1973

# Water Resources Data for Maryland and Delaware

## Part 2. Water Quality Records


**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
**GEOLOGICAL SURVEY**

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

# CALENDAR FOR WATER YEAR 1973

## 1972

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

### NOVEMBER

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| 26 | 27 | 28 | 29 | 30 | | |

### DECEMBER

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| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

## 1973

### JANUARY

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| 28 | 29 | 30 | 31 | | | |

### FEBRUARY

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| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | | | |

### MARCH

| S | M | T | W | T | F | S |
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| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

### APRIL

| S | M | T | W | T | F | S |
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| 29 | 30 | | | | | |

### MAY

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| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

### JUNE

| S | M | T | W | T | F | S |
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| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

### SEPTEMBER

| S | M | T | W | T | F | S |
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| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | | | | | | |

# 1973

# Water Resources Data for Maryland and Delaware

## Part 2. Water Quality Records


**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
**GEOLOGICAL SURVEY**

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

Prepared in cooperation with

Delaware Geological Survey
Maryland Geological Survey
Maryland National Capital Park and Planning Commission
District of Columbia Department of Environmental Services
Washington Suburban Sanitary Commission
Soil Conservation Service
U. S. Department of Agriculture
Environmental Protection Agency

Water resources records, 1973 for Maryland and Delaware are in the following reports of the U. S. Geological Survey:

1. Water Resources Data for Maryland and Delaware
   Part 1. Surface Water Records

2. Water Resources Data for Maryland and Delaware
   Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
8809 Satyr Hill Road
Parkville, Maryland 21234

1975

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ILLUSTRATION

# WATER-QUALITY STATIONS IN DOWNSTREAM ORDER FOR WHICH RECORDS ARE PUBLISHED

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

# WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1973

## Part 2. Water Quality Records

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## INTRODUCTION

Water resources data for the 1973 water year for Maryland and Delaware include records of data for the chemical and physical characteristics of surface water. Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently, and at some sites data were recorded on punched paper tape at 15-, 30-, or 60-minute intervals. Locations of surface water-quality stations are shown in Figure 1. A few pertinent stations (not included above) in bordering States are also included. The records were collected by the Water Resources Division of the U. S. Geological Survey under the direction of W. F. White, district chief, Parkville, Md., and N. H. Beamer, district Chief, Harrisburg, Pa. These data represent that portion of the National Water Data System collected by the U. S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

The Geological Survey has published records of chemical quality, water temperatures, and sediment since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published later in Geological Survey water-supply papers.

## COOPERATION

This report was prepared by the U. S. Geological Survey under cooperative agreement with the following organizations:

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

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

Maryland National Capital Park and Planning Commission, J. F. Downs, acting executive director.

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

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

Assistance in the form of funds was given by the Water Quality Office, Environmental Protection Agency and the Soil Conservation Service, U. S. Department of Agriculture, in collecting records for 14 stations and 1 station respectively, which are published in this report.

## DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined below. See also table 3, "Factors for converting English units to International System (SI) units" on page 13.

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 the 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°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococcal bacteria are bacteria found also in 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°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

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°C for 1 hour. The ash weight values of zooplankton and phytoplankton are expressed in $g/m^3$ (grams per cubic metre), and periphyton and benthic organisms in $g/m^2$ (grams per square metre).

Dry weight refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°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 kiometres).

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

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.

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 mean 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)."

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.

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 ($CaCO_3$).

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.

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

| Ion | Multiply by | Ion | Multiply by |
|---|---|---|---|
| Aluminum ($Al^{+3}$)*.... | 0.11119 | Iron ($Fe^{+3}$)*..... | 0.05372 |
| Ammonia as $NH^{+1}$..... | .05544 | Lead ($Pb^{+2}$)*..... | .00965 |
| Bicarbonate ($HCO_3^{-1}$) | .01639 | Magnesium ($Mg^{+2}$).... | .08226 |
| Calcium ($Ca^{+2}$)..... | .04990 | Manganese ($Mn^{+2}$)*... | .03640 |
| Carbonate ($CO_3^{-2}$)... | .03333 | Nickel ($Ni^{+2}$)*..... | .03406 |
| Chloride ($Cl^{-1}$)..... | .02821 | Nitrate ($NO_3^{-1}$)..... | .01613 |
| Chromium ($Cr^{+6}$)*.... | .11539 | Nitrite ($NO_2^{-1}$)..... | .02174 |
| Cobalt ($Co^{+2}$)*..... | .03394 | Phosphate ($PO_4^{-3}$)... | .03159 |
| Copper ($Cu^{+2}$)*..... | .03148 | Potassium ($K^{+1}$)..... | .02557 |
| Cyanide ($CN^{-1}$)..... | .03844 | Sodium ($Na^{+1}$)..... | .04350 |
| Fluoride ($F^{-1}$)..... | .05264 | Sulfate ($SO_4^{-2}$)..... | .02082 |
| Hydrogen ($H^{+1}$)..... | .99209 | Zinc ($Zn^{+2}$)*..... | .03060 |

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

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

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually 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:

| Classification | Size (mm) | Method of analysis |
|---|---|---|
| Clay..... | 0.00024 - 0.004 | Sedimentation. |
| Silt..... | .004 - .062 | Sedimentation. |
| Sand..... | .062 - 2.0 | Sedimentation or sieve. |
| Gravel..... | 2.0 - 64.0 | Sieve. |

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

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 incluenced 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.

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 emersed 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 hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

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

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.

## DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in 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 list of water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record 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 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 01481500 which appears just to the left of the station name includes the 2-digit part number "01" plus the 6-digit downstream order number "481500." 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). The station numbers shown on Figure 1 are the first four digits of the downstream order number plus the fifth or the fifth and sixth digits when required to distinguish the stations.

## 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. Discharge records for streams in Maryland and Delaware have been released in the report, "Water Resources Data for Maryland and Delaware, 1973, Part 1. Surface Water Records."

The data in this report includes a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Water-quality information is presented for chemical quality, microbiological, 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. 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 concentrations 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 to use the metric system; data for chemical constituents and concentrations of suspended sediment are now

reported in milligrams per litre (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per millions 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. To convert temperature in degrees Celsius to degrees Fahrenheit, see 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 | 12.5 | 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) 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 mircrograms per litre instead of milligrams per litre (see "Definitions of Terms," p. 4.)

## Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). 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 the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

## Temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken at about the same time each day when sample is collected. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day.

## 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 sub-divided 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 sub-divided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

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

## PUBLICATIONS

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

| Year | WSP No. | Year | WSP No. |
|---|---|---|---|
| 1946 | 1050 | 1960 | 1741 -- |
| 1948 | 1132 | 1961 | 1881 -- |
| 1949 | 1162 | 1962 | 1941 -- |
| 1950 | 1186 | 1963 | 1947, 1948 |
| 1951 | 1197 | 1964 | 1954, 1955 |
| 1952 | 1250 | 1965 | 1961, 1962 |
| 1953 | 1290 | 1966 | 1991, 1992 |
| 1954 | 1350 | 1967 | 2011, 2012 |
| 1955 | 1400 | 1968 | 2091, 2093 |
| 1956 | 1450 | 1969 | 2141, A2143 |
| 1957 | 1520 | 1970 | A2151, A2153 |
| 1958 | 1571 | 1971 | A2161, A2163 |
| 1959 | 1641 | | |

A in press.

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American Public Health Association, and others 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.

Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U. S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.

Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U. S. Geol. Survey Bull. 1181-A, 47 p.

Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U. S. Geol. Survey Water-Supply Paper 1357, 187 p.

Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U. S. Geol. Survey Water-Supply Paper 1593, 17 p.

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_____, 1969, Laboratory theory and methods for sediment analysis: U. S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C1, 58 p.

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Hem, J. D., 1970, Study and interpretation of the chemical characteristics of natural water, Revised edition: U. S. Geological Survey Water-Supply Paper 1473, 363 p.

Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U. S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Porterfield, George, 1972, Computations of fluvial-sediment discharge: U. S. Geol. Survey Techniques of Water Resources Inv., book 3, chap. C3, 66 p.

Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U. S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p. (open file).

Rose, Arthur and Elizabeth, 1966, The condensed chemical dictionary: Reinhold Pub. Corp., New York, 7th ed., p. 257.

U. S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.

_____ 1941, Methods of analyzing sediment samples: Rept. 4.

_____ 1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.

_____ 1957, The development and calibration of visual accumulation tube: Rept. 11.

_____ 1957, Some Fundamentals of particle size analysis: Rept. 12.

_____ 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.

_____ 1961, The single stage sampler for suspended sediment: Rept. 13.

_____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

## 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).

| Multiply English units | By | To obtain SI units |
|---|---|---|
| | **Length** | |
| feet (ft) | .3048 | metres (m) |
| miles (mi) | 1.609 | kilometres (km) |
| | **Area** | |
| square miles (sq mi) | 2.590 | square kilometres ($km^2$) |
| | **Volume** | |
| gallons (gal) | 3.785 | litres (l) |
| | $3.785 \times 10^{-3}$ | cubic metres ($m^3$) |
| million gallons (mg) | 3785 | cubic metres ($m^3$) |
| | $3.785 \times 10^{-3}$ | cubic hectometres ($hm^3$) |
| cubic feet | $2.832 \times 10^{-2}$ | cubic metres ($m^3$) |
| cfs-day | 2447 | cubic metres ($m^3$) |
| | $2.447 \times 10^{-3}$ | cubic hectometres ($hm^3$) |
| | **Flow** | |
| cubic feet per second (cfs) | 28.32 | litres per second (l/s) |
| | $2.832 \times 10^{-2}$ | cubic metres per second ($m^3/s$) |
| gallons per minute (gpm) | $6.309 \times 10^{-2}$ | litres per second (l/s) |
| | $.06309 \times 10^{-3}$ | cubic metres per second ($m^3/s$) |
| million gallons per day (mgd) | $3785 \times 10^{3}$ | litres per day (l/d) |
| | $4.381 \times 10^{-2}$ | cubic metres per second ($m^3/s$) |
| | **Mass** | |
| ton (short) | .9072 | tonne (t) |

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 1973.
Water temperatures: October 1970 to September 1973.

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 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 17990 | 9780 | 14380 |
| 2 | --- | --- | --- | --- | --- | --- | 13960 | 7560 | --- | 15710 | 10340 | 13550 |
| 3 | 29040 | 25560 | --- | --- | --- | --- | 15080 | 7800 | 12130 | 16060 | 9490 | 13290 |
| 4 | 29230 | 26200 | 27820 | --- | --- | --- | 17720 | 10340 | 13930 | 18170 | 10420 | 14050 |
| 5 | 30430 | 26200 | --- | --- | --- | --- | 17720 | 11920 | 15130 | 14380 | 8920 | 12340 |
| 6 | --- | --- | --- | --- | --- | --- | 17720 | 10220 | 14180 | 13350 | 7830 | 10510 |
| 7 | --- | --- | --- | --- | --- | --- | 17540 | 7910 | 12720 | 13660 | 7030 | 10110 |
| 8 | --- | --- | --- | --- | --- | --- | 17180 | 9960 | 13710 | 16920 | 9150 | 12330 |
| 9 | --- | --- | --- | --- | --- | --- | 15920 | 7910 | 11780 | 17720 | 11150 | 14880 |
| 10 | --- | --- | --- | --- | --- | --- | 14560 | 5830 | 10610 | 17900 | 9670 | 14270 |
| 11 | --- | --- | --- | --- | --- | --- | 12450 | 4460 | 9500 | 17900 | 11800 | 14730 |
| 12 | --- | --- | --- | --- | --- | --- | 13960 | 6120 | 10110 | 17630 | 11250 | 14570 |
| 13 | --- | --- | --- | --- | --- | --- | 14140 | 4240 | 9480 | 18980 | 12740 | 15970 |
| 14 | --- | --- | --- | --- | --- | --- | 14080 | 7370 | 10060 | 20140 | 12980 | 17300 |
| 15 | --- | --- | --- | --- | --- | --- | 18800 | 10340 | 13650 | 19610 | 13600 | 17410 |
| 16 | --- | --- | --- | --- | --- | --- | 16520 | 8160 | 11800 | 20800 | 13350 | 17620 |
| 17 | --- | --- | --- | --- | --- | --- | 11550 | 570 | 7930 | 19610 | 14140 | 16830 |
| 18 | --- | --- | --- | --- | --- | --- | 17630 | 7880 | 11540 | 20920 | 14080 | 17430 |
| 19 | --- | --- | --- | --- | --- | --- | 16680 | 6220 | 12700 | 21760 | 14870 | 17860 |
| 20 | --- | --- | --- | --- | --- | --- | 18980 | 10340 | 15440 | 19250 | 12000 | 15770 |
| 21 | --- | --- | --- | --- | --- | --- | 21400 | 12680 | 17360 | 19520 | 12400 | 15850 |
| 22 | --- | --- | --- | --- | --- | --- | 21880 | 15150 | 18290 | 22480 | 14740 | 18260 |
| 23 | --- | --- | --- | --- | --- | --- | 19070 | 12680 | 16310 | 18800 | 12980 | 15710 |
| 24 | --- | --- | --- | --- | --- | --- | 17900 | 12350 | 15430 | 17000 | 10000 | 14170 |
| 25 | --- | --- | --- | --- | --- | --- | 16600 | 9810 | 13530 | 16600 | 9700 | 13000 |
| 26 | --- | --- | --- | --- | --- | --- | 15360 | 8770 | 12450 | 17360 | 9150 | 13920 |
| 27 | --- | --- | --- | --- | --- | --- | 14870 | 7120 | 11080 | 19250 | 9460 | 14790 |
| 28 | --- | --- | --- | --- | --- | --- | 18080 | 7860 | 11650 | 18980 | 8960 | 15680 |
| 29 | --- | --- | --- | --- | --- | --- | 17360 | 7370 | 12920 | 21160 | 10700 | 15430 |
| 30 | --- | --- | --- | --- | --- | --- | 18800 | 9190 | 13680 | 19920 | 6940 | 13770 |
| 31 | --- | --- | --- | --- | --- | --- | 18440 | 8100 | 14240 | 19250 | 9530 | 14220 |
| MONTH | --- | --- | --- | --- | --- | --- | 21880 | 570 | 12870 | 22480 | 6940 | 14840 |

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 19700 | 11720 | 15840 | 24760 | 14260 | 20510 | 23080 | 19160 | 21110 | 19700 | 13720 | 16840 |
| 2 | 19520 | 12680 | 16520 | 23900 | 19070 | 22050 | 22600 | 17180 | 19990 | 18620 | 12740 | 15950 |
| 3 | 16440 | 9670 | 13380 | 24320 | 19610 | 22470 | 21520 | 14940 | 18550 | 18890 | 11960 | 14810 |
| 4 | 12980 | 6700 | 10010 | 24760 | 20250 | 22570 | 21520 | 14560 | 17950 | 19160 | 11150 | 15150 |
| 5 | 12350 | 6390 | 9420 | 23760 | 19430 | 21870 | 18980 | 8270 | 13810 | 20250 | 11550 | 14850 |
| 6 | 13350 | 6790 | 10190 | 24040 | 20140 | 22090 | 13660 | 6910 | 10360 | 19070 | 11840 | 15770 |
| 7 | 14320 | 7080 | 11010 | 24460 | 20250 | 22160 | 13450 | 7400 | 10390 | 19520 | 11400 | 15660 |
| 8 | 14260 | 6300 | 10460 | 24320 | 23620 | --- | 14440 | 5260 | 11140 | 19810 | 12920 | 16510 |
| 9 | 11960 | 4830 | 8490 | --- | --- | --- | 15500 | 5890 | 10470 | 18890 | 7960 | 13730 |
| 10 | 13500 | 7400 | 10790 | --- | --- | --- | 14320 | 4380 | 9310 | 16440 | 8580 | 12250 |
| 11 | 19430 | 12800 | 15350 | --- | --- | --- | 8050 | 2770 | 5980 | 15780 | 8520 | 12870 |
| 12 | 22120 | 13150 | 16970 | --- | --- | --- | 13200 | 3970 | 8010 | 13660 | 9390 | 11900 |
| 13 | 23200 | 14200 | 18060 | 20250 | 12800 | --- | 13720 | 6960 | 9890 | 16060 | 7800 | 12950 |
| 14 | 21520 | 13840 | 18930 | 21640 | 14560 | 18710 | 16680 | 7350 | 12250 | 15360 | 9810 | 12770 |
| 15 | 21040 | 14620 | 18960 | 21880 | 15850 | 19390 | 17450 | 9700 | 13020 | 17360 | 7860 | 12420 |
| 16 | 20920 | 13900 | 18100 | 21520 | 15990 | 19560 | 14740 | 7420 | 12260 | 17810 | 10340 | 13750 |
| 17 | 20800 | 5830 | 17140 | 21640 | 14800 | 18340 | 14870 | 8490 | 11630 | 16760 | 7480 | 12700 |
| 18 | 21880 | 1460 | 12960 | 17540 | 8050 | 13140 | 14440 | 8050 | 11520 | 16440 | 9920 | 12110 |
| 19 | 21400 | 1570 | 18000 | 16360 | 7720 | 11920 | 14260 | 8160 | 11750 | 15640 | 6100 | 11660 |
| 20 | 21280 | 15010 | 19140 | 20470 | 9560 | 14570 | 15920 | 9090 | 12100 | 16440 | 3800 | 11180 |
| 21 | 21040 | 14500 | 18890 | 21640 | 14940 | 17790 | 15990 | 9670 | 12210 | 18080 | 6500 | 11480 |
| 22 | 21640 | 15430 | 18890 | 22360 | 16200 | 19660 | 14440 | 8050 | 10970 | 15010 | 7770 | --- |
| 23 | 22120 | 14260 | 18250 | 23200 | 16840 | 20320 | 13600 | 6840 | 10670 | --- | --- | --- |
| 24 | 20580 | 10980 | 16830 | 24760 | 15150 | 20850 | 15920 | 8300 | 12210 | --- | --- | --- |
| 25 | 20580 | 11640 | 16390 | 25560 | 15080 | 20300 | 16200 | 8460 | 12500 | --- | --- | --- |
| 26 | 19920 | 12860 | 17230 | 23760 | 15780 | 20180 | 15080 | 9780 | 12730 | --- | --- | --- |
| 27 | 22720 | 13300 | 19980 | 23900 | 17180 | 20760 | 18440 | 10940 | 14390 | --- | --- | --- |
| 28 | 24460 | 12620 | 19840 | 25880 | 15920 | 19940 | 19070 | 11250 | 14720 | --- | --- | --- |
| 29 | --- | --- | --- | 22960 | 14080 | 19200 | 18710 | 9960 | 14880 | --- | --- | --- |
| 30 | --- | --- | --- | 22600 | 14680 | 19410 | 18800 | 10940 | 16120 | --- | --- | --- |
| 31 | --- | --- | --- | 22720 | 17540 | 20440 | --- | --- | --- | --- | --- | --- |
| MONTH | 24460 | 1460 | 15570 | 25880 | 7720 | 19530 | 23080 | 2770 | 12760 | --- | --- | --- |

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N. J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 17540 | 7120 | 11750 | 22960 | 16360 | 19810 | 24760 | 19700 | 22790 |
| 2 | --- | --- | --- | 15150 | 5540 | 9520 | 21760 | 15430 | 18760 | 24040 | 18260 | 22270 |
| 3 | --- | --- | --- | 12740 | 5350 | 8720 | 20470 | 14320 | 17890 | 24320 | 19520 | 22300 |
| 4 | --- | --- | --- | 10500 | 5090 | 8000 | 19700 | 12300 | 16980 | 24040 | 17180 | 21380 |
| 5 | --- | --- | --- | 11100 | 5020 | 8350 | 19610 | 12620 | 16690 | 24920 | 17720 | 21970 |
| 6 | --- | --- | --- | 11760 | 4680 | 8670 | 21160 | 11880 | 17230 | 23760 | 18080 | 21610 |
| 7 | 12740 | 8360 | --- | 14380 | 5390 | 9830 | 22000 | 12560 | 17330 | 24040 | 17990 | 21390 |
| 8 | 14260 | 7940 | 11320 | 14800 | 5170 | 10880 | 20920 | 14080 | 18000 | 24460 | 18800 | 21970 |
| 9 | 13720 | 6940 | 10560 | 15640 | 6790 | 11210 | 21160 | 13040 | 17890 | 27730 | 21400 | 23710 |
| 10 | 14740 | 7350 | 11220 | 17000 | 7800 | 13060 | 21160 | 15080 | 18540 | 29610 | 23200 | 25750 |
| 11 | 15150 | 6960 | 11990 | 18710 | 8670 | 13910 | 21280 | 14680 | 18560 | 29610 | 20690 | 25340 |
| 12 | 16130 | 8160 | 12210 | 18710 | 12200 | 15420 | 22480 | 16060 | 19080 | 27220 | 21760 | 25220 |
| 13 | 17810 | 9150 | 13020 | 20470 | 11020 | 16490 | 22960 | 17090 | 19910 | 30220 | 23200 | 26220 |
| 14 | 19160 | 11020 | 14350 | 20690 | 12740 | 17040 | 23900 | 16200 | 20650 | 27900 | 23620 | 25650 |
| 15 | 20690 | 11840 | 15550 | 23080 | 15150 | 18280 | 23340 | 17900 | 21280 | 27560 | 22240 | 25520 |
| 16 | 19700 | 12500 | 16090 | 22000 | 16060 | 19200 | 23080 | 18800 | 21480 | 26710 | 22240 | 24700 |
| 17 | 20920 | 13960 | 16410 | 22000 | 17090 | 19700 | 24180 | 18980 | 21790 | 26880 | 21880 | 24670 |
| 18 | 21760 | 15570 | 17710 | 22000 | 16920 | 19400 | 23760 | 19160 | 21690 | 26200 | 21520 | 24120 |
| 19 | 19520 | 12800 | 16900 | 21040 | 15500 | 18700 | 24180 | 17810 | 21420 | 25880 | 20030 | 23710 |
| 20 | 19610 | 12450 | 16940 | 19920 | 15080 | 17830 | 24180 | 19070 | 21670 | 25880 | 20360 | 23600 |
| 21 | 19430 | 12560 | 16590 | 19250 | 14940 | 17770 | 24760 | 20250 | 22320 | 26040 | 20360 | 23740 |
| 22 | 19430 | 12620 | 16310 | 20920 | 13900 | 18420 | 24760 | 18710 | 22190 | 26040 | 22360 | 24210 |
| 23 | 19810 | 11640 | 16720 | 20920 | 14680 | 18510 | 24460 | 17900 | 22160 | 25240 | 21160 | 23320 |
| 24 | 20470 | 12800 | 17510 | 20920 | 14500 | 18410 | 24920 | 18890 | 22060 | 26540 | 20920 | 23530 |
| 25 | 20580 | 14680 | 18030 | 21400 | 14680 | 18220 | 25560 | 18890 | 22270 | 27220 | 23080 | 25090 |
| 26 | 21160 | 15010 | 18160 | 20800 | 14680 | 18040 | 25720 | 20250 | 22700 | 26880 | 21040 | 24200 |
| 27 | 21400 | 14680 | 17950 | 21760 | 15010 | 18240 | 25080 | 18800 | 22230 | 25240 | 20920 | 23120 |
| 28 | 22720 | 14560 | 18710 | 21760 | 15850 | 18390 | 25400 | 19520 | 22160 | 25240 | 20470 | 22750 |
| 29 | 20250 | 10940 | 17480 | 22960 | 15990 | 18780 | 25720 | 19810 | 22590 | 25720 | 21160 | 23470 |
| 30 | 18980 | 10580 | 14860 | 23080 | 15850 | 19520 | 25400 | 20250 | 23060 | 25560 | 21040 | 22970 |
| 31 | --- | --- | --- | 23900 | 16360 | 19820 | 24920 | 20250 | 22950 | --- | --- | --- |
| MONTH | 22720 | 6940 | --- | 23900 | 4680 | 15490 | 25720 | 11880 | 20430 | 30220 | 17180 | 23680 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | 9.0 | 8.0 | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | 8.5 | 8.0 | 8.0 | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | 8.5 | 8.0 | 8.0 | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | 9.0 | 8.0 | 8.0 | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | 9.5 | 8.0 | 8.5 | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | 8.0 | 7.0 | 7.5 | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | 8.0 | 6.5 | 7.5 | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | 8.0 | 7.0 | 7.5 | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | 8.0 | 7.0 | 7.5 | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | 8.0 | 6.5 | 7.0 | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | 8.0 | 6.5 | 7.0 | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | 8.0 | 6.5 | 7.5 | --- | --- | --- |
| 14 | --- | --- | --- | --- | --- | --- | 8.0 | 6.5 | 7.5 | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | 8.5 | 7.0 | 8.0 | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N. J.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 3.0 | 1.5 | 2.5 | 8.5 | 8.0 | 8.5 | 14.0 | 13.0 | 13.5 |
| 2 | --- | --- | --- | 3.0 | 2.0 | 3.0 | 9.0 | 8.5 | 8.5 | 14.5 | 13.5 | 14.0 |
| 3 | --- | --- | --- | 3.0 | 3.0 | 3.0 | 9.5 | 8.5 | 9.0 | 15.0 | 14.5 | 14.5 |
| 4 | --- | --- | --- | 3.0 | 3.0 | 3.0 | 9.5 | 9.0 | 9.0 | 15.0 | 14.0 | 14.5 |
| 5 | --- | --- | --- | 3.5 | 3.0 | 3.0 | 9.5 | 9.0 | 9.5 | 14.5 | 12.0 | 14.0 |
| 6 | --- | --- | --- | 3.5 | 3.0 | 3.5 | 10.0 | 9.0 | 9.5 | 15.0 | 13.5 | 14.0 |
| 7 | --- | --- | --- | 4.0 | 3.5 | 3.5 | 10.0 | 9.5 | 10.0 | 15.0 | 14.0 | 14.5 |
| 8 | --- | --- | --- | 4.0 | 4.0 | --- | 10.0 | 9.5 | 10.0 | 14.5 | 14.5 | 14.5 |
| 9 | --- | --- | --- | --- | --- | --- | 10.0 | 9.5 | 10.0 | 15.0 | 14.5 | 14.5 |
| 10 | --- | --- | --- | --- | --- | --- | 10.5 | 9.5 | 10.0 | 16.5 | 15.0 | 15.0 |
| 11 | --- | --- | --- | --- | --- | --- | 10.0 | 9.5 | 10.0 | 16.0 | 15.5 | 15.5 |
| 12 | --- | --- | --- | --- | --- | --- | 10.0 | 9.0 | 9.5 | 16.5 | 15.5 | 16.0 |
| 13 | --- | --- | --- | 8.0 | 6.0 | --- | 9.5 | 9.0 | 9.0 | 17.0 | 16.0 | 16.5 |
| 14 | 2.0 | 2.0 | --- | 8.0 | 6.0 | 7.0 | 10.0 | 8.5 | 9.0 | 18.0 | 16.5 | 16.5 |
| 15 | 3.0 | 2.0 | 2.5 | 8.0 | 6.5 | 7.0 | 10.0 | 9.0 | 9.5 | 17.0 | 16.5 | 16.5 |
| 16 | 3.0 | 1.5 | 2.5 | 8.0 | 7.0 | 7.5 | 10.5 | 9.5 | 10.0 | 18.0 | 16.0 | 16.5 |
| 17 | 2.0 | 0.5 | 1.0 | 8.0 | 8.0 | 8.0 | 11.0 | 10.0 | 10.5 | 17.0 | 16.0 | 16.5 |
| 18 | 0.5 | 0.0 | 0.0 | 8.0 | 8.0 | 8.0 | 11.5 | 10.5 | 11.0 | 16.5 | 15.5 | 16.0 |
| 19 | 0.5 | 0.0 | 0.5 | 8.0 | 7.0 | 8.0 | 13.0 | 11.0 | 11.5 | 17.0 | 15.5 | 16.0 |
| 20 | 1.0 | 0.5 | 0.5 | 8.0 | 6.5 | 7.5 | 13.5 | 11.5 | 12.0 | 16.5 | 15.5 | 16.0 |
| 21 | 1.0 | 0.5 | 1.0 | 7.0 | 6.5 | 6.5 | 13.0 | 10.0 | 12.5 | 16.5 | 15.5 | 16.0 |
| 22 | 1.0 | 0.5 | 1.0 | 6.5 | 6.0 | 6.5 | 16.5 | 12.0 | 13.5 | 18.0 | 15.5 | 16.5 |
| 23 | 1.0 | 1.0 | 1.0 | 6.5 | 6.0 | 6.0 | 16.5 | 13.0 | 14.0 | 17.0 | 16.5 | 16.5 |
| 24 | 1.5 | 1.0 | 1.0 | 8.0 | 5.5 | 6.0 | 15.0 | 13.5 | 14.5 | 16.5 | 16.0 | 16.5 |
| 25 | 2.0 | 1.0 | 1.0 | 7.0 | 6.0 | 6.5 | 15.0 | 14.5 | 14.5 | 16.0 | 15.5 | 15.5 |
| 26 | 3.0 | 1.5 | 2.0 | 8.0 | 6.5 | 7.0 | 14.5 | 14.0 | 14.0 | 15.5 | 15.0 | 15.5 |
| 27 | 2.0 | 1.5 | 2.0 | 8.0 | 7.0 | 7.5 | 14.0 | 13.5 | 13.5 | 15.5 | 15.0 | 15.0 |
| 28 | 3.0 | 1.5 | 2.0 | 8.0 | 8.0 | 8.0 | 13.5 | 13.0 | 13.5 | 15.5 | 15.0 | 15.0 |
| 29 | --- | --- | --- | 9.0 | 8.0 | 8.0 | 13.5 | 13.0 | 13.0 | 18.0 | 15.0 | 16.0 |
| 30 | --- | --- | --- | 8.0 | 8.0 | 8.0 | 13.5 | 13.0 | 13.0 | 17.0 | 16.0 | 16.5 |
| 31 | --- | --- | --- | 8.5 | 8.0 | 8.0 | --- | --- | --- | 17.0 | 17.0 | --- |
| MONTH | --- | --- | --- | 9.0 | 1.5 | 6.0 | 16.5 | 8.0 | 11.0 | 18.0 | 12.0 | 15.5 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 26.0 | 25.5 | 26.0 | 26.5 | 26.0 | 26.5 | 28.0 | 26.5 | 27.0 |
| 2 | --- | --- | --- | 26.5 | 25.5 | 26.0 | 27.0 | 26.5 | 26.5 | 28.0 | 27.0 | 28.0 |
| 3 | --- | --- | --- | 26.5 | 24.5 | 26.0 | 27.0 | 26.5 | 26.5 | 28.5 | 28.0 | 28.0 |
| 4 | --- | --- | --- | 27.0 | 25.5 | 26.0 | 27.0 | 26.5 | 26.5 | 29.0 | 28.0 | 28.0 |
| 5 | --- | --- | --- | 27.0 | 24.5 | 26.0 | 28.0 | 26.5 | 27.0 | 28.5 | 28.0 | 28.5 |
| 6 | --- | --- | --- | 27.0 | 24.5 | 26.0 | 28.5 | 26.5 | 27.0 | 28.5 | 28.0 | 28.0 |
| 7 | 21.0 | 21.0 | --- | 28.0 | 26.0 | 26.5 | 28.0 | 26.5 | 27.0 | 29.0 | 27.0 | 28.0 |
| 8 | 22.0 | 21.0 | 21.5 | 28.0 | 26.0 | 27.0 | 28.0 | 26.5 | 27.0 | 28.0 | 26.5 | 27.5 |
| 9 | 23.0 | 21.5 | 22.0 | 28.0 | 26.0 | 27.0 | 28.0 | 26.5 | 27.0 | 28.0 | 26.5 | --- |
| 10 | 24.0 | 22.0 | 23.0 | 28.5 | 26.0 | 27.5 | 28.0 | 26.5 | 27.0 | --- | --- | --- |
| 11 | 24.5 | 23.0 | 23.5 | 28.0 | 26.0 | 27.0 | 28.0 | 26.5 | 27.0 | --- | --- | --- |
| 12 | 25.0 | 23.5 | 24.0 | 26.0 | 25.0 | 26.0 | 28.0 | 27.0 | 27.5 | --- | --- | --- |
| 13 | 25.0 | 24.0 | 24.5 | 26.0 | 24.5 | 25.0 | 28.0 | 27.0 | 27.5 | --- | --- | --- |
| 14 | 25.0 | 24.0 | 24.5 | 26.5 | 25.0 | 25.5 | 27.0 | 26.5 | 27.0 | --- | --- | --- |
| 15 | 26.0 | 23.5 | 24.0 | 26.0 | 25.0 | 25.5 | 28.0 | 26.5 | 27.0 | --- | --- | --- |
| 16 | 24.0 | 23.5 | 24.0 | 26.0 | 25.0 | 25.5 | 27.0 | 26.5 | 26.5 | --- | --- | --- |
| 17 | 24.0 | 23.0 | 23.5 | 25.5 | 25.0 | 25.0 | 27.0 | 26.0 | 26.5 | --- | --- | --- |
| 18 | 23.0 | 23.0 | 23.0 | 26.0 | 25.0 | 25.0 | 26.5 | 26.0 | 26.5 | --- | --- | --- |
| 19 | 23.0 | 23.0 | 23.0 | 26.0 | 25.0 | 25.5 | 26.5 | 26.0 | 26.0 | 24.0 | 23.0 | --- |
| 20 | 24.0 | 23.0 | 23.0 | 26.0 | 25.5 | 25.5 | 26.0 | 26.0 | 26.0 | 23.5 | 23.0 | 23.0 |
| 21 | 24.0 | 23.0 | 23.5 | 26.0 | 25.5 | 26.0 | 26.0 | 25.0 | 25.5 | 23.5 | 22.0 | 22.5 |
| 22 | 23.5 | 23.0 | 23.5 | 26.0 | 25.5 | 25.5 | 25.0 | 24.0 | 24.5 | 23.5 | 22.0 | 22.5 |
| 23 | 24.0 | 23.0 | 23.5 | 26.5 | 25.5 | 25.5 | 25.0 | 24.0 | 24.0 | 23.0 | 21.5 | 22.0 |
| 24 | 24.5 | 23.5 | 23.5 | 27.0 | 25.5 | 25.5 | 25.0 | 24.0 | 24.0 | 23.0 | 22.0 | 23.0 |
| 25 | 24.5 | 23.5 | 24.0 | 26.5 | 25.5 | 25.5 | 25.0 | 24.0 | 24.0 | 23.0 | 21.5 | 22.5 |
| 26 | 25.5 | 23.0 | 24.0 | 26.0 | 25.5 | 25.5 | 25.0 | 24.0 | 24.0 | 23.5 | 22.0 | 23.0 |
| 27 | 27.0 | 22.0 | 24.5 | 26.5 | 25.5 | 26.0 | 25.5 | 24.5 | 24.5 | 23.5 | 23.0 | 23.0 |
| 28 | 25.5 | 23.5 | 24.5 | 26.5 | 25.5 | 26.0 | 26.0 | 25.0 | 25.0 | 23.5 | 22.0 | 23.0 |
| 29 | 25.0 | 24.5 | 25.0 | 27.0 | 25.5 | 26.0 | 26.5 | 25.5 | 26.0 | 24.0 | 23.0 | 23.5 |
| 30 | 26.0 | 25.0 | 25.0 | 27.0 | 26.0 | 26.5 | 27.0 | 26.0 | 26.5 | 22.0 | 21.0 | 21.5 |
| 31 | --- | --- | --- | 27.0 | 26.0 | 26.5 | 28.0 | 26.5 | 27.0 | --- | --- | --- |
| MONTH | 27.0 | 21.0 | --- | 28.5 | 24.5 | 26.0 | 28.5 | 24.0 | 26.0 | --- | --- | --- |
| YEAR | 29.0 | 0.0 | 17.0 | | | | | | | | | |

## 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 sq mi (121.7 sq km).

PERIOD OF RECORD.--Water temperatures: April 1953 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum, 26.5°C Aug. 30, 31; minimum, freezing point on several days in January.

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 period.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | 17.0 | 14.5 | 10.0 | 9.5 | 4.5 | 4.0 | 9.5 | 8.5 | 3.5 | 2.5 | 6.5 | 4.5 |
| 2 | 14.5 | 13.0 | 11.5 | 10.0 | 5.5 | 4.5 | 8.5 | 5.0 | 5.5 | 3.5 | 7.5 | 5.5 |
| 3 | 14.5 | 13.0 | 13.5 | 11.5 | 7.0 | 5.5 | 5.0 | 3.5 | 5.5 | 5.5 | 7.5 | 7.0 |
| 4 | 14.5 | 13.5 | 12.5 | 12.0 | 7.5 | 7.0 | 4.5 | 4.0 | 5.5 | 5.5 | 8.5 | 7.0 |
| 5 | 15.5 | 14.5 | 12.0 | 10.5 | 8.0 | 7.0 | 5.0 | 4.5 | 6.5 | 5.5 | 9.5 | 8.0 |
| 6 | 17.0 | 15.5 | 10.5 | 9.0 | 10.0 | 8.0 | 5.0 | 2.5 | 6.5 | 6.0 | 9.0 | 8.5 |
| 7 | 17.0 | 15.5 | 10.0 | 8.5 | 10.0 | 5.5 | 2.5 | 0.5 | 6.0 | 5.5 | 8.5 | 8.0 |
| 8 | 15.5 | 14.0 | 12.0 | 10.0 | 5.5 | 5.0 | 0.5 | 0.0 | 6.0 | 5.5 | 10.0 | 8.5 |
| 9 | 14.0 | 12.5 | 11.5 | 10.0 | 7.0 | 5.5 | 0.5 | 0.0 | 6.0 | 3.0 | 11.0 | 9.0 |
| 10 | 12.5 | 11.0 | 10.0 | 9.0 | 8.0 | 7.0 | 0.0 | 0.0 | 3.0 | 2.5 | 11.0 | 9.5 |
| 11 | 11.0 | 10.0 | 9.5 | 9.0 | 8.0 | 6.0 | 0.5 | 0.0 | 2.5 | 1.5 | 10.5 | 10.0 |
| 12 | 12.0 | 11.0 | 10.0 | 9.0 | 6.0 | 5.5 | 0.5 | 0.0 | 2.0 | 1.0 | 12.0 | 10.0 |
| 13 | 12.5 | 12.0 | 10.0 | 9.0 | 7.5 | 5.5 | 0.5 | 0.0 | 2.5 | 1.0 | 12.5 | 11.0 |
| 14 | 12.0 | 11.0 | 10.0 | 9.0 | 7.0 | 6.5 | 1.0 | 0.0 | 3.0 | 2.0 | 12.0 | 10.5 |
| 15 | 12.5 | 11.5 | 9.0 | 7.0 | 6.5 | 6.0 | 2.0 | 1.0 | 5.0 | 3.0 | 11.5 | 10.5 |
| 16 | 11.5 | 10.5 | 7.0 | 5.5 | 6.5 | 3.0 | 2.5 | 1.5 | 5.0 | 3.0 | 12.0 | 11.0 |
| 17 | 13.5 | 11.0 | 6.0 | 5.5 | 3.0 | 1.5 | 3.5 | 2.0 | 3.0 | 1.0 | 13.5 | 11.5 |
| 18 | 12.5 | 11.0 | 6.0 | 5.5 | 2.0 | 1.0 | 4.5 | 3.0 | 1.5 | 1.0 | 11.5 | 7.0 |
| 19 | 11.0 | 8.5 | 6.0 | 5.5 | 4.5 | 2.0 | 5.0 | 4.0 | 2.5 | 1.0 | 7.0 | 6.0 |
| 20 | 8.5 | 7.0 | 6.5 | 6.0 | 6.0 | 4.5 | 5.0 | 3.5 | 4.5 | 2.0 | 9.0 | 6.5 |
| 21 | 7.5 | 6.5 | 6.0 | 5.5 | 6.0 | 6.0 | 3.5 | 2.0 | 6.0 | 4.5 | 8.0 | 6.5 |
| 22 | 9.5 | 7.5 | 5.5 | 4.5 | 6.0 | 5.5 | 5.5 | 3.0 | 6.0 | 5.5 | 7.5 | 6.5 |
| 23 | 11.0 | 9.0 | 4.5 | 3.0 | 6.5 | 5.5 | 5.5 | 5.0 | 5.5 | 4.5 | 8.0 | 5.5 |
| 24 | 13.0 | 11.0 | 3.0 | 2.5 | 6.5 | 6.0 | 5.5 | 4.5 | 5.0 | 3.5 | 9.5 | 6.0 |
| 25 | 13.0 | 11.5 | 4.5 | 3.0 | 6.0 | 6.0 | 4.5 | 3.5 | 5.0 | 3.5 | 9.0 | 7.5 |
| 26 | 11.5 | 9.5 | 8.0 | 4.5 | 6.5 | 6.0 | 5.0 | 3.5 | 6.5 | 5.0 | 9.0 | 8.0 |
| 27 | 9.5 | 8.5 | 8.0 | 6.5 | 6.5 | 6.0 | 5.5 | 5.0 | 6.5 | 5.5 | 11.5 | 9.0 |
| 28 | 12.5 | 9.5 | 7.0 | 6.0 | 6.0 | 5.5 | 5.5 | 4.5 | 5.5 | 4.0 | 11.0 | 9.0 |
| 29 | 13.5 | 12.5 | 7.0 | 6.0 | 5.5 | 4.0 | 5.5 | 3.0 | --- | --- | 10.5 | 8.5 |
| 30 | 13.0 | 11.0 | 6.0 | 4.5 | 5.5 | 4.0 | 3.0 | 1.5 | --- | --- | 10.0 | 9.5 |
| 31 | 11.0 | 9.5 | --- | --- | 8.5 | 5.5 | 2.5 | 2.0 | --- | --- | 11.0 | 9.5 |
| MONTH | 17.0 | 6.5 | 13.5 | 2.5 | 10.0 | 1.0 | 9.5 | 0.0 | 6.5 | 1.0 | 13.5 | 4.5 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 11.0 | 11.0 | 15.5 | 12.5 | 18.5 | 16.5 | 22.0 | 20.5 | 24.0 | 23.0 | 26.0 | 24.5 |
| 2 | 11.0 | 10.5 | 17.0 | 14.5 | 18.5 | 17.5 | 22.5 | 21.0 | 23.5 | 22.5 | 25.5 | 24.5 |
| 3 | 11.0 | 9.5 | 16.5 | 15.5 | 19.5 | 18.0 | 22.5 | 21.5 | 23.5 | 23.0 | 25.5 | 24.0 |
| 4 | 10.5 | 9.5 | 15.5 | 12.5 | 21.0 | 18.5 | 23.0 | 21.5 | 24.0 | 22.0 | 25.0 | 23.5 |
| 5 | 9.5 | 8.5 | 12.5 | 11.5 | 22.5 | 20.0 | 23.0 | 22.0 | 24.0 | 22.0 | 25.0 | 24.0 |
| 6 | 11.0 | 8.0 | 15.0 | 11.5 | 23.0 | 21.0 | 22.5 | 21.5 | 23.5 | 22.0 | 25.0 | 24.5 |
| 7 | 12.5 | 10.0 | 16.0 | 12.5 | 22.5 | 21.5 | 23.0 | 21.0 | 23.5 | 21.5 | 24.5 | 23.0 |
| 8 | 12.0 | 8.5 | 15.5 | 14.0 | 22.5 | 20.5 | 24.0 | 21.5 | 24.0 | 22.5 | 23.0 | 21.0 |
| 9 | 10.5 | 7.5 | 15.5 | 13.5 | 24.0 | 21.5 | 25.0 | 23.0 | 25.0 | 23.0 | 21.0 | 20.0 |
| 10 | 10.5 | 9.5 | 17.5 | 14.5 | 24.5 | 22.5 | 25.0 | 23.5 | 26.0 | 24.0 | 20.0 | 18.0 |
| 11 | 9.5 | 8.0 | 18.0 | 16.5 | 24.5 | 22.5 | 24.5 | 22.0 | 25.5 | 25.0 | 20.0 | 17.5 |
| 12 | 8.0 | 7.5 | 17.0 | 15.0 | 25.0 | 23.0 | 22.0 | 20.0 | 25.0 | 24.0 | 21.0 | 19.0 |
| 13 | 9.5 | 6.5 | 15.5 | 13.5 | 24.5 | 22.5 | 22.0 | 19.5 | 25.0 | 23.5 | 20.0 | 18.5 |
| 14 | 10.5 | 7.5 | 15.0 | 13.5 | 23.0 | 21.5 | 24.0 | 21.0 | 24.5 | 23.5 | 19.5 | 19.0 |
| 15 | 12.0 | 8.5 | 15.0 | 14.0 | 22.0 | 19.5 | 24.0 | 21.5 | 24.0 | 23.0 | 19.5 | 18.5 |
| 16 | 13.5 | 9.5 | 15.0 | 12.5 | 21.5 | 20.0 | 22.5 | 20.5 | 23.5 | 23.0 | 20.0 | 18.5 |
| 17 | 14.0 | 12.0 | 15.5 | 13.5 | 20.5 | 20.0 | 22.0 | 21.0 | 23.5 | 22.0 | 20.0 | 19.0 |
| 18 | 16.0 | 13.0 | 14.5 | 13.0 | 20.0 | 18.5 | 22.0 | 20.0 | 23.0 | 22.0 | 20.0 | 19.5 |
| 19 | 17.0 | 14.5 | 14.0 | 11.5 | 18.5 | 18.5 | 23.0 | 21.0 | 22.5 | 21.5 | 20.0 | 17.5 |
| 20 | 16.5 | 14.5 | 14.0 | 13.5 | 20.0 | 18.5 | 23.5 | 22.0 | 22.5 | 21.5 | 17.5 | 16.0 |
| 21 | 15.5 | 13.5 | 14.0 | 13.5 | 21.5 | 19.5 | 23.5 | 22.5 | 22.0 | 21.0 | 17.0 | 16.5 |
| 22 | 17.5 | 13.5 | 16.0 | 13.0 | 21.5 | 20.0 | 22.5 | 22.0 | 21.0 | 20.5 | 17.5 | 16.5 |
| 23 | 18.5 | 16.0 | 16.5 | 15.0 | 20.5 | 19.5 | 23.0 | 21.5 | 21.0 | 19.5 | 20.0 | 17.5 |
| 24 | 18.0 | 15.5 | 15.0 | 14.5 | 21.5 | 20.0 | 23.0 | 21.0 | 20.5 | 19.5 | 20.0 | 18.5 |
| 25 | 17.0 | 13.5 | 14.5 | 13.5 | 21.5 | 21.0 | 22.5 | 21.0 | 22.0 | 20.0 | 20.0 | 19.5 |
| 26 | 13.5 | 11.5 | 13.5 | 13.5 | 21.5 | 20.5 | 23.5 | 22.0 | 23.0 | 21.0 | 19.5 | 18.0 |
| 27 | 12.0 | 11.5 | 13.5 | 12.5 | 22.5 | 21.0 | 25.0 | 23.0 | 24.0 | 22.0 | 19.0 | 17.5 |
| 28 | 11.5 | 11.0 | 15.5 | 12.5 | 23.0 | 21.5 | 24.5 | 23.5 | 26.0 | 23.5 | 19.5 | 18.5 |
| 29 | 13.0 | 10.0 | 18.0 | 15.5 | 22.0 | 21.0 | 24.5 | 23.5 | 26.0 | 24.0 | 20.5 | 19.0 |
| 30 | 13.0 | 11.5 | 18.5 | 17.0 | 22.0 | 21.0 | 24.0 | 22.5 | 26.5 | 25.0 | 20.5 | 18.5 |
| 31 | --- | --- | 18.0 | 17.0 | --- | --- | 24.0 | 22.5 | 26.5 | 25.5 | --- | --- |
| MONTH | 18.5 | 6.5 | 18.5 | 11.5 | 25.0 | 16.5 | 25.0 | 19.5 | 26.5 | 19.5 | 26.0 | 16.0 |

## 01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, at gaging station located on left bank 27 ft (8 m) upstream from Pennsylvania Railroad Bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run, and 1,200 ft (366 m) downstream from highway bridge on U. S. Highway 1.

DRAINAGE AREA.--287 sq mi (743 sq km), including that of Harvey Run.

PERIOD OF RECORD.--Chemical analyses: March 1964 to September 1973.
Water temperatures: October 1964 to September 1973.
Sediment records: July 1963 to September 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum, 250 micromhos Sept. 13; minimum, 119 micromhos Nov. 20.
Water temperatures: Maximum, 28.0°C Aug. 30, 31, Sept. 3; minimum, freezing point on several days during winter period.
Sediment concentrations: Maximum daily, 1,750 mg/l Nov. 15; minimum daily, 3 mg/l Mar. 23-25.
Sediment discharge: Maximum daily, 13,400 tons (12,200 t) June 29; minimum daily, 2.1 tons (1.9 t) Oct. 27.

Period of record:
Specific conductance (1965-73): Maximum, 445 micromhos Oct. 25, 1971; minimum, 71 micromhos June 23, 1972.
Water temperatures (1965-73): Maximum, 29.0°C Aug. 9, 17, 1965; minimum, 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 several days in 1964, 1966 to 1969, and 1972.
Sediment discharge: Maximum daily, 20,000 tons (18,000 t), estimated, Feb. 8, 1965; minimum daily 0 tons (0 t) Oct. 7, 8, 1967.

REMARKS.--Records of specific conductance, pH, and temperature of sediment samples available in the WRD district office at Harrisburg, Pa. Streamflow records for the current water year are published in Part 1 of this report. Sediment samples collected at U. S. Highway 1 bridge.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | DIS-CHARGE (CFS) | TOTAL ORGANIC CARBON (C) (MG/L) |
|---|---|---|---|
| JUNE | | | |
| 18... | 0715 | 402 | 2.0 |
| 25... | 1330 | 921 | 7.5 |
| JULY | | | |
| 02... | 1100 | 775 | 4.0 |
| 09... | 1230 | 465 | 1.0 |
| 18... | 1300 | 385 | .0 |
| 24... | 1030 | 335 | 1.0 |
| 31... | 1015 | 278 | .0 |
| AUG. | | | |
| 06... | 1100 | 297 | 1.0 |
| 13... | 0930 | 256 | .0 |
| 20... | 1000 | 243 | 1.0 |
| 27... | 1045 | 202 | .0 |
| SEP. | | | |
| 03... | 1130 | 210 | .0 |
| 10... | 0930 | 157 | .0 |
| 17... | 1020 | 214 | 3.0 |
| 24... | 1100 | 198 | 6.0 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUNE | | | | | | | | | | | | |
| 29... | 1845 | 4320 | 1550 | 18100 | 45 | 62 | 80 | 91 | 99 | 99 | 99 | 100 |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 224 | 221 | 223 | 219 | 209 | 214 | 223 | 176 | 193 | 178 | 169 | 172 |
| 2 | 224 | 218 | 220 | 232 | 218 | 224 | 195 | 171 | 182 | 179 | 173 | 176 |
| 3 | 220 | 212 | 217 | 232 | 227 | 230 | 183 | 173 | 177 | 182 | 179 | 181 |
| 4 | 223 | 212 | 220 | 234 | 228 | 230 | 188 | 181 | 183 | 181 | 155 | 170 |
| 5 | 224 | 217 | 220 | 236 | 228 | 231 | 202 | 189 | 198 | 174 | 157 | 166 |
| 6 | 230 | 202 | 221 | 236 | 228 | 230 | 204 | 171 | 195 | 182 | 173 | 179 |
| 7 | 204 | 180 | 193 | 236 | 228 | 230 | 171 | 146 | 155 | 192 | 181 | 183 |
| 8 | 192 | 182 | 186 | 229 | 141 | 182 | 187 | 153 | 174 | 192 | 185 | 188 |
| 9 | 204 | 192 | 198 | 163 | 145 | 155 | 154 | 124 | 139 | 194 | 189 | 191 |
| 10 | 210 | 204 | 208 | 179 | 163 | 173 | 169 | 155 | 164 | 195 | 187 | 192 |
| 11 | 219 | 207 | 212 | 184 | 169 | 175 | 172 | 166 | 168 | 193 | 186 | 190 |
| 12 | 227 | 219 | 222 | 178 | 173 | 176 | 189 | 171 | 180 | 194 | 185 | 189 |
| 13 | 226 | 221 | 223 | 189 | 178 | 183 | 204 | 187 | 193 | 194 | 186 | 190 |
| 14 | 226 | 218 | 222 | 189 | 161 | --- | 190 | 186 | 188 | 196 | 187 | 190 |
| 15 | 228 | 223 | 225 | --- | --- | --- | 190 | 178 | 185 | 192 | 184 | 187 |
| 16 | 229 | 222 | 226 | --- | --- | --- | 180 | 152 | 161 | 190 | 185 | 187 |
| 17 | 232 | 225 | 228 | --- | --- | --- | 177 | 164 | 170 | 189 | 183 | 186 |
| 18 | 228 | 222 | 226 | 190 | 177 | --- | 182 | 173 | 178 | 187 | 181 | 184 |
| 19 | 228 | 217 | 224 | 200 | 190 | 196 | 188 | 179 | 184 | 185 | 181 | 183 |
| 20 | 231 | 198 | 210 | 191 | 119 | 139 | 189 | 184 | 186 | 184 | 178 | 181 |
| 21 | 209 | 196 | 201 | 179 | 144 | 159 | 186 | 180 | 183 | 183 | 176 | 180 |
| 22 | 216 | 209 | 211 | 195 | 178 | 187 | 180 | 139 | 156 | 186 | 165 | 180 |
| 23 | 221 | 214 | 216 | 203 | 195 | 198 | 167 | 147 | 159 | 172 | 157 | 162 |
| 24 | 221 | 214 | 216 | 204 | 197 | 200 | 171 | 167 | 170 | 169 | 160 | 165 |
| 25 | 224 | 217 | 220 | 204 | 199 | 203 | 175 | 170 | 172 | 172 | 167 | 170 |
| 26 | 224 | 213 | 218 | 203 | 142 | 174 | 182 | 172 | 177 | 177 | 171 | 174 |
| 27 | 228 | 217 | 220 | 182 | 144 | 160 | 184 | 179 | 181 | 175 | 155 | 169 |
| 28 | 231 | 206 | 221 | 201 | 183 | 194 | 182 | 179 | 180 | 157 | 144 | 148 |
| 29 | 218 | 181 | 192 | 205 | 199 | 202 | 184 | 181 | 182 | 153 | 121 | 134 |
| 30 | 208 | 191 | 201 | 206 | 178 | 198 | 185 | 182 | 183 | 168 | 138 | 154 |
| 31 | 221 | 207 | 213 | --- | --- | --- | 186 | 178 | 182 | 176 | 166 | 172 |
| MONTH | 232 | 180 | 215 | 236 | 119 | 194 | 223 | 124 | 177 | 196 | 121 | 177 |

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 181 | 175 | 178 | 180 | 175 | 177 | 186 | 179 | --- | 183 | 180 | 182 |
| 2 | 183 | 122 | 161 | 179 | 176 | 177 | --- | --- | --- | 184 | 180 | 183 |
| 3 | 148 | 121 | 134 | 185 | 175 | 177 | 184 | 180 | --- | 191 | 181 | 185 |
| 4 | 158 | 149 | 154 | 185 | 173 | 179 | 188 | 169 | 182 | 196 | 185 | 190 |
| 5 | 181 | 157 | 164 | 176 | 173 | 174 | 179 | 154 | 167 | 192 | 185 | 189 |
| 6 | 187 | 170 | 173 | 185 | 173 | 180 | 191 | 180 | 187 | 193 | 190 | 192 |
| 7 | 176 | 170 | 173 | 184 | 182 | 183 | 201 | 191 | 196 | 192 | 187 | 190 |
| 8 | 176 | 170 | 174 | 184 | 177 | 181 | 199 | 169 | 187 | 193 | 190 | 192 |
| 9 | 175 | 166 | 170 | 175 | 172 | 173 | 186 | 169 | 178 | 191 | 171 | 181 |
| 10 | 177 | 170 | 174 | 180 | 173 | 176 | 189 | 167 | 181 | 186 | 172 | 180 |
| 11 | 182 | 176 | 178 | 180 | 178 | 179 | 187 | 168 | 182 | 194 | 187 | 191 |
| 12 | 186 | 177 | 180 | 180 | 175 | 178 | 197 | 188 | 193 | 197 | 194 | 195 |
| 13 | 186 | 157 | 168 | 186 | 176 | 181 | 204 | 193 | 197 | 196 | 191 | 194 |
| 14 | 162 | 158 | 159 | 190 | 183 | 185 | 202 | 196 | 200 | 195 | 192 | 194 |
| 15 | 171 | 151 | 161 | 189 | 184 | 186 | 203 | 200 | 201 | 204 | 195 | 200 |
| 16 | 174 | 167 | 170 | 187 | 183 | 185 | 205 | 200 | 203 | 204 | 197 | 200 |
| 17 | 178 | 173 | 176 | 184 | 174 | 181 | 209 | 188 | 198 | 202 | 196 | 200 |
| 18 | 184 | 178 | 182 | 172 | 163 | 167 | 189 | 185 | 186 | 200 | 193 | 197 |
| 19 | 183 | 181 | 182 | 180 | 174 | 176 | 192 | 187 | 189 | 200 | 194 | 197 |
| 20 | 184 | 178 | 181 | 189 | 171 | 180 | 193 | 188 | 190 | 201 | 191 | 197 |
| 21 | 183 | 176 | 180 | 189 | 185 | 187 | 195 | 189 | 191 | 193 | 180 | 186 |
| 22 | 188 | 176 | 179 | 199 | 183 | 191 | 193 | 188 | 190 | 200 | 188 | 195 |
| 23 | 182 | 177 | 179 | 200 | 197 | 198 | 193 | 184 | 188 | 203 | 197 | 201 |
| 24 | 181 | 179 | 180 | 199 | 196 | 197 | 191 | 180 | 184 | 203 | 190 | 197 |
| 25 | 180 | 178 | 180 | 202 | 193 | 197 | 187 | 181 | 185 | 201 | 187 | 192 |
| 26 | 181 | 177 | 179 | 192 | 147 | 170 | 180 | 152 | 162 | 201 | 189 | 195 |
| 27 | 181 | 176 | 179 | 176 | 173 | --- | 170 | 156 | 165 | 203 | 200 | 201 |
| 28 | 181 | 175 | 178 | 184 | 174 | 180 | 171 | 158 | 164 | 201 | 140 | 164 |
| 29 | --- | --- | --- | 188 | 183 | 185 | 177 | 171 | 174 | 186 | 156 | 171 |
| 30 | --- | --- | --- | 188 | 185 | 187 | 190 | 177 | 184 | 200 | 180 | --- |
| 31 | --- | --- | --- | 188 | 183 | 186 | --- | --- | --- | 191 | 180 | 187 |
| MONTH | 188 | 121 | 172 | 202 | 147 | 182 | 209 | 152 | 185 | 204 | 140 | 191 |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 208 | 186 | 200 | --- | --- | --- | --- | --- | --- | 242 | 230 | 236 |
| 2 | 206 | 197 | 202 | --- | --- | --- | 221 | 175 | --- | 243 | 227 | 236 |
| 3 | 206 | 203 | 204 | --- | --- | --- | 185 | 167 | --- | 239 | 207 | 227 |
| 4 | 206 | 201 | 203 | --- | --- | --- | 208 | 187 | 199 | 226 | 208 | 219 |
| 5 | 202 | 192 | 197 | --- | --- | --- | 212 | 208 | 210 | 230 | 222 | 226 |
| 6 | 206 | 195 | 201 | 200 | 191 | --- | 221 | 211 | 217 | 234 | 227 | 231 |
| 7 | 212 | 201 | 206 | 215 | 200 | 208 | 223 | 218 | 221 | 233 | 227 | 230 |
| 8 | 207 | 196 | 202 | 220 | 215 | 217 | 227 | 219 | 223 | 235 | 226 | 231 |
| 9 | 212 | 200 | 204 | 224 | 219 | 220 | 225 | 219 | 222 | 237 | 230 | 234 |
| 10 | 212 | 205 | 209 | 230 | 219 | 225 | 229 | 219 | 223 | 237 | 229 | 232 |
| 11 | 217 | 209 | 212 | 232 | 210 | 226 | 227 | 220 | 224 | 244 | 234 | 241 |
| 12 | 218 | 212 | 214 | 232 | 205 | 223 | 226 | 220 | 222 | 245 | 242 | 244 |
| 13 | 213 | 202 | 209 | 239 | 230 | 234 | 224 | 215 | 220 | 250 | 244 | 247 |
| 14 | 212 | 201 | 207 | 240 | 237 | --- | 223 | 213 | 219 | 247 | 216 | 238 |
| 15 | 214 | 207 | 210 | --- | --- | --- | 230 | 218 | 223 | 213 | 183 | 191 |
| 16 | 214 | 189 | 206 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | 208 | 180 | 192 | --- | --- | --- | 222 | 220 | --- | 230 | 218 | --- |
| 18 | 212 | 191 | 204 | --- | --- | --- | 229 | 222 | 226 | 235 | 219 | 226 |
| 19 | 216 | 212 | 215 | --- | --- | --- | 224 | 217 | 220 | 237 | 223 | 229 |
| 20 | 216 | 212 | 214 | 203 | 201 | --- | 225 | 217 | 221 | 231 | 222 | 226 |
| 21 | 216 | 211 | 213 | --- | --- | --- | 225 | 215 | 220 | 232 | 221 | 227 |
| 22 | 218 | 202 | 212 | --- | --- | --- | 224 | 221 | 222 | 237 | 232 | --- |
| 23 | 213 | 210 | --- | --- | --- | --- | 227 | 220 | 223 | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | 228 | 220 | 222 | 235 | 230 | --- |
| 25 | 175 | 159 | --- | --- | --- | --- | 231 | 221 | 227 | 233 | 223 | 229 |
| 26 | 187 | 175 | 183 | --- | --- | --- | 231 | 219 | 224 | 234 | 228 | 231 |
| 27 | 194 | 177 | 184 | --- | --- | --- | 237 | 220 | 228 | 238 | 232 | 235 |
| 28 | 193 | 178 | --- | --- | --- | --- | 237 | 224 | 229 | 240 | 234 | 236 |
| 29 | --- | --- | --- | --- | --- | --- | 235 | 230 | 232 | 244 | 237 | 239 |
| 30 | --- | --- | --- | --- | --- | --- | 239 | 232 | 235 | 239 | 234 | 237 |
| 31 | --- | --- | --- | --- | --- | --- | 239 | 224 | 231 | --- | --- | --- |
| MONTH | 218 | 159 | 204 | --- | --- | --- | 239 | 167 | 222 | 250 | 183 | 231 |

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 9.0 | 7.4 | 7.8 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.6 | 7.2 | 7.3 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.3 | 7.2 | 7.2 |
| 4 | 7.9 | 7.7 | --- | --- | --- | --- | --- | --- | --- | 7.3 | 7.1 | 7.2 |
| 5 | 8.1 | 7.7 | 7.9 | --- | --- | --- | --- | --- | --- | 7.3 | 7.0 | 7.2 |
| 6 | 7.8 | 7.8 | --- | --- | --- | --- | --- | --- | --- | 7.3 | 7.1 | 7.3 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 7.2 | 7.3 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 7.2 | 7.3 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 7.0 | 7.3 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 7.2 | 7.3 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 6.9 | --- |
| 12 | 8.1 | 7.7 | --- | --- | --- | --- | --- | --- | --- | 7.6 | 7.2 | 7.3 |
| 13 | 8.0 | 7.4 | 7.7 | --- | --- | --- | --- | --- | --- | 7.4 | 7.1 | 7.3 |
| 14 | 8.0 | 7.5 | 7.7 | --- | --- | --- | --- | --- | --- | 7.3 | 7.2 | 7.3 |
| 15 | 8.1 | 7.5 | 7.8 | --- | --- | --- | --- | --- | --- | 7.3 | 7.2 | 7.3 |
| 16 | 8.1 | 7.7 | 7.9 | --- | --- | --- | --- | --- | --- | 7.7 | 7.1 | 7.4 |
| 17 | 8.3 | 7.9 | 8.1 | --- | --- | --- | --- | --- | --- | 7.8 | 7.7 | 7.8 |
| 18 | 8.1 | 7.7 | 7.9 | --- | --- | --- | --- | --- | --- | 7.8 | 7.6 | 7.8 |
| 19 | 8.0 | 7.7 | 7.8 | --- | --- | --- | 7.2 | 7.2 | --- | 7.8 | 7.7 | 7.8 |
| 20 | 8.0 | 7.7 | 7.9 | --- | --- | --- | 7.2 | 7.1 | 7.2 | 7.7 | 7.6 | 7.6 |
| 21 | 7.9 | 7.8 | --- | --- | --- | --- | 7.2 | 7.1 | 7.2 | 7.9 | 7.7 | 7.8 |
| 22 | --- | --- | --- | --- | --- | --- | 7.3 | 7.1 | 7.2 | 7.8 | 7.5 | 7.7 |
| 23 | --- | --- | --- | --- | --- | --- | 7.2 | 7.1 | 7.1 | 7.6 | 7.2 | 7.4 |
| 24 | --- | --- | --- | --- | --- | --- | 7.2 | 7.2 | 7.2 | 7.4 | 7.2 | 7.3 |
| 25 | 7.8 | 7.6 | --- | --- | --- | --- | 7.2 | 7.2 | 7.2 | 7.4 | 7.3 | 7.4 |
| 26 | 7.6 | 7.4 | --- | --- | --- | --- | 7.3 | 7.2 | 7.2 | 7.6 | 7.3 | 7.4 |
| 27 | --- | --- | --- | --- | --- | --- | 7.9 | 7.2 | 7.5 | 7.6 | 7.4 | 7.5 |
| 28 | --- | --- | --- | --- | --- | --- | 9.7 | 7.7 | 7.9 | 7.4 | 7.2 | 7.3 |
| 29 | --- | --- | --- | --- | --- | --- | 7.8 | 7.4 | 7.5 | 7.3 | 7.2 | 7.2 |
| 30 | --- | --- | --- | --- | --- | --- | 7.6 | 7.5 | 7.6 | 7.4 | 7.3 | 7.3 |
| 31 | --- | --- | --- | --- | --- | --- | 8.1 | 7.5 | 7.7 | 7.5 | 7.4 | 7.4 |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | --- | 9.0 | 6.9 | 7.4 |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 7.5 | 7.4 | 7.5 | 8.0 | 7.5 | 7.8 | --- | --- | --- | 7.8 | 7.1 | 7.5 |
| 2 | 7.8 | 7.3 | 7.5 | 8.0 | 7.6 | 7.9 | --- | --- | --- | 7.9 | 7.2 | 7.5 |
| 3 | 7.4 | 7.3 | 7.3 | 8.2 | 7.8 | 8.0 | --- | --- | --- | 7.5 | 7.1 | 7.3 |
| 4 | 7.4 | 7.4 | 7.4 | 8.6 | 8.0 | 8.2 | --- | --- | --- | 7.4 | 7.1 | 7.2 |
| 5 | 7.4 | 7.0 | 7.4 | 8.6 | 8.0 | 8.3 | --- | --- | --- | 7.7 | 7.2 | 7.4 |
| 6 | 7.5 | 7.2 | 7.4 | 8.5 | 8.2 | --- | --- | --- | --- | 8.0 | 7.2 | 7.6 |
| 7 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- | 8.1 | 7.1 | 7.6 |
| 8 | 7.6 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- | 7.9 | 7.1 | 7.4 |
| 9 | 7.7 | 7.5 | 7.6 | --- | --- | --- | --- | --- | --- | 7.3 | 7.1 | 7.2 |
| 10 | 7.7 | 7.6 | 7.7 | --- | --- | --- | --- | --- | 7.7 | 7.4 | 7.1 | 7.2 |
| 11 | 7.7 | 7.6 | 7.7 | --- | --- | --- | --- | --- | 7.8 | 7.4 | 7.1 | 7.3 |
| 12 | 7.7 | 7.6 | 7.7 | --- | --- | --- | --- | --- | 7.8 | 7.3 | 7.0 | 7.2 |
| 13 | 7.7 | 7.7 | --- | --- | --- | --- | --- | --- | 7.8 | 7.5 | 7.0 | 7.2 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | 7.7 | 7.3 | 6.9 | 7.1 |
| 15 | 7.2 | 7.1 | --- | --- | --- | --- | --- | --- | 7.5 | 7.0 | 6.7 | 6.8 |
| 16 | 7.4 | 7.1 | 7.2 | --- | --- | --- | --- | --- | 7.1 | 8.0 | 6.6 | 7.2 |
| 17 | 7.4 | 7.3 | --- | --- | --- | --- | 7.9 | 7.5 | --- | 7.9 | 7.5 | 7.7 |
| 18 | --- | --- | --- | --- | --- | --- | 8.4 | 7.1 | --- | 7.7 | 7.4 | 7.5 |
| 19 | --- | --- | --- | --- | --- | --- | 8.4 | 7.3 | --- | 8.1 | 7.4 | 7.7 |
| 20 | 7.5 | 7.4 | --- | --- | --- | --- | 8.4 | 7.2 | --- | 7.9 | 7.5 | 7.6 |
| 21 | 7.8 | 7.4 | 7.6 | --- | --- | --- | 8.3 | 7.2 | --- | 8.7 | 7.4 | 7.8 |
| 22 | 7.7 | 7.5 | 7.6 | --- | --- | --- | 8.1 | 7.2 | --- | 7.9 | 7.4 | 7.7 |
| 23 | 7.7 | 7.5 | 7.6 | --- | --- | --- | 7.8 | 7.2 | --- | 7.6 | 7.3 | 7.4 |
| 24 | 7.6 | 7.5 | 7.6 | --- | --- | --- | 7.3 | 7.0 | --- | 7.6 | 7.3 | 7.3 |
| 25 | 7.7 | 7.5 | 7.6 | --- | --- | --- | 7.2 | 6.9 | 7.1 | 7.8 | 7.2 | 7.5 |
| 26 | 7.7 | 7.5 | 7.6 | --- | --- | --- | 7.0 | 6.8 | 6.9 | 7.9 | 7.5 | 7.7 |
| 27 | 8.0 | 7.4 | 7.7 | --- | --- | --- | 7.1 | 6.9 | 7.0 | 7.8 | 7.7 | 7.8 |
| 28 | 7.9 | 7.5 | 7.8 | --- | --- | --- | 7.1 | 6.8 | 7.0 | 8.2 | 7.8 | --- |
| 29 | --- | --- | --- | --- | --- | --- | 7.1 | 6.9 | 7.0 | 7.8 | 7.7 | --- |
| 30 | --- | --- | --- | --- | --- | --- | 7.5 | 6.8 | 7.2 | 7.7 | 7.7 | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 8.0 | 7.0 | --- | --- | --- | --- | --- | --- | --- | 8.7 | 6.6 | 7.4 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.7 | 7.1 | 7.4 |
| 2 | --- | --- | --- | --- | --- | --- | 7.5 | 7.1 | --- | 7.8 | 7.0 | 7.4 |
| 3 | --- | --- | --- | --- | --- | --- | 7.4 | 7.0 | --- | 8.2 | 7.4 | 7.8 |
| 4 | 7.6 | 7.4 | --- | --- | --- | --- | 7.5 | 7.4 | 7.5 | 7.6 | 7.3 | 7.4 |
| 5 | 7.4 | 7.2 | 7.2 | --- | --- | --- | 7.6 | 7.4 | 7.5 | 7.8 | 7.2 | 7.5 |
| 6 | 7.4 | 7.1 | 7.3 | 7.7 | 7.7 | --- | 7.5 | 7.2 | 7.4 | 7.7 | 7.3 | 7.5 |
| 7 | 7.4 | 7.2 | 7.3 | 7.8 | 7.7 | 7.7 | 7.6 | 7.2 | 7.4 | 7.7 | 7.2 | 7.5 |
| 8 | 7.5 | 7.1 | 7.3 | 7.8 | 7.7 | 7.7 | 7.8 | 7.3 | 7.5 | 7.8 | 7.3 | 7.5 |
| 9 | 7.5 | 7.1 | 7.3 | 7.7 | 7.0 | 7.4 | 7.9 | 7.4 | 7.6 | 7.7 | 7.3 | 7.5 |
| 10 | 7.6 | 7.0 | 7.3 | 7.4 | 7.0 | 7.3 | 7.9 | 7.4 | 7.6 | 7.4 | 7.3 | --- |
| 11 | 7.6 | 6.9 | 7.2 | 7.4 | 7.1 | 7.3 | 7.7 | 7.4 | 7.5 | --- | --- | --- |
| 12 | 7.7 | 7.2 | 7.5 | 7.4 | 7.0 | 7.2 | 7.6 | 7.3 | 7.4 | --- | --- | --- |
| 13 | 7.3 | 7.0 | 7.2 | 7.6 | 7.0 | 7.3 | 7.9 | 7.2 | 7.6 | --- | --- | --- |
| 14 | 7.5 | 7.0 | 7.3 | 7.4 | 7.1 | --- | 7.6 | 7.3 | 7.5 | --- | --- | --- |
| 15 | 7.6 | 7.0 | 7.3 | --- | --- | --- | 7.5 | 7.1 | 7.3 | --- | --- | --- |
| 16 | 7.4 | 7.0 | 7.2 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | 7.3 | 6.7 | 6.9 | --- | --- | --- | 7.9 | 7.7 | --- | 7.3 | 7.1 | --- |
| 18 | 7.6 | 6.7 | 7.2 | --- | --- | --- | 7.9 | 7.6 | 7.7 | 7.4 | 7.2 | 7.3 |
| 19 | 7.7 | 7.4 | 7.6 | --- | --- | --- | 8.1 | 7.6 | 7.8 | 7.3 | 7.2 | 7.3 |
| 20 | 8.1 | 7.6 | 7.7 | --- | --- | --- | 7.8 | 7.3 | 7.5 | 7.4 | 7.2 | 7.3 |
| 21 | 8.1 | 7.6 | 7.8 | --- | --- | --- | 7.5 | 7.2 | 7.3 | 7.4 | 7.3 | 7.4 |
| 22 | 8.2 | 7.4 | 7.9 | --- | --- | --- | 7.7 | 7.2 | 7.4 | 7.6 | 7.3 | --- |
| 23 | 8.3 | 8.2 | --- | --- | --- | --- | 7.7 | 7.3 | 7.5 | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | 7.8 | 7.3 | 7.5 | 7.3 | 7.1 | --- |
| 25 | 7.0 | 6.9 | --- | --- | --- | --- | 7.9 | 7.4 | 7.7 | 7.2 | 7.0 | 7.1 |
| 26 | 7.2 | 6.9 | 7.1 | --- | --- | --- | 8.1 | 7.4 | 7.8 | 7.2 | 6.8 | 7.1 |
| 27 | 7.3 | 6.8 | 7.2 | --- | --- | --- | 8.1 | 7.4 | 7.8 | 7.6 | 6.9 | --- |
| 28 | 7.3 | 7.1 | --- | --- | --- | --- | 8.1 | 7.5 | 7.7 | 7.7 | 7.3 | --- |
| 29 | --- | --- | --- | --- | --- | --- | 7.8 | 7.1 | 7.5 | 7.6 | 7.3 | --- |
| 30 | --- | --- | --- | --- | --- | --- | 8.1 | 7.0 | 7.5 | 7.4 | 7.2 | 7.3 |
| 31 | --- | --- | --- | --- | --- | --- | 7.9 | 7.1 | 7.5 | --- | --- | --- |
| MONTH | 8.3 | 6.7 | --- | --- | --- | --- | 8.1 | 7.0 | 7.5 | --- | --- | --- |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | 12.3 | 12.0 | 12.2 | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | 12.2 | 11.7 | 11.9 | 13.0 | 12.0 | --- |
| 3 | --- | --- | --- | --- | --- | --- | 12.0 | 11.3 | 11.7 | 14.2 | 13.0 | 13.9 |
| 4 | 9.9 | 9.3 | --- | --- | --- | --- | 11.4 | 11.1 | 11.2 | 13.9 | 13.0 | 13.4 |
| 5 | 9.7 | 9.1 | 9.4 | --- | --- | --- | 12.4 | 11.5 | 12.0 | --- | --- | --- |
| 6 | 8.9 | 8.6 | --- | --- | --- | --- | 11.8 | 10.9 | 11.5 | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | 12.1 | 10.8 | 11.5 | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | 12.4 | 12.1 | 12.3 | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | 12.1 | 11.4 | 11.7 | 14.6 | 14.2 | --- |
| 10 | --- | --- | --- | --- | --- | --- | 11.6 | 10.4 | 10.7 | 14.6 | 14.3 | 14.5 |
| 11 | --- | --- | --- | --- | --- | --- | 11.3 | 10.4 | 11.0 | 14.5 | 13.9 | --- |
| 12 | 10.1 | 9.5 | --- | --- | --- | --- | 12.4 | 11.4 | 12.0 | 16.3 | 14.1 | 14.5 |
| 13 | 10.0 | 9.4 | 9.7 | --- | --- | --- | 12.3 | 11.6 | 11.9 | 16.5 | 14.4 | 14.8 |
| 14 | 10.2 | 9.6 | 9.9 | --- | --- | --- | 11.8 | 11.6 | 11.7 | 14.7 | 14.1 | 14.4 |
| 15 | 10.2 | 9.5 | 9.8 | --- | --- | --- | 11.8 | 11.6 | 11.8 | 14.1 | 12.8 | 13.5 |
| 16 | 10.3 | 9.7 | 10.0 | --- | --- | --- | 13.1 | 11.5 | 12.1 | 13.8 | 11.9 | 13.0 |
| 17 | 10.2 | 9.6 | 9.9 | --- | --- | --- | 14.4 | 13.1 | 13.8 | 12.4 | 11.5 | 11.9 |
| 18 | 10.3 | 9.4 | 9.8 | 12.6 | 12.0 | --- | 14.6 | 13.6 | 14.2 | 12.1 | 11.3 | 11.6 |
| 19 | 11.2 | 10.1 | 10.7 | 12.3 | 11.6 | 12.0 | 13.6 | 13.3 | --- | 11.6 | 10.2 | 11.2 |
| 20 | 11.8 | 11.2 | 11.6 | 11.8 | 11.1 | 11.5 | --- | --- | --- | 11.9 | 9.1 | 10.4 |
| 21 | 12.0 | 11.7 | --- | 11.3 | 11.1 | --- | --- | --- | --- | 13.6 | 12.2 | 13.2 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 13.6 | 11.6 | 13.0 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 11.8 | 11.4 | 11.6 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12.7 | 11.9 | 12.3 |
| 25 | 9.3 | 8.5 | --- | --- | --- | --- | --- | --- | --- | 13.6 | 12.8 | 13.3 |
| 26 | 10.2 | 9.3 | --- | --- | --- | --- | --- | --- | --- | 13.6 | 12.7 | 13.2 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 12.7 | 12.1 | 12.4 |
| 28 | --- | --- | --- | 12.2 | 11.0 | --- | --- | --- | --- | 12.4 | 11.9 | 12.2 |
| 29 | --- | --- | --- | 12.0 | 11.7 | 11.8 | --- | --- | --- | 13.4 | 11.8 | --- |
| 30 | --- | --- | --- | 12.2 | 11.9 | 12.1 | --- | --- | --- | 14.5 | 13.0 | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15.0 | 14.1 | 14.5 |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.5 | 9.1 | --- |

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 14.6 | 14.0 | 14.3 | 12.7 | 11.8 | 12.3 | 10.4 | 10.0 | --- | 11.4 | 10.1 | 10.9 |
| 2 | 13.9 | 11.5 | 12.5 | 12.3 | 11.2 | 11.9 | --- | --- | --- | 10.8 | 9.7 | 10.2 |
| 3 | 12.0 | 11.5 | 11.8 | 11.5 | 11.0 | 11.2 | --- | --- | --- | 9.9 | 9.3 | 9.5 |
| 4 | 12.3 | 11.8 | 12.0 | 11.4 | 10.7 | 11.1 | --- | --- | --- | 10.8 | 9.4 | 10.2 |
| 5 | 12.3 | 11.6 | 12.0 | 11.6 | 10.5 | 11.1 | --- | --- | --- | 11.9 | 10.7 | 11.3 |
| 6 | 11.9 | 11.6 | --- | 11.9 | 11.1 | 11.5 | --- | --- | --- | 11.7 | 10.3 | 11.2 |
| 7 | --- | --- | --- | 12.1 | 10.1 | 11.6 | --- | --- | --- | 11.2 | 10.0 | 10.6 |
| 8 | --- | --- | --- | 11.5 | 10.9 | 11.3 | --- | --- | --- | 10.7 | 9.6 | 10.1 |
| 9 | --- | --- | --- | 11.4 | 10.7 | 11.0 | --- | --- | --- | 10.3 | 7.9 | 9.6 |
| 10 | --- | --- | --- | 11.4 | 10.7 | 11.0 | --- | --- | --- | 9.7 | 9.1 | --- |
| 11 | --- | --- | --- | 11.1 | 10.4 | 10.8 | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | 10.8 | 10.3 | 10.6 | --- | --- | --- | 9.6 | 9.4 | --- |
| 13 | --- | --- | --- | 10.5 | 9.3 | 10.0 | --- | --- | --- | 10.6 | 9.4 | 10.1 |
| 14 | --- | --- | --- | 10.5 | 9.2 | 10.0 | --- | --- | --- | 10.6 | 9.8 | 10.2 |
| 15 | 11.8 | 11.2 | --- | 10.5 | 10.1 | 10.2 | --- | --- | --- | 10.2 | 9.5 | 9.8 |
| 16 | 13.0 | 11.1 | 11.7 | 10.6 | 9.9 | 10.2 | 10.3 | 8.5 | --- | 11.1 | 10.1 | 10.5 |
| 17 | 14.3 | 13.2 | --- | 9.7 | 9.0 | 9.2 | 10.7 | 9.5 | 10.1 | 10.2 | 9.7 | 9.9 |
| 18 | --- | --- | --- | 11.9 | 9.3 | 10.7 | 10.7 | 9.4 | 10.0 | 10.6 | 9.6 | 10.2 |
| 19 | --- | --- | --- | 11.8 | 11.0 | 11.5 | 10.4 | 8.8 | 9.6 | 11.3 | 10.3 | 10.8 |
| 20 | 11.6 | 10.0 | --- | 11.6 | 11.4 | --- | 10.6 | 8.8 | 9.7 | 10.2 | 9.7 | 9.8 |
| 21 | 11.8 | 11.3 | 11.6 | --- | --- | --- | 10.6 | 9.2 | 9.9 | 10.1 | 9.7 | 9.9 |
| 22 | 12.4 | 11.7 | 12.2 | --- | --- | --- | 10.0 | 8.8 | 9.3 | 10.5 | 9.3 | 10.1 |
| 23 | 12.8 | 12.2 | 12.5 | --- | --- | --- | 10.1 | 8.8 | 9.4 | 9.3 | 8.9 | 9.1 |
| 24 | 13.2 | 12.4 | 12.7 | --- | --- | --- | 9.9 | 8.9 | 9.4 | 9.9 | 9.3 | 9.6 |
| 25 | 13.3 | 12.0 | 12.7 | --- | --- | --- | 10.6 | 9.3 | 10.0 | 10.2 | 9.7 | 10.0 |
| 26 | 12.2 | 11.6 | 12.0 | --- | --- | --- | 10.8 | 10.2 | 10.5 | 10.4 | 10.1 | 10.3 |
| 27 | 11.9 | 11.3 | 11.6 | 11.0 | 10.4 | --- | 11.1 | 10.7 | 10.9 | 10.5 | 10.1 | 10.3 |
| 28 | 12.8 | 11.9 | 12.4 | 12.0 | 10.0 | 11.1 | 11.3 | 10.8 | 11.0 | 10.4 | 8.4 | 9.3 |
| 29 | --- | --- | --- | 12.3 | 10.8 | 11.5 | 11.8 | 10.9 | 11.4 | 9.0 | 8.6 | 8.8 |
| 30 | --- | --- | --- | 11.1 | 9.3 | 10.4 | 11.7 | 10.8 | 11.3 | 9.0 | 8.6 | --- |
| 31 | --- | --- | --- | 10.7 | 10.0 | 10.4 | --- | --- | --- | 9.0 | 8.6 | 8.8 |
| MONTH | --- | --- | --- | 12.7 | 9.0 | --- | --- | --- | --- | 11.9 | 7.9 | 10.0 |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 9.3 | 8.7 | 9.0 | --- | --- | --- | --- | --- | --- | 8.3 | 6.4 | 7.3 |
| 2 | 9.2 | 8.6 | 8.9 | --- | --- | --- | 8.6 | 7.4 | --- | 8.5 | 6.3 | 7.5 |
| 3 | 9.2 | 8.7 | 8.9 | --- | --- | --- | 7.8 | 7.0 | --- | 9.2 | 7.1 | 8.2 |
| 4 | 9.3 | 8.4 | 8.8 | --- | --- | --- | 7.6 | 7.0 | 7.3 | 8.8 | 6.9 | 7.8 |
| 5 | 8.4 | 8.0 | 8.2 | --- | --- | --- | 7.8 | 7.0 | 7.3 | 9.2 | 7.4 | 8.3 |
| 6 | 8.5 | 7.9 | 8.2 | 7.8 | 7.8 | --- | 8.6 | 7.0 | 8.0 | 8.8 | 7.3 | 8.1 |
| 7 | 8.9 | 7.8 | 8.2 | 8.0 | 7.8 | 7.9 | 8.8 | 7.6 | 8.2 | 9.1 | 7.4 | 8.2 |
| 8 | 8.8 | 8.0 | 8.3 | 8.0 | 7.6 | 7.8 | 9.0 | 7.6 | 8.2 | 9.4 | 7.8 | 8.6 |
| 9 | 8.6 | 7.7 | 8.1 | 8.0 | 7.4 | 7.7 | 8.6 | 7.4 | 7.9 | 9.4 | 8.0 | 8.8 |
| 10 | 8.6 | 7.5 | 8.0 | 8.0 | 7.4 | 7.7 | 8.4 | 7.0 | 7.7 | 9.4 | 8.3 | 8.9 |
| 11 | 8.5 | 7.4 | 7.9 | 8.0 | 7.2 | 7.6 | 8.2 | 6.8 | 7.5 | 9.3 | 8.3 | 8.8 |
| 12 | 8.5 | 7.4 | 7.9 | 8.4 | 7.4 | 8.1 | 8.2 | 7.0 | 7.7 | 9.0 | 8.0 | 8.4 |
| 13 | 8.0 | 7.2 | 7.6 | 9.0 | 8.0 | 8.4 | 8.5 | 7.2 | 7.7 | 8.9 | 7.7 | 8.4 |
| 14 | 8.7 | 7.4 | 8.1 | 8.0 | 7.6 | --- | 8.0 | 7.1 | 7.6 | 8.7 | 8.1 | 8.3 |
| 15 | 9.2 | 7.9 | 8.5 | --- | --- | --- | 8.4 | 7.3 | 7.8 | 8.4 | 8.0 | 8.2 |
| 16 | 8.7 | 7.9 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | 8.6 | 8.1 | 8.2 | --- | --- | --- | 8.0 | 6.7 | --- | 8.7 | 8.2 | --- |
| 18 | 8.9 | 8.3 | 8.7 | --- | --- | --- | 8.2 | 7.2 | 7.7 | 8.3 | 7.7 | 8.2 |
| 19 | 9.1 | 8.8 | 8.9 | --- | --- | --- | 8.9 | 7.5 | 8.1 | 8.7 | 8.1 | 8.3 |
| 20 | 8.9 | 8.4 | 8.7 | 9.1 | 8.1 | --- | 8.6 | 7.4 | 8.0 | 9.1 | 8.1 | 8.6 |
| 21 | 8.5 | 7.8 | 8.2 | --- | --- | --- | 9.0 | 7.6 | 8.3 | 9.0 | 8.5 | 8.7 |
| 22 | 8.3 | 7.7 | 7.9 | --- | --- | --- | 9.4 | 8.0 | 8.6 | 9.7 | 8.9 | --- |
| 23 | 8.1 | 8.1 | --- | --- | --- | --- | 9.7 | 8.3 | 8.9 | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | 9.9 | 8.4 | 9.1 | 9.6 | 9.0 | --- |
| 25 | 8.0 | 7.9 | --- | --- | --- | --- | 10.0 | 8.4 | 9.2 | 9.7 | 8.6 | 9.2 |
| 26 | 8.1 | 7.6 | 7.9 | --- | --- | --- | 9.9 | 8.1 | 9.0 | 10.1 | 8.7 | 9.5 |
| 27 | 8.1 | 7.6 | 7.8 | --- | --- | --- | 9.7 | 7.8 | 8.7 | 10.1 | 9.0 | 9.5 |
| 28 | 8.0 | 7.4 | --- | --- | --- | --- | 9.3 | 7.4 | 8.3 | 9.9 | 8.8 | --- |
| 29 | --- | --- | --- | --- | --- | --- | 9.1 | 6.9 | 8.0 | 9.4 | 8.2 | 8.9 |
| 30 | --- | --- | --- | --- | --- | --- | 9.2 | 6.7 | 7.9 | 9.5 | 8.1 | 8.8 |
| 31 | --- | --- | --- | --- | --- | --- | 8.8 | 6.6 | 7.6 | --- | --- | --- |
| MONTH | 9.3 | 7.2 | 8.3 | --- | --- | --- | 10.0 | 6.6 | 8.1 | 10.1 | 6.3 | 8.5 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 2.0 | 1.5 | 1.5 | 5.0 | 2.0 | 4.0 | 12.0 | 11.5 | 11.5 | 16.0 | 11.5 | 13.5 |
| 2 | 5.5 | 2.0 | 4.0 | 6.5 | 3.5 | 5.0 | 11.5 | 10.5 | 11.0 | 17.0 | 15.0 | 16.0 |
| 3 | 5.0 | 4.5 | 5.0 | 6.5 | 6.0 | 6.0 | 11.0 | 9.5 | 10.5 | 17.0 | 16.0 | 16.5 |
| 4 | 6.0 | 4.5 | 5.0 | 8.0 | 6.0 | 7.0 | 10.5 | 9.0 | 9.5 | 15.5 | 12.0 | 14.0 |
| 5 | 6.5 | 5.0 | 5.5 | 8.5 | 7.0 | 8.0 | 9.0 | 8.0 | 8.5 | 12.0 | 10.5 | 11.0 |
| 6 | 6.0 | 5.5 | 6.0 | 8.0 | 7.0 | 7.5 | 11.0 | 7.0 | 9.0 | 15.0 | 10.5 | 12.5 |
| 7 | 6.0 | 5.0 | 5.5 | 8.5 | 7.0 | 8.0 | 13.0 | 10.0 | 11.5 | 16.5 | 13.0 | 15.0 |
| 8 | 5.5 | 5.0 | 5.0 | 10.0 | 8.5 | 9.0 | 12.0 | 9.0 | 10.5 | 16.0 | 14.0 | 14.5 |
| 9 | 5.5 | 3.0 | 4.0 | 11.0 | 9.0 | 10.0 | 10.5 | 7.0 | 9.0 | 16.0 | 13.5 | 14.5 |
| 10 | 2.0 | 1.0 | 1.5 | 11.0 | 9.0 | 10.0 | 10.5 | 9.5 | 10.0 | 19.0 | 15.0 | 17.0 |
| 11 | 1.0 | 0.0 | 0.5 | 10.5 | 9.5 | 10.0 | 9.0 | 6.5 | 7.5 | 19.5 | 18.0 | 18.5 |
| 12 | 1.0 | 0.0 | 0.5 | 11.5 | 9.5 | 10.5 | 8.0 | 6.0 | 7.0 | 18.0 | 15.5 | 16.5 |
| 13 | 1.0 | 0.0 | --- | 13.0 | 10.5 | 11.5 | 9.5 | 5.5 | 7.5 | 16.0 | 14.0 | 15.0 |
| 14 | --- | --- | --- | 12.0 | 10.5 | 11.0 | 11.0 | 8.0 | 9.5 | 16.0 | 14.0 | 15.0 |
| 15 | 4.5 | 4.0 | --- | 11.0 | 10.0 | 10.5 | 12.0 | 9.0 | 10.5 | 15.5 | 14.0 | 14.5 |
| 16 | 4.5 | 1.0 | 3.5 | 12.0 | 10.0 | 11.0 | 14.0 | 10.5 | 12.0 | 15.5 | 11.5 | 14.0 |
| 17 | 1.0 | 0.0 | --- | 14.5 | 12.0 | 13.0 | 14.0 | 13.5 | 13.5 | 15.5 | 13.5 | 15.0 |
| 18 | --- | --- | --- | 11.5 | 5.5 | 8.0 | 16.0 | 13.5 | 14.5 | 14.5 | 13.0 | 13.5 |
| 19 | --- | --- | --- | 5.5 | 4.5 | 5.0 | 17.0 | 15.0 | 16.0 | 14.5 | 11.0 | 13.0 |
| 20 | 3.5 | 2.0 | --- | 8.0 | 4.5 | 6.0 | 16.5 | 14.5 | 16.0 | 14.5 | 13.5 | 13.5 |
| 21 | 5.0 | 3.0 | 4.0 | 8.0 | 6.0 | 6.5 | 16.0 | 14.0 | 15.0 | 14.0 | 13.0 | 13.5 |
| 22 | 4.0 | 3.0 | 3.5 | 6.5 | 5.5 | 6.0 | 19.0 | 15.0 | 17.0 | 17.0 | 12.0 | 14.5 |
| 23 | 4.0 | 2.0 | 3.0 | 8.5 | 5.0 | 6.5 | 20.0 | 17.0 | 18.5 | 16.5 | 15.0 | 15.5 |
| 24 | 3.5 | 1.5 | 3.0 | 9.5 | 6.0 | 8.0 | 18.5 | 16.0 | 17.5 | 14.5 | 14.0 | 14.5 |
| 25 | 4.0 | 1.5 | 3.5 | 9.5 | 8.0 | 8.5 | 17.0 | 14.0 | 15.5 | 13.5 | 12.0 | 13.0 |
| 26 | 5.5 | 4.0 | 4.5 | 9.5 | 8.5 | 9.0 | 13.5 | 11.0 | 11.5 | 13.0 | 12.0 | 12.5 |
| 27 | 5.5 | 4.0 | 4.5 | 12.0 | 11.0 | --- | 11.0 | 10.5 | 10.5 | 13.0 | 11.5 | 12.0 |
| 28 | 4.5 | 2.0 | 3.5 | 11.0 | 5.5 | 10.0 | 11.0 | 10.0 | 10.5 | 16.0 | 11.5 | 13.5 |
| 29 | --- | --- | --- | 10.5 | 9.0 | 10.0 | 13.0 | 9.0 | 11.0 | 19.0 | 16.0 | 17.5 |
| 30 | --- | --- | --- | 10.5 | 9.5 | 10.0 | 13.0 | 11.0 | 12.0 | 19.5 | 18.5 | --- |
| 31 | --- | --- | --- | 11.5 | 10.0 | 11.0 | --- | --- | --- | 20.0 | 18.5 | 19.0 |
| MONTH | 6.5 | 0.0 | --- | 14.5 | 2.0 | 8.5 | 20.0 | 5.5 | 12.0 | 20.0 | 10.5 | 14.5 |

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

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 173 | 8 | 3.7 | 181 | 8 | 3.9 | 845 | 55 | 125 |
| 2 | 151 | 7 | 2.9 | 186 | 8 | 4.0 | 705 | 16 | 30 |
| 3 | 140 | 7 | 2.6 | 181 | 9 | 4.4 | 611 | 14 | 23 |
| 4 | 136 | 9 | 3.3 | 173 | 8 | 3.7 | 480 | 10 | 13 |
| 5 | 147 | 12 | 4.8 | 169 | 6 | 2.7 | 350 | 8 | 7.6 |
| 6 | 186 | 28 | 14 | 162 | 7 | 3.1 | 625 | 500 | 844 |
| 7 | 685 | 45 | 83 | 151 | 9 | 3.7 | 985 | 610 | 1620 |
| 8 | 296 | 9 | 7.2 | 1310 | 640 | 2260 | 755 | 165 | 336 |
| 9 | 198 | 10 | 5.3 | 955 | 725 | 1870 | 2100 | 1500 | 8510 |
| 10 | 155 | 8 | 3.3 | 395 | 40 | 43 | 1120 | 100 | 302 |
| 11 | 147 | 8 | 3.2 | 404 | 28 | 31 | 920 | 25 | 62 |
| 12 | 151 | 7 | 2.9 | 332 | 16 | 14 | 765 | 12 | 25 |
| 13 | 147 | 7 | 2.8 | 242 | 20 | 13 | 755 | 9 | 18 |
| 14 | 143 | 7 | 2.7 | 2740 | 1310 | 9690 | 675 | 8 | 15 |
| 15 | 140 | 6 | 2.3 | 2280 | 1750 | 10800 | 910 | 42 | 103 |
| 16 | 136 | 7 | 2.6 | 670 | 35 | 63 | 1410 | 100 | 381 |
| 17 | 136 | 6 | 2.2 | 503 | 26 | 35 | 715 | 20 | 39 |
| 18 | 133 | 6 | 2.2 | 391 | 8 | 8.4 | 625 | 12 | 20 |
| 19 | 238 | 10 | 6.4 | 332 | 20 | 18 | 598 | 10 | 16 |
| 20 | 278 | 8 | 6.0 | 1900 | 263 | 1350 | 645 | 7 | 12 |
| 21 | 181 | 5 | 2.4 | 589 | 43 | 68 | 660 | 26 | 46 |
| 22 | 173 | 6 | 2.8 | 386 | 10 | 10 | 1710 | 140 | 646 |
| 23 | 166 | 6 | 2.7 | 332 | 7 | 6.3 | 1100 | 64 | 190 |
| 24 | 166 | 7 | 3.1 | 296 | 6 | 4.8 | 865 | 22 | 51 |
| 25 | 158 | 8 | 3.4 | 283 | 5 | 3.8 | 765 | 13 | 27 |
| 26 | 158 | 8 | 3.4 | 1070 | 68 | 196 | 720 | 12 | 23 |
| 27 | 155 | 5 | 2.1 | 598 | 42 | 68 | 735 | 10 | 20 |
| 28 | 355 | 27 | 26 | 373 | 21 | 21 | 645 | 5 | 8.7 |
| 29 | 494 | 42 | 56 | 364 | 8 | 7.9 | 580 | 5 | 7.8 |
| 30 | 238 | 18 | 12 | 422 | 22 | 25 | 575 | 4 | 6.2 |
| 31 | 194 | 8 | 4.2 | -- | -- | -- | 685 | 15 | 28 |
| TOTAL | 6354 | -- | 281.5 | 18370 | -- | 26631.7 | 25634 | -- | 13555.3 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 740 | 20 | 40 | 705 | 14 | 27 | 494 | 7 | 9.3 |
| 2 | 589 | 16 | 25 | 2170 | 465 | 2720 | 499 | 8 | 11 |
| 3 | 530 | 16 | 23 | 2140 | 270 | 1560 | 571 | 10 | 15 |
| 4 | 1060 | 65 | 186 | 1130 | 65 | 198 | 840 | 24 | 54 |
| 5 | 810 | 26 | 57 | 965 | 39 | 102 | 665 | 14 | 25 |
| 6 | 635 | 10 | 17 | 890 | 30 | 72 | 602 | 11 | 18 |
| 7 | 517 | 7 | 9.8 | 970 | 23 | 60 | 580 | 8 | 13 |
| 8 | 495 | 6 | 8.0 | 925 | 19 | 47 | 700 | 14 | 26 |
| 9 | 476 | 7 | 9.0 | 1050 | 34 | 96 | 660 | 16 | 29 |
| 10 | 463 | 7 | 8.8 | 770 | 13 | 27 | 553 | 11 | 16 |
| 11 | 476 | 7 | 9.0 | 680 | 4 | 7.3 | 526 | 11 | 16 |
| 12 | 458 | 7 | 8.7 | 619 | 6 | 10 | 548 | 14 | 21 |
| 13 | 463 | 6 | 7.5 | 607 | 7 | 11 | 503 | 13 | 18 |
| 14 | 431 | 5 | 5.8 | 620 | 10 | 17 | 476 | 11 | 14 |
| 15 | 445 | 5 | 6.0 | 1180 | 61 | 194 | 481 | 8 | 10 |
| 16 | 449 | 5 | 6.1 | 845 | 24 | 55 | 481 | 9 | 12 |
| 17 | 449 | 5 | 6.1 | 635 | 10 | 17 | 760 | 22 | 45 |
| 18 | 436 | 5 | 5.9 | 602 | 9 | 15 | 700 | 23 | 43 |
| 19 | 476 | 9 | 12 | 571 | 8 | 12 | 513 | 11 | 15 |
| 20 | 598 | 15 | 24 | 575 | 8 | 12 | 473 | 7 | 8.9 |
| 21 | 467 | 7 | 8.8 | 584 | 7 | 11 | 454 | 7 | 8.6 |
| 22 | 635 | 42 | 72 | 593 | 6 | 9.6 | 444 | 6 | 7.2 |
| 23 | 955 | 137 | 353 | 571 | 6 | 9.3 | 429 | 3 | 3.5 |
| 24 | 607 | 66 | 108 | 544 | 6 | 8.8 | 415 | 3 | 3.4 |
| 25 | 512 | 15 | 21 | 526 | 6 | 8.5 | 416 | 3 | 3.4 |
| 26 | 467 | 9 | 11 | 526 | 6 | 8.5 | 1250 | 187 | 631 |
| 27 | 805 | 315 | 685 | 521 | 6 | 8.4 | 747 | 27 | 54 |
| 28 | 1180 | 200 | 637 | 503 | 6 | 8.1 | 542 | 12 | 18 |
| 29 | 2500 | 480 | 3240 | -- | -- | -- | 494 | 11 | 15 |
| 30 | 1060 | 100 | 286 | -- | -- | -- | 528 | 9 | 13 |
| 31 | 790 | 28 | 60 | -- | -- | -- | 546 | 8 | 12 |
| TOTAL | 20974 | -- | 5956.5 | 23017 | -- | 5331.5 | 17890 | -- | 1188.3 |

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 1020 | 145 | 399 | 687 | 18 | 33 | 634 | 36 | 62 |
| 2 | 3010 | 525 | 4270 | 655 | 18 | 32 | 568 | 24 | 37 |
| 3 | 1320 | 119 | 424 | 692 | 21 | 39 | 537 | 21 | 30 |
| 4 | 1410 | 140 | 533 | 724 | 22 | 43 | 539 | 23 | 33 |
| 5 | 1470 | 155 | 615 | 635 | 18 | 31 | 617 | 35 | 58 |
| 6 | 939 | 39 | 99 | 592 | 17 | 27 | 504 | 26 | 35 |
| 7 | 819 | 29 | 64 | 555 | 16 | 24 | 527 | 34 | 48 |
| 8 | 1640 | 155 | 686 | 540 | 21 | 31 | 475 | 37 | 47 |
| 9 | 1310 | 73 | 258 | 995 | 47 | 126 | 449 | 30 | 36 |
| 10 | 1500 | 93 | 377 | 696 | 41 | 77 | 418 | 28 | 32 |
| 11 | 1090 | 50 | 147 | 590 | 18 | 29 | 398 | 27 | 29 |
| 12 | 909 | 28 | 69 | 537 | 21 | 30 | 391 | 28 | 30 |
| 13 | 839 | 16 | 36 | 518 | 23 | 32 | 494 | 39 | 52 |
| 14 | 786 | 10 | 21 | 492 | 17 | 23 | 408 | 31 | 34 |
| 15 | 749 | 15 | 30 | 493 | 18 | 24 | 366 | 30 | 30 |
| 16 | 670 | 10 | 18 | 509 | 17 | 23 | 403 | 32 | 35 |
| 17 | 714 | 14 | 27 | 488 | 15 | 20 | 526 | 58 | 82 |
| 18 | 718 | 15 | 29 | 546 | 21 | 31 | 402 | 37 | 40 |
| 19 | 664 | 11 | 20 | 477 | 17 | 22 | 398 | 37 | 40 |
| 20 | 629 | 13 | 22 | 580 | 30 | 47 | 402 | 35 | 38 |
| 21 | 602 | 14 | 23 | 680 | 45 | 83 | 382 | 30 | 31 |
| 22 | 594 | 12 | 19 | 509 | 20 | 27 | 480 | 42 | 54 |
| 23 | 643 | 22 | 38 | 506 | 27 | 37 | 451 | 54 | 66 |
| 24 | 830 | 40 | 90 | 615 | 32 | 53 | 616 | 250 | 416 |
| 25 | 632 | 21 | 36 | 800 | 38 | 82 | 921 | 400 | 995 |
| 26 | 1700 | 215 | 987 | 661 | 21 | 37 | 495 | 83 | 111 |
| 27 | 1190 | 90 | 289 | 672 | 37 | 67 | 411 | 82 | 91 |
| 28 | 1290 | 88 | 307 | 2580 | 545 | 3800 | 1050 | 235 | 666 |
| 29 | 877 | 48 | 114 | 1320 | 139 | 495 | 3700 | 1340 | 13400 |
| 30 | 737 | 30 | 60 | 841 | 33 | 75 | 4070 | 450 | 4950 |
| 31 | -- | -- | -- | 725 | 39 | 76 | -- | -- | -- |
| TOTAL | 31301 | -- | 10107 | 21910 | -- | 5576 | 22032 | -- | 21608 |

| | 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 | 985 | 110 | 293 | 330 | 50 | 45 | 172 | 25 | 12 |
| 2 | 775 | 100 | 209 | 1550 | 500 | 2090 | 183 | 32 | 16 |
| 3 | 715 | 125 | 241 | 545 | 82 | 121 | 210 | 37 | 21 |
| 4 | 2470 | 610 | 4070 | 370 | 31 | 31 | 206 | 21 | 12 |
| 5 | 1300 | 360 | 1260 | 320 | 23 | 20 | 187 | 24 | 12 |
| 6 | 750 | 160 | 324 | 297 | 27 | 22 | 179 | 16 | 7.7 |
| 7 | 560 | 41 | 62 | 283 | 24 | 18 | 183 | 20 | 9.9 |
| 8 | 500 | 34 | 46 | 274 | 20 | 15 | 172 | 20 | 9.3 |
| 9 | 465 | 25 | 31 | 265 | 18 | 13 | 161 | 20 | 8.7 |
| 10 | 440 | 26 | 31 | 260 | 18 | 13 | 157 | 19 | 8.1 |
| 11 | 535 | 38 | 55 | 256 | 17 | 12 | 161 | 16 | 7.0 |
| 12 | 505 | 63 | 86 | 260 | 16 | 11 | 154 | 16 | 6.7 |
| 13 | 420 | 27 | 31 | 256 | 24 | 17 | 150 | 24 | 9.7 |
| 14 | 400 | 23 | 25 | 243 | 23 | 15 | 278 | 48 | 36 |
| 15 | 475 | 32 | 41 | 256 | 22 | 15 | 770 | 138 | 287 |
| 16 | 500 | 40 | 54 | 278 | 11 | 8.3 | 283 | 34 | 26 |
| 17 | 405 | 33 | 36 | 252 | 11 | 7.5 | 214 | 20 | 12 |
| 18 | 385 | 33 | 34 | 230 | 12 | 7.5 | 218 | 31 | 18 |
| 19 | 365 | 33 | 33 | 238 | 11 | 7.1 | 230 | 36 | 22 |
| 20 | 350 | 21 | 20 | 243 | 11 | 7.2 | 194 | 26 | 14 |
| 21 | 375 | 15 | 15 | 252 | 15 | 10 | 183 | 26 | 13 |
| 22 | 405 | 18 | 20 | 238 | 19 | 12 | 179 | 24 | 12 |
| 23 | 365 | 18 | 18 | 222 | 20 | 12 | 202 | 26 | 14 |
| 24 | 335 | 18 | 16 | 214 | 15 | 8.7 | 198 | 26 | 14 |
| 25 | 316 | 18 | 15 | 202 | 17 | 9.3 | 172 | 26 | 12 |
| 26 | 316 | 15 | 13 | 206 | 16 | 8.9 | 172 | 28 | 13 |
| 27 | 316 | 10 | 8.5 | 202 | 14 | 7.6 | 172 | 23 | 11 |
| 28 | 302 | 10 | 8.2 | 206 | 12 | 6.7 | 168 | 17 | 7.7 |
| 29 | 297 | 11 | 8.8 | 187 | 12 | 6.1 | 172 | 17 | 7.9 |
| 30 | 283 | 11 | 8.4 | 176 | 38 | 18 | 202 | 18 | 9.8 |
| 31 | 278 | 11 | 8.3 | 179 | 40 | 19 | -- | -- | -- |
| TOTAL | 16888 | -- | 7121.2 | 9290 | -- | 2613.9 | 6282 | -- | 669.5 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 219942
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 100640.4

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## 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.

DRAINAGE AREA.--314 sq mi (813 sq km).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1950, November 1951 to September 1952, October 1956 to September 1973.
Water temperatures: November 1956 to September 1961, February 1971 to September 1973.
Sediment records: December 1946 to September 1961, July 1962 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum, 29.0°C July 7, 8, Sept. 3, 6; minimum, freezing point on several days in December, January and February.
Sediment concentrations: Maximum daily, 1,100 mg/l June 29; minimum daily, 3 mg/l Feb. 28, Mar. 14, 23, 25.
Sediment discharge: Maximum daily, 11,900 tons (10,800 t) June 29, minimum daily, 3.3 tons (3.0 t) Oct. 15, Nov. 5, 6.

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, 33,000 tons (29,900 t) Feb. 14, 1966; 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 Parkville, Md. Streamflow records for the current water year are published in Part 1 of this report. Sediment samples are collected at Henry Clay Bridge.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT AT 0900)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.0 | 9.0 | 4.5 | 7.0 | 2.0 | 5.0 | 9.5 | 13.0 | 19.0 | 23.0 | 24.0 | 27.0 |
| 2 | 16.0 | 11.0 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 7.0 | 19.0 | 22.0 | 23.0 | 27.0 |
| 3 | 16.0 | 13.0 | 6.0 | 5.0 | 6.5 | 7.0 | 11.0 | 17.0 | 18.0 | 22.0 | 23.0 | 29.0 |
| 4 | 19.0 | 12.0 | 7.0 | 5.0 | 5.5 | 8.0 | 10.0 | 16.0 | 20.0 | 23.0 | 23.0 | 26.0 |
| 5 | 17.0 | 9.0 | 6.0 | 2.0 | 6.5 | 7.0 | 9.5 | 11.0 | 22.0 | 23.0 | 23.0 | 26.0 |
| 6 | 18.0 | 10.0 | 8.0 | 1.0 | 6.0 | 5.0 | 9.0 | 10.0 | 22.0 | 21.5 | 24.0 | 29.0 |
| 7 | 17.0 | 10.0 | 7.5 | 0.0 | 5.5 | 8.0 | 9.0 | 14.0 | 22.0 | 29.0 | 23.0 | 24.0 |
| 8 | 13.0 | 12.0 | 8.0 | 0.0 | 6.0 | 8.0 | 9.5 | 15.0 | 23.0 | 29.0 | 25.0 | 23.0 |
| 9 | 14.0 | 11.0 | 6.0 | 0.0 | 2.0 | 7.0 | 8.0 | 15.0 | 24.0 | 28.0 | 25.0 | 23.0 |
| 10 | 12.0 | 10.0 | 6.5 | 0.0 | 0.0 | 7.0 | 8.0 | 16.0 | 23.0 | 27.0 | 23.0 | 23.0 |
| 11 | 11.0 | 9.0 | 6.0 | 0.0 | 0.0 | 10.0 | 9.0 | 9.0 | 23.0 | 25.0 | 20.0 | 20.0 |
| 12 | 12.0 | 9.0 | 5.0 | 1.0 | 0.0 | 5.0 | 8.0 | 17.0 | 25.0 | 20.0 | 20.0 | 21.0 |
| 13 | 12.0 | 11.0 | 6.0 | 1.0 | 1.0 | 10.0 | 6.0 | 11.0 | 25.0 | 22.0 | 20.0 | 19.0 |
| 14 | 11.0 | 10.5 | 6.0 | 0.0 | 2.0 | 8.0 | 6.0 | 15.0 | 22.0 | 23.0 | 25.0 | 20.0 |
| 15 | 12.0 | 7.0 | 5.0 | 0.0 | 5.5 | 8.0 | 10.0 | 15.0 | 21.0 | 23.0 | 24.0 | 19.0 |
| 16 | 12.0 | 7.5 | 3.0 | 1.0 | 3.0 | 10.0 | 12.0 | 14.0 | 22.0 | 22.0 | 23.0 | 24.5 |
| 17 | 12.0 | 8.0 | 2.0 | 3.0 | 0.0 | 13.0 | 12.0 | 17.0 | 20.0 | 22.0 | 23.0 | 24.5 |
| 18 | 11.0 | 5.0 | 0.0 | 4.0 | 0.0 | 5.0 | 15.0 | 12.0 | 15.0 | 21.0 | 23.0 | 20.0 |
| 19 | 8.0 | 5.0 | 2.0 | 4.0 | 0.0 | 5.0 | --- | 14.0 | 15.0 | 20.0 | 23.0 | 23.5 |
| 20 | 7.0 | 6.5 | 5.0 | 5.0 | 3.0 | 5.0 | 16.0 | 14.0 | 20.0 | 24.0 | 23.0 | 18.5 |
| 21 | 7.0 | 5.5 | 6.0 | 4.0 | 4.0 | 5.0 | 12.0 | 14.0 | 21.0 | 25.0 | 23.0 | 16.5 |
| 22 | 8.0 | 3.0 | 7.0 | 4.0 | 4.0 | 5.0 | 12.0 | 14.0 | 21.0 | 22.0 | 21.0 | 16.0 |
| 23 | 8.0 | 6.0 | 6.0 | 6.5 | 4.0 | 5.0 | 20.0 | 14.0 | 20.0 | 23.0 | 21.0 | 18.5 |
| 24 | 10.0 | 4.0 | 5.0 | 5.0 | 4.0 | 5.0 | 17.0 | 15.0 | 25.0 | 23.0 | 23.0 | 18.5 |
| 25 | 12.0 | 7.0 | 5.0 | 2.0 | 3.0 | --- | 7.0 | 12.0 | 20.0 | 23.0 | 22.0 | 19.5 |
| 26 | 9.0 | 8.0 | 6.0 | 5.0 | 3.0 | 10.0 | --- | 13.0 | 21.0 | 24.0 | 23.0 | 18.5 |
| 27 | 8.0 | 8.0 | 6.0 | 5.0 | 4.0 | 10.0 | 11.0 | 13.0 | 25.0 | 24.0 | 23.0 | 19.0 |
| 28 | 12.0 | 8.0 | 5.0 | 5.5 | 4.0 | 8.0 | 10.5 | 13.5 | 23.0 | 25.0 | 26.0 | 20.0 |
| 29 | 13.5 | 5.0 | --- | 3.5 | --- | 10.0 | 11.0 | 15.5 | 21.5 | 24.0 | 27.0 | 20.0 |
| 30 | 12.0 | 4.0 | 5.0 | 0.0 | --- | 10.0 | 11.0 | 18.0 | 23.0 | 21.0 | 27.0 | 19.5 |
| 31 | 14.0 | --- | 7.0 | 1.0 | --- | 10.0 | --- | 17.5 | --- | 25.0 | 28.0 | --- |
| AVG | 12.0 | 8.0 | 5.5 | 3.0 | 3.5 | 7.5 | 10.5 | 14.0 | 21.5 | 23.5 | 23.5 | 22.0 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN. 29... | 1330 | 3430 | 560 | 5190 | 28 | 44 | 60 | 81 | 93 | 98 | 99 | 100 |

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 192 | 8 | 4.1 | 194 | 8 | 4.2 | 1050 | 62 | 176 |
| 2 | 179 | 8 | 3.9 | 195 | 8 | 4.2 | 800 | 15 | 32 |
| 3 | 169 | 8 | 3.7 | 182 | 7 | 3.4 | 700 | 13 | 25 |
| 4 | 161 | 8 | 3.5 | 179 | 7 | 3.4 | 540 | 8 | 12 |
| 5 | 162 | 8 | 3.5 | 176 | 7 | 3.3 | 400 | 17 | 18 |
| 6 | 218 | 8 | 4.7 | 174 | 7 | 3.3 | 700 | 62 | 117 |
| 7 | 660 | 62 | 110 | 167 | 20 | 9.0 | 1200 | 220 | 713 |
| 8 | 376 | 26 | 26 | 1770 | 228 | 1090 | 920 | 116 | 288 |
| 9 | 223 | 18 | 11 | 1250 | 170 | 574 | 2670 | 268 | 1930 |
| 10 | 177 | 13 | 6.2 | 440 | 39 | 46 | 1400 | 100 | 378 |
| 11 | 162 | 8 | 3.5 | 460 | 16 | 20 | 1100 | 22 | 65 |
| 12 | 164 | 8 | 3.5 | 360 | 15 | 15 | 900 | 20 | 49 |
| 13 | 163 | 8 | 3.5 | 280 | 11 | 8.3 | 880 | 8 | 19 |
| 14 | 159 | 8 | 3.4 | 2600 | 304 | 2130 | 800 | 7 | 15 |
| 15 | 155 | 8 | 3.3 | 2730 | 248 | 1830 | 980 | 26 | 69 |
| 16 | 153 | 14 | 5.8 | 800 | 110 | 238 | 1730 | 98 | 458 |
| 17 | 152 | 15 | 6.2 | 620 | 64 | 107 | 840 | 40 | 91 |
| 18 | 145 | 18 | 7.0 | 500 | 13 | 18 | 740 | 10 | 20 |
| 19 | 236 | 14 | 8.9 | 420 | 11 | 12 | 700 | 10 | 19 |
| 20 | 326 | 12 | 11 | 2430 | 185 | 1210 | 740 | 10 | 20 |
| 21 | 198 | 11 | 5.9 | 640 | 60 | 104 | 760 | 9 | 18 |
| 22 | 183 | 11 | 5.4 | 430 | 45 | 52 | 2060 | 118 | 656 |
| 23 | 179 | 10 | 4.8 | 370 | 25 | 25 | 1370 | 60 | 222 |
| 24 | 176 | 8 | 3.8 | 330 | 5 | 4.5 | 976 | 44 | 116 |
| 25 | 169 | 8 | 3.7 | 310 | 5 | 4.2 | 860 | 10 | 23 |
| 26 | 167 | 8 | 3.6 | 1200 | 32 | 104 | 800 | 7 | 15 |
| 27 | 164 | 8 | 3.5 | 640 | 43 | 74 | 820 | 6 | 13 |
| 28 | 268 | 17 | 12 | 400 | 10 | 11 | 720 | 6 | 12 |
| 29 | 471 | 44 | 56 | 380 | 7 | 7.2 | 680 | 6 | 11 |
| 30 | 257 | 20 | 14 | 460 | 15 | 19 | 680 | 4 | 7.3 |
| 31 | 204 | 10 | 5.5 | -- | -- | -- | 819 | 8 | 18 |
| TOTAL | 6768 | -- | 350.9 | 21087 | -- | 7734.0 | 30335 | -- | 5625.3 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 912 | 11 | 27 | 763 | 15 | 31 | 600 | 4 | 6.5 |
| 2 | 733 | 9 | 18 | 2310 | 200 | 1250 | 598 | 4 | 6.5 |
| 3 | 648 | 8 | 14 | 2580 | 317 | 2210 | 663 | 5 | 9.0 |
| 4 | 1140 | 42 | 129 | 1210 | 140 | 457 | 877 | 22 | 52 |
| 5 | 940 | 14 | 36 | 1080 | 24 | 70 | 778 | 18 | 38 |
| 6 | 720 | 7 | 14 | 988 | 17 | 45 | 719 | 11 | 21 |
| 7 | 600 | 7 | 11 | 1060 | 18 | 52 | 701 | 6 | 11 |
| 8 | 580 | 7 | 11 | 1010 | 16 | 44 | 777 | 12 | 25 |
| 9 | 560 | 6 | 9.1 | 1140 | 30 | 92 | 778 | 11 | 23 |
| 10 | 540 | 5 | 7.3 | 893 | 12 | 29 | 686 | 11 | 20 |
| 11 | 540 | 5 | 7.3 | 781 | 15 | 32 | 645 | 7 | 12 |
| 12 | 520 | 7 | 9.8 | 717 | 8 | 15 | 673 | 8 | 15 |
| 13 | 540 | 6 | 8.7 | 704 | 8 | 15 | 621 | 8 | 13 |
| 14 | 500 | 6 | 8.1 | 700 | 7 | 13 | 585 | 3 | 4.7 |
| 15 | 520 | 4 | 5.6 | 1200 | 113 | 366 | 583 | 6 | 9.4 |
| 16 | 520 | 5 | 7.0 | 939 | 66 | 167 | 586 | 12 | 19 |
| 17 | 520 | 6 | 8.4 | 704 | 31 | 59 | 788 | 22 | 47 |
| 18 | 500 | 6 | 8.1 | 655 | 10 | 18 | 838 | 35 | 79 |
| 19 | 525 | 6 | 8.5 | 643 | 6 | 10 | 629 | 12 | 20 |
| 20 | 637 | 11 | 19 | 660 | 6 | 11 | 576 | 13 | 20 |
| 21 | 528 | 6 | 8.6 | 700 | 5 | 9.5 | 559 | 6 | 9.1 |
| 22 | 620 | 27 | 45 | 710 | 5 | 9.6 | 551 | 4 | 6.0 |
| 23 | 1030 | 140 | 389 | 670 | 6 | 11 | 535 | 3 | 4.3 |
| 24 | 646 | 32 | 56 | 650 | 6 | 11 | 518 | 8 | 11 |
| 25 | 560 | 9 | 14 | 620 | 5 | 8.4 | 522 | 3 | 4.2 |
| 26 | 515 | 8 | 11 | 620 | 5 | 8.4 | 1590 | 116 | 498 |
| 27 | 837 | 125 | 282 | 626 | 5 | 8.5 | 957 | 65 | 168 |
| 28 | 1320 | 215 | 766 | 608 | 3 | 4.9 | 703 | 46 | 87 |
| 29 | 2850 | 513 | 3950 | -- | -- | -- | 629 | 12 | 20 |
| 30 | 1180 | 125 | 398 | -- | -- | -- | 650 | 8 | 14 |
| 31 | 852 | 35 | 81 | -- | -- | -- | 687 | 7 | 13 |
| TOTAL | 23633 | -- | 6367.5 | 25941 | -- | 5057.3 | 21602 | -- | 1285.7 |

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 1230 | 100 | 332 | 832 | 11 | 25 | 882 | 25 | 60 |
| 2 | 3610 | 705 | 6870 | 795 | 10 | 21 | 821 | 20 | 44 |
| 3 | 1500 | 190 | 770 | 842 | 18 | 41 | 801 | 18 | 39 |
| 4 | 1600 | 100 | 432 | 887 | 25 | 60 | 800 | 14 | 30 |
| 5 | 1700 | 180 | 826 | 781 | 14 | 30 | 863 | 16 | 37 |
| 6 | 953 | 35 | 90 | 739 | 13 | 26 | 744 | 13 | 26 |
| 7 | 899 | 24 | 58 | 704 | 12 | 23 | 744 | 15 | 30 |
| 8 | 1840 | 56 | 278 | 687 | 12 | 22 | 784 | 20 | 42 |
| 9 | 1480 | 82 | 328 | 1110 | 52 | 156 | 656 | 15 | 27 |
| 10 | 1540 | 69 | 287 | 880 | 32 | 76 | 626 | 12 | 20 |
| 11 | 1120 | 66 | 200 | 735 | 13 | 26 | 605 | 16 | 26 |
| 12 | 953 | 25 | 64 | 692 | 13 | 24 | 598 | 21 | 34 |
| 13 | 899 | 8 | 19 | 673 | 12 | 22 | 728 | 30 | 59 |
| 14 | 845 | 9 | 21 | 647 | 12 | 21 | 619 | 24 | 40 |
| 15 | 809 | 10 | 22 | 644 | 12 | 21 | 570 | 20 | 31 |
| 16 | 744 | 7 | 14 | 657 | 11 | 20 | 656 | 49 | 87 |
| 17 | 752 | 10 | 20 | 643 | 9 | 16 | 792 | 106 | 227 |
| 18 | 792 | 12 | 26 | 702 | 14 | 27 | 605 | 70 | 114 |
| 19 | 736 | 13 | 26 | 636 | 14 | 24 | 605 | 30 | 49 |
| 20 | 688 | 12 | 22 | 717 | 21 | 41 | 605 | 21 | 34 |
| 21 | 648 | 10 | 17 | 854 | 32 | 74 | 591 | 24 | 38 |
| 22 | 640 | 10 | 17 | 671 | 17 | 31 | 760 | 43 | 88 |
| 23 | 664 | 14 | 25 | 646 | 18 | 31 | 720 | 25 | 49 |
| 24 | 899 | 32 | 78 | 767 | 23 | 48 | 612 | 16 | 26 |
| 25 | 696 | 16 | 30 | 892 | 29 | 70 | 1410 | 370 | 1410 |
| 26 | 1750 | 75 | 354 | 825 | 26 | 58 | 728 | 109 | 214 |
| 27 | 1190 | 47 | 151 | 854 | 31 | 71 | 656 | 91 | 161 |
| 28 | 1390 | 67 | 251 | 2370 | 360 | 2300 | 900 | 31 | 75 |
| 29 | 987 | 20 | 53 | 1770 | 168 | 803 | 4000 | 1100 | 11900 |
| 30 | 884 | 12 | 29 | 1120 | 46 | 139 | 4500 | 625 | 7590 |
| 31 | -- | -- | -- | 926 | 32 | 80 | -- | -- | -- |
| TOTAL | 34438 | -- | 11710 | 26698 | -- | 4427 | 28981 | -- | 22607 |

| | 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 | 1130 | 270 | 824 | 345 | 40 | 37 | 184 | 8 | 4.0 |
| 2 | 971 | 200 | 524 | 1880 | 305 | 1550 | 186 | 9 | 4.5 |
| 3 | 1070 | 170 | 491 | 728 | 82 | 161 | 228 | 31 | 19 |
| 4 | 2960 | 500 | 4000 | 424 | 26 | 30 | 268 | 32 | 23 |
| 5 | 1460 | 400 | 1580 | 364 | 21 | 21 | 202 | 18 | 9.8 |
| 6 | 900 | 99 | 241 | 332 | 21 | 19 | 191 | 11 | 5.7 |
| 7 | 664 | 29 | 52 | 305 | 26 | 21 | 193 | 12 | 6.3 |
| 8 | 589 | 23 | 37 | 295 | 28 | 22 | 178 | 10 | 4.8 |
| 9 | 543 | 20 | 29 | 285 | 28 | 22 | 172 | 13 | 6.0 |
| 10 | 514 | 19 | 26 | 270 | 23 | 17 | 170 | 14 | 6.4 |
| 11 | 620 | 42 | 70 | 265 | 22 | 16 | 168 | 14 | 6.4 |
| 12 | 631 | 56 | 95 | 275 | 20 | 15 | 171 | 15 | 6.9 |
| 13 | 495 | 30 | 40 | 285 | 19 | 15 | 162 | 16 | 7.0 |
| 14 | 470 | 26 | 33 | 290 | 16 | 13 | 344 | 44 | 41 |
| 15 | 558 | 52 | 78 | 310 | 20 | 17 | 907 | 88 | 216 |
| 16 | 613 | 76 | 126 | 326 | 21 | 18 | 366 | 35 | 35 |
| 17 | 479 | 55 | 71 | 295 | 25 | 20 | 266 | 22 | 16 |
| 18 | 456 | 29 | 36 | 270 | 20 | 15 | 261 | 14 | 9.9 |
| 19 | 436 | 25 | 29 | 285 | 16 | 12 | 279 | 12 | 9.0 |
| 20 | 411 | 23 | 26 | 280 | 14 | 11 | 231 | 12 | 7.5 |
| 21 | 436 | 16 | 19 | 305 | 16 | 13 | 213 | 11 | 6.3 |
| 22 | 477 | 14 | 18 | 280 | 15 | 11 | 200 | 11 | 5.9 |
| 23 | 436 | 20 | 24 | 265 | 17 | 12 | 223 | 10 | 6.0 |
| 24 | 398 | 19 | 20 | 245 | 14 | 9.3 | 231 | 11 | 6.9 |
| 25 | 369 | 21 | 21 | 233 | 11 | 6.9 | 193 | 11 | 5.7 |
| 26 | 368 | 21 | 21 | 237 | 10 | 6.4 | 182 | 11 | 5.4 |
| 27 | 368 | 22 | 22 | 225 | 9 | 5.5 | 179 | 10 | 4.8 |
| 28 | 358 | 18 | 17 | 231 | 9 | 5.6 | 178 | 10 | 4.8 |
| 29 | 337 | 16 | 15 | 208 | 9 | 5.1 | 200 | 10 | 5.4 |
| 30 | 325 | 14 | 12 | 186 | 9 | 4.5 | 227 | 10 | 6.1 |
| 31 | 312 | 14 | 12 | 193 | 8 | 4.2 | -- | -- | -- |
| TOTAL | 20154 | -- | 8609 | 10717 | -- | 2135.5 | 7153 | -- | 501.5 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 257507
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 76410.7

## 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 sq mi (28,570 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1973.
Water temperatures: October 1956 to September 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum, 9,200 micromhos Oct. 6; minimum, 125 micromhos July 6.
Dissolved oxygen: Maximum, 12.0 mg/l Dec. 18; minimum, 0.0 mg/l July 1.
Water temperatures: Maximum, 29.0°C several days in August and September; minimum, 1.0°C Feb. 18, 20, 21.

Period of record:
Specific conductance: Maximum, 14,600 micromhos Oct. 6, 1957; minimum, 100 micromhos on many days.
Dissolved oxygen (1962-73): Maximum, 13.5 mg/l Dec. 29, 1969; minimum, 0.0 mg/l on many days during summer.
Water temperatures (1956-73): 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, Part 1, Surface Water Records."

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 8680 | 3480 | 5960 | --- | --- | --- | --- | --- | --- | 283 | 233 | 247 |
| 2 | 8620 | 4000 | 6160 | --- | --- | --- | --- | --- | --- | 245 | 219 | 231 |
| 3 | 9140 | 4100 | 6190 | --- | --- | --- | --- | --- | --- | 233 | 199 | 224 |
| 4 | 8340 | 4200 | 5970 | --- | --- | --- | 260 | 200 | --- | 235 | 219 | 227 |
| 5 | 8800 | 4140 | 6350 | --- | --- | --- | 280 | 200 | 229 | 233 | 218 | 227 |
| 6 | 9200 | 4560 | 6840 | 7920 | 3440 | --- | 280 | 220 | 231 | 236 | 215 | 224 |
| 7 | 8620 | 3680 | 6050 | 7880 | 3180 | 5320 | 260 | 200 | 218 | 224 | 209 | 219 |
| 8 | 7580 | 2880 | 5040 | 8960 | 3860 | --- | 240 | 200 | 218 | 249 | 218 | 224 |
| 9 | 7220 | 2480 | 4660 | --- | --- | --- | 220 | 200 | 210 | 255 | 209 | 231 |
| 10 | 6940 | 2540 | 4420 | --- | --- | --- | 220 | 200 | 203 | 244 | 204 | 223 |
| 11 | 7240 | 3040 | 4840 | --- | --- | --- | 220 | 200 | 201 | 254 | 204 | 226 |
| 12 | 6800 | 2780 | 4830 | --- | --- | --- | 200 | 180 | 198 | 247 | 199 | 219 |
| 13 | 6900 | 2860 | 4620 | --- | --- | --- | 200 | 180 | 194 | 301 | 203 | 232 |
| 14 | 7720 | 3420 | 5230 | --- | --- | --- | 200 | 180 | 189 | 407 | 199 | 256 |
| 15 | 6000 | 2160 | 4280 | --- | --- | --- | 240 | 180 | 193 | 445 | 199 | 260 |
| 16 | 7260 | 2880 | 5050 | --- | --- | --- | 200 | 180 | 186 | 613 | 217 | 288 |
| 17 | 6380 | 2020 | 4440 | --- | --- | --- | 200 | 180 | 183 | 626 | 219 | 296 |
| 18 | 5980 | 2780 | 4450 | --- | --- | --- | 240 | 180 | 207 | 779 | 229 | 338 |
| 19 | 5820 | 2840 | 4320 | --- | --- | --- | 270 | 209 | 224 | 998 | 235 | 421 |
| 20 | 6740 | 2700 | 4570 | --- | --- | --- | 336 | 219 | 244 | 649 | 248 | 340 |
| 21 | 6660 | 2720 | --- | --- | --- | --- | 376 | 225 | 262 | 560 | 250 | 310 |
| 22 | 6900 | 2620 | 4650 | --- | --- | --- | 384 | 210 | 271 | 998 | 261 | 523 |
| 23 | 8020 | 2760 | 5110 | --- | --- | --- | 289 | 226 | 243 | 672 | 270 | 401 |
| 24 | 8280 | 2880 | 5370 | --- | --- | --- | 255 | 230 | 239 | 420 | 276 | 309 |
| 25 | --- | --- | --- | --- | --- | --- | 259 | 234 | 245 | 311 | 278 | 290 |
| 26 | --- | --- | --- | --- | --- | --- | 257 | 238 | 248 | 332 | 283 | 300 |
| 27 | --- | --- | --- | --- | --- | --- | 252 | 227 | 244 | 346 | 290 | 303 |
| 28 | --- | --- | --- | --- | --- | --- | 255 | 235 | 241 | 326 | 290 | 302 |
| 29 | --- | --- | --- | --- | --- | --- | 268 | 233 | 242 | 306 | 270 | 290 |
| 30 | --- | --- | --- | --- | --- | --- | 281 | 235 | 246 | 303 | 262 | 275 |
| 31 | --- | --- | --- | --- | --- | --- | 277 | 234 | 249 | 291 | 253 | 268 |
| MONTH | --- | --- | --- | --- | --- | --- | 384 | 180 | 224 | 998 | 199 | 281 |

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 318 | 249 | 271 | 977 | 307 | --- | 1230 | 220 | 484 | --- | --- | --- |
| 2 | 407 | 251 | 286 | 884 | 370 | --- | 635 | 210 | 332 | --- | --- | --- |
| 3 | 268 | 209 | 228 | 983 | 496 | --- | 310 | 210 | 230 | --- | --- | --- |
| 4 | 226 | 207 | 217 | 996 | 707 | --- | 255 | 210 | 221 | 385 | 280 | --- |
| 5 | 222 | 193 | 208 | 977 | 753 | --- | 235 | 195 | 210 | 470 | 280 | 324 |
| 6 | 212 | 188 | 200 | --- | --- | --- | 210 | 190 | 196 | 690 | 280 | 364 |
| 7 | 210 | 196 | 201 | --- | --- | --- | 200 | 180 | 190 | 635 | 285 | 392 |
| 8 | 205 | 199 | 202 | --- | --- | --- | 195 | 160 | 183 | 765 | 295 | 454 |
| 9 | 203 | 188 | 198 | --- | --- | --- | 190 | 160 | 176 | 740 | 295 | 424 |
| 10 | 202 | 194 | 197 | --- | --- | --- | 185 | 160 | 168 | 470 | 290 | 356 |
| 11 | 205 | 196 | 200 | --- | --- | --- | 165 | 150 | 159 | 480 | 290 | 348 |
| 12 | 355 | 199 | 230 | 540 | 305 | --- | 165 | 150 | 157 | 395 | 290 | 324 |
| 13 | 717 | 201 | 271 | 855 | 305 | 482 | 165 | 150 | 159 | 345 | 295 | 306 |
| 14 | 519 | 200 | 268 | 1080 | 310 | 540 | 165 | 155 | 161 | 315 | 285 | 295 |
| 15 | 966 | 209 | 363 | 1070 | 305 | 540 | 180 | 160 | 164 | 315 | 280 | 289 |
| 16 | 400 | 205 | 239 | 1100 | 310 | 589 | 175 | 150 | 167 | 315 | 280 | 290 |
| 17 | 433 | 212 | 265 | 1200 | 585 | 873 | 180 | 170 | 175 | 335 | 275 | 290 |
| 18 | 808 | 224 | 428 | 785 | 425 | 528 | 190 | 175 | 181 | 305 | 260 | 278 |
| 19 | 709 | 268 | 406 | 520 | 275 | 394 | 195 | 180 | 187 | 300 | 255 | 278 |
| 20 | 871 | 248 | 384 | 400 | 275 | 321 | 200 | 185 | 191 | 305 | 245 | 273 |
| 21 | 931 | 251 | 491 | 515 | 275 | 350 | 205 | 190 | 197 | 285 | 215 | 253 |
| 22 | 998 | 250 | 422 | 445 | 260 | 328 | 210 | 195 | 200 | 260 | 205 | 237 |
| 23 | 763 | 257 | 397 | 405 | 255 | 306 | 255 | 200 | 219 | 255 | 200 | 227 |
| 24 | 906 | 260 | 384 | 515 | 255 | 329 | 265 | 235 | 244 | 250 | 205 | 223 |
| 25 | 615 | 259 | 346 | 805 | 240 | 327 | 270 | 240 | 248 | 230 | 200 | 216 |
| 26 | 799 | 270 | 378 | 670 | 230 | 334 | 265 | 240 | --- | 230 | 200 | 213 |
| 27 | 917 | 277 | 521 | 470 | 230 | 297 | --- | --- | --- | 235 | 190 | 208 |
| 28 | 969 | 293 | --- | 650 | 230 | 353 | --- | --- | --- | 225 | 185 | 204 |
| 29 | --- | --- | --- | 640 | 220 | 319 | --- | --- | --- | 200 | 185 | 194 |
| 30 | --- | --- | --- | 660 | 215 | 343 | --- | --- | --- | 210 | 175 | 193 |
| 31 | --- | --- | --- | 1310 | 215 | 430 | --- | --- | --- | 210 | 190 | 197 |
| MONTH | 998 | 188 | 304 | 1310 | 215 | --- | 1230 | 150 | 208 | 765 | 175 | 283 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 225 | 195 | 202 | 255 | 195 | 226 | 1700 | 440 | 1010 | 2540 | 970 | 1830 |
| 2 | 260 | 200 | 212 | 230 | 155 | 194 | 1860 | 305 | 940 | 2540 | 1020 | 1840 |
| 3 | 290 | 200 | 218 | 220 | 150 | 177 | 1050 | 270 | 591 | 2550 | 1100 | 1880 |
| 4 | 255 | 210 | 224 | 185 | 135 | 160 | 725 | 275 | 462 | 2460 | 1140 | 1870 |
| 5 | 265 | 200 | 225 | 170 | 130 | 149 | 640 | 275 | 411 | 2580 | 1180 | 1940 |
| 6 | 260 | 215 | 232 | 155 | 125 | 142 | 680 | 290 | 427 | 2540 | 1240 | 1930 |
| 7 | 265 | 205 | 232 | 155 | 140 | 144 | 840 | 295 | 452 | 2460 | 1150 | 1850 |
| 8 | 255 | 225 | 234 | 160 | 145 | 148 | 920 | 300 | 476 | 2540 | 1180 | 1860 |
| 9 | 250 | 205 | 232 | 195 | 145 | 155 | 955 | 300 | 484 | 2720 | 1260 | 1920 |
| 10 | 250 | 230 | 238 | 215 | 150 | 163 | 1030 | 310 | 508 | 3390 | 1240 | 2290 |
| 11 | 265 | 235 | 244 | 210 | 160 | 171 | 1000 | 330 | 561 | 3400 | 1570 | 2530 |
| 12 | 280 | 240 | 251 | 190 | 155 | 172 | 945 | 320 | 569 | 3370 | 1570 | 2540 |
| 13 | 275 | 245 | 254 | 190 | 170 | --- | 1110 | 330 | 594 | 3510 | 1500 | 2690 |
| 14 | 310 | 250 | 261 | --- | --- | --- | 1290 | 370 | 714 | 3820 | 1910 | 2940 |
| 15 | 350 | 250 | 271 | --- | --- | --- | 1500 | 405 | 822 | 3950 | 1490 | 2660 |
| 16 | 430 | 255 | 301 | --- | --- | --- | 1430 | 405 | 882 | 3560 | 1310 | 2490 |
| 17 | 355 | 260 | 292 | --- | --- | --- | 1560 | 430 | 937 | 3710 | 1270 | 2460 |
| 18 | 445 | 255 | 318 | --- | --- | --- | 1770 | 390 | 944 | 3590 | 1220 | 2520 |
| 19 | 370 | 270 | 322 | 860 | 210 | --- | 1710 | 425 | 1000 | 3530 | 1250 | 2380 |
| 20 | 480 | 270 | 333 | 935 | 205 | 484 | 1880 | 480 | 1120 | 3350 | 1010 | 2400 |
| 21 | 620 | 275 | 369 | 875 | 225 | 499 | 1990 | 530 | 1220 | 3600 | 1210 | 2380 |
| 22 | 610 | 255 | 354 | 885 | 245 | 505 | 2050 | 460 | 1210 | 3700 | 1390 | 2470 |
| 23 | 555 | 275 | 355 | 920 | 235 | 481 | 2110 | 510 | 1210 | 3310 | 1150 | 2300 |
| 24 | 595 | 275 | 377 | 1360 | 240 | 505 | 2220 | 495 | 1180 | 3510 | 1180 | 2300 |
| 25 | 665 | 255 | 367 | 1230 | 250 | 570 | 2340 | 540 | 1280 | 3420 | 1460 | 2590 |
| 26 | 890 | 255 | 385 | 1210 | 275 | 632 | 2320 | 535 | 1370 | 3670 | 1470 | 2520 |
| 27 | 1090 | 255 | 416 | 1260 | 280 | 661 | 2670 | 570 | 1420 | 3630 | 1350 | 2430 |
| 28 | 1080 | 265 | 476 | 1460 | 320 | 684 | 2330 | 640 | 1550 | 3490 | 1300 | 2390 |
| 29 | 885 | 250 | 403 | 1360 | 335 | 735 | 2440 | 705 | 1640 | 3640 | 1510 | 2550 |
| 30 | 420 | 245 | 261 | 1500 | 360 | 818 | 2480 | 790 | 1740 | 3600 | 1560 | 2530 |
| 31 | --- | --- | --- | 1650 | 390 | 892 | 2580 | 905 | 1780 | --- | --- | --- |
| MONTH | 1090 | 195 | 295 | 1650 | 125 | --- | 2670 | 270 | 951 | 3950 | 970 | 2310 |

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 6.7 | 6.5 | 6.6 | 6.5 | 6.3 | 6.4 | 6.5 | 6.3 | 6.4 | --- | --- | --- |
| 2 | 7.0 | 5.3 | 6.4 | 6.5 | 6.3 | 6.4 | 6.5 | 6.3 | --- | --- | --- | --- |
| 3 | 7.0 | 6.4 | 6.7 | 6.5 | 6.3 | 6.5 | --- | --- | --- | --- | --- | --- |
| 4 | 6.6 | 6.4 | 6.5 | 6.5 | 6.4 | 6.5 | --- | --- | --- | 6.7 | 6.6 | --- |
| 5 | 6.5 | 6.4 | --- | 6.6 | 6.3 | 6.5 | --- | --- | --- | 6.7 | 6.6 | 6.7 |
| 6 | --- | --- | --- | 7.1 | 6.4 | 6.7 | --- | --- | --- | 6.8 | 6.6 | 6.7 |
| 7 | --- | --- | --- | 6.8 | 6.6 | 6.7 | --- | --- | --- | 6.7 | 6.6 | 6.7 |
| 8 | --- | --- | --- | 6.8 | 6.5 | 6.7 | --- | --- | --- | 6.7 | 6.6 | 6.7 |
| 9 | --- | --- | --- | 6.6 | 6.4 | 6.5 | 6.6 | 6.5 | --- | 6.8 | 6.6 | 6.7 |
| 10 | --- | --- | --- | 7.2 | 6.4 | 6.6 | 6.6 | 6.5 | 6.6 | 6.7 | 6.6 | 6.7 |
| 11 | --- | --- | --- | 7.8 | 7.1 | 7.6 | 6.6 | 6.5 | 6.6 | 6.7 | 6.6 | 6.7 |
| 12 | --- | --- | --- | 8.1 | 6.5 | 7.2 | 6.6 | 6.3 | 6.5 | 6.7 | 6.7 | 6.7 |
| 13 | --- | --- | --- | 6.5 | 6.4 | 6.5 | 6.6 | 6.4 | 6.5 | 6.7 | 6.7 | 6.7 |
| 14 | --- | --- | --- | 6.6 | 6.5 | 6.5 | 6.6 | 6.5 | 6.5 | 6.7 | 6.4 | 6.6 |
| 15 | --- | --- | --- | 7.1 | 6.5 | 6.8 | 6.5 | 6.4 | 6.5 | 6.5 | 6.4 | 6.5 |
| 16 | --- | --- | --- | 6.8 | 6.7 | 6.7 | 6.5 | 6.4 | 6.5 | 6.5 | 6.3 | 6.4 |
| 17 | --- | --- | --- | --- | --- | --- | 6.5 | 6.4 | 6.5 | 6.5 | 6.3 | 6.4 |
| 18 | --- | --- | --- | --- | --- | --- | 6.5 | 6.5 | 6.5 | 6.5 | 6.3 | 6.4 |
| 19 | --- | --- | --- | --- | --- | --- | 6.5 | 6.4 | 6.5 | 6.5 | 6.4 | 6.4 |
| 20 | 6.5 | 6.4 | --- | 6.8 | 6.7 | --- | 6.5 | 6.3 | 6.4 | 6.5 | 6.4 | 6.4 |
| 21 | 6.4 | 6.4 | 6.4 | 6.9 | 6.6 | 6.8 | 6.4 | 6.3 | 6.4 | 6.4 | 6.3 | 6.4 |
| 22 | 6.4 | 6.4 | 6.4 | 6.8 | 6.6 | 6.8 | 6.4 | 6.3 | 6.4 | 6.5 | 6.3 | 6.4 |
| 23 | 6.5 | 6.4 | 6.4 | 6.8 | 6.6 | 6.7 | 6.4 | 6.3 | --- | 6.5 | 6.4 | 6.5 |
| 24 | 6.4 | 6.4 | 6.4 | 6.8 | 6.6 | 6.7 | --- | --- | --- | 6.5 | 6.3 | 6.4 |
| 25 | 6.4 | 6.4 | 6.4 | 6.7 | 6.5 | 6.6 | --- | --- | --- | 6.5 | 6.2 | 6.4 |
| 26 | 6.5 | 6.3 | 6.4 | 6.7 | 6.4 | 6.6 | --- | --- | --- | 6.4 | 6.3 | 6.4 |
| 27 | 6.5 | 6.3 | 6.5 | 6.6 | 6.5 | 6.6 | --- | --- | --- | 6.4 | 6.3 | 6.4 |
| 28 | 6.5 | 6.2 | 6.4 | 6.6 | 6.3 | 6.6 | --- | --- | --- | 7.1 | 6.3 | 6.9 |
| 29 | --- | --- | --- | 6.6 | 6.5 | 6.6 | --- | --- | --- | 7.1 | 6.3 | 6.7 |
| 30 | --- | --- | --- | 6.6 | 6.4 | 6.5 | --- | --- | --- | 6.7 | 6.3 | 6.4 |
| 31 | --- | --- | --- | 6.5 | 6.4 | 6.5 | --- | --- | --- | 6.8 | 6.3 | 6.5 |
| MONTH | --- | --- | --- | 8.1 | 6.3 | 6.7 | --- | --- | --- | 7.1 | 6.2 | 6.5 |

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 5.2 | 2.1 | 3.7 | --- | --- | --- | --- | --- | --- | 9.5 | 8.9 | 9.3 |
| 2 | 5.0 | 2.6 | 3.8 | --- | --- | --- | --- | --- | --- | 9.2 | 8.7 | 8.9 |
| 3 | 5.1 | 2.2 | 3.6 | --- | --- | --- | --- | --- | --- | 9.1 | 8.6 | 8.8 |
| 4 | 5.0 | 1.9 | 3.4 | --- | --- | --- | 11.4 | 9.9 | --- | 9.3 | 8.6 | 8.8 |
| 5 | 5.2 | 2.1 | 3.9 | --- | --- | --- | 11.4 | 9.7 | 10.8 | 9.7 | 8.6 | 9.1 |
| 6 | 5.6 | 3.1 | 4.5 | 4.7 | 1.2 | --- | 10.7 | 9.2 | 10.2 | 10.0 | 9.0 | 9.7 |
| 7 | 5.5 | 3.3 | 4.5 | 3.6 | 1.0 | 2.3 | 10.5 | 9.2 | 9.8 | 10.3 | 9.8 | 10.1 |
| 8 | 6.0 | 2.7 | 4.7 | 3.7 | 1.6 | 2.5 | 10.4 | 8.8 | 9.7 | 10.3 | 9.9 | --- |
| 9 | 5.7 | 2.5 | 4.3 | 3.9 | 2.3 | 3.1 | 10.6 | 9.9 | 10.2 | --- | --- | --- |
| 10 | 5.5 | 2.2 | 4.0 | 4.0 | 3.0 | 3.6 | 11.1 | 9.2 | 10.0 | --- | --- | --- |
| 11 | 5.6 | 2.4 | 4.1 | 4.3 | 3.0 | 3.4 | 9.5 | 8.3 | 8.9 | --- | --- | --- |
| 12 | 5.3 | 1.9 | 3.8 | 4.8 | 2.8 | 3.7 | 9.6 | 8.6 | 9.0 | --- | --- | --- |
| 13 | 4.9 | 1.5 | 3.3 | 4.5 | 3.3 | 3.9 | 10.0 | 8.8 | 9.2 | --- | --- | --- |
| 14 | 5.4 | 1.9 | 3.6 | 5.0 | 3.7 | 4.4 | 9.8 | 8.0 | 9.3 | --- | --- | --- |
| 15 | 5.1 | 1.3 | 3.2 | 5.7 | 4.9 | 5.3 | 9.6 | 9.1 | 9.4 | 9.7 | 9.2 | --- |
| 16 | 5.7 | 2.1 | 4.1 | 5.9 | 5.6 | 5.7 | 10.5 | 9.5 | 10.0 | 10.0 | 8.9 | 9.4 |
| 17 | 5.3 | 2.7 | 4.0 | 6.4 | 5.7 | 6.0 | 10.9 | 10.2 | 10.6 | 9.7 | 8.5 | 9.1 |
| 18 | 4.9 | 2.8 | 4.0 | 6.6 | 6.1 | 6.3 | 12.0 | 10.4 | 11.2 | 9.6 | 8.4 | 8.9 |
| 19 | 4.7 | 2.8 | 3.9 | 6.5 | 6.0 | 6.3 | 11.8 | 10.3 | 11.1 | 9.5 | 8.2 | 8.8 |
| 20 | 4.7 | 2.7 | 4.0 | 6.6 | 6.1 | 6.3 | 11.7 | 10.1 | 10.9 | 9.2 | 7.9 | 8.6 |
| 21 | 4.5 | 2.5 | --- | 8.1 | 6.6 | 7.6 | 11.3 | 10.0 | 10.7 | 9.5 | 8.0 | 8.7 |
| 22 | 4.2 | 1.7 | 3.1 | 8.2 | 7.9 | 8.1 | 11.2 | 9.8 | 10.6 | 11.0 | 8.3 | 9.5 |
| 23 | 3.6 | 1.5 | 2.6 | 8.4 | 8.0 | 8.2 | 10.7 | 9.6 | 10.1 | 10.0 | 8.2 | 9.1 |
| 24 | 3.1 | 1.0 | 2.1 | 8.6 | 8.3 | 8.4 | 10.1 | 9.4 | 9.7 | 9.2 | 8.2 | 8.7 |
| 25 | --- | --- | --- | 8.6 | 8.3 | 8.4 | 9.5 | 9.1 | 9.3 | 8.8 | 8.0 | 8.5 |
| 26 | --- | --- | --- | 8.6 | 8.0 | 8.4 | 9.5 | 9.0 | 9.1 | 8.7 | 7.8 | 8.2 |
| 27 | --- | --- | --- | 8.6 | 8.5 | --- | 10.1 | 9.0 | 9.3 | 8.4 | 7.7 | 8.0 |
| 28 | --- | --- | --- | --- | --- | --- | 10.1 | 9.3 | 9.6 | 8.2 | 7.8 | 8.0 |
| 29 | --- | --- | --- | --- | --- | --- | 10.1 | 9.6 | 9.7 | 9.0 | 7.9 | 8.3 |
| 30 | --- | --- | --- | --- | --- | --- | 9.8 | 9.4 | 9.6 | 9.3 | 8.8 | 9.0 |
| 31 | --- | --- | --- | --- | --- | --- | 9.6 | 9.3 | 9.5 | 9.2 | 8.8 | 9.1 |
| MONTH | --- | --- | --- | --- | --- | --- | 12.0 | 8.0 | 9.9 | 11.0 | 7.7 | --- |

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 9.5 | 9.1 | 9.3 | 10.1 | 8.3 | 9.2 | --- | --- | --- | --- | --- | --- |
| 2 | 9.9 | 9.4 | 9.6 | 9.5 | 8.0 | 8.8 | --- | --- | --- | --- | --- | --- |
| 3 | 10.3 | 9.7 | 10.0 | 9.2 | 7.7 | 8.5 | --- | --- | --- | --- | --- | --- |
| 4 | 10.4 | 9.9 | 10.2 | 9.3 | 7.6 | 8.4 | --- | --- | --- | 5.1 | 3.5 | --- |
| 5 | 10.7 | 9.8 | 10.2 | 8.7 | 7.1 | 7.9 | --- | --- | --- | 5.7 | 3.6 | 4.8 |
| 6 | 11.1 | 9.9 | 10.4 | 8.7 | 7.4 | 8.1 | --- | --- | --- | 6.1 | 3.8 | 4.9 |
| 7 | 11.2 | 10.4 | 10.8 | 8.9 | 7.2 | 8.2 | --- | --- | --- | 5.7 | 3.6 | 4.8 |
| 8 | 10.8 | 10.5 | 10.6 | 8.6 | 6.3 | 7.5 | --- | --- | --- | 5.7 | 4.1 | 4.9 |
| 9 | 10.9 | 10.5 | 10.7 | 7.7 | 5.7 | 6.8 | --- | --- | --- | 6.1 | 3.7 | 5.0 |
| 10 | 11.1 | 10.4 | 10.8 | 7.5 | 5.8 | 6.7 | --- | --- | --- | 4.9 | 3.1 | 4.3 |
| 11 | 11.4 | 10.6 | 11.1 | 7.3 | 5.2 | 6.5 | 9.1 | 8.4 | --- | 4.9 | 3.1 | 4.1 |
| 12 | 11.6 | 10.7 | 11.2 | 7.4 | 5.4 | 6.5 | 9.8 | 9.2 | 9.4 | 4.5 | 3.0 | 3.9 |
| 13 | 11.3 | 10.1 | 10.7 | 7.5 | 5.8 | 6.6 | 9.7 | 9.1 | 9.4 | 4.3 | 2.6 | 3.5 |
| 14 | 10.7 | 9.8 | 10.3 | 6.9 | 5.5 | 6.2 | 9.7 | 8.8 | 9.3 | 3.8 | 2.1 | 3.0 |
| 15 | 10.7 | 9.7 | 10.2 | 6.7 | 5.2 | 6.0 | 9.8 | 9.0 | 9.3 | 3.5 | 1.8 | 2.6 |
| 16 | 10.6 | 9.5 | 10.0 | 6.7 | 4.9 | 5.8 | 9.6 | 8.6 | 9.1 | 3.6 | 1.7 | 2.6 |
| 17 | 11.2 | 9.8 | 10.6 | 7.5 | 5.0 | 6.3 | 9.5 | 8.6 | 9.0 | 3.8 | 2.2 | 3.1 |
| 18 | 11.6 | 9.9 | 10.7 | 8.2 | 6.4 | --- | 9.1 | 8.1 | 8.6 | 4.3 | 3.0 | 3.7 |
| 19 | 10.8 | 9.4 | 10.3 | --- | --- | --- | 8.6 | 7.6 | 8.1 | 4.6 | 3.4 | 3.9 |
| 20 | 10.4 | 9.4 | 9.9 | --- | --- | --- | 8.2 | 7.4 | 7.9 | 4.6 | 3.4 | 3.9 |
| 21 | 10.2 | 9.1 | 9.7 | 8.6 | 7.7 | --- | 8.4 | 7.3 | 7.8 | 4.4 | 3.1 | 3.8 |
| 22 | 10.1 | 9.0 | 9.6 | 8.8 | 7.7 | 8.4 | 8.0 | 6.8 | 7.4 | 4.6 | 3.4 | 4.1 |
| 23 | 10.4 | 8.9 | 9.8 | 9.2 | 7.9 | 8.5 | 7.6 | 6.6 | 7.1 | 4.6 | 3.6 | 4.1 |
| 24 | 10.4 | 8.6 | 9.5 | 9.2 | 7.5 | --- | 7.5 | 6.3 | 6.9 | 4.9 | 4.0 | 4.4 |
| 25 | 10.0 | 8.5 | 9.2 | --- | --- | --- | 7.1 | 6.0 | 6.7 | 5.5 | 4.6 | 5.2 |
| 26 | 9.9 | 8.3 | 9.0 | --- | --- | --- | 7.5 | 6.3 | --- | 5.6 | 5.2 | 5.4 |
| 27 | 10.2 | 8.6 | 9.6 | --- | --- | --- | --- | --- | --- | 5.6 | 5.1 | 5.3 |
| 28 | 10.6 | 8.9 | 9.7 | --- | --- | --- | --- | --- | --- | 5.5 | 4.9 | 5.3 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.5 | 4.5 | 5.1 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.2 | 4.3 | 4.7 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 4.9 | 4.2 | 4.5 |
| MONTH | 11.6 | 8.3 | 10.1 | --- | --- | --- | --- | --- | --- | 6.1 | 1.7 | 4.3 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 4.6 | 4.0 | 4.4 | 1.9 | 0.0 | 1.2 | 2.9 | 1.7 | 2.5 | 2.6 | 1.4 | 2.0 |
| 2 | 4.7 | 4.1 | 4.2 | 2.7 | 1.0 | 1.9 | 3.1 | 1.3 | 2.5 | 2.3 | 1.2 | 1.8 |
| 3 | 4.3 | 3.8 | 4.1 | 3.0 | 1.9 | 2.4 | 2.8 | 0.7 | 2.0 | 2.4 | 1.3 | 1.7 |
| 4 | 4.0 | 3.5 | 3.8 | 2.8 | 2.4 | 2.6 | 2.7 | 0.8 | 1.7 | 2.5 | 1.3 | 1.8 |
| 5 | 4.0 | 3.3 | 3.7 | 2.7 | 2.0 | 2.4 | 2.8 | 1.0 | 1.7 | 2.8 | 1.4 | 2.0 |
| 6 | 4.0 | 2.9 | 3.5 | 2.4 | 2.1 | 2.3 | 4.1 | 1.2 | 2.6 | 2.9 | 1.7 | 2.3 |
| 7 | 4.1 | 2.7 | 3.5 | 2.8 | 2.1 | 2.5 | 4.9 | 2.0 | 3.4 | 3.0 | 1.8 | 2.3 |
| 8 | 3.9 | 2.5 | 3.1 | 2.6 | 1.9 | 2.2 | 5.3 | 2.6 | 4.0 | 3.1 | 1.9 | 2.4 |
| 9 | 4.0 | 2.1 | 3.0 | 2.6 | 1.8 | 2.4 | 4.4 | 2.9 | 3.9 | 2.9 | 1.9 | 2.5 |
| 10 | 3.8 | 1.8 | 2.7 | 2.2 | 1.4 | 1.9 | 4.1 | 2.7 | 3.7 | 2.6 | 1.9 | --- |
| 11 | 3.4 | 1.6 | 2.5 | 2.3 | 1.5 | 1.9 | 3.7 | 2.6 | 3.3 | 5.4 | 3.0 | --- |
| 12 | 3.5 | 1.5 | 2.5 | 3.0 | 1.9 | 2.4 | 3.3 | 1.9 | 2.7 | 6.0 | 2.9 | 4.7 |
| 13 | 3.4 | 1.6 | 2.3 | 2.8 | 2.2 | --- | 3.0 | 1.5 | 2.5 | 6.9 | 3.6 | 5.3 |
| 14 | 3.8 | 1.4 | 2.3 | --- | --- | --- | 2.9 | 1.8 | 2.2 | 6.9 | 3.7 | 5.5 |
| 15 | 4.6 | 1.5 | 2.5 | --- | --- | --- | 2.6 | 1.6 | 2.1 | 8.0 | 4.4 | 6.0 |
| 16 | 4.4 | 1.8 | 2.6 | --- | --- | --- | 2.7 | 1.7 | 2.2 | 7.0 | 3.0 | 5.3 |
| 17 | 3.3 | 1.6 | 2.5 | --- | --- | --- | 2.7 | 1.8 | 2.4 | 7.6 | 2.8 | 5.2 |
| 18 | 4.0 | 2.1 | 2.8 | --- | --- | --- | 2.6 | 2.0 | 2.3 | 7.0 | 2.5 | 5.0 |
| 19 | 3.3 | 2.1 | 2.7 | 1.9 | 1.0 | --- | 2.6 | 1.8 | 2.1 | 7.5 | 2.5 | 4.8 |
| 20 | 3.4 | 2.0 | 2.5 | 2.0 | 1.0 | 1.4 | 3.4 | 1.8 | 2.5 | 7.0 | 2.3 | 4.7 |
| 21 | 3.0 | 1.6 | 2.1 | 2.6 | 1.2 | 1.7 | 4.0 | 2.4 | 3.0 | 6.8 | 2.0 | 4.6 |
| 22 | 2.4 | 1.1 | 1.7 | 2.4 | 1.1 | 1.8 | 4.4 | 2.4 | 3.3 | 7.2 | 2.4 | 4.7 |
| 23 | 2.2 | 1.0 | 1.4 | 2.6 | 1.0 | 1.7 | 4.6 | 2.5 | 3.4 | 6.3 | 2.7 | 4.6 |
| 24 | 2.2 | 1.0 | 1.4 | 2.4 | 1.1 | 1.6 | 4.6 | 2.0 | 3.1 | 6.4 | 2.2 | 4.2 |
| 25 | 2.2 | 1.0 | 1.4 | 3.0 | 1.1 | 1.9 | 4.6 | 1.9 | 3.0 | 6.8 | 3.0 | 5.1 |
| 26 | 2.7 | 1.0 | 1.4 | 3.2 | 1.5 | 2.3 | 4.3 | 2.0 | 3.1 | 6.9 | 3.0 | 4.9 |
| 27 | 2.7 | 1.0 | 1.4 | 3.3 | 2.0 | 2.7 | 3.6 | 1.8 | 2.4 | 6.2 | 2.1 | 4.3 |
| 28 | 3.5 | 1.0 | 1.8 | 3.2 | 1.8 | 2.5 | 2.9 | 1.8 | 2.3 | 5.8 | 1.7 | 3.6 |
| 29 | 2.6 | 2.0 | 2.3 | 3.1 | 1.6 | 2.5 | 3.0 | 1.9 | 2.4 | 4.7 | 1.2 | 2.9 |
| 30 | 2.1 | 1.3 | 1.7 | 3.2 | 1.4 | 2.5 | 2.6 | 1.7 | 2.1 | 5.6 | 1.4 | 3.2 |
| 31 | --- | --- | --- | 3.1 | 1.5 | 2.4 | 2.6 | 1.5 | 2.1 | --- | --- | --- |
| MONTH | 4.7 | 1.0 | 2.6 | 3.3 | 0.0 | --- | 5.3 | 0.7 | 2.7 | 8.0 | 1.2 | 3.8 |

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

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

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

## 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 sq mi (29,065 sq km), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1973.
Water temperatures: February 1970 to September 1973.

EXTREMES.--1972-73:
Specific conductance: Maximum, 19,320 micromhos Oct. 25; minimum, 120 micromhos Dec. 13, 14, July 3.
pH: Maximum, 8.8 Aug. 29, Sept. 2; minimum, 5.4 Dec. 31.
Dissolved oxygen: Maximum, 13.7 mg/l Feb. 18, 19; minimum, 1.1 mg/l July 10.
Water temperatures: Maximum, 29.0°C Aug. 10-12, Sept. 3; minimum, freezing point Feb. 17, 18.

Period of record:
Specific conductance: Maximum, 35,400 micromhos Nov. 7, 1963; minimum, 100 micromhos on several days in 1969 and 1970.
pH (1970-73): Maximum, 8.8 Aug. 29, Sept. 2, 1973; minimum, 5.4 Dec. 31, 1972.
Dissolved oxygen (1970-73): Maximum, 13.7 mg/l Feb. 18, 19, 1973; minimum, 0.3 mg/l Sept. 16, 17, 1971.
Water temperatures (1970-73): Maximum, 29.0°C Aug. 10-12, Sept. 3, 1973; 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 (MIRCOMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 15600 | 11240 | 13190 | 4040 | 480 | 1520 | 6280 | 920 | 2620 |
| 2 | --- | --- | --- | 15720 | 11280 | 13310 | 960 | 360 | 637 | 3920 | 520 | 1360 |
| 3 | --- | --- | --- | 14640 | 10480 | 12500 | 2000 | 440 | --- | 3160 | 360 | 1000 |
| 4 | --- | --- | --- | 15400 | 10280 | 12560 | --- | --- | --- | 3920 | 360 | 1030 |
| 5 | --- | --- | --- | 17600 | 11520 | 14070 | --- | --- | --- | 1680 | 240 | 538 |
| 6 | --- | --- | --- | 18360 | 11560 | 14460 | --- | --- | --- | 440 | 200 | 332 |
| 7 | --- | --- | --- | 17680 | 11720 | 14170 | --- | --- | --- | 1120 | 160 | 293 |
| 8 | --- | --- | --- | 18080 | 11440 | 14580 | --- | --- | --- | 3400 | 160 | 745 |
| 9 | --- | --- | --- | 11480 | 5880 | 8890 | 680 | 280 | --- | 5160 | 480 | 2140 |
| 10 | --- | --- | --- | 12560 | 4120 | 8180 | 520 | 200 | 302 | 4760 | 480 | 1850 |
| 11 | --- | --- | --- | 11280 | 2600 | 7120 | 320 | 160 | 243 | 4080 | 480 | 1620 |
| 12 | --- | --- | --- | 8920 | 2840 | 5290 | 520 | 160 | 193 | 3840 | 680 | 1610 |
| 13 | --- | --- | --- | 8800 | 2480 | 5180 | 240 | 120 | 188 | 4880 | 880 | 2540 |
| 14 | 18040 | 11200 | --- | 8120 | 2320 | 5640 | 1040 | 120 | 227 | 6240 | 1720 | 3500 |
| 15 | 15960 | 9920 | 12290 | 9320 | 1520 | 3770 | 4560 | 160 | 1650 | 5040 | 2000 | 3030 |
| 16 | 17680 | 10240 | 14100 | 9040 | 720 | 4120 | 3920 | 400 | 1340 | 5400 | 2160 | 3150 |
| 17 | 15360 | 8960 | 11990 | 5320 | 920 | 2830 | 800 | 800 | --- | 3800 | 2080 | --- |
| 18 | 16280 | 8880 | 12400 | 8160 | 1040 | 3150 | 3360 | 240 | --- | --- | --- | --- |
| 19 | 13920 | 10480 | --- | 7320 | 1120 | 2720 | 2680 | 240 | 920 | --- | --- | --- |
| 20 | --- | --- | --- | 6000 | 920 | 2500 | 3360 | 560 | 1520 | --- | --- | --- |
| 21 | --- | --- | --- | 2920 | 800 | 1400 | 3240 | 1320 | 2100 | --- | --- | --- |
| 22 | --- | --- | --- | 2720 | 840 | 1320 | 3320 | 2000 | 2560 | --- | --- | --- |
| 23 | --- | --- | --- | 2560 | 800 | 1270 | 4080 | 960 | 2290 | 4360 | 1720 | --- |
| 24 | --- | --- | --- | 1800 | 840 | 1080 | 3320 | 640 | 1760 | 3200 | 1360 | 1950 |
| 25 | 19320 | 11840 | --- | 3400 | 600 | 1160 | 1680 | 520 | 982 | 2240 | 1000 | 1380 |
| 26 | 19000 | 11720 | 14670 | 3960 | 680 | 2030 | 1480 | 440 | 760 | 3560 | 880 | 1680 |
| 27 | 17560 | 11720 | 14190 | 1880 | 560 | 943 | 1560 | 400 | 643 | 5080 | 920 | 2600 |
| 28 | 18200 | 11440 | 14170 | 1120 | 680 | 872 | 2840 | 400 | 948 | 5680 | 880 | 2670 |
| 29 | 16440 | 11160 | 13780 | 880 | 600 | 735 | 3560 | 440 | 1460 | 7800 | 520 | 3070 |
| 30 | 16960 | 10520 | 12890 | 1920 | 560 | 902 | 5680 | 840 | 2540 | 4600 | 680 | 1900 |
| 31 | 15960 | 10480 | 12760 | --- | --- | --- | 5640 | 1160 | 3090 | 4600 | 880 | 2070 |
| MONTH | --- | --- | --- | 18360 | 560 | 6000 | 5680 | 120 | --- | 7800 | 160 | --- |

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 4440 | 1040 | 2310 | 14400 | 6600 | 10960 | --- | --- | --- | 6680 | 1040 | 2620 |
| 2 | 6240 | 1560 | 3340 | 15280 | 6400 | 9510 | --- | --- | --- | 6200 | 1120 | 2520 |
| 3 | 3080 | 560 | 1400 | 11880 | 6600 | 9010 | --- | --- | --- | 6320 | 3760 | --- |
| 4 | 880 | 280 | 528 | 13280 | 6080 | 9280 | --- | --- | --- | 3160 | 1120 | --- |
| 5 | 400 | 200 | 303 | 10240 | 6040 | --- | 2160 | 680 | --- | 4440 | 1080 | 1880 |
| 6 | 280 | 160 | 235 | --- | --- | --- | 1560 | 760 | 1200 | 5320 | 1040 | 2060 |
| 7 | 320 | 200 | 238 | --- | --- | --- | 1160 | 600 | 942 | 5200 | 1080 | 2380 |
| 8 | 400 | 200 | --- | --- | --- | --- | 960 | 480 | 762 | 5160 | 1720 | 2910 |
| 9 | --- | --- | --- | --- | --- | --- | 1280 | 320 | 603 | 4680 | 1520 | 2640 |
| 10 | --- | --- | --- | --- | --- | --- | 680 | 280 | 440 | 3880 | 1400 | 2320 |
| 11 | --- | --- | --- | --- | --- | --- | 520 | 240 | 385 | 3960 | 1200 | 2130 |
| 12 | --- | --- | --- | --- | --- | --- | 480 | 280 | 375 | 3680 | 1200 | 1910 |
| 13 | 8640 | 3560 | --- | 6120 | 3520 | --- | 480 | 280 | 360 | 2600 | 920 | 1490 |
| 14 | 9880 | 2320 | 4540 | 9120 | 3320 | 5080 | 3280 | 280 | 687 | 2360 | 680 | 1210 |
| 15 | 9040 | 2200 | 4940 | 9400 | 3200 | 5320 | 2320 | 240 | 642 | 3320 | 680 | 1150 |
| 16 | 6720 | 2120 | 3760 | 9960 | 3240 | 5400 | 1600 | 240 | 505 | 3720 | 640 | 1340 |
| 17 | 7400 | 1400 | 3210 | 10200 | 3280 | 5850 | 920 | 240 | 405 | 2240 | 720 | 1220 |
| 18 | 10840 | 2400 | 5850 | 5040 | 1240 | 2910 | 840 | 280 | 388 | 2240 | 560 | 993 |
| 19 | 10800 | 3160 | 5900 | 2640 | 880 | 1330 | 1440 | 280 | 462 | 3280 | 560 | 1080 |
| 20 | 9000 | 2880 | 4900 | 6360 | 880 | 2190 | 1120 | 280 | 533 | 3000 | 520 | 988 |
| 21 | 9080 | 2600 | 4910 | 8160 | 1160 | 3010 | 2480 | 360 | 773 | 2440 | 400 | 823 |
| 22 | 9920 | 2960 | 5170 | 8240 | 2000 | 4200 | 1360 | 360 | 643 | 2360 | 440 | 765 |
| 23 | 9760 | 2480 | 5490 | 9480 | 2680 | 6180 | 840 | 360 | 533 | 2720 | 360 | 945 |
| 24 | 11120 | 2400 | 4980 | 12680 | 3720 | 8570 | 2320 | 440 | 962 | 3680 | 440 | 1570 |
| 25 | 8800 | 2160 | 4640 | 11560 | 3760 | 7300 | 2760 | 520 | 1260 | 3840 | 600 | 2160 |
| 26 | 9520 | 2440 | 5560 | 11000 | 3320 | 6780 | 3560 | 800 | 1950 | 5520 | 920 | 3020 |
| 27 | 9640 | 3240 | 7160 | 10440 | 4280 | 7590 | 6000 | 1520 | 3830 | 4200 | 1120 | 2400 |
| 28 | 13680 | 6720 | 9930 | 11360 | 5040 | 8320 | 6160 | 1480 | 3670 | 3760 | 1080 | 2030 |
| 29 | --- | --- | --- | 12520 | 4600 | 7840 | 5840 | 1120 | 2640 | 2200 | 560 | 1230 |
| 30 | --- | --- | --- | 9720 | 4080 | 6930 | 7200 | 1080 | 2530 | 2600 | 480 | 885 |
| 31 | --- | --- | --- | 8240 | 4120 | --- | --- | --- | --- | 1760 | 320 | 768 |
| MONTH | 13680 | 160 | 4060 | --- | --- | --- | 7200 | 240 | 1100 | 6680 | 320 | 1700 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 1960 | 360 | 662 | 1480 | 320 | 623 | 10080 | 4720 | 6840 | 13040 | 6560 | 9010 |
| 2 | 2320 | 320 | 677 | 680 | 280 | 378 | 11920 | 4520 | 7300 | 11960 | 6640 | 8820 |
| 3 | 2640 | 320 | 763 | 400 | 120 | 322 | 9360 | 3680 | 5720 | 11560 | 6600 | --- |
| 4 | 2280 | 400 | 798 | 360 | 240 | 303 | 7280 | 3200 | 4790 | --- | --- | --- |
| 5 | 1240 | 360 | 635 | 320 | 240 | 270 | 6680 | 2880 | 4180 | --- | --- | --- |
| 6 | 1400 | 360 | 692 | 280 | 200 | 242 | 7360 | 3040 | 4570 | --- | --- | --- |
| 7 | 840 | 320 | 555 | 840 | 200 | 305 | 7960 | 3440 | 5220 | --- | --- | --- |
| 8 | 840 | 360 | 515 | 1880 | 200 | 617 | 8760 | 3920 | 5960 | --- | --- | --- |
| 9 | 680 | 320 | 462 | 3200 | 360 | 1310 | 11880 | 3280 | 6440 | --- | --- | --- |
| 10 | 1560 | 320 | 488 | 5240 | 2200 | 3130 | 11760 | 2920 | 6100 | --- | --- | --- |
| 11 | 1960 | 320 | 635 | 6640 | 3760 | 4660 | 11520 | 3120 | 6140 | --- | --- | --- |
| 12 | 2200 | 440 | 768 | 7680 | 4840 | 5690 | 11160 | 3040 | 6360 | --- | --- | --- |
| 13 | 3080 | 560 | 1020 | 9120 | 2240 | 6190 | 10480 | 3960 | 6470 | --- | --- | --- |
| 14 | 5480 | 520 | 1590 | 10840 | 2120 | 4680 | 11280 | 4720 | 7220 | --- | --- | --- |
| 15 | 6520 | 640 | 2030 | 10960 | 2120 | 5020 | 12040 | 5640 | 8000 | --- | --- | --- |
| 16 | 6640 | 920 | 2550 | 12320 | 2600 | 6050 | 11760 | 4720 | 7770 | --- | --- | --- |
| 17 | 5040 | 840 | 2140 | 12960 | 3600 | 6810 | 11160 | 5000 | 7580 | --- | --- | --- |
| 18 | 6440 | 1360 | 2970 | 12120 | 4040 | 6730 | 10640 | 4920 | 7460 | --- | --- | --- |
| 19 | 4400 | 1520 | 2510 | 11520 | 4040 | 6770 | 11560 | 5000 | 7810 | 14200 | 8680 | --- |
| 20 | 4840 | 1880 | 3020 | 9760 | 3520 | 6040 | 11160 | 5080 | 7930 | 13880 | 7560 | 10490 |
| 21 | 4880 | 2200 | 3280 | 8840 | 3160 | 5510 | 10040 | 5840 | 7610 | 13840 | 7560 | 9640 |
| 22 | 4320 | 2120 | 2960 | 10320 | 3120 | 5890 | 10680 | 5680 | 7610 | 14200 | 7400 | 10220 |
| 23 | 4440 | 2120 | 3030 | 10280 | 3320 | 6340 | 12680 | 5520 | 8690 | 12600 | 6320 | 9060 |
| 24 | 4960 | 2160 | 3230 | 11120 | 3480 | 6030 | 13040 | 5840 | 8370 | 13480 | 6200 | 8890 |
| 25 | 5320 | 2120 | 3250 | 12320 | 3640 | 6160 | 13720 | 6040 | 8430 | 13360 | 7160 | 9780 |
| 26 | 5400 | 2280 | 3390 | 11520 | 3480 | 6250 | 12640 | 6080 | 8400 | 11520 | 6640 | 9020 |
| 27 | 5640 | 2360 | 3440 | 11120 | 3160 | 5630 | 12600 | 5880 | 8140 | 10480 | 6320 | 8240 |
| 28 | 8320 | 2440 | 4170 | 12120 | 3200 | 5780 | 13360 | 5840 | 8530 | 9640 | 5600 | 7220 |
| 29 | 6080 | 2480 | 3650 | 11640 | 3600 | 6080 | 12240 | 6080 | 8550 | 10400 | 5720 | 7550 |
| 30 | 3840 | 640 | 1720 | 11160 | 3920 | 6340 | 13720 | 6160 | 9250 | 8000 | 5720 | --- |
| 31 | --- | --- | --- | 11360 | 4120 | 6460 | 13080 | 6600 | 9290 | --- | --- | --- |
| MONTH | 8320 | 320 | 1920 | 12960 | 120 | 4280 | 13720 | 2880 | 7180 | --- | --- | --- |
| YEAR | 19320 | 120 | 4200 | | | | | | | | | |

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 7.3 | 7.0 | 7.1 | 6.5 | 6.2 | 6.3 | 6.6 | 5.5 | 6.2 |
| 2 | --- | --- | --- | 7.3 | 7.0 | 7.2 | 6.3 | 6.1 | 6.2 | 6.5 | 6.3 | 6.4 |
| 3 | 7.0 | 6.8 | --- | 7.2 | 7.0 | 7.1 | 6.3 | 6.1 | --- | 6.5 | 6.2 | 6.3 |
| 4 | 7.0 | 6.6 | 6.8 | 7.3 | 6.9 | 7.1 | --- | --- | --- | 6.1 | 5.9 | 6.0 |
| 5 | 6.8 | 6.5 | 6.6 | 7.4 | 6.9 | 7.2 | --- | --- | --- | 6.3 | 5.9 | 6.2 |
| 6 | 7.0 | 6.5 | 6.7 | 7.4 | 6.9 | 7.2 | --- | --- | --- | 6.4 | 6.2 | 6.3 |
| 7 | 7.0 | 6.5 | 6.8 | 7.4 | 6.9 | 7.1 | --- | --- | --- | 6.5 | 6.2 | 6.4 |
| 8 | 7.2 | 6.9 | 7.0 | 7.3 | 6.9 | 7.1 | --- | --- | --- | 6.5 | 6.3 | 6.4 |
| 9 | 7.2 | 6.8 | 7.0 | 6.9 | 6.5 | 6.7 | 6.7 | 6.6 | --- | 6.7 | 6.5 | 6.6 |
| 10 | 7.0 | 6.8 | 6.9 | 7.1 | 6.3 | 6.6 | 6.7 | 6.5 | 6.6 | 6.7 | 6.5 | 6.6 |
| 11 | 7.0 | 6.8 | 6.9 | 7.1 | 6.2 | 6.6 | 6.6 | 6.5 | 6.6 | 6.8 | 6.5 | 6.7 |
| 12 | --- | --- | --- | 6.9 | 6.6 | 6.7 | 6.5 | 6.4 | 6.4 | 6.8 | 6.5 | 6.6 |
| 13 | --- | --- | --- | 6.9 | 6.5 | 6.7 | 6.6 | 6.4 | 6.5 | 6.9 | 6.5 | 6.7 |
| 14 | 6.7 | 6.3 | --- | 6.8 | 6.5 | 6.7 | 6.7 | 6.5 | 6.6 | 7.0 | 6.6 | 6.8 |
| 15 | 6.8 | 6.2 | 6.7 | 6.8 | 6.6 | 6.7 | 6.9 | 6.5 | 6.7 | 6.9 | 6.5 | 6.7 |
| 16 | 6.7 | 6.5 | 6.7 | 6.9 | 6.6 | 6.7 | 6.9 | 6.7 | 6.8 | 7.1 | 6.5 | 6.7 |
| 17 | 6.9 | 6.3 | 6.7 | 6.7 | 6.5 | 6.7 | 6.9 | 6.9 | --- | 6.6 | 6.3 | --- |
| 18 | 6.8 | 6.7 | --- | 7.0 | 6.6 | 6.8 | 7.0 | 6.9 | --- | --- | --- | --- |
| 19 | --- | --- | --- | 6.9 | 6.5 | 6.7 | 7.2 | 6.9 | 7.0 | --- | --- | --- |
| 20 | --- | --- | --- | 6.9 | 6.4 | 6.7 | 7.2 | 6.9 | 7.1 | --- | --- | --- |
| 21 | --- | --- | --- | 6.8 | 6.5 | 6.7 | 7.3 | 7.0 | 7.1 | --- | --- | --- |
| 22 | --- | --- | --- | 6.9 | 6.6 | 6.7 | 7.3 | 7.0 | 7.2 | --- | --- | --- |
| 23 | --- | --- | --- | 6.9 | 6.5 | 6.7 | 7.2 | 6.6 | 6.9 | 6.9 | 6.7 | --- |
| 24 | --- | --- | --- | 6.8 | 6.5 | 6.6 | 6.8 | 6.5 | 6.7 | 6.8 | 6.6 | 6.7 |
| 25 | 7.3 | 6.9 | --- | 6.6 | 6.0 | 6.3 | 6.6 | 6.4 | 6.5 | 6.8 | 6.5 | 6.7 |
| 26 | 7.3 | 6.9 | 7.1 | 6.4 | 6.1 | 6.3 | 6.5 | 6.4 | 6.5 | 6.9 | 6.5 | 6.7 |
| 27 | 7.2 | 6.9 | 7.1 | 6.3 | 6.1 | 6.2 | 6.5 | 6.4 | 6.5 | 6.9 | 6.5 | 6.8 |
| 28 | 7.2 | 6.9 | 7.0 | 6.3 | 6.1 | 6.2 | 6.6 | 6.5 | 6.5 | 6.9 | 6.7 | 6.8 |
| 29 | 7.1 | 6.9 | 7.0 | 6.3 | 6.1 | 6.2 | 6.7 | 6.5 | 6.6 | 7.1 | 6.6 | 6.8 |
| 30 | 7.2 | 6.8 | 7.0 | 6.3 | 6.1 | 6.2 | 6.8 | 6.4 | 6.6 | 6.7 | 6.6 | 6.7 |
| 31 | 7.2 | 6.8 | 7.0 | --- | --- | --- | 6.4 | 5.4 | 6.1 | 6.9 | 6.7 | 6.8 |
| MONTH | --- | --- | --- | 7.4 | 6.0 | 6.7 | 7.3 | 5.4 | --- | 7.1 | 5.5 | --- |

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

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

pH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 6.7 | 6.5 | 6.7 | --- | --- | --- | 6.7 | 6.4 | 6.6 | 8.7 | 7.6 | 8.3 |
| 2 | 6.7 | 6.4 | 6.6 | --- | --- | --- | 6.7 | 6.4 | 6.5 | 8.8 | 7.8 | 8.3 |
| 3 | 6.7 | 6.6 | 6.6 | --- | --- | --- | 6.7 | 6.4 | 6.5 | 8.7 | 7.7 | --- |
| 4 | 6.8 | 6.5 | 6.7 | --- | --- | --- | 6.8 | 6.4 | 6.6 | --- | --- | --- |
| 5 | 6.7 | 6.5 | 6.6 | --- | --- | --- | 6.8 | 6.5 | 6.6 | --- | --- | --- |
| 6 | 6.7 | 6.4 | 6.5 | --- | --- | --- | 6.8 | 6.5 | 6.6 | --- | --- | --- |
| 7 | 7.0 | 6.3 | 6.7 | --- | --- | --- | 6.9 | 6.5 | 6.7 | --- | --- | --- |
| 8 | 7.1 | 6.8 | 7.0 | --- | --- | --- | 6.9 | 6.5 | 6.7 | --- | --- | --- |
| 9 | 7.1 | 6.9 | 7.1 | --- | --- | --- | 7.3 | 6.6 | 7.0 | --- | --- | --- |
| 10 | 7.1 | 6.9 | 7.0 | --- | --- | --- | 7.2 | 6.8 | 7.0 | --- | --- | --- |
| 11 | 7.0 | 6.7 | 6.9 | --- | --- | --- | 6.9 | 6.6 | 6.8 | --- | --- | --- |
| 12 | 6.9 | 6.6 | 6.8 | --- | --- | --- | 6.9 | 6.6 | 6.7 | --- | --- | --- |
| 13 | 6.8 | 6.6 | 6.7 | --- | --- | --- | 6.9 | 6.6 | 6.7 | --- | --- | --- |
| 14 | 7.0 | 6.6 | 6.8 | --- | --- | --- | 6.9 | 6.6 | 6.7 | --- | --- | --- |
| 15 | 7.0 | 6.7 | 6.8 | --- | --- | --- | 6.9 | 6.6 | 6.8 | --- | --- | --- |
| 16 | 7.1 | 6.7 | 6.9 | --- | --- | --- | 7.1 | 6.6 | 6.9 | --- | --- | --- |
| 17 | 6.9 | 6.7 | --- | --- | --- | --- | 7.2 | 6.8 | 7.0 | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | 6.9 | 6.4 | 6.7 | --- | --- | --- |
| 19 | --- | --- | --- | --- | --- | --- | 7.1 | 6.4 | 6.7 | --- | --- | --- |
| 20 | --- | --- | --- | --- | --- | --- | 7.1 | 6.7 | 6.9 | --- | --- | --- |
| 21 | --- | --- | --- | --- | --- | --- | 7.2 | 6.8 | 7.0 | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | 7.1 | 6.7 | 6.9 | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | --- | 7.2 | 6.7 | 7.0 | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | 7.1 | 6.8 | 7.0 | --- | --- | --- |
| 25 | --- | --- | --- | --- | --- | --- | 7.2 | 6.8 | 6.9 | --- | --- | --- |
| 26 | --- | --- | --- | --- | --- | --- | 8.4 | 6.9 | 7.9 | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | 8.3 | 7.3 | 7.9 | --- | --- | --- |
| 28 | --- | --- | --- | --- | --- | --- | 8.5 | 8.0 | 8.3 | --- | --- | --- |
| 29 | --- | --- | --- | 7.1 | 6.7 | 6.9 | 8.8 | 7.5 | 8.1 | --- | --- | --- |
| 30 | --- | --- | --- | 6.9 | 6.6 | 6.7 | 8.5 | 7.7 | 8.2 | --- | --- | --- |
| 31 | --- | --- | --- | 6.8 | 6.6 | 6.7 | 8.5 | 7.3 | 8.2 | --- | --- | --- |
| MONTH | --- | --- | --- | --- | --- | --- | 8.8 | 6.4 | 7.0 | --- | --- | --- |

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 9.0 | 7.9 | 8.5 | 10.2 | 9.6 | 9.9 | 10.8 | 10.0 | 10.4 |
| 2 | --- | --- | --- | 8.9 | 7.7 | 8.4 | 10.3 | 9.5 | 9.8 | 10.7 | 10.0 | 10.4 |
| 3 | 7.5 | 5.5 | --- | 8.7 | 7.7 | 8.3 | 9.9 | 9.6 | --- | 10.8 | 10.1 | 10.4 |
| 4 | 7.6 | 5.3 | 6.7 | 8.9 | 7.3 | 8.1 | --- | --- | --- | 10.6 | 10.0 | 10.3 |
| 5 | 7.7 | 6.1 | 6.8 | 8.7 | 7.4 | 8.1 | --- | --- | --- | 10.3 | 9.5 | 10.0 |
| 6 | 8.2 | 5.9 | 7.0 | 8.9 | 7.6 | 8.4 | --- | --- | --- | 11.5 | 9.6 | 10.5 |
| 7 | 8.3 | 6.2 | 7.0 | 8.8 | 7.6 | 8.3 | --- | --- | --- | 12.0 | 10.1 | 11.3 |
| 8 | 8.3 | 6.5 | 7.3 | 9.1 | 8.2 | 8.7 | --- | --- | --- | 12.1 | 11.2 | 11.6 |
| 9 | 8.6 | 6.3 | 7.2 | 8.5 | 7.3 | 8.1 | 10.0 | 9.2 | --- | 12.0 | 11.6 | 11.8 |
| 10 | 8.2 | 6.1 | 7.1 | 9.0 | 5.7 | 7.7 | 9.5 | 8.7 | 9.1 | 12.1 | 11.5 | 11.8 |
| 11 | 8.5 | 6.8 | 7.6 | 8.3 | 3.9 | 6.6 | 9.4 | 8.5 | 9.0 | 12.0 | 11.5 | 11.8 |
| 12 | --- | --- | --- | 6.5 | 3.9 | 5.0 | 9.2 | 8.7 | 9.0 | 12.3 | 11.7 | 12.0 |
| 13 | --- | --- | --- | 6.4 | 3.6 | 4.5 | 10.0 | 8.8 | 9.4 | 12.5 | 11.8 | 12.1 |
| 14 | 7.2 | 6.7 | --- | 6.2 | 3.5 | 5.4 | 10.0 | 9.3 | 9.6 | 12.7 | 11.7 | 12.2 |
| 15 | 7.8 | 6.8 | 7.3 | 7.0 | 4.8 | 5.8 | 10.5 | 9.5 | 10.0 | 12.5 | 11.5 | 11.9 |
| 16 | 8.0 | 7.4 | 7.7 | 7.0 | 6.3 | 6.6 | 11.9 | 10.1 | 10.8 | 12.5 | 11.3 | 11.8 |
| 17 | 8.0 | 7.5 | 7.8 | 6.8 | 6.2 | 6.6 | --- | --- | --- | 11.8 | 11.1 | --- |
| 18 | 8.1 | 7.9 | --- | 7.2 | 6.3 | 6.7 | 12.7 | 12.0 | --- | --- | --- | --- |
| 19 | --- | --- | --- | 7.3 | 6.5 | 6.7 | 12.4 | 11.8 | 12.1 | --- | --- | --- |
| 20 | --- | --- | --- | 7.8 | 6.8 | 7.3 | 12.0 | 11.6 | 11.8 | --- | --- | --- |
| 21 | --- | --- | --- | 8.2 | 7.7 | 8.0 | 12.0 | 11.6 | 11.8 | --- | --- | --- |
| 22 | --- | --- | --- | 8.4 | 8.1 | 8.3 | 12.1 | 11.5 | 11.8 | --- | --- | --- |
| 23 | --- | --- | --- | 8.8 | 8.2 | 8.5 | 11.9 | 11.2 | 11.6 | 12.0 | 11.4 | --- |
| 24 | --- | --- | --- | 8.9 | 8.5 | 8.7 | 11.6 | 10.6 | 11.2 | 11.9 | 11.2 | 11.5 |
| 25 | 8.6 | 7.9 | --- | 8.8 | 8.3 | 8.5 | 11.1 | 10.2 | 10.6 | 11.6 | 10.9 | 11.3 |
| 26 | 8.8 | 7.8 | 8.4 | 9.4 | 8.4 | 9.1 | 10.5 | 9.9 | 10.2 | 11.7 | 10.9 | 11.2 |
| 27 | 8.7 | 7.7 | 8.3 | 9.4 | 8.9 | 9.2 | 10.6 | 9.8 | 10.2 | 11.7 | 10.9 | 11.3 |
| 28 | 8.9 | 7.6 | 8.4 | 9.5 | 9.1 | 9.3 | 10.7 | 10.1 | 10.4 | 11.7 | 10.4 | 11.0 |
| 29 | 8.6 | 7.6 | 8.2 | 9.8 | 9.2 | 9.4 | 11.0 | 10.2 | 10.7 | 11.8 | 9.8 | 11.0 |
| 30 | 9.0 | 7.4 | 8.2 | 10.0 | 9.2 | 9.7 | 10.9 | 10.1 | 10.5 | 11.1 | 10.3 | 10.8 |
| 31 | 9.1 | 7.8 | 8.4 | --- | --- | --- | 10.8 | 10.1 | 10.4 | 11.4 | 10.4 | 10.8 |
| MONTH | --- | --- | --- | 10.0 | 3.5 | 7.8 | 12.7 | 8.5 | --- | 12.7 | 9.5 | --- |

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 11.3 | 10.7 | 11.0 | 13.2 | 12.3 | 12.7 | --- | --- | --- | 8.1 | 7.2 | 7.7 |
| 2 | 12.0 | 10.8 | 11.3 | 12.9 | 11.3 | 12.1 | --- | --- | --- | 7.8 | 6.6 | 7.3 |
| 3 | 11.4 | 9.8 | 10.6 | 12.0 | 11.0 | 11.6 | --- | --- | --- | 7.5 | 6.5 | 7.1 |
| 4 | 11.0 | 10.3 | 10.7 | 12.1 | 10.6 | 11.5 | --- | --- | --- | 7.4 | 6.4 | 7.0 |
| 5 | 11.1 | 10.3 | 10.7 | 11.6 | 10.4 | --- | 8.3 | 7.1 | --- | 7.4 | 6.8 | 7.2 |
| 6 | 11.0 | 10.4 | 10.8 | --- | --- | --- | 8.4 | 7.4 | 7.9 | 7.6 | 6.7 | 7.1 |
| 7 | 11.3 | 10.6 | 11.0 | --- | --- | --- | 8.2 | 7.5 | 7.9 | 7.5 | 6.4 | 7.0 |
| 8 | 10.8 | 10.5 | 10.7 | --- | --- | --- | 8.7 | 7.8 | 8.3 | 8.4 | 6.9 | 7.9 |
| 9 | 11.8 | 10.7 | 11.3 | --- | --- | --- | 8.6 | 7.9 | 8.3 | 8.3 | 7.4 | 7.7 |
| 10 | 12.1 | 11.2 | 11.6 | --- | --- | --- | 9.1 | 8.1 | 8.7 | 7.5 | 6.8 | 7.2 |
| 11 | 13.0 | 11.8 | 12.5 | --- | --- | --- | 9.5 | 8.6 | 9.0 | 7.3 | 6.3 | 7.0 |
| 12 | 13.2 | 12.4 | 12.8 | --- | --- | --- | 9.6 | 8.9 | 9.2 | 7.1 | 6.3 | 6.8 |
| 13 | 13.0 | 12.1 | 12.5 | 9.9 | 9.2 | --- | 9.5 | 9.1 | 9.3 | 6.7 | 5.8 | 6.4 |
| 14 | 12.6 | 11.9 | 12.2 | 10.7 | 9.1 | 9.7 | 9.5 | 9.1 | 9.3 | 6.4 | 5.1 | 5.9 |
| 15 | 12.7 | 11.6 | 12.2 | 10.6 | 8.8 | 9.5 | 9.2 | 8.8 | 9.0 | 6.3 | 5.1 | 5.7 |
| 16 | 12.5 | 11.5 | 12.0 | 10.4 | 8.4 | 9.2 | 9.1 | 8.6 | 8.9 | 6.3 | 4.7 | 5.6 |
| 17 | 13.6 | 12.2 | 13.0 | 10.5 | 8.5 | 9.6 | 9.0 | 8.5 | 8.9 | 6.4 | 4.9 | 5.9 |
| 18 | 13.7 | 12.8 | 13.3 | 10.8 | 9.5 | 10.3 | 8.7 | 8.3 | 8.6 | 6.9 | 5.3 | 6.3 |
| 19 | 13.7 | 12.5 | 13.0 | 11.0 | 9.8 | 10.6 | 8.4 | 8.0 | 8.3 | 6.8 | 5.4 | 6.1 |
| 20 | 13.2 | 12.1 | 12.7 | 10.7 | 9.8 | 10.3 | 8.3 | 7.9 | 8.2 | 6.6 | 5.4 | 6.0 |
| 21 | 13.1 | 11.8 | 12.5 | 10.5 | 10.0 | 10.2 | 8.4 | 7.9 | 8.2 | 7.1 | 5.4 | 6.1 |
| 22 | 13.1 | 12.1 | 12.6 | 10.7 | 10.2 | 10.5 | 8.2 | 7.5 | 8.0 | 6.8 | 5.9 | 6.2 |
| 23 | 13.3 | 12.3 | 12.8 | 11.0 | 10.4 | 10.7 | 8.0 | 7.4 | 7.7 | 6.2 | 5.3 | 5.9 |
| 24 | 13.2 | 12.4 | 12.7 | 11.2 | 10.1 | 10.8 | 7.9 | 7.4 | 7.6 | 6.7 | 5.3 | 6.0 |
| 25 | 13.1 | 12.2 | 12.6 | 10.9 | 9.7 | 10.3 | 8.0 | 7.4 | 7.7 | 7.1 | 6.1 | 6.6 |
| 26 | 13.0 | 12.2 | 12.6 | 10.9 | 9.5 | 10.2 | 8.4 | 7.8 | 8.2 | 7.3 | 6.0 | 6.6 |
| 27 | 13.4 | 12.3 | 13.0 | 10.4 | 9.6 | 10.1 | 8.8 | 8.0 | 8.5 | 6.8 | 6.0 | 6.4 |
| 28 | 13.5 | 12.4 | 13.0 | 10.6 | 9.6 | 10.1 | 8.5 | 7.9 | 8.2 | 7.1 | 5.7 | 6.4 |
| 29 | --- | --- | --- | 10.2 | 9.0 | 9.7 | 8.5 | 7.8 | 8.2 | 6.6 | 5.5 | 6.0 |
| 30 | --- | --- | --- | 9.8 | 8.6 | 9.3 | 8.3 | 7.6 | 7.9 | 6.0 | 5.1 | 5.5 |
| 31 | --- | --- | --- | 9.3 | 8.4 | --- | --- | --- | --- | 6.0 | 4.7 | 5.3 |
| MONTH | 13.7 | 9.8 | 12.1 | --- | --- | --- | 9.6 | 7.1 | 8.4 | 8.4 | 4.7 | 6.5 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 5.6 | 4.4 | 4.9 | 3.5 | 1.5 | 2.7 | 5.4 | 4.5 | 5.0 | 5.9 | 4.8 | 5.2 |
| 2 | 5.3 | 4.2 | 4.6 | 3.5 | 1.4 | 2.6 | 5.8 | 4.9 | 5.3 | 5.9 | 4.7 | 5.1 |
| 3 | 5.2 | 3.6 | 4.5 | 3.6 | 1.6 | 2.7 | 5.2 | 4.7 | 5.1 | 5.3 | 4.6 | --- |
| 4 | 5.8 | 3.8 | 4.5 | 4.5 | 1.7 | 2.5 | 5.2 | 4.4 | 4.8 | --- | --- | --- |
| 5 | 6.2 | 3.9 | 4.6 | 2.5 | 1.5 | 1.8 | 5.0 | 4.4 | 4.7 | --- | --- | --- |
| 6 | 6.7 | 4.1 | 5.0 | 2.6 | 1.4 | 1.8 | 5.0 | 4.4 | 4.7 | --- | --- | --- |
| 7 | 6.0 | 3.7 | 5.1 | 2.4 | 1.2 | 1.7 | 5.4 | 4.3 | 4.9 | --- | --- | --- |
| 8 | 5.8 | 3.9 | 5.2 | 2.2 | 1.3 | 1.6 | 6.0 | 4.4 | 5.1 | --- | --- | --- |
| 9 | 6.3 | 4.6 | 5.5 | 1.9 | 1.2 | 1.6 | 5.8 | 4.5 | 5.3 | --- | --- | --- |
| 10 | 6.7 | 4.7 | 5.7 | 2.2 | 1.1 | 1.6 | 6.0 | 4.5 | 5.2 | --- | --- | --- |
| 11 | 6.7 | 4.8 | 5.7 | 3.1 | 1.6 | 2.1 | 5.6 | 4.7 | 5.1 | --- | --- | --- |
| 12 | 6.8 | 4.9 | 5.8 | 4.4 | 2.7 | 3.5 | 5.3 | 4.5 | 4.8 | --- | --- | --- |
| 13 | 6.6 | 5.1 | 5.8 | 4.6 | 3.5 | 4.0 | 5.3 | 4.4 | 4.8 | --- | --- | --- |
| 14 | 6.9 | 5.0 | 5.8 | 4.8 | 3.7 | 4.2 | 5.3 | 4.2 | 4.8 | --- | --- | --- |
| 15 | 7.0 | 5.2 | 6.0 | 4.9 | 3.9 | 4.3 | 5.5 | 3.9 | 4.7 | --- | --- | --- |
| 16 | 6.4 | 5.3 | 5.9 | 5.0 | 4.0 | 4.5 | 6.1 | 4.3 | 5.2 | --- | --- | --- |
| 17 | 6.3 | 5.2 | 5.8 | 5.1 | 3.9 | 4.3 | 7.0 | 4.8 | 5.8 | --- | --- | --- |
| 18 | 6.3 | 5.4 | 6.0 | 4.7 | 3.5 | 4.0 | 6.4 | 4.8 | 5.7 | --- | --- | --- |
| 19 | 6.1 | 5.4 | 5.8 | 4.5 | 2.0 | 4.0 | 7.2 | 5.1 | 6.0 | 4.6 | 3.1 | --- |
| 20 | 6.0 | 5.1 | 5.5 | 4.6 | 3.9 | 4.2 | 6.7 | 5.2 | 6.1 | 5.4 | 4.6 | 5.0 |
| 21 | 6.0 | 5.0 | 5.5 | 4.9 | 4.0 | 4.5 | 6.9 | 5.6 | 6.4 | 6.2 | 5.4 | 5.9 |
| 22 | 5.5 | 4.7 | 5.0 | 5.0 | 4.2 | 4.7 | 7.3 | 6.2 | 6.7 | 6.1 | 5.6 | 5.9 |
| 23 | 5.6 | 4.4 | 4.9 | 5.0 | 3.9 | 4.5 | 6.9 | 6.1 | 6.6 | 6.0 | 5.5 | 5.7 |
| 24 | 5.7 | 4.4 | 5.1 | 5.1 | 2.0 | 4.4 | 6.8 | 5.9 | 6.3 | 6.0 | 5.3 | 5.6 |
| 25 | 5.8 | 4.3 | 5.1 | 5.4 | 4.2 | 4.7 | 6.7 | 5.6 | 6.2 | 6.2 | 5.5 | 5.8 |
| 26 | 5.8 | 4.4 | 5.0 | 5.4 | 4.6 | 5.1 | 6.6 | 5.6 | 6.1 | 6.0 | 5.5 | 5.7 |
| 27 | 5.6 | 4.2 | 4.9 | 5.8 | 4.9 | 5.4 | 6.5 | 5.3 | 5.7 | 5.7 | 5.0 | 5.4 |
| 28 | 6.1 | 4.4 | 5.3 | 5.7 | 5.0 | 5.3 | 6.3 | 5.2 | 5.7 | 5.8 | 4.6 | 5.1 |
| 29 | 6.0 | 4.8 | 5.5 | 5.6 | 4.7 | 5.1 | 6.5 | 5.2 | 5.6 | 5.4 | 4.3 | 4.9 |
| 30 | 5.3 | 2.2 | 4.1 | 5.3 | 4.6 | 4.9 | 6.4 | 5.0 | 5.5 | 5.2 | 4.7 | --- |
| 31 | --- | --- | --- | 5.1 | 4.5 | 4.8 | 6.3 | 4.9 | 5.3 | --- | --- | --- |
| MONTH | 7.0 | 2.2 | 5.3 | 5.8 | 1.1 | 3.6 | 7.3 | 3.9 | 5.5 | --- | --- | --- |

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | 12.0 | 12.0 | 12.0 | 6.0 | 6.0 | 6.0 | 5.5 | 4.5 | 5.0 |
| 2 | --- | --- | --- | 13.0 | 12.0 | 12.5 | 6.5 | 5.5 | 6.0 | 5.0 | 4.5 | 5.0 |
| 3 | 19.5 | 18.5 | --- | 14.0 | 13.0 | 13.5 | 6.5 | 6.0 | --- | 5.0 | 4.0 | 4.5 |
| 4 | 19.5 | 18.5 | 18.5 | 13.5 | 13.0 | 13.0 | --- | --- | --- | 4.5 | 4.5 | 4.5 |
| 5 | 19.0 | 18.5 | 18.5 | 13.0 | 13.0 | 13.0 | --- | --- | --- | 4.5 | 4.5 | 4.5 |
| 6 | 19.0 | 18.5 | 18.5 | 13.5 | 11.5 | 12.5 | --- | --- | --- | 4.5 | 4.0 | 4.0 |
| 7 | 18.5 | 18.0 | 18.5 | 13.0 | 12.0 | 12.5 | --- | --- | --- | 4.0 | 2.0 | 3.0 |
| 8 | 18.0 | 16.5 | 17.5 | 13.0 | 12.0 | 12.0 | --- | --- | --- | 3.0 | 1.5 | 2.0 |
| 9 | 17.0 | 16.5 | 17.0 | 12.0 | 11.5 | 12.0 | 6.0 | 6.0 | --- | 2.0 | 1.5 | 1.5 |
| 10 | 16.5 | 15.5 | 16.0 | 13.0 | 11.5 | 12.0 | 6.5 | 6.0 | 6.0 | 2.0 | 1.0 | 1.5 |
| 11 | 16.5 | 15.5 | 16.0 | 13.0 | 11.5 | 12.0 | 6.5 | 6.0 | 6.0 | 2.0 | 1.0 | 1.0 |
| 12 | --- | --- | --- | 13.0 | 12.0 | 12.0 | 6.0 | 5.5 | 6.0 | 1.5 | 0.5 | 1.0 |
| 13 | --- | --- | --- | 13.5 | 11.5 | 12.0 | 6.5 | 6.0 | 6.0 | 1.5 | 0.5 | 0.5 |
| 14 | 16.0 | 15.5 | --- | 13.0 | 11.5 | 12.0 | 6.0 | 6.0 | 6.0 | 1.5 | 0.5 | 0.5 |
| 15 | 15.5 | 14.5 | 15.0 | 12.0 | 10.5 | 11.0 | 6.0 | 5.5 | 5.5 | 1.5 | 0.5 | 1.0 |
| 16 | 15.0 | 14.5 | 14.5 | 11.0 | 10.5 | 10.5 | 5.5 | 4.0 | 5.0 | 2.0 | 0.5 | 1.0 |
| 17 | 15.5 | 14.0 | 14.5 | 10.5 | 10.0 | 10.0 | 6.5 | 2.0 | 3.5 | 1.5 | 1.0 | --- |
| 18 | 14.5 | 14.0 | 14.0 | 10.5 | 9.5 | 10.0 | 4.0 | 2.0 | 3.0 | --- | --- | --- |
| 19 | 14.0 | 12.0 | 13.5 | 9.5 | 9.0 | 9.5 | 4.0 | 3.0 | 3.5 | --- | --- | --- |
| 20 | 13.5 | 13.0 | 13.0 | 9.5 | 8.5 | 9.0 | 4.0 | 3.5 | 4.0 | --- | --- | --- |
| 21 | 13.0 | 12.0 | 12.5 | 9.0 | 8.0 | 8.5 | 4.0 | 3.5 | 4.0 | --- | --- | --- |
| 22 | 13.0 | 12.0 | 12.0 | 8.5 | 7.0 | 7.5 | 4.0 | 4.0 | 4.0 | --- | --- | --- |
| 23 | 13.5 | 12.0 | 13.0 | 8.0 | 6.5 | 7.0 | 4.5 | 4.0 | 4.0 | 3.5 | 3.0 | --- |
| 24 | 13.5 | 13.0 | --- | 7.0 | 6.0 | 6.5 | 4.5 | 4.0 | 4.5 | 3.5 | 3.0 | 3.0 |
| 25 | 13.5 | 12.0 | --- | 6.5 | 6.0 | 6.5 | 5.0 | 4.5 | 4.5 | 3.5 | 3.0 | 3.0 |
| 26 | 13.5 | 12.0 | 13.0 | 7.0 | 6.5 | 7.0 | 5.0 | 4.5 | 4.5 | 4.0 | 3.0 | 3.5 |
| 27 | 13.5 | 12.0 | 13.0 | 7.0 | 6.5 | 7.0 | 5.0 | 4.5 | 4.5 | 3.5 | 3.5 | 3.5 |
| 28 | 14.0 | 13.0 | 13.5 | 7.0 | 6.5 | 6.5 | 5.0 | 4.5 | 4.5 | 4.0 | 3.5 | 3.5 |
| 29 | 14.0 | 13.5 | 13.5 | 7.0 | 6.0 | 6.5 | 4.5 | 4.0 | 4.5 | 4.0 | 3.0 | 3.5 |
| 30 | 14.0 | 12.0 | 13.5 | 6.0 | 6.0 | 6.0 | 4.5 | 4.0 | 4.0 | 3.5 | 3.0 | 3.0 |
| 31 | 13.0 | 12.0 | 12.5 | --- | --- | --- | 5.0 | 4.0 | 4.5 | 3.5 | 2.0 | 3.0 |
| MONTH | 19.5 | 12.0 | --- | 14.0 | 6.0 | 10.0 | 6.5 | 2.0 | --- | 5.5 | 0.5 | --- |

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 3.0 | 2.0 | 2.5 | 3.5 | 2.0 | 2.5 | --- | --- | --- | 14.5 | 13.5 | 14.0 |
| 2 | 4.0 | 3.0 | 3.0 | 4.0 | 3.0 | 3.0 | --- | --- | --- | 15.5 | 14.0 | 14.5 |
| 3 | 4.5 | 3.5 | 4.0 | 3.5 | 3.0 | 3.0 | --- | --- | --- | 15.5 | 15.0 | 15.0 |
| 4 | 4.5 | 4.0 | 4.5 | 4.0 | 3.5 | 3.5 | --- | --- | --- | 15.5 | 14.5 | 15.0 |
| 5 | 5.0 | 4.5 | 4.5 | 4.5 | 3.5 | --- | 9.5 | 9.0 | --- | 15.0 | 14.5 | 14.5 |
| 6 | 4.5 | 4.5 | 4.5 | --- | --- | --- | 10.0 | 8.5 | 9.5 | 15.5 | 14.5 | 15.0 |
| 7 | 5.0 | 4.0 | 4.5 | --- | --- | --- | 10.5 | 9.5 | 10.0 | 16.0 | 14.5 | 15.0 |
| 8 | 5.0 | 4.5 | 4.5 | --- | --- | --- | 10.0 | 9.5 | 9.5 | 15.0 | 14.5 | 15.0 |
| 9 | 4.5 | 3.5 | 4.0 | --- | --- | --- | 10.5 | 9.0 | 9.5 | 16.0 | 14.5 | 15.5 |
| 10 | 3.5 | 2.0 | 3.0 | --- | --- | --- | 10.5 | 9.5 | 10.0 | 17.0 | 15.5 | 16.0 |
| 11 | 3.0 | 1.5 | 2.0 | --- | --- | --- | 9.5 | 8.5 | 9.0 | 18.0 | 16.0 | 16.5 |
| 12 | 2.0 | 1.0 | 1.5 | --- | --- | --- | 9.0 | 8.5 | 9.0 | 18.0 | 16.5 | 17.0 |
| 13 | 3.0 | 1.5 | 2.0 | 8.5 | 7.0 | --- | 9.0 | 8.0 | 8.5 | 18.0 | 16.5 | 17.5 |
| 14 | 2.0 | 2.0 | 2.0 | 8.5 | 6.5 | 7.5 | 9.5 | 8.0 | 8.5 | 18.5 | 17.0 | 17.5 |
| 15 | 3.5 | 2.0 | 2.5 | 8.5 | 7.0 | 8.0 | 10.0 | 8.5 | 9.0 | 17.0 | 16.5 | 17.0 |
| 16 | 3.5 | 1.5 | 2.5 | 8.5 | 8.0 | 8.0 | 10.5 | 9.0 | 9.5 | 18.0 | 16.0 | 17.0 |
| 17 | 1.0 | 0.0 | 0.5 | 9.0 | 8.0 | 8.5 | 11.0 | 9.5 | 10.0 | 18.0 | 16.5 | 17.0 |
| 18 | 1.0 | 0.0 | 0.5 | 8.5 | 8.0 | 8.0 | 11.5 | 10.0 | 10.5 | 17.0 | 16.0 | 16.5 |
| 19 | 1.5 | 0.5 | 1.0 | 8.0 | 7.0 | 8.0 | 11.5 | 10.5 | 11.0 | 18.0 | 16.0 | 16.5 |
| 20 | 1.5 | 1.0 | 1.0 | 8.5 | 7.0 | 7.5 | 12.0 | 11.0 | 11.5 | 17.0 | 16.0 | 16.5 |
| 21 | 2.0 | 1.0 | 1.5 | 6.5 | 6.5 | 6.5 | 12.0 | 11.0 | 11.5 | 17.0 | 16.5 | 16.5 |
| 22 | 2.0 | 1.0 | 1.5 | 6.5 | 6.0 | 6.0 | 14.0 | 11.5 | 12.5 | 18.5 | 16.0 | 17.0 |
| 23 | 2.0 | 1.0 | 1.5 | 6.5 | 5.5 | 6.0 | 14.0 | 13.0 | 13.5 | 18.0 | 16.5 | 17.0 |
| 24 | 2.0 | 1.0 | 1.5 | 7.0 | 5.5 | 6.0 | 14.5 | 13.0 | 14.0 | 17.0 | 16.5 | 16.5 |
| 25 | 3.0 | 1.0 | 2.0 | 7.0 | 6.0 | 6.5 | 14.5 | 13.5 | 13.5 | 16.5 | 16.0 | 16.0 |
| 26 | 3.0 | 1.5 | 2.0 | 7.0 | 6.0 | 6.5 | 13.5 | 13.0 | 13.0 | 16.5 | 15.5 | 16.0 |
| 27 | 2.0 | 1.5 | 1.5 | 8.0 | 6.5 | 7.0 | 14.0 | 12.0 | 13.0 | 16.0 | 15.5 | 15.5 |
| 28 | 3.5 | 1.5 | 2.0 | 8.5 | 6.5 | 7.0 | 14.0 | 13.0 | 13.5 | 16.5 | 15.5 | 16.0 |
| 29 | --- | --- | --- | 8.5 | 7.0 | 8.0 | 14.0 | 13.0 | 13.5 | 18.5 | 16.0 | 17.0 |
| 30 | --- | --- | --- | 8.5 | 7.0 | 8.0 | 14.5 | 13.5 | 13.5 | 18.5 | 17.0 | 17.5 |
| 31 | --- | --- | --- | 8.5 | 8.0 | --- | --- | --- | --- | 19.0 | 17.0 | 18.0 |
| MONTH | 5.0 | 0.0 | 2.5 | --- | --- | --- | 14.5 | 8.0 | 11.0 | 19.0 | 13.5 | 16.0 |

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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

## 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 sq mi (50.5 sq km).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 11... | 1700 | 28 | 12 | 570 | 20 | 5.7 | 1.4 | 5.0 | 2.5 | 9 | 10 |
| NOV. | | | | | | | | | | | |
| 15... | 1605 | 37 | 14 | 810 | 10 | 5.0 | 1.6 | 5.8 | 2.4 | 8 | 9.5 |
| DEC. | | | | | | | | | | | |
| 22... | 1305 | 58 | 14 | 320 | 0 | 5.0 | 1.4 | 5.9 | 1.7 | 10 | 7.4 |
| JAN. | | | | | | | | | | | |
| 10... | 0920 | 27 | 15 | 370 | 20 | 6.0 | 1.5 | 6.5 | 2.0 | 10 | 6.8 |
| FEB. | | | | | | | | | | | |
| 06... | 1650 | 49 | 11 | 370 | 40 | 5.0 | 1.2 | 4.7 | 2.0 | 8 | 12 |
| MAR. | | | | | | | | | | | |
| 05... | 1500 | 29 | 15 | 280 | 10 | 5.0 | 1.5 | 7.3 | 1.8 | 13 | 5.3 |
| APR. | | | | | | | | | | | |
| 04... | 1625 | 34 | 9.8 | 360 | 0 | 5.0 | 1.4 | 6.2 | 1.8 | 16 | 6.0 |
| MAY | | | | | | | | | | | |
| 24... | 1205 | 24 | 14 | 480 | 0 | 4.9 | 1.4 | 7.0 | 1.6 | 23 | 2.2 |
| JUNE | | | | | | | | | | | |
| 12... | 0930 | 12 | 12 | 540 | 20 | 4.0 | 1.4 | 7.9 | 1.6 | 23 | 2.0 |
| JULY | | | | | | | | | | | |
| 27... | 1430 | 9.3 | 6.3 | 420 | 20 | 4.0 | 1.3 | 7.5 | 1.4 | 23 | 1.5 |
| AUG. | | | | | | | | | | | |
| 09... | 1530 | 8.6 | 7.0 | 460 | 10 | 3.0 | 1.3 | 8.3 | 1.5 | 25 | 1.4 |
| SEP. | | | | | | | | | | | |
| 05... | 1500 | 18 | 13 | 1800 | 320 | 4.0 | 1.5 | 7.1 | 2.3 | 19 | 7.5 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 11... | 8.0 | .0 | 3.5 | 53 | 20 | 13 | 70 | 6.6 | 17.0 | 17.5 |
| NOV. | | | | | | | | | | |
| 15... | 10 | .0 | 5.3 | 58 | 19 | 12 | 76 | 6.7 | 10.5 | 4.5 |
| DEC. | | | | | | | | | | |
| 22... | 8.2 | .0 | 7.5 | 56 | 18 | 10 | 73 | 6.9 | 9.0 | 9.0 |
| JAN. | | | | | | | | | | |
| 10... | 8.3 | .1 | 11 | 62 | 21 | 13 | 80 | 6.7 | 3.0 | -3.5 |
| FEB. | | | | | | | | | | |
| 06... | 6.2 | .0 | 5.3 | 51 | 17 | 11 | 61 | 6.5 | 8.0 | 7.5 |
| MAR. | | | | | | | | | | |
| 05... | 8.9 | .0 | 8.0 | 59 | 19 | 8 | 78 | 6.6 | 11.5 | 10.0 |
| APR. | | | | | | | | | | |
| 04... | 8.5 | .2 | 5.7 | 53 | 18 | 5 | 74 | 6.9 | 15.0 | 15.0 |
| MAY | | | | | | | | | | |
| 24... | 8.1 | .2 | 4.8 | 56 | 18 | 0 | 75 | 7.0 | 18.5 | 17.0 |
| JUNE | | | | | | | | | | |
| 12... | 8.5 | .3 | 3.6 | 53 | 16 | 0 | 76 | 6.9 | 27.0 | 24.5 |
| JULY | | | | | | | | | | |
| 27... | 8.0 | .2 | 2.0 | 44 | 15 | 0 | 71 | 7.1 | 24.5 | 28.0 |
| AUG. | | | | | | | | | | |
| 09... | 8.5 | .2 | 2.1 | 46 | 13 | 0 | 77 | 7.0 | 29.0 | 32.0 |
| SEP. | | | | | | | | | | |
| 05... | 7.7 | .3 | 3.4 | 56 | 16 | 1 | 81 | 6.6 | 27.5 | 30.0 |

## 01488110 NANTICOKE RIVER AT SHARPTOWN, MD.

LOCATION.--Lat 38°32'39", long 75°43'15", Wicomico County, at drawbridge on Maryland State Highway 313, 1.6 miles (2.8 km) downstream from Delaware-Maryland State line, and 2.4 miles (3.9 km) upstream from Marshyhope Creek.

DRAINAGE AREA.--406 sq mi (1,052 sq km), approximately.

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | DIS-SOLVED SILICA (SIO2) (MG/L) | DIS-SOLVED ALUM-INUM (AL) (UG/L) | DIS-SOLVED IRON (FE) (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 (HCO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 07... | 1130 | 13 | 100 | 330 | 70 | 5.3 | 1.7 | 5.5 | 2.1 | 9 | 8.4 |
| MAR. | | | | | | | | | | | |
| 07... | 1345 | 13 | 200 | 340 | 30 | 4.5 | 1.7 | 6.3 | 1.9 | 9 | 6.9 |
| JUNE | | | | | | | | | | | |
| 04... | 1320 | -- | 100 | 310 | 20 | 4.3 | 2.4 | 12 | 2.0 | 20 | 7.0 |

| DATE | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS_ SOLVED NITRATE (NO3) (MG/L) | TOTAL PHOS-PHORUS (P) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | TOTAL NON-FILT-RABLE RESIDUE (MG/L) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | COLOR (PLAT-INUM-COBALT UNITS) | TUR-BID-ITY (JTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 07... | 8.0 | .0 | 8.0 | .04 | 67 | 57 | 18 | 20 | 13 | 20 | 9 |
| MAR. | | | | | | | | | | | |
| 07... | 8.0 | .0 | 11 | .05 | 62 | 58 | 25 | 18 | 11 | 18 | 10 |
| JUNE | | | | | | | | | | | |
| 04... | 17 | .2 | 3.5 | .04 | 61 | -- | 16 | 21 | 4 | 25 | 8 |

| DATE | BIO-CHEM-ICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | DIS-SOLVED CAD-MIUM (CD) (UG/L) | TOTAL CHRO-MIUM (CR) (UG/L) | DIS-SOLVED CHRO-MIUM (CR) (UG/L) | HEXA-VALENT CHRO-MIUM (CR6) (UG/L) | DIS-SOLVED COPPER (CU) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | DIS-SOLVED ZINC (ZN) (UG/L) | SUS-PENDED SEDI-MENT (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 07... | 1.7 | .01 | 2 | 0 | -- | -- | 0 | 0 | 1 | 10 | 16 |
| MAR. | | | | | | | | | | | |
| 07... | 1.4 | .00 | 2 | 1 | -- | 0 | -- | 0 | 1 | 10 | -- |
| JUNE | | | | | | | | | | | |
| 04... | 1.8 | .01 | 0 | 0 | 0 | -- | -- | 0 | 2 | 0 | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPER-ATURE (DEG C) | DIS-SOLVED OXYGEN (MG/L) | PH (UNITS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | FECAL COLI-FORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|
| DEC. | | | | | | |
| 07... | 1130 | 9.0 | 9.2 | 6.0 | 85 | 93 |
| MAR. | | | | | | |
| 07... | 1345 | 8.5 | 10.4 | 6.2 | 84 | 10 |
| JUNE | | | | | | |
| 04... | 1320 | 23.0 | 9.7 | 7.0 | 115 | 17 |

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 Gravely Branch, 2 miles (3.2 km) northeast of Greensboro, and 60 miles (97 km) upstream from mouth.

DRAINAGE AREA.--113 sq mi (293 sq km).

PERIOD OF RECORD.--Chemical analyses: Febraury 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 24... | 1030 | 49 | 16 | -- | 680 | -- | 0 | -- | 11 | 3.0 | 6.7 |
| NOV. | | | | | | | | | | | |
| 21... | 1200 | 1030 | 9.3 | -- | 990 | -- | 50 | -- | 5.6 | 1.8 | 3.0 |
| DEC. | | | | | | | | | | | |
| 07... | 1340 | 234 | 15 | 200 | -- | 580 | -- | 50 | 7.8 | 2.2 | 4.6 |
| MAR. | | | | | | | | | | | |
| 07... | 1110 | 172 | 14 | 300 | -- | 390 | -- | 40 | 9.1 | 2.3 | 6.2 |
| APR. | | | | | | | | | | | |
| 19... | 2100 | 132 | 15 | -- | 1900 | -- | 100 | -- | 7.5 | 2.3 | 7.4 |
| MAY | | | | | | | | | | | |
| 24... | 1000 | 82 | 17 | -- | 2300 | -- | 40 | -- | 9.7 | 2.6 | 5.9 |
| JUNE | | | | | | | | | | | |
| 04... | 1110 | 117 | 17 | 0 | 780 | -- | 110 | -- | 8.4 | 2.4 | 5.1 |
| 24... | 1130 | 309 | 9.5 | -- | 1800 | -- | 30 | -- | 7.0 | 1.9 | 3.1 |
| JULY | | | | | | | | | | | |
| 25... | 0945 | 31 | 16 | -- | 1300 | -- | 50 | -- | 11 | 2.9 | 7.6 |
| SEP. | | | | | | | | | | | |
| 07... | 1005 | 20 | 14 | -- | 2400 | -- | 140 | -- | 11 | 3.3 | 7.2 |
| 24... | 1045 | 22 | 13 | -- | 940 | -- | 40 | -- | 11 | 3.3 | 6.4 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 24... | 2.7 | 22 | 18 | 11 | .1 | -- | 6.2 | -- | -- | 86 | -- |
| NOV. | | | | | | | | | | | |
| 21... | 2.5 | 5 | 17 | 6.1 | .0 | -- | 2.2 | -- | -- | 50 | -- |
| DEC. | | | | | | | | | | | |
| 07... | 1.7 | 9 | 17 | 7.7 | .1 | -- | 4.0 | .05 | 73 | 65 | 10 |
| MAR. | | | | | | | | | | | |
| 07... | 1.6 | 12 | 17 | 9.5 | .0 | -- | 5.3 | .03 | 83 | 71 | 9 |
| APR. | | | | | | | | | | | |
| 19... | 1.7 | 15 | 14 | 9.3 | .3 | -- | 5.3 | -- | -- | 70 | -- |
| MAY | | | | | | | | | | | |
| 24... | 1.7 | 20 | 16 | 9.3 | .2 | -- | 6.2 | -- | -- | 78 | -- |
| JUNE | | | | | | | | | | | |
| 04... | 1.9 | 17 | 16 | 8.2 | .3 | -- | 5.7 | .08 | 106 | 98 | 18 |
| 24... | 2.6 | 8 | 17 | 7.1 | .3 | -- | 5.3 | -- | -- | 58 | -- |
| JULY | | | | | | | | | | | |
| 25... | 2.0 | 25 | 12 | 12 | .3 | -- | 5.7 | -- | -- | 82 | -- |
| SEP. | | | | | | | | | | | |
| 07... | 2.3 | 27 | 12 | 14 | .3 | 6.2 | -- | -- | -- | 77 | -- |
| 24... | 2.3 | 24 | 15 | 12 | .3 | 7.5 | -- | -- | -- | 75 | -- |

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | HARDNESS (CA,MG) (MG/L) | NON-CARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 24... | 40 | 22 | 130 | 7.0 | 11.5 | 15.5 | -- | -- | -- | -- |
| NOV. | | | | | | | | | | |
| 21... | 21 | 17 | 71 | 6.2 | 7.0 | 8.0 | -- | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 07... | 29 | 21 | -- | -- | -- | -- | 80 | 10 | 1.4 | .01 |
| MAR. | | | | | | | | | | |
| 07... | 32 | 22 | -- | -- | -- | -- | 30 | 9 | 1.3 | .02 |
| APR. | | | | | | | | | | |
| 19... | 28 | 16 | 98 | 6.8 | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 24... | 35 | 19 | 108 | 6.7 | 15.5 | 16.5 | -- | -- | -- | -- |
| JUNE | | | | | | | | | | |
| 04... | 31 | 17 | -- | -- | -- | -- | 80 | 15 | 1.1 | .01 |
| 24... | 25 | 19 | 81 | 6.0 | 21.5 | 23.5 | -- | -- | -- | -- |
| JULY | | | | | | | | | | |
| 25... | 39 | 19 | 127 | 6.7 | 21.0 | 23.0 | -- | -- | -- | -- |
| SEP. | | | | | | | | | | |
| 07... | 41 | 19 | 141 | 7.1 | 23.5 | 28.0 | -- | -- | -- | -- |
| 24... | 41 | 21 | 138 | 7.1 | 18.5 | 21.0 | -- | -- | -- | -- |

| DATE | PHENOLS (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 07... | 19 | 0 | -- | -- | 0 | 0 | 1 | 0 | 15 | 9.5 |
| MAR. | | | | | | | | | | |
| 07... | 1 | 0 | -- | 0 | -- | 0 | 0 | 80 | -- | -- |
| APR. | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | |
| 04... | 3 | 0 | 0 | -- | -- | 0 | 3 | 0 | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JULY | | | | | | | | | | |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | |
| 07... | 1340 | 234 | 8.0 | 9.9 | 6.1 | 95 | 88 |
| MAR. | | | | | | | |
| 07... | 1110 | 172 | 7.0 | 10.8 | 6.5 | 110 | 47 |
| JUNE | | | | | | | |
| 04... | 1110 | 117 | 19.0 | 7.2 | 6.5 | 105 | 210 |

## 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 sq mi (27.2 km).

PERIOD OF RECORD.--Chemical analyses: July to September 1973.

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| JULY | | | | | | | | | | |
| 20... | 0945 | 7.8 | 11 | 2400 | 300 | 12 | 3.1 | 4.4 | 2.8 | 41 |
| AUG. | | | | | | | | | | |
| 10... | 0920 | 7.3 | 11 | 550 | 30 | 11 | 2.9 | 4.4 | 3.0 | 40 |
| SEP. | | | | | | | | | | |
| 05... | 0930 | 6.3 | 12 | 3000 | 420 | 11 | 2.9 | 4.5 | 2.8 | 41 |

| DATE | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JULY | | | | | | | | | | | |
| 20... | 2.8 | 8.0 | .3 | 7.1 | 72 | 43 | 9 | 116 | 6.8 | 21.0 | 24.5 |
| AUG. | | | | | | | | | | | |
| 10... | 3.7 | 7.9 | .3 | 6.9 | 71 | 39 | 7 | 115 | 7.2 | 22.0 | 28.0 |
| SEP. | | | | | | | | | | | |
| 05... | 3.5 | 7.8 | .3 | 6.8 | 72 | 39 | 6 | 114 | 7.1 | 22.0 | 27.0 |

01580000 DEER CREEK AT ROCKS, MD.

LOCATION.--Lat 39°37'49", long 76°24'13", Harford County, at gaging station 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 sq mi (244.5 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1972 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | DISSOLVED IRON (FE) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | | |
| 08... | 1245 | 192 | 8.1 | 100 | 80 | 60 | 9.2 | 2.9 | 4.5 | 1.5 | 18 | 7.0 |
| MAR. | | | | | | | | | | | | |
| 05... | 1405 | 204 | 6.9 | 100 | 60 | 40 | 7.5 | 2.8 | 5.2 | 1.2 | 14 | 6.2 |
| MAY | | | | | | | | | | | | |
| 29... | 1340 | 342 | 7.8 | 100 | 100 | 50 | 7.5 | 2.6 | 3.7 | 1.3 | 19 | 8.0 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | | |
| 08... | 8.3 | .0 | 11 | .04 | 71 | 61 | 17 | 35 | 20 | 2 | 15 | 2.2 |
| MAR. | | | | | | | | | | | | |
| 05... | 8.9 | .0 | 11 | .01 | 64 | 46 | 5 | 30 | 19 | 5 | 3 | 2.3 |
| MAY | | | | | | | | | | | | |
| 29... | 6.0 | .2 | 10 | .05 | 62 | 57 | 39 | 29 | 14 | 5 | 20 | .7 |

| DATE | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 08... | .01 | 1 | 0 | -- | -- | 0 | 0 | 1 | 0 | 28 | 15 |
| MAR. | | | | | | | | | | | |
| 05... | .01 | 1 | 1 | -- | 0 | -- | 0 | 0 | 0 | -- | -- |
| MAY | | | | | | | | | | | |
| 29... | .03 | 0 | 4 | 0 | -- | -- | 0 | 2 | 50 | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 26... | 0930 | 79 | 7.0 | 12.4 | 7.2 | 85 | 70 |
| NOV. | | | | | | | |
| 13... | 0950 | 95 | 7.0 | 12.4 | 7.1 | 90 | 320 |
| DEC. | | | | | | | |
| 08... | 1245 | 192 | 3.0 | 12.6 | 6.9 | 105 | 190 |
| JAN. | | | | | | | |
| 08... | 1215 | 240 | .0 | 14.6 | 6.8 | 85 | 17 |
| FEB. | | | | | | | |
| 12... | 1150 | 234 | .0 | 14.0 | 6.8 | 95 | 25 |
| MAR. | | | | | | | |
| 05... | 1405 | 204 | 8.0 | 12.2 | 7.1 | 95 | 832 |
| APR. | | | | | | | |
| 02... | 1025 | 580 | 10.0 | 11.4 | 6.9 | 87 | B1300 |
| MAY | | | | | | | |
| 07... | 1025 | 222 | 12.0 | 11.5 | 7.4 | 84 | 96 |
| 29... | 1340 | 342 | 16.5 | 9.6 | 7.2 | 89 | 1200 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01587500 SOUTH BRANCH PATAPSCO RIVER AT HENRYTON, MD.

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

DRAINAGE AREA.--64.4 sq mi (166.8 sq km).

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV. | | | | | | | | | | | |
| 02... | 1110 | 50 | 8.1 | 220 | 40 | 12 | 3.2 | 5.3 | 2.6 | 38 | 6.3 |
| DEC. | | | | | | | | | | | |
| 12... | 1400 | 130 | 7.5 | 360 | 70 | 11 | 2.8 | 5.2 | 2.0 | 25 | 9.5 |
| JAN. | | | | | | | | | | | |
| 23... | 1110 | 136 | 7.2 | 1100 | 130 | 10 | 3.0 | 5.2 | 2.4 | 22 | 10 |
| FEB. | | | | | | | | | | | |
| 27... | 1600 | 110 | 6.4 | 160 | 50 | 8.7 | 2.9 | 4.9 | 1.3 | 19 | 6.5 |
| APR. | | | | | | | | | | | |
| 09... | 0930 | 181 | 8.0 | 210 | 90 | 11 | 2.8 | 6.9 | 1.5 | 26 | 9.7 |
| MAY | | | | | | | | | | | |
| 25... | 1235 | 220 | 6.8 | 590 | 170 | 10 | 3.2 | 5.0 | 3.2 | 28 | 10 |
| JULY | | | | | | | | | | | |
| 03... | 1105 | 72 | 8.5 | 310 | 50 | 10 | 2.9 | 4.6 | 1.8 | 32 | 4.2 |
| AUG. | | | | | | | | | | | |
| 21... | 1100 | 45 | 8.8 | 770 | 90 | 11 | 3.4 | 6.4 | 2.4 | 40 | 6.0 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | AIR TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV. | | | | | | | | | | |
| 02... | 8.9 | .0 | 7.5 | 73 | 43 | 12 | 120 | 7.2 | 9.0 | -- |
| DEC. | | | | | | | | | | |
| 12... | 9.5 | .1 | 9.7 | 70 | 39 | 18 | 109 | 7.0 | 4.0 | -- |
| JAN. | | | | | | | | | | |
| 23... | 9.0 | .0 | 12 | 70 | 37 | 19 | 113 | 6.8 | 5.0 | -- |
| FEB. | | | | | | | | | | |
| 27... | 8.6 | .0 | 12 | 60 | 34 | 18 | 101 | 7.3 | 5.0 | -- |
| APR. | | | | | | | | | | |
| 09... | 11 | .1 | 8.0 | 64 | 39 | 18 | 115 | 7.2 | 7.0 | -- |
| MAY | | | | | | | | | | |
| 25... | 8.7 | .3 | 8.4 | 70 | 38 | 15 | 111 | 6.6 | -- | -- |
| JULY | | | | | | | | | | |
| 03... | 7.5 | .3 | .80 | 56 | 37 | 11 | 107 | 7.1 | 21.0 | 21.0 |
| AUG. | | | | | | | | | | |
| 21... | 11 | .2 | 9.7 | 79 | 41 | 9 | 132 | 7.1 | 21.0 | -- |

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD.

LOCATION.--Lat 39°18'36", long 76°47'39", Howard County, at gaging station on 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 sq mi (738 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 08... | 0925 | 380 | 7.2 | -- | 100 | -- | 80 | -- | 50 | 13 | 3.0 | 5.6 |
| MAR. 05... | 1145 | 355 | 6.5 | -- | 300 | -- | 80 | -- | 40 | 12 | 3.3 | 5.2 |
| MAY 29... | 1050 | 1420 | 5.6 | -- | 100 | -- | 50 | -- | 30 | 11 | 3.2 | 4.6 |
| SEP. 13... | 1015 | 78 | 9.4 | 100 | -- | 390 | -- | 100 | -- | 15 | 4.1 | 6.3 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | SUSPENDED SOLIDS (MG/L) | HARDNESS (CA,MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 08... | 2.4 | 35 | 9.2 | 8.7 | .1 | 6.2 | .06 | 75 | 73 | 22 | -- | 45 |
| MAR. 05... | 2.0 | 28 | 9.4 | 9.5 | .1 | 8.0 | .01 | 71 | 62 | 6 | -- | 44 |
| MAY 29... | 1.7 | 29 | 9.0 | 8.3 | .3 | 8.1 | .04 | 80 | 66 | 34 | -- | 41 |
| SEP. 13... | 2.2 | 52 | 7.0 | 9.5 | .2 | 6.1 | .05 | 92 | 85 | 5 | 10 | 54 |

| DATE | NONCARBONATE HARDNESS (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 08... | 16 | 4 | 15 | 2.4 | .00 | 1 | -- | 0 | -- | -- | 0 | -- |
| MAR. 05... | 21 | 5 | 2 | 2.7 | .00 | 1 | -- | 2 | -- | 0 | -- | -- |
| MAY 29... | 17 | 5 | 25 | .8 | .02 | 0 | -- | 1 | 0 | -- | -- | -- |
| SEP. 13... | 12 | -- | 10 | 1.6 | .01 | -- | 0 | -- | <10 | -- | -- | 0 |

| DATE | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | DISSOLVED GROSS ALPHA AS U-NAT. (UG/L) | SUSPENDED GROSS ALPHA AS U-NAT. (UG/L) | DISSOLVED GROSS BETA AS CS-137 (PC/L) | SUSPENDED GROSS BETA AS CS-137 (PC/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. 08... | 0 | -- | 0 | -- | 40 | -- | -- | -- | -- | 24 | 25 |
| MAR. 05... | 0 | -- | 1 | -- | 0 | -- | -- | -- | -- | -- | -- |
| MAY 29... | 0 | -- | 2 | -- | 10 | -- | -- | -- | -- | -- | -- |
| SEP. 13... | -- | 1 | -- | 0 | -- | <1.3 | .4 | 3.1 | .5 | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. 26... | 1010 | 80 | 10.0 | 11.6 | 7.7 | 145 | 76 |
| NOV. 13... | 1150 | 165 | 9.0 | 11.6 | 7.5 | 155 | 170 |
| DEC. 08... | 0925 | 380 | 5.0 | 12.4 | 7.2 | 125 | B1400 |
| MAR. 05... | 1145 | 355 | 7.0 | 12.5 | 7.2 | 115 | 82 |
| MAY 29... | 1050 | 1420 | 16.0 | 10.0 | 7.2 | 115 | 1300 |
| JULY 11... | 1430 | 108 | 25.5 | 8.5 | 8.0 | 130 | B1400 |
| AUG. 08... | 1450 | 72 | 28.0 | 10.8 | 8.7 | 140 | 8200 |
| SEP. 13... | 1015 | 78 | 18.5 | 9.7 | 7.5 | 150 | 92 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## 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 sq mi (583 sq km).
PERIOD OF RECORD.--Water temperatures: August 1961 to September 1973.
EXTREMES.--1972-73:
Water temperatures: Maximum, 28.5°C Aug. 29; minimum, freezing point on several days during January and February.
Period of record:
Water temperatures: Maximum, 32.0°C Aug. 15, 16, 18, 1965; minimum, freezing point on many days during winter periods.
REMARKS.--Records fair, probably because of friction in recorder.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | 15.5 | 11.0 | 7.0 | 6.5 | 3.0 | 2.5 | 6.0 | 3.5 | 0.0 | 0.0 | 4.0 | 2.0 |
| 2 | 15.5 | 10.0 | 9.0 | 6.5 | 4.5 | 3.0 | 3.5 | 2.0 | 2.5 | 0.0 | 4.5 | 2.5 |
| 3 | 16.0 | 10.5 | 10.0 | 9.0 | 5.0 | 3.5 | 2.0 | 1.5 | 2.5 | 1.5 | 4.0 | 3.5 |
| 4 | 16.0 | 11.5 | 9.0 | 7.5 | 5.5 | 5.0 | 4.0 | 1.5 | 2.5 | 1.5 | 5.5 | 3.5 |
| 5 | 14.5 | 13.0 | 7.5 | 6.5 | 7.5 | 5.5 | 4.0 | 3.0 | 3.0 | 2.5 | 5.5 | 5.5 |
| 6 | 13.5 | 13.0 | 6.5 | 4.5 | 8.0 | 6.0 | 3.0 | 0.5 | 3.0 | 2.0 | 6.0 | 5.5 |
| 7 | 13.5 | 13.0 | 6.5 | 4.5 | 6.0 | 3.5 | 0.5 | 0.5 | 3.0 | 2.0 | 7.5 | 6.0 |
| 8 | 16.0 | 11.5 | 7.0 | 6.5 | 5.0 | 3.0 | 0.5 | 0.5 | 3.0 | 2.0 | 10.0 | 7.5 |
| 9 | 16.0 | 13.0 | 6.5 | 6.0 | 7.0 | 5.0 | 0.5 | 0.5 | 2.0 | 0.0 | 10.0 | 7.5 |
| 10 | 13.0 | 10.0 | 7.0 | 6.0 | 8.0 | 7.0 | 0.5 | 0.5 | 0.0 | 0.0 | 10.0 | 7.5 |
| 11 | 11.5 | 8.0 | 7.0 | 7.0 | 8.0 | 5.5 | 0.5 | 0.5 | 0.0 | 0.0 | 10.5 | 8.5 |
| 12 | 13.5 | 11.5 | 7.5 | 7.0 | 5.5 | 5.0 | 0.5 | 0.5 | 0.0 | 0.0 | 10.0 | 8.0 |
| 13 | 13.5 | 12.5 | 7.0 | 6.0 | 6.5 | 5.5 | 0.5 | 0.5 | 0.5 | 0.0 | 10.0 | 7.5 |
| 14 | 13.5 | 11.5 | 8.5 | 7.0 | 6.0 | 5.5 | 0.5 | 0.5 | 0.0 | 0.0 | 11.5 | 8.0 |
| 15 | 13.0 | 9.5 | 8.5 | 5.5 | 5.5 | 5.0 | 0.5 | 0.5 | 1.0 | 0.0 | 13.0 | 10.5 |
| 16 | 9.5 | 9.0 | 5.5 | 4.5 | 5.0 | 2.0 | 0.5 | 0.0 | 1.0 | 0.0 | 12.5 | 12.0 |
| 17 | 12.0 | 9.5 | 5.5 | 4.5 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 6.0 |
| 18 | 10.0 | 7.5 | 5.5 | 5.0 | 2.0 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 6.0 | 2.5 |
| 19 | 7.5 | 5.5 | 5.5 | 5.0 | 2.5 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 5.5 | 2.5 |
| 20 | 6.5 | 3.5 | 5.0 | 5.0 | 3.5 | 2.5 | 0.5 | 0.0 | 0.0 | 0.0 | 6.5 | 4.5 |
| 21 | 6.0 | 3.5 | 5.0 | 5.0 | 4.0 | 3.5 | 0.0 | 0.0 | 1.0 | 0.0 | 6.0 | 5.0 |
| 22 | 9.5 | 5.5 | 5.0 | 5.0 | 5.5 | 4.0 | 1.0 | 0.0 | 1.0 | 0.0 | 5.5 | 4.5 |
| 23 | 8.0 | 7.0 | 5.0 | 4.0 | 5.5 | 5.5 | 1.0 | 1.0 | 1.5 | 0.0 | 7.5 | 4.0 |
| 24 | 9.5 | 8.0 | 4.0 | 3.5 | 5.5 | 5.5 | 1.0 | 0.5 | 3.5 | 1.5 | 8.0 | 4.5 |
| 25 | 9.0 | 7.0 | 3.5 | 3.0 | 5.5 | 5.5 | 1.5 | 0.5 | 3.0 | 1.5 | 6.5 | 5.5 |
| 26 | 9.0 | 6.5 | 4.0 | 3.0 | 5.5 | 4.0 | 2.5 | 0.5 | 3.5 | 2.0 | 8.0 | 6.0 |
| 27 | 8.0 | 5.0 | 4.0 | 3.0 | 4.0 | 2.0 | 2.5 | 0.5 | 3.0 | 1.5 | 10.0 | 7.5 |
| 28 | 9.0 | 7.5 | 3.5 | 3.5 | 2.0 | 2.0 | 1.5 | 0.5 | 5.0 | 1.5 | 9.5 | 6.5 |
| 29 | 10.0 | 9.0 | 3.5 | 3.0 | 2.0 | 2.0 | 1.5 | 0.0 | --- | --- | 9.0 | 8.0 |
| 30 | 10.5 | 8.0 | 3.0 | 2.5 | 3.5 | 2.0 | 0.0 | 0.0 | --- | --- | 10.5 | 8.5 |
| 31 | 8.0 | 6.5 | --- | --- | 6.0 | 3.5 | 0.0 | 0.0 | --- | --- | 10.0 | 8.5 |
| MONTH | 16.0 | 3.5 | 10.0 | 2.5 | 8.0 | 1.5 | 6.0 | 0.0 | 5.0 | 0.0 | 13.0 | 2.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 10.5 | 8.5 | 12.5 | 10.0 | 17.0 | 12.5 | 23.5 | 17.5 | 23.0 | 19.0 | 28.0 | 21.5 |
| 2 | 10.5 | 8.5 | 13.0 | 12.0 | 18.5 | 14.0 | 25.0 | 19.0 | 21.5 | 18.5 | 27.5 | 21.5 |
| 3 | 8.5 | 7.5 | 13.0 | 11.0 | 18.0 | 16.0 | 26.0 | 20.0 | 23.5 | 19.5 | 27.0 | 21.5 |
| 4 | 7.5 | 7.0 | 11.0 | 8.0 | 21.0 | 16.0 | 26.0 | 21.5 | 23.0 | 18.5 | 26.5 | 22.0 |
| 5 | 7.0 | 6.0 | 10.5 | 7.5 | 21.0 | 18.0 | 25.5 | 21.5 | 25.0 | 18.0 | 26.5 | 22.0 |
| 6 | 9.0 | 5.5 | 12.5 | 8.0 | 21.0 | 18.5 | 24.0 | 19.0 | 24.5 | 19.0 | 24.0 | 21.5 |
| 7 | 8.5 | 7.0 | 15.0 | 11.5 | 21.0 | 17.5 | 26.0 | 18.0 | 26.5 | 20.0 | 23.5 | 19.5 |
| 8 | 8.0 | 7.5 | 14.5 | 14.0 | 22.0 | 17.0 | 26.5 | 19.5 | 26.5 | 21.0 | 23.0 | 17.0 |
| 9 | 7.5 | 7.0 | 14.0 | 13.5 | 23.5 | 19.0 | 27.0 | 21.0 | 27.5 | 20.5 | 20.5 | 18.0 |
| 10 | 7.5 | 5.5 | 14.5 | 12.0 | 24.0 | 20.0 | 27.0 | 22.0 | 25.0 | 22.0 | 21.0 | 15.0 |
| 11 | 6.0 | 4.5 | 15.5 | 13.5 | 25.0 | 20.0 | 25.5 | 21.0 | 27.0 | 21.5 | 20.5 | 14.5 |
| 12 | 6.0 | 4.0 | 14.5 | 12.5 | 24.5 | 20.5 | 23.5 | 18.0 | 25.5 | 21.0 | 20.5 | 16.5 |
| 13 | 7.0 | 4.0 | 13.0 | 12.0 | 20.5 | 18.5 | 26.0 | 17.5 | 23.5 | 22.0 | 20.0 | 15.0 |
| 14 | 8.5 | 5.0 | 12.0 | 10.5 | 22.5 | 17.5 | 27.0 | 20.5 | 23.0 | 21.0 | 18.5 | 17.0 |
| 15 | 10.0 | 5.5 | 12.5 | 11.0 | 23.0 | 17.0 | 24.5 | 22.0 | 21.5 | 19.5 | 19.0 | 16.5 |
| 16 | 10.5 | 7.0 | 14.0 | 9.0 | 20.5 | 19.0 | 23.0 | 20.5 | 24.0 | 19.5 | 19.5 | 15.0 |
| 17 | 10.5 | 10.5 | 13.5 | 10.0 | 22.0 | 19.5 | 24.5 | 19.5 | 22.0 | 19.5 | 18.0 | 16.0 |
| 18 | 11.0 | 10.5 | 11.0 | 8.5 | 19.5 | 17.0 | 25.5 | 20.0 | 20.5 | 19.0 | 17.0 | 15.0 |
| 19 | 13.5 | 11.0 | 13.0 | 9.5 | 18.5 | 17.5 | 26.0 | 19.0 | 20.5 | 19.0 | 16.5 | 13.0 |
| 20 | 15.0 | 12.0 | 14.0 | 12.5 | 22.0 | 18.5 | 23.5 | 21.0 | 19.5 | 18.5 | 15.0 | 12.5 |
| 21 | 15.0 | 13.0 | 15.0 | 11.5 | 22.5 | 19.5 | 22.0 | 20.5 | 18.5 | 18.0 | 14.5 | 13.0 |
| 22 | 15.5 | 13.5 | 15.5 | 12.0 | 21.5 | 19.5 | 21.0 | 18.5 | 20.5 | 17.5 | 18.5 | 13.5 |
| 23 | 15.5 | 13.5 | 15.0 | 14.0 | 21.5 | 18.5 | 19.5 | 18.5 | 21.0 | 16.5 | 18.5 | 16.0 |
| 24 | 14.0 | 11.5 | 14.5 | 13.5 | 23.0 | 18.5 | 23.0 | 17.5 | 20.0 | 17.5 | 20.0 | 15.5 |
| 25 | 14.0 | 10.0 | 13.5 | 13.0 | 23.5 | 18.5 | 22.0 | 19.0 | 22.5 | 18.5 | 17.0 | 15.5 |
| 26 | 10.0 | 9.5 | 13.0 | 12.5 | 24.0 | 19.5 | 25.5 | 20.0 | 24.0 | 19.0 | 18.0 | 15.5 |
| 27 | 9.5 | 9.0 | 13.0 | 12.5 | 24.0 | 20.0 | 25.5 | 21.5 | 25.0 | 20.5 | 19.0 | 14.0 |
| 28 | 9.0 | 8.5 | 16.0 | 13.0 | 21.5 | 19.0 | 26.5 | 20.5 | 27.0 | 22.0 | 19.5 | 15.0 |
| 29 | 11.0 | 8.0 | 16.5 | 15.0 | 22.0 | 18.5 | 24.0 | 20.5 | 28.5 | 22.5 | 19.5 | 17.0 |
| 30 | 11.0 | 9.0 | 17.5 | 14.5 | 23.0 | 17.5 | 24.5 | 18.5 | 28.0 | 22.5 | 18.5 | 16.0 |
| 31 | --- | --- | 16.0 | 14.5 | --- | --- | 26.0 | 19.0 | 28.0 | 22.5 | --- | --- |
| MONTH | 15.5 | 4.0 | 17.5 | 7.5 | 25.0 | 12.5 | 27.0 | 17.5 | 28.5 | 16.5 | 28.0 | 12.5 |

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, W. VA.

LOCATION.--Lat 39°26'44", 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 sq mi (689 sq km), corrected.

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 1530 | 182 | 7.2 | 7600 | -- | 950 | -- | 1800 | -- | 33 | 8.4 | 2.2 |
| NOV. | | | | | | | | | | | | |
| 14... | 1600 | 2830 | 5.0 | -- | -- | -- | 920 | -- | 770 | 20 | 5.3 | 2.0 |
| DEC. | | | | | | | | | | | | |
| 12... | 0905 | 2120 | 5.0 | -- | 3900 | -- | 5400 | -- | 860 | 11 | 5.0 | 2.2 |
| JAN. | | | | | | | | | | | | |
| 09... | 1525 | 376 | 5.9 | -- | 4500 | -- | 7200 | -- | 1100 | 27 | 8.3 | 2.2 |
| FEB. | | | | | | | | | | | | |
| 07... | 1530 | 700 | 4.9 | 2400 | 2600 | -- | 1200 | -- | 780 | 17 | 5.4 | 2.7 |
| MAR. | | | | | | | | | | | | |
| 12... | 1625 | 594 | 5.4 | -- | 2300 | -- | 940 | -- | 820 | 23 | 6.5 | 2.5 |
| APR. | | | | | | | | | | | | |
| 03... | 1545 | 1100 | 5.1 | 2500 | 2500 | -- | 3000 | -- | 0 | 16 | 4.7 | 2.3 |
| MAY | | | | | | | | | | | | |
| 08... | 1535 | 678 | 5.1 | 2400 | 2400 | -- | 650 | -- | 1000 | 25 | 6.7 | 1.9 |
| JUNE | | | | | | | | | | | | |
| 05... | 1530 | 805 | 5.4 | -- | 2800 | -- | 350 | -- | 1200 | 33 | 7.1 | 2.4 |
| JULY | | | | | | | | | | | | |
| 10... | 1530 | 79 | 9.5 | -- | -- | -- | 1400 | -- | 2800 | 68 | 18 | 3.6 |
| AUG. | | | | | | | | | | | | |
| 07... | 1615 | 81 | 8.2 | -- | -- | 1800 | -- | 2200 | -- | 51 | 13 | 2.8 |
| SEP. | | | | | | | | | | | | |
| 13... | 1630 | 41 | 7.5 | 6400 | -- | 790 | -- | 2900 | -- | 120 | 19 | 4.0 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | SUSPENDED SOLIDS (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 18... | 1.3 | 0 | 140 | 3.2 | .3 | 1.3 | -- | -- | 198 | -- | -- |
| NOV. | | | | | | | | | | | |
| 14... | 1.4 | 0 | 80 | 6.4 | .1 | 2.2 | -- | -- | 125 | -- | -- |
| DEC. | | | | | | | | | | | |
| 12... | 1.0 | 0 | 89 | 2.5 | .2 | 3.1 | .01 | 134 | 120 | 8 | -- |
| JAN. | | | | | | | | | | | |
| 09... | 1.1 | 0 | 150 | 3.0 | .2 | 2.2 | -- | -- | 214 | -- | -- |
| FEB. | | | | | | | | | | | |
| 07... | .9 | 0 | 79 | 4.0 | .1 | 2.7 | -- | -- | 122 | -- | -- |
| MAR. | | | | | | | | | | | |
| 12... | 1.0 | 0 | 100 | 4.5 | .2 | 2.2 | .01 | 160 | 150 | 13 | -- |
| APR. | | | | | | | | | | | |
| 03... | .9 | 0 | 79 | 3.7 | .2 | 2.2 | -- | -- | 120 | -- | -- |
| MAY | | | | | | | | | | | |
| 08... | 1.0 | 0 | 110 | 2.5 | .3 | 1.8 | -- | -- | 160 | -- | -- |
| JUNE | | | | | | | | | | | |
| 05... | 1.1 | 0 | 120 | 3.2 | .4 | 1.8 | .08 | 216 | 179 | 104 | -- |
| JULY | | | | | | | | | | | |
| 10... | 1.6 | 0 | 310 | 3.0 | .5 | 1.2 | -- | -- | 422 | -- | -- |
| AUG. | | | | | | | | | | | |
| 07... | 1.6 | 0 | 260 | 4.2 | .4 | 1.2 | -- | -- | 345 | -- | -- |
| SEP. | | | | | | | | | | | |
| 13... | 2.0 | 0 | 380 | 2.5 | .3 | 1.4 | .00 | 693 | 538 | -- | 6 |

01595800 NORTH BRANCH POTOMAC RIVER AT BARNUM, W. VA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 18... | 120 | 120 | .8 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 14... | 72 | 72 | .4 | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 12... | 48 | 48 | .8 | 2 | 3 | -- | 1.5 | .00 | 3 | -- | 0 |
| JAN. | | | | | | | | | | | |
| 09... | 100 | 100 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 07... | 65 | 65 | .4 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 12... | 84 | 84 | .5 | 3 | 10 | 1 | .3 | .01 | 1 | -- | 1 |
| APR. | | | | | | | | | | | |
| 03... | 59 | 59 | .4 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 08... | 90 | 90 | .6 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | |
| 05... | 110 | 110 | .5 | 5 | 40 | -- | 1.1 | .00 | 8 | -- | 0 |
| JULY | | | | | | | | | | | |
| 10... | 240 | 240 | 2.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 07... | 180 | 180 | 2.2 | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 13... | 380 | 380 | 1.0 | -- | 4 | -- | .8 | .01 | 0 | 1 | -- |

| DATE | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 12... | -- | -- | <0 | -- | 30 | -- | 12 | -- | 220 | 34 | 195 |
| JAN. | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 12... | -- | 0 | -- | -- | 0 | -- | 1 | -- | 130 | -- | -- |
| APR. | | | | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | |
| 05... | 0 | -- | -- | -- | 10 | -- | 6 | -- | 140 | -- | -- |
| JULY | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 13... | 10 | -- | -- | 10 | -- | 5 | -- | 250 | -- | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 18... | 1530 | 182 | 10.0 | 10.9 | 3.6 | 355 | 0 |
| NOV. | | | | | | | |
| 14... | 1600 | 2830 | 9.0 | 10.9 | 4.0 | 215 | 130 |
| DEC. | | | | | | | |
| 12... | 0905 | 2120 | 4.5 | 12.5 | 3.9 | 250 | 2 |
| JAN. | | | | | | | |
| 09... | 1525 | 376 | .0 | 14.2 | 3.6 | 350 | 0 |
| FEB. | | | | | | | |
| 07... | 1530 | 700 | 3.0 | 13.0 | 3.8 | 235 | 1 |
| MAR. | | | | | | | |
| 12... | 1625 | 594 | 10.0 | 11.0 | 3.5 | 255 | 0 |
| APR. | | | | | | | |
| 03... | 1545 | 1100 | 7.0 | 12.2 | 3.8 | 205 | 3 |
| MAY | | | | | | | |
| 08... | 1535 | 678 | 13.5 | 10.1 | 3.5 | 298 | 1 |
| JUNE | | | | | | | |
| 05... | 1530 | 805 | 21.5 | 8.1 | 3.4 | 315 | 14 |
| JULY | | | | | | | |
| 10... | 1530 | 79 | 28.5 | 7.2 | 3.5 | 790 | 0 |
| AUG. | | | | | | | |
| 07... | 1615 | 81 | 27.5 | 7.8 | 3.1 | 660 | 0 |
| SEP. | | | | | | | |
| 13... | 1630 | 41 | 21.0 | 9.0 | 3.7 | 865 | 0 |

## 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 sq mi (1,046 sq km).
PERIOD OF RECORD.--Water temperatures: December 1961 to December 1962, July to September 1963, December 1963 to September 1973.
EXTREMES.--1972-73:
Water temperatures: Maximum, 28.0°C Aug. 29, 30, 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.
REMARKS.--Records fair, probably because of friction in recorder. No temperature record Jan. 2 to Feb. 23, Aug. 19-24, and Sept. 9-31.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | 16.0 | 12.5 | 8.0 | 7.5 | 3.0 | 3.0 | 4.0 | 3.5 | --- | --- | 4.0 | 3.0 |
| 2 | 14.0 | 12.0 | 7.5 | 7.5 | 3.5 | 3.0 | --- | --- | --- | --- | 5.0 | 3.5 |
| 3 | 14.0 | 12.5 | 8.5 | 7.5 | 3.5 | 3.5 | --- | --- | --- | --- | 5.0 | 4.5 |
| 4 | 14.0 | 13.0 | 8.5 | 8.0 | 4.0 | 3.5 | --- | --- | --- | --- | 6.0 | 4.5 |
| 5 | 13.5 | 13.0 | 8.0 | 7.5 | 4.5 | 4.0 | --- | --- | --- | --- | 6.0 | 6.0 |
| 6 | 13.0 | 13.0 | 7.5 | 6.5 | 5.5 | 4.5 | --- | --- | --- | --- | 6.0 | 6.0 |
| 7 | 13.0 | 12.5 | 6.5 | 6.5 | 5.0 | 3.5 | --- | --- | --- | --- | 6.5 | 6.0 |
| 8 | 12.5 | 12.0 | 7.0 | 6.5 | 3.5 | 3.0 | --- | --- | --- | --- | 9.5 | 6.5 |
| 9 | 13.0 | 12.0 | 7.0 | 6.5 | 5.0 | 3.5 | --- | --- | --- | --- | 9.5 | 8.5 |
| 10 | 12.0 | 11.0 | 6.5 | 6.5 | 5.5 | 5.0 | --- | --- | --- | --- | 9.5 | 8.5 |
| 11 | 11.0 | 10.0 | 6.5 | 6.5 | 5.5 | 4.5 | --- | --- | --- | --- | 9.5 | 9.0 |
| 12 | 11.5 | 10.5 | 6.5 | 6.5 | 4.5 | 4.5 | --- | --- | --- | --- | 9.5 | 9.0 |
| 13 | 11.5 | 11.0 | 6.5 | 6.0 | 4.5 | 4.5 | --- | --- | --- | --- | 9.5 | 8.5 |
| 14 | 11.5 | 10.5 | 7.0 | 6.0 | 4.5 | 4.5 | --- | --- | --- | --- | 9.5 | 8.5 |
| 15 | 11.5 | 10.5 | 7.0 | 5.0 | 4.5 | 4.0 | --- | --- | --- | --- | 11.0 | 9.5 |
| 16 | 10.5 | 9.5 | 5.0 | 4.0 | 4.0 | 1.5 | --- | --- | --- | --- | 11.0 | 11.0 |
| 17 | 10.5 | 9.5 | 4.5 | 4.0 | 1.5 | 1.5 | --- | --- | --- | --- | 11.0 | 7.0 |
| 18 | 10.0 | 9.0 | 4.5 | 4.5 | 1.5 | 1.5 | --- | --- | --- | --- | 7.0 | 3.5 |
| 19 | 9.0 | 7.5 | 4.5 | 4.0 | 2.0 | 1.5 | --- | --- | --- | --- | 3.5 | 3.0 |
| 20 | 7.5 | 6.5 | 4.5 | 4.0 | 2.5 | 2.0 | --- | --- | --- | --- | 5.5 | 3.0 |
| 21 | 7.0 | 6.5 | 4.0 | 4.0 | 2.5 | 2.5 | --- | --- | --- | --- | 5.0 | 4.5 |
| 22 | 8.5 | 7.0 | 4.0 | 4.0 | 3.0 | 2.5 | --- | --- | --- | --- | 4.5 | 4.0 |
| 23 | 8.5 | 8.0 | 4.0 | 3.5 | 3.0 | 3.0 | --- | --- | --- | --- | 5.5 | 3.0 |
| 24 | 8.5 | 8.0 | 3.5 | 3.0 | 3.0 | 3.0 | --- | --- | 3.0 | 2.0 | 6.0 | 3.5 |
| 25 | 8.5 | 8.5 | 3.0 | 3.0 | 3.0 | 3.0 | --- | --- | 3.0 | 2.0 | 6.0 | 4.0 |
| 26 | 8.5 | 8.0 | 3.5 | 3.0 | 3.0 | 2.5 | --- | --- | 4.0 | 3.0 | 6.0 | 4.5 |
| 27 | 8.0 | 7.5 | 3.5 | 3.5 | 2.5 | 2.0 | --- | --- | 4.0 | 2.5 | 9.0 | 6.5 |
| 28 | 8.5 | 8.0 | 3.5 | 3.5 | 2.0 | 2.0 | --- | --- | 4.0 | 2.0 | 8.5 | 6.5 |
| 29 | 8.5 | 8.5 | 3.5 | 3.5 | 2.5 | 2.0 | --- | --- | --- | --- | 8.5 | 7.5 |
| 30 | 9.0 | 8.5 | 3.5 | 3.0 | 2.5 | 2.5 | --- | --- | --- | --- | 8.5 | 7.5 |
| 31 | 8.5 | 8.0 | --- | --- | 3.5 | 2.5 | --- | --- | --- | --- | 8.5 | 8.0 |
| MONTH | 16.0 | 6.5 | 8.5 | 3.0 | 5.5 | 1.5 | --- | --- | --- | --- | 11.0 | 3.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 9.5 | 8.0 | 12.0 | 10.5 | 16.5 | 14.0 | 24.0 | 19.5 | 22.0 | 20.0 | 26.0 | 21.5 |
| 2 | 10.0 | 9.0 | 13.0 | 12.0 | 18.5 | 15.0 | 26.0 | 21.0 | 22.0 | 20.0 | 25.0 | 21.5 |
| 3 | 9.0 | 8.0 | 13.0 | 12.0 | 18.5 | 17.5 | 27.0 | 23.0 | 22.5 | 20.5 | 27.0 | 22.5 |
| 4 | 8.0 | 7.0 | 12.0 | 9.0 | 21.5 | 17.5 | 27.0 | 23.5 | 23.0 | 20.0 | 26.0 | 22.5 |
| 5 | 7.0 | 6.0 | 10.0 | 8.0 | 21.0 | 19.0 | 26.5 | 23.0 | 24.0 | 19.5 | 25.0 | 22.0 |
| 6 | 8.0 | 5.5 | 12.5 | 9.5 | 21.0 | 20.0 | 25.0 | 20.5 | 24.5 | 20.0 | 23.0 | 22.0 |
| 7 | 8.0 | 7.5 | 14.5 | 11.5 | 21.0 | 19.0 | 26.5 | 20.0 | 25.5 | 21.0 | 22.5 | 21.0 |
| 8 | 7.5 | 7.5 | 14.5 | 13.5 | 21.0 | 18.5 | 27.0 | 21.0 | 25.5 | 21.0 | 22.0 | 21.0 |
| 9 | 7.5 | 7.0 | 14.0 | 13.0 | 23.5 | 20.5 | 27.5 | 22.5 | 26.0 | 20.0 | --- | --- |
| 10 | 7.0 | 6.0 | 13.5 | 12.0 | 25.0 | 21.5 | 27.0 | 23.0 | 23.5 | 21.0 | --- | --- |
| 11 | 6.0 | 5.0 | 14.5 | 13.0 | 25.5 | 22.5 | 25.5 | 21.5 | 25.0 | 20.5 | --- | --- |
| 12 | 5.0 | 4.5 | 14.5 | 12.5 | 26.0 | 22.5 | 23.5 | 18.5 | 24.5 | 20.5 | --- | --- |
| 13 | 5.5 | 4.0 | 14.0 | 12.0 | 23.5 | 21.0 | 26.5 | 18.5 | 22.5 | 21.0 | --- | --- |
| 14 | 8.0 | 5.0 | 12.5 | 11.0 | 22.0 | 19.0 | 27.0 | 21.0 | 21.5 | 20.5 | --- | --- |
| 15 | 9.0 | 6.5 | 12.0 | 11.0 | 23.5 | 19.5 | 24.5 | 22.5 | 21.0 | 20.0 | --- | --- |
| 16 | 10.5 | 8.5 | 14.0 | 10.0 | 22.5 | 21.5 | 23.5 | 21.0 | 21.0 | 19.0 | --- | --- |
| 17 | 10.5 | 10.5 | 13.5 | 11.0 | 22.5 | 21.0 | 25.0 | 21.0 | 20.0 | 19.5 | --- | --- |
| 18 | 11.0 | 10.5 | 11.0 | 9.0 | 22.0 | 19.0 | 25.5 | 21.0 | 20.0 | 18.5 | --- | --- |
| 19 | 13.5 | 11.0 | 12.5 | 10.0 | 19.0 | 19.0 | 25.5 | 20.5 | --- | --- | --- | --- |
| 20 | 15.0 | 13.0 | 13.5 | 12.5 | 22.0 | 19.0 | 23.5 | 21.0 | --- | --- | --- | --- |
| 21 | 16.0 | 14.5 | 14.5 | 13.0 | 22.5 | 21.5 | 22.5 | 20.5 | --- | --- | --- | --- |
| 22 | 15.5 | 14.5 | 15.0 | 13.0 | 22.5 | 21.5 | 20.5 | 18.5 | --- | --- | --- | --- |
| 23 | 15.5 | 14.5 | 15.0 | 14.0 | 21.5 | 19.5 | 19.5 | 18.5 | --- | --- | --- | --- |
| 24 | 14.5 | 13.0 | 15.0 | 13.5 | 22.5 | 19.5 | 21.5 | 17.5 | --- | --- | --- | --- |
| 25 | 14.5 | 10.5 | 13.5 | 12.5 | 22.5 | 19.5 | 21.0 | 19.0 | 23.0 | 22.0 | --- | --- |
| 26 | 10.5 | 10.5 | 12.5 | 12.5 | 24.0 | 21.5 | 24.5 | 20.0 | 23.0 | 22.0 | --- | --- |
| 27 | 10.5 | 10.0 | 12.5 | 12.5 | 24.0 | 22.0 | 24.5 | 21.0 | 25.0 | 22.0 | --- | --- |
| 28 | 10.0 | 9.5 | 15.5 | 12.5 | 22.0 | 21.0 | 26.0 | 20.5 | 26.5 | 23.0 | --- | --- |
| 29 | 11.0 | 9.0 | 16.5 | 15.5 | 22.5 | 20.5 | 23.5 | 21.0 | 28.0 | 24.0 | --- | --- |
| 30 | 11.0 | 10.0 | 16.5 | 15.0 | 23.0 | 19.5 | 24.0 | 19.5 | 28.0 | 24.0 | --- | --- |
| 31 | --- | --- | 16.5 | 15.0 | --- | --- | 24.5 | 19.5 | 28.0 | 24.0 | --- | --- |
| MONTH | 16.0 | 4.0 | 16.5 | 8.0 | 26.0 | 14.0 | 27.5 | 17.5 | 28.0 | 18.5 | --- | --- |

## 01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD.

LOCATION.--Lat 39°33'59", long 78°50'25", Mineral County, West Virginia, at gaging station on right bank at downstream side of Western Maryland Railway bridge at Pinto, 2.8 miles (4.5 km) downstream from Mill Run, and at mile 32.6 (52.5 km).

DRAINAGE AREA.--596 sq mi (1,544 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | | |
| 12... | 1230 | 5400 | 5.5 | -- | 300 | -- | 1600 | -- | 550 | 17 | 4.7 | 5.8 |
| MAR. | | | | | | | | | | | | |
| 13... | 0810 | 1210 | 5.4 | -- | 300 | -- | 320 | -- | 670 | 31 | 7.0 | 11 |
| JUNE | | | | | | | | | | | | |
| 06... | 0845 | 928 | 5.7 | -- | 100 | -- | 30 | -- | 1000 | 41 | 7.6 | 13 |
| SEP. | | | | | | | | | | | | |
| 14... | 0900 | 176 | 6.1 | 900 | -- | 1200 | -- | 130 | -- | 75 | 9.4 | 80 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | SUSPENDED SOLIDS (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 12... | 1.2 | 2 | 67 | 6.0 | .1 | 2.7 | .04 | 119 | 113 | 36 | -- |
| MAR. | | | | | | | | | | | |
| 13... | 1.4 | 11 | 100 | 17 | .2 | 2.2 | .05 | 184 | 182 | 26 | -- |
| JUNE | | | | | | | | | | | |
| 06... | 1.8 | 15 | 120 | 18 | .3 | 1.2 | .13 | 249 | 217 | 76 | -- |
| SEP. | | | | | | | | | | | |
| 14... | 6.8 | 66 | 210 | 86 | .4 | 2.6 | .09 | 540 | 510 | -- | 20 |

| DATE | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 12... | 62 | 60 | -- | 0 | 15 | -- | 2.9 | .00 | -- | -- | 0 |
| MAR. | | | | | | | | | | | |
| 13... | 110 | 97 | -- | 5 | 20 | 9 | 2.2 | .01 | 32 | -- | 0 |
| JUNE | | | | | | | | | | | |
| 06... | 130 | 120 | -- | 20 | 45 | -- | 1.7 | .01 | 1 | -- | 0 |
| SEP. | | | | | | | | | | | |
| 14... | 230 | 170 | .2 | -- | 20 | 33 | 4.0 | .01 | 1 | 0 | -- |

01600000 NORTH BRANCH POTOMAC RIVER AT PINTO, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 12... | -- | -- | 0 | -- | 0 | -- | 1 | -- | 70 | 65 | 948 |
| MAR. | | | | | | | | | | | |
| 13... | -- | 0 | -- | -- | 0 | -- | 0 | -- | 70 | -- | -- |
| JUNE | | | | | | | | | | | |
| 06... | 0 | -- | -- | -- | 0 | -- | 1 | -- | 20 | -- | -- |
| SEP. | | | | | | | | | | | |
| 14... | 10 | -- | -- | 10 | -- | 3 | -- | 50 | -- | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 18... | 1350 | 335 | 13.5 | 8.6 | 7.0 | 530 | 1000 |
| NOV. | | | | | | | |
| 15... | 0805 | 3840 | 8.0 | 11.0 | 6.2 | 195 | 823 |
| DEC. | | | | | | | |
| 12... | 1230 | 5400 | 5.0 | 12.6 | 5.0 | 190 | 0 |
| JAN. | | | | | | | |
| 09... | 1700 | 729 | .0 | 14.1 | 6.5 | 375 | 1 |
| FEB. | | | | | | | |
| 07... | 1710 | 1480 | 4.5 | 12.6 | 6.4 | 270 | 2 |
| MAR. | | | | | | | |
| 13... | 0810 | 1210 | 9.0 | 11.4 | 6.7 | 275 | 13 |
| APR. | | | | | | | |
| 03... | 1715 | 1670 | 9.0 | 11.8 | 6.2 | 245 | 45 |
| MAY | | | | | | | |
| 09... | 0800 | 1300 | 14.0 | -- | 6.4 | 355 | 29 |
| JUNE | | | | | | | |
| 06... | 0845 | 928 | 21.5 | 8.1 | 6.8 | 335 | 500 |
| JULY | | | | | | | |
| 10... | 1350 | 158 | 29.0 | 6.0 | 7.4 | 950 | 78 |
| AUG. | | | | | | | |
| 07... | 1435 | 185 | 27.0 | 6.6 | 6.8 | 950 | 190 |
| SEP. | | | | | | | |
| 14... | 0900 | 176 | 20.0 | 7.3 | 7.2 | 785 | 1900 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## 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 sq mi (2,266 sq km).

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1973.
Water temperatures: October 1964 to September 1973.
Sediment records: October 1964 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum 29.5°C Sept. 1-3, 5; minimum 2.0°C Jan. 11-13, Feb. 19.
Sediment concentrations: Maximum daily, 811 mg/l Apr. 27; minimum daily, 5 mg/l Jan. 9, 10.
Sediment discharge: Maximum daily, 20,900 tons (19,000 t) Apr. 28; minimum daily, 11 tons (10 t) July 30, Sept. 4.

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 concentration: Maximum daily, 1,600 mg/l Feb. 13, 1966; minimum daily, 3 mg/l Aug. 13, 1969.
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 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 1315 | 402 | 5.9 | -- | -- | 800 | -- | 1400 | -- | 52 | 10 | 39 |
| NOV. | | | | | | | | | | | | |
| 15... | 0910 | 5480 | 5.6 | -- | -- | 5000 | -- | 600 | -- | 21 | 4.9 | 5.4 |
| DEC. | | | | | | | | | | | | |
| 12... | 1305 | 7570 | 5.4 | -- | 0 | -- | 1300 | -- | 450 | 17 | 4.5 | 5.4 |
| JAN. | | | | | | | | | | | | |
| 10... | 0835 | 1080 | 5.9 | -- | -- | 2400 | -- | 860 | -- | 38 | 9.4 | 14 |
| FEB. | | | | | | | | | | | | |
| 08... | 0830 | 2430 | 5.5 | -- | -- | 1600 | -- | 560 | -- | 26 | 6.5 | 7.7 |
| MAR. | | | | | | | | | | | | |
| 13... | 0915 | 1840 | 5.6 | -- | 300 | -- | 420 | -- | 420 | 24 | 6.2 | 8.4 |
| APR. | | | | | | | | | | | | |
| 04... | 0850 | 2750 | 5.4 | -- | -- | 2000 | -- | 420 | -- | 21 | 5.4 | 8.0 |
| MAY | | | | | | | | | | | | |
| 09... | 0900 | 2040 | 5.6 | -- | -- | 1700 | -- | 840 | -- | 36 | 8.7 | 8.6 |
| JUNE | | | | | | | | | | | | |
| 06... | 0925 | 1330 | 5.3 | -- | 0 | -- | 30 | -- | 660 | 34 | 7.7 | 14 |
| JULY | | | | | | | | | | | | |
| 10... | 1305 | 230 | 5.7 | 800 | -- | 910 | -- | 1200 | -- | 83 | 16 | 35 |
| AUG. | | | | | | | | | | | | |
| 07... | 1350 | 304 | 6.7 | -- | -- | 760 | -- | 1500 | -- | 62 | 14 | 45 |
| SEP. | | | | | | | | | | | | |
| 14... | 1000 | 360 | 6.0 | 800 | -- | 1600 | -- | 120 | -- | 100 | 13 | 62 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DIS_SOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | SUSPENDED SOLIDS (MG/L) | HARDNESS (CA,MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 4.1 | 36 | 160 | 30 | .2 | 1.8 | -- | -- | 321 | -- | -- | 170 |
| NOV. | | | | | | | | | | | | |
| 15... | 1.9 | 10 | 64 | 6.0 | .1 | 3.1 | -- | -- | 117 | -- | -- | 73 |
| DEC. | | | | | | | | | | | | |
| 12... | 1.3 | 4 | 59 | 7.0 | .1 | 3.5 | .01 | 114 | 107 | 16 | -- | 61 |
| JAN. | | | | | | | | | | | | |
| 10... | 1.7 | 19 | 120 | 17 | .2 | 2.7 | -- | -- | 218 | -- | -- | 130 |
| FEB. | | | | | | | | | | | | |
| 08... | 1.3 | 16 | 75 | 12 | .1 | 3.5 | -- | -- | 146 | -- | -- | 92 |
| MAR. | | | | | | | | | | | | |
| 13... | 1.3 | 17 | 69 | 13 | .2 | 2.7 | .03 | 146 | 140 | 16 | -- | 85 |
| APR. | | | | | | | | | | | | |
| 04... | 1.4 | 15 | 66 | 12 | .1 | 3.5 | -- | -- | 130 | -- | -- | 75 |
| MAY | | | | | | | | | | | | |
| 09... | 1.5 | 20 | 100 | 15 | .3 | 2.2 | -- | -- | 188 | -- | -- | 130 |
| JUNE | | | | | | | | | | | | |
| 06... | 2.2 | 26 | 93 | 21 | .4 | 2.2 | .66 | 223 | 193 | 407 | -- | 120 |
| JULY | | | | | | | | | | | | |
| 10... | 2.7 | 50 | 200 | 60 | .3 | 1.2 | -- | -- | 428 | -- | -- | 270 |
| AUG. | | | | | | | | | | | | |
| 07... | 3.9 | 37 | 190 | 56 | .3 | 1.9 | -- | -- | 398 | -- | -- | 210 |
| SEP. | | | | | | | | | | | | |
| 14... | 5.8 | 66 | 240 | 86 | .4 | 3.1 | .11 | 616 | 549 | 22 | 27 | 300 |

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | NON-CARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 140 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | | |
| 15... | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | | |
| 12... | 58 | -- | 0 | 15 | -- | 3.1 | .01 | 20 | -- | 0 | -- | -- |
| JAN. | | | | | | | | | | | | |
| 10... | 118 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | | |
| 08... | 79 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | | |
| 13... | 72 | -- | 8 | 10 | 7 | 1.1 | .02 | 9 | -- | 0 | -- | 0 |
| APR. | | | | | | | | | | | | |
| 04... | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 09... | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | | |
| 06... | 95 | -- | 180 | 160 | -- | 2.1 | .01 | 1 | -- | 0 | 0 | -- |
| JULY | | | | | | | | | | | | |
| 10... | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | | |
| 07... | 180 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | | |
| 14... | 250 | .1 | -- | 25 | 35 | 3.1 | .00 | 0 | 0 | -- | 10 | -- |

| DATE | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | DISSOLVED GROSS ALPHA AS U-NAT. (UG/L) | SUSPENDED GROSS ALPHA AS U-NAT. (UG/L) | DISSOLVED GROSS BETA AS CS-137 (PC/L) | SUSPENDED GROSS BETA AS CS-137 (PC/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 12... | 0 | -- | 0 | -- | 1 | -- | 60 | -- | -- | -- | -- |
| JAN. | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 13... | -- | -- | 0 | -- | 0 | -- | 20 | -- | -- | -- | -- |
| APR. | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | |
| 06... | -- | -- | 0 | -- | 3 | -- | 0 | -- | -- | -- | -- |
| JULY | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 14... | -- | 10 | -- | 7 | -- | 40 | -- | <7.1 | .9 | 7.3 | 1.6 |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 18... | 1315 | 402 | 13.0 | 9.9 | 7.3 | 485 | 3300 |
| NOV. | | | | | | | |
| 15... | 0910 | 5480 | 8.0 | 11.4 | 6.5 | 190 | 370 |
| DEC. | | | | | | | |
| 12... | 1305 | 7570 | 5.0 | 13.0 | 5.3 | 180 | B1 |
| JAN. | | | | | | | |
| 10... | 0835 | 1080 | .0 | 12.4 | 6.9 | 320 | 100 |
| FEB. | | | | | | | |
| 08... | 0830 | 2430 | 4.0 | 13.0 | 6.8 | 255 | 240 |
| MAR. | | | | | | | |
| 13... | 0915 | 1840 | 8.5 | 12.0 | 6.9 | 235 | 880 |
| APR. | | | | | | | |
| 04... | 0850 | 2750 | 6.5 | 12.2 | 6.8 | 215 | 2300 |
| MAY | | | | | | | |
| 09... | 0900 | 2040 | 14.0 | -- | 6.8 | 315 | 1500 |
| JUNE | | | | | | | |
| 06... | 0925 | 1330 | 21.5 | 8.6 | 7.2 | 315 | 1400 |
| JULY | | | | | | | |
| 10... | 1305 | 230 | 27.5 | 7.3 | 7.5 | 680 | 1500 |
| AUG. | | | | | | | |
| 07... | 1350 | 304 | 26.0 | 8.3 | 7.3 | 650 | 250 |
| SEP. | | | | | | | |
| 14... | 1000 | 360 | 20.0 | 7.5 | 7.4 | 870 | 1200 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT AT 2300)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18.0 | 12.0 | 6.5 | 8.0 | 3.5 | 10.0 | 12.0 | 15.5 | 18.5 | 24.5 | 24.5 | 29.5 |
| 2 | 18.0 | 12.0 | --- | 8.0 | --- | --- | 12.0 | 15.5 | 20.0 | 25.5 | 25.5 | 29.5 |
| 3 | 21.0 | 11.0 | 8.0 | 8.5 | 8.0 | 12.0 | 10.0 | 11.0 | 20.0 | 24.0 | 24.5 | 29.5 |
| 4 | 16.5 | --- | 10.0 | 9.0 | 9.0 | 12.0 | 8.0 | --- | 20.0 | 28.0 | 25.5 | 29.0 |
| 5 | 18.0 | 11.0 | 10.0 | 9.0 | --- | 10.0 | 9.0 | 12.0 | 21.0 | 28.0 | 25.5 | 29.5 |
| 6 | 18.0 | --- | 9.0 | 7.0 | 8.0 | 8.0 | --- | 15.5 | 21.0 | 28.0 | 26.5 | 29.0 |
| 7 | 18.0 | 11.0 | 10.0 | 5.5 | 7.0 | 10.0 | --- | --- | 21.0 | 28.0 | 26.5 | 24.5 |
| 8 | 15.5 | 11.0 | 10.0 | 5.5 | 4.5 | 10.0 | 10.0 | 15.5 | 22.0 | 27.0 | 26.5 | 24.5 |
| 9 | 14.5 | --- | 11.0 | --- | 4.5 | --- | 7.0 | 15.5 | 26.0 | 28.0 | 26.5 | 23.5 |
| 10 | 18.0 | 11.0 | 10.0 | 3.5 | 4.5 | 11.0 | 6.5 | 16.5 | 25.5 | 28.0 | 26.5 | 23.5 |
| 11 | 14.5 | 10.0 | --- | 2.0 | 4.5 | 11.0 | 6.5 | --- | 25.5 | 24.5 | 26.5 | 23.5 |
| 12 | 14.5 | 11.0 | 8.0 | 2.0 | 3.5 | 12.0 | 6.5 | 15.5 | 25.5 | 22.0 | 26.5 | 22.0 |
| 13 | 14.5 | 12.0 | 8.0 | 2.0 | 3.5 | 11.0 | 8.0 | 15.5 | 24.5 | 22.0 | 26.5 | 22.0 |
| 14 | 15.5 | 11.0 | 4.5 | 3.5 | --- | 12.0 | --- | 14.5 | 23.5 | --- | 24.5 | 21.0 |
| 15 | 14.5 | 6.5 | --- | --- | 4.5 | 13.0 | 11.0 | 14.5 | 23.5 | --- | 24.5 | 21.0 |
| 16 | 15.5 | 7.0 | 4.5 | 4.5 | 3.5 | 15.5 | 13.5 | 14.5 | 23.5 | --- | 24.5 | 21.0 |
| 17 | 14.5 | 7.0 | 4.5 | 4.5 | 3.5 | 11.0 | 13.0 | 13.5 | --- | --- | 24.5 | 21.0 |
| 18 | 14.5 | 8.0 | 4.5 | 4.5 | 3.5 | 6.5 | 15.5 | 14.5 | 20.0 | --- | 22.0 | --- |
| 19 | 10.0 | 6.5 | 4.5 | 6.5 | 2.0 | 6.5 | --- | 15.5 | 21.0 | --- | 22.0 | 20.0 |
| 20 | 10.0 | 7.0 | 7.0 | 8.0 | 4.5 | 8.0 | 19.0 | 16.5 | 22.0 | --- | 22.0 | 20.0 |
| 21 | 10.0 | 4.5 | 10.0 | 5.5 | 6.5 | 8.0 | 15.5 | 18.0 | 22.0 | --- | 21.0 | 20.0 |
| 22 | 13.5 | 4.5 | 9.0 | 4.5 | 5.5 | 8.0 | 15.5 | 15.5 | --- | --- | 21.0 | 21.0 |
| 23 | 13.5 | 4.5 | 9.0 | 4.5 | 5.5 | 10.0 | 14.5 | 18.0 | 23.5 | --- | 21.0 | 21.0 |
| 24 | 13.5 | 5.5 | 9.0 | --- | 4.5 | 9.0 | 13.5 | 16.5 | 23.5 | --- | 21.0 | 21.0 |
| 25 | 11.0 | 5.5 | 9.0 | 9.0 | 5.5 | 10.0 | 13.5 | 16.5 | 24.5 | --- | 24.0 | 21.0 |
| 26 | 11.0 | 6.5 | 8.5 | 9.0 | 6.5 | 10.0 | 14.5 | 16.5 | 24.5 | --- | 26.5 | 21.0 |
| 27 | 12.0 | 6.5 | 6.5 | 9.0 | --- | 11.0 | 10.0 | 15.5 | 23.5 | --- | --- | 22.0 |
| 28 | 14.5 | 5.5 | --- | 8.0 | 6.5 | 11.0 | 10.0 | 19.0 | 24.0 | --- | 28.0 | 22.0 |
| 29 | 12.0 | 6.5 | 6.5 | 5.5 | --- | 11.0 | 12.0 | --- | 23.5 | --- | 29.0 | 22.0 |
| 30 | 12.0 | 6.5 | 9.0 | 7.0 | --- | 11.0 | 13.5 | 16.5 | 24.0 | --- | 28.0 | 22.0 |
| 31 | 12.0 | --- | --- | 5.5 | --- | 13.5 | --- | 17.0 | --- | --- | 29.0 | --- |
| AVG | 14.5 | 8.0 | 8.0 | 6.0 | 5.0 | 10.5 | 11.5 | 15.5 | 23.0 | --- | 25.0 | 23.5 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| DEC. 09... | 1430 | 18400 | -- | 252 | 12500 | 50 | 64 |
| APR. 27... | 2345 | 13500 | 5.0 | 560 | 20400 | 41 | 54 |

| 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. 09... | 74 | 82 | 88 | 90 | 95 | 98 | 100 |
| APR. 27... | 68 | 77 | 86 | 93 | 97 | 99 | 100 |

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 311 | 29 | 24 | 402 | 25 | 27 | 1960 | 36 | 191 |
| 2 | 257 | 30 | 21 | 932 | 40 | 104 | 1850 | 35 | 175 |
| 3 | 229 | 28 | 17 | 968 | 18 | 47 | 1920 | 38 | 197 |
| 4 | 205 | 27 | 15 | 824 | 17 | 38 | 2150 | 42 | 244 |
| 5 | 402 | 50 | 54 | 689 | 45 | 84 | 3000 | 105 | 851 |
| 6 | 2440 | 107 | 779 | 616 | 107 | 178 | 3950 | 210 | 2240 |
| 7 | 5450 | 194 | 2860 | 560 | 132 | 200 | 5790 | 175 | 2740 |
| 8 | 2470 | 90 | 622 | 2820 | 397 | 3460 | 5480 | 260 | 3850 |
| 9 | 1810 | 78 | 381 | 3260 | 360 | 3170 | 14700 | 315 | 12500 |
| 10 | 1200 | 40 | 130 | 2710 | 175 | 1280 | 11800 | 270 | 8600 |
| 11 | 1190 | 45 | 145 | 2090 | 61 | 344 | 10200 | 265 | 7300 |
| 12 | 1190 | 51 | 164 | 1800 | 39 | 190 | 7690 | 135 | 2800 |
| 13 | 851 | 30 | 69 | 1560 | 35 | 147 | 5960 | 71 | 1140 |
| 14 | 698 | 24 | 45 | 2710 | 42 | 350 | 4150 | 74 | 829 |
| 15 | 576 | 22 | 34 | 5160 | 79 | 1100 | 3600 | 61 | 593 |
| 16 | 450 | 17 | 21 | 3400 | 35 | 321 | 4610 | 39 | 485 |
| 17 | 423 | 14 | 16 | 2700 | 35 | 255 | 3270 | 42 | 371 |
| 18 | 402 | 16 | 17 | 2300 | 35 | 217 | 2730 | 62 | 457 |
| 19 | 396 | 24 | 26 | 2210 | 45 | 269 | 2820 | 54 | 411 |
| 20 | 396 | 25 | 27 | 4320 | 156 | 1820 | 2700 | 47 | 343 |
| 21 | 382 | 27 | 28 | 3740 | 59 | 596 | 3000 | 100 | 810 |
| 22 | 364 | 27 | 27 | 3150 | 23 | 196 | 7930 | 222 | 4740 |
| 23 | 364 | 25 | 25 | 2780 | 33 | 248 | 8950 | 122 | 2950 |
| 24 | 364 | 25 | 25 | 2340 | 40 | 253 | 6180 | 49 | 818 |
| 25 | 358 | 25 | 24 | 1960 | 48 | 254 | 4730 | 46 | 587 |
| 26 | 352 | 25 | 24 | 2800 | 87 | 615 | 3610 | 31 | 302 |
| 27 | 334 | 26 | 23 | 3120 | 46 | 388 | 2400 | 39 | 253 |
| 28 | 346 | 25 | 23 | 2300 | 31 | 193 | 2060 | 39 | 217 |
| 29 | 364 | 23 | 23 | 2110 | 30 | 171 | 1760 | 39 | 185 |
| 30 | 382 | 25 | 26 | 2040 | 35 | 193 | 1580 | 31 | 132 |
| 31 | 396 | 27 | 29 | -- | -- | -- | 1670 | 25 | 113 |
| TOTAL | 25352 | -- | 5744 | 68371 | -- | 16708 | 144200 | -- | 57424 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1580 | 25 | 107 | 1870 | 18 | 91 | 930 | 39 | 98 |
| 2 | 1450 | 26 | 102 | 3960 | 184 | 2110 | 1100 | 50 | 149 |
| 3 | 1340 | 24 | 87 | 6970 | 110 | 2070 | 1590 | 47 | 202 |
| 4 | 1950 | 60 | 316 | 4670 | 43 | 542 | 3360 | 121 | 1100 |
| 5 | 2220 | 22 | 132 | 3580 | 56 | 541 | 3350 | 80 | 724 |
| 6 | 1710 | 17 | 78 | 3100 | 49 | 410 | 4100 | 43 | 476 |
| 7 | 1440 | 11 | 43 | 2490 | 35 | 235 | 4030 | 30 | 326 |
| 8 | 1260 | 7 | 24 | 2520 | 22 | 150 | 4190 | 31 | 351 |
| 9 | 1120 | 5 | 15 | 2630 | 11 | 78 | 3630 | 15 | 147 |
| 10 | 1060 | 5 | 14 | 2220 | 11 | 66 | 2780 | 17 | 128 |
| 11 | 1230 | 15 | 50 | 1760 | 11 | 52 | 2430 | 14 | 92 |
| 12 | 1170 | 13 | 41 | 1460 | 12 | 47 | 2240 | 8 | 48 |
| 13 | 910 | 10 | 25 | 1300 | 13 | 46 | 1830 | 11 | 54 |
| 14 | 810 | 9 | 20 | 1360 | 13 | 48 | 1640 | 13 | 58 |
| 15 | 880 | 8 | 19 | 1530 | 14 | 58 | 1350 | 14 | 51 |
| 16 | 840 | 8 | 18 | 1510 | 10 | 41 | 1290 | 29 | 101 |
| 17 | 780 | 17 | 36 | 980 | 10 | 26 | 1760 | 68 | 323 |
| 18 | 780 | 26 | 55 | 900 | 28 | 68 | 2110 | 35 | 199 |
| 19 | 800 | 31 | 67 | 960 | 26 | 67 | 1970 | 29 | 154 |
| 20 | 940 | 70 | 178 | 1430 | 29 | 112 | 1910 | 19 | 98 |
| 21 | 830 | 41 | 92 | 1350 | 15 | 55 | 1850 | 17 | 85 |
| 22 | 800 | 51 | 110 | 900 | 56 | 136 | 1700 | 16 | 73 |
| 23 | 960 | 37 | 96 | 850 | 67 | 154 | 1510 | 20 | 82 |
| 24 | 890 | 46 | 111 | 830 | 35 | 78 | 1400 | 20 | 76 |
| 25 | 780 | 50 | 105 | 780 | 27 | 57 | 1410 | 20 | 76 |
| 26 | 730 | 52 | 102 | 780 | 19 | 40 | 1510 | 20 | 82 |
| 27 | 1450 | 57 | 223 | 840 | 22 | 50 | 1560 | 28 | 118 |
| 28 | 2840 | 98 | 751 | 840 | 27 | 61 | 1340 | 24 | 87 |
| 29 | 2960 | 39 | 312 | -- | -- | -- | 1170 | 24 | 76 |
| 30 | 2360 | 25 | 159 | -- | -- | -- | 1180 | 25 | 80 |
| 31 | 2050 | 25 | 138 | -- | -- | -- | 1190 | 27 | 87 |
| TOTAL | 40920 | -- | 3626 | 54370 | -- | 7489 | 63410 | -- | 5801 |

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 1490 | 28 | 113 | 4240 | 100 | 1140 | 1820 | 22 | 108 |
| 2 | 2970 | 120 | 962 | 3390 | 87 | 796 | 1500 | 25 | 101 |
| 3 | 3060 | 114 | 942 | 2910 | 74 | 581 | 1270 | 14 | 48 |
| 4 | 3900 | 225 | 2370 | 2650 | 35 | 250 | 1170 | 25 | 79 |
| 5 | 5970 | 145 | 2340 | 2230 | 40 | 241 | 1280 | 95 | 328 |
| 6 | 4590 | 74 | 917 | 1890 | 39 | 199 | 1390 | 161 | 604 |
| 7 | 3650 | 68 | 670 | 1640 | 32 | 142 | 2370 | 117 | 749 |
| 8 | 6080 | 350 | 6230 | 1510 | 50 | 204 | 1620 | 14 | 61 |
| 9 | 7090 | 305 | 5840 | 2300 | 144 | 894 | 1200 | 14 | 45 |
| 10 | 6800 | 211 | 3870 | 2890 | 67 | 523 | 1010 | 13 | 35 |
| 11 | 5650 | 71 | 1080 | 2430 | 42 | 276 | 880 | 13 | 31 |
| 12 | 4420 | 76 | 907 | 2150 | 34 | 197 | 780 | 23 | 48 |
| 13 | 3360 | 41 | 372 | 1850 | 24 | 120 | 1380 | 190 | 708 |
| 14 | 2960 | 37 | 296 | 1610 | 14 | 61 | 1120 | 100 | 302 |
| 15 | 2830 | 40 | 306 | 1430 | 12 | 46 | 780 | 31 | 65 |
| 16 | 2870 | 37 | 287 | 1270 | 11 | 38 | 700 | 260 | 491 |
| 17 | 2610 | 27 | 190 | 1170 | 11 | 35 | 800 | 329 | 711 |
| 18 | 2750 | 45 | 334 | 1090 | 8 | 24 | 2790 | 428 | 2700 |
| 19 | 2280 | 24 | 148 | 1000 | 7 | 19 | 1840 | 170 | 845 |
| 20 | 1970 | 24 | 128 | 950 | 10 | 26 | 1260 | 9 | 31 |
| 21 | 1970 | 34 | 181 | 970 | 15 | 39 | 1040 | 9 | 25 |
| 22 | 1790 | 48 | 232 | 880 | 20 | 48 | 980 | 15 | 40 |
| 23 | 1630 | 120 | 528 | 770 | 25 | 52 | 1050 | 34 | 96 |
| 24 | 2300 | 75 | 466 | 810 | 17 | 37 | 800 | 23 | 50 |
| 25 | 2320 | 45 | 282 | 1050 | 20 | 57 | 670 | 28 | 51 |
| 26 | 5900 | 60 | 956 | 1020 | 24 | 66 | 588 | 86 | 137 |
| 27 | 7360 | 811 | 18000 | 1020 | 34 | 94 | 660 | 209 | 372 |
| 28 | 14200 | 545 | 20900 | 2450 | 110 | 758 | 1040 | 102 | 286 |
| 29 | 8940 | 215 | 5190 | 3640 | 70 | 688 | 1050 | 30 | 85 |
| 30 | 5650 | 128 | 1950 | 2790 | 33 | 249 | 730 | 22 | 43 |
| 31 | -- | -- | -- | 2320 | 14 | 88 | -- | -- | -- |
| TOTAL | 129360 | -- | 76987 | 58320 | -- | 7988 | 35568 | -- | 9275 |

| | 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 | 579 | 23 | 36 | 1190 | 52 | 170 | 230 | 24 | 15 |
| 2 | 498 | 25 | 34 | 1630 | 144 | 634 | 490 | 52 | 74 |
| 3 | 448 | 23 | 28 | 890 | 41 | 99 | 490 | 52 | 66 |
| 4 | 408 | 18 | 20 | 538 | 27 | 39 | 170 | 23 | 11 |
| 5 | 378 | 19 | 19 | 402 | 30 | 33 | 242 | 26 | 17 |
| 6 | 366 | 20 | 20 | 325 | 28 | 25 | 278 | 27 | 20 |
| 7 | 318 | 18 | 15 | 297 | 24 | 19 | 266 | 26 | 19 |
| 8 | 284 | 20 | 15 | 284 | 35 | 27 | 225 | 30 | 18 |
| 9 | 254 | 27 | 19 | 266 | 38 | 27 | 181 | 26 | 13 |
| 10 | 242 | 35 | 23 | 260 | 39 | 27 | 192 | 27 | 14 |
| 11 | 254 | 44 | 30 | 284 | 50 | 38 | 203 | 29 | 16 |
| 12 | 254 | 29 | 20 | 311 | 52 | 44 | 219 | 29 | 17 |
| 13 | 230 | 26 | 16 | 304 | 44 | 36 | 208 | 35 | 20 |
| 14 | 214 | 22 | 13 | 332 | 51 | 46 | 420 | 77 | 87 |
| 15 | 219 | 22 | 13 | 579 | 69 | 108 | 1090 | 97 | 285 |
| 16 | 230 | 23 | 14 | 588 | 112 | 178 | 538 | 45 | 65 |
| 17 | 284 | 25 | 19 | 390 | 147 | 155 | 353 | 21 | 20 |
| 18 | 248 | 24 | 16 | 1110 | 178 | 497 | 642 | 52 | 90 |
| 19 | 225 | 23 | 14 | 1410 | 184 | 700 | 730 | 50 | 99 |
| 20 | 214 | 22 | 13 | 990 | 134 | 358 | 455 | 56 | 69 |
| 21 | 248 | 24 | 16 | 1000 | 45 | 122 | 346 | 38 | 35 |
| 22 | 434 | 31 | 36 | 720 | 35 | 68 | 284 | 19 | 15 |
| 23 | 506 | 34 | 46 | 538 | 26 | 38 | 290 | 31 | 24 |
| 24 | 408 | 30 | 34 | 441 | 23 | 27 | 384 | 45 | 47 |
| 25 | 366 | 28 | 28 | 408 | 18 | 20 | 402 | 60 | 65 |
| 26 | 290 | 25 | 20 | 390 | 22 | 23 | 339 | 52 | 48 |
| 27 | 278 | 25 | 19 | 339 | 25 | 23 | 290 | 23 | 18 |
| 28 | 248 | 23 | 15 | 297 | 34 | 27 | 266 | 24 | 17 |
| 29 | 219 | 22 | 13 | 266 | 33 | 24 | 260 | 25 | 18 |
| 30 | 197 | 21 | 11 | 248 | 23 | 15 | 304 | 28 | 23 |
| 31 | 248 | 23 | 15 | 248 | 29 | 19 | -- | -- | -- |
| TOTAL | 9589 | -- | 650 | 17275 | -- | 3666 | 10787 | -- | 1345 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 657522
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 196703

## 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 sq mi (10,549 sq km).
PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1973.
Water temperatures: July 1952 to February 1964, July 1966 to September 1973.
EXTREMES.--1972-73:
Water temperatures: Maximum, 30.0°C July 9, 10, Sept. 1, 2; minimum, freezing point on several days during January and 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. No temperature record Oct. 1 to Dec. 12 and Mar. 19-21.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | --- | --- | --- | --- | --- | --- | 5.5 | 4.5 | 1.5 | 1.0 | 4.5 | 4.0 |
| 2 | --- | --- | --- | --- | --- | --- | 5.5 | 5.0 | 2.0 | 1.0 | 5.0 | 4.5 |
| 3 | --- | --- | --- | --- | --- | --- | 5.0 | 4.0 | 3.0 | 2.0 | 5.5 | 5.0 |
| 4 | --- | --- | --- | --- | --- | --- | 4.0 | 3.5 | 4.0 | 3.0 | 6.5 | 5.5 |
| 5 | --- | --- | --- | --- | --- | --- | 4.0 | 4.0 | 4.0 | 4.0 | 6.5 | 6.5 |
| 6 | --- | --- | --- | --- | --- | --- | 4.0 | 3.0 | 4.0 | 4.0 | 6.5 | 6.5 |
| 7 | --- | --- | --- | --- | --- | --- | 3.0 | 2.0 | 4.0 | 4.0 | 6.5 | 6.5 |
| 8 | --- | --- | --- | --- | --- | --- | 2.0 | 0.5 | 4.0 | 4.0 | 7.5 | 6.5 |
| 9 | --- | --- | --- | --- | --- | --- | 0.5 | 0.0 | 4.0 | 3.0 | 8.5 | 7.5 |
| 10 | --- | --- | --- | --- | --- | --- | 0.0 | 0.0 | 3.0 | 2.0 | 9.0 | 7.5 |
| 11 | --- | --- | --- | --- | --- | --- | 0.0 | 0.0 | 2.0 | 1.0 | 9.5 | 9.0 |
| 12 | --- | --- | --- | --- | --- | --- | 0.0 | 0.0 | 1.0 | 0.5 | 9.5 | 9.5 |
| 13 | --- | --- | --- | --- | 5.5 | 5.0 | 0.0 | 0.0 | 0.5 | 0.0 | 10.0 | 9.5 |
| 14 | --- | --- | --- | --- | 5.0 | 5.0 | 0.0 | 0.0 | 0.5 | 0.0 | 10.5 | 9.5 |
| 15 | --- | --- | --- | --- | 5.0 | 5.0 | 0.0 | 0.0 | 1.0 | 0.0 | 11.0 | 10.5 |
| 16 | --- | --- | --- | --- | 5.0 | 3.5 | 0.0 | 0.0 | 1.0 | 0.5 | 11.5 | 11.0 |
| 17 | --- | --- | --- | --- | 3.5 | 1.5 | 0.5 | 0.0 | 0.5 | 0.0 | 12.0 | 10.0 |
| 18 | --- | --- | --- | --- | 1.5 | 1.0 | 1.0 | 0.5 | 0.0 | 0.0 | 10.0 | 9.0 |
| 19 | --- | --- | --- | --- | 1.0 | 1.0 | 1.5 | 1.0 | 0.5 | 0.0 | --- | --- |
| 20 | --- | --- | --- | --- | 2.5 | 1.0 | 1.5 | 1.5 | 0.5 | 0.0 | --- | --- |
| 21 | --- | --- | --- | --- | 3.5 | 2.5 | 1.5 | 1.0 | 1.0 | 0.5 | --- | --- |
| 22 | --- | --- | --- | --- | 4.5 | 3.5 | 1.5 | 1.5 | 1.5 | 1.0 | 7.0 | 7.0 |
| 23 | --- | --- | --- | --- | 5.5 | 4.5 | 2.0 | 1.5 | 1.5 | 1.5 | 7.5 | 6.5 |
| 24 | --- | --- | --- | --- | 6.0 | 5.5 | 2.0 | 2.0 | 2.0 | 1.5 | 8.0 | 7.0 |
| 25 | --- | --- | --- | --- | 6.0 | 6.0 | 2.0 | 1.5 | 2.5 | 2.0 | 8.0 | 7.5 |
| 26 | --- | --- | --- | --- | 6.0 | 6.0 | 2.5 | 2.0 | 3.0 | 2.5 | 8.5 | 8.0 |
| 27 | --- | --- | --- | --- | 6.0 | 5.5 | 3.0 | 2.5 | 3.0 | 3.0 | 10.0 | 8.5 |
| 28 | --- | --- | --- | --- | 5.5 | 5.0 | 3.5 | 3.0 | 4.0 | 3.0 | 10.5 | 9.5 |
| 29 | --- | --- | --- | --- | 5.0 | 4.0 | 3.5 | 3.5 | --- | --- | 11.5 | 10.5 |
| 30 | --- | --- | --- | --- | 4.0 | 4.0 | 3.5 | 2.5 | --- | --- | 12.5 | 11.0 |
| 31 | --- | --- | --- | --- | 4.5 | 4.0 | 2.5 | 1.5 | --- | --- | 12.5 | 12.0 |
| MONTH | --- | --- | --- | --- | --- | --- | 5.5 | 0.0 | 4.0 | 0.0 | 12.5 | 4.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 12.0 | 11.0 | 11.5 | 10.0 | 17.5 | 17.0 | 25.5 | 24.5 | 27.5 | 26.0 | 30.0 | 28.5 |
| 2 | 11.0 | 10.5 | 12.5 | 11.0 | 19.0 | 17.5 | 26.5 | 25.0 | 26.5 | 25.0 | 30.0 | 28.0 |
| 3 | 11.0 | 10.5 | 13.0 | 12.5 | 19.5 | 18.5 | 26.5 | 26.0 | 26.5 | 26.0 | 29.5 | 28.0 |
| 4 | 10.5 | 9.0 | 13.0 | 12.0 | 21.0 | 19.5 | 28.0 | 26.5 | 26.0 | 25.0 | 29.0 | 28.0 |
| 5 | 9.0 | 8.5 | 12.0 | 11.5 | 22.5 | 20.5 | 28.5 | 27.5 | 26.5 | 24.5 | 29.0 | 27.5 |
| 6 | 8.5 | 8.0 | 12.0 | 11.0 | 22.5 | 22.0 | 28.0 | 26.5 | 27.0 | 25.0 | 28.5 | 27.0 |
| 7 | 9.0 | 8.5 | 13.5 | 12.0 | 22.5 | 21.5 | 28.5 | 26.0 | 28.0 | 26.0 | 27.0 | 24.5 |
| 8 | 9.0 | 9.0 | 14.0 | 13.5 | 22.5 | 21.5 | 29.0 | 27.0 | 28.5 | 26.5 | 26.0 | 23.5 |
| 9 | 9.0 | 8.5 | 15.0 | 14.0 | 23.5 | 22.0 | 30.0 | 28.0 | 29.5 | 27.0 | 25.0 | 23.0 |
| 10 | 8.5 | 8.0 | 15.5 | 15.0 | 25.0 | 23.5 | 30.0 | 28.5 | 29.5 | 27.5 | 24.0 | 21.0 |
| 11 | 8.0 | 7.5 | 16.0 | 15.5 | 25.5 | 24.5 | 28.5 | 27.0 | 29.0 | 27.0 | 24.0 | 20.5 |
| 12 | 7.5 | 7.0 | 16.0 | 15.0 | 26.5 | 25.5 | 27.0 | 25.0 | 28.5 | 26.5 | 24.0 | 21.5 |
| 13 | 7.0 | 6.0 | 15.5 | 14.5 | 26.5 | 26.0 | 27.0 | 24.5 | 26.5 | 26.0 | 23.0 | 21.0 |
| 14 | 7.0 | 6.0 | 14.5 | 14.0 | 26.0 | 25.0 | 28.5 | 26.0 | 26.5 | 25.5 | 22.0 | 19.5 |
| 15 | 8.5 | 7.0 | 14.5 | 14.0 | 25.0 | 24.0 | 28.5 | 27.0 | 26.0 | 25.0 | 22.5 | 19.5 |
| 16 | 10.5 | 8.5 | 15.0 | 13.5 | 25.0 | 24.0 | 27.0 | 25.5 | 25.5 | 24.5 | 22.0 | 21.0 |
| 17 | 11.5 | 10.5 | 15.0 | 13.5 | 24.0 | 22.5 | 27.0 | 25.5 | 25.5 | 25.0 | 21.5 | 21.0 |
| 18 | 12.5 | 11.5 | 13.5 | 13.0 | 22.5 | 21.0 | 27.5 | 25.0 | 25.0 | 24.5 | 21.0 | 20.0 |
| 19 | 13.5 | 12.5 | 13.5 | 12.5 | 21.0 | 21.0 | 28.5 | 26.0 | 25.0 | 24.0 | 20.0 | 18.5 |
| 20 | 15.0 | 13.5 | 14.0 | 13.5 | 21.5 | 21.0 | 28.0 | 27.0 | 24.0 | 23.0 | 19.5 | 18.5 |
| 21 | 16.0 | 15.0 | 15.0 | 14.0 | 23.0 | 21.5 | 27.5 | 26.0 | 23.0 | 21.5 | 18.5 | 17.5 |
| 22 | 17.0 | 16.0 | 16.5 | 15.0 | 23.5 | 23.0 | 26.0 | 24.5 | 21.5 | 21.0 | 19.0 | 17.0 |
| 23 | 17.0 | 16.5 | 16.5 | 16.5 | 24.0 | 23.0 | 25.5 | 24.0 | 21.0 | 20.0 | 21.0 | 19.0 |
| 24 | 16.5 | 15.5 | 16.5 | 15.0 | 24.5 | 23.5 | 26.0 | 25.0 | 21.5 | 20.5 | 22.0 | 20.0 |
| 25 | 16.5 | 13.5 | 15.0 | 14.5 | 25.0 | 24.0 | 26.0 | 24.5 | 23.0 | 21.5 | 21.5 | 20.0 |
| 26 | 13.5 | 12.5 | 14.5 | 14.0 | 25.0 | 24.5 | 26.0 | 24.5 | 23.5 | 23.0 | 20.0 | 19.5 |
| 27 | 12.5 | 11.0 | 14.0 | 13.5 | 26.0 | 25.0 | 27.5 | 26.0 | 24.5 | 23.5 | 21.5 | 19.0 |
| 28 | 11.0 | 10.0 | 13.5 | 13.0 | 26.0 | 24.0 | 28.5 | 26.5 | 26.5 | 24.5 | 21.5 | 20.0 |
| 29 | 10.0 | 10.0 | 15.5 | 14.0 | 24.5 | 24.0 | 28.0 | 27.0 | 28.0 | 26.5 | 21.5 | 21.0 |
| 30 | 10.5 | 10.0 | 17.0 | 15.5 | 24.5 | 24.0 | 27.5 | 25.0 | 28.5 | 27.5 | 22.0 | 20.5 |
| 31 | --- | --- | 17.5 | 17.0 | --- | --- | 28.0 | 26.0 | 29.5 | 28.0 | --- | --- |
| MONTH | 17.0 | 6.0 | 17.5 | 10.0 | 26.5 | 17.0 | 30.0 | 24.0 | 29.5 | 20.0 | 30.0 | 17.0 |

## 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 sq mi (1,282 sq km).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1973.
Water temperatures: November 1966 to September 1973.
Sediment records: October 1966 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum, 23°C Aug. 10; minimum, 2.0°C Jan. 9-11.
Sediment concentrations: Maximum daily, 640 mg/l June 13, 22; minimum daily, 1 mg/l on several days during October and November.
Sediment discharge: Maximum daily, 6,050 tons (5,490 t) June 13; minimum daily, 0.37 ton (0.34 t) Oct. 29, Nov. 1.

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, 1970-73.
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 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 1115 | 144 | 1.3 | -- | 60 | 0 | 65 | 14 | 8.9 | 2.7 | 210 | 23 |
| NOV. | | | | | | | | | | | | |
| 14... | 1215 | 512 | 6.1 | -- | 650 | 50 | 46 | 9.2 | 6.4 | 3.6 | 135 | 26 |
| DEC. | | | | | | | | | | | | |
| 11... | 1200 | 3260 | 7.9 | -- | 10 | 0 | 34 | 6.2 | 4.3 | 2.0 | 88 | 21 |
| JAN. | | | | | | | | | | | | |
| 09... | 1220 | 920 | 7.1 | -- | 160 | 0 | 49 | 8.6 | 4.4 | 1.5 | 140 | 22 |
| FEB. | | | | | | | | | | | | |
| 07... | 1130 | 1810 | 7.0 | -- | 530 | 40 | 37 | 7.2 | 4.2 | 1.6 | 110 | 20 |
| MAR. | | | | | | | | | | | | |
| 12... | 1300 | 933 | 5.7 | -- | 190 | 10 | 42 | 8.3 | 4.7 | 1.8 | 124 | 20 |
| APR. | | | | | | | | | | | | |
| 03... | 1215 | 2390 | 7.8 | -- | 840 | 100 | 29 | 5.7 | 4.2 | 1.7 | 83 | 18 |
| MAY | | | | | | | | | | | | |
| 08... | 1140 | 914 | 4.8 | -- | 210 | 40 | 46 | 8.6 | 4.1 | 1.6 | 140 | 18 |
| JUNE | | | | | | | | | | | | |
| 05... | 1200 | 998 | 6.5 | -- | 370 | 50 | 41 | 7.8 | 3.8 | 1.8 | 128 | 17 |
| JULY | | | | | | | | | | | | |
| 10... | 1100 | 527 | 6.0 | -- | 500 | 40 | 56 | 10 | 4.5 | 2.0 | 176 | 18 |
| AUG. | | | | | | | | | | | | |
| 07... | 1130 | 213 | 4.2 | -- | 600 | 20 | 59 | 12 | 5.3 | 2.3 | 198 | 17 |
| SEP. | | | | | | | | | | | | |
| 12... | 1145 | 175 | .8 | 100 | 120 | 50 | 56 | 12 | 6.2 | 2.5 | 201 | 21 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | SUSPENDED SOLIDS (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 18... | 14 | .3 | 13 | -- | -- | 245 | -- | 220 | 48 | -- | 420 | 8.3 |
| NOV. | | | | | | | | | | | | |
| 14... | 12 | .1 | 12 | -- | -- | 188 | -- | 150 | 39 | -- | 305 | 8.0 |
| DEC. | | | | | | | | | | | | |
| 11... | 7.7 | .0 | 24 | -- | -- | 150 | -- | 110 | 38 | -- | 250 | 7.9 |
| JAN. | | | | | | | | | | | | |
| 09... | 8.0 | .1 | 14 | -- | -- | 184 | -- | 160 | 45 | -- | 298 | 8.0 |
| FEB. | | | | | | | | | | | | |
| 07... | 6.5 | .1 | 13 | -- | -- | 151 | -- | 120 | 32 | -- | 256 | 7.5 |
| MAR. | | | | | | | | | | | | |
| 12... | 7.8 | .1 | 13 | -- | -- | 165 | -- | 140 | 37 | -- | 281 | 7.5 |
| APR. | | | | | | | | | | | | |
| 03... | 5.8 | .1 | 9.7 | -- | -- | 113 | -- | 96 | 28 | -- | 207 | 7.2 |
| MAY | | | | | | | | | | | | |
| 08... | 7.0 | .3 | 12 | -- | -- | 159 | -- | 150 | 35 | -- | 289 | 7.8 |
| JUNE | | | | | | | | | | | | |
| 05... | 6.0 | .2 | 11 | -- | -- | 158 | -- | 140 | 30 | -- | 270 | 7.5 |
| JULY | | | | | | | | | | | | |
| 10... | 8.3 | .3 | 15 | -- | -- | 206 | -- | 180 | 37 | -- | 356 | 8.1 |
| AUG. | | | | | | | | | | | | |
| 07... | 10 | .2 | 16 | -- | -- | 223 | -- | 200 | 34 | -- | -- | -- |
| SEP. | | | | | | | | | | | | |
| 12... | 10 | .3 | 15 | .13 | 257 | 223 | 4 | 190 | 24 | .0 | -- | -- |

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TEMPERATURE (DEG C) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | TOTAL CHROMIUM (CR) (UG/L) | TOTAL COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 18... | 10.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. 11... | 6.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN. 09... | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. 07... | 5.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. 12... | 11.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR. 03... | 10.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE 05... | 21.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JULY 10... | 22.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. 07... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. 12... | -- | 10 | 1 | 1.1 | .02 | 0 | 0 | <10 | 0 | 1 | 10 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT AT 0900)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.0 | 10.0 | 7.0 | 7.0 | 4.0 | 6.0 | 13.0 | 18.0 | 11.0 | 20.0 | 22.0 | 20.0 |
| 2 | 17.0 | 10.0 | 7.0 | 7.0 | --- | 7.0 | 11.0 | 16.0 | 18.0 | 20.0 | 22.0 | 20.0 |
| 3 | 17.0 | 11.0 | 8.0 | 6.0 | --- | 7.0 | 12.0 | 15.0 | 17.0 | 21.0 | --- | 20.0 |
| 4 | 17.0 | 11.0 | 7.0 | --- | --- | 7.0 | 10.0 | 13.0 | 21.0 | 21.0 | 20.0 | 20.0 |
| 5 | 16.0 | 10.0 | 8.0 | --- | --- | 7.0 | 9.0 | 15.0 | 21.0 | 20.0 | --- | 19.0 |
| 6 | --- | 11.0 | 8.0 | --- | --- | 7.0 | 9.0 | 16.0 | 20.0 | 19.0 | --- | 20.0 |
| 7 | --- | 11.0 | 6.0 | --- | 5.0 | 7.0 | 11.0 | 16.0 | 20.0 | 19.0 | --- | 20.0 |
| 8 | --- | 11.0 | 7.0 | 3.0 | 7.0 | 8.0 | 12.0 | 16.0 | 19.0 | 20.0 | 22.0 | --- |
| 9 | 16.0 | 10.0 | 7.0 | 2.0 | 7.0 | 8.0 | --- | 17.0 | 21.0 | 20.0 | 22.0 | 20.0 |
| 10 | 15.0 | 10.0 | 7.0 | 2.0 | 6.0 | 9.0 | 9.0 | 18.0 | 21.0 | 21.0 | 23.0 | 18.0 |
| 11 | 17.0 | 10.0 | 7.0 | 2.0 | 6.0 | 9.0 | 9.0 | 19.0 | 21.0 | 21.0 | 21.0 | 19.0 |
| 12 | 16.0 | 11.0 | 7.0 | 3.0 | 6.0 | 10.0 | 9.0 | 16.0 | 22.0 | 20.0 | 21.0 | 18.0 |
| 13 | 15.0 | 10.0 | 7.0 | 3.0 | 6.0 | 11.0 | 8.0 | 14.0 | 21.0 | 20.0 | 21.0 | 18.0 |
| 14 | 16.0 | 11.0 | 7.0 | 4.0 | 6.0 | 10.0 | 9.0 | 12.0 | 19.0 | 21.0 | 22.0 | 19.0 |
| 15 | 15.0 | --- | 7.0 | 4.0 | 6.0 | 12.0 | 12.0 | 14.0 | 19.0 | 22.0 | 21.0 | 19.0 |
| 16 | 13.0 | --- | 6.0 | 4.0 | 5.0 | 12.0 | 12.0 | 12.0 | 18.0 | 21.0 | --- | 18.0 |
| 17 | 15.0 | --- | 6.0 | 6.0 | 6.0 | 12.0 | 16.0 | 15.0 | 17.0 | 20.0 | 20.0 | 18.0 |
| 18 | 14.0 | --- | 5.0 | 6.0 | 6.0 | 8.0 | 14.0 | 10.0 | 17.0 | 20.0 | 21.0 | 19.0 |
| 19 | 13.0 | --- | 6.0 | 6.0 | 6.0 | 5.0 | 15.0 | 12.0 | 18.0 | 20.0 | 20.0 | 18.0 |
| 20 | 9.0 | --- | 7.0 | 5.0 | 6.0 | 7.0 | 16.0 | 14.0 | 18.0 | 21.0 | 20.0 | 19.0 |
| 21 | 12.0 | --- | 6.0 | 5.0 | 8.0 | 9.0 | 15.0 | 14.0 | 19.0 | 22.0 | 20.0 | 17.0 |
| 22 | 13.0 | --- | 7.0 | 5.0 | 6.0 | 6.0 | 16.0 | 14.0 | 20.0 | 22.0 | 19.0 | 18.0 |
| 23 | 12.0 | --- | --- | 6.0 | 7.0 | 6.0 | 17.0 | 15.0 | 20.0 | 21.0 | 20.0 | 18.0 |
| 24 | 11.0 | 6.0 | --- | --- | 6.0 | 8.0 | 16.0 | 15.0 | 20.0 | 21.0 | 19.0 | 19.0 |
| 25 | 11.0 | 5.0 | --- | --- | 7.0 | 8.0 | 16.0 | 16.0 | 20.0 | 21.0 | 20.0 | 18.0 |
| 26 | 11.0 | 7.0 | 6.0 | --- | 7.0 | 6.0 | 14.0 | 15.0 | 21.0 | 21.0 | 19.0 | 18.0 |
| 27 | 11.0 | 8.0 | 6.0 | 5.0 | 7.0 | 10.0 | 15.0 | 14.0 | 20.0 | 21.0 | 19.0 | 18.0 |
| 28 | 11.0 | 8.0 | 6.0 | 4.0 | 7.0 | 10.0 | 11.0 | 14.0 | 20.0 | 21.0 | 20.0 | 18.0 |
| 29 | 11.0 | 8.0 | 6.0 | 4.0 | --- | 11.0 | 14.0 | 17.0 | 20.0 | 21.0 | 21.0 | 18.0 |
| 30 | 10.0 | 7.0 | 6.0 | 4.0 | --- | 12.0 | 12.0 | 15.0 | 20.0 | 21.0 | 21.0 | 18.0 |
| 31 | 10.0 | --- | 7.0 | 4.0 | --- | 11.0 | --- | 16.0 | --- | 21.0 | 19.0 | --- |
| AVG | 13.5 | --- | 6.5 | --- | 6.0 | 8.5 | 12.5 | 15.0 | 19.5 | 20.5 | 20.5 | 18.5 |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| AUG. 07... | 1130 | 213 | 23.0 | 9.8 | 8.2 | 375 | 140 |
| SEP. 12... | 1145 | 175 | 19.0 | 12.8 | 8.3 | 400 | 84 |

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 194 | 4 | 2.1 | 137 | 1 | .37 | 734 | 33 | 65 |
| 2 | 177 | 3 | 1.4 | 158 | 1 | .43 | 742 | 50 | 100 |
| 3 | 169 | 4 | 1.8 | 165 | 2 | .89 | 908 | 31 | 76 |
| 4 | 162 | 6 | 2.6 | 160 | 5 | 2.2 | 892 | 21 | 51 |
| 5 | 155 | 5 | 2.1 | 148 | 2 | .80 | 912 | 80 | 197 |
| 6 | 160 | 5 | 2.2 | 142 | 3 | 1.2 | 1440 | 150 | 630 |
| 7 | 257 | 24 | 17 | 141 | 5 | 1.9 | 2920 | 135 | 1080 |
| 8 | 277 | 18 | 13 | 655 | 58 | 187 | 1960 | 118 | 624 |
| 9 | 204 | 6 | 3.3 | 809 | 105 | 263 | 3890 | 159 | 1670 |
| 10 | 168 | 3 | 1.4 | 398 | 41 | 44 | 3650 | 89 | 877 |
| 11 | 153 | 3 | 1.2 | 293 | 15 | 12 | 3170 | 60 | 514 |
| 12 | 146 | 6 | 2.4 | 256 | 8 | 5.5 | 2350 | 31 | 197 |
| 13 | 146 | 11 | 4.3 | 216 | 17 | 9.9 | 2050 | 21 | 116 |
| 14 | 146 | 5 | 2.0 | 994 | 85 | 220 | 1700 | 28 | 129 |
| 15 | 144 | 1 | .39 | 1880 | 130 | 650 | 2120 | 50 | 286 |
| 16 | 137 | 3 | 1.1 | 932 | 100 | 260 | 3100 | 68 | 569 |
| 17 | 140 | 1 | .38 | 609 | 40 | 65 | 1970 | 30 | 160 |
| 18 | 140 | 2 | .76 | 459 | 20 | 24 | 1560 | 15 | 63 |
| 19 | 146 | 4 | 1.6 | 402 | 15 | 16 | 1410 | 13 | 49 |
| 20 | 151 | 1 | .41 | 1720 | 110 | 500 | 1370 | 14 | 52 |
| 21 | 148 | 1 | .40 | 1170 | 90 | 280 | 1320 | 20 | 70 |
| 22 | 146 | 2 | .79 | 762 | 50 | 100 | 3240 | 150 | 1300 |
| 23 | 146 | 3 | 1.2 | 588 | 30 | 48 | 3240 | 120 | 1000 |
| 24 | 151 | 3 | 1.2 | 483 | 14 | 18 | 2350 | 80 | 500 |
| 25 | 148 | 1 | .40 | 419 | 13 | 15 | 1920 | 40 | 200 |
| 26 | 144 | 1 | .39 | 2480 | 283 | 2310 | 1690 | 17 | 78 |
| 27 | 140 | 1 | .38 | 2060 | 128 | 796 | 1600 | 19 | 82 |
| 28 | 137 | 2 | .74 | 1230 | 36 | 120 | 1390 | 17 | 64 |
| 29 | 137 | 1 | .37 | 981 | 24 | 64 | 1210 | 22 | 72 |
| 30 | 142 | 5 | 1.9 | 784 | 94 | 199 | 1080 | 17 | 50 |
| 31 | 140 | 3 | 1.1 | -- | -- | -- | 1150 | 23 | 71 |
| TOTAL | 4951 | -- | 70.31 | 21631 | -- | 6214.19 | 59038 | -- | 10992 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1270 | 21 | 72 | 1300 | 17 | 60 | 584 | 6 | 9.5 |
| 2 | 1090 | 10 | 29 | 2810 | 240 | 1800 | 590 | 8 | 13 |
| 3 | 978 | 4 | 11 | 5320 | 400 | 5700 | 627 | 12 | 20 |
| 4 | 2000 | 80 | 440 | 3210 | 150 | 1300 | 998 | 45 | 121 |
| 5 | 2030 | 60 | 320 | 2380 | 80 | 500 | 1050 | 36 | 102 |
| 6 | 1600 | 40 | 170 | 1950 | 40 | 220 | 1540 | 105 | 437 |
| 7 | 1290 | 20 | 70 | 1850 | 36 | 180 | 1410 | 99 | 377 |
| 8 | 1060 | 4 | 11 | 2090 | 44 | 248 | 1330 | 41 | 147 |
| 9 | 940 | 11 | 28 | 2210 | 12 | 72 | 1190 | 25 | 80 |
| 10 | 860 | 18 | 42 | 1750 | 12 | 57 | 1050 | 16 | 45 |
| 11 | 800 | 10 | 22 | 1450 | 15 | 59 | 965 | 12 | 31 |
| 12 | 760 | 9 | 18 | 1220 | 12 | 40 | 932 | 9 | 23 |
| 13 | 680 | 7 | 13 | 1100 | 12 | 36 | 855 | 10 | 23 |
| 14 | 640 | 20 | 35 | 1050 | 10 | 28 | 785 | 21 | 45 |
| 15 | 660 | 44 | 78 | 1200 | 31 | 100 | 737 | 14 | 28 |
| 16 | 646 | 16 | 28 | 1100 | 56 | 166 | 713 | 15 | 29 |
| 17 | 608 | 11 | 18 | 920 | 13 | 32 | 1050 | 41 | 116 |
| 18 | 582 | 10 | 16 | 850 | 5 | 11 | 1540 | 99 | 412 |
| 19 | 574 | 10 | 15 | 840 | 7 | 16 | 1200 | 35 | 113 |
| 20 | 586 | 5 | 7.9 | 800 | 13 | 28 | 1010 | 11 | 30 |
| 21 | 533 | 7 | 10 | 800 | 9 | 19 | 908 | 6 | 15 |
| 22 | 636 | 36 | 62 | 820 | 10 | 22 | 829 | 9 | 20 |
| 23 | 1390 | 99 | 372 | 780 | 11 | 23 | 755 | 10 | 20 |
| 24 | 996 | 30 | 80 | 735 | 7 | 14 | 692 | 5 | 9.3 |
| 25 | 828 | 10 | 22 | 688 | 6 | 11 | 657 | 4 | 7.1 |
| 26 | 765 | 8 | 16 | 658 | 5 | 8.9 | 738 | 12 | 24 |
| 27 | 1300 | 27 | 95 | 636 | 7 | 12 | 692 | 22 | 41 |
| 28 | 2000 | 24 | 130 | 598 | 4 | 6.5 | 599 | 10 | 16 |
| 29 | 2450 | 38 | 251 | -- | -- | -- | 551 | 11 | 16 |
| 30 | 1950 | 44 | 232 | -- | -- | -- | 592 | 8 | 13 |
| 31 | 1510 | 47 | 192 | -- | -- | -- | 603 | 7 | 11 |
| TOTAL | 34012 | -- | 2905.9 | 41115 | -- | 10769.4 | 27772 | -- | 2393.9 |

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 1230 | 180 | 598 | 1590 | 56 | 240 | 1610 | 35 | 152 |
| 2 | 4080 | 400 | 4410 | 1410 | 55 | 209 | 1320 | 30 | 107 |
| 3 | 2440 | 82 | 540 | 1570 | 43 | 182 | 1140 | 22 | 68 |
| 4 | 2790 | 200 | 1510 | 1530 | 40 | 165 | 1080 | 22 | 64 |
| 5 | 4620 | 180 | 2250 | 1270 | 17 | 58 | 1000 | 60 | 162 |
| 6 | 2640 | 60 | 428 | 1110 | 13 | 39 | 1170 | 190 | 600 |
| 7 | 2070 | 25 | 140 | 993 | 16 | 43 | 2650 | 630 | 4510 |
| 8 | 3050 | 220 | 1810 | 923 | 15 | 37 | 1600 | 110 | 475 |
| 9 | 3470 | 150 | 1410 | 1420 | 38 | 146 | 1180 | 55 | 175 |
| 10 | 3340 | 40 | 361 | 1530 | 49 | 202 | 970 | 40 | 105 |
| 11 | 2920 | 40 | 315 | 1220 | 34 | 112 | 838 | 40 | 91 |
| 12 | 2260 | 25 | 153 | 1060 | 22 | 63 | 819 | 120 | 265 |
| 13 | 1900 | 21 | 108 | 960 | 17 | 44 | 3500 | 640 | 6050 |
| 14 | 1610 | 16 | 70 | 872 | 7 | 16 | 1500 | 115 | 466 |
| 15 | 1410 | 13 | 49 | 799 | 10 | 22 | 1040 | 105 | 295 |
| 16 | 1260 | 15 | 51 | 740 | 8 | 16 | 886 | 75 | 179 |
| 17 | 1210 | 15 | 49 | 720 | 9 | 17 | 884 | 23 | 55 |
| 18 | 1210 | 16 | 52 | 834 | 9 | 20 | 868 | 36 | 84 |
| 19 | 1080 | 14 | 41 | 729 | 6 | 12 | 789 | 35 | 75 |
| 20 | 958 | 13 | 34 | 701 | 19 | 36 | 692 | 40 | 75 |
| 21 | 874 | 15 | 35 | 773 | 21 | 44 | 632 | 160 | 273 |
| 22 | 818 | 15 | 33 | 652 | 16 | 28 | 2150 | 640 | 3720 |
| 23 | 810 | 18 | 39 | 585 | 17 | 27 | 1450 | 150 | 587 |
| 24 | 1020 | 40 | 110 | 598 | 14 | 23 | 960 | 85 | 220 |
| 25 | 971 | 40 | 105 | 1070 | 100 | 289 | 1750 | 460 | 2170 |
| 26 | 2300 | 127 | 789 | 983 | 360 | 955 | 1190 | 350 | 1120 |
| 27 | 2430 | 81 | 531 | 911 | 220 | 541 | 856 | 110 | 254 |
| 28 | 3260 | 92 | 810 | 3250 | 210 | 1840 | 835 | 70 | 158 |
| 29 | 2380 | 42 | 270 | 3860 | 230 | 2400 | 2470 | 500 | 3330 |
| 30 | 1850 | 43 | 215 | 2590 | 80 | 559 | 1650 | 290 | 1290 |
| 31 | -- | -- | -- | 2000 | 50 | 270 | -- | -- | -- |
| TOTAL | 62261 | -- | 17316 | 39253 | -- | 8655 | 39479 | -- | 27175 |

| | 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 | 1130 | 150 | 458 | 229 | 17 | 11 | 233 | 9 | 5.7 |
| 2 | 911 | 230 | 566 | 312 | 21 | 18 | 222 | 7 | 4.2 |
| 3 | 794 | 90 | 193 | 296 | 19 | 15 | 213 | 12 | 6.9 |
| 4 | 1090 | 390 | 1150 | 262 | 15 | 11 | 211 | 12 | 6.8 |
| 5 | 1390 | 410 | 1540 | 235 | 11 | 7.0 | 220 | 16 | 9.5 |
| 6 | 1080 | 120 | 350 | 220 | 9 | 5.3 | 202 | 13 | 7.1 |
| 7 | 771 | 52 | 108 | 214 | 8 | 4.6 | 202 | 13 | 7.1 |
| 8 | 657 | 23 | 41 | 257 | 20 | 14 | 189 | 10 | 5.1 |
| 9 | 586 | 22 | 35 | 259 | 17 | 12 | 184 | 5 | 2.5 |
| 10 | 531 | 15 | 22 | 254 | 15 | 10 | 178 | 3 | 1.4 |
| 11 | 514 | 25 | 35 | 243 | 21 | 14 | 178 | 3 | 1.4 |
| 12 | 479 | 24 | 31 | 279 | 31 | 23 | 172 | 5 | 2.3 |
| 13 | 441 | 19 | 23 | 299 | 21 | 17 | 170 | 10 | 4.6 |
| 14 | 407 | 22 | 24 | 239 | 25 | 16 | 866 | 175 | 409 |
| 15 | 394 | 18 | 19 | 516 | 440 | 613 | 2460 | 280 | 1860 |
| 16 | 391 | 18 | 19 | 377 | 145 | 148 | 922 | 100 | 249 |
| 17 | 378 | 17 | 17 | 264 | 100 | 71 | 564 | 105 | 160 |
| 18 | 360 | 13 | 13 | 307 | 175 | 145 | 600 | 69 | 112 |
| 19 | 341 | 21 | 19 | 1090 | 150 | 441 | 1280 | 105 | 363 |
| 20 | 324 | 17 | 15 | 521 | 160 | 225 | 658 | 51 | 91 |
| 21 | 329 | 16 | 14 | 1600 | 290 | 1250 | 502 | 23 | 31 |
| 22 | 345 | 19 | 18 | 1430 | 405 | 1560 | 429 | 16 | 19 |
| 23 | 327 | 18 | 16 | 762 | 245 | 504 | 433 | 19 | 22 |
| 24 | 301 | 19 | 15 | 547 | 15 | 22 | 517 | 22 | 31 |
| 25 | 279 | 16 | 12 | 447 | 11 | 13 | 399 | 17 | 18 |
| 26 | 274 | 16 | 12 | 386 | 14 | 15 | 353 | 17 | 16 |
| 27 | 277 | 24 | 18 | 342 | 14 | 13 | 322 | 30 | 26 |
| 28 | 259 | 20 | 14 | 310 | 23 | 19 | 299 | 29 | 23 |
| 29 | 242 | 7 | 4.6 | 282 | 14 | 11 | 295 | 50 | 40 |
| 30 | 235 | 10 | 6.3 | 257 | 11 | 7.6 | 896 | 147 | 356 |
| 31 | 227 | 15 | 9.2 | 245 | 12 | 7.9 | -- | -- | -- |
| TOTAL | 16064 | -- | 4817.1 | 13281 | -- | 5243.4 | 14369 | -- | 3890.6 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 373226
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 100442.80

## 01619000 ANTIETAM CREEK NEAR WAYNESBORO, PA.

LOCATION.--Lat 39°42'59", long 77°36'28", Washington County, Md., at highway bridge at Rocky Forge 100 feet (30 m) downstream from gaging station, 0.4 mile (0.6 km) downstream form Pennsylvania-Maryland State line, 0.7 mile (1.1 km) downstream from confluence of west and east branches, 1.9 miles (3.1 km) northeast of Leitersburg, Md., 2.5 miles (4.0 km) southwest of Waynesboro, Pa., and 36.6 miles (58.9 km) upstream from mouth.

DRAINAGE AREA.--93.5 sq mi (242.2 sq km).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | DISSOLVED IRON (FE) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | | |
| 05... | 1055 | 71 | 7.1 | 100 | 60 | 30 | 51 | 14 | 4.4 | 2.3 | 171 | 25 |
| MAR. | | | | | | | | | | | | |
| 06... | 1230 | 163 | 6.7 | 100 | 110 | 10 | 41 | 12 | 5.0 | 2.1 | 138 | 18 |
| MAY | | | | | | | | | | | | |
| 30... | 1420 | 483 | 6.9 | 0 | 70 | 40 | 27 | 7.2 | 2.5 | 1.7 | 90 | 15 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DIS_SOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 05... | 8.5 | .2 | 14 | .15 | 203 | 211 | 11 | 190 | 45 | 4 | 6 |
| MAR. | | | | | | | | | | | |
| 06... | 9.6 | .3 | 13 | .14 | 127 | 176 | 13 | 150 | 39 | 5 | 4 |
| MAY | | | | | | | | | | | |
| 30... | 4.5 | .4 | 7.0 | .09 | 127 | 117 | 54 | 97 | 23 | 10 | 20 |

| DATE | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 05... | 2.6 | .02 | 1 | 1 | -- | 0 | 0 | 1 | 30 | 17 | 3.3 |
| MAR. | | | | | | | | | | | |
| 06... | 2.6 | .02 | 1 | 1 | -- | -- | 0 | 0 | 70 | -- | -- |
| MAY | | | | | | | | | | | |
| 30... | .9 | .02 | 2 | 1 | 0 | -- | 0 | 2 | 0 | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 18... | 1025 | 44 | 10.0 | 10.5 | 7.8 | 375 | 823000 |
| NOV. | | | | | | | |
| 14... | 1050 | 224 | 10.0 | 9.9 | 7.7 | 295 | 86000 |
| DEC. | | | | | | | |
| 05... | 1055 | 71 | 6.5 | 12.4 | 7.9 | 335 | 210 |
| JAN. | | | | | | | |
| 09... | 1120 | 137 | 2.0 | 13.8 | 7.8 | 325 | 96 |
| FEB. | | | | | | | |
| 07... | 1045 | 267 | 5.0 | 12.4 | 7.7 | 295 | 310 |
| MAR. | | | | | | | |
| 06... | 1230 | 163 | 7.0 | 12.8 | 8.1 | 295 | 300 |
| APR. | | | | | | | |
| 03... | 1110 | 181 | 9.0 | 12.2 | 7.7 | 255 | 150 |
| MAY | | | | | | | |
| 08... | 1040 | 174 | 12.0 | 10.8 | 7.8 | 295 | 620 |
| 30... | 1420 | 483 | 15.0 | 9.8 | 7.9 | 215 | 1800 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

## 01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.

LOCATION.--Lat 39°27'01", long 77°43'52", Washington County, temperature recorder 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.

DRAINAGE AREA.--281 sq mi (728 sq km).

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1973.
Water temperatures: October 1962 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum, 23.0°C on several days in August and September; minimum, 1.5°C on Jan. 14, 15.

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 samples collected from Burnside Bridge.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | | |
| 19... | 1030 | 157 | 7.3 | -- | -- | 80 | -- | 20 | -- | 77 | 16 | 10 |
| NOV. | | | | | | | | | | | | |
| 15... | 1205 | 400 | 6.6 | -- | -- | 490 | -- | 60 | -- | 58 | 10 | 9.0 |
| DEC. | | | | | | | | | | | | |
| 05... | 1315 | 226 | 6.9 | -- | 100 | -- | 40 | -- | 10 | 73 | 14 | 8.2 |
| JAN. | | | | | | | | | | | | |
| 10... | 1150 | 495 | 8.3 | -- | -- | 240 | -- | 0 | -- | 70 | 13 | 6.0 |
| FEB. | | | | | | | | | | | | |
| 08... | 1125 | 765 | 7.8 | -- | -- | 490 | -- | 60 | -- | 62 | 12 | 7.4 |
| MAR. | | | | | | | | | | | | |
| 06... | 1430 | 465 | 6.7 | -- | 300 | -- | 90 | -- | 10 | 67 | 13 | 7.0 |
| APR. | | | | | | | | | | | | |
| 04... | 1200 | 535 | 8.0 | -- | -- | 270 | -- | 10 | -- | 57 | 10 | 7.0 |
| MAY | | | | | | | | | | | | |
| 09... | 1135 | 605 | 6.7 | -- | -- | 410 | -- | 30 | -- | 65 | 12 | 5.8 |
| 30... | 1115 | 1010 | 7.7 | -- | 100 | -- | 60 | -- | 20 | 43 | 7.6 | 3.9 |
| JULY | | | | | | | | | | | | |
| 11... | 1110 | 326 | 7.6 | -- | -- | 830 | -- | 50 | -- | 66 | 13 | 6.2 |
| AUG. | | | | | | | | | | | | |
| 08... | 1145 | 203 | 7.1 | -- | -- | 260 | -- | 20 | -- | 72 | 15 | 9.0 |
| SEP. | | | | | | | | | | | | |
| 12... | 1400 | 166 | 5.9 | 0 | -- | 170 | -- | 60 | -- | 75 | 13 | 10 |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | CARBONATE (CO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DIS_SOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | 3.5 | 238 | 0 | 29 | 16 | .3 | 18 | -- | -- | 294 | -- |
| NOV. | | | | | | | | | | | |
| 15... | 3.9 | 174 | 0 | 28 | 13 | .2 | 12 | -- | -- | 227 | -- |
| DEC. | | | | | | | | | | | |
| 05... | 3.3 | 228 | 0 | 34 | 17 | .2 | 15 | .31 | 288 | 285 | 3 |
| JAN. | | | | | | | | | | | |
| 10... | 2.7 | 214 | 0 | 31 | 13 | .2 | 18 | -- | -- | 268 | -- |
| FEB. | | | | | | | | | | | |
| 08... | 2.8 | 187 | 0 | 28 | 14 | .2 | 17 | -- | -- | 243 | -- |
| MAR. | | | | | | | | | | | |
| 06... | 2.9 | 202 | 0 | 28 | 13 | .3 | 17 | .29 | 265 | 255 | 17 |
| APR. | | | | | | | | | | | |
| 04... | 2.6 | 175 | 0 | 25 | 13 | .2 | 14 | -- | -- | 223 | -- |
| MAY | | | | | | | | | | | |
| 09... | 2.6 | 199 | 0 | 26 | 11 | .4 | 16 | -- | -- | 243 | -- |
| 30... | 2.6 | 129 | 1 | 20 | 7.2 | .4 | 10 | .41 | 205 | 167 | 173 |
| JULY | | | | | | | | | | | |
| 11... | 2.9 | 222 | 0 | 24 | 11 | .4 | 15 | -- | -- | 256 | -- |
| AUG. | | | | | | | | | | | |
| 08... | 3.3 | 237 | 0 | 27 | 16 | .4 | 19 | -- | -- | 286 | -- |
| SEP. | | | | | | | | | | | |
| 12... | 3.6 | 245 | 0 | 32 | 17 | .4 | 20 | .68 | 319 | 298 | -- |

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | SUS-PENDED SOLIDS (MG/L) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLAT-INUM-COBALT UNITS) | TUR-BID-ITY (JTU) | BIO-CHEM-ICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CAD-MIUM (CD) (UG/L) | DIS-SOLVED CAD-MIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | -- | 260 | 63 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 15... | -- | 190 | 43 | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 05... | -- | 240 | 53 | -- | 0 | 3 | 1.9 | .01 | 4 | -- | 0 |
| JAN. | | | | | | | | | | | |
| 10... | -- | 230 | 54 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 08... | -- | 200 | 51 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 06... | -- | 220 | 55 | -- | 3 | 5 | 3.3 | .01 | 1 | -- | 1 |
| APR. | | | | | | | | | | | |
| 04... | -- | 180 | 40 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 09... | -- | 210 | 48 | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | -- | 140 | 31 | -- | 18 | 60 | 2.5 | .04 | 2 | -- | 1 |
| JULY | | | | | | | | | | | |
| 11... | -- | 220 | 36 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 08... | -- | 240 | 47 | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 12... | 7 | 240 | 40 | .0 | 10 | 1 | .7 | .01 | -- | 0 | -- |

| DATE | TOTAL CHRO-MIUM (CR) (UG/L) | DIS-SOLVED CHRO-MIUM (CR) (UG/L) | HEXA-VALENT CHRO-MIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DIS-SOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DIS-SOLVED ZINC (ZN) (UG/L) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 15... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 05... | -- | -- | 0 | -- | 0 | -- | 1 | -- | 40 | 5 | 3.1 |
| JAN. | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 06... | -- | 20 | -- | -- | 0 | -- | 0 | -- | 30 | -- | -- |
| APR. | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 30... | 0 | -- | -- | -- | 0 | -- | 2 | -- | 60 | -- | -- |
| JULY | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 12... | 10 | -- | -- | 10 | -- | 2 | -- | 0 | -- | -- | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | TEMPER-ATURE (DEG C) | DIS-SOLVED OXYGEN (MG/L) | PH (UNITS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | FECAL COLI-FORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 19... | 1032 | 157 | 10.0 | 10.0 | 8.0 | 460 | 170 |
| NOV. | | | | | | | |
| 15... | 1205 | 400 | 9.0 | 10.4 | 7.9 | 370 | 1000 |
| DEC. | | | | | | | |
| 05... | 1315 | 226 | 7.0 | 12.6 | 8.2 | 465 | 38 |
| JAN. | | | | | | | |
| 10... | 1150 | 495 | 2.0 | 13.2 | 7.9 | 430 | 90 |
| FEB. | | | | | | | |
| 08... | 1125 | 765 | 6.0 | 11.6 | 7.8 | 400 | 58 |
| MAR. | | | | | | | |
| 06... | 1430 | 465 | 9.0 | 11.2 | 8.0 | 420 | 130 |
| APR. | | | | | | | |
| 04... | 1200 | 535 | 9.0 | 11.2 | 7.8 | 365 | 210 |
| MAY | | | | | | | |
| 09... | 1135 | 605 | 14.5 | -- | 7.9 | 420 | 1000 |
| 30... | 1115 | 1010 | 15.0 | 9.2 | 8.0 | 285 | 2000 |
| JULY | | | | | | | |
| 11... | 1110 | 326 | 20.0 | 8.0 | 8.2 | 455 | 1700 |
| AUG. | | | | | | | |
| 08... | 1145 | 203 | 22.0 | 7.8 | 7.9 | 490 | 5200 |
| SEP. | | | | | | | |
| 12... | 1400 | 166 | 18.5 | 10.4 | 8.2 | 515 | 140 |

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | 15.0 | 13.0 | --- | --- | --- | --- | 7.5 | 7.5 | 3.5 | 3.0 | 7.0 | 6.0 |
| 2 | 13.0 | 12.5 | --- | --- | --- | --- | 7.5 | 7.0 | 5.0 | 3.5 | 8.0 | 7.0 |
| 3 | 12.5 | 12.5 | --- | --- | --- | --- | 7.0 | 5.5 | 5.5 | 5.0 | 8.5 | 8.0 |
| 4 | 12.5 | 12.5 | --- | --- | --- | --- | 5.5 | 5.0 | 5.5 | 5.5 | 9.0 | 8.5 |
| 5 | 13.0 | 12.5 | --- | --- | --- | --- | 5.0 | 5.0 | 6.0 | 5.5 | 9.0 | 9.0 |
| 6 | 14.0 | 13.0 | --- | --- | --- | --- | 5.0 | 4.5 | 6.0 | 6.0 | 9.0 | 9.0 |
| 7 | 14.5 | 14.0 | --- | --- | --- | --- | 4.5 | 3.5 | 6.0 | 6.0 | 9.0 | 9.0 |
| 8 | 14.0 | 13.5 | --- | --- | --- | --- | 3.5 | 2.5 | 6.0 | 6.0 | 10.0 | 9.0 |
| 9 | 13.5 | 12.5 | --- | --- | --- | --- | 2.5 | 2.0 | 6.0 | 5.0 | 10.5 | 10.0 |
| 10 | 12.5 | 11.0 | --- | --- | --- | --- | 2.0 | 2.0 | 5.0 | 3.5 | 11.0 | 10.5 |
| 11 | 11.0 | 10.5 | --- | --- | --- | --- | 2.0 | 2.0 | 3.5 | 3.0 | 11.0 | 11.0 |
| 12 | 11.5 | 10.5 | --- | --- | --- | --- | 2.0 | 2.0 | 3.0 | 2.5 | 11.0 | 11.0 |
| 13 | 12.0 | 11.5 | --- | --- | --- | --- | 2.0 | 1.5 | 3.0 | 2.5 | 11.0 | 10.5 |
| 14 | 12.0 | 12.0 | --- | --- | 7.0 | 7.0 | 2.0 | 1.5 | 3.5 | 3.0 | 10.5 | 10.5 |
| 15 | 12.0 | 11.5 | --- | --- | 7.0 | 7.0 | 3.0 | 2.0 | 5.0 | 3.5 | 11.0 | 11.0 |
| 16 | 11.5 | 11.0 | --- | --- | 7.0 | 5.5 | 3.0 | 3.0 | 5.0 | 4.5 | 11.5 | 11.0 |
| 17 | 12.0 | 11.0 | --- | --- | 5.5 | 4.5 | 3.5 | 3.0 | 4.5 | 3.0 | 13.0 | 11.5 |
| 18 | 12.0 | 11.0 | --- | --- | 4.5 | 4.0 | 4.5 | 3.5 | 3.0 | 2.5 | 11.5 | 8.0 |
| 19 | 11.0 | 9.0 | --- | --- | 5.5 | 4.0 | 5.0 | 4.0 | 3.5 | 2.5 | 8.0 | 6.5 |
| 20 | --- | --- | --- | --- | 6.5 | 5.5 | 5.0 | 4.5 | 4.5 | 3.5 | 7.5 | 6.5 |
| 21 | --- | --- | --- | --- | 7.0 | 6.5 | 4.5 | 3.5 | 5.5 | 4.5 | 7.5 | 7.0 |
| 22 | --- | --- | --- | --- | 7.0 | 7.0 | 3.5 | 3.5 | 5.5 | 5.5 | 7.0 | 7.0 |
| 23 | --- | --- | --- | --- | 7.0 | 6.5 | 4.0 | 3.5 | 5.5 | 5.5 | 7.5 | 6.5 |
| 24 | --- | --- | --- | --- | 7.0 | 7.0 | 4.0 | 4.0 | 5.5 | 5.0 | 8.0 | 7.0 |
| 25 | --- | --- | --- | --- | 7.0 | 7.0 | 4.0 | 4.0 | 5.5 | 5.0 | 8.0 | 8.0 |
| 26 | --- | --- | --- | --- | 7.0 | 7.0 | 5.0 | 4.0 | 6.0 | 5.5 | 8.5 | 8.0 |
| 27 | --- | --- | --- | --- | 7.0 | 7.0 | 5.5 | 5.0 | 6.0 | 6.0 | 10.0 | 8.5 |
| 28 | --- | --- | --- | --- | 7.0 | 7.0 | 6.0 | 5.5 | 6.5 | 6.0 | 10.0 | 9.5 |
| 29 | --- | --- | --- | --- | 7.0 | 6.0 | 6.0 | 5.0 | --- | --- | 9.5 | 9.0 |
| 30 | --- | --- | --- | --- | 6.0 | 5.5 | 5.0 | 3.5 | --- | --- | 10.0 | 9.0 |
| 31 | --- | --- | --- | --- | 7.5 | 6.0 | 3.5 | 3.0 | --- | --- | 10.0 | 10.0 |
| MONTH | --- | --- | --- | --- | --- | --- | 7.5 | 1.5 | 6.5 | 2.5 | 13.0 | 6.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 10.0 | 10.0 | 13.0 | 11.0 | 15.5 | 14.0 | 19.5 | 19.5 | 21.5 | 21.0 | 23.0 | 23.0 |
| 2 | 10.0 | 10.0 | 15.0 | 12.5 | 16.0 | 14.5 | 19.5 | 19.5 | 21.5 | 21.0 | 23.0 | 23.0 |
| 3 | 10.0 | 10.0 | 15.5 | 15.0 | 16.0 | 15.5 | 20.5 | 20.0 | 21.0 | 21.0 | 23.0 | 23.0 |
| 4 | 10.0 | 9.0 | 15.0 | 12.5 | 17.5 | 16.0 | 21.0 | 20.5 | 21.0 | 21.0 | 23.0 | 23.0 |
| 5 | 9.0 | 8.0 | 12.5 | 11.5 | 18.0 | 16.5 | 21.0 | 21.0 | 21.0 | 20.5 | 23.0 | 23.0 |
| 6 | 9.0 | 7.0 | 13.0 | 11.0 | 18.5 | 17.0 | 21.0 | 20.0 | 21.0 | 21.0 | 23.0 | 22.0 |
| 7 | 9.0 | 8.5 | 14.5 | 13.0 | 19.0 | 18.0 | 21.0 | 20.5 | 22.0 | 21.0 | 22.0 | 21.0 |
| 8 | 9.0 | 9.0 | 14.5 | 14.5 | 19.0 | 18.0 | 21.0 | 20.5 | 22.0 | 22.0 | 21.0 | 20.0 |
| 9 | 9.0 | 8.0 | 14.5 | 14.5 | 19.0 | 18.5 | 21.5 | 21.0 | 23.0 | 22.0 | 20.0 | 19.0 |
| 10 | 9.5 | 9.0 | 16.0 | 14.0 | 20.0 | 19.0 | 21.5 | 21.5 | 23.0 | 23.0 | 19.0 | 18.0 |
| 11 | 9.0 | 8.0 | 16.0 | 15.5 | 20.5 | 19.5 | 21.5 | 20.0 | 23.0 | 22.5 | 18.0 | 17.5 |
| 12 | 8.0 | 7.0 | 15.5 | 15.5 | 20.5 | 20.0 | 21.0 | 20.0 | 22.5 | 22.5 | 19.0 | 18.0 |
| 13 | 7.5 | 6.5 | 15.0 | 14.0 | 20.5 | 20.0 | 20.0 | 19.5 | 22.5 | 21.5 | 19.0 | 18.0 |
| 14 | 9.0 | 7.5 | 14.0 | 13.5 | 20.0 | 19.0 | 21.0 | 20.0 | 21.5 | 21.0 | 18.0 | 18.0 |
| 15 | 10.5 | 8.5 | 13.5 | 13.5 | 19.5 | 18.0 | 21.0 | 21.0 | 21.0 | 21.0 | 18.0 | 18.0 |
| 16 | 11.5 | 10.0 | 14.0 | 13.0 | 18.5 | 18.5 | 21.0 | 20.5 | 21.0 | 21.0 | 18.0 | 17.5 |
| 17 | 11.5 | 11.5 | 14.5 | 13.0 | 18.5 | 17.5 | 20.5 | 20.5 | 21.0 | 21.0 | 17.5 | 17.5 |
| 18 | 13.0 | 11.5 | 13.0 | 11.0 | 17.5 | 16.5 | 20.5 | 20.0 | 21.0 | 21.0 | 17.5 | 17.5 |
| 19 | 13.5 | 13.0 | 12.5 | 11.0 | 16.5 | 16.5 | 21.0 | 20.0 | 21.0 | 20.0 | 17.5 | 16.0 |
| 20 | 14.5 | 13.5 | 12.5 | 12.5 | 17.5 | 16.5 | 21.0 | 21.0 | 20.0 | 20.0 | 16.0 | 15.0 |
| 21 | 15.0 | 14.0 | 13.0 | 12.5 | 18.5 | 17.5 | 21.0 | 21.0 | 20.0 | 19.5 | 15.0 | 15.0 |
| 22 | 16.0 | 14.5 | 14.5 | 13.0 | 18.5 | 18.5 | 21.0 | 20.0 | 19.5 | 19.0 | 15.0 | 14.5 |
| 23 | 16.0 | 15.5 | 14.5 | 14.0 | 19.0 | 18.5 | 20.0 | 19.5 | 19.0 | 18.5 | 16.0 | 15.0 |
| 24 | 15.5 | 14.5 | 14.5 | 14.0 | 19.0 | 19.0 | 20.0 | 19.5 | 18.5 | 18.5 | 16.0 | 16.0 |
| 25 | 15.5 | 12.5 | 14.0 | 13.0 | 19.5 | 19.0 | 20.0 | 20.0 | 19.0 | 18.5 | 16.0 | 16.0 |
| 26 | 12.5 | 11.5 | 13.0 | 12.5 | 19.5 | 19.5 | 21.0 | 20.0 | 19.5 | 19.0 | 16.0 | 16.0 |
| 27 | 12.5 | 11.0 | 12.5 | 12.0 | 20.5 | 19.5 | 22.0 | 21.0 | 20.5 | 19.5 | 16.0 | 16.0 |
| 28 | 11.0 | 10.5 | 14.0 | 12.0 | 20.0 | 19.5 | 22.5 | 22.0 | 22.0 | 20.5 | 17.0 | 16.0 |
| 29 | 11.0 | 9.5 | 16.0 | 14.0 | 19.5 | 19.5 | 22.5 | 22.0 | 22.0 | 22.0 | 17.5 | 17.0 |
| 30 | 11.0 | 10.5 | 16.0 | 15.0 | 19.5 | 19.0 | 22.0 | 21.0 | 22.5 | 22.0 | 17.5 | 17.5 |
| 31 | --- | --- | 16.0 | 14.5 | --- | --- | 21.5 | 21.0 | 23.0 | 22.5 | --- | --- |
| MONTH | 16.0 | 6.5 | 16.0 | 11.0 | 20.5 | 14.0 | 22.5 | 19.5 | 23.0 | 18.5 | 23.0 | 14.5 |

## 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 sq mi (24,996 sq km).

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1973.
Water temperatures: October 1960 to September 1973.
Sediment records: October 1960 to September 1973.

EXTREMES.--1972-73:
Water temperatures: Maximum recorded, 28.0°C several days during July, August, and September; minimum recorded, 1.0°C Jan. 12-16.
Sediment concentrations: Maximum daily, 883 mg/l June 5; minimum daily, 1 mg/l Jan. 18-20.
Sediment discharge: Maximum daily, 132,000 tons (120,000 t) Oct. 7; minimum daily, 21 tons (19 t) Oct. 27.

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 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 19... | 1355 | 5100 | 6.2 | 230 | 30 | 42 | 8.6 | 8.6 | 2.0 | 115 | 41 |
| DEC. 06... | 1240 | 15300 | 5.9 | 360 | 30 | 28 | 5.5 | 5.5 | 1.5 | 70 | 32 |
| JAN. 22... | 1300 | 8880 | 4.5 | 160 | 70 | 44 | 8.9 | 8.2 | 1.6 | 125 | 40 |
| MAR. 02... | 1230 | 8640 | 3.0 | 160 | 50 | 45 | 8.8 | 8.0 | 1.5 | 125 | 39 |
| APR. 06... | 1340 | 43600 | 6.4 | 2000 | 400 | 20 | 3.8 | 3.3 | 1.6 | 47 | 25 |
| MAY 03... | 1100 | 25700 | 6.5 | 460 | 40 | 27 | 5.1 | 3.4 | 1.4 | 69 | 28 |
| JUNE 14... | 0930 | 11900 | 5.1 | 130 | 30 | 38 | 7.2 | 4.7 | 2.0 | 111 | 26 |
| AUG. 06... | 1600 | 3730 | 2.5 | 310 | 100 | 46 | 12 | 17 | 2.6 | 132 | 65 |
| SEP. 07... | 1715 | 3160 | 4.0 | 40 | 30 | 33 | 9.8 | 17 | 2.9 | 116 | 53 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. 19... | 8.3 | .1 | -- | 6.1 | 180 | 140 | 46 | 308 | 7.7 | 11.0 |
| DEC. 06... | 9.2 | .1 | -- | 5.3 | 127 | 93 | 36 | 216 | 7.5 | 7.5 |
| JAN. 22... | 8.3 | .1 | -- | 7.1 | 184 | 150 | 44 | 313 | 7.9 | -- |
| MAR. 02... | 9.2 | .1 | -- | 6.6 | 183 | 150 | 46 | 312 | 7.3 | 8.5 |
| APR. 06... | 4.5 | .2 | -- | 4.9 | 93 | 66 | 27 | 142 | 7.2 | 14.0 |
| MAY 03... | 4.5 | .2 | -- | 4.9 | 115 | 88 | 32 | 188 | 7.5 | 14.5 |
| JUNE 14... | 7.7 | .3 | -- | 6.0 | 152 | 130 | 33 | 261 | 7.7 | 23.0 |
| AUG. 06... | 16 | .3 | -- | 5.0 | 231 | 160 | 56 | 379 | 7.4 | 27.0 |
| SEP. 07... | 12 | .3 | 2.1 | -- | 189 | 120 | 28 | 328 | 7.9 | 27.0 |

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| MONTH | DAY 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | AVERAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCTOBER.. | 16 | -- | 17 | 19 | -- | 19 | 16 | 16 | 15 | -- | 15 | 16 | 15 | 16 | 14 | 14 | 15 | 13 | 10 | 10 | 11 | -- | 11 | -- | 12 | -- | 12 | 12 | 14 | 13 | -- | -- |
| NOVEMBER. | -- | 12 | 13 | 13 | 11 | 12 | 12 | 11 | 11 | 11 | 10 | -- | 10 | 10 | -- | 9 | 7 | 7 | 6 | 6 | 5 | 5 | -- | 4 | 4 | 5 | -- | 5 | 5 | -- | -- | 8.5 |
| DECEMBER. | 4 | 5 | 5 | 5 | 6 | 7 | 6 | -- | 6 | 6 | 6 | 6 | 6 | 6 | 6 | -- | -- | 2 | 3 | 4 | -- | -- | 6 | 6 | 7 | 7 | 7 | 7 | 7 | -- | 8 | 6.0 |
| JANUARY.. | 7 | 6 | 5 | 6 | 5 | 4 | -- | -- | -- | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 4 | -- | 4 | -- | 4 | -- | 5 | 5 | 5 | 4 | -- | 4 | -- |
| FEBRUARY. | -- | 5 | 4 | 5 | 6 | 6 | 5 | 5 | 4 | 3 | 2 | 2 | -- | -- | 3 | -- | -- | 2 | 3 | -- | 4 | 3 | 3 | 5 | 5 | 5 | -- | 6 | -- | -- | -- | -- |
| MARCH.... | -- | 9 | -- | 9 | 8 | 8 | -- | -- | -- | 10 | -- | -- | 12 | 11 | 12 | 13 | -- | 9 | 8 | 9 | 8 | 7 | 8 | -- | 7 | 9 | 10 | 9 | 11 | 13 | 11 | -- |
| APRIL.... | 12 | 12 | 12 | 10 | 9 | 14 | -- | 9 | 9 | 9 | 7 | 6 | 6 | 7 | 9 | 10 | 11 | 13 | 15 | -- | 16 | 19 | 17 | -- | -- | 15 | 12 | 11 | 10 | 10 | -- | 11.0 |
| MAY..... | 12 | 14 | 14 | -- | 13 | 13 | 15 | 15 | -- | 17 | -- | -- | -- | 18 | 17 | 18 | 15 | 14 | 15 | 15 | 15 | 17 | 16 | 15 | 15 | 15 | -- | 18 | 16 | 18 | 17 | 15.5 |
| JUNE..... | 18 | -- | 20 | 20 | 22 | 22 | 23 | 24 | -- | 24 | 25 | 25 | 25 | 25 | -- | 24 | 22 | 21 | 21 | -- | 23 | 23 | 24 | -- | 25 | -- | 25 | 25 | 25 | 26 | -- | 23.0 |
| JULY..... | 25 | 26 | 26 | 27 | 27 | -- | -- | -- | -- | -- | -- | 26 | 25 | 27 | 27 | 25 | 25 | 27 | -- | 27 | 28 | 26 | -- | -- | 26 | 27 | 25 | 26 | 27 | 27 | 27 | 27 | 28 | -- |
| AUGUST... | 26 | 28 | -- | 27 | 27 | 27 | 27 | 28 | 27 | 28 | 28 | -- | 27 | 26 | 25 | -- | 25 | 25 | 25 | -- | 23 | 22 | 23 | 24 | 23 | 25 | -- | -- | 25 | 28 | -- | -- |
| SEPTEMBER | 27 | 27 | 27 | 28 | 28 | 26 | 26 | -- | 23 | 23 | 23 | 23 | 23 | 21 | 22 | -- | 21 | 21 | 21 | 20 | 19 | -- | 19 | -- | 19 | 19 | -- | 21 | 21 | -- | -- | 23.0 |

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 2460 | 23 | 153 | 5320 | 8 | 115 | 18000 | 14 | 680 |
| 2 | 2510 | 23 | 156 | 5350 | 9 | 130 | 16700 | 9 | 406 |
| 3 | 2540 | 12 | 82 | 6000 | 10 | 162 | 16100 | 8 | 348 |
| 4 | 2660 | 7 | 50 | 6430 | 12 | 208 | 15900 | 8 | 343 |
| 5 | 2540 | 7 | 48 | 7770 | 16 | 336 | 15500 | 7 | 293 |
| 6 | 2490 | 7 | 47 | 7380 | 15 | 299 | 15500 | 9 | 377 |
| 7 | 59000 | 730 | 132000 | 6670 | 17 | 306 | 20200 | 13 | 709 |
| 8 | 85900 | 487 | 119000 | 7480 | 18 | 364 | 29500 | 29 | 2310 |
| 9 | 42300 | 240 | 27400 | 10800 | 35 | 1020 | 43300 | 87 | 10800 |
| 10 | 24200 | 143 | 9340 | 23400 | 51 | 3220 | 78300 | 309 | 65300 |
| 11 | 16500 | 73 | 3250 | 19800 | 42 | 2250 | 70500 | 237 | 45100 |
| 12 | 12400 | 46 | 1540 | 15600 | 24 | 1010 | 53500 | 125 | 18100 |
| 13 | 10100 | 32 | 873 | 12900 | 9 | 313 | 39900 | 65 | 7000 |
| 14 | 8720 | 24 | 565 | 13200 | 11 | 392 | 31800 | 40 | 3430 |
| 15 | 7670 | 18 | 373 | 23800 | 58 | 4250 | 27500 | 25 | 1860 |
| 16 | 6590 | 13 | 231 | 39600 | 94 | 10100 | 32900 | 55 | 5250 |
| 17 | 5930 | 12 | 192 | 29600 | 64 | 5110 | 43300 | 120 | 14000 |
| 18 | 5360 | 10 | 145 | 21300 | 43 | 2470 | 32600 | 59 | 5190 |
| 19 | 5070 | 8 | 110 | 17100 | 21 | 970 | 25000 | 26 | 1760 |
| 20 | 4980 | 6 | 81 | 19600 | 17 | 900 | 21800 | 14 | 824 |
| 21 | 4750 | 5 | 64 | 37700 | 58 | 6350 | 20400 | 19 | 1050 |
| 22 | 4730 | 4 | 51 | 37200 | 111 | 11100 | 26900 | 28 | 2030 |
| 23 | 4510 | 4 | 49 | 27000 | 62 | 4520 | 58600 | 108 | 19100 |
| 24 | 4440 | 4 | 48 | 21300 | 37 | 2130 | 67500 | 131 | 23900 |
| 25 | 4220 | 5 | 57 | 17700 | 17 | 812 | 45800 | 87 | 10800 |
| 26 | 4000 | 4 | 43 | 17900 | 11 | 532 | 35200 | 34 | 3230 |
| 27 | 3860 | 2 | 21 | 27300 | 34 | 2510 | 29000 | 22 | 1720 |
| 28 | 4170 | 14 | 158 | 31700 | 59 | 5050 | 24500 | 18 | 1190 |
| 29 | 4540 | 7 | 86 | 25500 | 37 | 2550 | 20700 | 12 | 671 |
| 30 | 5780 | 6 | 94 | 20700 | 21 | 1170 | 18100 | 10 | 489 |
| 31 | 6010 | 7 | 114 | -- | -- | -- | 16500 | 8 | 356 |
| TOTAL | 360930 | -- | 296421 | 563100 | -- | 70649 | 1011000 | -- | 248616 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 16100 | 9 | 391 | 20200 | 21 | 1150 | 8670 | 4 | 94 |
| 2 | 15500 | 11 | 460 | 20200 | 14 | 764 | 8630 | 4 | 93 |
| 3 | 14300 | 10 | 386 | 41700 | 105 | 11800 | 8730 | 5 | 118 |
| 4 | 14300 | 8 | 309 | 72000 | 265 | 51500 | 9410 | 8 | 203 |
| 5 | 18800 | 26 | 1320 | 50800 | 185 | 25400 | 11100 | 13 | 390 |
| 6 | 23900 | 37 | 2390 | 36200 | 90 | 8800 | 15400 | 20 | 832 |
| 7 | 20600 | 28 | 1560 | 29800 | 34 | 2740 | 19300 | 30 | 1560 |
| 8 | 17400 | 21 | 987 | 26800 | 21 | 1520 | 21900 | 50 | 2960 |
| 9 | 15100 | 14 | 571 | 27300 | 21 | 1550 | 22400 | 51 | 3080 |
| 10 | 13200 | 6 | 214 | 27900 | 23 | 1730 | 21600 | 30 | 1750 |
| 11 | 12000 | 4 | 130 | 24500 | 19 | 1260 | 19700 | 22 | 1170 |
| 12 | 11500 | 6 | 186 | 20700 | 16 | 894 | 17700 | 18 | 860 |
| 13 | 10500 | 7 | 198 | 17700 | 19 | 908 | 16300 | 13 | 572 |
| 14 | 10000 | 5 | 135 | 16200 | 24 | 1050 | 15000 | 10 | 405 |
| 15 | 9420 | 4 | 102 | 16000 | 27 | 1170 | 13700 | 8 | 296 |
| 16 | 9400 | 3 | 76 | 16400 | 22 | 974 | 12700 | 8 | 274 |
| 17 | 9590 | 2 | 52 | 16200 | 15 | 656 | 12800 | 11 | 380 |
| 18 | 9390 | 1 | 25 | 14500 | 9 | 352 | 15900 | 32 | 1370 |
| 19 | 9190 | 1 | 25 | 12800 | 5 | 173 | 27600 | 70 | 5220 |
| 20 | 9130 | 1 | 25 | 12100 | 5 | 163 | 25600 | 58 | 4010 |
| 21 | 8830 | 5 | 119 | 12000 | 6 | 194 | 20600 | 42 | 2340 |
| 22 | 9070 | 9 | 220 | 12000 | 5 | 162 | 17900 | 27 | 1300 |
| 23 | 10000 | 7 | 189 | 11600 | 4 | 125 | 16300 | 17 | 748 |
| 24 | 12700 | 5 | 171 | 10700 | 4 | 116 | 15100 | 11 | 448 |
| 25 | 13900 | 5 | 188 | 10100 | 4 | 109 | 13900 | 9 | 338 |
| 26 | 12700 | 5 | 171 | 9640 | 5 | 130 | 13400 | 8 | 289 |
| 27 | 12000 | 9 | 292 | 9230 | 4 | 100 | 13500 | 8 | 292 |
| 28 | 16300 | 17 | 748 | 8830 | 3 | 72 | 14700 | 9 | 357 |
| 29 | 28000 | 40 | 3020 | -- | -- | -- | 14500 | 10 | 392 |
| 30 | 30000 | 40 | 3240 | -- | -- | -- | 13700 | 8 | 296 |
| 31 | 24900 | 31 | 2080 | -- | -- | -- | 13000 | 11 | 386 |
| TOTAL | 447720 | -- | 19980 | 604100 | -- | 115562 | 490740 | -- | 32823 |

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 13600 | 14 | 514 | 39800 | 127 | 13600 | 23700 | 85 | 5440 |
| 2 | 20000 | 34 | 1840 | 31000 | 80 | 6700 | 18800 | 75 | 3810 |
| 3 | 35200 | 116 | 11000 | 25700 | 90 | 6250 | 15500 | 71 | 2970 |
| 4 | 34500 | 112 | 10400 | 22500 | 63 | 3830 | 14400 | 488 | 22300 |
| 5 | 39400 | 140 | 14900 | 20500 | 56 | 3100 | 16000 | 883 | 38100 |
| 6 | 44200 | 244 | 29100 | 18300 | 53 | 2620 | 15200 | 170 | 6980 |
| 7 | 33800 | 220 | 20100 | 16200 | 63 | 2760 | 18000 | 105 | 5100 |
| 8 | 29300 | 100 | 7910 | 14700 | 65 | 2580 | 20900 | 150 | 8460 |
| 9 | 39300 | 130 | 13800 | 14000 | 63 | 2380 | 16800 | 165 | 7480 |
| 10 | 50800 | 195 | 26700 | 15200 | 65 | 2670 | 13300 | 105 | 3770 |
| 11 | 50300 | 185 | 25100 | 16600 | 57 | 2550 | 11200 | 65 | 1970 |
| 12 | 44200 | 135 | 16100 | 15400 | 54 | 2250 | 9800 | 60 | 1590 |
| 13 | 35200 | 100 | 9500 | 13900 | 50 | 1880 | 9210 | 72 | 1790 |
| 14 | 29200 | 65 | 5120 | 12900 | 47 | 1640 | 11100 | 73 | 2190 |
| 15 | 25100 | 53 | 3590 | 12000 | 50 | 1620 | 9440 | 77 | 1960 |
| 16 | 22300 | 53 | 3190 | 11000 | 47 | 1400 | 8800 | 78 | 1850 |
| 17 | 20600 | 55 | 3060 | 10300 | 43 | 1200 | 7670 | 70 | 1450 |
| 18 | 20000 | 57 | 3080 | 10100 | 47 | 1280 | 7190 | 40 | 777 |
| 19 | 19600 | 54 | 2860 | 9860 | 48 | 1280 | 7050 | 23 | 438 |
| 20 | 18900 | 54 | 2760 | 9530 | 46 | 1180 | 8510 | 23 | 528 |
| 21 | 17100 | 55 | 2540 | 9380 | 45 | 1140 | 9180 | 23 | 570 |
| 22 | 15700 | 54 | 2290 | 9130 | 45 | 1110 | 8300 | 24 | 538 |
| 23 | 14900 | 51 | 2050 | 8660 | 41 | 959 | 9130 | 28 | 690 |
| 24 | 14700 | 47 | 1870 | 8160 | 43 | 947 | 8320 | 35 | 786 |
| 25 | 16100 | 45 | 1960 | 8770 | 57 | 1350 | 8360 | 45 | 1020 |
| 26 | 22200 | 68 | 4080 | 9860 | 55 | 1460 | 8360 | 78 | 1760 |
| 27 | 38900 | 137 | 14400 | 10600 | 59 | 1690 | 7530 | 150 | 3050 |
| 28 | 56300 | 208 | 31600 | 14000 | 57 | 2150 | 6700 | 80 | 1450 |
| 29 | 86500 | 474 | 111000 | 27800 | 108 | 8110 | 8170 | 30 | 662 |
| 30 | 59300 | 288 | 46100 | 39700 | 494 | 53000 | 12100 | 38 | 1240 |
| 31 | -- | -- | -- | 31700 | 179 | 15300 | -- | -- | -- |
| TOTAL | 967200 | -- | 428514 | 517250 | -- | 149986 | 348720 | -- | 130719 |

| | 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 | 10500 | 41 | 1160 | 3300 | 17 | 151 | 3750 | 24 | 243 |
| 2 | 8560 | 41 | 948 | 3140 | 19 | 161 | 3340 | 19 | 171 |
| 3 | 7230 | 33 | 644 | 3190 | 21 | 181 | 3110 | 18 | 151 |
| 4 | 6390 | 27 | 466 | 4190 | 33 | 373 | 2920 | 33 | 260 |
| 5 | 6140 | 24 | 398 | 4470 | 38 | 459 | 2980 | 27 | 217 |
| 6 | 6090 | 22 | 362 | 3840 | 30 | 311 | 2920 | 20 | 158 |
| 7 | 5650 | 21 | 320 | 3360 | 27 | 245 | 3060 | 25 | 207 |
| 8 | 5010 | 20 | 271 | 3070 | 28 | 232 | 2670 | 22 | 159 |
| 9 | 4580 | 21 | 260 | 2980 | 27 | 217 | 2360 | 19 | 121 |
| 10 | 4290 | 22 | 255 | 2830 | 23 | 176 | 2420 | 17 | 111 |
| 11 | 4270 | 23 | 265 | 2710 | 20 | 146 | 2390 | 17 | 110 |
| 12 | 4140 | 24 | 268 | 3440 | 22 | 204 | 2360 | 20 | 127 |
| 13 | 4220 | 33 | 376 | 3130 | 27 | 228 | 2270 | 18 | 110 |
| 14 | 3890 | 32 | 336 | 3310 | 29 | 259 | 2890 | 27 | 211 |
| 15 | 3800 | 23 | 236 | 3520 | 31 | 295 | 4270 | 64 | 738 |
| 16 | 3730 | 30 | 302 | 4050 | 38 | 416 | 6430 | 56 | 972 |
| 17 | 3980 | 27 | 290 | 4080 | 44 | 485 | 4950 | 40 | 535 |
| 18 | 4120 | 30 | 334 | 5140 | 48 | 666 | 4750 | 37 | 475 |
| 19 | 3820 | 32 | 330 | 4970 | 58 | 778 | 3980 | 33 | 355 |
| 20 | 3660 | 30 | 296 | 7700 | 76 | 1580 | 4610 | 37 | 461 |
| 21 | 3670 | 29 | 287 | 8830 | 60 | 1430 | 4430 | 24 | 287 |
| 22 | 4010 | 33 | 357 | 11900 | 69 | 2220 | 3790 | 22 | 225 |
| 23 | 4110 | 37 | 411 | 12900 | 82 | 2860 | 3350 | 26 | 235 |
| 24 | 3980 | 30 | 322 | 9520 | 72 | 1850 | 3080 | 27 | 225 |
| 25 | 4330 | 29 | 339 | 7280 | 57 | 1120 | 3040 | 24 | 197 |
| 26 | 4240 | 26 | 298 | 6190 | 41 | 685 | 2910 | 22 | 173 |
| 27 | 4020 | 24 | 260 | 8490 | 50 | 1150 | 2790 | 21 | 158 |
| 28 | 5900 | 51 | 812 | 7090 | 39 | 747 | 2760 | 19 | 142 |
| 29 | 4220 | 35 | 399 | 5810 | 27 | 424 | 2700 | 18 | 131 |
| 30 | 3710 | 23 | 230 | 4930 | 25 | 333 | 2570 | 16 | 111 |
| 31 | 3460 | 20 | 187 | 4310 | 25 | 291 | -- | -- | -- |
| TOTAL | 149720 | -- | 12019 | 163670 | -- | 20673 | 99850 | -- | 7776 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 5724000
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 1533738

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEARS 1972 AND 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| OCT., 1971 | | | | | | | |
| 25... | 1930 | 37100 | 16.0 | 233 | 23300 | 37 | 54 |
| 28... | 2155 | 28500 | 16.0 | 282 | 21700 | 49 | 63 |
| DEC. | | | | | | | |
| 09... | 2130 | 35000 | 6.0 | 149 | 14100 | 40 | 60 |
| FEB., 1972 | | | | | | | |
| 15... | 0830 | 57000 | 1.0 | 472 | 72600 | 52 | 68 |
| 27... | 2150 | 79900 | 3.0 | 545 | 118000 | 44 | 60 |
| APR. | | | | | | | |
| 17... | 1150 | 41400 | 12.0 | 151 | 16900 | 50 | 63 |
| JUNE | | | | | | | |
| 23... | 2130 | 347000 | -- | 662 | 620000 | 55 | 70 |
| OCT. | | | | | | | |
| 08... | 0830 | 101000 | 16.0 | 422 | 115000 | 60 | 74 |
| DEC. | | | | | | | |
| 24... | 0215 | 78100 | 6.0 | 161 | 34000 | 41 | 52 |
| FEB., 1973 | | | | | | | |
| 04... | 1915 | 69100 | 5.0 | 254 | 47400 | 48 | 62 |
| APR. | | | | | | | |
| 06... | 0100 | 48300 | 9.0 | 206 | 26900 | 50 | 68 |
| 11... | 0505 | 49500 | 8.0 | 145 | 19400 | 63 | 73 |

| 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 |
|---|---|---|---|---|---|---|---|
| OCT., 1971 | | | | | | | |
| 25... | 68 | 81 | 90 | 97 | 99 | 100 | -- |
| 28... | 73 | 82 | 87 | 93 | 99 | 100 | -- |
| DEC. | | | | | | | |
| 09... | 73 | 86 | 91 | 95 | 98 | 99 | 100 |
| FEB., 1972 | | | | | | | |
| 15... | 83 | 91 | 95 | 97 | 99 | 100 | -- |
| 27... | 74 | 90 | 92 | 97 | 99 | 100 | -- |
| APR. | | | | | | | |
| 17... | 74 | 85 | 91 | 94 | 96 | 100 | -- |
| JUNE | | | | | | | |
| 23... | 82 | 86 | 93 | 96 | 98 | 100 | -- |
| OCT. | | | | | | | |
| 08... | 84 | 92 | 95 | 97 | 99 | 100 | -- |
| DEC. | | | | | | | |
| 24... | 62 | 74 | 81 | 86 | 92 | 100 | -- |
| FEB., 1973 | | | | | | | |
| 04... | 75 | 85 | 91 | 94 | 97 | 100 | -- |
| APR. | | | | | | | |
| 06... | 82 | 94 | 97 | 98 | 99 | 100 | -- |
| 11... | 82 | 91 | 97 | 98 | 99 | 100 | -- |

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 sq mi (2,116 sq km), upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1973.
Water temperatures: October 1960 to September 1973.
Sediment records: October 1960 to September 1973.

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 647 mg/l Aug. 21; minimum daily, 6 mg/l Feb. 24.
Sediment discharge: Maximum daily, 16,300 tons (14,800 t) Feb. 3; minimum daily, 4.2 tons (3.8 t) Oct. 15, 16.

Period of record:
Water temperatures (1960-72): Maximum, 30.5°C July 2, 12-13, 26, Aug. 27, 1966; 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 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 once daily in field at time of sampling.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | 1200 | 199 | 2.1 | -- | -- | 140 | -- | 40 | -- | 42 | 6.5 |
| NOV. | | | | | | | | | | | |
| 17... | 0946 | 834 | 8.3 | -- | -- | 300 | -- | 50 | -- | 26 | 5.7 |
| DEC. | | | | | | | | | | | |
| 06... | 1015 | 972 | 8.4 | -- | 100 | -- | 60 | -- | 20 | 28 | 5.9 |
| JAN. | | | | | | | | | | | |
| 10... | 1305 | 984 | 8.6 | -- | -- | 230 | -- | 40 | -- | 26 | 5.3 |
| FEB. | | | | | | | | | | | |
| 08... | 1245 | 3340 | 7.6 | -- | -- | 670 | -- | 70 | -- | 20 | 4.8 |
| MAR. | | | | | | | | | | | |
| 13... | 1330 | 1340 | 6.7 | -- | 100 | -- | 130 | -- | 20 | 22 | 5.3 |
| APR. | | | | | | | | | | | |
| 04... | 1330 | 2500 | 7.5 | -- | -- | 1100 | -- | 200 | -- | 20 | 4.6 |
| MAY | | | | | | | | | | | |
| 09... | 1345 | 1270 | 5.8 | -- | -- | 350 | -- | 20 | -- | 25 | 4.8 |
| JUNE | | | | | | | | | | | |
| 06... | 1315 | 1640 | 7.0 | -- | 0 | -- | 60 | -- | 30 | 23 | 4.8 |
| JULY | | | | | | | | | | | |
| 11... | 1250 | 412 | 7.4 | -- | -- | 890 | -- | 110 | -- | 33 | 6.0 |
| AUG. | | | | | | | | | | | |
| 08... | 1320 | 196 | .6 | -- | -- | 670 | -- | 160 | -- | 38 | 6.5 |
| SEP. | | | | | | | | | | | |
| 14... | 1430 | 1080 | 3.2 | 8800 | -- | 14000 | -- | 1300 | -- | 24 | 4.0 |

| DATE | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | 8.8 | 2.8 | 121 | 16 | 15 | .7 | 13 | -- | -- | 167 | -- |
| NOV. | | | | | | | | | | | |
| 17... | 5.8 | 4.0 | 61 | 28 | 10 | .1 | 12 | -- | -- | 129 | -- |
| DEC. | | | | | | | | | | | |
| 06... | 5.9 | 2.3 | 66 | 27 | 12 | .1 | 12 | .12 | 141 | 134 | 14 |
| JAN. | | | | | | | | | | | |
| 10... | 4.8 | 1.5 | 63 | 17 | 8.5 | .1 | 14 | -- | -- | 117 | -- |
| FEB. | | | | | | | | | | | |
| 08... | 5.2 | 2.1 | 46 | 21 | 8.5 | .1 | 11 | -- | -- | 103 | -- |
| MAR. | | | | | | | | | | | |
| 13... | 5.0 | 1.6 | 60 | 20 | 9.0 | .0 | 9.7 | .09 | 114 | 109 | 10 |
| APR. | | | | | | | | | | | |
| 04... | 4.5 | 1.8 | 54 | 19 | 7.0 | .1 | 9.3 | -- | -- | 100 | -- |
| MAY | | | | | | | | | | | |
| 09... | 4.6 | 1.6 | 67 | 15 | 7.7 | .2 | 10 | -- | -- | 108 | -- |
| JUNE | | | | | | | | | | | |
| 06... | 4.4 | 2.6 | 68 | 20 | 7.9 | .3 | 9.1 | .27 | 123 | 113 | 148 |
| JULY | | | | | | | | | | | |
| 11... | 5.7 | 2.6 | 98 | 15 | 11 | .2 | 12 | -- | -- | 142 | -- |
| AUG. | | | | | | | | | | | |
| 08... | 7.1 | 2.9 | 115 | 13 | 13 | .3 | 12 | -- | -- | 150 | -- |
| SEP. | | | | | | | | | | | |
| 14... | 6.6 | 4.8 | 66 | 14 | 11 | .4 | 7.1 | .30 | 129 | 111 | -- |

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | SUS-PENDED SOLIDS (MG/L) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLAT-INUM-COBALT UNITS) | TUR-BID-ITY (JTU) | CHEM-ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) | BIO-CHEM-ICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CAD-MIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | -- | 130 | 32 | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | | |
| 17... | -- | 88 | 38 | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 06... | -- | 94 | 40 | -- | 3 | 7 | -- | 2.6 | .01 | 1 | -- |
| JAN. | | | | | | | | | | | |
| 10... | -- | 87 | 35 | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | | |
| 08... | -- | 70 | 32 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | |
| 13... | -- | 77 | 28 | -- | 3 | 4 | 5 | 1.3 | .01 | 3 | -- |
| APR. | | | | | | | | | | | |
| 04... | -- | 69 | 25 | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 09... | -- | 82 | 27 | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | |
| 06... | -- | 77 | 21 | -- | 70 | 90 | -- | 3.1 | .02 | 1 | -- |
| JULY | | | | | | | | | | | |
| 11... | -- | 110 | 27 | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | |
| 08... | -- | 120 | 27 | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | |
| 14... | 663 | 76 | 22 | .2 | -- | 140 | -- | 7.4 | 2.0 | 2 | 0 |

| DATE | DIS-SOLVED CAD-MIUM (CD) (UG/L) | TOTAL CHRO-MIUM (CR) (UG/L) | DIS-SOLVED CHRO-MIUM (CR) (UG/L) | HEXA-VALENT CHRO-MIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DIS-SOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DIS-SOLVED ZINC (ZN) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 19... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV. | | | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 06... | 0 | -- | -- | 0 | -- | 0 | -- | 1 | -- | 20 |
| JAN. | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB. | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | |
| 13... | 0 | -- | 0 | -- | -- | 0 | -- | 0 | -- | 10 |
| APR. | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | |
| 06... | 0 | 0 | -- | -- | -- | 0 | -- | 0 | -- | 0 |
| JULY | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | |
| 14... | -- | 20 | -- | -- | 10 | -- | 48 | -- | 80 | -- |

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | TEMPER-ATURE (DEG C) | DIS-SOLVED OXYGEN (MG/L) | PH (UNITS) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | FECAL COLI-FORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 19... | 1200 | 199 | 10.5 | 8.4 | 7.8 | 295 | 200 |
| NOV. | | | | | | | |
| 17... | 0946 | 834 | 5.0 | 11.5 | 7.4 | 210 | 2200 |
| DEC. | | | | | | | |
| 06... | 1015 | 972 | 6.0 | 11.7 | 7.4 | 235 | 390 |
| JAN. | | | | | | | |
| 10... | 1305 | 984 | .0 | 14.0 | 7.5 | 215 | 9 |
| FEB. | | | | | | | |
| 08... | 1245 | 3340 | 5.0 | 12.7 | 7.4 | 185 | 2900 |
| MAR. | | | | | | | |
| 13... | 1330 | 1340 | 10.0 | 12.0 | 7.4 | 200 | 92 |
| APR. | | | | | | | |
| 04... | 1330 | 2500 | 9.5 | 11.6 | 7.5 | 165 | B14000 |
| MAY | | | | | | | |
| 09... | 1345 | 1270 | 16.0 | -- | 7.7 | 195 | 4400 |
| JUNE | | | | | | | |
| 06... | 1315 | 1640 | 22.0 | 7.3 | 7.5 | 195 | 6800 |
| JULY | | | | | | | |
| 11... | 1245 | 412 | 25.0 | 6.4 | 7.6 | 250 | 8000 |
| AUG. | | | | | | | |
| 08... | 1320 | 196 | 26.0 | 13.5 | 8.8 | 265 | 8000 |
| SEP. | | | | | | | |
| 14... | 1430 | 1080 | 20.0 | 6.5 | 7.3 | 215 | 897000 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 9.5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 26.0 |
| 2 | --- | 12.5 | --- | --- | --- | --- | --- | --- | 21.0 | --- | --- | --- |
| 3 | --- | 12.0 | --- | --- | 6.0 | 6.0 | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | 11.0 | 9.5 | --- | --- | --- | --- | --- |
| 5 | --- | 12.0 | --- | --- | --- | --- | --- | 14.0 | --- | --- | --- | --- |
| 6 | --- | 11.0 | 6.0 | --- | --- | --- | --- | --- | 22.0 | --- | --- | 27.0 |
| 7 | --- | 11.5 | --- | --- | 6.0 | --- | --- | --- | 22.5 | --- | --- | --- |
| 8 | --- | --- | --- | --- | 5.0 | --- | --- | --- | --- | --- | 26.0 | --- |
| 9 | --- | 11.0 | --- | --- | --- | --- | --- | 16.0 | --- | --- | --- | 24.0 |
| 10 | --- | 10.5 | 8.0 | 0.0 | 4.0 | --- | --- | --- | 28.0 | --- | --- | --- |
| 11 | --- | 10.5 | 7.0 | --- | --- | --- | --- | --- | --- | 25.0 | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 22.0 |
| 13 | --- | --- | --- | --- | --- | 10.0 | --- | --- | 26.0 | --- | --- | --- |
| 14 | --- | --- | 6.0 | 7.0 | 5.0 | --- | 13.0 | --- | --- | --- | 25.0 | 20.0 |
| 15 | --- | --- | --- | --- | 5.0 | 12.0 | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | 25.0 | --- | --- | 24.0 |
| 17 | --- | 5.0 | 3.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | 14.0 | --- | --- | --- | --- | --- |
| 19 | 10.5 | --- | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | --- | --- | 5.5 | 3.0 | --- | --- | --- | --- | --- | --- | 23.0 | 23.0 |
| 21 | --- | --- | --- | --- | --- | --- | 14.0 | --- | 24.0 | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 22.0 | --- |
| 23 | --- | --- | --- | 7.0 | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | --- | --- | 6.5 | --- | --- | --- | --- | --- | --- | --- | --- | 22.0 |
| 26 | --- | --- | --- | --- | --- | --- | 12.0 | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | 26.0 | --- | --- | --- |
| 28 | --- | --- | --- | 5.0 | --- | 13.0 | --- | 16.5 | --- | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | 12.0 | --- | --- | --- | --- | 22.0 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | 24.0 | --- | --- | --- |
| 31 | 11.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM |
|---|---|---|---|---|---|---|---|---|
| MAY , 1973 | | | | | | | | |
| 28... | 1730 | 10200 | 16.5 | 427 | 11800 | 42 | 58 | 73 |

| DATE | 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 | SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM |
|---|---|---|---|---|---|---|---|
| MAY , 1973 | | | | | | | |
| 28... | 80 | 88 | 90 | 91 | 93 | 98 | 100 |

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 282 | 20 | 15 | 214 | 33 | 19 | 1060 | 30 | 86 |
| 2 | 257 | 18 | 12 | 232 | 30 | 19 | 1480 | 51 | 202 |
| 3 | 211 | 10 | 5.7 | 254 | 31 | 21 | 1570 | 53 | 224 |
| 4 | 193 | 10 | 5.2 | 244 | 31 | 20 | 1350 | 39 | 142 |
| 5 | 181 | 10 | 4.9 | 232 | 33 | 21 | 1100 | 28 | 83 |
| 6 | 190 | 10 | 5.1 | 217 | 30 | 18 | 1460 | 92 | 661 |
| 7 | 244 | 13 | 8.6 | 204 | 60 | 33 | 5040 | 448 | 6430 |
| 8 | 296 | 22 | 18 | 1020 | 324 | 1080 | 2730 | 240 | 1870 |
| 9 | 264 | 18 | 13 | 1810 | 144 | 855 | 10100 | 553 | 15400 |
| 10 | 235 | 14 | 8.9 | 590 | 60 | 96 | 5020 | 218 | 3120 |
| 11 | 190 | 10 | 5.1 | 392 | 105 | 111 | 3380 | 60 | 548 |
| 12 | 166 | 10 | 4.5 | 332 | 50 | 45 | 2160 | 36 | 210 |
| 13 | 163 | 10 | 4.4 | 289 | 30 | 23 | 2080 | 32 | 180 |
| 14 | 163 | 10 | 4.4 | 2600 | 311 | 3490 | 1830 | 29 | 143 |
| 15 | 157 | 10 | 4.2 | 4530 | 263 | 3960 | 2650 | 168 | 1790 |
| 16 | 154 | 10 | 4.2 | 1460 | 90 | 355 | 6220 | 265 | 4780 |
| 17 | 166 | 10 | 4.5 | 801 | 35 | 76 | 2370 | 60 | 384 |
| 18 | 163 | 10 | 4.4 | 610 | 30 | 49 | 1600 | 34 | 147 |
| 19 | 187 | 18 | 9.1 | 585 | 39 | 71 | 1400 | 25 | 95 |
| 20 | 229 | 20 | 12 | 4700 | 424 | 5680 | 1500 | 21 | 85 |
| 21 | 264 | 18 | 13 | 2280 | 233 | 1660 | 1900 | 25 | 128 |
| 22 | 235 | 13 | 8.2 | 1140 | 100 | 308 | 8300 | 369 | 8840 |
| 23 | 229 | 13 | 8.0 | 878 | 49 | 116 | 7680 | 173 | 3860 |
| 24 | 278 | 20 | 15 | 665 | 38 | 68 | 4140 | 70 | 782 |
| 25 | 278 | 20 | 15 | 605 | 35 | 57 | 2990 | 49 | 396 |
| 26 | 244 | 19 | 13 | 3940 | 284 | 3670 | 2560 | 37 | 256 |
| 27 | 238 | 17 | 11 | 3760 | 190 | 2190 | 2440 | 27 | 178 |
| 28 | 360 | 38 | 40 | 1390 | 90 | 338 | 2090 | 21 | 119 |
| 29 | 408 | 49 | 54 | 1220 | 50 | 165 | 1740 | 19 | 89 |
| 30 | 274 | 46 | 34 | 1000 | 35 | 95 | 1550 | 17 | 71 |
| 31 | 223 | 43 | 26 | -- | -- | -- | 1720 | 20 | 100 |
| TOTAL | 7122 | -- | 390.4 | 38194 | -- | 24709 | 93210 | -- | 51399 |

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 2660 | 92 | 692 | 1880 | 40 | 203 | 840 | 11 | 25 |
| 2 | 1770 | 40 | 191 | 4060 | 274 | 5530 | 840 | 11 | 25 |
| 3 | 1410 | 22 | 84 | 9860 | 599 | 16300 | 906 | 12 | 29 |
| 4 | 3160 | 160 | 1530 | 4280 | 280 | 3240 | 1910 | 67 | 371 |
| 5 | 3270 | 88 | 777 | 2960 | 105 | 839 | 1840 | 58 | 288 |
| 6 | 2010 | 34 | 185 | 2420 | 51 | 333 | 2140 | 61 | 362 |
| 7 | 1520 | 25 | 103 | 2860 | 52 | 402 | 2050 | 48 | 266 |
| 8 | 1150 | 23 | 71 | 3370 | 63 | 597 | 2420 | 52 | 348 |
| 9 | 1050 | 22 | 62 | 4180 | 100 | 1160 | 2440 | 34 | 224 |
| 10 | 1000 | 22 | 59 | 2550 | 45 | 310 | 1720 | 28 | 130 |
| 11 | 950 | 22 | 56 | 1970 | 39 | 207 | 1490 | 25 | 101 |
| 12 | 900 | 27 | 66 | 1550 | 37 | 155 | 1470 | 21 | 83 |
| 13 | 800 | 39 | 84 | 1400 | 36 | 136 | 1340 | 20 | 72 |
| 14 | 800 | 47 | 102 | 1350 | 35 | 128 | 1170 | 20 | 63 |
| 15 | 851 | 45 | 103 | 2260 | 168 | 1160 | 1090 | 20 | 59 |
| 16 | 801 | 37 | 80 | 3040 | 68 | 558 | 1040 | 20 | 56 |
| 17 | 790 | 29 | 62 | 1710 | 45 | 208 | 1550 | 123 | 691 |
| 18 | 785 | 27 | 57 | 1250 | 39 | 132 | 2850 | 135 | 1190 |
| 19 | 796 | 38 | 82 | 1250 | 32 | 108 | 1470 | 35 | 139 |
| 20 | 906 | 92 | 230 | 1150 | 20 | 62 | 1220 | 18 | 59 |
| 21 | 790 | 60 | 133 | 1190 | 11 | 35 | 1090 | 13 | 38 |
| 22 | 936 | 71 | 245 | 1170 | 9 | 28 | 1030 | 11 | 31 |
| 23 | 3420 | 337 | 3170 | 1090 | 7 | 21 | 948 | 9 | 23 |
| 24 | 1890 | 140 | 714 | 1030 | 6 | 17 | 878 | 7 | 17 |
| 25 | 1340 | 50 | 181 | 948 | 7 | 18 | 851 | 8 | 18 |
| 26 | 1120 | 30 | 91 | 912 | 15 | 37 | 2060 | 105 | 730 |
| 27 | 1480 | 105 | 440 | 906 | 14 | 34 | 1990 | 68 | 360 |
| 28 | 4160 | 307 | 3520 | 862 | 12 | 28 | 1230 | 29 | 96 |
| 29 | 7250 | 493 | 10300 | -- | -- | -- | 1030 | 21 | 58 |
| 30 | 4530 | 219 | 2860 | -- | -- | -- | 1180 | 30 | 104 |
| 31 | 2340 | 75 | 474 | -- | -- | -- | 1470 | 32 | 130 |
| TOTAL | 56635 | -- | 26804 | 63458 | -- | 31986 | 45553 | -- | 6186 |

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE, NEAR FREDERICK, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 2640 | 153 | 1500 | 2330 | 43 | 271 | 1800 | 57 | 277 |
| 2 | 5380 | 112 | 1660 | 2060 | 37 | 206 | 1460 | 53 | 209 |
| 3 | 3290 | 50 | 444 | 1830 | 30 | 148 | 1200 | 43 | 139 |
| 4 | 3060 | 208 | 2470 | 1670 | 24 | 108 | 1280 | 57 | 230 |
| 5 | 6490 | 232 | 4380 | 1430 | 19 | 73 | 2750 | 275 | 2090 |
| 6 | 2900 | 102 | 799 | 1260 | 17 | 58 | 1790 | 185 | 930 |
| 7 | 2220 | 80 | 480 | 1140 | 16 | 49 | 1290 | 92 | 320 |
| 8 | 4060 | 192 | 2600 | 1070 | 16 | 46 | 1090 | 77 | 227 |
| 9 | 5090 | 119 | 1570 | 1240 | 26 | 87 | 924 | 67 | 167 |
| 10 | 4650 | 190 | 2680 | 1320 | 36 | 128 | 812 | 58 | 127 |
| 11 | 3680 | 70 | 696 | 1070 | 31 | 90 | 730 | 48 | 95 |
| 12 | 2520 | 32 | 218 | 948 | 30 | 77 | 675 | 41 | 75 |
| 13 | 2210 | 18 | 107 | 867 | 29 | 68 | 862 | 53 | 132 |
| 14 | 1830 | 11 | 54 | 806 | 28 | 61 | 936 | 50 | 135 |
| 15 | 1590 | 9 | 39 | 796 | 28 | 60 | 665 | 52 | 93 |
| 16 | 1430 | 8 | 31 | 779 | 29 | 61 | 600 | 70 | 113 |
| 17 | 1320 | 9 | 32 | 746 | 30 | 60 | 610 | 73 | 120 |
| 18 | 1400 | 8 | 68 | 807 | 19 | 41 | 697 | 105 | 220 |
| 19 | 1380 | 19 | 71 | 768 | 11 | 23 | 697 | 82 | 167 |
| 20 | 1180 | 17 | 54 | 735 | 10 | 20 | 521 | 45 | 63 |
| 21 | 1050 | 16 | 45 | 845 | 10 | 23 | 575 | 98 | 171 |
| 22 | 996 | 16 | 43 | 774 | 10 | 21 | 1610 | 364 | 1770 |
| 23 | 972 | 16 | 42 | 640 | 10 | 17 | 1400 | 137 | 516 |
| 24 | 1300 | 62 | 245 | 690 | 23 | 46 | 1250 | 229 | 828 |
| 25 | 1290 | 85 | 320 | 2450 | 135 | 929 | 730 | 158 | 311 |
| 26 | 6510 | 474 | 8400 | 1940 | 68 | 368 | 667 | 113 | 204 |
| 27 | 6180 | 404 | 7300 | 1440 | 44 | 171 | 540 | 74 | 108 |
| 28 | 9010 | 416 | 11200 | 6970 | 288 | 6300 | 620 | 73 | 122 |
| 29 | 3820 | 98 | 1070 | 7200 | 170 | 3510 | 1700 | 311 | 1660 |
| 30 | 2760 | 51 | 380 | 3100 | 80 | 670 | 1770 | 437 | 2120 |
| 31 | -- | -- | -- | 2300 | 59 | 366 | -- | -- | -- |
| TOTAL | 92208 | -- | 48998 | 52021 | -- | 14156 | 32251 | -- | 13739 |

| | 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 | 966 | 140 | 365 | 223 | 34 | 20 | 166 | 31 | 14 |
| 2 | 650 | 125 | 219 | 278 | 35 | 25 | 166 | 33 | 15 |
| 3 | 830 | 179 | 474 | 424 | 70 | 80 | 175 | 26 | 12 |
| 4 | 1360 | 211 | 811 | 352 | 56 | 53 | 217 | 64 | 37 |
| 5 | 1090 | 164 | 489 | 299 | 47 | 38 | 199 | 64 | 34 |
| 6 | 924 | 155 | 387 | 247 | 38 | 25 | 184 | 55 | 27 |
| 7 | 635 | 108 | 185 | 226 | 34 | 21 | 184 | 63 | 31 |
| 8 | 521 | 88 | 124 | 214 | 32 | 18 | 166 | 52 | 23 |
| 9 | 467 | 77 | 97 | 217 | 33 | 19 | 151 | 27 | 11 |
| 10 | 432 | 70 | 82 | 208 | 31 | 17 | 139 | 18 | 6.8 |
| 11 | 416 | 68 | 76 | 202 | 30 | 16 | 136 | 15 | 5.5 |
| 12 | 445 | 73 | 88 | 211 | 32 | 135 | 133 | 18 | 6.5 |
| 13 | 404 | 66 | 72 | 388 | 61 | 239 | 124 | 15 | 5.0 |
| 14 | 364 | 59 | 58 | 289 | 45 | 35 | 1040 | 360 | 2100 |
| 15 | 344 | 55 | 51 | 282 | 44 | 34 | 6000 | 299 | 4850 |
| 16 | 364 | 59 | 58 | 271 | 42 | 31 | 1070 | 25 | 72 |
| 17 | 388 | 64 | 67 | 271 | 42 | 31 | 517 | 19 | 27 |
| 18 | 408 | 67 | 74 | 352 | 378 | 448 | 384 | 17 | 18 |
| 19 | 360 | 58 | 56 | 1660 | 551 | 2830 | 396 | 44 | 47 |
| 20 | 328 | 53 | 47 | 665 | 297 | 548 | 380 | 29 | 30 |
| 21 | 313 | 50 | 42 | 2330 | 647 | 4680 | 296 | 30 | 24 |
| 22 | 324 | 52 | 45 | 818 | 210 | 495 | 257 | 28 | 19 |
| 23 | 324 | 52 | 45 | 454 | 75 | 92 | 244 | 28 | 18 |
| 24 | 306 | 49 | 40 | 340 | 54 | 50 | 229 | 33 | 20 |
| 25 | 285 | 45 | 35 | 289 | 43 | 34 | 220 | 40 | 24 |
| 26 | 275 | 43 | 32 | 261 | 40 | 28 | 214 | 43 | 25 |
| 27 | 271 | 42 | 31 | 241 | 37 | 24 | 208 | 42 | 24 |
| 28 | 261 | 41 | 29 | 220 | 33 | 20 | 202 | 24 | 13 |
| 29 | 244 | 38 | 25 | 202 | 30 | 16 | 201 | 25 | 14 |
| 30 | 235 | 36 | 23 | 187 | 28 | 14 | 290 | 83 | 83 |
| 31 | 223 | 34 | 20 | 175 | 26 | 12 | -- | -- | -- |
| TOTAL | 14757 | -- | 4247 | 12796 | -- | 10128 | 14288 | -- | 7635.8 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 522493
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 240378.2

## 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 sq mi (262 sq km).

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 19... | 1150 | 99 | 8.3 | 310 | 60 | 9.1 | 2.9 | 4.6 | 2.0 | 33 | 3.5 |
| DEC. | | | | | | | | | | | |
| 07... | 1400 | 175 | 7.8 | 1700 | 210 | 12 | 3.0 | 4.1 | 2.8 | 26 | 17 |
| 26... | 1030 | 193 | 8.3 | 220 | 60 | 9.5 | 3.1 | 4.2 | 1.4 | 22 | 8.2 |
| JAN. | | | | | | | | | | | |
| 25... | 1000 | 110 | 9.3 | 240 | 60 | 10 | 3.0 | 4.3 | 1.7 | 23 | 10 |
| FEB. | | | | | | | | | | | |
| 23... | 1235 | 140 | 8.1 | 270 | 60 | 10 | 2.9 | 4.2 | 1.2 | 20 | 7.7 |
| MAR. | | | | | | | | | | | |
| 26... | 1420 | 252 | 7.7 | 360 | >90 | 9.8 | 3.1 | 3.9 | 1.7 | 22 | 10 |
| APR. | | | | | | | | | | | |
| 26... | 1020 | 629 | 7.3 | 1100 | 280 | 11 | 3.1 | 3.4 | 2.4 | 28 | 17 |
| JUNE | | | | | | | | | | | |
| 26... | 1225 | 88 | 9.1 | 250 | 40 | 8.8 | 3.1 | 4.1 | 2.3 | 31 | 3.5 |
| AUG. | | | | | | | | | | | |
| 03... | 1630 | 76 | 9.2 | 590 | 70 | 10 | 3.1 | 4.0 | 2.2 | 34 | 4.5 |
| 24... | 1700 | 59 | 10 | 630 | 70 | 10 | 3.5 | 5.7 | 2.5 | 36 | 4.1 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 19... | 6.5 | .0 | -- | 6.6 | 60 | 35 | 8 | 98 | 7.1 | 9.0 |
| DEC. | | | | | | | | | | |
| 07... | 7.5 | .1 | -- | 6.6 | 74 | 42 | 21 | 109 | 7.1 | 6.5 |
| 26... | 6.5 | .0 | -- | 9.3 | 61 | 36 | 18 | 98 | 6.9 | 7.0 |
| JAN. | | | | | | | | | | |
| 25... | 6.5 | .0 | -- | 9.7 | 66 | 37 | 18 | 104 | 7.0 | 6.5 |
| FEB. | | | | | | | | | | |
| 23... | 7.0 | .0 | -- | 9.3 | 60 | 37 | 21 | 92 | 7.0 | 3.0 |
| MAR. | | | | | | | | | | |
| 26... | 7.0 | .2 | -- | 8.0 | 62 | 37 | 19 | 99 | 6.7 | 10.0 |
| APR. | | | | | | | | | | |
| 26... | 6.0 | .3 | -- | 6.6 | 71 | 40 | 17 | 97 | 6.8 | 11.0 |
| JUNE | | | | | | | | | | |
| 26... | 6.5 | .2 | -- | 8.8 | 62 | 35 | 9 | 95 | 8.1 | 21.0 |
| AUG. | | | | | | | | | | |
| 03... | 8.0 | .2 | -- | 7.5 | 65 | 38 | 10 | 106 | 7.3 | 22.0 |
| 24... | 8.4 | .2 | 7.0 | -- | 62 | 39 | 10 | 112 | 7.2 | 20.0 |

## 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 sq mi (29,600 sq km).

PERIOD OF RECORD.--Chemical analyses: February to September 1973.
Biological analyses: March to September 1973.
Water temperatures: March to September 1973.

REMARKS.--Records of discharge are given for station 01646500 Potomac River near Washington, D. C. (unadjusted for diversions).

CHEMICAL ANALYSES, FEBRUARY TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL IRON IN BOTTOM DEPOSITS (UG/G) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | TOTAL MANGANESE IN BOTTOM DEPOSITS (UG/G) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB., 1973 | | | | | | | | | | | | |
| 05... | 1200 | 63500 | 6.2 | -- | -- | -- | -- | -- | -- | 23 | 4.3 | 3.7 |
| MAR. | | | | | | | | | | | | |
| 08... | 1030 | 23000 | 2.6 | -- | 60 | -- | -- | 30 | -- | 36 | 7.5 | 7.5 |
| APR. | | | | | | | | | | | | |
| 06... | 1100 | 50400 | 6.8 | -- | -- | -- | -- | -- | -- | 24 | 4.6 | 4.3 |
| 20... | 1200 | 20600 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 14... | 1200 | 13600 | 4.6 | -- | -- | -- | -- | -- | -- | 33 | 6.9 | 5.4 |
| JUNE | | | | | | | | | | | | |
| 19... | 1200 | 7600 | 4.8 | -- | 50 | -- | 10 | -- | -- | 36 | 7.3 | 9.8 |
| 19... | 1500 | 7600 | -- | -- | -- | 14000 | -- | -- | 1000 | -- | -- | -- |
| JULY | | | | | | | | | | | | |
| 12... | 1100 | 4440 | 3.5 | -- | -- | -- | -- | -- | -- | 32 | 8.8 | 10 |
| AUG. | | | | | | | | | | | | |
| 09... | 1330 | 3090 | 2.5 | -- | -- | -- | -- | -- | -- | 32 | 11 | 17 |
| SEP. | | | | | | | | | | | | |
| 20... | 1100 | 4060 | -- | 870 | -- | -- | 100 | -- | -- | -- | -- | -- |

| DATE | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (N) (MG/L) | DISSOLVED NITRITE (N) (MG/L) | TOTAL NITRITE PLUS NITRATE IN BOT. DEP. (MG/KG) | DISSOLVED AMMONIA NITROGEN (N) (MG/L) | ORGANIC NITROGEN (N) (MG/L) | TOTAL KJELDAHL NITROGEN (N) (MG/L) | TOTAL KJEL. NITROGEN IN BOTTOM DEP. (MG/KG) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB., 1973 | | | | | | | | | | | | |
| 05... | 1.7 | 53 | 24 | 4.5 | .1 | 1.3 | .03 | -- | 1.1 | .72 | -- | -- |
| MAR. | | | | | | | | | | | | |
| 08... | 1.4 | 93 | 44 | 7.5 | 1.4 | 1.3 | -- | -- | -- | -- | .78 | -- |
| APR. | | | | | | | | | | | | |
| 06... | 1.7 | 62 | 28 | 5.9 | .1 | 1.2 | -- | -- | -- | -- | .86 | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 14... | 1.5 | 94 | 30 | 6.5 | .3 | 1.0 | .00 | -- | .05 | -- | .47 | -- |
| JUNE | | | | | | | | | | | | |
| 19... | 2.0 | 112 | 40 | 7.0 | .2 | 1.2 | .04 | -- | .07 | -- | .48 | -- |
| 19... | -- | -- | -- | -- | -- | -- | -- | 1.0 | -- | -- | -- | 2100 |
| JULY | | | | | | | | | | | | |
| 12... | 2.4 | 103 | 35 | 9.2 | .2 | .90 | .03 | -- | .07 | .81 | .88 | -- |
| AUG. | | | | | | | | | | | | |
| 09... | 2.7 | 95 | 57 | 17 | .2 | .18 | .01 | -- | -- | -- | .58 | -- |
| SEP. | | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

CHEMICAL ANALYSES, FEBRUARY TO SEPTEMBER 1973

| DATE | TOTAL PHOSPHORUS (P) (MG/L) | TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) | TURBIDITY (JTU) | TOTAL PHYTOPLANKTON (CELLS PER ML) | PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB., 1973 | | | | | | | | | | | | |
| 05... | .17 | -- | -- | 101 | 75 | 32 | 161 | 7.0 | 11.0 | -- | 6200 | -- |
| MAR. | | | | | | | | | | | | |
| 08... | .10 | -- | 162 | 160 | 120 | 44 | 284 | 7.7 | 9.0 | 10 | 1900 | -- |
| APR. | | | | | | | | | | | | |
| 06... | .22 | -- | -- | 111 | 79 | 28 | 177 | 7.7 | 9.5 | -- | 3900 | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 217 |
| MAY | | | | | | | | | | | | |
| 14... | .05 | -- | -- | 139 | 110 | 34 | 238 | 7.5 | -- | 10 | 2400 | -- |
| JUNE | | | | | | | | | | | | |
| 19... | .09 | -- | -- | 168 | 120 | 28 | 280 | 7.7 | 22.5 | -- | 6000 | 42 |
| 19... | -- | 55 | -- | -- | -- | -- | -- | -- | 22.5 | -- | -- | -- |
| JULY | | | | | | | | | | | | |
| 12... | .05 | -- | -- | 156 | 120 | 32 | 274 | 7.5 | 26.0 | 20 | 43000 | -- |
| AUG. | | | | | | | | | | | | |
| 09... | .07 | -- | -- | 187 | 130 | 47 | 324 | 7.2 | 28.5 | 12 | 20000 | -- |
| SEP. | | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | 20.5 | -- | 14000 | 3.3 |

| DATE | PERIPHYTON BIOMASS ASH WEIGHT G/SQ M | TOTAL ORGANIC CARBON (C) (MG/L) | ORGANIC CARBON IN BED MATERIAL (C) (G/KG) | TOTAL INORGANIC CARBON (C) (MG/L) | TOTAL ARSENIC (AS) (UG/L) | DISSOLVED ARSENIC (AS) (UG/L) | TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) | TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB., 1973 | | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | | |
| 08... | -- | 5.0 | -- | 17 | -- | 0 | -- | -- | 1 | -- | -- | 0 |
| APR. | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | 119 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | | |
| 19... | 11 | -- | -- | -- | -- | 0 | -- | -- | 0 | -- | -- | -- |
| 19... | -- | 5.5 | 17 | -- | -- | -- | 0 | -- | -- | 0 | -- | -- |
| JULY | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | | |
| 20... | .80 | -- | -- | -- | 2 | -- | -- | 0 | -- | -- | 0 | -- |

| DATE | TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL COBALT (CO) (UG/L) | DISSOLVED COBALT (CO) (UG/L) | TOTAL COBALT IN BOTTOM DEPOSITS (UG/G) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL COPPER IN BOTTOM DEPOSITS (UG/G) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL LEAD IN BOTTOM DEPOSITS (UG/G) | TOTAL MERCURY (HG) (UG/L) | DISSOLVED MERCURY (HG) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB., 1973 | | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR. | | | | | | | | | | | | |
| 08... | -- | -- | 0 | -- | -- | 0 | -- | -- | 4 | -- | -- | -- |
| APR. | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 20... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| JUNE | | | | | | | | | | | | |
| 19... | -- | -- | 0 | -- | -- | 0 | -- | -- | 3 | -- | -- | <1.0 |
| 19... | 23 | -- | -- | 20 | -- | -- | 25 | -- | -- | 30 | -- | -- |
| JULY | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AUG. | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP. | | | | | | | | | | | | |
| 20... | -- | 0 | -- | -- | 0 | -- | -- | 7 | -- | -- | <.5 | -- |

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

CHEMICAL AND SUSPENDED-SEDIMENT ANALYSES, FEBRUARY TO SEPTEMBER 1973

| DATE | TOTAL MERCURY IN BOTTOM DEPOSITS (UG/G) | DISSOLVED SELENIUM (SE) (UG/L) | TOTAL SELENIUM IN BOTTOM DEPOSITS (UG/G) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | TOTAL ZINC IN BOTTOM DEPOSITS (UG/G) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | |
|---|---|---|---|---|---|---|---|---|---|
| FEB.. 1973 | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | 225 | 38600 | |
| MAR. | | | | | | | | | |
| 08... | -- | 4 | -- | -- | 30 | -- | 29 | 1800 | |
| APR. | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | 244 | 33200 | |
| 20... | -- | -- | -- | -- | -- | -- | -- | | -- |
| MAY | | | | | | | | | |
| 14... | -- | -- | -- | -- | -- | -- | 73 | 2680 | |
| JUNE | | | | | | | | | |
| 19... | -- | 0 | -- | -- | 0 | -- | 26 | 534 | |
| 19... | .0 | -- | 1 | -- | -- | 88 | -- | | -- |
| JULY | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | 38 | 456 | |
| AUG. | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | 22 | 180 | |
| SEP. | | | | | | | | | |
| 20... | -- | -- | -- | 30 | -- | -- | -- | | -- |

BIOLOGICAL ANALYSES, MARCH TO SEPTEMBER 1973

CODOMIANTS OF PERIPHYTON

| Date in: | 3-08-73 | 5-14-73 | 8-09-73 |
|---|---|---|---|
| Date out: | 4-20-73 | 6-19-73 | 9-20-73 |
| Periphyton taxa | Occurrence | | |
| CHLOROPHYTA | | | |
| .Chlorophyceae (green algae) | | | |
| ....Stigeocionium | | x | x |
| .Chrysophyta (diatoms) | | | |
| ....Navicula | x | | |
| .Cyanophyta (blue-green algae) | | | |
| ....Phormidium | | x | x |

OCCURRENCE OF BENTHIC INVERTEBRATES

| Date in: | 5-14-73 | 8-09-73 |
|---|---|---|
| Date out: | 6-19-73 | 9-20-73 |
| Total count: | 199 | 99 |
| Benthic invertebrate taxa | Percent of total | |
| ARTHROPODA | | |
| .Crustacea | | |
| ..Amphipoda | 53 | 4 |
| .Insecta | | |
| ..Coleoptera | | |
| ...Elmidae | -- | 1 |
| ..Diptera | | |
| ...Chironomidae | 28 | 50 |
| ..Ephemeroptera | 9 | 12 |
| ..Megaloptera | -- | 1 |
| ..Trichoptera | 10 | 32 |

OCCURRENCE OF PHYTOPLANKTON

| Date of sample collection | 2-05-73 | 3-08-73 | 4-06-73 | 5-14-73 | 6-19-73 | 7-12-73 | 8-09-73 | 9-20-73 |
|---|---|---|---|---|---|---|---|---|
| Total count (cells/ml) | 6200 | 1900 | 3900 | 2400 | 6000 | 43000 | 20000 | 14000 |
| Phytoplankton taxa | Percent of total | | | | | | | |
| CHLOROPHYTA | | | | | | | | |
| .Chlorophyceae (green algae) | | | | | | | | |
| ....Actinastrum | -- | -- | -- | -- | -- | -- | 15 | -- |
| ....Ankistrodesmus | -- | -- | -- | -- | -- | 20 | -- | -- |
| ....Chlorella | -- | -- | -- | 34 | -- | -- | -- | -- |
| ....Scenedesmus | -- | -- | -- | -- | 51 | 46 | 53 | 58 |
| CHRYSOPHYTA | | | | | | | | |
| .Bacillariophyceae (diatoms) | | | | | | | | |
| ....Fragilari | 18 | -- | -- | -- | -- | -- | -- | -- |
| ....Navicula | 31 | -- | -- | 16 | -- | -- | -- | -- |
| ....Pinnularia | -- | 38 | 47 | -- | -- | -- | -- | -- |
| ....Tabellaria | -- | 40 | -- | -- | -- | -- | -- | -- |
| CYANOPHYTA | | | | | | | | |
| .Myxophyceae (blue-green algae) | | | | | | | | |
| ....Anabaena | 15 | -- | 32 | -- | -- | -- | -- | -- |
| ....Anacystis | -- | -- | -- | -- | 15 | -- | -- | -- |

PHYLUM
.Class
..Order
...Family
....Genus

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), MARCH TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | 152 | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 166 | 166 | 166 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 172 | 166 | 170 |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 184 | 172 | 179 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 194 | 185 | 189 |
| 6 | --- | --- | --- | --- | --- | --- | --- | 115 | --- | 197 | 193 | 195 |
| 7 | --- | --- | --- | --- | --- | --- | 123 | 115 | 120 | 201 | 197 | 199 |
| 8 | --- | --- | --- | --- | --- | --- | 127 | 121 | 124 | 204 | 200 | 202 |
| 9 | --- | --- | --- | --- | --- | --- | 134 | 126 | 130 | 206 | 201 | 203 |
| 10 | --- | --- | --- | --- | --- | --- | 139 | 127 | 132 | 211 | 204 | 208 |
| 11 | --- | --- | --- | --- | --- | --- | 137 | 129 | 134 | 221 | 212 | 216 |
| 12 | --- | --- | --- | --- | --- | --- | 131 | 120 | 125 | 222 | 217 | 221 |
| 13 | --- | --- | --- | --- | --- | --- | 134 | 122 | 128 | 216 | 207 | 211 |
| 14 | --- | --- | --- | --- | --- | --- | 136 | 127 | 133 | 215 | 212 | 213 |
| 15 | --- | --- | --- | 166 | 154 | --- | 144 | 135 | --- | 218 | 213 | 216 |
| 16 | --- | --- | --- | 160 | 148 | 154 | 156 | 144 | --- | 213 | 209 | 211 |
| 17 | --- | --- | --- | 167 | 137 | 152 | --- | --- | --- | 215 | 209 | 212 |
| 18 | --- | --- | --- | 176 | 162 | 168 | --- | --- | --- | 214 | 209 | 212 |
| 19 | --- | --- | --- | 188 | 162 | 172 | --- | --- | --- | 218 | 214 | 215 |
| 20 | --- | --- | --- | 192 | 156 | 180 | --- | 166 | 169 | 222 | 216 | 219 |
| 21 | --- | --- | --- | 163 | 153 | 157 | 166 | 156 | 161 | 222 | 214 | 219 |
| 22 | --- | --- | --- | 174 | 155 | 161 | 160 | 153 | 157 | 225 | 221 | 223 |
| 23 | --- | --- | --- | 163 | 154 | 158 | 164 | 157 | 161 | 229 | 224 | 226 |
| 24 | --- | --- | --- | 164 | 155 | 159 | 162 | 137 | 158 | 234 | 224 | 228 |
| 25 | --- | --- | --- | 164 | 157 | 160 | 163 | 151 | 159 | 229 | 203 | 216 |
| 26 | --- | --- | --- | 162 | 141 | 148 | 149 | 125 | 133 | 225 | 184 | 210 |
| 27 | --- | --- | --- | 160 | 143 | 151 | --- | --- | --- | 206 | 184 | 195 |
| 28 | --- | --- | --- | 178 | 142 | 160 | --- | --- | --- | 206 | 140 | 176 |
| 29 | --- | --- | --- | 175 | 164 | 168 | --- | --- | --- | 159 | 139 | 146 |
| 30 | --- | --- | --- | 169 | 156 | 164 | --- | --- | --- | 197 | 157 | 185 |
| 31 | --- | --- | --- | 159 | 149 | 155 | --- | --- | --- | 176 | 167 | 172 |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | --- | 234 | 139 | 202 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 184 | 172 | 177 | 258 | 225 | 247 | --- | --- | --- | --- | --- | --- |
| 2 | 185 | 183 | 184 | 256 | 222 | 249 | --- | --- | --- | --- | --- | --- |
| 3 | 189 | 184 | 187 | 245 | 219 | 237 | --- | --- | --- | --- | --- | --- |
| 4 | 192 | 95 | 182 | 244 | 217 | 229 | --- | --- | --- | --- | --- | --- |
| 5 | 177 | 93 | 153 | 243 | 210 | 227 | --- | --- | --- | --- | --- | --- |
| 6 | 196 | 170 | 177 | 256 | 219 | 231 | --- | --- | --- | 280 | 272 | 277 |
| 7 | 215 | 194 | 202 | 259 | 243 | 250 | --- | --- | --- | 293 | 272 | 288 |
| 8 | 227 | 219 | 222 | 273 | 257 | 260 | --- | --- | --- | 298 | 284 | 290 |
| 9 | 223 | 213 | 218 | 278 | 268 | 273 | 320 | 280 | 303 | 295 | 280 | 286 |
| 10 | 215 | 212 | 213 | 281 | 266 | 277 | 301 | 280 | 290 | 297 | 285 | 291 |
| 11 | 220 | 214 | 218 | 281 | 248 | 269 | 303 | 281 | 296 | 310 | 285 | 299 |
| 12 | 233 | 220 | 225 | 288 | 286 | 287 | 314 | 290 | 306 | 320 | 300 | 310 |
| 13 | 237 | 233 | 235 | 288 | 277 | 283 | 321 | 300 | 314 | 320 | 314 | 317 |
| 14 | 239 | 235 | 237 | 286 | 264 | 276 | 350 | 320 | 342 | 318 | 156 | 255 |
| 15 | 244 | 237 | 241 | 269 | 256 | 263 | 369 | 345 | 356 | 253 | 125 | 169 |
| 16 | 248 | 237 | 241 | 276 | 260 | 267 | 352 | 333 | 340 | 243 | 150 | 170 |
| 17 | 246 | 227 | 235 | 294 | 267 | 282 | 361 | 340 | 348 | 200 | 155 | 175 |
| 18 | 251 | 241 | 247 | 310 | 293 | 302 | 359 | 324 | 345 | 244 | 200 | 219 |
| 19 | 260 | 248 | 253 | 315 | 297 | 309 | --- | --- | --- | 365 | 244 | 295 |
| 20 | 262 | 258 | 260 | 297 | 265 | 290 | --- | --- | --- | 365 | 320 | 344 |
| 21 | 288 | 261 | 273 | 287 | 213 | 260 | --- | --- | --- | 314 | 300 | 304 |
| 22 | 298 | 273 | 290 | 297 | 207 | 257 | --- | --- | --- | 316 | 303 | 309 |
| 23 | 270 | 236 | 252 | 310 | 297 | 306 | --- | --- | --- | 321 | 311 | 316 |
| 24 | 247 | 207 | 227 | 310 | 296 | 305 | --- | --- | --- | 326 | 312 | 318 |
| 25 | 254 | 235 | 247 | 296 | 280 | 286 | --- | --- | --- | 357 | 335 | 344 |
| 26 | 285 | 261 | 272 | 280 | 270 | 277 | --- | --- | --- | 375 | 357 | 366 |
| 27 | 284 | 261 | 270 | 275 | 270 | 274 | --- | --- | --- | 385 | 378 | 382 |
| 28 | 268 | 261 | 264 | --- | --- | --- | --- | --- | --- | 399 | 383 | 390 |
| 29 | 268 | 251 | 259 | --- | --- | --- | --- | --- | --- | 392 | 383 | 389 |
| 30 | 260 | 225 | 240 | --- | --- | --- | --- | --- | --- | 382 | 364 | 375 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 298 | 93 | 230 | 315 | 207 | 269 | --- | --- | --- | 399 | 125 | 299 |

01645500 POTOMAC RIVER AT GREAT FALLS, MD.--Continued

TEMPERATURE (°C) OF WATER, MARCH TO SEPTEMBER 1973

| | FEBRUARY | | | MARCH | | | APRIL | | | MAY | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | --- | --- | --- | --- | --- | --- | 12.5 | 11.5 | 12.0 | A13.0 | A11.5 | --- |
| 2 | --- | --- | --- | --- | --- | --- | A13.0 | A12.0 | --- | A16.0 | A13.0 | --- |
| 3 | --- | --- | --- | --- | --- | --- | A12.5 | A12.0 | --- | 16.5 | 16.0 | 16.5 |
| 4 | --- | --- | --- | --- | --- | --- | A12.5 | A10.5 | --- | 16.5 | 15.0 | 16.0 |
| 5 | --- | --- | --- | --- | --- | --- | A10.5 | A 9.5 | --- | 15.5 | 14.0 | 14.5 |
| 6 | --- | --- | --- | --- | --- | --- | A10.5 | A 9.0 | --- | 16.5 | 13.5 | 15.0 |
| 7 | --- | --- | --- | --- | --- | --- | 10.0 | 9.5 | 9.5 | 18.0 | 15.0 | 16.5 |
| 8 | --- | --- | --- | --- | --- | --- | 10.0 | 9.5 | 10.0 | 17.5 | 17.0 | 17.0 |
| 9 | --- | --- | --- | --- | --- | --- | 11.0 | 9.5 | 10.0 | 19.0 | 17.0 | 18.0 |
| 10 | --- | --- | --- | --- | --- | --- | 10.0 | 9.0 | 10.0 | 20.0 | 18.0 | 19.0 |
| 11 | --- | --- | --- | --- | --- | --- | 9.5 | 9.0 | 9.0 | 21.0 | 19.0 | 19.5 |
| 12 | --- | --- | --- | --- | --- | --- | 8.5 | 7.0 | 8.0 | 20.0 | 19.0 | 19.5 |
| 13 | --- | --- | --- | --- | --- | --- | 8.5 | 7.0 | 7.5 | 20.0 | 18.5 | 19.0 |
| 14 | --- | --- | --- | --- | --- | --- | 9.5 | 7.0 | 8.0 | 19.0 | 18.5 | 19.0 |
| 15 | --- | --- | --- | 13.5 | 13.0 | 13.0 | 10.0 | 8.0 | 9.0 | 19.0 | 17.5 | 18.5 |
| 16 | --- | --- | --- | 13.0 | 12.5 | 13.0 | 12.0 | 9.0 | 10.5 | 19.5 | 17.0 | 18.5 |
| 17 | --- | --- | --- | 15.5 | 13.0 | 14.0 | 12.0 | 11.0 | 11.5 | 19.0 | 17.5 | 18.0 |
| 18 | --- | --- | --- | 13.0 | 9.5 | 11.5 | 13.0 | 11.5 | 12.0 | 17.5 | 16.0 | 17.0 |
| 19 | --- | --- | --- | 10.0 | 9.0 | 9.5 | 14.5 | 12.5 | 13.5 | 18.5 | 16.0 | 17.0 |
| 20 | --- | --- | --- | 10.5 | 9.0 | 9.5 | 17.0 | 14.0 | 15.0 | 18.0 | 17.5 | 17.5 |
| 21 | --- | --- | --- | 9.0 | 8.5 | 9.0 | 17.0 | 15.0 | 16.0 | 18.5 | 17.0 | 18.0 |
| 22 | --- | --- | --- | 8.5 | 8.0 | 8.0 | 18.0 | 15.5 | 16.5 | 20.0 | 17.5 | 18.5 |
| 23 | --- | --- | --- | 9.0 | 7.0 | 8.0 | 18.5 | 16.5 | 17.5 | 19.5 | 19.0 | 19.5 |
| 24 | --- | --- | --- | 10.0 | 7.5 | 9.0 | 19.0 | 17.0 | 18.0 | 19.0 | 18.0 | 18.5 |
| 25 | --- | --- | --- | 9.5 | 8.5 | 9.0 | 18.0 | 16.0 | 17.0 | 18.0 | 17.0 | 17.5 |
| 26 | --- | --- | --- | 9.5 | 8.5 | 9.0 | A16.0 | A14.5 | --- | 17.0 | 16.0 | 16.5 |
| 27 | --- | --- | --- | 11.5 | 9.5 | 10.5 | A14.5 | A12.0 | --- | 16.0 | 15.0 | 15.5 |
| 28 | --- | --- | --- | 12.5 | 9.5 | 11.5 | A12.0 | A11.0 | --- | 17.5 | 15.5 | 16.0 |
| 29 | --- | --- | --- | 12.0 | 10.5 | 11.5 | A11.5 | A11.0 | --- | 18.5 | 17.0 | 17.5 |
| 30 | --- | --- | --- | 12.0 | 10.5 | 11.5 | A11.5 | A11.0 | --- | 19.0 | 18.0 | 18.5 |
| 31 | --- | --- | --- | 12.0 | 11.5 | 11.5 | --- | --- | --- | 19.0 | 18.5 | 19.0 |
| MONTH | --- | --- | --- | --- | --- | --- | 19.0 | 7.0 | --- | 21.0 | 11.5 | 17.5 |

| | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
| 1 | 20.5 | 18.5 | 19.5 | 27.5 | 26.0 | 27.0 | 30.5 | 28.5 | 29.0 | 32.0 | 30.0 | 31.0 |
| 2 | 22.0 | 19.5 | 20.5 | 27.5 | 26.5 | 26.5 | 29.5 | 27.5 | 28.5 | 32.0 | 30.5 | 31.5 |
| 3 | 22.0 | 20.5 | 21.5 | 28.5 | 26.0 | 27.0 | 29.5 | 28.0 | 28.5 | 31.5 | 30.0 | 31.0 |
| 4 | 24.0 | 21.0 | 22.0 | 29.5 | 27.5 | 28.5 | 29.5 | 27.0 | 28.0 | 31.0 | 28.0 | 30.0 |
| 5 | 24.5 | 21.0 | 22.5 | 29.5 | 28.0 | 28.5 | 30.5 | 27.5 | 29.0 | 31.0 | 29.0 | 30.0 |
| 6 | 24.5 | 23.0 | 23.5 | 30.0 | 27.5 | 28.5 | 30.5 | 28.0 | 29.5 | 30.5 | 29.0 | 30.0 |
| 7 | 25.5 | 23.5 | 24.0 | 30.5 | 27.5 | 28.5 | 30.5 | 28.5 | 29.5 | 30.0 | 28.0 | 29.0 |
| 8 | 26.5 | 24.5 | 25.5 | 31.0 | 28.0 | 29.5 | 31.0 | 28.5 | 29.5 | 29.0 | 26.5 | 27.5 |
| 9 | 27.0 | 25.0 | 26.0 | 32.0 | 29.5 | 30.5 | 32.0 | 29.5 | 30.5 | 28.0 | 26.5 | 27.0 |
| 10 | 28.0 | 26.0 | 27.0 | 31.5 | 30.0 | 31.0 | 32.0 | 30.0 | 31.0 | 26.5 | 25.0 | 25.5 |
| 11 | 29.0 | 26.5 | 27.5 | 31.0 | 28.5 | 30.0 | 32.0 | 30.0 | 31.0 | 25.5 | 24.5 | 25.0 |
| 12 | 29.5 | 27.0 | 28.5 | 30.5 | 27.5 | 28.5 | 31.5 | 30.0 | 30.5 | 25.5 | 25.0 | 25.0 |
| 13 | 29.0 | 28.0 | 28.5 | 29.5 | 26.5 | 27.5 | 31.0 | 28.5 | 30.0 | 26.0 | 24.5 | 25.0 |
| 14 | 29.5 | 27.5 | 28.0 | 30.0 | 27.5 | 28.5 | 30.5 | 29.5 | 30.0 | 25.5 | 22.0 | 24.0 |
| 15 | 28.5 | 26.0 | 27.5 | 30.0 | 28.5 | 29.5 | 30.0 | 28.5 | 29.0 | 24.5 | 21.0 | 22.5 |
| 16 | 28.0 | 26.5 | 27.0 | 30.0 | 27.5 | 28.5 | 29.5 | 27.5 | 28.5 | 24.0 | 22.0 | 23.0 |
| 17 | 27.0 | 25.0 | 26.0 | 30.0 | 28.0 | 28.5 | 29.5 | 27.5 | 28.5 | 23.5 | 22.5 | 23.0 |
| 18 | 25.0 | 24.0 | 24.5 | 29.0 | 27.0 | 28.0 | 29.5 | 27.5 | 28.0 | 24.0 | 23.0 | 23.5 |
| 19 | 24.5 | 24.0 | 24.0 | 30.0 | 27.5 | 29.0 | 28.0 | 26.5 | 27.0 | 23.5 | 21.5 | 22.5 |
| 20 | 26.0 | 24.0 | 24.5 | 30.0 | 28.0 | 29.5 | 27.5 | 26.5 | 27.0 | 23.5 | 21.0 | 22.5 |
| 21 | 27.0 | 25.5 | 26.0 | 30.0 | 26.5 | 28.5 | 26.5 | 24.5 | 25.5 | 23.0 | 21.0 | 21.5 |
| 22 | 26.0 | 25.5 | 26.0 | 28.5 | 26.0 | 27.0 | 25.5 | 24.5 | 25.0 | 22.5 | 20.5 | 21.5 |
| 23 | 26.0 | 24.5 | 25.0 | 28.0 | 26.0 | 27.0 | 25.5 | 24.0 | 24.5 | 23.5 | 21.5 | 22.5 |
| 24 | 27.5 | 24.5 | 26.0 | 29.0 | 26.5 | 27.5 | 26.0 | 24.0 | 25.0 | 24.5 | 22.5 | 23.5 |
| 25 | 28.0 | 26.0 | 27.0 | 29.0 | 27.0 | 27.5 | 26.0 | 24.5 | 25.5 | 24.5 | 23.0 | 23.5 |
| 26 | 28.0 | 26.5 | 27.0 | 29.0 | 26.5 | 27.5 | 27.5 | 25.5 | 26.0 | 23.0 | 22.0 | 22.5 |
| 27 | 28.0 | 26.5 | 27.0 | 30.0 | 27.5 | 28.5 | 28.5 | 26.0 | 27.0 | 24.0 | 22.0 | 23.0 |
| 28 | 27.5 | 26.5 | 27.0 | 31.0 | 28.5 | 29.5 | 30.0 | 28.0 | 28.5 | 24.0 | 23.0 | 23.5 |
| 29 | 28.5 | 26.5 | 27.5 | 31.0 | 29.5 | 30.0 | 30.5 | 28.5 | 29.5 | 24.5 | 23.5 | 24.0 |
| 30 | 27.5 | 26.0 | 27.0 | 30.5 | 28.0 | 29.0 | 31.5 | 29.0 | 30.0 | 24.5 | 23.5 | 24.0 |
| 31 | --- | --- | --- | 30.5 | 28.5 | 29.5 | 32.0 | 29.5 | 30.5 | --- | --- | --- |
| MONTH | 29.5 | 18.5 | 25.5 | 32.0 | 26.0 | 28.5 | 32.0 | 24.0 | 28.5 | 32.0 | 20.5 | 25.5 |

A RECORD FURNISHED BY CORPS OF ENGINEERS

## 01647685 WILLIAMSBURG RUN NEAR OLNEY, MD.

LOCATION.--Lat 39°08'32", long 77°05'48", Montgomery County, on right bank 200 ft (60 m) downstream from vehicle bridge, on golf course of Norbeck Country Club, 0.2 mile (0.3 km) downstream from Cashell Road, 0.5 mile (0.8 km) upstream from mouth, and 1.8 miles (2.9 km) southwest of Olney.

DRAINAGE AREA.--2.25 sq mi (5.83 sq km).

PERIOD OF RECORD.--Sediment records: November 1966 to September 1968, October 1968 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|
| OCT. | | | |
| 28... | 14 | 405 | 32 |
| NOV. | | | |
| 08... | 21 | 234 | 31 |
| 14... | 39 | 276 | 62 |
| DEC. | | | |
| 08... | 40 | 269 | 86 |
| 09... | 12 | 66 | 3.9 |
| FEB. | | | |
| 02... | 31 | 489 | 75 |
| APR. | | | |
| 04... | 20 | 211 | 36 |
| 27... | 29 | 211 | 40 |
| MAY | | | |
| 28... | 24 | 313 | 50 |
| JULY | | | |
| 03... | 32 | 496 | 237 |
| 04... | 3.0 | 97 | 1.1 |
| 20... | 37 | 609 | 204 |
| 21... | 4.0 | 106 | 2.6 |
| SEP. | | | |
| 14... | 16 | 327 | 34 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM | SUS. SED. SIEVE DIAM. % FINER THAN .250 MM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB. | | | | | | | | | | | |
| 02... | 1115 | 67 | 970 | 175 | 46 | 66 | 80 | 93 | 97 | 99 | 100 |

## 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 sq mi (25.20 sq km).

PERIOD OF RECORD.--Sediment records: November 1966 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|
| OCT. | | | |
| 28... | 46 | 594 | 136 |
| NOV. | | | |
| 08... | 75 | 284 | 122 |
| 14... | 130 | 371 | 274 |
| 15... | 21 | 38 | 2.9 |
| FEB. | | | |
| 02... | 137 | 588 | 355 |
| 03... | 31 | 41 | 3.9 |
| APR. | | | |
| 01... | 171 | 1010 | 1270 |
| 02... | 110 | 371 | 209 |
| 04... | 97 | 363 | 244 |
| 27... | 158 | 411 | 350 |
| MAY | | | |
| 28... | 120 | 470 | 299 |
| 29... | 24 | 123 | 9.6 |
| JULY | | | |
| 03... | 120 | 493 | 645 |
| 04... | 26 | 167 | 31 |
| 20... | 191 | 694 | 1280 |
| 21... | 32 | 162 | 31 |
| SEP. | | | |
| 14... | 68 | 487 | 193 |
| 15... | 9.1 | 70 | 1.7 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB. | | | | | | | | | | | | |
| 02... | 1040 | 342 | 2400 | 2220 | 33 | 47 | 63 | 76 | 87 | 94 | 99 | 100 |
| APR. | | | | | | | | | | | | |
| 04... | 1425 | 380 | 1460 | 1500 | 31 | 42 | 54 | 67 | 77 | 84 | 95 | 100 |

## 01647725 MANOR RUN NEAR NORBECK, MD.

LOCATION.--Lat 39°06'36", long 77°06'00", Montgomery County, at gaging station 100 ft (30 m) downstream from ford on farm lane, 0.5 mile (0.8 km) upstream from mouth and 1.2 miles (1.9 km) west of Norbeck.

DRAINAGE AREA.--1.01 sq mi (2.62 sq km).

PERIOD OF RECORD.--Sediment records: November 1966 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DISCHARGE (CFS) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|
| OCT. | | | |
| 28... | 9.3 | 519 | 43 |
| NOV. | | | |
| 14... | 17 | 164 | 23 |
| DEC. | | | |
| 08... | 19 | 164 | 34 |
| 09... | 6.6 | 36 | 1.0 |
| APR. | | | |
| 01... | 19 | 495 | 133 |
| 04... | 15 | 193 | 34 |
| JULY | | | |
| 02... | 13 | 298 | 78 |
| SEP. | | | |
| 14... | 11 | 99 | 8.0 |

## 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 sq mi (32.4 sq km).

PERIOD OF RECORD.--Sediment records: September 1967 to September 1973.

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 141 mg/l June 5; minimum daily, 8 mg/l Feb. 27-28.
Sediment discharge: Maximum daily, 27 tons (24 tonnes) Apr. 2; minimum daily, 0.11 tons (.10 tonnes) Oct. 5-6.

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 tonnes) June 22, 1972; minimum daily, 0 tons (0 tonnes) 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, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 5.1 | 11 | .15 | 8.1 | 24 | .52 | 38 | 47 | 4.8 |
| 2 | 5.1 | 11 | .15 | 8.1 | 21 | .46 | 27 | 32 | 2.3 |
| 3 | 5.1 | 11 | .15 | 7.8 | 18 | .38 | 20 | 28 | 1.5 |
| 4 | 4.8 | 9 | .12 | 7.6 | 17 | .35 | 16 | 27 | 1.2 |
| 5 | 4.5 | 9 | .11 | 7.0 | 15 | .28 | 14 | 21 | .79 |
| 6 | 4.5 | 9 | .11 | 6.2 | 14 | .23 | 19 | 17 | .87 |
| 7 | 7.6 | 15 | .31 | 6.2 | 14 | .23 | 34 | 29 | 2.7 |
| 8 | 7.6 | 20 | .41 | 32 | 33 | 3.5 | 40 | 23 | 2.7 |
| 9 | 6.5 | 20 | .35 | 37 | 29 | 2.9 | 86 | 72 | 17 |
| 10 | 5.9 | 18 | .29 | 23 | 23 | 1.4 | 79 | 52 | 11 |
| 11 | 5.4 | 18 | .26 | 14 | 20 | .76 | 68 | 42 | 7.7 |
| 12 | 5.1 | 16 | .22 | 11 | 17 | .50 | 55 | 46 | 6.8 |
| 13 | 5.1 | 14 | .19 | 9.4 | 15 | .38 | 42 | 51 | 5.8 |
| 14 | 5.1 | 13 | .18 | 48 | 31 | 4.8 | 28 | 41 | 3.1 |
| 15 | 4.8 | 13 | .17 | 65 | 40 | 7.0 | 33 | 36 | 3.2 |
| 16 | 4.5 | 15 | .18 | 51 | 35 | 4.8 | 49 | 44 | 5.8 |
| 17 | 4.3 | 16 | .19 | 34 | 29 | 2.7 | 38 | 44 | 4.5 |
| 18 | 4.5 | 13 | .16 | 21 | 25 | 1.4 | 27 | 37 | 2.7 |
| 19 | 5.7 | 11 | .17 | 18 | 23 | 1.2 | 21 | 27 | 1.5 |
| 20 | 7.0 | 14 | .26 | 67 | 39 | 7.1 | 20 | 21 | 1.1 |
| 21 | 6.2 | 16 | .27 | 54 | 34 | 5.0 | 21 | 21 | 1.2 |
| 22 | 5.7 | 15 | .23 | 39 | 31 | 3.3 | 64 | 31 | 5.4 |
| 23 | 5.4 | 14 | .20 | 26 | 29 | 2.0 | 69 | 23 | 4.3 |
| 24 | 5.1 | 13 | .18 | 17 | 27 | 1.2 | 61 | 23 | 3.8 |
| 25 | 5.1 | 12 | .17 | 13 | 25 | .88 | 49 | 19 | 2.5 |
| 26 | 5.1 | 11 | .15 | 46 | 50 | 6.4 | 42 | 18 | 2.0 |
| 27 | 5.1 | 12 | .17 | 46 | 57 | 7.1 | 35 | 17 | 1.6 |
| 28 | 21 | 13 | .74 | 31 | 44 | 3.7 | 28 | 16 | 1.2 |
| 29 | 29 | 19 | 1.5 | 21 | 33 | 1.9 | 23 | 13 | .81 |
| 30 | 17 | 26 | 1.2 | 22 | 27 | 1.6 | 20 | 14 | .76 |
| 31 | 11 | 27 | .80 | -- | -- | -- | 26 | 15 | 1.1 |
| TOTAL | 223.9 | -- | 9.74 | 796.4 | -- | 73.97 | 1192 | -- | 111.73 |

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 32 | 21 | 1.8 | 29 | 27 | 2.1 | 15 | 12 | .49 |
| 2 | 27 | 18 | 1.3 | 47 | 40 | 5.9 | 15 | 15 | .61 |
| 3 | 23 | 15 | .93 | 65 | 85 | 15 | 15 | 16 | .65 |
| 4 | 25 | 14 | .95 | 56 | 79 | 12 | 20 | 14 | .76 |
| 5 | 31 | 16 | 1.3 | 46 | 78 | 9.7 | 20 | 11 | .59 |
| 6 | 26 | 18 | 1.3 | 35 | 77 | 7.3 | 20 | 10 | .54 |
| 7 | 22 | 16 | .95 | 38 | 80 | 8.2 | 21 | 11 | .62 |
| 8 | 18 | 15 | .73 | 36 | 64 | 6.2 | 25 | 10 | .68 |
| 9 | 16 | 13 | .56 | 41 | 32 | 3.5 | 27 | 23 | 1.7 |
| 10 | 15 | 12 | .49 | 35 | 22 | 2.1 | 23 | 21 | 1.3 |
| 11 | 14 | 11 | .42 | 29 | 21 | 1.6 | 21 | 15 | .85 |
| 12 | 12 | 11 | .36 | 24 | 22 | 1.4 | 20 | 12 | .65 |
| 13 | 12 | 11 | .36 | 21 | 20 | 1.1 | 18 | 11 | .53 |
| 14 | 12 | 11 | .36 | 19 | 14 | .72 | 17 | 12 | .55 |
| 15 | 12 | 11 | .36 | 31 | 20 | 1.7 | 16 | 12 | .52 |
| 16 | 12 | 10 | .32 | 30 | 22 | 1.8 | 16 | 13 | .56 |
| 17 | 12 | 10 | .32 | 27 | 18 | 1.3 | 21 | 18 | 1.1 |
| 18 | 13 | 10 | .35 | 23 | 16 | .99 | 25 | 24 | 1.6 |
| 19 | 14 | 10 | .38 | 18 | 15 | .73 | 21 | 20 | 1.1 |
| 20 | 17 | 13 | .60 | 17 | 13 | .60 | 19 | 20 | 1.0 |
| 21 | 16 | 12 | .52 | 17 | 13 | .60 | 17 | 20 | .92 |
| 22 | 18 | 11 | .53 | 17 | 13 | .60 | 16 | 18 | .78 |
| 23 | 27 | 19 | 1.4 | 17 | 13 | .60 | 15 | 16 | .65 |
| 24 | 23 | 21 | 1.3 | 17 | 12 | .55 | 14 | 14 | .53 |
| 25 | 18 | 21 | 1.0 | 16 | 11 | .48 | 13 | 13 | .46 |
| 26 | 17 | 18 | .83 | 15 | 9 | .36 | 26 | 12 | .84 |
| 27 | 17 | 16 | .73 | 16 | 8 | .35 | 33 | 16 | 1.4 |
| 28 | 23 | 17 | 1.1 | 15 | 8 | .32 | 31 | 20 | 1.7 |
| 29 | 49 | 27 | 3.6 | -- | -- | -- | 24 | 15 | .97 |
| 30 | 44 | 35 | 4.2 | -- | -- | -- | 21 | 13 | .74 |
| 31 | 38 | 31 | 3.2 | -- | -- | -- | 21 | 13 | .74 |
| TOTAL | 655 | -- | 32.55 | 797 | -- | 87.80 | 626 | -- | 26.13 |

| | 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 | 36 | 15 | 1.4 | 49 | 21 | 2.8 | 26 | 18 | 1.3 |
| 2 | 78 | 128 | 27 | 41 | 11 | 1.2 | 19 | 16 | .82 |
| 3 | 82 | 112 | 25 | 33 | 10 | .89 | 16 | 19 | .82 |
| 4 | 80 | 81 | 17 | 30 | 22 | 1.8 | 20 | 31 | 3.1 |
| 5 | 81 | 98 | 21 | 24 | 22 | 1.4 | 59 | 141 | 23 |
| 6 | 73 | 63 | 12 | 20 | 13 | .70 | 50 | 63 | 8.5 |
| 7 | 60 | 40 | 6.5 | 18 | 12 | .58 | 43 | 37 | 4.3 |
| 8 | 59 | 36 | 5.7 | 16 | 14 | .60 | 36 | 29 | 2.8 |
| 9 | 57 | 27 | 4.2 | 21 | 13 | .74 | 26 | 26 | 1.8 |
| 10 | 56 | 35 | 5.3 | 21 | 11 | .62 | 19 | 20 | 1.0 |
| 11 | 50 | 39 | 5.3 | 18 | 15 | .73 | 15 | 13 | .53 |
| 12 | 42 | 32 | 3.6 | 16 | 16 | .69 | 12 | 11 | .36 |
| 13 | 36 | 28 | 2.7 | 15 | 16 | .65 | 11 | 13 | .39 |
| 14 | 28 | 25 | 1.9 | 14 | 16 | .60 | 10 | 15 | .41 |
| 15 | 23 | 21 | 1.3 | 14 | 16 | .60 | 9.5 | 14 | .36 |
| 16 | 20 | 20 | 1.1 | 13 | 15 | .53 | 9.0 | 17 | .41 |
| 17 | 19 | 18 | .92 | 13 | 14 | .49 | 9.4 | 21 | .53 |
| 18 | 19 | 17 | .87 | 13 | 14 | .49 | 9.4 | 13 | .33 |
| 19 | 18 | 17 | .83 | 12 | 12 | .39 | 9.4 | 12 | .30 |
| 20 | 17 | 15 | .69 | 12 | 11 | .36 | 9.4 | 14 | .36 |
| 21 | 16 | 13 | .56 | 14 | 11 | .42 | 9.4 | 18 | .46 |
| 22 | 16 | 11 | .48 | 13 | 13 | .46 | 9.9 | 17 | .45 |
| 23 | 15 | 10 | .41 | 12 | 12 | .39 | 11 | 12 | .36 |
| 24 | 16 | 11 | .48 | 15 | 9 | .36 | 9.9 | 9 | .24 |
| 25 | 19 | 10 | .51 | 34 | 9 | .83 | 9.0 | 13 | .32 |
| 26 | 50 | 23 | 3.1 | 30 | 12 | .97 | 9.0 | 9 | .22 |
| 27 | 71 | 27 | 5.6 | 24 | 11 | .71 | 8.4 | 13 | .29 |
| 28 | 78 | 53 | 11 | 48 | 25 | 3.6 | 8.1 | 15 | .33 |
| 29 | 70 | 38 | 7.2 | 54 | 25 | 3.6 | 11 | 19 | .56 |
| 30 | 58 | 28 | 4.4 | 45 | 21 | 2.6 | 11 | 13 | .39 |
| 31 | -- | -- | -- | 35 | 19 | 1.8 | -- | -- | -- |
| TOTAL | 1343 | -- | 178.05 | 737 | -- | 32.60 | 514.8 | -- | 55.04 |

01647740 NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 9.4 | 23 | .58 | 8.4 | 14 | .32 | 5.4 | 25 | .36 |
| 2 | 16 | 20 | .86 | 13 | 12 | .42 | 6.1 | 18 | .30 |
| 3 | 31 | 36 | 3.4 | 12 | 10 | .32 | 8.4 | 16 | .36 |
| 4 | 54 | 104 | 15 | 10 | 10 | .27 | 11 | 15 | .45 |
| 5 | 46 | 52 | 6.5 | 8.9 | 14 | .34 | 10 | 14 | .38 |
| 6 | 38 | 33 | 3.4 | 7.8 | 13 | .27 | 8.2 | 20 | .44 |
| 7 | 28 | 24 | 1.8 | 7.3 | 11 | .22 | 7.8 | 18 | .38 |
| 8 | 18 | 18 | .87 | 6.8 | 18 | .33 | 7.4 | 20 | .40 |
| 9 | 13 | 14 | .49 | 6.5 | 18 | .32 | 6.8 | 20 | .37 |
| 10 | 10 | 13 | .35 | 6.5 | 16 | .28 | 6.3 | 19 | .32 |
| 11 | 12 | 14 | .45 | 6.5 | 16 | .28 | 6.0 | 23 | .37 |
| 12 | 10 | 17 | .46 | 6.2 | 16 | .27 | 5.8 | 25 | .39 |
| 13 | 8.7 | 15 | .35 | 5.9 | 17 | .27 | 5.7 | 26 | .40 |
| 14 | 7.8 | 18 | .38 | 5.7 | 17 | .26 | 17 | 28 | 1.3 |
| 15 | 7.6 | 15 | .31 | 5.4 | 18 | .26 | 37 | 31 | 3.1 |
| 16 | 7.6 | 15 | .31 | 5.1 | 20 | .28 | 29 | 25 | 2.0 |
| 17 | 7.4 | 14 | .28 | 5.1 | 28 | .39 | 20 | 21 | 1.1 |
| 18 | 7.6 | 12 | .25 | 5.1 | 23 | .32 | 14 | 20 | .76 |
| 19 | 7.3 | 16 | .32 | 6.9 | 18 | .34 | 11 | 15 | .45 |
| 20 | 12 | 29 | 1.8 | 7.6 | 15 | .31 | 8.7 | 11 | .26 |
| 21 | 67 | 132 | 24 | 13 | 11 | .39 | 7.6 | 10 | .21 |
| 22 | 61 | 53 | 8.7 | 17 | 12 | .55 | 7.1 | 10 | .19 |
| 23 | 56 | 30 | 4.5 | 15 | 14 | .57 | 6.8 | 10 | .18 |
| 24 | 49 | 25 | 3.3 | 11 | 14 | .42 | 6.5 | 10 | .18 |
| 25 | 41 | 26 | 2.9 | 8.9 | 12 | .29 | 6.2 | 11 | .18 |
| 26 | 34 | 20 | 1.8 | 7.8 | 14 | .29 | 5.7 | 13 | .20 |
| 27 | 25 | 14 | .95 | 7.1 | 16 | .31 | 5.4 | 16 | .23 |
| 28 | 17 | 13 | .60 | 6.5 | 15 | .26 | 5.2 | 16 | .22 |
| 29 | 13 | 15 | .53 | 5.9 | 15 | .24 | 5.1 | 15 | .21 |
| 30 | 10 | 14 | .38 | 5.4 | 17 | .25 | 5.1 | 17 | .23 |
| 31 | 8.7 | 13 | .31 | 5.4 | 23 | .34 | -- | -- | -- |
| TOTAL | 733.1 | -- | 86.13 | 249.7 | -- | 9.98 | 292.3 | -- | 15.92 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 8160.2
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 719.64

## 01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD.

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, at gaging station 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 sq mi (188.6 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 1325 | 100 | 7.6 | -- | 400 | -- | 600 | -- | 370 | 12 | 2.9 |
| MAR. | | | | | | | | | | | |
| 09... | 1015 | 165 | 6.4 | -- | 200 | -- | 190 | -- | 310 | 11 | 2.9 |
| MAY | | | | | | | | | | | |
| 31... | 1030 | 77 | 8.0 | -- | 0 | -- | 110 | -- | 330 | 12 | 2.8 |
| SEP. | | | | | | | | | | | |
| 11... | 1300 | 21 | 6.1 | 800 | -- | 2000 | -- | 300 | -- | 15 | 3.4 |

| DATE | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 24 | 3.5 | 22 | 43 | 24 | .1 | 4.4 | .05 | 136 | 134 | 21 |
| MAR. | | | | | | | | | | | |
| 09... | 16 | 3.2 | 17 | 35 | 16 | .1 | 8.9 | .07 | 109 | 109 | 128 |
| MAY | | | | | | | | | | | |
| 31... | 27 | 3.0 | 27 | 47 | 20 | .4 | 3.1 | .30 | 157 | 137 | 242 |
| SEP. | | | | | | | | | | | |
| 11... | 36 | 5.5 | 38 | 36 | 45 | .3 | 4.7 | .03 | 177 | 171 | -- |

| DATE | SUSPENDED SOLIDS (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | -- | 42 | 24 | -- | 3 | 10 | 3.3 | .00 | 7 | -- | 1 |
| MAR. | | | | | | | | | | | |
| 09... | -- | 39 | 25 | -- | 40 | 35 | 1.8 | .01 | 1 | -- | 1 |
| MAY | | | | | | | | | | | |
| 31... | -- | 41 | 19 | -- | 90 | 100 | 1.4 | .01 | 1 | -- | 0 |
| SEP. | | | | | | | | | | | |
| 11... | 65 | 51 | 20 | .0 | -- | 40 | 1.4 | .01 | 0 | 0 | -- |

| DATE | TOTAL CHROMIUM (CR) (UG/L) | DISSOLVED CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | -- | -- | 0 | -- | 0 | -- | 3 | -- | 70 | 24 | 6.5 |
| MAR. | | | | | | | | | | | |
| 09... | -- | 10 | -- | -- | 0 | -- | 2 | -- | 200 | -- | -- |
| MAY | | | | | | | | | | | |
| 31... | 0 | -- | -- | -- | 0 | -- | 3 | -- | 0 | -- | -- |
| SEP. | | | | | | | | | | | |
| 11... | 20 | -- | -- | 10 | -- | 9 | -- | 30 | -- | -- | -- |

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 20... | 1130 | 44 | 6.5 | 12.3 | 7.2 | 235 | 2300 |
| NOV. | | | | | | | |
| 16... | 1150 | 109 | 6.0 | 12.0 | 6.7 | 260 | 620 |
| DEC. | | | | | | | |
| 13... | 1326 | 100 | 8.0 | 11.5 | 6.9 | 227 | 52 |
| JAN. | | | | | | | |
| 11... | 1215 | 73 | .0 | 13.9 | 6.8 | 355 | 89000 |
| FEB. | | | | | | | |
| 09... | 0955 | 218 | 2.0 | 13.2 | 6.7 | 165 | 330 |
| MAR. | | | | | | | |
| 09... | 1015 | 165 | 8.0 | 11.4 | 6.7 | 177 | 270 |
| APR. | | | | | | | |
| 05... | 1145 | 407 | 8.0 | 11.3 | 6.6 | 125 | 4300 |
| MAY | | | | | | | |
| 10... | 1225 | 93 | 19.0 | 9.1 | 7.1 | 225 | 480 |
| 31... | 1030 | 77 | 17.0 | 9.0 | 7.1 | 235 | 640 |
| JULY | | | | | | | |
| 09... | 1255 | 43 | 28.5 | 7.4 | 7.4 | 210 | 3200 |
| AUG. | | | | | | | |
| 06... | 1230 | 27 | 26.0 | 8.6 | 7.4 | 180 | 1200 |
| SEP. | | | | | | | |
| 11... | 1300 | 21 | 21.0 | 10.2 | 7.4 | 305 | 620 |

## 01650050 NORTHWEST BRANCH ANACOSTIA RIVER AT NORWOOD, MD.

LOCATION.--Lat 39°07'36", long 77°01'15", Montgomery County, at gaging station 20 ft (6 m) downstream from bridge on Ednor Road, 0.2 mile (0.3 km) downstream from tributary, 0.4 mile (0.6 km) east of Norwood, 1.6 miles (2.6 km) south of Sandy Spring, and 19 miles (31 km) upstream from confluence with Northeast Branch.

DRAINAGE AREA.--2.45 sq mi (6.35 sq km).

PERIOD OF RECORD.--Sediment records: March 1967 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|
| OCT. | | | |
| 28... | 7.0 | 68 | 2.8 |
| NOV. | | | |
| 08... | 15 | 86 | 9.4 |
| 14... | 35 | 135 | 45 |
| DEC. | | | |
| 08... | 46 | 164 | 81 |
| 09... | 12 | 25 | .81 |
| APR. | | | |
| 01... | 38 | 470 | 223 |
| 02... | 20 | 69 | 6.4 |
| 04... | 30 | 169 | 59 |
| 27... | 33 | 123 | 38 |
| JULY | | | |
| 03... | 16 | 236 | 73 |
| 20... | 25 | 250 | 83 |
| 21... | 4.4 | 47 | 1.1 |

## 01650085 NURSERY RUN AT CLOVERLY, MD.

LOCATION.--Lat 39°07'05", long 77°00'24", Montgomery County, at gaging station 300 ft (90 m) upstream from culvert on Bryants Nursery Road, 350 ft (110 m) upstream from mouth, 0.8 mile (1.3 km) northwest of Cloverly, and 2.4 miles (3.9 km) southeast of Sandy Spring.

DRAINAGE AREA.--0.35 sq mi (0.91 sq km).

PERIOD OF RECORD.--Sediment records: December 1966 to September 1968, October 1968 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|
| NOV. | | | |
| 14... | 3.2 | 119 | 3.3 |
| DEC. | | | |
| 08... | 3.2 | 72 | 2.1 |
| 09... | 1.2 | 12 | .04 |
| APR. | | | |
| 01... | 3.1 | 397 | 15 |
| 02... | 2.0 | 48 | .51 |
| 04... | 2.6 | 92 | 2.4 |
| JULY | | | |
| 03... | .80 | 167 | 1.5 |
| 04... | .50 | 13 | .02 |
| 20... | 2.2 | 354 | 14 |
| SEP. | | | |
| 14... | 1.4 | 71 | .52 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) | SUS. SED. SIEVE DIAM. % FINER THAN .062 MM | SUS. SED. SIEVE DIAM. % FINER THAN .125 MM |
|---|---|---|---|---|---|---|
| FEB. | | | | | | |
| 02... | 1200 | 4.0 | 31 | .33 | 85 | 100 |

## 01650450 BEL PRE CREEK AT LAYHILL, MD.

LOCATION.--Lat 39°05'27", long 77°03'11", Montgomery County, at gaging station 130 ft (40 m) upstream from bridge on Bel Pre Road, 0.5 mile (0.8 km) west of Layhill, 1.2 miles (1.9 km) upstream from Lutes Run, 1.8 miles (2.9 km) southeast of Norbeck, and 2.9 miles (4.7 km) upstream from mouth.

DRAINAGE AREA.--1.69 sq mi (4.38 sq km).

PERIOD OF RECORD.--Sediment records: November 1962 to September 1973 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) |
|---|---|---|---|
| OCT. | | | |
| 28... | 20 | 2010 | 326 |
| NOV. | | | |
| 08... | 22 | 418 | 67 |
| 14... | 36 | 426 | 72 |
| DEC. | | | |
| 08... | 32 | 506 | 126 |
| 09... | 20 | 158 | 12 |
| FEB. | | | |
| 02... | 34 | 789 | 124 |
| APR. | | | |
| 01... | 31 | 896 | 214 |
| 02... | 19 | 428 | 59 |
| 04... | 26 | 373 | 89 |
| 05... | 3.5 | 66 | .62 |
| 25... | 9.6 | 151 | 9.2 |
| 26... | 21 | 270 | 43 |
| 27... | 31 | 401 | 73 |
| JUNE | | | |
| 22... | 5.4 | 176 | 12 |
| 29... | 8.2 | 429 | 39 |
| JULY | | | |
| 03... | 21 | 619 | 169 |
| 04... | 3.0 | 168 | 3.6 |
| SEP. | | | |
| 14... | 19 | 762 | 72 |
| 15... | .68 | 380 | .70 |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1973

| DATE | TIME | INSTAN-TANEOUS DIS-CHARGE (CFS) | SUS-PENDED SEDI-MENT (MG/L) | SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM | SUS. SED. FALL DIAM. % FINER THAN .016 MM | SUS. SED. FALL DIAM. % FINER THAN .031 MM | SUS. SED. 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB. | | | | | | | | | | | | |
| 02... | 1220 | 55 | 1110 | 165 | 42 | 52 | 63 | 67 | 75 | 84 | 95 | 100 |
| APR. | | | | | | | | | | | | |
| 04... | 1345 | 81 | 1250 | 273 | 55 | 64 | 74 | 80 | 84 | 90 | 98 | 100 |

## 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 sq mi (54.6 sq km).

PERIOD OF RECORD.--Sediment records: October 1962 to September 1973.

EXTREMES.--1972-73:
Sediment concentrations: Maximum daily, 1,220 mg/l Apr. 1; minimum daily, 1 mg/l Oct. 15-18, May 18-19, 21-22.
Sediment discharge: Maximum daily, 1,750 tons (1,590 t) Apr. 1; minimum daily, 0.02 ton (.02 t) Oct. 15-18.

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 12,800 tons (11,600 t) June 21, 1972; minimum daily, no flow on several days during August and September 1966.

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | OCTOBER | | | NOVEMBER | | | DECEMBER | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 9.5 | 9 | .23 | 12 | 3 | .10 | 55 | 35 | 6.6 |
| 2 | 8.3 | 8 | .18 | 15 | 10 | .41 | 26 | 8 | .56 |
| 3 | 8.0 | 7 | .15 | 12 | 6 | .19 | 23 | 6 | .37 |
| 4 | 8.1 | 6 | .13 | 11 | 4 | .12 | 21 | 4 | .23 |
| 5 | 8.2 | 5 | .11 | 9.9 | 3 | .08 | 20 | 4 | .22 |
| 6 | 9.6 | 10 | .26 | 9.6 | 3 | .08 | 56 | 50 | 7.6 |
| 7 | 27 | 50 | 3.6 | 9.5 | 2 | .05 | 33 | 20 | 1.8 |
| 8 | 9.3 | 7 | .18 | 151 | 335 | 296 | 238 | 158 | 289 |
| 9 | 8.1 | 5 | .11 | 22 | 20 | 1.2 | 174 | 84 | 60 |
| 10 | 7.8 | 2 | .04 | 15 | 10 | .41 | 67 | 50 | 9.0 |
| 11 | 7.9 | 2 | .04 | 14 | 8 | .30 | 35 | 10 | .95 |
| 12 | 8.2 | 2 | .04 | 12 | 6 | .19 | 28 | 10 | .76 |
| 13 | 8.4 | 2 | .05 | 12 | 4 | .13 | 27 | 10 | .73 |
| 14 | 8.2 | 2 | .04 | 252 | 463 | 630 | 24 | 10 | .65 |
| 15 | 7.5 | 1 | .02 | 51 | 30 | 4.1 | 134 | 173 | 105 |
| 16 | 7.6 | 1 | .02 | 22 | 6 | .36 | 59 | 20 | 3.2 |
| 17 | 8.3 | 1 | .02 | 18 | 4 | .19 | 26 | 10 | .70 |
| 18 | 7.4 | 1 | .02 | 16 | 4 | .17 | 23 | 7 | .43 |
| 19 | 25 | 60 | 4.1 | 75 | 130 | 111 | 24 | 7 | .45 |
| 20 | 12 | 10 | .32 | 195 | 228 | 297 | 31 | 7 | .59 |
| 21 | 9.4 | 6 | .15 | 27 | 8 | .58 | 48 | 56 | 19 |
| 22 | 9.3 | 4 | .10 | 21 | 6 | .34 | 245 | 384 | 384 |
| 23 | 9.3 | 3 | .08 | 19 | 5 | .26 | 80 | 15 | 3.2 |
| 24 | 9.2 | 3 | .07 | 17 | 5 | .23 | 42 | 12 | 1.4 |
| 25 | 9.1 | 2 | .05 | 21 | 16 | 1.9 | 34 | 10 | .92 |
| 26 | 8.3 | 2 | .04 | 222 | 309 | 322 | 33 | 9 | .80 |
| 27 | 8.1 | 2 | .04 | 33 | 9 | .80 | 33 | 9 | .80 |
| 28 | 111 | 506 | 310 | 23 | 7 | .43 | 28 | 8 | .60 |
| 29 | 20 | 10 | .54 | 20 | 5 | .27 | 26 | 8 | .56 |
| 30 | 12 | 3 | .10 | 97 | 147 | 84 | 25 | 7 | .47 |
| 31 | 11 | 3 | .09 | -- | -- | -- | 50 | 30 | 4.1 |
| TOTAL | 421.1 | -- | 320.92 | 1434.0 | -- | 1752.89 | 1768 | -- | 904.69 |

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | JANUARY | | | FEBRUARY | | | MARCH | | |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 34 | 15 | 1.4 | 27 | 10 | .73 | 22 | 6 | .36 |
| 2 | 27 | 12 | .87 | 234 | 702 | 695 | 22 | 24 | 1.4 |
| 3 | 25 | 10 | .68 | 64 | 50 | 10 | 36 | 40 | 3.9 |
| 4 | 70 | 86 | 22 | 36 | 10 | .97 | 39 | 35 | 3.7 |
| 5 | 32 | 9 | .78 | 30 | 8 | .65 | 29 | 10 | .78 |
| 6 | 27 | 9 | .66 | 35 | 20 | 1.9 | 36 | 20 | 1.9 |
| 7 | 22 | 9 | .53 | 69 | 30 | 5.6 | 33 | 17 | 1.5 |
| 8 | 21 | 9 | .51 | 83 | 147 | 51 | 82 | 189 | 55 |
| 9 | 20 | 9 | .49 | 49 | 40 | 5.3 | 37 | 75 | 7.5 |
| 10 | 21 | 8 | .45 | 31 | 25 | 2.1 | 30 | 10 | .81 |
| 11 | 20 | 8 | .43 | 26 | 20 | 1.4 | 29 | 9 | .70 |
| 12 | 20 | 8 | .43 | 27 | 15 | 1.1 | 29 | 8 | .63 |
| 13 | 20 | 8 | .43 | 26 | 11 | .77 | 26 | 6 | .42 |
| 14 | 19 | 8 | .41 | 40 | 73 | 24 | 24 | 6 | .39 |
| 15 | 20 | 8 | .43 | 81 | 148 | 43 | 25 | 7 | .47 |
| 16 | 21 | 7 | .40 | 36 | 27 | 2.6 | 25 | 7 | .47 |
| 17 | 20 | 7 | .38 | 25 | 15 | 1.0 | 66 | 338 | 86 |
| 18 | 20 | 7 | .38 | 26 | 10 | .70 | 30 | 20 | 1.6 |
| 19 | 30 | 20 | 1.6 | 24 | 10 | .65 | 25 | 7 | .47 |
| 20 | 28 | 10 | .76 | 24 | 8 | .52 | 23 | 6 | .37 |
| 21 | 21 | 10 | .57 | 26 | 8 | .56 | 23 | 5 | .31 |
| 22 | 80 | 402 | 169 | 28 | 8 | .60 | 22 | 6 | .36 |
| 23 | 45 | 74 | 11 | 25 | 8 | .54 | 21 | 7 | .40 |
| 24 | 28 | 15 | 1.1 | 24 | 7 | .45 | 21 | 7 | .40 |
| 25 | 24 | 10 | .65 | 23 | 7 | .43 | 23 | 6 | .37 |
| 26 | 23 | 8 | .50 | 24 | 6 | .39 | 114 | 548 | 297 |
| 27 | 57 | 50 | 7.7 | 24 | 6 | .39 | 33 | 20 | 1.8 |
| 28 | 63 | 142 | 76 | 22 | 6 | .36 | 26 | 9 | .63 |
| 29 | 145 | 288 | 185 | -- | -- | -- | 24 | 9 | .58 |
| 30 | 34 | 15 | 1.4 | -- | -- | -- | 37 | 22 | 2.2 |
| 31 | 27 | 11 | .80 | -- | -- | -- | 37 | 77 | 9.8 |
| TOTAL | 1064 | -- | 487.74 | 1189 | -- | 852.71 | 1049 | -- | 482.22 |

| | 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 | 239 | 1220 | 1750 | 30 | 8 | .65 | 23 | 6 | .37 |
| 2 | 175 | 401 | 289 | 29 | 6 | .47 | 21 | 5 | .28 |
| 3 | 47 | 24 | 3.0 | 44 | 121 | 21 | 20 | 5 | .27 |
| 4 | 204 | 664 | 809 | 35 | 15 | 1.4 | 78 | 381 | 400 |
| 5 | 60 | 50 | 8.6 | 29 | 7 | .55 | 61 | 370 | 130 |
| 6 | 37 | 9 | .90 | 26 | 6 | .42 | 24 | 21 | 1.4 |
| 7 | 33 | 9 | .80 | 24 | 5 | .32 | 25 | 10 | .68 |
| 8 | 115 | 158 | 57 | 27 | 4 | .29 | 20 | 8 | .43 |
| 9 | 46 | 20 | 2.5 | 48 | 40 | 5.2 | 18 | 6 | .29 |
| 10 | 102 | 306 | 147 | 27 | 12 | .87 | 17 | 4 | .18 |
| 11 | 40 | 8 | .86 | 24 | 8 | .52 | 16 | 3 | .13 |
| 12 | 39 | 8 | .84 | 22 | 6 | .36 | 15 | 3 | .12 |
| 13 | 35 | 7 | .66 | 21 | 4 | .23 | 15 | 4 | .16 |
| 14 | 30 | 6 | .49 | 21 | 3 | .17 | 13 | 3 | .11 |
| 15 | 28 | 5 | .38 | 24 | 3 | .19 | 13 | 3 | .11 |
| 16 | 27 | 4 | .29 | 21 | 2 | .11 | 14 | 3 | .11 |
| 17 | 27 | 3 | .22 | 22 | 2 | .12 | 15 | 4 | .16 |
| 18 | 27 | 3 | .22 | 23 | 1 | .06 | 15 | 5 | .20 |
| 19 | 26 | 3 | .21 | 20 | 1 | .05 | 15 | 5 | .20 |
| 20 | 25 | 3 | .20 | 27 | 5 | .36 | 15 | 4 | .16 |
| 21 | 24 | 4 | .26 | 24 | 1 | .06 | 15 | 4 | .16 |
| 22 | 24 | 4 | .26 | 20 | 1 | .05 | 52 | 129 | 41 |
| 23 | 25 | 10 | .68 | 26 | 5 | .35 | 19 | 15 | .77 |
| 24 | 27 | 5 | .36 | 59 | 117 | 46 | 16 | 11 | .48 |
| 25 | 62 | 101 | 30 | 73 | 79 | 23 | 39 | 297 | 106 |
| 26 | 195 | 487 | 489 | 32 | 10 | .86 | 24 | 51 | 3.9 |
| 27 | 232 | 448 | 507 | 35 | 15 | 1.4 | 16 | 18 | .78 |
| 28 | 69 | 40 | 7.5 | 168 | 333 | 271 | 15 | 10 | .41 |
| 29 | 39 | 15 | 1.6 | 43 | 22 | 2.6 | 97 | 996 | 519 |
| 30 | 32 | 10 | .86 | 28 | 8 | .60 | 116 | 334 | 342 |
| 31 | -- | -- | -- | 24 | 6 | .39 | -- | -- | -- |
| TOTAL | 2091 | -- | 4109.69 | 1076 | -- | 379.65 | 862 | -- | 1549.86 |

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| | 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 | 20 | 12 | .65 | 18 | 28 | 5.0 | 6.9 | 3 | .06 |
| 2 | 24 | 50 | 3.2 | 21 | 111 | 8.6 | 7.3 | 5 | .10 |
| 3 | 114 | 745 | 871 | 12 | 25 | .81 | 9.8 | 8 | .21 |
| 4 | 60 | 293 | 74 | 11 | 10 | .30 | 8.5 | 4 | .09 |
| 5 | 21 | 23 | 1.3 | 9.8 | 7 | .19 | 6.9 | 4 | .07 |
| 6 | 17 | 15 | .69 | 9.3 | 5 | .13 | 13 | 39 | 3.9 |
| 7 | 15 | 10 | .41 | 8.9 | 6 | .14 | 11 | 65 | 2.2 |
| 8 | 13 | 10 | .35 | 8.1 | 6 | .13 | 6.5 | 11 | .19 |
| 9 | 12 | 8 | .26 | 7.9 | 6 | .13 | 6.5 | 5 | .09 |
| 10 | 18 | 70 | 3.4 | 7.9 | 6 | .13 | 6.5 | 2 | .04 |
| 11 | 18 | 65 | 3.2 | 8.1 | 6 | .13 | 6.0 | 2 | .03 |
| 12 | 12 | 7 | .23 | 7.6 | 6 | .12 | 5.6 | 2 | .03 |
| 13 | 11 | 6 | .18 | 7.4 | 6 | .12 | 5.3 | 2 | .03 |
| 14 | 10 | 5 | .14 | 7.5 | 6 | .12 | 87 | 384 | 175 |
| 15 | 11 | 3 | .09 | 7.4 | 6 | .12 | 19 | 73 | 4.0 |
| 16 | 11 | 2 | .06 | 7.3 | 6 | .12 | 10 | 30 | .81 |
| 17 | 10 | 2 | .05 | 7.2 | 6 | .12 | 8.6 | 15 | .35 |
| 18 | 11 | 2 | .06 | 8.8 | 7 | .17 | 9.2 | 10 | .25 |
| 19 | 9.4 | 2 | .05 | 14 | 20 | .76 | 8.0 | 8 | .17 |
| 20 | 94 | 502 | 674 | 31 | 262 | 92 | 7.5 | 7 | .14 |
| 21 | 104 | 344 | 234 | 81 | 354 | 102 | 7.2 | 6 | .12 |
| 22 | 58 | 128 | 25 | 21 | 50 | 2.8 | 7.5 | 6 | .12 |
| 23 | 23 | 10 | .62 | 12 | 25 | .81 | 7.4 | 6 | .12 |
| 24 | 16 | 7 | .30 | 9.7 | 15 | .39 | 7.0 | 6 | .11 |
| 25 | 14 | 4 | .15 | 9.4 | 14 | .36 | 6.9 | 6 | .11 |
| 26 | 17 | 15 | .69 | 9.2 | 14 | .35 | 7.4 | 4 | .08 |
| 27 | 13 | 8 | .28 | 8.6 | 13 | .30 | 8.0 | 3 | .06 |
| 28 | 12 | 6 | .19 | 8.2 | 10 | .22 | 7.2 | 3 | .06 |
| 29 | 11 | 4 | .12 | 7.6 | 7 | .14 | 8.5 | 4 | .09 |
| 30 | 10 | 2 | .05 | 7.1 | 3 | .06 | 9.7 | 3 | .08 |
| 31 | 9.8 | 2 | .05 | 7.1 | 3 | .06 | -- | -- | -- |
| TOTAL | 799.2 | -- | 1894.77 | 401.1 | -- | 216.83 | 325.9 | -- | 188.71 |

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 12480.3
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 13140.68

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) | SUS. SED. FALL DIAM. % FINER THAN .004 MM | SUS. SED. FALL DIAM. % FINER THAN .008 MM |
|---|---|---|---|---|---|---|---|
| FEB. 02... | 1015 | 376 | 3.0 | 1660 | 1690 | 31 | 44 |
| JULY 03... | 2310 | 476 | 23.0 | 2720 | 3500 | 53 | 65 |

| 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 |
|---|---|---|---|---|---|---|
| FEB. 02... | 56 | 68 | 76 | 86 | 95 | 100 |
| JULY 03... | 78 | 84 | 91 | 95 | 99 | 100 |

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD.

LOCATION.--Lat 38°57'09", long 76°58'00", Prince Georges County, at gaging station, on Queens Chapel Road (Maryland 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 confluence with Northeast Branch.

DRAINAGE AREA.--49.4 sq mi (127.9 sq km).

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL ALUMINUM (AL) (UG/L) | DISSOLVED ALUMINUM (AL) (UG/L) | TOTAL IRON (FE) (UG/L) | DISSOLVED IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 1425 | 65 | 11 | -- | 100 | -- | 420 | -- | 240 | 16 | 4.0 |
| MAR. | | | | | | | | | | | |
| 09... | 1200 | 79 | 9.2 | -- | -- | -- | -- | -- | -- | 15 | 3.8 |
| MAY | | | | | | | | | | | |
| 31... | 1200 | 52 | 13 | -- | 100 | -- | 160 | -- | 110 | 17 | 3.9 |
| SEP. | | | | | | | | | | | |
| 11... | 1420 | 13 | 8.4 | 100 | -- | 860 | -- | 220 | -- | 18 | 4.7 |

| DATE | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | TOTAL PHOSPHORUS (P) (MG/L) | DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | TOTAL NONFILTRABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 7.3 | 2.9 | 44 | 21 | 11 | .1 | 4.4 | .01 | 108 | 100 | 4 |
| MAR. | | | | | | | | | | | |
| 09... | 6.3 | 2.4 | 38 | 25 | 10 | .1 | 4.0 | .05 | 101 | 95 | 570 |
| MAY | | | | | | | | | | | |
| 31... | 6.8 | 2.5 | 50 | 15 | 11 | .3 | 4.4 | .01 | 101 | 99 | 2 |
| SEP. | | | | | | | | | | | |
| 11... | 9.0 | 4.0 | 58 | 16 | 15 | .3 | 2.4 | .05 | 121 | 106 | -- |

| DATE | SUSPENDED SOLIDS (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLATINUM-COBALT UNITS) | TURBIDITY (JTU) | BIOCHEMICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CADMIUM (CD) (UG/L) | DISSOLVED CADMIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | -- | 56 | 20 | -- | 4 | 4 | 2.7 | .01 | 4 | -- | 0 |
| MAR. | | | | | | | | | | | |
| 09... | -- | 53 | 22 | -- | 60 | 30 | 1.4 | .01 | 8 | -- | -- |
| MAY | | | | | | | | | | | |
| 31... | -- | 59 | 18 | -- | 3 | 4 | .6 | .02 | 0 | -- | 0 |
| SEP. | | | | | | | | | | | |
| 11... | 10 | 64 | 17 | .0 | -- | 3 | 2.1 | .00 | 0 | 0 | -- |

| DATE | TOTAL CHROMIUM (CR) (UG/L) | HEXAVALENT CHROMIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DISSOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DISSOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DISSOLVED ZINC (ZN) (UG/L) | SUSPENDED SEDIMENT (MG/L) | SUSPENDED SEDIMENT DISCHARGE (T/DAY) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | |
| 13... | -- | 0 | -- | 0 | -- | 3 | -- | 0 | 6 | 1.1 |
| MAR. | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 31... | 0 | -- | -- | 0 | -- | 0 | -- | 0 | -- | -- |
| SEP. | | | | | | | | | | |
| 11... | 10 | -- | 0 | -- | 5 | -- | 100 | -- | -- | -- |

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | |
| 20... | 1220 | 23 | 7.0 | 12.0 | 7.2 | 145 | 1700 |
| NOV. | | | | | | | |
| 16... | 1240 | 54 | 6.0 | 12.0 | 7.0 | 155 | 920 |
| DEC. | | | | | | | |
| 13... | 1424 | 65 | 8.0 | 11.8 | 7.3 | 167 | 260 |
| JAN. | | | | | | | |
| 11... | 1305 | 52 | .5 | 14.0 | 7.1 | 195 | 27 |
| FEB. | | | | | | | |
| 09... | 1230 | 94 | 3.0 | 13.0 | 6.9 | 135 | 390 |
| MAR. | | | | | | | |
| 09... | 1200 | 79 | 10.0 | 11.6 | 7.2 | 162 | 330 |
| APR. | | | | | | | |
| 05... | 1230 | 230 | 9.0 | 11.6 | 7.0 | 125 | 1800 |
| MAY | | | | | | | |
| 10... | 1310 | 61 | 19.0 | 9.8 | 7.6 | 155 | 250 |
| 31... | 1200 | 52 | 19.0 | 9.5 | 7.5 | 163 | 230 |
| JULY | | | | | | | |
| 09... | 1335 | 23 | 29.0 | 9.9 | 8.3 | 160 | 210 |
| AUG. | | | | | | | |
| 06... | 1310 | 15 | 26.0 | 10.7 | 8.3 | 175 | 260 |
| SEP. | | | | | | | |
| 11... | 1420 | 13 | 24.0 | 15.2 | 8.7 | 195 | 150 |

01653650 PISCATAWAY CREEK NEAR SOUTH PISCATAWAY, MD.

LOCATION.--Lat 38°41'55", long 76°59'12", Prince Georges County, at bridge on State Highway 210, near South Piscataway, 1.4 mile (2.3 km) downstream from gaging station, and 3.4 miles (5.5 km) upstream from mouth.

DRAINAGE AREA.--61 sq mi (158 sq km), approximately.

PERIOD OF RECORD.--Chemical analyses: July 1972 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | DIS-SOLVED SILICA (SIO2) (MG/L) | TOTAL ALUM-INUM (AL) (UG/L) | DIS-SOLVED ALUM-INUM (AL) (UG/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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 1125 | 12 | -- | 100 | -- | 190 | -- | 160 | 12 | 2.6 | 5.8 |
| MAR. | | | | | | | | | | | |
| 08... | 1320 | 11 | -- | 200 | -- | 100 | -- | 13 | 11 | 2.7 | 7.0 |
| JUNE | | | | | | | | | | | |
| 01... | 1330 | 13 | -- | 0 | -- | 180 | -- | 130 | 13 | 2.8 | 7.3 |
| SEP. | | | | | | | | | | | |
| 11... | 1045 | 9.1 | 100 | -- | 1200 | -- | 80 | -- | 17 | 3.9 | 12 |

| DATE | DIS-SOLVED PO-TAS-SIUM (K) (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 (NO3) (MG/L) | TOTAL PHOS-PHORUS (P) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L) | TOTAL NON-FILT-RABLE RESIDUE (MG/L) | SUS-PENDED SOLIDS (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | | |
| 13... | 1.9 | 13 | 27 | 9.1 | .1 | 4.4 | .07 | 95 | 82 | 12 | -- |
| MAR. | | | | | | | | | | | |
| 08... | 1.9 | 13 | 26 | 11 | .2 | 5.3 | .23 | 85 | 83 | 580 | -- |
| JUNE | | | | | | | | | | | |
| 01... | 2.0 | 23 | 19 | 13 | .4 | 5.3 | .20 | 101 | 88 | 11 | -- |
| SEP. | | | | | | | | | | | |
| 11... | 3.3 | 43 | 22 | 19 | .4 | 4.6 | .03 | 124 | 113 | -- | 11 |

| DATE | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | COLOR (PLAT-INUM-COBALT UNITS) | TUR-BID-ITY (JTU) | BIO-CHEM-ICAL OXYGEN DEMAND (MG/L) | CYANIDE (CN) (MG/L) | PHENOLS (UG/L) | TOTAL CAD-MIUM (CD) (UG/L) | DIS-SOLVED CAD-MIUM (CD) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | |
| 13... | 41 | 30 | -- | 3 | 8 | 2.3 | .00 | 4 | -- | 1 |
| MAR. | | | | | | | | | | |
| 08... | 39 | 28 | -- | 20 | 25 | 3.0 | .02 | 1 | -- | 2 |
| JUNE | | | | | | | | | | |
| 01... | 44 | 25 | -- | 15 | 10 | 1.4 | .02 | 0 | -- | 0 |
| SEP. | | | | | | | | | | |
| 11... | 59 | 23 | .0 | -- | 5 | .7 | .01 | 0 | 0 | -- |

| DATE | TOTAL CHRO-MIUM (CR) (UG/L) | DIS-SOLVED CHRO-MIUM (CR) (UG/L) | HEXA-VALENT CHRO-MIUM (CR6) (UG/L) | TOTAL COPPER (CU) (UG/L) | DIS-SOLVED COPPER (CU) (UG/L) | TOTAL LEAD (PB) (UG/L) | DIS-SOLVED LEAD (PB) (UG/L) | TOTAL ZINC (ZN) (UG/L) | DIS-SOLVED ZINC (ZN) (UG/L) | SUS-PENDED SEDI-MENT (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| DEC. | | | | | | | | | | |
| 13... | -- | -- | 0 | -- | 0 | -- | 1 | -- | 20 | 13 |
| MAR. | | | | | | | | | | |
| 08... | -- | 0 | -- | -- | 0 | -- | 3 | -- | 20 | -- |
| JUNE | | | | | | | | | | |
| 01... | 0 | -- | -- | -- | 0 | -- | 2 | -- | 0 | -- |
| SEP. | | | | | | | | | | |
| 11... | <10 | -- | -- | 0 | -- | 0 | -- | 200 | -- | -- |

01653650 PISCATAWAY CREEK NEAR SOUTH PISCATAWAY, MD.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | TEMPERATURE (DEG C) | DISSOLVED OXYGEN (MG/L) | PH (UNITS) | SPECIFIC CONDUCTANCE (MICROMHOS) | FECAL COLIFORM (COL. PER 100 ML) |
|---|---|---|---|---|---|---|
| OCT. | | | | | | |
| 20... | 1002 | 7.0 | 10.6 | 7.0 | 173 | B6100 |
| NOV. | | | | | | |
| 16... | 1005 | 5.5 | 11.4 | 6.6 | 155 | 390 |
| DEC. | | | | | | |
| 13... | 1127 | 7.5 | 11.4 | 6.8 | 130 | 640 |
| JAN. | | | | | | |
| 11... | 1015 | .0 | 14.0 | 6.8 | 135 | 46 |
| FEB. | | | | | | |
| 05... | 1440 | 6.0 | 12.1 | 6.8 | 115 | 100 |
| MAR. | | | | | | |
| 08... | 1320 | 8.5 | 11.4 | 6.7 | 133 | 270 |
| APR. | | | | | | |
| 05... | 1000 | 9.0 | 11.0 | 6.5 | 105 | 520 |
| MAY | | | | | | |
| 10... | 1100 | 15.0 | 8.8 | 6.7 | 125 | 370 |
| JUNE | | | | | | |
| 01... | 1330 | 17.0 | 8.7 | 6.9 | 140 | 920 |
| JULY | | | | | | |
| 09... | 1130 | 24.0 | 6.8 | 6.9 | 175 | 340 |
| AUG. | | | | | | |
| 06... | 1105 | 22.0 | 7.5 | 6.9 | 215 | 370 |
| SEP. | | | | | | |
| 11... | 1045 | 17.5 | 8.5 | 7.0 | 205 | 180 |

B RESULTS BASED ON COLONY COUNT OUTSIDE THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

01661000 CHAPTICO CREEK AT CHAPTICO, MD.

LOCATION.--Lat 38°22'45", long 76°46'56", St. Marys County, at gaging station 0.8 mile (1.3 km) north of Chaptico, and 0.8 mile (1.3 km) upstream from Chaptico Bay.

DRAINAGE AREA.--10.7 sq mi (27.7 sq km).

PERIOD OF RECORD.--Chemical analyses: December 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOV. | | | | | | | | | | | |
| 28... | 1100 | 17 | 10 | 960 | 190 | 8.1 | 2.2 | 3.0 | 1.6 | 20 | 11 |
| JAN. | | | | | | | | | | | |
| 04... | 1550 | 28 | 8.4 | 1700 | 220 | 7.0 | 2.1 | 2.7 | 1.8 | 14 | 12 |
| FEB. | | | | | | | | | | | |
| 21... | 1500 | 18 | 8.6 | 650 | 140 | 7.0 | 2.2 | 2.8 | 1.4 | 12 | 11 |
| MAR. | | | | | | | | | | | |
| 26... | 1010 | 16 | 8.4 | 830 | 150 | 8.0 | 2.2 | 2.9 | 1.3 | 17 | 10 |
| MAY | | | | | | | | | | | |
| 01... | 0950 | 15 | 8.8 | 830 | 120 | 7.0 | 2.3 | 2.8 | 1.3 | 22 | 11 |
| JUNE | | | | | | | | | | | |
| 20... | 1100 | 6.9 | 10 | 1200 | 120 | 8.3 | 2.4 | 3.1 | 1.8 | 22 | 9.0 |
| JULY | | | | | | | | | | | |
| 31... | 1020 | .95 | 11 | 1300 | 130 | 8.3 | 2.5 | 3.6 | 1.7 | 30 | 6.1 |
| SEP. | | | | | | | | | | | |
| 12... | 0945 | 2.5 | 11 | 870 | 50 | 8.0 | 2.7 | 4.5 | 2.1 | 24 | 5.8 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DISSOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV. | | | | | | | | | | |
| 28... | 5.2 | .1 | -- | 3.5 | 55 | 29 | 13 | 81 | 7.2 | 7.0 |
| JAN. | | | | | | | | | | |
| 04... | 4.5 | .1 | -- | 4.0 | 49 | 26 | 15 | 76 | 6.5 | 6.0 |
| FEB. | | | | | | | | | | |
| 21... | 5.1 | .1 | -- | 5.3 | 49 | 27 | 17 | 76 | 6.5 | 5.5 |
| MAR. | | | | | | | | | | |
| 26... | 5.0 | .2 | -- | 4.9 | 51 | 29 | 15 | 77 | 6.8 | 9.0 |
| MAY | | | | | | | | | | |
| 01... | 5.0 | .3 | -- | 4.0 | 53 | 27 | 9 | 74 | 7.0 | 11.0 |
| JUNE | | | | | | | | | | |
| 20... | 5.7 | .3 | -- | 3.1 | 55 | 31 | 13 | 82 | 7.3 | -- |
| JULY | | | | | | | | | | |
| 31... | 7.2 | .2 | -- | 1.5 | 57 | 31 | 6 | 83 | 7.0 | 21.5 |
| SEP. | | | | | | | | | | |
| 12... | 6.5 | .3 | 2.7 | -- | 53 | 31 | 11 | 85 | 6.9 | 17.0 |

CHESTER RIVER BASIN

CHEMICAL ANALYSES, WATER YEARS 1973, 1974

| DATE | TIME | DIS-SOLVED SILICA (SIO2) (MG/L) | TOTAL ALUM-INUM (AL) (UG/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-BONATE (HCO3) (MG/L) | DIS-SOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01493100 - CHESTER RIVER AT CRUMPTON, MD. (LAT 39 14 41 LONG 075 55 30.01) | | | | | | | | | | | |
| SEP., 1973 | | | | | | | | | | | |
| 10... | 1300 | 2.4 | 500 | 1400 | 470 | 12 | 6.3 | 38 | 5.1 | 35 | 17 |
| 10... | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | | |
| 07... | 1110 | 11 | 500 | 1700 | 240 | 14 | 7.1 | 36 | 4.5 | 36 | 17 |

| DATE | TUR-BID-ITY (JTU) | DIS-SOLVED OXYGEN (MG/L) | FECAL COLI-FORM (COL. PER 100 ML) | CYANIDE (CN) (MG/L) | PHENOLS (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 ZINC (ZN) (UG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| 01493100 - CHESTER RIVER AT CRUMPTON, MD. (LAT 39 14 41 LONG 075 55 30.01) | | | | | | | | | | |
| SEP., 1973 | | | | | | | | | | |
| 10... | 20 | -- | -- | .00 | 3 | 0 | <10 | 0 | 6 | 20 |
| 10... | -- | 11.2 | 45 | -- | -- | -- | -- | -- | -- | -- |
| DEC. | | | | | | | | | | |
| 07... | 15 | 10.2 | 150 | .00 | 1 | 0 | 0 | 0 | 2 | 30 |

| DATE | DIS-SOLVED CHLO-RIDE (CL) (MG/L) | DIS-SOLVED FLUO-RIDE (F) (MG/L) | DIS_ SOLVED NITRATE (NO3) (MG/L) | TOTAL PHOS-PHORUS (P) (MG/L) | DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L) | HARD-NESS (CA,MG) (MG/L) | NON-CAR-BONATE HARD-NESS (MG/L) | TOTAL ACIDITY AS H+ (MG/L) | SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) | PH (UNITS) | TEMPER-ATURE (DEG C) | TOTAL NON-FILT-RABLE RESIDUE (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01493100 - CHESTER RIVER AT CRUMPTON, MD. (LAT 39 14 41 LONG 075 55 30.01) | | | | | | | | | | | | |
| SEP., 1973 | | | | | | | | | | | | |
| 10... | 68 | .3 | 1.6 | .09 | 196 | 56 | 27 | .2 | -- | -- | -- | 1 |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | 355 | 7.9 | 23.5 | -- |
| DEC. | | | | | | | | | | | | |
| 07... | 64 | .4 | 9.6 | .06 | 234 | 64 | 35 | .0 | 307 | 6.9 | 7.5 | 13 |

## 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 sq mi (764 sq km).
PERIOD OF RECORD.--Water temperatures: October 1962 to September 1973.
EXTREMES.--1972-73:
Water temperatures: Maximum, 26.0°C Sept. 3; minimum, freezing point on many days during December to February.
Period of record:
Water temperatures: Maximum, 29.5°C June 27, 28, 1969; minimum, freezing point on many days during winter periods.
REMARKS.--Records fair, probably because of friction in recorder.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(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 | 15.0 | 12.5 | 7.5 | 7.5 | 2.0 | 1.5 | 5.0 | 3.0 | 1.0 | 0.5 | --- | --- |
| 2 | 14.0 | 11.5 | 9.0 | 7.5 | 2.5 | 1.5 | 3.0 | 1.0 | 3.0 | 1.0 | --- | --- |
| 3 | 15.0 | 11.0 | 10.0 | 9.0 | 2.5 | 2.0 | 1.0 | 0.5 | 3.0 | 2.0 | 6.0 | 5.0 |
| 4 | 14.5 | 12.0 | 9.5 | 8.5 | 3.5 | 2.5 | 2.0 | 1.0 | 2.5 | 1.5 | 6.0 | 5.5 |
| 5 | 14.5 | 13.5 | 8.5 | 7.5 | 5.0 | 3.5 | 2.0 | 1.0 | 2.5 | 2.0 | 6.5 | 6.0 |
| 6 | 14.0 | 13.5 | 7.5 | 5.5 | 6.5 | 5.0 | 1.0 | 0.5 | 2.5 | 2.0 | 8.0 | 6.5 |
| 7 | 14.0 | 12.5 | 8.5 | 6.5 | 5.0 | 3.0 | 0.5 | 0.0 | 2.5 | 2.0 | 8.5 | 7.5 |
| 8 | 12.5 | 11.0 | 8.5 | 7.5 | 3.0 | 2.5 | 0.0 | 0.0 | 2.5 | 1.5 | 9.5 | 8.0 |
| 9 | 12.5 | 10.5 | 7.5 | 7.0 | 5.5 | 3.0 | 0.0 | 0.0 | 1.5 | 0.0 | 10.0 | 8.0 |
| 10 | 10.5 | 8.5 | 7.5 | 6.0 | 6.0 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 11.0 | 8.5 |
| 11 | 10.0 | 8.5 | 6.5 | 6.5 | 6.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 11.0 | 10.0 |
| 12 | 11.0 | 10.0 | 6.5 | 6.5 | 3.5 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 11.0 | 9.0 |
| 13 | 11.0 | 10.5 | 7.0 | 5.5 | 4.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 8.0 |
| 14 | 11.5 | 9.5 | 7.5 | 7.0 | 4.0 | 3.5 | 0.0 | 0.0 | --- | --- | 11.0 | 8.0 |
| 15 | 11.5 | 9.5 | 7.5 | 5.0 | 3.5 | 3.0 | 0.0 | 0.0 | --- | --- | 12.5 | 9.5 |
| 16 | 9.5 | 9.0 | 5.0 | 4.0 | 3.0 | 0.5 | 0.0 | 0.0 | --- | --- | 12.0 | 10.5 |
| 17 | 11.0 | 9.0 | 5.0 | 4.0 | 0.5 | 0.0 | 0.0 | 0.0 | --- | --- | 11.5 | 7.5 |
| 18 | 10.0 | 7.5 | 5.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | 7.5 | 4.0 |
| 19 | 7.5 | 5.5 | 4.5 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | --- | --- | 4.0 | 3.0 |
| 20 | 5.5 | 4.0 | 4.0 | 4.0 | 3.0 | 0.0 | 0.0 | 0.0 | --- | --- | 5.5 | 3.5 |
| 21 | 6.0 | 4.0 | 4.0 | 3.5 | 4.0 | 3.0 | 0.0 | 0.0 | --- | --- | 5.5 | 4.5 |
| 22 | 8.0 | 5.5 | 3.5 | 3.5 | 5.0 | 4.0 | 1.0 | 0.0 | --- | --- | 5.0 | 4.0 |
| 23 | 8.0 | 7.0 | 3.5 | 2.0 | 5.0 | 5.0 | 1.0 | 0.0 | --- | --- | 6.0 | 4.0 |
| 24 | 8.5 | 8.0 | 2.5 | 1.5 | 6.0 | 5.0 | 0.0 | 0.0 | --- | --- | 7.0 | 4.0 |
| 25 | 8.5 | 7.5 | 2.0 | 1.0 | 5.5 | 5.5 | 0.0 | 0.0 | --- | --- | 7.0 | 6.0 |
| 26 | 8.5 | 7.0 | 2.5 | 1.5 | 5.5 | 4.5 | 1.5 | 0.0 | --- | --- | 7.0 | 6.5 |
| 27 | 8.5 | 6.5 | 3.0 | 2.0 | 4.5 | 3.0 | 1.5 | 1.5 | --- | --- | 9.0 | 7.0 |
| 28 | 9.0 | 7.5 | 2.5 | 2.5 | 3.0 | 3.0 | 2.5 | 1.5 | --- | --- | 9.5 | 7.0 |
| 29 | 9.5 | 9.0 | 3.0 | 2.0 | 3.0 | 2.5 | 2.5 | 0.5 | --- | --- | 9.5 | 8.0 |
| 30 | 9.5 | 8.0 | 2.5 | 1.0 | 3.5 | 3.0 | 0.5 | 0.5 | --- | --- | 8.5 | 8.0 |
| 31 | 8.0 | 7.0 | --- | --- | 5.0 | 3.5 | 0.5 | 0.5 | --- | --- | 8.5 | 7.5 |
| MONTH | 15.0 | 4.0 | 10.0 | 1.0 | 6.5 | 0.0 | 5.0 | 0.0 | --- | --- | 12.5 | 3.0 |

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 9.5 | 8.5 | 10.5 | 8.5 | 15.0 | 12.5 | 23.0 | 18.5 | 21.0 | 18.5 | 25.5 | 20.5 |
| 2 | 9.0 | 8.0 | 11.0 | 10.0 | 18.0 | 13.5 | 25.0 | 20.0 | 21.0 | 18.5 | 25.5 | 20.5 |
| 3 | 8.0 | 6.5 | 11.0 | 9.5 | 18.0 | 16.5 | 23.0 | 19.0 | 20.5 | 18.5 | 26.0 | 22.0 |
| 4 | 6.5 | 6.5 | 9.5 | 7.5 | 19.5 | 17.0 | 23.0 | 19.0 | 21.0 | 18.5 | 25.5 | 22.0 |
| 5 | 6.5 | 6.0 | 9.0 | 7.0 | 21.0 | 16.5 | 23.5 | 19.0 | 22.5 | 19.5 | 25.0 | 21.0 |
| 6 | 7.0 | 5.5 | 10.5 | 7.0 | 21.0 | 18.0 | 21.5 | 17.0 | 23.0 | 20.0 | 22.5 | 20.0 |
| 7 | 7.5 | 6.5 | 13.0 | 9.0 | 21.0 | 17.5 | 23.0 | 17.0 | 23.0 | 19.5 | 22.0 | 18.0 |
| 8 | 7.0 | 6.5 | 13.0 | 11.5 | 21.5 | 17.0 | 25.0 | 19.0 | 23.0 | 19.5 | 21.0 | 17.5 |
| 9 | 6.5 | 6.5 | 12.5 | 11.5 | 22.0 | 17.5 | 24.0 | 19.0 | 23.5 | 19.0 | 20.0 | 17.5 |
| 10 | 6.5 | 5.0 | 13.0 | 11.0 | 23.5 | 21.0 | 22.0 | 18.0 | 22.0 | 19.5 | 19.5 | 16.0 |
| 11 | 5.0 | 4.0 | 13.0 | 11.5 | 23.5 | 18.5 | 20.5 | 17.5 | 23.0 | 19.0 | 19.5 | 16.0 |
| 12 | 4.5 | 3.5 | 12.5 | 11.5 | 23.0 | 17.5 | 20.0 | 16.5 | 25.0 | 21.0 | 20.0 | 17.0 |
| 13 | 5.0 | 3.5 | 12.5 | 11.0 | 21.5 | 18.0 | 22.0 | 16.5 | 23.5 | 20.0 | 19.0 | 16.0 |
| 14 | 6.5 | 4.0 | 11.0 | 9.5 | 21.5 | 17.5 | 23.0 | 18.0 | 21.0 | 19.5 | 18.5 | 18.0 |
| 15 | 8.0 | 5.5 | 11.0 | 10.0 | 21.0 | 16.5 | 22.0 | 20.0 | 20.5 | 19.0 | 19.0 | 18.0 |
| 16 | 9.5 | 6.5 | 12.5 | 9.0 | 18.5 | 17.0 | 23.0 | 19.0 | 22.5 | 18.5 | 19.5 | 17.0 |
| 17 | 9.5 | 8.5 | 12.0 | 10.0 | 22.0 | 18.5 | 22.5 | 17.5 | 21.0 | 20.0 | 19.5 | 17.0 |
| 18 | 10.0 | 8.5 | 10.0 | 9.0 | 21.5 | 18.5 | 23.0 | 18.0 | 21.0 | 19.0 | 18.5 | 15.5 |
| 19 | 11.5 | 8.5 | 12.0 | 9.0 | 20.5 | 18.5 | 23.0 | 18.5 | 21.0 | 20.5 | 15.5 | 13.5 |
| 20 | 12.5 | 9.5 | 12.0 | 11.5 | 21.5 | 18.5 | 21.5 | 19.0 | 20.5 | 18.5 | 15.5 | 14.0 |
| 21 | 15.0 | 10.5 | 13.0 | 11.0 | 21.5 | 19.0 | 19.5 | 19.0 | 18.5 | 18.0 | 15.5 | 15.0 |
| 22 | 15.5 | 11.5 | 13.0 | 10.5 | 21.0 | 18.5 | 19.0 | 19.0 | 18.0 | 17.0 | 18.0 | 15.0 |
| 23 | 14.0 | 10.5 | 13.0 | 12.0 | 21.5 | 17.5 | 19.5 | 18.5 | 19.5 | 16.0 | 18.5 | 16.5 |
| 24 | 12.0 | 10.5 | 13.0 | 12.5 | 21.5 | 19.5 | 21.5 | 18.5 | 20.0 | 17.5 | 17.5 | 16.0 |
| 25 | 10.5 | 9.5 | 12.5 | 12.0 | 22.0 | 19.0 | 21.5 | 20.0 | 21.5 | 18.0 | 17.5 | 16.0 |
| 26 | 9.5 | 9.0 | 14.0 | 12.0 | 22.5 | 18.0 | 23.0 | 19.5 | 22.5 | 18.5 | 18.0 | 16.0 |
| 27 | 9.0 | 8.5 | 14.0 | 13.5 | 22.5 | 18.5 | 23.0 | 20.0 | 23.0 | 19.5 | 18.5 | 16.0 |
| 28 | 8.5 | 7.0 | 16.0 | 13.5 | 21.5 | 18.5 | 23.5 | 19.0 | 24.0 | 20.0 | 19.0 | 17.0 |
| 29 | 8.0 | 6.5 | 16.0 | 15.0 | 21.5 | 17.0 | 22.5 | 21.5 | 25.5 | 20.5 | 18.5 | 18.0 |
| 30 | 8.5 | 8.0 | 16.5 | 15.0 | 21.0 | 16.5 | 23.0 | 19.5 | 25.5 | 20.5 | 18.0 | 16.5 |
| 31 | --- | --- | 15.5 | 14.0 | --- | --- | 23.0 | 19.0 | 25.0 | 21.5 | --- | --- |
| MONTH | 15.5 | 3.5 | 16.5 | 7.0 | 23.5 | 12.5 | 25.0 | 16.5 | 25.5 | 16.0 | 26.0 | 13.5 |

## 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 sq mi (161.9 sq km).

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

| DATE | TIME | INSTANTANEOUS DISCHARGE (CFS) | DISSOLVED SILICA (SIO2) (MG/L) | TOTAL IRON (FE) (UG/L) | TOTAL MANGANESE (MN) (UG/L) | DISSOLVED CALCIUM (CA) (MG/L) | DISSOLVED MAGNESIUM (MG) (MG/L) | DISSOLVED SODIUM (NA) (MG/L) | DISSOLVED POTASSIUM (K) (MG/L) | BICARBONATE (HCO3) (MG/L) | DISSOLVED SULFATE (SO4) (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | | |
| 17... | 1320 | 29 | 4.6 | 390 | 160 | 13 | 3.9 | 4.8 | 2.7 | 18 | 27 |
| DEC. | | | | | | | | | | | |
| 21... | 1325 | 300 | 3.8 | 280 | 220 | 9.0 | 2.1 | 2.9 | .9 | 7 | 21 |
| FEB. | | | | | | | | | | | |
| 14... | 1145 | 91 | 4.0 | 230 | 210 | 9.5 | 2.4 | 3.3 | .8 | 7 | 20 |
| MAY | | | | | | | | | | | |
| 09... | 1430 | 528 | 3.4 | 950 | -- | 6.7 | 2.8 | 1.9 | .9 | 9 | 16 |
| JUNE | | | | | | | | | | | |
| 06... | 1330 | 60 | 3.5 | 200 | 70 | 8.6 | 2.3 | 3.5 | .9 | 10 | 14 |
| JULY | | | | | | | | | | | |
| 13... | 1110 | 14 | 3.0 | 360 | 60 | 13 | 3.6 | 3.5 | 1.5 | 16 | 25 |
| AUG. | | | | | | | | | | | |
| 15... | 1450 | 43 | 4.0 | 820 | 60 | 9.6 | 2.6 | 3.7 | 1.2 | 13 | 19 |
| SEP. | | | | | | | | | | | |
| 26... | 1230 | 14 | 3.2 | 630 | 180 | 16 | 4.9 | 7.2 | 2.1 | 25 | 36 |

| DATE | DISSOLVED CHLORIDE (CL) (MG/L) | DISSOLVED FLUORIDE (F) (MG/L) | TOTAL NITRATE (NO3) (MG/L) | DIS_SOLVED NITRATE (NO3) (MG/L) | DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) | HARDNESS (CA,MG) (MG/L) | NONCARBONATE HARDNESS (MG/L) | SPECIFIC CONDUCTANCE (MICROMHOS) | PH (UNITS) | TEMPERATURE (DEG C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT. | | | | | | | | | | |
| 17... | 10 | .4 | -- | 1.8 | 77 | 49 | 34 | 130 | 7.0 | 11.0 |
| DEC. | | | | | | | | | | |
| 21... | 5.4 | .1 | -- | 3.1 | 52 | 31 | 25 | 85 | 7.0 | -- |
| FEB. | | | | | | | | | | |
| 14... | 6.5 | .1 | -- | 4.9 | 55 | 34 | 28 | 92 | 6.5 | .0 |
| MAY | | | | | | | | | | |
| 09... | 4.0 | .3 | -- | 1.7 | 42 | 28 | 21 | 69 | 6.5 | 11.0 |
| JUNE | | | | | | | | | | |
| 06... | 7.2 | .3 | -- | 2.4 | 48 | 31 | 23 | 94 | 6.5 | 20.0 |
| JULY | | | | | | | | | | |
| 13... | 7.5 | .2 | -- | 2.9 | 68 | 47 | 34 | 127 | 6.9 | 18.5 |
| AUG. | | | | | | | | | | |
| 15... | 7.7 | .2 | -- | 1.7 | 56 | 35 | 24 | 102 | 6.7 | 20.5 |
| SEP. | | | | | | | | | | |
| 26... | 10 | .3 | 2.5 | -- | 92 | 60 | 40 | 168 | 6.6 | 16.0 |

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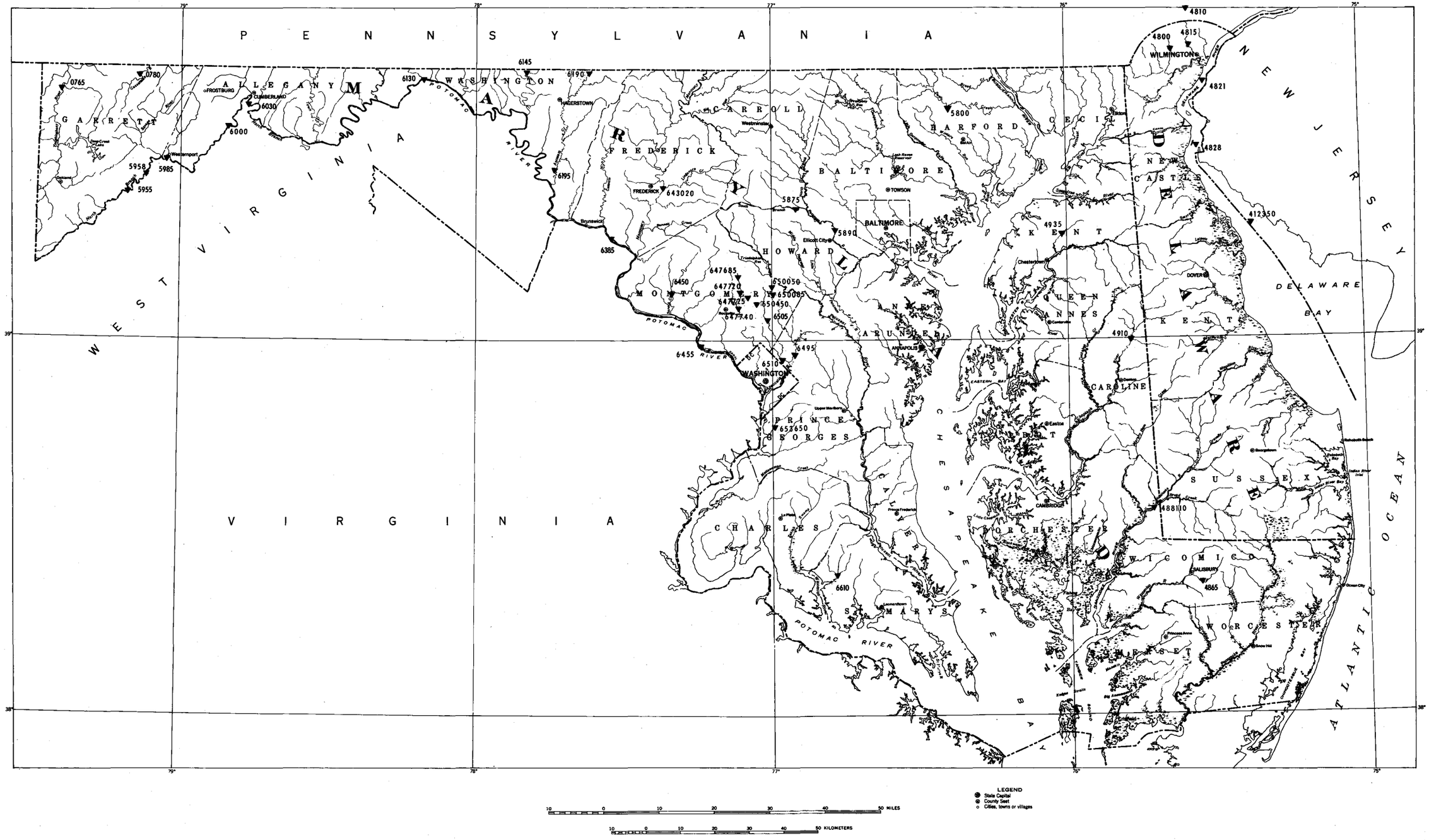


Figure 1.——Map of Maryland and Delaware showing locations of water-quality stations

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