26		
Dec. 31	62.81	May 19	61.57		

390423076432001. Local number AA-Cc 40. U.S. Army. Fort George G. Meade. Rifle Range Rd. Drilled unused artesian well in sand of the Patuxent Formation of Early and Late Cretaceous age, diam 6 in (15 cm), depth 238 ft (73 m), cased to 208 ft (63 m), screened 208-238 ft (63-73 m). Lsd 138 ft (42 m) above msl. MP top of 1-1/2 in (3.8 cm) coupling, 1.70 ft (0.52 m) above lsd. Highest water level 42.58 ft (12.98 m) below lsd, Mar. 25, 1961; lowest 49.22 ft (15.00 m) below lsd, June 2, 1966. Records available: 1959-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 17, 1974	46.27	Jan. 29, 1975	45.62	May 19, 1975	45.23
Nov. 12	46.33	Mar. 4	45.59	June 27	46.14
Dec. 31	45.75	Apr. 7	45.01	Aug. 20	46.15

Baltimore County

393102076341801. Local number Bal-Ce 21. Maryland National Guard. Jacksonville. Drilled unused water-table well in the Wissahickon Formation (lower pelitic schist) of Precambrian to Early Ordovician age, diam 10 to 6 in (25 to 15 cm), depth 350 ft (107 m), cased to 33 ft (10 m). Lsd 536 ft (163 m) above msl. MP top of casing, 2.00 ft (0.61 m) above lsd. Highest water level 12.60 ft (3.84 m) below lsd, June 23, 1972; lowest 21.54 ft (6.57 m) below lsd, Feb. 10, 1966. Records available: 1955-75.

Date	Water level	Date	Water level	Date	Water level
Nov. 14, 1974	19.48	Mar. 7, 1975	16.33	July 7, 1975	15.94
Dec. 10	19.01	Apr. 23	15.49	Aug. 6	14.85
Jan. 3, 1975	17.79	May 13	15.16	Sept. 9	16.40

Calvert County

381954076272101. Local number Cal-Gd 5. Calvert Marina (previously reported Lord Calvert Yacht Club). Near Solomons. Drilled unused artesian well in sand of the Piney Point Formation of late Eocene age, diam 8 in (20 cm), depth 248 ft (76 m), cased to 233 ft (71 m), screened 233-248 ft (71-76 m). Lsd 10 ft (3 m) above msl. MP top of pumpbase, 11.50 ft (3.51 m) above lsd. Highest water level 15 ft (5 m) below lsd, 1942; lowest 56.5 ft (17.2 m) below lsd, Jan. 15, 1944. Records available: 1942, 1944, 1949-74, suspended.

j Reported.

NOTE.--No data for 1975 water year. Measurement suspended after June 6, 1974 (well capped and pumped).

Reestablished on Nov. 25, 1975 (1976 water year).

381952076270901. Local number Cal-Gd 6. Calvert Marina (previously reported Lord Calvert Yacht Club). Near Solomons. Drilled unused artesian well in sand of the Aquia Formation of Paleocene age, diam 8 to 6 in (20 to 15 cm), depth 493 ft (150 m), cased to 472 ft (144 m), screened 469-493 ft (143-150 m). Lsd 10 ft (3 m) above msl. MP top of pumpbase, 10 ft (3 m) above lsd. Highest water level 10, 1942; lowest 58.9 ft (18.0 m) below lsd, Jan. 13, 1944. Records available: 1942, 1944, 1949-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 31, 1974	44.82	Jan. 29, 1975	42.71	May 15, 1975	42.52
Nov. 26	45.05	Mar. 12	42.12	July 2	44.67
Jan. 6, 1975	43.54	Apr. 15	42.04	Aug. 14	46.48

Carroll County

393638076510001. Local number Car-Bf 1. Town of Hampstead. Drilled unused water-table well in the Wissahickon Formation (upper pelitic schist) of Precambrian to Early Ordovician age, diam 8 in (20 cm), depth 407 ft (124 m), cased to about 65 ft (20 m). Lsd 933 ft (284 m) above msl. MP floor of well house, at lsd. Highest water level 52.30 ft (15.94 m) below lsd, May 13, 1952; lowest 76.26 ft (23.24 m) below lsd, Feb. 10, 1966. Records available: 1946-47, 1949-75.

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1974	71.93	Mar. 6, 1975	66.16	June 18, 1975	58.48
Dec. 5	72.55	Apr. 8	61.49	July 30	61.87
Jan. 2, 1975	71.73	May 14	61.57	Sept. 29	53.72

## MARYLAND--Continued

Charles County

383422077114601. Local number Ch-Cb 7. U.S. Navy. Naval Ordnance Station. Indian Head. Drilled unused artesian well in sand of the Patapsco Formation of Early and Late Cretaceous age (previously reported sand of Patapsco and Raritan Formations of Early Cretaceous age), diam 8 to 6 in (20 to 15 cm), depth 400 ft (122 m), cased to 400 ft (122 m), screened 154-167 ft (47-51 m). Lsd 36 ft (11 m) above msl. MP top of casing, at lsd (since Aug. 1, 1965). Highest water level 57.35 ft (17.48 m) below lsd, Apr. 18, 1952, lowest 88.58 ft (27.00 m) below lsd, Oct. 22, 1968. Records available: 1952, 1953-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 29, 1974	77.87	Feb. 4, 1975	80.09	May 13, 1975	79.64
Nov. 27	78.13	Mar. 11	80.28	July 3	79.38
Jan. 3, 1975	79.13	Apr. 7	80.80	Aug. 12	78.93

Dorchester County

383346076030301. Local number Dor-Ce 21. Eastern Shore State Hospital. Near Cambridge. Drilled unused artesian well in sand of the Piney Point Formation of Late Eocene age, diam 8 to 4-1/2 in (20 to 11 cm), depth 368 ft (112 m), cased to 368 ft (112 m). Lsd 12 ft (4 m) above msl. MP top of casing, at lsd. Highest water level 14 ft (4 m) below lsd, August 1914; lowest 137.49 ft (41.91 m) below lsd, Feb. 8, 1962. Records available: 1914, 1952, 1956-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 5, 1974	104.57	Feb. 28, 1975	96.83	Aug. 8, 1975	91.18
Dec. 6	100.96	Apr. 21	93.37	Sept. 28	93.31
Jan. 3, 1975	95.57	May 30	92.34		
Jan. 30	100.02	July 2	89.66		

c Nearby well being pumped.

j Reported.

Garrett County

394016078581601. Local number Gar-Ag 1. Town of Frostburg. Savage River Valley. Drilled unused water-table well in Pocono Sandstone of Early Mississippian age or Greenbrier Limestone of Late Mississippian age, diam 8 in (20 cm), depth 30 ft (9 m), cased to unknown depth. Lsd 2,530 ft (771 m) above msl. MP top of casing, at lsd. Highest water level 5.71 ft (1.74 m) below lsd, Jan. 14, 1950; lowest 9.37 ft (2.86 m) below lsd, Nov. 24, 1964. Records available: 1946-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 22, 1974	7.36	Feb. 20, 1975	6.63	July 24, 1975	6.77
Nov. 22	7.43	Mar. 24	6.43	Aug. 22	6.81
Dec. 26	6.73	Apr. 24	6.72	Sept. 24	6.91
Jan. 2, 1975	6.63	May 22	6.61		
Jan. 21	6.77	June 24	6.77		

Harford County

392343076161901. Local number Har-Ed 24. U.S. Army. Edgewood Arsenal. Edgewood. Drilled unused artesian well in sand of the Patapsco Formation of Early and Late Cretaceous age, diam 18 to 10 in (46 to 25 cm), depth 149 ft (45 m), cased to 120 ft (37 m), screened 120-135 ft (37-41 m). Lsd 13 ft (4 m) above msl. MP top of casing, 1.15 ft (0.35 m) above lsd. Highest water level 8.24 ft (2.51 m) below lsd, Apr. 13, 1944; lowest 38.40 ft (11.70 m) below lsd, Apr. 23, 1967. Records available: 1944, 1949-75.

Date	Water level	Date	Water level	Date	Water level
Nov. 14, 1974	9.80	Mar. 7, 1975	9.81	July 9, 1975	8.87
Jan. 3, 1975	9.75	May 23	9.95	Sept. 11	9.10

Montgomery County

390434076573002. Local number Mont-Eh 20. Cities Service Oil Co. Fairland. Drilled unused water-table well in the Wissahickon Formation (lower pelitic schist) of Precambrian to Early Ordovician age, diam 5-5/8 in (14 cm), depth 103 ft (31 m), cased to 50 ft (15 m). Lsd 410 ft (125 m) above msl. MP west side of bell housing at inside of lip, at lsd. Highest water level 4.39 ft (1.34 m) below lsd, June 25, 1972; lowest 12.71 ft (3.87 m) below lsd, Nov. 26, 1973. Records available: 1955-75. Replaces well Mont-Eg 1.

Date	Water level	Date	Water level	Date	Water level
Oct. 25, 1974	13.63	Feb. 25, 1975	10.66	July 24, 1975	10.65
Nov. 25	13.86	Mar. 25	9.99	Aug. 25	12.31
Dec. 26	12.34	Apr. 25	11.76	Sept. 25	9.22
Dec. 31	12.45	May 26	11.46		
Jan. 24, 1975	11.48	June 24	12.87		

## MARYLAND--Continued

Washington County

393638078001301. Local number Wa-Be 2. Fort Frederick State Park. Near Big Pool. Dug unused water-table well in Romney Shale of Middle Devonian age, diam 42 in (107 cm), depth 43 ft (13 m), cribbed with stone. Lsd 470 ft (143 m) above msl. MP top of stone sill, 0.80 ft (0.24 m) above lsd. Highest water level 17.90 ft (5.46 m) below lsd, May 15, 1972; lowest 36.92 ft (11.25 m) below lsd, Jan. 11, 1965. Records available: 1949-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 7, 1974	35.09	Jan. 23, 1975	30.12	June 17, 1975	25.45
Nov. 11	35.45	Feb. 24	25.91	July 23	28.07
Dec. 16	34.33	Apr. 8	22.90	Aug. 28	32.40
Jan. 2, 1975	31.49	May 13	22.73	Sept. 25	32.09

Wicomico County

382037075310801. Local number Wi-Cf 3. Salisbury Airport. Mount Hermon. Drilled unused water-table well in sand of Pleistocene age, diam 16 in (41 cm), depth 109 ft (33 m), cased to 90 ft (27 m), screened 90-108 ft (27-33 m). Lsd 45 ft (14 m) above msl. MP top of casing, 2.00 ft (0.61 m) above lsd. Highest water level 1.90 ft (0.58 m) below lsd, May 7, 1958; lowest 13.44 ft (4.10 m) below lsd, Sept. 18, 1947. Records available: 1942, 1947-75.

Date	Water level	Date	Water level	Date	Water level
Oct. 4, 1974	8.34	Feb. 26, 1975	5.85	Aug. 6, 1975	6.30
Nov. 19	8.93	Apr. 11	5.65	Sept. 25	7.15
Jan. 3, 1975	7.49	May 14	6.05		
Jan. 29	5.37	July 2	7.64		

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