

1972

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 1972

1971

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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1972

JANUARY

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FEBRUARY

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APRIL

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MAY

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JUNE

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25	26	27	28	29	30	

JULY

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30	31					

AUGUST

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27	28	29	30	31		

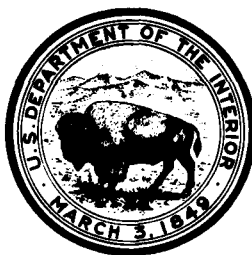
SEPTEMBER

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for
Maryland and Delaware

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**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, 1972 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

CONTENTS

	Page
List of water-quality stations, in downstream order, for which records are published.....	IV
Introduction.....	1
Cooperation.....	2
Definition of terms.....	2
Downstream order and station numbers.....	7
Collection and examination of data.....	8
Solutes.....	9
Temperature.....	10
Sediment.....	10
Publications.....	11
Selected references.....	11
Water quality records.....	15
Index.....	109

TABLES

Table 1. Factors for the conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter...	5
2. Factors for conversion of sediment concen- tration in milligrams per liter to parts per million.....	5
3. Degrees Celsius (°C) to degrees Fahrenheit (°F).....	9

ILLUSTRATION

Figure 1. Map of Maryland and Delaware showing locations of water-quality stations, 1972 water year.....follows	110
---	-----

IV 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)

NORTH ATLANTIC SLOPE BASINS

<u>DELAWARE BAY</u>	Page
Delaware Bay at Ship John Shoal Lighthouse, N. J., (ct).	15
<u>DELAWARE RIVER BASIN</u>	
Delaware River:	
Christina River:	
White Clay Creek:	
Red Clay Creek at Wooddale, Del. (t).....	18
Brandywine Creek at Chadds Ford, Pa. (cts).....	19
Brandywine Creek at Wilmington, Del. (cts).....	28
Delaware River at Delaware Memorial Bridge,	
Wilmington, Del. (ct).....	32
Delaware River at Reedy Island Jetty, Del. (ct).....	39
<u>ST. JONES RIVER BASIN</u>	
St. Jones River at Dover, Del. (c).....	46
<u>WICOMICO RIVER BASIN</u>	
Andrews Branch (head of Wicomico River):	
Beaverdam Creek near Salisbury, Md. (c).....	47
<u>NANTICOKE RIVER BASIN</u>	
Nanticoke River near Bridgeville, Del. (c).....	48
Nanticoke River at Sharptown, Md. (c).....	49
<u>CHOPTANK RIVER BASIN</u>	
Choptank River near Greensboro, Md. (c).....	50
<u>SUSQUEHANNA RIVER BASIN</u>	
Deer Creek at Rocks, Md. (c).....	52
<u>BUSH RIVER BASIN</u>	
Bynum Run (head of Bush River) at Bel Air, Md. (c).....	53
<u>GUNPOWDER RIVER BASIN</u>	
Gunpowder River:	
Whitemarsh Run (head of Bird River) at	
White Marsh, Md. (c).....	53
<u>PATAPSCO RIVER BASIN</u>	
North Branch Patapsco River:	
South Branch Patapsco River at Henryton, Md. (c).....	54
Patapsco River at Hollofield, Md. (c).....	55
West Branch Herbert Run:	
East Branch Herbert Run at Arbutus, Md. (c).....	56
Gwynns Falls at Villa Nova, Md. (c).....	56
<u>POTOMAC RIVER BASIN</u>	
North Branch Potomac River at Kitzmiller, Md. (t).....	57
North Branch Potomac River at Barnum, W. Va. (c).....	58
North Branch Potomac River at Luke, Md. (t).....	60
Georges Creek at Franklin, Md. (c).....	61
North Branch Potomac River at Pinto, Md. (c).....	62
North Branch Potomac River near Cumberland, Md. (cts)...	63
Potomac River at Hancock, Md. (ct).....	68

NORTH ATLANTIC SLOPE BASINS--ContinuedPOTOMAC RIVER BASIN--Continued

	Page
Conococheague Creek at Fairview, Md. (cts).....	70
Antietam Creek near Waynesboro, Pa. (c).....	74
Antietam Creek near Sharpsburg, Md. (ct).....	75
Potomac River at Point of Rocks, Md. (cts).....	78
Monocacy River at Bridgeport, Md. (c).....	82
Monocacy River at Reich's Ford Bridge, near Frederick, Md. (cts).....	83
Bennett Creek at Park Mills, Md. (c).....	88
Seneca Creek at Dawsonville, Md. (c).....	89
Rock Creek:	
North Branch Rock Creek:	
Williamsburg Run near Olney, Md. (s).....	90
North Branch Rock Creek near Norbeck, Md. (s).....	91
Manor Run near Norbeck, Md. (s).....	92
North Branch Rock Creek near Rockville, Md. (s)....	93
Northeast Branch Anacostia River (head of Anacostia River) at Riverdale, Md. (c).....	96
Northwest Branch Anacostia River at Norwood, Md. (s).....	97
Browns Creek:	
Nursery Run at Cloverly, Md. (s).....	98
Bel Pre Creek at Layhill, Md. (s).....	99
Northwest Branch Anacostia River near Colesville, Md. (s).....	100
Northwest Branch Anacostia River near Hyattsville, Md. (c).....	103
Piscataway Creek near South Piscataway, Md. (c).....	104
Chaptico Creek at Chaptico, Md. (c).....	105

OHIO RIVER BASINAllegheny River (head of Ohio River):MONONGAHELA RIVER BASIN

Youghiogheny River at Friendsville, Md. (t).....	106
Casselman River at Grantsville, Md. (c).....	107

WATER RESOURCES DATA FOR MARYLAND AND DELAWARE, 1972

Part 2. Water Quality Records

INTRODUCTION

Water resources data for the 1972 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. P. Hewitt, executive director.

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

District of Columbia Department of Environmental Services
(formerly Department of Sanitary Engineering),
J. P. Alexander, director.

Assistance in the form of funds was given by the Water Quality Office, Environmental Protection Agency (formerly Federal Water Pollution Control Administration) for the collection of chemical analyses of 21 stream-sampling stations in this report.

Assistance was also furnished by Soil Conservation Service, U. S. Department of Agriculture.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined below. See also list of factors for converting English Units to International System (SI) Units on page 14.

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, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inches from 1 square mile.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Cubic foot per second (cfs, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

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 horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

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

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 5. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, p. 5.

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 millimeters (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 (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.

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.

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

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
Aluminum (Al^{+3})* ...	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*....	.14411
Bromide (Br^{-1}).....	.01251	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	Strontium (Sr^{+2})*..	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2})....	.02082
Hydroxide (OH^{-1})....	.05880	Zinc (Zn^{+2})*.....	.03060

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

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

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

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams or dry sediment per liter 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.

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 centimeter 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 liter) 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.

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, 1972, Part 1. Surface Water Records.

The data in this report include 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 liter (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml

(grams per milliliter), parts per millions and milligrams per liter 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 liter. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 3 below.

Table 3.--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

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

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter (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	A2141, A2143
1957	1520	1970	A2151, A2153
1958	1571	1971	A2161, A2163
1959	1641		

A in press.

SELECTED REFERENCES

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

14 FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM (SI) UNITS

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

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
yards (yd)	.9144	meters (m)
rods	5.0292	meters (m)
miles (mi)	1.609	kilometers (km)
<i>Area</i>		
acres	4047	square meters (m ²)
	.4047	*hectares (ha)
	.4047	square hectometer (hm ²)
	.004047	square kilometers (km ²)
square miles (mi ²)	2.590	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785	**liters (l)
	3.785	cubic decimeters (dm ³)
	3.785x10 ⁻³	cubic meters (m ³)
million gallons (10 ⁶ gal)	3785	cubic meters (m ³)
	3.785x10 ⁻³	cubic hectometers (hm ³)
cubic feet (ft ³)	28.32	cubic decimeters (dm ³)
	.02832	cubic meters (m ³)
cfs-day (ft ³ /s-day)	2447	cubic meters (m ³)
	2.447x10 ⁻³	cubic hectometers (hm ³)
acre-feet (acre-ft)	1233	cubic meters (m ³)
	1.233x10 ⁻³	cubic hectometers (hm ³)
	1.233x10 ⁻⁶	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	28.32	liters per second (l/s)
	28.32	cubic decimeters per second (dm ³ /s)
	.02832	cubic meters per second (m ³ /s)
gallons per minute (gpm)	.06309	liters per second (l/s)
	.06309	cubic decimeters per second (dm ³ /s)
	6.309x10 ⁻⁵	cubic meters per second (m ³ /s)
million gallons per day (mgd)	43.81	cubic decimeters per second (dm ³ /s)
	.04381	cubic meters per second (m ³ /s)
<i>Mass</i>		
ton (short)	.9072	tonne (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

WATER QUALITY RECORDS
NORTH ATLANTIC SLOPE BASINS
DELAWARE BAY

15

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 miles south southwest of mouth of Cohansey River, N. J.

PERIOD OF RECORD.--Chemical analyses: April 1969 to September 1972.
Water temperatures: March 1970 to September 1972.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22800	17100	19850	---	---	---	15600	6800	10570	19200	9200	15380
2	22500	17900	20490	---	---	---	19600	7200	13980	19920	12000	15760
3	23100	16800	19740	---	---	---	22400	11200	16960	15600	10400	13100
4	23400	18200	20690	---	---	---	21200	13400	16940	15560	4000	10860
5	22400	17000	19700	---	---	---	21000	13400	17230	11360	4800	9070
6	22300	15200	18240	---	---	---	20600	13160	17050	13240	5400	9700
7	21200	15500	17550	---	---	---	18800	12720	16510	12680	2040	8190
8	20700	14900	17600	---	---	---	19400	11600	15860	10320	2320	6410
9	19700	15700	17800	---	---	---	18400	9600	14780	12880	3000	8700
10	18800	13400	17050	---	---	---	17600	7040	12930	12320	2000	8040
11	16800	12000	14830	---	---	---	16400	8720	12550	14440	2720	9460
12	16400	10700	14230	---	---	---	17800	4040	10870	17600	4400	12300
13	18800	11200	15050	---	---	---	15960	4000	10920	18880	11960	16480
14	18000	13400	16220	---	---	---	15200	6520	11990	18240	13880	16380
15	17400	13400	15700	---	---	---	16800	10800	13790	19400	14000	16910
16	17400	13300	15800	---	---	---	16800	11160	14250	20200	11600	16180
17	18500	14500	16490	---	---	---	16760	10400	13860	21160	13160	17870
18	18500	15900	17110	---	---	---	15600	8720	12040	19200	12040	16350
19	18100	15500	16890	---	---	---	18480	7960	13710	18760	13520	16440
20	18400	15800	17030	---	---	---	17200	11200	14220	19520	12360	16660
21	17200	14700	16070	---	---	---	17600	11000	14510	19200	11800	16740
22	21200	14700	17240	---	---	---	15920	8400	13230	19200	13600	17190
23	21600	16000	18770	---	---	---	17560	9040	14270	19960	12800	17100
24	20400	17600	19050	---	---	---	17600	9840	14010	18360	12000	16180
25	21600	14000	19310	---	---	---	15200	8600	12970	22720	11120	15620
26	21200	13200	18280	19200	14400	---	17560	11200	14060	14360	9960	12440
27	21200	14800	---	18800	12800	16770	16800	10400	14740	17280	10320	14080
28	---	---	---	19200	14000	17000	18200	12000	15190	18840	10320	15750
29	---	---	---	20400	13600	18000	17400	11120	14430	19640	13280	16620
30	---	---	---	18800	9600	14250	18200	10800	14970	20800	11960	16980
31	---	---	---	---	---	---	16000	8400	13410	18000	10800	15880
MONTH	23400	10700	17570	---	---	---	22400	4000	14090	22720	2000	14000
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19880	12800	16780	---	---	---	---	---	---	15850	8770	12450
2	20400	14800	17800	---	---	---	---	---	---	15360	8610	12090
3	22600	17040	19590	---	---	---	---	---	---	16760	8610	12740
4	---	---	---	---	---	---	---	---	---	15710	5540	11770
5	11320	7160	---	---	---	---	---	---	---	13960	8050	10670
6	15200	7600	11380	---	---	---	---	---	---	14560	6300	11680
7	18440	10680	13690	---	---	---	---	---	---	14870	7220	11550
8	19680	9600	14180	---	---	---	---	---	---	14740	8580	12220
9	20600	10600	15700	---	---	---	---	---	---	17270	11350	13940
10	23000	14720	19220	---	---	---	---	---	---	19340	10820	14610
11	25520	17200	22030	---	---	---	---	---	---	18530	10820	14630
12	26960	19600	24580	---	---	---	26200	22120	---	18260	8990	13100
13	27360	25000	---	---	---	---	22120	15150	18700	18350	8770	13080
14	---	---	---	---	---	---	22260	14940	17890	15920	9090	12570
15	---	---	---	---	---	---	23900	16600	19370	17000	8360	12050
16	---	---	---	---	---	---	22720	15360	18320	15150	7750	10710
17	---	---	---	---	---	---	21880	14140	17600	13500	7240	10010
18	---	---	---	---	---	---	20580	11600	15730	14080	7560	11030
19	---	---	---	---	---	---	16440	7860	13170	14620	7800	11620
20	---	---	---	---	---	---	14080	7720	11640	17720	9320	13240
21	---	---	---	---	---	---	17450	8050	13310	16520	7880	12270
22	---	---	---	---	---	---	17000	8130	13320	18080	6960	13020
23	---	---	---	---	---	---	15430	8640	12350	16600	10110	13970
24	---	---	---	---	---	---	14800	6960	11660	18620	9700	14660
25	---	---	---	---	---	---	14620	7140	11060	21640	12920	16760
26	---	---	---	---	---	---	15010	7220	11540	20030	14440	17520
27	---	---	---	---	---	---	16680	7560	11610	19250	11840	16900
28	---	---	---	---	---	---	16060	9810	13130	19160	12980	16330
29	---	---	---	---	---	---	15430	9020	12520	19520	13350	16360
30	---	---	---	---	---	---	16920	9190	12740	18530	13150	16220
31	---	---	---	---	---	---	---	---	---	18530	12620	15470
MONTH	---	---	---	---	---	---	---	---	---	21640	5540	13390

DELAWARE BAY

Q1412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, N. J.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17450	12000	14930	9630	3670	7000	---	---	---	---	---	---
2	17450	9560	14050	10300	4200	7470	---	---	---	---	---	---
3	17990	9290	13320	11060	4280	7720	---	---	---	---	---	---
4	15360	8190	12720	11800	4730	7980	---	---	---	---	---	---
5	15430	8580	12890	14680	6240	10160	---	---	---	---	---	---
6	15500	10580	13180	15220	6680	11420	---	---	---	---	---	---
7	15920	9880	12470	16600	8270	11480	---	---	---	---	---	---
8	13660	9190	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	13720	7100	---	---	---	---	---	---	---
12	---	---	---	15220	7420	---	---	---	---	---	---	---
13	20250	13100	---	---	---	---	---	---	---	---	---	---
14	21040	13300	16630	---	---	---	---	---	---	---	---	---
15	20140	11640	15710	---	---	---	---	---	---	---	---	---
16	18260	10740	14730	---	---	---	---	---	---	---	---	---
17	16840	10380	14810	---	---	---	---	---	---	---	---	---
18	17450	11300	14820	---	---	---	---	---	---	---	---	---
19	17720	11350	14740	---	---	---	---	---	---	---	---	---
20	17270	10420	14290	---	---	---	---	---	---	---	---	---
21	19070	11800	15350	---	---	---	---	---	---	---	---	---
22	17990	8160	13900	---	---	---	---	---	---	---	---	---
23	13250	3810	8460	---	---	---	---	---	---	---	---	---
24	8520	1840	4770	---	---	---	---	---	---	---	---	---
25	7290	1620	4160	---	---	---	---	---	---	---	---	---
26	9320	2030	5310	---	---	---	---	---	---	---	---	---
27	10030	3650	6100	---	---	---	---	---	---	---	---	---
28	10500	4110	6800	---	---	---	---	---	---	---	---	---
29	11060	5140	7310	---	---	---	---	---	---	---	---	---
30	11300	4890	7220	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21040	1620	11610	---	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.0	6.5	7.5	6.0	5.5	6.0
2	---	---	---	---	---	---	7.0	6.0	6.5	6.0	6.0	6.0
3	---	---	---	---	---	---	6.0	5.5	6.0	6.0	5.5	5.5
4	---	---	---	---	---	---	6.0	5.5	5.5	6.0	5.5	5.5
5	---	---	---	---	---	---	5.5	5.0	5.5	6.0	5.5	6.0
6	---	---	---	---	---	---	5.5	5.5	5.5	5.5	5.0	5.0
7	---	---	---	---	---	---	5.5	5.5	5.5	5.5	5.0	5.0
8	---	---	---	---	---	---	6.0	5.5	6.0	5.0	4.5	5.0
9	---	---	---	---	---	---	6.0	6.0	6.0	5.0	4.5	4.5
10	---	---	---	---	---	---	6.5	6.0	6.0	5.5	5.0	5.0
11	---	---	---	---	---	---	6.5	6.0	6.5	5.5	5.0	5.5
12	---	---	---	---	---	---	7.0	6.5	6.5	5.5	5.5	5.5
13	---	---	---	---	---	---	7.0	6.5	6.5	6.0	5.5	5.5
14	---	---	---	---	---	---	7.0	6.5	6.5	6.0	5.5	5.5
15	---	---	---	---	---	---	8.0	6.5	7.0	5.5	5.0	5.5
16	---	---	---	---	---	---	8.0	7.0	7.5	5.0	4.0	4.5
17	---	---	---	---	---	---	8.0	7.0	7.5	4.0	3.0	3.5
18	---	---	---	---	---	---	7.0	6.0	6.5	4.0	3.5	3.5
19	---	---	---	---	---	---	6.0	5.5	6.0	3.5	3.5	3.5
20	---	---	---	---	---	---	6.5	6.0	6.0	3.5	3.0	3.5
21	---	---	---	---	---	---	6.5	6.0	6.5	4.0	3.5	3.5
22	17.0	17.0	---	---	---	---	6.5	5.5	6.0	4.0	3.5	4.0
23	17.0	17.0	17.0	---	---	---	6.0	5.5	5.5	4.0	4.0	4.0
24	17.0	17.0	17.0	---	---	---	6.0	5.5	6.0	4.5	4.0	4.0
25	18.0	17.0	17.0	---	---	---	6.0	5.5	6.0	4.5	4.5	4.5
26	18.0	17.0	17.5	8.5	8.0	---	6.0	6.0	6.0	4.5	4.0	4.5
27	18.0	18.0	---	8.5	8.0	8.5	6.5	6.0	6.0	4.5	4.0	4.5
28	---	---	---	8.5	8.0	8.0	6.5	6.0	6.0	4.0	3.5	4.0
29	---	---	---	8.5	8.0	8.5	6.5	6.0	6.0	4.0	3.5	4.0
30	---	---	---	8.5	8.0	8.0	6.5	6.0	6.0	4.0	3.5	4.0
31	---	---	---	---	---	---	6.5	6.0	6.0	4.0	3.5	3.5
MONTH	---	---	---	---	---	---	8.0	5.0	6.0	6.0	3.0	4.5

T7.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DELAWARE RIVER BASIN

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 upstream from bridge on State Highway 48, 0.3 mile south of Wooddale, 2.3 miles north of Marshallton, and 4.9 miles upstream from mouth.

DRAINAGE AREA.--47.0 sq mi.

PERIOD OF RECORD.--Water temperatures: April 1953 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 26.0°C July 22, 23; minimum, 0.5°C January 16, 17.

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 1971 TO SEPTEMBER 1972
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.0	7.0	15.5	11.5	19.0	17.5	19.5	18.0	22.5	20.5	22.5	21.5
2	9.5	8.5	15.5	14.5	18.5	16.0	21.0	19.0	22.5	21.5	21.5	20.0
3	8.5	7.0	15.0	14.5	20.0	17.0	22.0	20.0	23.5	22.0	21.5	19.5
4	8.0	7.0	15.0	14.0	21.0	18.5	22.0	20.5	23.5	23.0	21.0	19.5
5	9.0	6.0	14.5	12.5	21.0	18.5	21.0	17.5	23.0	20.5	19.5	18.0
6	11.5	8.0	14.5	11.0	20.5	19.0	17.5	16.5	21.5	20.0	19.0	17.0
7	11.5	7.0	17.0	13.0	19.5	18.0	18.0	17.0	22.0	20.5	20.0	18.0
8	7.0	5.5	19.0	15.5	19.5	16.5	18.0	17.5	23.0	21.5	20.5	18.5
9	8.0	4.5	18.0	13.0	21.0	18.0	19.0	17.0	22.0	21.0	21.0	20.0
10	10.0	6.5	14.0	12.0	21.0	18.5	21.0	18.5	21.5	20.0	20.0	18.5
11	11.0	8.0	15.5	12.5	18.5	15.0	22.0	20.0	20.5	18.5	18.5	17.0
12	12.5	9.5	17.0	13.5	17.5	15.0	22.0	21.0	20.5	19.0	18.0	17.5
13	12.0	10.5	18.0	14.5	17.5	17.0	22.0	20.5	21.0	20.5	20.0	18.0
14	13.0	10.5	17.0	15.5	17.5	17.0	21.5	20.5	22.5	20.5	22.0	20.0
15	12.5	9.5	16.0	15.0	20.5	17.5	24.0	21.5	22.5	21.5	21.5	20.0
16	11.0	9.5	18.5	15.5	20.5	20.0	24.0	23.0	21.5	20.0	20.5	19.0
17	12.0	9.0	19.0	16.5	20.5	20.0	23.5	22.5	20.5	19.5	22.0	19.0
18	14.0	10.5	18.5	17.0	20.0	19.0	24.5	22.5	21.0	19.5	21.0	21.0
19	15.5	12.0	18.0	16.5	20.0	19.0	24.0	23.0	22.5	20.5	21.5	20.5
20	15.5	13.5	17.0	16.0	21.0	19.5	25.0	23.5	22.5	20.5	20.5	18.5
21	14.0	11.0	16.5	15.5	21.0	20.5	25.0	23.5	22.0	20.5	18.5	17.5
22	13.5	10.0	17.0	16.0	20.5	16.5	26.0	24.0	22.5	20.5	19.0	17.5
23	12.5	9.5	18.0	15.0	16.5	15.0	26.0	24.5	23.0	21.0	18.0	16.5
24	12.5	11.5	18.5	15.0	15.5	14.5	25.5	24.5	24.0	22.0	16.5	15.5
25	12.0	10.0	18.5	16.5	16.0	15.5	25.5	24.0	25.0	23.5	17.5	16.0
26	12.5	9.5	16.5	14.0	17.5	16.0	24.5	22.5	25.5	24.0	20.0	17.5
27	12.5	10.0	16.5	13.5	19.0	16.5	23.0	21.5	25.0	23.0	20.5	19.5
28	12.5	10.0	17.5	14.0	19.5	18.0	22.5	21.5	24.5	23.5	20.0	19.0
29	14.5	10.0	18.0	15.0	19.5	18.5	22.5	20.5	24.0	22.0	19.0	18.5
30	12.5	11.0	18.0	17.0	18.5	18.0	21.0	20.5	24.0	22.5	19.0	17.0
31	---	---	19.0	17.5	---	---	21.0	20.5	23.5	22.0	---	---
MONTH	15.5	4.5	19.0	11.0	21.0	14.5	26.0	16.5	25.5	18.5	22.5	15.5

DELAWARE RIVER BASIN

19

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA.

LOCATION.--Lat 39°52'09", long 75°35'35", Delaware County, at gaging station located on left bank 27 ft upstream from Pennsylvania Railroad Bridge at Chadds Ford, and 1,200 ft downstream from highway bridge on U. S. Highway 1. Sediment samples collected at U. S. Highway 1 bridge.

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1964 to September 1972.

Water temperatures: October 1964 to September 1972.

Sediment records: July 1963 to September 1972.

EXTREMES.--1971-72:

Specific conductance: Maximum, 445 micromhos Oct. 25; minimum, 71 micromhos June 23.

Water temperatures: Maximum, 27.0°C July 22-24; minimum, freezing point on many days during January and February.

Sediment concentrations: Maximum daily, 1,200 mg/l Oct. 10; minimum daily, 1 mg/l on several days during November, January and February.

Sediment discharge: Maximum daily, 13,100 tons June 22; minimum daily, 0.99 tons Feb. 1.

Period of record:

Specific conductance (1965-72): Maximum, 445 micromhos Oct. 25, 1971; minimum, 71 micromhos June 23, 1972.

Water temperatures (1965-72): Maximum, 29.0°C Aug. 9, 17, 1965; minimum daily, freezing point on many days during winter months.

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 (estimated) Feb. 8, 1965; minimum daily 0 tons Oct. 7, 8, 1967.

REMARKS.--Unpublished records of specific conductance, pH, and temperature of sediment samples available in the WRD district office at Harrisburg, Pa.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 16...	503	11	18	6.7	8.4	2.7	49	22	13
FEB. 28...	745	9.3	18	6.7	13	2.6	43	23	22
MAY 08...	562	12	17	6.5	8.4	1.8	48	23	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)
OCT. 16...	.3	.09	127	--	73	33	2
FEB. 28...	.1	.09	150	129	73	38	3
MAY 08...	.2	.22	135	119	69	30	3

DELAWARE RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	216	201	211	---	---	---	176	173	175
2	---	---	---	200	189	192	181	177	---	177	167	172
3	---	---	---	191	178	183	183	179	181	186	157	163
4	---	---	---	181	175	177	184	176	179	185	165	177
5	222	217	---	186	180	182	180	174	177	185	171	177
6	221	212	218	186	179	181	181	176	179	181	172	176
7	217	210	215	186	176	180	179	168	176	191	182	185
8	217	209	212	188	176	180	169	159	163	195	189	191
9	216	209	212	191	185	187	181	168	177	191	181	187
10	216	200	---	192	188	190	184	178	181	185	165	174
11	---	---	---	191	185	188	185	179	182	175	165	169
12	---	---	---	189	182	185	186	181	183	179	166	173
13	192	186	---	189	180	186	185	181	183	182	178	180
14	198	192	195	189	184	185	183	181	182	182	176	179
15	198	193	196	187	182	184	185	181	183	183	175	179
16	196	192	194	188	183	185	183	180	182	183	179	---
17	205	192	198	189	184	187	184	179	182	202	191	---
18	205	197	201	190	183	187	185	179	181	197	189	194
19	207	188	196	191	186	188	193	180	184	195	182	189
20	201	192	196	194	183	189	197	181	186	186	178	182
21	194	186	188	190	184	187	202	183	189	185	174	180
22	215	193	203	188	182	185	187	180	184	179	174	177
23	216	210	212	188	184	186	185	181	183	184	179	182
24	426	209	283	190	181	187	186	181	184	182	178	180
25	445	326	364	---	---	---	186	177	180	182	180	---
26	356	337	---	---	---	---	179	175	177	194	190	---
27	235	211	---	---	---	---	178	174	176	199	188	195
28	220	201	217	---	---	---	180	177	178	200	191	195
29	220	211	215	---	---	---	181	176	178	233	196	207
30	217	211	213	---	---	---	180	176	178	231	200	208
31	217	211	214	---	---	---	183	175	178	205	193	198
MONTH	445	186	---	216	175	186	202	159	180	233	157	183
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	201	193	198	180	161	171	185	180	183	178	174	177
2	207	192	201	155	131	138	184	177	179	184	176	178
3	230	200	210	197	115	149	178	173	176	180	169	176
4	---	---	---	270	203	242	192	172	181	169	164	167
5	---	---	---	300	269	281	190	182	187	174	167	170
6	---	---	---	316	263	296	185	178	182	178	174	177
7	---	---	---	262	176	221	190	184	187	177	176	176
8	---	---	---	183	171	180	188	176	183	177	172	175
9	212	200	---	184	179	181	196	175	185	172	141	161
10	220	195	204	184	181	182	179	171	176	170	142	154
11	208	196	201	184	179	182	197	175	184	184	163	172
12	206	192	198	184	179	180	207	185	193	184	159	166
13	205	190	---	181	178	179	187	180	184	165	148	156
14	---	---	---	183	178	---	179	165	170	151	146	149
15	180	173	---	---	---	---	180	157	172	170	147	161
16	186	180	184	---	---	---	162	150	157	187	157	176
17	187	183	185	---	---	---	149	125	138	194	179	185
18	202	185	193	---	---	---	178	148	171	184	161	174
19	196	177	187	---	---	---	181	176	179	172	162	166
20	199	176	191	---	---	---	181	177	179	174	169	172
21	193	187	190	184	177	---	180	173	176	173	167	170
22	210	188	200	182	170	177	178	173	175	176	171	173
23	228	207	217	177	162	166	177	166	170	183	174	177
24	212	199	205	171	165	169	175	164	170	179	177	178
25	254	205	236	171	165	168	177	165	173	179	178	179
26	241	228	235	166	162	164	183	176	180	179	177	178
27	230	202	217	174	162	170	182	179	180	181	178	180
28	203	194	200	186	174	182	182	179	180	182	178	180
29	196	173	189	190	180	184	180	178	180	182	178	179
30	---	---	---	185	180	183	181	175	178	181	177	178
31	---	---	---	187	181	184	---	---	---	196	144	174
MONTH	254	173	---	316	115	---	207	125	177	196	141	172

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	150	134	141	187	181	185	203	191	195	224	216	219
2	165	144	156	190	187	188	207	197	199	220	178	202
3	183	165	173	190	185	187	208	198	202	216	201	206
4	198	183	185	187	184	186	203	199	201	220	203	213
5	189	174	183	184	180	181	200	198	199	216	208	213
6	192	174	185	180	177	179	207	200	203	216	206	210
7	195	190	192	183	179	181	204	200	202	213	209	211
8	195	191	193	185	181	183	200	200	200	221	211	216
9	198	192	194	185	178	180	203	198	201	224	215	218
10	199	194	197	181	178	179	208	203	206	229	219	223
11	201	194	199	184	180	182	207	202	205	228	218	222
12	195	194	194	191	183	186	211	203	208	226	217	221
13	200	190	197	191	126	161	211	203	206	226	191	218
14	200	183	192	176	130	157	209	202	205	222	218	220
15	194	184	188	191	177	185	205	201	202	222	216	219
16	194	192	193	194	189	191	207	202	204	223	218	220
17	198	178	185	193	184	190	212	206	210	227	220	223
18	190	177	182	193	182	187	213	209	211	228	223	226
19	193	160	176	197	148	173	211	206	210	229	224	226
20	191	184	186	190	172	184	214	206	211	230	223	226
21	199	186	194	197	189	192	210	206	209	234	226	229
22	187	73	121	194	190	192	211	203	206	235	229	232
23	140	71	107	193	189	191	216	205	211	232	227	230
24	161	143	153	194	189	192	216	208	211	232	224	227
25	165	160	162	196	190	193	220	210	215	232	227	229
26	183	163	174	196	192	195	222	212	217	233	226	229
27	184	179	183	203	193	196	215	199	207	232	226	229
28	186	163	185	204	196	199	211	195	205	234	225	228
29	188	179	186	199	192	196	215	208	212	234	226	229
30	181	173	177	202	193	197	221	212	216	235	220	228
31	---	---	---	197	192	194	219	216	218	---	---	---
MONTH	201	71	178	204	126	186	222	191	207	235	178	221

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

DELAWARE RIVER BASIN

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	12.0	10.7	11.5	11.3	9.3	10.4
2	---	---	---	---	---	---	11.4	10.5	10.9	10.7	8.7	9.8
3	---	---	---	---	---	---	12.3	10.9	11.7	9.8	9.2	9.5
4	---	---	---	---	---	---	12.1	11.4	11.7	9.8	9.2	9.6
5	---	---	---	---	---	---	12.3	10.8	11.7	11.0	9.7	10.5
6	---	---	---	---	---	---	11.4	9.8	10.7	11.7	10.4	11.2
7	---	---	---	12.2	11.0	---	11.3	9.4	10.2	11.1	9.7	10.4
8	---	---	---	11.8	9.4	10.4	13.0	11.3	12.3	10.5	9.3	9.8
9	---	---	---	13.6	11.5	12.3	13.0	11.3	12.3	10.7	9.5	10.0
10	---	---	---	12.0	11.4	11.8	11.9	10.1	11.2	11.2	10.7	10.9
11	---	---	---	12.6	11.8	---	11.6	10.0	10.9	11.4	10.3	10.9
12	---	---	---	---	---	---	11.5	10.3	10.8	10.8	9.9	10.4
13	---	---	---	11.7	10.8	---	10.2	9.7	9.9	10.6	9.7	10.1
14	---	---	---	11.4	10.9	---	10.5	9.8	10.2	10.1	9.5	9.8
15	---	---	---	---	---	---	10.4	9.9	---	10.0	9.6	9.8
16	---	---	---	---	---	---	10.6	10.5	---	9.8	9.2	9.6
17	---	---	---	---	---	---	11.0	10.4	10.7	9.6	9.1	9.3
18	---	---	---	---	---	---	10.9	9.7	10.4	9.5	9.1	9.3
19	---	---	---	---	---	---	10.3	8.9	9.8	9.5	9.0	9.3
20	---	---	---	---	---	---	9.3	8.6	9.0	9.9	9.3	9.6
21	---	---	---	12.3	11.6	---	10.8	9.3	10.1	10.0	9.6	9.8
22	---	---	---	11.6	10.7	11.0	10.7	9.5	10.1	9.9	9.5	9.7
23	---	---	---	11.9	10.7	11.3	11.3	10.0	10.8	10.2	9.1	9.6
24	---	---	---	13.1	12.0	12.7	9.9	9.6	9.8	9.4	8.9	9.1
25	---	---	---	13.8	12.4	13.2	11.4	10.9	---	9.4	8.6	9.1
26	---	---	---	13.0	12.1	12.6	11.8	10.7	11.3	10.4	9.4	9.9
27	---	---	---	12.8	11.7	12.3	11.6	10.6	11.0	10.8	9.8	10.2
28	---	---	---	12.5	11.6	12.0	11.8	10.6	11.2	10.6	9.5	10.0
29	---	---	---	12.3	11.2	11.8	11.7	10.1	10.9	10.4	9.1	9.6
30	---	---	---	11.5	11.0	11.3	11.5	9.9	10.6	9.7	8.6	9.1
31	---	---	---	12.1	11.2	11.6	---	---	---	8.8	7.7	8.6
MONTH	---	---	---	---	---	---	13.0	8.6	10.8	11.7	7.7	9.8

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	7.5	8.6	8.7	8.4	8.6	8.6	7.8	8.2	8.7	7.5	8.1
2	9.7	8.9	9.5	8.6	8.2	8.4	8.7	7.7	8.1	8.2	7.8	8.0
3	9.5	8.9	9.3	8.3	6.6	7.9	8.6	7.6	8.1	8.5	7.9	8.1
4	9.3	8.8	9.0	---	---	---	8.5	7.5	8.0	8.6	7.9	8.2
5	8.9	8.6	8.8	---	---	---	9.0	7.9	8.5	9.0	8.4	8.7
6	8.8	8.6	8.7	---	---	---	8.3	8.3	---	9.1	8.6	8.8
7	9.1	8.8	9.0	---	---	---	---	---	---	9.0	8.4	8.6
8	9.2	8.7	8.9	---	---	---	---	---	---	9.1	8.2	8.6
9	8.8	8.2	8.6	---	---	---	8.4	7.8	---	8.7	7.8	8.2
10	8.7	7.9	8.4	10.7	8.9	---	8.8	7.7	8.2	8.8	7.7	8.3
11	9.8	8.6	9.4	10.5	8.5	9.3	9.1	7.9	8.3	8.8	7.9	8.4
12	10.0	9.4	9.7	10.1	8.2	9.0	8.8	7.6	8.1	8.4	7.6	8.0
13	9.3	9.1	9.2	8.4	6.5	7.7	8.1	7.2	7.7	8.6	7.5	8.1
14	9.3	9.0	9.1	7.1	6.8	---	8.2	7.1	7.6	8.4	7.6	7.9
15	9.6	8.7	9.2	---	---	---	7.1	6.7	---	8.4	7.3	7.8
16	8.9	8.5	8.7	---	---	---	---	---	---	8.6	7.6	8.1
17	8.9	8.5	8.7	8.3	7.9	---	---	---	---	8.3	7.4	7.8
18	8.9	8.2	8.7	8.2	7.6	7.9	---	---	---	7.6	6.9	7.2
19	8.8	8.4	8.6	7.7	7.5	7.6	---	---	---	7.8	6.7	7.3
20	8.6	8.1	8.4	7.7	7.4	7.6	---	---	---	8.4	7.2	7.9
21	8.2	8.0	8.1	---	---	---	---	---	---	8.7	8.0	8.4
22	8.1	6.1	6.9	---	---	---	9.1	8.2	---	8.9	8.1	8.5
23	9.3	7.8	8.4	---	---	---	9.0	7.7	8.4	9.1	8.1	8.6
24	9.5	8.9	9.1	---	---	---	8.5	7.5	8.0	9.1	8.2	8.7
25	10.3	8.2	9.5	---	---	---	8.3	7.0	7.7	8.8	8.3	8.5
26	10.3	9.8	10.0	8.1	7.5	---	7.6	6.6	7.1	9.3	8.3	8.7
27	10.0	8.7	9.6	8.3	7.4	7.8	---	---	---	8.5	7.8	8.1
28	9.6	9.3	9.5	8.6	7.6	8.1	---	---	---	8.8	7.5	8.1
29	9.6	9.3	9.4	8.9	7.9	8.4	7.8	7.0	---	8.2	7.7	7.9
30	9.7	8.5	8.9	8.8	8.1	8.4	8.4	7.4	7.9	8.2	7.6	7.9
31	---	---	---	8.6	8.0	8.3	8.4	7.5	8.0	---	---	---
MONTH	10.3	6.1	8.9	---	---	---	---	---	---	9.3	6.7	8.2

DELAWARE RIVER BASIN

23

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	18.5	16.0	17.0	---	---	---	4.5	3.0	3.5
2	---	---	---	19.0	18.5	18.5	3.0	2.0	---	3.5	3.0	3.0
3	---	---	---	19.0	14.5	16.5	2.0	1.0	1.5	3.5	2.0	3.0
4	---	---	---	---	---	---	3.0	1.5	2.5	5.0	2.0	3.5
5	18.5	17.0	---	---	---	---	3.0	1.5	2.5	5.5	4.5	5.0
6	19.5	18.0	18.5	---	---	---	5.0	2.0	3.5	4.0	2.0	3.0
7	18.0	14.5	16.0	---	---	---	8.0	4.5	6.5	2.0	1.0	1.5
8	14.0	11.5	12.5	7.0	6.0	---	8.0	7.0	7.5	3.5	1.5	2.5
9	13.0	11.0	12.0	5.5	3.5	4.5	8.0	7.0	7.5	4.0	2.0	2.5
10	14.5	13.0	---	6.5	4.5	5.5	9.0	8.0	8.5	6.5	4.5	5.5
11	---	---	---	8.5	6.5	7.0	10.5	9.0	10.0	8.5	7.0	7.5
12	---	---	---	8.0	6.0	7.0	9.0	7.0	7.5	8.5	8.0	8.5
13	13.0	12.0	---	9.0	7.0	8.5	8.0	7.0	7.5	9.5	7.0	8.0
14	---	---	---	8.5	7.0	8.0	6.5	5.5	5.5	9.5	6.5	8.5
15	---	---	---	8.0	7.0	7.5	8.0	5.5	6.0	6.5	2.0	4.5
16	---	---	---	9.5	8.0	8.5	10.0	8.0	9.0	1.5	0.5	---
17	---	---	---	9.0	8.0	8.5	10.0	8.5	9.5	0.5	0.0	---
18	---	---	---	8.5	6.5	7.5	8.5	3.5	5.5	0.5	0.0	0.5
19	14.0	11.0	---	9.5	7.0	8.5	3.5	1.5	2.0	4.5	0.5	2.0
20	14.5	13.5	14.0	10.0	8.5	9.0	5.5	3.0	4.0	4.5	3.5	4.0
21	15.5	13.5	14.5	8.5	7.0	8.0	8.0	5.5	6.5	5.5	4.5	5.0
22	15.5	13.5	14.5	6.5	5.0	5.5	7.0	4.0	5.5	6.0	5.5	5.5
23	16.0	14.5	15.0	5.0	3.5	4.0	4.0	2.0	2.5	8.5	6.0	7.0
24	17.0	15.5	16.0	4.5	3.5	4.0	5.0	3.0	3.5	9.5	8.0	8.5
25	18.0	17.0	17.5	---	---	---	5.5	4.5	5.0	9.0	9.0	---
26	18.5	18.0	---	---	---	---	6.5	5.0	5.5	4.0	3.0	---
27	15.5	10.0	---	---	---	---	8.5	7.0	7.5	3.0	1.0	1.5
28	17.0	15.0	16.0	---	---	---	9.0	8.0	8.5	1.5	1.0	1.0
29	17.0	15.5	16.5	---	---	---	8.0	5.0	6.0	1.5	0.0	0.5
30	16.5	15.0	16.0	---	---	---	5.5	4.5	5.0	3.0	1.5	2.0
31	16.5	16.0	16.0	---	---	---	6.0	4.5	5.5	2.0	1.0	1.5
MONTH	---	---	---	---	---	---	10.5	1.0	6.0	9.5	0.0	4.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.0	0.0	0.0	8.5	5.0	6.5	11.0	8.0	9.5	17.0	13.0	15.0
2	2.0	0.5	1.5	10.5	6.5	8.0	11.0	9.5	10.5	18.0	16.0	17.0
3	4.0	2.0	3.0	11.0	5.5	8.5	9.5	8.0	8.5	17.0	16.0	16.5
4	4.0	0.5	2.0	5.5	3.5	4.0	8.0	6.5	7.0	17.0	16.0	16.5
5	0.0	0.0	0.0	5.5	4.5	5.0	9.0	5.5	7.5	16.5	14.0	15.0
6	0.5	0.0	0.0	4.5	2.0	3.5	11.5	8.0	10.0	16.5	12.0	14.5
7	3.0	0.5	1.5	7.0	3.5	5.0	11.5	6.5	9.5	19.5	15.0	17.0
8	1.0	0.0	0.0	8.0	5.5	7.0	6.5	5.0	5.5	19.0	18.0	18.5
9	0.0	0.0	---	5.5	3.0	4.0	8.5	4.5	6.5	18.0	11.5	14.5
10	0.5	0.0	0.5	4.5	3.0	4.0	10.0	6.5	8.5	14.0	10.0	12.0
11	1.5	0.0	1.0	4.0	2.0	---	11.5	8.5	10.0	15.0	11.5	13.5
12	3.0	0.5	1.5	---	---	---	13.5	10.5	12.0	17.0	13.5	15.0
13	4.0	2.0	3.0	6.5	6.5	---	13.0	11.0	11.5	18.0	14.5	16.5
14	4.0	1.0	3.0	6.5	5.5	---	14.0	10.5	12.0	17.0	15.0	16.0
15	5.0	3.0	4.0	---	---	---	13.5	10.5	12.0	16.5	14.5	15.5
16	5.5	4.5	5.0	---	---	---	11.5	10.0	11.0	19.0	16.0	17.5
17	4.5	3.5	3.5	---	---	---	13.5	10.0	11.5	19.5	16.5	18.5
18	4.0	3.0	3.5	---	---	---	14.5	12.0	13.5	19.0	17.0	18.0
19	4.0	0.0	1.0	---	---	---	16.5	12.0	14.5	18.5	17.0	18.0
20	0.0	0.0	0.0	---	---	---	16.0	14.0	15.5	17.0	15.5	15.5
21	0.5	0.0	0.0	7.0	6.5	---	14.5	11.0	13.0	16.5	15.0	15.5
22	3.0	0.5	2.0	9.5	7.0	8.5	14.0	9.5	11.5	16.5	16.0	16.5
23	2.0	0.0	0.5	8.5	6.5	7.5	13.0	8.5	10.5	18.0	14.5	16.0
24	3.5	0.5	1.5	6.0	4.5	5.0	13.0	11.0	12.5	19.0	15.0	17.5
25	5.5	3.5	4.5	6.0	3.0	4.5	12.0	9.5	11.0	19.0	16.5	17.5
26	5.5	3.5	5.0	7.0	4.5	5.5	13.0	9.5	11.0	16.5	14.0	15.5
27	4.0	2.0	3.0	8.0	5.0	6.5	13.5	10.5	12.0	16.5	13.5	15.0
28	5.5	3.5	4.5	8.5	5.0	7.0	13.0	10.0	11.5	18.5	14.5	16.5
29	7.0	5.0	5.5	10.0	6.5	8.0	14.5	10.5	12.5	19.0	15.5	17.0
30	---	---	---	9.0	8.5	9.0	14.5	12.0	13.5	19.0	17.0	18.0
31	---	---	---	8.5	8.0	8.5	---	---	---	19.5	18.5	19.0
MONTH	7.0	0.0	2.0	---	---	---	16.5	4.5	11.0	19.5	10.0	16.5

DELAWARE RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

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

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
2	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
3	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
4	---	---	---	---	---	---	---	---	---	7.6	7.2	7.4
5	---	---	---	---	---	---	---	---	---	7.5	7.2	7.4
6	---	---	---	---	---	---	---	---	---	7.4	7.3	7.4
7	---	---	---	---	---	---	---	---	---	7.4	7.3	7.4
8	---	---	---	---	---	---	---	---	---	7.4	7.3	7.4
9	---	---	---	---	---	---	---	---	---	7.4	7.3	7.3
10	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
11	---	---	---	---	---	---	---	---	---	7.7	7.0	7.4
12	---	---	---	---	---	---	---	---	---	7.6	7.5	7.6
13	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
14	---	---	---	---	---	---	---	---	---	7.8	7.5	7.7
15	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
16	---	---	---	---	---	---	---	---	---	7.8	7.7	---
17	---	---	---	---	---	---	---	---	---	8.0	7.7	---
18	---	---	---	---	---	---	---	---	---	7.8	7.6	7.8
19	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
20	---	---	---	---	---	---	7.3	7.3	---	7.7	7.5	7.7
21	---	---	---	---	---	---	7.5	7.2	7.4	7.7	7.5	7.7
22	---	---	---	---	---	---	7.7	7.4	7.5	7.7	7.6	7.7
23	---	---	---	---	---	---	7.7	7.4	7.6	7.8	7.6	7.7
24	---	---	---	---	---	---	7.6	7.5	7.6	7.8	7.6	7.7
25	---	---	---	---	---	---	7.7	7.5	7.6	7.8	7.5	---
26	---	---	---	---	---	---	7.7	7.5	7.6	7.6	7.5	---
27	---	---	---	---	---	---	7.6	7.4	7.5	7.6	7.4	7.5
28	---	---	---	---	---	---	7.5	7.4	7.5	7.6	6.9	7.3
29	---	---	---	---	---	---	7.6	7.3	7.5	7.0	6.8	6.9
30	---	---	---	---	---	---	7.5	7.3	7.4	7.0	6.6	6.9
31	---	---	---	---	---	---	7.5	7.2	7.4	7.0	6.7	6.9
MONTH	---	---	---	---	---	---	---	---	---	8.0	6.6	7.4

DELAWARE RIVER BASIN

25

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

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	6.7	6.9	7.3	7.2	---	7.6	7.0	7.3	8.4	7.2	7.8
2	7.5	6.8	7.1	---	---	---	7.6	7.1	7.3	8.1	7.3	---
3	7.4	7.1	7.3	---	---	---	7.6	7.1	7.3	---	---	---
4	7.3	6.9	7.2	---	---	---	7.4	7.0	7.2	---	---	---
5	7.3	7.1	7.2	---	---	---	7.8	7.0	7.4	---	---	---
6	7.5	7.2	7.3	---	---	---	7.9	7.1	7.5	---	---	---
7	7.5	7.0	7.3	---	---	---	7.5	7.1	7.2	---	---	---
8	7.5	7.2	7.4	---	---	---	7.6	7.0	7.3	---	---	---
9	7.4	7.3	---	---	---	---	7.8	7.2	7.5	---	---	---
10	7.4	7.1	7.3	7.0	6.9	6.9	7.9	7.1	7.5	---	---	---
11	7.4	7.0	7.3	6.9	6.7	---	7.6	7.0	7.4	---	---	---
12	7.1	6.9	7.0	---	---	---	8.1	7.1	7.5	---	---	---
13	7.0	6.6	---	7.1	6.9	---	7.9	6.8	7.2	---	---	---
14	---	---	---	7.1	6.9	---	7.1	6.8	6.9	---	---	---
15	---	---	---	---	---	---	7.0	6.8	6.9	---	---	---
16	---	---	---	---	---	---	7.0	6.8	6.9	---	---	---
17	8.0	7.9	---	---	---	---	6.9	6.8	6.9	---	---	---
18	7.9	7.8	7.8	---	---	---	7.2	6.9	7.0	---	---	---
19	7.9	7.8	7.9	---	---	---	7.4	6.9	7.1	---	---	---
20	7.9	7.8	7.9	---	---	---	7.1	6.9	7.0	---	---	---
21	7.9	7.8	7.9	7.2	7.0	---	7.4	6.9	7.2	---	---	---
22	8.3	7.9	8.0	7.2	7.0	7.1	7.1	6.9	7.0	---	---	---
23	8.1	8.0	8.1	7.0	6.9	7.0	7.3	6.9	7.1	7.3	7.1	---
24	8.1	8.0	8.0	7.1	7.0	7.1	7.2	7.0	7.1	7.3	7.0	7.1
25	8.0	7.9	8.0	7.2	7.0	7.1	7.8	7.0	7.4	7.3	7.0	7.1
26	7.9	7.9	7.9	7.2	7.0	7.1	7.9	7.1	7.5	7.8	7.0	7.4
27	7.9	7.8	7.9	7.2	7.0	7.1	7.8	7.3	7.6	8.0	7.4	7.7
28	8.0	7.8	7.9	7.6	7.0	7.3	7.9	7.1	7.5	8.1	7.4	7.7
29	7.8	7.3	7.4	7.6	7.2	7.4	8.1	7.1	7.6	7.8	7.4	---
30	---	---	---	7.2	7.0	7.1	8.2	7.1	7.7	---	---	---
31	---	---	---	7.3	7.0	7.1	---	---	---	7.4	7.0	---
MONTH	8.3	6.6	7.6	---	---	---	8.2	6.8	7.3	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.6	6.8	7.0	7.2	6.9	7.0	7.9	7.6	7.7	7.5	7.3	7.4
2	7.5	6.9	7.1	7.0	6.9	7.0	7.8	7.2	7.5	7.5	7.2	7.3
3	7.3	7.0	7.1	7.1	6.8	7.0	7.5	7.2	7.4	7.5	7.2	7.4
4	7.1	7.0	7.0	7.2	6.8	7.0	7.5	7.2	7.4	7.4	7.3	7.4
5	7.1	6.9	6.9	6.9	6.8	---	7.5	7.2	7.3	7.5	7.3	7.4
6	7.6	6.9	7.0	---	---	---	7.4	7.2	---	7.4	7.2	7.3
7	7.1	6.9	7.0	---	---	---	---	---	---	7.3	7.0	7.2
8	7.1	6.9	7.0	---	---	---	---	---	---	7.5	7.1	7.3
9	7.1	6.9	7.0	---	---	---	7.5	7.3	---	7.5	7.1	7.3
10	7.1	7.0	7.0	7.8	7.4	---	7.6	7.2	7.4	7.5	7.1	7.4
11	7.1	6.9	7.0	7.9	6.9	7.4	7.6	7.2	7.4	8.0	7.1	7.4
12	7.1	6.9	7.0	7.8	6.9	7.4	7.6	7.3	7.4	7.9	7.4	7.6
13	7.6	6.9	7.3	7.4	6.6	6.9	7.6	7.4	7.5	7.7	6.0	7.5
14	8.4	7.3	7.8	6.9	6.7	6.8	7.7	7.3	7.5	7.6	7.3	7.5
15	8.0	7.5	7.6	7.0	6.8	6.9	7.5	7.2	---	7.5	7.1	7.4
16	7.5	7.4	7.4	7.1	6.8	7.0	---	---	---	7.7	7.2	7.5
17	7.5	7.3	7.4	7.1	6.9	7.0	---	---	---	7.7	7.3	7.6
18	7.4	7.3	7.4	7.4	6.9	7.1	---	---	---	7.7	7.3	7.4
19	7.6	7.3	7.4	7.1	6.6	6.8	---	---	---	7.5	7.2	7.4
20	7.5	7.3	---	7.1	6.7	6.9	---	---	---	7.7	7.3	7.6
21	---	---	---	7.1	6.9	7.0	---	---	---	7.7	7.5	7.6
22	---	---	---	7.2	6.9	7.1	7.8	7.5	---	7.9	7.6	7.7
23	---	---	---	7.2	6.9	---	7.9	7.4	7.7	8.0	7.6	7.9
24	---	---	---	---	---	---	7.9	7.4	7.7	8.0	7.7	7.9
25	---	---	---	---	---	---	7.8	7.4	7.7	8.0	7.7	7.9
26	---	---	---	7.9	7.3	---	7.8	7.3	7.6	8.2	7.6	7.9
27	7.6	6.7	---	7.8	7.2	7.4	7.5	7.1	7.3	8.2	7.6	7.9
28	7.0	6.8	6.9	8.0	7.6	7.8	7.3	7.1	7.2	8.1	7.5	7.8
29	7.0	6.9	6.9	7.9	7.6	7.8	7.5	7.2	7.4	7.8	7.5	7.7
30	7.3	6.8	7.0	7.8	7.6	7.7	7.6	7.3	7.4	7.7	7.5	7.6
31	---	---	---	7.7	7.6	7.7	7.5	7.3	7.4	---	---	---
MONTH	8.4	6.7	---	8.0	6.6	---	---	---	---	8.2	6.0	7.5

DELAWARE RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	524	6	8.5	524	5	7.1	767	30	62
2	587	11	17	533	15	22	628	8	14
3	614	12	20	763	35	72	583	7	11
4	520	9	13	641	9	16	569	6	9.2
5	497	8	11	515	2	2.8	538	6	8.7
6	488	5	6.6	484	2	2.6	547	6	8.9
7	461	2	2.5	551	2	3.0	808	84	183
8	443	2	2.4	515	2	2.8	1090	150	441
9	434	2	2.3	470	2	2.5	704	16	30
10	3120	1200	10100	470	1	1.3	628	10	17
11	1380	240	894	457	1	1.2	601	9	15
12	727	50	98	443	1	1.2	565	9	14
13	596	15	24	439	1	1.2	547	9	13
14	560	10	15	425	1	1.1	524	7	9.9
15	529	7	10	434	2	2.3	533	6	8.6
16	490	5	6.6	443	3	3.6	533	6	8.6
17	480	4	5.2	430	3	3.5	511	6	8.3
18	470	3	3.8	421	3	3.4	497	6	8.1
19	460	6	7.5	421	3	3.4	479	6	7.8
20	450	5	6.1	430	3	3.5	529	6	8.6
21	450	4	4.9	416	3	3.4	524	6	8.5
22	440	3	3.6	395	3	3.2	479	6	7.8
23	450	5	6.1	378	3	3.1	448	5	6.0
24	1200	65	211	391	11	12	446	4	5.0
25	1000	31	84	2110	321	1830	470	4	5.1
26	700	10	19	1140	50	154	457	4	4.9
27	560	6	9.1	664	11	20	448	4	4.8
28	538	6	8.7	601	15	24	443	4	4.8
29	506	6	8.2	950	101	259	430	4	4.6
30	488	5	6.6	1890	225	1150	461	4	5.0
31	488	4	5.3	--	--	--	502	5	6.8
TOTAL	20650	--	11620.0	18744	--	3615.2	17309	--	950.0

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	434	4	4.7	365	1	.99	1460	140	552
2	713	80	154	395	1	1.1	2280	280	1720
3	718	60	116	547	50	74	1910	446	2300
4	529	9	13	1340	350	1270	1150	70	217
5	713	20	39	524	60	85	980	20	53
6	605	10	16	461	35	44	840	11	25
7	488	2	6.6	461	25	31	794	9	19
8	466	2	2.5	399	15	16	781	8	17
9	484	5	6.5	350	8	7.6	704	7	13
10	776	16	34	360	5	4.9	686	6	11
11	614	5	8.3	370	5	5.0	659	6	11
12	538	4	5.8	378	6	6.1	673	8	15
13	529	3	4.3	2140	670	3870	668	11	20
14	578	7	11	2240	400	2420	772	38	79
15	497	5	6.7	826	50	112	920	35	87
16	404	2	2.2	700	19	36	727	20	39
17	470	2	2.5	619	18	30	2140	1110	6800
18	439	1	1.2	587	20	32	1180	250	797
19	448	1	1.2	745	18	36	820	32	71
20	452	1	1.2	718	15	29	725	13	25
21	461	1	1.2	620	12	20	695	12	23
22	457	1	1.2	580	9	14	890	61	147
23	475	3	3.8	550	7	10	1040	165	463
24	475	6	7.7	520	7	9.8	740	18	36
25	457	7	8.6	601	8	13	665	15	27
26	416	6	6.7	860	40	93	640	12	21
27	391	4	4.2	840	19	43	611	10	16
28	412	2	2.2	781	12	25	593	11	18
29	399	2	2.2	985	50	133	584	14	22
30	404	2	2.2	--	--	--	589	15	24
31	391	2	2.1	--	--	--	575	14	22
TOTAL	15633	--	478.8	20862	--	8471.49	28491	--	13690

DELAWARE RIVER BASIN

27

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	557	13	20	467	10	13	1150	218	677
2	557	12	18	463	10	13	602	70	114
3	526	12	17	750	105	213	571	40	62
4	584	12	19	1120	150	454	517	31	43
5	571	11	17	720	65	126	625	52	88
6	521	11	15	539	26	38	544	45	66
7	521	11	15	499	13	18	481	41	53
8	530	11	16	553	17	25	440	34	40
9	503	10	14	870	58	136	409	31	34
10	481	9	12	1180	77	245	391	29	31
11	485	9	12	755	25	51	373	27	27
12	472	9	11	625	30	51	355	29	28
13	870	130	305	607	30	49	359	31	30
14	940	100	254	611	30	49	440	40	48
15	1060	165	472	820	62	137	354	31	30
16	1080	144	420	640	25	43	310	30	25
17	1620	310	1360	607	21	34	517	60	84
18	810	65	142	645	65	113	368	45	45
19	650	35	61	602	74	120	580	77	121
20	602	15	24	593	42	67	400	50	54
21	589	18	29	602	33	54	445	76	91
22	660	35	62	571	36	56	6740	825	13100
23	800	28	60	535	33	48	9260	203	6550
24	845	30	68	499	31	42	1730	73	363
25	655	25	44	481	26	34	1630	123	573
26	562	13	20	458	24	30	1110	38	114
27	521	10	14	445	19	23	880	30	71
28	499	8	11	436	21	25	760	25	51
29	485	8	10	427	25	29	880	48	114
30	472	9	11	422	28	32	1110	60	180
31	--	--	--	815	115	253	--	--	--
TOTAL	20028	--	3553	19357	--	2621	34331	--	22907

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	775	30	63	341	19	17	186	13	6.5
2	645	23	40	314	17	14	355	58	56
3	593	21	34	305	17	14	256	20	14
4	580	20	31	328	28	25	211	13	7.4
5	607	26	43	305	25	21	194	13	6.8
6	616	21	35	283	20	15	186	12	6.0
7	539	14	20	283	17	13	186	12	6.0
8	535	16	23	296	16	13	177	10	4.8
9	548	15	22	283	15	11	173	9	4.2
10	503	16	22	265	15	11	166	8	3.6
11	458	16	20	256	15	10	162	8	3.5
12	431	15	17	256	13	9.0	173	9	4.2
13	1410	177	959	269	16	12	194	9	4.7
14	850	105	241	269	14	10	186	9	4.5
15	535	30	43	251	14	9.5	177	9	4.3
16	476	23	30	238	14	9.0	162	8	3.5
17	535	40	58	242	13	8.5	158	9	3.8
18	481	38	49	256	13	9.0	155	9	3.8
19	640	63	109	242	14	9.1	169	10	4.6
20	440	42	50	224	13	7.9	158	11	4.7
21	427	30	35	215	15	8.7	155	10	4.2
22	395	28	30	211	18	10	158	10	4.3
23	359	25	24	202	15	8.2	147	9	3.6
24	350	21	20	202	15	8.2	147	9	3.6
25	346	25	23	202	15	8.2	151	10	4.1
26	391	30	32	202	16	8.7	147	9	3.6
27	346	27	25	400	47	51	143	10	3.9
28	341	21	19	256	19	13	147	11	4.4
29	328	20	18	215	18	10	140	12	4.5
30	323	22	19	202	14	7.6	155	11	4.6
31	337	23	21	194	14	7.3	--	--	--
TOTAL	16140	--	2175	8007	--	388.9	5274	--	197.7

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

224826
 70668.09

DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, at gaging station on right bank in Rockford Park, 0.2 mile downstream from Henry Clay Bridge, in Wilmington, and at mile 4.2. Sediment samples are collected at the Henry Clay Bridge.

DRAINAGE AREA.--314 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1950, November 1951 to September 1952, October 1956 to September 1972.

Water Temperatures: November 1956 to September 1961, February 1971 to September 1972.

Sediment records: December 1946 to September 1961, July 1962 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 26.0°C July 19-25 and Aug. 26; minimum, freezing point Jan. 8, 9.

Sediment concentrations: Maximum daily, 1,300 mg/l Oct. 10; minimum daily, 1 mg/l Jan. 12, 19-22.

Sediment discharge: Maximum daily, 19,400 tons June 23, minimum daily, 1.20 tons Jan. 19-22.

Period of record:

Water temperatures (1956-61, 1971-72): Maximum, 30.0°C June 17, 1957; minimum, freezing point on many days during winter period.

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 Feb. 14, 1966; minimum daily, less than 0.50 ton 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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.											
01...	616	12	--	--	17	6.9	8.0	2.7	50	21	14
DEC.											
01...	913	12	--	--	14	5.5	6.4	3.2	34	28	12
JAN.											
07...	557	13	--	--	17	6.5	7.8	2.3	43	27	15
FEB.											
03...	414	9.7	--	--	18	7.0	8.0	2.0	43	22	16
MAR.											
01...	1460	8.6	--	--	17	6.3	10	2.6	39	22	19
31...	683	9.1	--	--	15	5.9	8.5	2.0	40	23	13
MAY											
01...	615	10	--	--	16	6.3	7.5	1.6	44	21	13
31...	647	8.9	560	100	17	6.4	7.5	1.8	48	21	12
JULY											
03...	760	11	400	30	19	6.4	7.5	2.4	51	22	12
AUG.											
01...	417	11	340	50	19	6.7	8.2	2.2	55	20	13
SEP.											
01...	185	9.8	230	40	21	7.1	9.5	2.7	65	21	15

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
NOV.										
01...	.4	9.3	.09	121	116	71	30	3	203	7.3
DEC.										
01...	.3	8.2	.08	111	106	58	30	15	161	6.6
JAN.										
07...	.3	11	.08	131	121	69	34	5	191	6.9
FEB.										
03...	.0	14	.10	120	118	74	39	3	165	7.2
MAR.										
01...	.0	8.5	.10	123	113	69	37	6	189	7.1
31...	.0	12	.08	118	108	62	29	3	184	6.8
MAY										
01...	.2	9.5	.06	120	107	66	30	4	185	7.9
31...	.1	9.7	--	--	108	69	29	--	190	7.5
JULY										
03...	.1	10	--	--	116	74	32	--	190	7.9
AUG.										
01...	.1	10	--	--	118	75	30	--	199	7.7
SEP.										
01...	.2	9.2	--	--	128	82	28	--	216	7.8

DELAWARE RIVER BASIN

29

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

WATER TEMPERATURE (DEG. C) , WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
INSTANTANEOUS OBSERVATIONS AT 9:00 AM

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	17.0	6.0	2.0	3.0	9.0	9.0	14.0	17.5	19.0	21.0	22.0
2	20.0	18.0	6.0	2.0	4.0	8.0	10.0	14.0	19.0	20.0	22.0	22.0
3	18.0	18.0	5.0	2.0	2.0	8.0	8.0	17.0	18.0	22.0	23.0	21.0
4	19.0	12.0	7.0	2.0	2.5	6.0	7.0	17.0	20.0	21.0	23.0	21.0
5	19.0	13.0	6.0	---	2.0	4.0	9.0	14.0	20.0	19.0	20.0	19.0
6	16.0	10.0	7.0	0.0	2.0	4.0	8.0	13.0	18.0	17.0	21.0	19.0
7	16.0	11.0	6.0	0.0	2.0	5.0	8.0	16.0	19.0	18.0	21.0	18.0
8	15.0	11.0	6.0	0.0	2.0	6.0	3.0	17.0	---	18.0	22.0	21.0
9	16.0	10.0	6.0	3.0	2.0	2.0	7.0	14.0	19.0	18.0	22.0	21.0
10	15.0	10.0	7.0	3.0	2.0	3.0	7.0	12.5	18.0	21.0	21.0	21.0
11	16.0	11.0	9.0	6.0	0.0	3.0	11.0	13.0	17.0	22.0	21.0	19.0
12	15.0	7.0	7.0	5.0	3.0	5.0	11.0	14.0	17.0	23.0	20.0	18.0
13	14.0	7.0	6.0	6.0	3.5	6.0	11.0	16.0	18.0	22.0	22.0	19.0
14	16.0	7.0	11.0	11.0	6.0	6.0	11.0	17.0	18.0	24.0	22.0	20.0
15	16.0	12.0	4.0	3.0	6.5	5.0	11.0	17.0	20.0	24.0	22.0	20.0
16	18.0	9.0	9.0	3.0	6.0	6.0	10.0	17.0	22.0	25.0	21.0	20.0
17	17.0	8.0	7.0	2.0	6.0	8.5	10.0	18.0	21.0	24.0	20.0	22.0
18	12.0	11.0	6.0	6.0	5.0	8.0	12.0	15.0	20.0	25.0	19.0	22.0
19	15.0	9.0	6.0	0.0	6.0	7.0	17.0	18.0	21.0	26.0	20.0	22.0
20	16.0	7.0	6.0	5.0	3.0	7.0	18.0	16.5	22.5	26.0	21.0	19.0
21	17.0	7.0	4.0	7.0	3.0	6.0	12.0	16.0	21.0	26.0	22.0	17.0
22	16.0	4.0	3.0	3.0	3.0	8.0	11.0	17.0	18.0	26.0	22.0	18.0
23	16.0	6.0	3.0	4.0	3.0	7.0	8.0	16.0	15.0	26.0	23.0	15.0
24	18.0	3.0	3.0	5.0	3.0	5.0	11.0	17.0	15.5	26.0	25.0	18.0
25	18.0	5.0	3.0	6.0	4.0	2.0	11.0	17.0	16.5	26.0	25.0	18.0
26	16.0	4.0	4.0	1.0	4.0	4.0	10.0	14.0	17.0	22.0	26.0	18.0
27	18.0	5.0	6.0	3.0	2.0	4.0	11.0	17.0	19.0	21.0	25.0	21.0
28	20.0	5.0	3.0	3.0	3.0	4.0	12.0	16.0	19.0	22.0	24.0	20.0
29	15.0	6.0	3.0	3.0	4.0	8.0	12.0	16.0	18.0	21.0	24.0	19.0
30	19.0	5.0	4.0	6.0	---	7.0	13.0	18.0	19.0	21.0	24.0	20.0
31	16.0	---	3.0	3.0	---	7.0	---	18.0	---	21.0	24.0	---
MONTH	16.5	9.0	5.5	3.5	3.5	6.0	10.5	16.0	18.5	22.5	22.0	19.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
FEB.. 1972							
14...	0930	2750	6.0	429	3180	39	53
MAR.							
03...	1430	2430	8.0	658	4320	42	62
JUNE							
22...	1600	5500	18.0	921	13700	38	50
DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
FEB.. 1972							
14...	74	89	95	98	99	99	100
MAR.							
03...	81	92	98	99	99	100	--
JUNE							
22...	65	83	92	97	99	100	--

DELAWARE RIVER BASIN

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	603	7	11	590	5	8.0	962	41	106
2	650	13	23	681	13	24	881	15	36
3	699	14	26	1140	33	102	768	11	23
4	600	10	16	943	11	28	720	5	9.7
5	572	11	17	718	7	14	656	4	7.1
6	558	6	9.0	638	5	8.6	626	4	6.8
7	532	2	2.9	670	4	7.2	917	70	173
8	510	2	2.8	654	3	5.3	1370	210	777
9	500	2	2.7	585	2	3.2	881	25	59
10	4000	1300	14000	582	2	3.1	792	12	26
11	2230	463	2790	569	2	3.1	736	7	14
12	1060	147	421	552	2	3.0	680	5	9.2
13	941	12	30	545	2	2.9	640	3	5.2
14	847	7	16	533	3	4.3	605	3	4.9
15	754	6	12	537	3	4.3	605	4	6.5
16	692	4	7.5	549	3	4.4	598	4	6.5
17	657	3	5.3	530	3	4.3	563	4	6.1
18	637	3	5.2	511	3	4.1	549	3	4.4
19	622	3	5.0	503	4	5.4	521	3	4.2
20	602	3	4.9	516	4	5.6	570	3	4.6
21	596	3	4.8	499	4	5.4	570	4	6.2
22	590	3	4.8	482	5	6.5	528	4	5.7
23	585	2	3.2	455	6	7.4	493	4	5.3
24	1340	51	185	467	20	25	507	3	4.1
25	1290	31	108	2560	313	2160	514	3	4.2
26	857	14	32	1480	85	340	500	3	4.1
27	711	10	19	846	17	39	493	3	4.0
28	652	6	11	730	20	39	486	3	3.9
29	620	6	10	1310	95	336	472	3	3.8
30	585	6	9.5	2460	380	2520	486	3	3.9
31	567	5	7.7	--	--	--	542	3	4.4
TOTAL	26659	--	17802.3	23835	--	5723.1	20231	--	1338.8

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	479	4	5.2	359	3	2.9	1540	105	437
2	680	67	123	406	3	3.3	2570	245	1700
3	836	76	172	744	90	181	2340	585	3700
4	563	8	12	1760	343	1630	1340	75	271
5	760	20	41	672	205	372	1040	60	168
6	696	15	28	584	22	35	908	17	42
7	556	2	3.0	577	10	16	863	9	21
8	521	2	2.8	500	4	5.4	854	8	18
9	549	8	12	465	4	5.0	776	8	17
10	890	15	36	493	4	5.3	752	7	14
11	712	7	13	472	4	5.1	712	6	12
12	591	1	1.6	458	4	4.9	720	7	14
13	549	3	4.4	2180	600	3530	720	7	14
14	605	7	11	2900	450	3520	792	20	43
15	521	5	7.0	935	68	172	1000	38	103
16	412	6	6.7	845	15	34	809	27	59
17	412	5	5.6	728	10	20	2420	284	2170
18	458	2	2.5	680	9	17	1390	112	420
19	451	1	1.2	953	31	80	899	25	61
20	458	1	1.2	776	20	42	836	9	20
21	458	1	1.2	712	29	56	800	8	17
22	458	1	1.2	736	21	42	990	30	80
23	472	2	2.5	626	7	12	1230	170	565
24	479	2	2.6	648	5	8.7	863	52	121
25	465	2	2.5	633	7	12	776	8	17
26	424	2	2.3	944	18	46	744	8	16
27	400	3	3.2	935	18	45	704	7	13
28	412	3	3.3	863	8	19	680	5	9.2
29	400	3	3.2	1020	23	63	656	5	8.9
30	412	3	3.3	--	--	--	664	5	9.0
31	400	3	3.2	--	--	--	664	5	9.0
TOTAL	16479	--	517.7	24604	--	9984.6	32052	--	10169.1

01481500 BRANDYWINE CREEK AT WILMINGTON, DEL.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	630	6	10	624	6	10	1320	188	670
2	622	6	10	625	6	10	667	87	157
3	597	6	9.7	883	105	250	572	31	48
4	642	12	21	1390	180	676	513	40	55
5	654	10	18	976	40	105	678	67	130
6	590	9	14	715	11	21	522	40	56
7	586	9	14	663	9	16	483	32	42
8	602	10	16	657	10	18	444	28	34
9	574	10	15	1010	26	71	424	25	29
10	555	8	12	1360	69	253	413	19	21
11	559	6	9.1	858	15	35	390	18	19
12	549	6	8.9	722	21	41	380	17	17
13	827	105	234	669	10	18	421	19	22
14	1180	143	456	823	40	89	552	32	48
15	1260	162	551	1170	37	117	474	22	28
16	1530	200	826	842	20	45	415	15	17
17	2120	175	1000	698	11	21	607	38	62
18	1060	40	114	734	84	166	508	27	37
19	915	14	35	697	127	239	648	55	96
20	865	12	28	683	38	70	547	76	112
21	806	12	26	679	21	38	510	53	73
22	827	17	38	627	20	34	5530	780	14300
23	1030	20	56	588	17	27	14300	354	19400
24	1040	13	37	557	15	23	1990	82	441
25	893	15	36	541	14	20	1670	75	338
26	757	11	22	518	14	20	1030	50	139
27	699	9	17	506	12	16	914	48	118
28	668	7	13	501	12	16	926	27	68
29	648	6	10	493	12	16	1000	65	176
30	627	6	10	489	12	16	1440	75	292
31	--	--	--	860	110	255	--	--	--
TOTAL	24912	--	3666.7	23158	--	2752	40288	--	37045

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	921	26	65	414	15	17	201	9	4.9
2	826	17	38	382	14	14	345	69	64
3	755	13	27	369	13	13	296	23	18
4	739	14	28	375	12	12	237	10	6.4
5	752	18	37	358	12	12	220	10	5.9
6	810	5	11	332	12	11	209	12	6.8
7	707	11	21	326	12	11	211	12	6.8
8	691	10	19	343	12	11	199	11	5.9
9	710	8	15	315	10	8.5	196	10	5.3
10	661	7	12	305	10	8.2	189	10	5.1
11	621	7	12	290	9	7.0	182	10	4.9
12	593	7	11	285	9	6.9	193	9	4.7
13	1820	178	875	300	9	7.3	222	8	4.8
14	1220	208	685	305	9	7.4	223	8	4.8
15	746	88	177	280	10	7.6	203	9	4.9
16	647	75	131	261	11	7.8	187	8	4.0
17	686	58	107	265	11	7.9	182	8	3.9
18	638	25	43	280	11	8.3	179	8	3.9
19	782	48	101	270	9	6.6	192	8	4.1
20	561	60	91	253	9	6.1	182	9	4.4
21	536	70	101	245	9	6.0	178	9	4.3
22	501	22	30	233	8	5.0	183	9	4.4
23	453	15	18	229	8	4.9	174	9	4.2
24	444	13	16	225	8	4.9	168	9	4.1
25	429	13	15	225	8	4.9	176	8	3.8
26	482	20	26	225	11	6.7	174	7	3.3
27	431	15	17	424	54	62	171	8	3.7
28	417	13	15	290	15	12	172	9	4.2
29	399	14	15	245	11	7.3	164	9	4.0
30	391	14	15	225	9	5.5	182	9	4.4
31	407	15	16	221	9	5.4	--	--	--
TOTAL	20776	--	2790	9095	--	315.2	5990	--	213.9

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

268079
92318.4

DELAWARE RIVER BASIN

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.--11,050 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1955 to September 1972.
Water temperatures: October 1956 to September 1972.

EXTREMES.--1971-72:

Specific conductance: Maximum, 9,280 micromhos Sept. 26; minimum, 100 micromhos on many days during March and April.
Dissolved oxygen: Maximum, 12.5 mg/l Feb. 13; minimum, 0.1 mg/l Oct. 5, 6, 15, 16, Aug. 2.
Water temperatures: Maximum, 28.5°C July 24, 25; minimum, 1.0°C Feb. 10-12.
pH: Maximum, 8.9 Feb. 9; minimum, 5.5 Feb. 15-17.

Period of record:

Specific conductance: Maximum, 14,600 micromhos Oct. 6, 1957; minimum, 100 micromhos on many days.
Dissolved oxygen (1962-72): Maximum, 13.5 mg/l Dec. 29, 1969; minimum, 0.0 mg/l on many days during summer months.
Water temperatures (1956-72): Maximum, 31.0°C Aug. 9, 1968; minimum, freezing point on many days during winter months.
pH (1968-72): Maximum, 9.3 Nov. 10-11, 13, 1970; minimum, 4.2 Nov. 6, 1969.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1180	280	571	1680	380	910	400	220	269	380	160	198
2	2000	300	866	2200	360	960	860	220	312	400	160	200
3	2140	320	908	1780	340	788	740	200	330	180	160	167
4	3160	360	1280	1520	320	632	520	200	300	180	160	---
5	2720	360	1310	1320	320	553	660	200	311	---	---	---
6	3280	420	1470	1600	340	643	660	200	340	---	---	---
7	2960	480	1530	980	320	494	400	200	293	---	---	---
8	2960	540	1500	800	320	428	360	200	267	---	---	---
9	2800	600	1600	1260	340	654	300	200	222	---	---	---
10	2180	360	1430	940	340	603	200	200	200	180	180	---
11	1240	280	607	760	320	516	200	200	200	180	180	180
12	940	280	469	1220	340	653	200	200	200	200	180	182
13	960	320	522	1180	340	636	200	180	197	200	180	183
14	1040	320	566	1500	360	736	200	180	199	180	180	180
15	1020	340	543	1620	360	859	220	180	200	180	180	180
16	1060	340	587	2340	380	1100	200	180	194	180	180	180
17	1200	340	629	2620	400	1240	240	140	188	580	180	233
18	1480	380	865	2700	440	1380	200	160	179	320	180	203
19	1620	400	848	3060	400	1360	380	160	202	260	180	196
20	1500	400	860	2420	320	1270	240	140	181	340	180	198
21	1580	360	823	2200	420	1270	200	140	165	340	180	226
22	2120	380	866	1440	320	818	160	140	154	400	180	249
23	2200	440	1100	2200	440	953	160	140	158	540	180	255
24	1900	480	1160	2020	480	1170	180	140	162	320	180	222
25	1640	380	960	2720	360	1060	160	140	154	480	180	230
26	1480	340	750	1020	300	550	180	140	161	200	180	182
27	1280	320	672	1220	300	612	200	140	169	200	180	185
28	1180	320	681	1160	300	578	360	140	178	340	180	206
29	1400	200	638	1700	300	685	260	160	170	340	180	211
30	1400	320	738	760	260	394	380	160	198	480	180	234
31	1680	340	838	---	---	---	220	160	168	320	180	210
MONTH	3280	200	907	3060	260	816	860	140	214	580	160	---

DELAWARE RIVER BASIN

33

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued
 SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	380	180	235	940	140	375	180	100	121	140	120	134
2	400	180	259	540	140	249	160	100	117	140	120	137
3	580	200	358	340	140	171	120	100	108	160	120	141
4	580	180	240	140	140	140	120	100	111	160	120	140
5	200	160	183	140	120	137	120	100	108	140	140	140
6	200	180	186	140	120	123	120	100	107	140	140	140
7	220	180	191	140	120	124	120	100	110	140	140	140
8	200	180	189	140	100	123	120	100	116	160	140	141
9	440	180	214	120	100	119	140	100	117	160	140	141
10	1320	180	503	140	120	121	320	120	162	180	140	143
11	2660	180	1020	300	120	155	700	140	228	160	140	142
12	3500	220	1420	440	120	164	880	140	324	160	140	141
13	1860	420	1000	580	100	183	860	160	386	220	140	149
14	2520	200	1120	680	120	266	900	160	338	180	140	150
15	2180	180	858	560	120	196	1620	160	397	220	140	155
16	1620	180	668	500	120	211	960	160	288	180	140	151
17	1320	200	600	760	120	211	540	160	213	160	140	148
18	2100	140	810	180	120	128	240	160	166	160	140	147
19	1560	180	803	120	120	120	160	160	160	160	140	144
20	320	160	193	180	120	124	160	160	160	160	140	146
21	1600	160	495	120	120	120	160	140	158	160	140	148
22	1760	160	551	140	120	121	160	140	150	160	140	147
23	1180	180	548	120	120	120	160	140	143	160	140	146
24	1220	180	628	120	120	120	140	120	138	160	140	150
25	1460	180	681	120	120	120	140	120	134	180	140	155
26	1640	180	642	120	100	116	140	120	129	320	140	168
27	1060	160	469	120	100	110	140	120	127	240	140	166
28	1260	180	516	120	100	113	140	120	125	380	140	183
29	1060	180	448	140	100	116	140	120	126	540	160	218
30	---	---	---	160	100	119	140	120	129	720	140	284
31	---	---	---	160	100	118	---	---	---	1080	160	330
MONTH	3500	140	553	940	100	153	1620	100	173	1080	120	160
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	860	160	264	160	140	142	3240	440	1640	4420	1280	2650
2	220	160	168	160	140	141	3480	460	1770	4680	1300	2860
3	160	160	160	180	140	151	4080	660	1980	5400	1700	3250
4	160	160	160	160	140	150	3940	560	1870	4740	1140	2580
5	180	140	167	160	140	153	3880	700	1980	6580	1440	3150
6	220	160	179	160	140	159	3920	760	2080	5980	1920	3690
7	220	160	175	160	140	159	4440	820	2250	5740	1940	3920
8	300	160	183	160	160	---	3980	740	2140	6580	2040	4080
9	300	160	183	160	160	---	4280	880	2320	6440	2180	4130
10	260	160	171	160	160	160	3540	920	2140	5680	2380	4000
11	300	160	175	180	160	161	3600	940	2320	5440	2000	3780
12	360	160	228	180	160	161	4960	1020	2490	4740	1880	3230
13	720	160	275	180	160	163	3740	1020	2400	4880	2060	3390
14	540	160	268	160	160	160	3700	1020	2410	4600	2060	3350
15	540	160	278	180	160	163	3900	340	2490	4720	2020	3350
16	440	160	256	180	160	167	3740	1200	2680	4680	2040	3310
17	340	160	238	180	160	---	3840	1420	2590	4580	1960	3190
18	360	160	252	---	---	---	3880	1380	2550	6500	1780	3620
19	360	160	248	---	---	---	3900	300	2480	5780	2320	3990
20	320	160	223	---	---	---	4540	1360	2560	6820	2560	4680
21	380	180	229	---	---	---	4560	1340	2620	8240	2820	5290
22	260	160	190	---	---	---	4720	1180	2580	7680	2520	5060
23	180	160	162	---	---	---	4580	140	2570	8140	2540	5120
24	160	120	148	700	200	---	4820	1240	2820	9080	2980	5570
25	160	120	140	1180	200	440	5240	1260	2890	9000	3240	5930
26	140	140	140	1660	200	469	5220	1380	---	9280	3560	6130
27	160	140	142	2100	220	689	---	---	---	8800	3580	6080
28	160	140	143	2420	260	934	4700	380	---	9180	3760	6330
29	160	120	141	3440	320	1120	4360	1060	2540	9220	4540	6700
30	160	140	143	2380	380	1260	4480	1100	2600	8380	4480	6340
31	---	---	---	2800	420	1470	4260	140	2660	---	---	---
MONTH	860	120	194	3440	140	---	5240	140	2370	9280	1140	4290

DELAWARE RIVER BASIN

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

OCTOBER				NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.7	0.9	2.4	2.3	0.6	1.1	7.4	6.3	6.9	10.1	7.6	8.6
2	4.8	2.0	3.4	2.7	0.6	1.3	8.2	7.0	7.3	9.6	7.0	8.3
3	5.5	1.5	3.1	2.3	0.8	1.3	7.9	7.1	7.3	8.4	7.0	7.7
4	6.1	0.8	3.1	2.8	0.8	1.5	7.7	7.1	7.3	8.0	7.7	---
5	3.9	0.1	2.0	2.5	1.2	1.5	8.1	6.6	7.6	---	---	---
6	3.9	0.1	1.7	3.2	1.2	1.7	6.4	4.9	5.8	---	---	---
7	3.8	0.2	1.8	3.8	1.7	2.7	7.1	5.3	6.5	---	---	---
8	4.2	0.3	2.0	4.8	3.0	3.9	7.3	7.1	7.2	---	---	---
9	4.8	0.6	2.5	5.2	3.5	4.3	7.2	6.8	7.1	---	---	---
10	3.9	0.9	2.6	4.5	3.2	3.7	7.2	6.8	6.9	8.0	7.8	---
11	4.2	0.9	2.3	4.2	3.2	3.6	7.2	6.7	6.9	8.0	7.6	7.8
12	3.3	0.9	1.9	4.7	3.3	3.7	7.8	6.6	7.1	8.0	7.5	7.7
13	3.4	0.3	1.6	3.9	2.9	3.3	9.1	7.1	7.9	7.8	7.3	7.5
14	2.7	0.3	1.3	4.3	2.8	3.2	9.2	7.7	8.4	8.1	7.5	7.8
15	1.8	0.1	0.7	3.8	2.2	2.8	8.8	7.8	8.3	8.3	7.6	7.9
16	1.2	0.1	0.5	3.7	2.0	2.6	8.9	8.1	8.4	9.6	8.3	8.9
17	2.8	0.2	1.0	3.9	2.1	2.7	9.1	8.3	8.6	11.0	8.9	9.7
18	3.8	1.0	2.1	3.5	1.9	2.4	9.5	8.3	9.1	10.5	9.3	9.8
19	4.4	0.9	2.6	3.5	1.7	2.2	10.2	9.1	9.5	10.2	9.2	9.7
20	5.2	1.7	3.1	3.4	1.8	2.4	10.0	8.8	9.4	10.2	8.9	9.5
21	4.6	0.6	2.6	4.2	2.2	3.0	9.5	8.3	9.1	9.9	8.8	9.3
22	4.7	0.3	2.1	4.8	2.9	3.8	9.5	8.4	8.9	9.8	8.8	9.3
23	5.0	0.7	2.4	7.1	4.1	5.0	9.4	8.3	8.9	9.7	8.5	8.9
24	6.1	1.7	4.0	7.2	4.5	5.6	9.3	8.2	8.8	9.0	8.2	8.5
25	5.4	1.7	3.8	8.7	5.5	7.2	9.0	8.0	8.5	9.3	8.2	8.8
26	5.0	0.9	3.2	8.0	6.1	7.2	9.3	8.0	8.6	9.6	8.5	9.0
27	4.0	0.8	2.3	7.8	6.0	6.9	9.2	7.6	8.4	9.8	8.3	9.1
28	3.1	0.6	1.7	7.3	5.5	6.5	9.1	7.3	8.2	10.8	8.2	9.3
29	2.3	0.5	1.0	7.5	5.3	6.4	8.8	7.3	8.0	10.4	7.9	8.9
30	2.0	0.5	1.0	6.7	5.4	6.1	9.0	7.2	8.0	10.0	7.9	8.7
31	2.1	0.6	1.1	---	---	---	9.0	7.1	8.1	9.3	7.5	8.3
MONTH	6.1	0.1	2.2	8.7	0.6	3.7	10.2	4.9	8.0	11.0	7.0	---
FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.5	7.7	8.5	9.5	7.8	8.5	9.3	8.6	8.9	5.9	5.3	5.6
2	10.1	7.9	8.9	9.0	7.6	8.3	9.2	8.5	8.8	5.9	5.1	5.5
3	10.8	9.1	9.9	8.8	7.6	8.1	9.0	8.2	8.7	6.0	5.1	5.4
4	10.8	9.2	9.9	8.9	8.0	8.3	8.9	8.1	8.6	5.7	5.0	5.4
5	11.0	9.9	10.5	9.4	8.0	8.6	9.4	8.0	8.6	5.8	4.8	5.3
6	11.6	10.1	10.8	10.0	9.2	9.6	9.0	7.9	8.4	6.2	4.6	5.4
7	12.0	9.8	10.8	10.4	9.6	9.8	9.2	7.9	8.6	5.6	4.3	4.9
8	11.4	10.0	10.8	10.4	9.8	10.1	9.6	8.4	9.1	5.0	3.8	4.5
9	11.5	9.5	10.5	10.7	10.2	10.5	9.7	8.3	9.1	6.2	4.3	5.4
10	11.5	9.2	10.4	11.2	10.0	10.5	9.7	8.1	9.1	5.9	4.5	5.3
11	12.0	9.4	10.6	10.9	9.8	10.4	9.4	7.6	8.7	5.6	4.3	4.9
12	11.8	9.3	10.4	10.7	9.6	10.2	9.2	7.4	8.4	5.1	4.2	4.6
13	12.5	9.2	11.1	10.4	9.6	10.0	9.0	6.9	8.1	5.4	3.8	4.3
14	11.8	9.1	10.5	11.1	9.8	10.3	8.6	6.1	7.4	5.1	3.8	4.4
15	10.7	8.9	9.7	10.6	9.5	10.2	8.8	5.6	7.1	5.7	3.7	4.3
16	10.1	8.5	9.3	10.4	9.3	9.9	7.7	5.1	6.3	4.7	3.3	3.8
17	9.9	8.7	9.3	10.3	9.0	9.6	7.2	5.0	6.1	3.9	2.9	3.4
18	11.4	9.0	9.6	9.8	8.6	9.2	6.2	4.6	5.4	3.5	2.7	3.1
19	10.8	9.6	10.2	9.3	8.4	8.8	5.8	4.7	5.1	4.5	2.7	3.5
20	11.1	10.1	10.6	9.0	8.4	8.7	6.0	4.7	5.3	5.9	4.3	5.3
21	11.8	10.7	11.1	9.0	8.3	8.5	6.3	5.6	5.8	5.1	3.8	4.7
22	11.9	10.5	11.1	9.6	8.4	8.7	6.6	5.7	6.1	4.8	3.3	4.2
23	12.0	10.7	11.3	9.6	8.7	9.2	6.8	6.1	6.4	5.1	3.3	4.3
24	11.6	10.4	11.0	10.1	9.6	9.7	6.6	6.2	6.4	4.6	2.8	3.9
25	11.2	9.9	10.5	10.1	9.4	9.8	6.5	6.2	6.3	5.5	2.5	4.1
26	11.0	9.2	10.2	10.0	9.3	9.6	6.6	6.3	6.4	5.7	4.2	5.0
27	10.5	8.9	9.8	9.9	9.4	9.7	6.5	6.1	6.3	5.6	4.2	4.9
28	10.6	8.5	9.6	10.0	9.5	9.7	6.5	6.0	6.2	5.5	3.7	4.6
29	10.1	8.1	9.0	9.9	9.4	9.6	6.3	5.8	6.0	5.2	3.4	4.3
30	---	---	---	9.8	9.0	9.3	6.0	5.6	5.8	5.1	3.2	4.4
31	---	---	---	9.5	8.8	9.1	---	---	---	5.3	3.8	4.6
MONTH	12.5	7.7	10.2	11.2	7.6	9.4	9.7	4.6	7.3	6.2	2.5	4.6

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DEL.--Continued
 DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.0	2.8	4.1	4.5	3.8	4.1	2.0	0.5	1.1	3.4	1.2	2.2
2	4.6	2.2	3.4	4.1	3.6	3.8	2.6	0.1	1.2	4.2	1.5	2.8
3	3.6	1.7	2.6	4.2	3.4	3.7	2.9	0.9	1.7	4.6	2.1	3.4
4	2.8	1.6	2.2	4.7	3.3	3.9	3.3	0.9	1.7	4.3	1.7	3.0
5	2.9	1.7	2.1	4.8	3.6	4.2	4.3	1.0	2.6	4.3	1.8	2.9
6	2.9	1.7	2.1	5.0	3.4	4.0	4.6	1.6	3.0	3.9	1.6	2.8
7	3.8	1.6	2.5	4.5	3.1	3.8	4.7	2.5	3.7	3.8	1.6	2.8
8	4.3	2.2	2.8	3.4	2.8	---	4.2	2.1	3.2	4.1	1.5	2.8
9	4.0	2.4	3.0	3.9	2.9	---	4.1	1.9	3.3	3.8	1.5	2.7
10	4.5	2.3	3.2	4.1	2.7	3.4	5.2	2.0	3.8	4.7	2.1	3.4
11	4.8	2.8	3.7	4.1	2.8	3.4	5.2	2.8	4.2	4.5	2.4	3.6
12	4.8	2.8	3.7	3.5	2.5	3.0	5.5	3.3	4.4	4.3	2.4	3.4
13	4.8	2.6	3.6	3.4	2.1	2.8	5.0	2.9	4.0	4.2	2.1	3.1
14	3.7	2.3	2.9	2.8	1.8	2.4	4.6	2.3	3.6	4.3	2.1	3.1
15	3.7	2.1	2.8	2.9	1.8	2.4	5.5	2.4	3.9	4.6	2.1	3.3
16	3.4	2.2	2.7	2.7	1.9	2.4	4.9	2.3	4.0	4.5	2.1	3.2
17	2.6	1.8	2.2	2.3	1.7	---	4.9	2.7	3.8	4.6	2.2	3.3
18	2.7	1.7	2.0	---	---	---	4.4	2.2	3.3	4.7	2.3	3.1
19	2.6	1.2	1.8	---	---	---	4.4	2.0	3.0	4.6	2.1	3.2
20	2.6	1.1	1.6	---	---	---	4.8	2.1	3.2	6.0	3.0	4.6
21	3.0	1.1	1.8	---	---	---	4.7	2.2	3.1	6.2	4.5	5.4
22	4.6	1.9	2.9	---	---	---	4.7	2.1	3.0	6.0	3.6	5.1
23	4.2	3.1	3.5	---	---	---	4.4	2.0	3.0	6.2	3.4	5.0
24	3.9	2.2	3.1	3.0	1.2	---	4.6	1.7	2.6	6.1	3.0	4.6
25	5.2	3.4	4.3	3.2	1.0	1.6	3.9	1.5	2.5	5.5	2.1	3.9
26	5.7	3.9	4.9	3.2	1.1	1.7	3.4	1.3	---	4.8	1.7	3.3
27	6.0	4.3	5.4	3.5	1.1	1.6	---	---	---	4.2	1.4	2.9
28	5.1	4.2	4.5	2.7	0.8	1.5	3.7	1.5	---	5.0	1.6	3.2
29	4.4	4.1	4.2	3.3	0.8	1.5	3.5	1.2	2.3	4.7	2.6	3.7
30	4.4	4.0	4.2	2.3	0.6	1.2	3.6	1.2	2.4	4.5	2.4	3.7
31	---	---	---	1.9	0.5	1.1	3.4	1.0	2.3	---	---	---
MONTH	6.0	1.1	3.1	5.0	0.5	---	5.5	0.1	3.0	6.2	1.2	3.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

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

DELAWARE RIVER BASIN

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	3.0	3.5	4.5	3.5	4.0	7.0	6.5	7.0	14.0	13.0	13.5
2	4.0	3.0	3.5	5.5	4.0	5.0	8.0	7.0	7.0	14.5	13.5	14.0
3	4.0	3.0	3.5	6.0	5.0	5.5	8.0	7.0	7.0	14.5	14.0	14.0
4	4.0	3.0	3.5	6.5	5.0	5.5	7.0	7.0	7.0	14.5	14.0	14.5
5	4.0	3.0	3.5	6.5	5.0	6.0	8.0	7.0	7.5	14.5	14.0	14.5
6	3.5	2.0	2.5	6.0	5.5	6.0	8.5	7.0	8.0	15.0	14.0	14.5
7	3.5	1.5	2.5	6.0	5.5	5.5	8.5	8.0	8.0	15.5	14.5	15.0
8	3.0	1.5	2.5	6.0	5.5	6.0	8.0	7.0	7.0	16.0	15.5	15.5
9	3.0	1.5	2.0	6.0	5.5	5.5	8.0	6.5	7.0	16.0	15.0	15.5
10	3.0	1.0	2.0	5.5	4.5	5.0	8.0	6.5	7.0	16.0	15.0	15.5
11	3.0	1.0	1.5	5.5	4.5	5.0	8.5	7.0	7.5	16.0	15.5	15.5
12	2.0	1.0	1.5	5.5	4.5	5.0	9.0	8.0	8.0	16.5	16.0	16.0
13	2.0	1.5	1.5	5.5	5.0	5.0	9.0	8.5	8.5	17.0	16.0	16.5
14	3.5	2.0	2.5	5.5	5.0	5.0	9.5	8.5	9.0	16.5	16.5	16.5
15	4.0	3.0	3.5	5.0	5.0	5.0	10.0	9.0	9.5	17.0	16.5	16.5
16	4.0	3.0	3.5	5.5	5.0	5.0	10.5	9.0	9.5	18.0	16.5	17.0
17	4.0	3.5	3.5	6.0	5.0	5.5	10.5	9.5	10.0	18.5	17.0	17.5
18	4.0	3.0	3.5	6.0	5.5	5.5	11.0	10.0	10.5	18.5	18.0	18.0
19	3.5	3.0	3.5	6.5	5.5	6.0	12.0	11.0	11.5	18.5	18.0	18.0
20	3.5	3.0	3.0	6.5	5.5	6.0	13.0	11.5	12.0	18.0	18.0	18.0
21	3.0	1.5	2.0	6.5	6.0	6.5	13.0	11.5	12.0	18.0	18.0	18.0
22	3.0	1.5	2.0	7.0	6.0	6.5	13.0	12.0	12.0	18.0	18.0	18.0
23	3.0	1.5	2.0	7.0	6.5	6.5	13.0	12.0	12.0	18.5	18.0	18.0
24	3.0	1.5	2.0	7.0	6.0	6.5	12.0	12.0	12.0	18.5	18.0	18.0
25	3.0	1.5	2.5	6.5	6.0	6.0	12.0	12.0	12.0	18.5	18.0	18.5
26	3.5	2.0	3.0	8.0	6.0	6.0	13.0	12.0	12.0	18.0	18.0	18.0
27	3.5	2.0	3.0	6.5	6.0	6.0	13.0	12.0	12.0	18.5	18.0	18.0
28	4.0	2.0	3.5	6.5	6.0	6.0	13.0	12.0	12.5	18.5	18.0	18.5
29	4.5	3.0	3.5	6.5	6.0	6.5	13.5	12.0	12.5	19.0	18.5	18.5
30	---	---	---	7.0	6.5	6.5	13.5	13.0	13.0	19.0	19.0	19.0
31	---	---	---	7.0	6.5	6.5	---	---	---	19.5	19.0	19.5
MONTH	4.5	1.0	2.5	8.0	3.5	5.5	13.5	6.5	9.5	19.5	13.0	16.5
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	19.0	19.5	19.0	18.0	18.5	26.5	25.5	26.0	26.5	26.0	26.0
2	20.5	19.0	19.5	19.5	18.5	19.0	26.5	26.0	26.0	26.0	25.0	25.5
3	21.0	19.5	20.5	20.5	19.0	20.0	26.5	26.0	26.0	25.5	25.0	25.0
4	21.5	20.5	21.0	20.5	20.0	20.5	26.5	26.0	26.0	25.5	24.5	25.0
5	21.5	21.0	21.0	21.0	20.0	20.5	26.0	25.5	25.5	25.0	24.0	24.5
6	21.5	21.0	21.5	21.0	20.5	20.5	26.0	25.0	25.5	24.5	24.0	24.0
7	21.5	21.0	21.5	21.0	20.5	21.0	26.0	25.0	25.5	24.5	24.0	24.0
8	21.5	21.0	21.5	21.5	21.0	---	26.0	25.5	25.5	24.5	24.0	24.0
9	22.0	21.5	21.5	21.5	21.0	---	26.0	25.0	25.5	24.5	24.0	24.0
10	21.5	21.0	21.5	22.0	21.0	21.5	25.5	24.5	25.0	24.0	23.5	23.5
11	21.0	20.5	20.5	23.0	21.5	22.0	25.0	24.5	25.0	23.5	21.5	23.0
12	21.0	20.5	20.5	23.5	22.0	22.5	25.0	24.5	24.5	23.5	22.0	23.0
13	20.5	20.5	20.5	23.5	23.0	23.0	25.0	24.5	24.5	23.5	22.0	23.0
14	20.5	20.5	20.5	24.0	23.0	23.5	25.5	24.5	25.0	23.5	23.0	23.5
15	21.5	20.5	20.5	24.5	23.5	24.0	25.0	24.5	25.0	23.5	23.0	23.0
16	21.5	21.0	21.0	25.0	24.5	24.5	25.0	24.0	24.5	23.5	23.0	23.5
17	21.5	21.5	21.5	25.0	24.5	---	24.5	24.0	24.0	24.0	23.0	23.5
18	21.5	21.5	21.5	---	---	---	25.0	24.0	24.0	24.0	21.5	23.5
19	22.0	21.5	21.5	---	---	---	24.5	24.0	24.5	24.0	23.0	23.5
20	22.0	21.5	22.0	---	---	---	25.0	24.0	24.5	23.5	21.5	22.5
21	23.0	22.0	22.0	---	---	---	25.0	24.5	24.5	22.0	21.0	21.5
22	22.0	21.0	21.5	---	---	---	25.0	24.5	24.5	21.5	21.0	21.0
23	21.0	20.0	20.5	---	---	---	25.5	24.5	25.0	21.5	20.5	21.0
24	20.0	18.0	19.0	28.5	28.0	---	25.5	25.0	25.0	21.0	20.0	20.5
25	19.0	17.0	18.0	28.5	28.0	28.0	26.0	25.0	25.5	21.5	20.0	20.5
26	18.0	16.5	17.0	28.0	27.0	28.0	26.0	25.5	---	21.5	20.5	21.0
27	18.0	16.0	17.0	27.0	27.0	27.0	---	---	---	21.5	20.5	21.0
28	18.0	16.5	17.0	27.0	26.5	27.0	26.5	26.0	---	21.5	21.0	21.0
29	18.0	17.0	17.5	26.5	26.5	26.5	26.5	26.0	26.0	21.0	20.5	20.5
30	18.5	17.0	18.0	26.5	26.0	26.0	26.5	26.0	26.0	21.0	20.5	20.5
31	---	---	---	26.0	25.5	26.0	26.5	26.0	26.0	---	---	---
MONTH	23.0	16.0	20.0	28.5	18.0	---	26.5	24.0	25.0	26.5	20.0	23.0

DELAWARE RIVER BASIN

37

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

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
2	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
3	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
4	---	---	---	---	---	---	---	---	---	6.8	6.7	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	6.6	6.2	---
11	---	---	---	---	---	---	---	---	---	6.9	6.3	6.7
12	---	---	---	---	---	---	---	---	---	7.0	6.9	6.9
13	---	---	---	---	---	---	---	---	---	7.3	6.9	7.1
14	---	---	---	---	---	---	---	---	---	7.3	6.9	7.1
15	---	---	---	---	---	---	---	---	---	7.0	6.8	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	7.4	7.2	---
18	---	---	---	---	---	---	---	---	---	7.4	7.1	7.3
19	---	---	---	---	---	---	---	---	---	7.3	7.1	7.3
20	---	---	---	---	---	---	7.3	7.1	---	7.5	7.2	7.4
21	---	---	---	---	---	---	7.3	7.0	7.1	7.5	7.4	7.5
22	---	---	---	---	---	---	6.9	6.8	6.9	7.6	7.4	7.5
23	---	---	---	---	---	---	7.0	6.8	6.9	7.7	7.5	7.6
24	---	---	---	---	---	---	7.0	6.9	6.9	7.6	7.4	7.5
25	---	---	---	---	---	---	7.1	6.8	6.9	8.1	7.6	7.7
26	---	---	---	---	---	---	6.9	6.7	6.8	7.6	7.5	7.6
27	---	---	---	---	---	---	7.1	6.9	7.0	7.6	7.4	7.5
28	---	---	---	---	---	---	7.2	7.1	7.1	7.5	7.3	7.5
29	---	---	---	---	---	---	7.1	6.9	7.1	7.5	7.3	7.4
30	---	---	---	---	---	---	7.1	6.8	6.9	7.4	7.3	7.4
31	---	---	---	---	---	---	7.0	6.7	6.8	7.9	7.3	7.6
MONTH	---	---	---	---	---	---	---	---	---	8.1	6.2	---

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.9	8.0	6.9	6.2	6.4	6.7	6.6	6.7	6.7	6.5	6.6
2	8.3	7.8	7.9	7.3	7.0	---	6.7	6.6	6.7	6.7	6.5	6.6
3	8.2	7.9	8.0	6.4	6.3	---	7.0	6.7	6.7	---	---	---
4	8.0	7.6	7.9	7.0	6.3	6.5	6.7	6.6	6.7	6.7	6.5	---
5	8.2	7.4	7.8	6.8	6.3	6.5	6.8	6.6	6.7	6.6	6.5	6.6
6	8.1	8.0	8.0	6.7	6.3	6.5	6.7	6.6	6.7	6.6	6.5	6.6
7	8.1	7.9	8.0	6.7	6.4	6.6	6.8	6.6	6.7	6.7	6.6	6.6
8	8.2	7.6	7.9	7.0	6.5	6.7	6.8	6.6	6.7	6.7	6.6	6.6
9	8.9	7.9	8.2	6.6	6.5	6.6	6.8	6.6	6.8	6.7	6.5	6.6
10	8.6	8.1	8.2	6.7	6.4	6.5	7.0	6.7	6.8	6.7	6.6	6.7
11	8.6	8.1	8.2	7.1	6.4	6.6	6.8	6.7	6.7	6.8	6.7	6.7
12	8.3	8.1	8.2	7.3	6.6	6.9	6.7	6.6	6.7	6.8	6.7	6.7
13	8.2	8.1	---	7.0	6.6	6.9	7.0	6.6	6.8	6.7	6.7	6.7
14	6.1	5.8	---	6.9	6.6	6.8	6.8	6.6	6.7	6.7	6.4	6.6
15	5.8	5.5	5.7	6.8	6.5	6.6	6.7	6.3	6.6	7.3	6.5	6.9
16	5.6	5.5	5.5	6.6	6.4	6.5	6.8	6.6	6.7	7.1	6.6	6.8
17	5.9	5.5	5.7	7.2	6.6	6.9	7.1	6.6	6.7	6.6	6.5	6.6
18	6.9	6.1	6.5	6.7	6.3	6.4	6.7	6.7	6.7	6.6	6.4	6.5
19	7.3	6.6	7.0	6.4	6.3	6.3	6.8	6.7	6.7	6.4	6.3	6.4
20	7.2	6.2	6.8	6.5	6.3	---	6.9	6.7	6.8	6.4	6.3	6.4
21	7.0	6.3	6.8	---	---	---	6.8	6.7	6.8	6.7	6.3	6.5
22	6.9	6.4	6.6	---	---	---	6.9	6.8	6.8	6.8	6.4	6.6
23	7.2	6.4	6.7	---	---	---	6.8	6.7	6.8	6.8	6.6	6.7
24	6.7	6.2	6.5	---	---	---	6.9	6.7	6.8	6.7	6.6	6.7
25	6.6	6.0	6.3	---	---	---	6.8	6.7	6.8	6.8	6.6	6.7
26	6.8	6.1	6.5	---	---	---	6.8	6.7	6.7	6.8	6.7	6.7
27	6.5	6.0	6.2	6.9	6.6	---	7.0	6.7	6.9	6.8	6.7	6.7
28	6.4	6.1	6.2	6.7	6.6	6.7	7.0	6.7	6.9	6.7	6.6	6.6
29	6.4	6.2	6.2	6.7	6.6	6.7	6.7	6.6	6.6	6.6	6.5	6.6
30	---	---	---	6.7	6.6	6.7	6.6	6.5	6.6	6.8	6.4	6.6
31	---	---	---	6.7	6.4	6.6	---	---	---	6.9	6.7	6.8
MONTH	8.9	5.5	7.1	7.3	6.2	---	7.1	6.3	6.7	7.3	6.3	6.6

DELAWARE RIVER BASIN

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

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.6	6.7	7.1	6.3	6.7	6.5	6.3	6.4	6.4	6.1	6.2
2	6.7	6.7	6.7	6.8	6.3	6.6	6.5	6.3	6.4	6.5	6.1	6.3
3	6.7	6.3	6.7	6.7	6.2	6.5	6.5	6.4	6.4	6.5	6.2	6.3
4	6.7	6.6	6.7	6.3	6.2	6.3	6.6	6.4	6.5	6.5	6.1	6.3
5	6.8	6.7	6.7	6.4	6.3	6.3	6.7	6.4	6.5	6.5	6.0	6.3
6	7.1	6.7	6.7	6.6	6.0	6.3	6.7	6.4	6.5	6.4	6.2	6.3
7	6.8	6.7	6.8	---	---	---	6.8	6.5	6.6	6.4	6.2	6.3
8	6.8	6.7	6.7	---	---	---	6.7	6.5	6.6	6.4	6.1	6.3
9	6.8	6.6	6.7	6.7	6.3	---	6.8	6.5	6.6	6.4	6.1	6.2
10	6.7	6.6	6.7	6.4	6.2	6.3	6.7	6.3	6.5	6.4	6.1	6.3
11	6.7	6.5	6.6	6.3	6.2	6.2	6.6	6.3	6.5	6.4	6.1	6.3
12	6.8	6.4	6.6	6.2	6.2	6.2	6.6	6.4	6.5	6.4	6.1	6.3
13	6.8	6.5	6.7	6.2	6.1	6.2	6.5	6.3	6.4	6.4	6.0	6.2
14	6.7	6.4	6.6	6.2	6.1	6.2	6.5	6.1	6.4	6.4	6.1	6.2
15	6.7	6.5	6.5	6.2	6.1	6.2	6.6	6.3	6.4	6.4	6.1	6.2
16	6.6	6.5	6.6	6.3	6.1	6.2	6.5	6.3	6.4	6.3	6.1	6.2
17	6.6	6.4	6.5	6.2	6.1	---	6.5	6.1	6.4	6.3	6.0	6.1
18	6.5	6.3	6.4	---	---	---	6.4	6.1	6.3	6.0	6.0	---
19	6.6	6.3	6.5	---	---	---	6.4	6.1	6.3	---	---	---
20	6.6	6.0	6.4	---	---	---	6.4	6.1	6.2	---	---	---
21	6.6	6.3	6.4	---	---	---	6.5	6.2	6.3	---	---	---
22	6.7	6.0	6.5	---	---	---	6.6	6.2	6.3	---	---	---
23	6.6	6.5	6.6	---	---	---	6.5	6.0	6.3	---	---	---
24	6.4	6.3	6.4	6.6	6.4	---	6.5	6.0	6.3	---	---	---
25	6.3	6.2	6.2	6.6	6.5	6.5	6.5	6.2	6.3	---	---	---
26	6.7	6.1	6.4	6.7	6.5	6.5	6.5	6.1	---	---	---	---
27	6.9	6.3	6.5	6.6	6.5	6.5	---	---	---	---	---	---
28	6.7	6.4	6.5	6.6	6.4	6.5	6.4	6.0	---	---	---	---
29	7.3	6.5	7.0	6.6	6.4	6.5	6.4	6.1	6.2	---	---	---
30	7.2	7.0	7.2	6.5	6.3	6.5	6.4	6.1	6.2	---	---	---
31	---	---	---	6.5	6.4	6.4	6.4	6.1	6.2	---	---	---
MONTH	7.3	6.0	6.6	---	---	---	6.8	6.0	6.4	---	---	---

DELAWARE RIVER BASIN

39

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 downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,222 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1972.

EXTREMES.--1971-72:

Specific conductance: Maximum, 15,600 micromhos Sept. 13; minimum, 120 micromhos June 25-29.

Dissolved oxygen: Maximum, 12.5 mg/l June 27; minimum, 2.3 mg/l July 15.

Water temperatures: Maximum, 28.5°C July 22-24; minimum, freezing point Feb. 5-10.

pH: Maximum, 7.9 Aug. 14; minimum, 4.9 Feb. 7.

Period of record:

Specific conductance: Maximum, 35,400 micromhos Nov. 7, 1963; minimum, 100 micromhos on several days in 1969 and 1970.

Dissolved oxygen (1970-72): Maximum, 12.5 mg/l Feb. 14, 1970, Jan. 22, 1972; minimum, 0.3 mg/l Sept. 16-17, 1971.

Water temperatures (1970-72): Maximum, 28.5°C Aug. 2, 1970; minimum, freezing point on several days during winter months.

pH (1970-72): Maximum, 8.3 Aug. 31, Sept. 14, 1971; minimum, 6.0 Aug. 20, 1971.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10360	3800	6280	9600	3640	6060	5000	2640	3680	6080	1080	2610
2	9600	4080	6590	9040	3640	5620	4800	2480	3300	6000	1280	2550
3	10280	4000	6370	8200	3280	4690	8600	2560	4000	2480	960	1530
4	11040	4440	7360	7920	2600	4290	7880	2440	3660	2080	800	1210
5	11000	4160	6960	6600	2440	3620	7680	2560	3840	2400	720	1230
6	10280	4560	6860	7120	2440	3800	7600	2680	4230	4040	760	1670
7	9360	4040	6390	5120	2280	3120	5680	2600	3810	3240	800	1420
8	9520	4000	5990	6120	2000	2980	6720	2560	3880	1040	400	653
9	8560	4520	6030	7400	2080	4350	6680	1080	3030	5280	600	2700
10	8440	4240	5840	7440	2480	4560	3600	800	1530	5200	800	2750
11	7120	3480	4610	7040	2480	4430	3680	640	1330	6000	1040	3440
12	6560	2360	3790	9360	2680	6060	8000	480	1670	6960	1600	3990
13	7360	2520	4120	9360	3440	6210	4360	440	1430	7880	1800	4320
14	7200	2440	4370	9160	4080	6590	3280	480	1220	4600	1200	2790
15	6640	2480	4060	9800	4320	6710	5080	720	2200	7520	1120	3100
16	6800	2480	4190	10000	4480	6960	4320	640	1950	5160	960	2190
17	8840	2720	4590	9960	4760	7090	4560	600	1590	10320	1360	4210
18	8640	3760	6020	9840	4800	6930	2000	480	868	6480	1520	2810
19	10080	4000	6310	9240	4600	6510	7000	400	2430	5280	1360	2910
20	10240	4000	6370	8280	4600	6040	5760	960	2290	6000	1440	2790
21	8920	3680	5750	7960	4240	6030	5560	800	2110	4960	1640	2890
22	8880	3800	5450	6480	3240	4510	2960	760	1490	6040	1840	3370
23	9560	4240	6100	8960	2760	5420	4040	760	1470	7120	1840	3530
24	9760	4400	6590	12320	3760	7230	3960	800	1870	5400	1600	2620
25	9200	4000	6480	13280	6360	9020	2160	680	1030	6720	1720	3170
26	8960	3680	5590	11200	5240	7730	4600	760	1980	1760	680	1120
27	9360	3440	5450	12120	4840	7650	5120	720	2290	2720	400	1170
28	9400	3160	5700	11560	4680	7300	6640	800	2890	5040	800	1950
29	8480	3200	5200	12200	4600	7720	5120	1040	2200	6240	1040	2410
30	8040	3240	5240	10480	3400	6460	4760	1120	2240	6560	1200	2660
31	9320	3440	5700	---	---	---	3000	800	1610	4520	800	2000
MONTH	11040	2360	5690	13280	2000	5850	8600	400	2360	10320	400	2510

DELAWARE RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5680	1200	2260	7400	3360	---	7200	1320	2900	2400	320	712
2	6120	1360	2790	---	---	---	4990	1280	2240	2440	360	745
3	7680	3120	5150	---	---	---	3990	1000	1650	3200	800	---
4	7040	1040	3620	---	---	---	3900	1010	1830	720	400	---
5	1760	520	882	---	---	---	4300	880	1930	2560	320	723
6	3240	480	1510	---	---	---	3720	650	1380	3080	320	1240
7	5560	840	2460	---	---	---	3400	480	1800	2880	360	1040
8	10760	1200	5280	---	---	---	8200	2120	4590	2400	400	788
9	9640	4560	7460	---	---	---	8700	2100	5230	4800	400	1310
10	6880	5760	---	6100	2600	---	7450	2750	4650	4920	400	1810
11	---	---	---	8100	3100	5220	8500	2550	4990	3120	400	---
12	---	---	---	8300	2700	4900	8800	4010	5040	1880	400	790
13	---	---	---	6900	2700	4420	6250	3200	4260	3120	400	797
14	---	---	---	5700	3300	4530	7560	2880	4520	3200	400	872
15	---	---	---	4900	3900	4490	8600	3040	4590	2520	400	823
16	---	---	---	---	---	---	8080	2320	3930	1680	360	637
17	---	---	---	---	---	---	6440	1880	3450	1240	360	577
18	---	---	---	---	---	---	4920	1160	2280	1080	320	490
19	---	---	---	---	---	---	2160	1040	1380	800	320	475
20	---	---	---	---	---	---	1360	760	1070	400	400	---
21	---	---	---	---	---	---	2600	680	1130	---	---	---
22	---	---	---	---	---	---	1120	480	758	---	---	---
23	---	---	---	2000	950	1220	800	400	597	---	---	---
24	---	---	---	1500	680	1020	560	320	450	5480	960	---
25	---	---	---	3400	600	1750	560	280	392	6720	1040	2920
26	---	---	---	3500	970	2170	2480	280	547	6680	1960	4010
27	---	---	---	3300	1000	2130	3280	240	617	6240	1760	3580
28	6880	4000	---	3800	1190	2270	2480	240	632	5560	1680	3080
29	7320	3440	4940	7480	1300	2890	1960	240	562	6160	1800	3110
30	---	---	---	7700	1400	3240	2440	320	583	6280	1960	3370
31	---	---	---	5500	1400	2860	---	---	---	5960	2080	3300
MONTH	---	---	---	---	---	---	8800	240	2330	6720	320	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5560	1600	2790	240	200	---	10200	4800	7300	12960	7040	9290
2	4120	1280	2180	240	200	220	10960	4760	7190	13640	7760	9990
3	2520	720	1280	240	200	222	10720	5080	7200	15560	8360	11780
4	2560	600	1120	240	160	232	8520	4680	6260	13360	8000	9980
5	2520	480	1040	360	160	237	8720	4880	6300	14160	8080	---
6	2920	560	1230	2840	200	543	8640	5360	6710	14640	8080	10480
7	3560	520	1260	2320	200	502	7760	5520	6520	15400	8480	11170
8	5520	440	1810	1920	200	388	7920	4800	5860	13240	13240	---
9	5360	720	1810	2280	200	428	7200	5000	5770	---	---	---
10	---	---	---	1520	280	510	9600	4960	6610	---	---	---
11	---	---	---	960	200	320	10440	5120	7300	---	---	---
12	---	---	---	1280	280	443	10480	5200	7390	---	---	---
13	2600	1200	---	1360	240	508	9480	4760	6890	---	---	---
14	5080	1280	2290	760	280	415	9600	4560	6800	---	---	---
15	5160	1280	2350	680	280	423	10160	4960	7200	11960	8400	---
16	4200	1200	1970	520	440	---	11040	5560	8300	12920	7520	9910
17	3280	800	1860	---	---	---	11320	5840	7930	12080	7360	9570
18	3440	1240	2130	---	---	---	10720	5560	7720	11840	6600	8820
19	2960	1240	2040	---	---	---	11080	5280	7800	11000	6400	8640
20	2560	1200	1760	---	---	---	12560	5440	8410	13720	7600	10340
21	2960	1200	1840	6160	920	---	13400	6240	9410	13400	8720	11300
22	2880	1080	1770	7800	960	3170	13480	6480	9170	13880	8360	10710
23	1200	440	728	9960	1400	4560	14800	6400	9510	12720	8440	10320
24	480	400	435	10680	2240	5510	14960	6720	9770	13000	8520	10390
25	440	120	345	11000	3160	6690	13360	7080	9890	12920	8480	---
26	400	120	358	11800	3920	6910	14120	6880	9640	---	---	---
27	400	120	342	12280	4160	7080	13040	6640	---	---	---	---
28	400	120	332	12400	4520	7420	---	---	---	---	---	---
29	400	120	245	11360	5080	7520	12920	6240	---	---	---	---
30	240	200	---	10800	5440	7680	13040	6320	9000	---	---	---
31	---	---	---	9280	6080	7520	12880	6680	9390	---	---	---
MONTH	5560	120	1410	12400	160	---	14960	4560	7760	---	---	---

DELAWARE RIVER BASIN

41

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.8	4.5	5.2	5.6	4.1	5.0	10.1	8.8	9.6	---	---	---
2	5.8	5.2	5.6	5.4	3.9	4.8	10.4	9.5	9.9	---	---	---
3	6.0	5.1	5.5	5.4	3.9	4.6	10.5	9.5	9.9	---	---	---
4	6.0	5.2	5.7	7.2	3.8	5.3	10.5	9.4	9.9	---	---	---
5	5.8	4.8	5.4	6.8	5.2	6.0	10.8	9.8	10.2	---	---	---
6	5.7	4.6	5.3	7.2	5.7	6.5	10.8	9.9	10.3	---	---	---
7	5.7	4.6	5.3	8.1	6.4	7.2	10.4	9.7	10.1	---	---	---
8	5.9	5.0	5.5	8.2	6.6	7.8	10.3	9.6	9.9	---	---	---
9	6.1	5.5	5.8	8.5	7.6	8.1	10.2	9.1	9.6	---	---	---
10	6.2	5.5	6.0	8.3	7.2	7.9	9.5	8.8	9.2	---	---	---
11	6.3	5.7	6.0	8.4	6.3	7.9	9.6	9.0	9.3	9.1	8.2	---
12	6.2	5.2	5.8	8.6	7.7	8.2	9.5	8.9	9.1	9.4	8.2	8.8
13	6.6	5.4	6.1	8.5	7.2	8.0	9.5	8.7	9.1	8.8	8.0	8.4
14	7.1	5.6	6.5	8.7	7.5	8.2	9.6	8.9	9.2	9.0	7.7	8.4
15	7.1	5.9	6.6	8.8	7.3	8.2	9.3	8.9	9.1	---	---	---
16	7.0	5.5	6.3	9.6	7.2	8.1	9.2	8.9	9.1	---	---	---
17	7.6	5.5	6.6	8.9	7.4	8.2	9.3	8.0	8.5	---	---	---
18	7.9	6.9	7.5	8.8	7.3	8.1	10.0	8.1	9.1	---	---	---
19	7.9	5.7	6.7	8.7	7.2	7.9	9.7	9.2	9.5	---	---	---
20	6.5	5.9	6.2	8.7	7.4	8.1	9.7	9.4	9.5	---	---	---
21	6.4	5.6	6.1	8.8	7.9	8.4	9.6	9.3	9.5	---	---	---
22	6.3	5.6	5.9	9.8	8.0	9.0	9.9	9.4	9.8	---	---	---
23	6.3	5.6	6.0	10.4	9.3	9.9	10.0	9.5	9.7	---	---	---
24	6.7	6.0	6.4	10.5	9.8	10.2	9.7	9.4	9.6	---	---	---
25	6.5	5.9	6.3	10.9	10.3	10.6	9.7	9.3	9.6	---	---	---
26	6.4	5.8	6.1	10.9	10.2	10.6	9.7	9.2	9.4	12.1	11.4	---
27	6.2	5.5	5.9	10.9	10.0	10.4	9.4	9.1	9.3	12.5	11.3	11.8
28	6.1	5.0	5.7	10.7	9.7	10.2	9.2	9.0	9.0	12.0	11.3	11.7
29	5.8	4.5	5.3	10.7	9.5	10.1	9.1	8.8	8.9	12.2	11.2	11.6
30	5.6	4.2	5.0	10.5	8.9	9.9	8.9	8.6	8.7	12.2	11.0	11.5
31	5.6	4.1	5.0	---	---	---	9.0	8.6	8.9	12.0	10.8	11.4
MONTH	7.9	4.1	5.9	10.9	3.8	8.1	10.8	8.0	9.4	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.4	10.6	11.3	11.6	10.5	---	---	---	---	6.5	6.0	6.3
2	11.9	10.8	11.3	---	---	---	---	---	---	6.8	6.2	6.6
3	12.2	11.4	11.8	---	---	---	---	---	---	6.9	6.5	---
4	11.9	9.6	10.2	---	---	---	---	---	---	7.2	6.5	---
5	11.5	9.4	10.4	---	---	---	---	---	---	7.8	6.6	7.2
6	11.1	9.4	10.1	---	---	---	---	---	---	7.6	7.0	7.3
7	10.9	9.7	10.3	---	---	---	---	---	---	7.6	6.4	7.1
8	10.6	9.6	10.4	---	---	---	---	---	---	7.0	6.3	6.7
9	10.9	9.3	10.0	---	---	---	---	---	---	7.8	6.6	7.3
10	11.0	10.2	---	---	---	---	---	---	---	7.7	6.1	7.3
11	---	---	---	---	---	---	---	---	---	7.4	6.0	---
12	---	---	---	---	---	---	10.1	8.9	---	6.8	5.5	6.1
13	---	---	---	---	---	---	10.1	9.1	9.6	6.2	5.2	5.8
14	---	---	---	---	---	---	10.2	8.8	9.5	6.4	5.4	6.0
15	---	---	---	---	---	---	10.3	8.8	9.5	6.4	5.5	5.9
16	---	---	---	---	---	---	10.0	8.2	8.9	5.9	4.9	5.5
17	---	---	---	---	---	---	9.6	7.7	8.6	5.5	4.6	5.1
18	---	---	---	---	---	---	9.0	7.0	7.9	5.1	4.4	4.8
19	---	---	---	---	---	---	8.0	6.5	7.3	6.7	4.3	5.5
20	---	---	---	---	---	---	8.2	6.1	7.1	6.1	6.1	---
21	---	---	---	---	---	---	8.0	6.4	7.2	---	---	---
22	---	---	---	---	---	---	7.6	6.1	7.0	---	---	---
23	---	---	---	---	---	---	7.3	6.1	6.9	---	---	---
24	---	---	---	---	---	---	6.9	6.0	6.6	6.1	5.3	---
25	---	---	---	---	---	---	7.2	6.1	6.6	7.0	5.5	6.3
26	---	---	---	---	---	---	7.4	6.7	7.1	7.5	6.4	7.0
27	---	---	---	---	---	---	7.5	6.6	7.0	7.6	6.8	7.1
28	11.8	10.4	---	---	---	---	7.2	6.5	6.9	7.3	6.4	6.8
29	11.8	10.6	11.3	---	---	---	6.9	6.2	6.6	7.0	6.1	6.7
30	---	---	---	---	---	---	6.7	6.0	6.4	6.9	6.1	6.6
31	---	---	---	---	---	---	---	---	---	6.9	5.9	6.6
MONTH	---	---	---	---	---	---	---	---	---	7.8	4.3	---

DELAWARE RIVER BASIN

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

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	5.9	6.5	---	---	---	4.5	3.2	4.0	6.6	5.7	6.2
2	6.7	5.4	6.3	---	---	---	4.2	3.0	3.6	6.4	5.6	6.0
3	6.5	5.3	5.8	---	---	---	4.7	3.6	4.1	6.3	5.7	6.1
4	5.8	4.6	5.4	---	---	---	4.7	3.7	4.2	6.1	5.5	5.8
5	5.7	3.9	4.9	---	---	---	5.8	4.3	5.0	6.1	5.4	---
6	5.0	3.3	4.5	---	---	---	6.0	5.1	5.5	6.3	5.2	5.7
7	5.2	3.0	4.4	---	---	---	6.2	5.4	5.8	8.1	4.6	5.7
8	5.9	3.0	4.6	---	---	---	6.1	5.3	5.8	5.2	5.2	---
9	5.8	3.0	4.6	---	---	---	6.5	5.5	5.9	---	---	---
10	---	---	---	---	---	---	6.3	5.5	5.9	---	---	---
11	---	---	---	4.2	3.7	---	6.3	5.6	5.9	---	---	---
12	---	---	---	4.0	3.1	3.7	6.6	5.8	6.2	---	---	---
13	6.1	5.3	---	4.4	3.3	4.0	6.8	5.8	6.3	---	---	---
14	6.3	4.6	5.7	3.9	2.5	3.4	6.5	5.8	6.1	---	---	---
15	6.5	5.1	6.0	4.5	2.3	3.5	7.0	6.0	6.6	7.0	6.2	---
16	6.9	5.1	6.0	4.1	3.3	---	6.8	6.2	6.6	7.4	6.4	6.8
17	6.2	4.9	5.8	---	---	---	6.9	6.2	6.5	7.3	6.3	6.7
18	6.2	5.2	5.7	---	---	---	7.1	5.9	6.7	6.8	6.3	6.5
19	6.7	5.0	5.8	---	---	---	6.8	6.0	6.5	6.8	6.1	6.5
20	6.4	5.1	5.8	---	---	---	7.2	6.2	6.7	6.9	6.4	6.7
21	6.9	5.1	6.1	4.3	3.2	---	7.1	6.1	6.6	6.9	6.5	6.6
22	7.3	5.9	6.5	5.0	3.6	4.2	6.9	6.3	6.6	6.6	5.3	5.9
23	7.0	4.8	5.9	5.0	3.8	4.4	6.7	5.9	6.3	6.2	5.5	5.7
24	6.3	3.2	5.6	5.2	3.9	4.5	6.6	5.8	6.0	6.4	5.9	6.0
25	5.6	3.0	4.6	5.0	4.0	4.5	6.0	4.8	5.4	6.2	5.7	---
26	5.1	3.5	4.4	4.9	4.0	4.4	5.3	4.4	4.8	---	---	---
27	5.0	3.8	4.4	5.0	3.8	4.3	5.2	4.4	---	---	---	---
28	5.0	4.0	4.4	4.6	3.8	4.2	---	---	---	---	---	---
29	5.6	4.2	4.9	4.8	4.1	4.5	5.9	4.7	---	---	---	---
30	5.3	4.8	---	4.9	4.1	4.5	7.4	5.1	6.2	---	---	---
31	---	---	---	4.9	3.9	4.5	7.0	5.8	6.4	---	---	---
MONTH	7.3	3.0	5.4	---	---	---	7.4	3.0	5.8	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

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

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.5	1.5	2.0	3.5	1.5	---	---	---	---	15.0	12.0	13.5
2	1.5	1.5	1.5	---	---	---	---	---	---	14.5	13.5	14.0
3	2.0	1.0	1.5	---	---	---	---	---	---	15.0	13.5	---
4	1.5	0.5	1.0	---	---	---	8.0	7.0	---	15.0	14.5	---
5	1.0	0.0	0.5	---	---	---	8.0	6.5	7.0	14.5	14.0	14.5
6	1.0	0.0	0.5	---	---	---	8.5	7.0	7.5	15.0	14.0	14.5
7	1.0	0.0	0.5	---	---	---	8.5	7.0	8.0	16.5	14.5	15.0
8	0.5	0.0	0.0	---	---	---	7.0	6.5	6.5	16.0	15.0	15.5
9	0.5	0.0	0.0	---	---	---	7.0	6.0	6.5	15.0	14.5	14.5
10	0.0	0.0	---	---	---	---	7.0	6.0	6.5	15.5	10.0	14.5
11	---	---	---	---	---	---	8.0	6.5	7.0	15.5	14.5	---
12	---	---	---	---	---	---	9.0	7.0	8.0	16.0	10.5	15.0
13	---	---	---	4.5	4.5	---	9.0	8.0	8.5	16.5	15.0	15.5
14	---	---	---	4.5	4.5	4.5	9.0	8.0	8.5	16.0	15.5	16.0
15	---	---	---	4.5	4.0	4.5	9.0	8.0	8.5	16.5	15.5	16.0
16	---	---	---	5.0	4.5	4.5	9.5	8.5	9.0	18.0	15.5	16.5
17	---	---	---	5.5	4.5	5.0	10.0	8.5	9.5	19.5	16.5	17.5
18	---	---	---	6.0	5.0	5.5	11.0	9.5	10.0	19.0	17.0	17.5
19	---	---	---	6.0	5.5	6.0	11.5	4.5	10.5	18.0	17.0	17.5
20	---	---	---	6.0	5.5	6.0	13.0	11.0	11.5	17.0	17.0	---
21	---	---	---	6.0	6.0	6.0	13.0	11.0	11.5	---	---	---
22	---	---	---	6.5	6.0	6.0	12.0	11.0	11.5	---	---	---
23	---	---	---	6.5	6.5	6.5	13.0	11.0	11.5	---	---	---
24	---	---	---	6.5	6.0	6.0	12.0	11.5	11.5	19.0	17.0	---
25	---	---	---	6.0	5.5	5.5	12.0	11.5	11.5	18.0	16.0	17.0
26	---	---	---	6.0	5.5	5.5	13.0	11.0	11.5	17.0	16.0	16.5
27	---	---	---	6.0	5.5	5.5	13.0	10.5	12.0	18.0	16.0	16.5
28	2.0	1.5	---	6.5	5.5	6.0	13.0	11.5	12.0	18.5	16.0	17.0
29	3.0	1.5	2.0	6.0	5.5	---	14.0	11.5	12.5	18.0	16.5	17.5
30	---	---	---	---	---	---	13.5	12.0	13.0	18.5	17.0	18.0
31	---	---	---	---	---	---	---	---	---	19.0	18.0	18.5
MONTH	---	---	---	---	---	---	14.0	4.5	9.5	19.5	10.0	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	18.0	18.5	20.0	19.0	---	26.0	24.5	25.0	26.0	25.0	25.5
2	19.5	18.0	18.5	20.5	19.0	19.5	26.0	25.0	25.0	25.5	24.5	25.0
3	20.0	19.0	19.5	20.5	19.5	20.0	26.0	25.0	25.5	25.5	21.0	24.5
4	21.0	19.5	20.0	21.0	20.0	20.5	26.0	25.0	25.5	25.0	24.0	24.5
5	21.0	20.0	20.5	20.5	19.5	20.0	25.5	24.5	25.0	24.0	23.5	---
6	21.5	20.0	20.5	20.5	19.5	20.0	25.5	24.5	24.5	24.5	23.5	23.5
7	21.0	20.0	20.5	21.5	20.0	20.5	25.0	24.5	24.5	24.5	23.5	24.0
8	21.0	20.0	20.0	21.0	20.0	20.5	25.5	24.5	24.5	23.5	23.5	---
9	21.5	20.0	20.5	21.0	20.5	20.5	25.5	24.5	25.0	---	---	---
10	---	---	---	22.0	20.5	21.0	24.5	24.0	24.5	---	---	---
11	---	---	---	23.0	21.0	21.5	24.5	23.5	24.0	---	---	---
12	---	---	---	23.0	21.5	22.0	24.0	23.5	24.0	---	---	---
13	20.0	20.0	---	23.0	22.0	22.5	24.5	23.5	24.0	---	---	---
14	20.5	19.5	20.0	24.0	23.0	23.5	25.0	24.0	24.5	---	---	---
15	21.0	19.5	20.5	24.5	23.5	24.0	24.5	23.5	24.0	23.0	22.0	---
16	21.5	20.0	21.0	26.5	25.0	---	24.5	23.5	23.5	23.5	21.5	22.0
17	21.0	20.5	21.0	---	---	---	24.0	23.0	23.0	23.5	22.0	22.5
18	21.0	20.5	21.0	---	---	---	24.0	23.0	23.5	23.5	23.0	23.0
19	21.5	20.5	21.0	---	---	---	24.5	23.5	23.5	23.5	21.5	22.5
20	22.0	21.0	21.5	---	---	---	25.0	23.5	23.5	21.5	20.5	21.0
21	22.0	21.5	21.5	28.0	26.0	---	24.5	23.5	23.5	20.5	20.0	20.5
22	21.5	20.0	21.0	28.5	26.5	27.0	24.5	23.5	24.0	21.0	20.0	20.5
23	20.0	19.5	19.5	28.5	26.5	27.0	25.0	23.5	24.5	20.5	19.5	20.0
24	20.0	19.0	19.5	28.5	26.5	27.5	25.5	24.0	24.5	20.0	19.5	19.5
25	19.5	18.5	19.0	28.0	26.5	27.5	26.0	24.5	25.0	20.5	19.5	---
26	19.5	18.5	18.5	27.0	26.0	26.5	26.0	25.0	25.5	---	---	---
27	19.0	18.0	18.5	26.5	25.5	26.0	26.0	25.0	---	---	---	---
28	19.0	18.0	18.5	26.5	25.5	26.0	---	---	---	---	---	---
29	19.0	18.5	18.5	26.0	25.0	25.5	26.0	25.5	---	---	---	---
30	19.0	18.5	---	25.5	25.0	25.0	26.0	25.5	25.5	---	---	---
31	---	---	---	25.5	21.0	25.0	26.5	25.5	25.5	---	---	---
MONTH	22.0	18.0	20.0	28.5	19.0	---	26.5	23.0	24.5	---	---	---

DELAWARE RIVER BASIN

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

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.3	6.8	7.1	6.7	6.2	6.5	5.9	5.4	5.7	7.3	5.8	6.9
2	7.0	6.6	6.8	6.7	6.4	6.5	6.1	5.4	5.6	7.5	7.1	7.2
3	7.4	6.6	7.0	6.6	6.4	6.5	6.3	5.5	5.8	7.2	7.0	7.1
4	7.6	7.2	7.4	6.9	6.3	6.6	6.3	5.7	5.9	7.2	7.0	7.1
5	7.5	7.0	7.3	6.8	6.3	6.4	6.2	5.5	5.8	7.2	6.9	7.1
6	7.4	6.8	7.2	6.8	6.4	6.5	6.3	5.8	6.0	7.1	5.6	6.6
7	7.4	7.0	7.2	6.6	6.3	6.4	6.4	6.1	6.3	7.1	6.8	7.0
8	7.4	7.2	7.3	6.7	6.0	6.4	6.4	6.0	6.1	6.9	6.3	6.8
9	7.4	7.3	7.3	6.8	6.2	6.5	7.0	6.1	6.5	7.3	6.3	7.1
10	7.4	6.9	7.2	7.2	6.3	6.8	6.8	6.5	6.6	7.3	7.1	7.2
11	7.5	7.3	7.5	7.2	6.8	7.0	6.9	6.5	6.7	7.4	6.7	7.1
12	7.5	7.3	7.4	7.4	6.9	7.2	6.8	6.4	6.6	7.2	6.7	6.9
13	7.6	7.4	7.5	7.4	7.0	7.2	6.8	6.5	6.7	7.2	6.7	6.9
14	7.5	7.1	7.3	7.4	6.9	7.2	6.7	6.2	6.5	7.1	5.9	6.5
15	7.3	7.0	7.2	7.4	7.0	7.2	7.0	6.6	6.7	6.4	5.7	6.2
16	7.3	7.1	7.2	7.5	7.0	7.3	7.1	6.8	6.9	5.8	5.2	5.5
17	7.5	7.1	7.3	7.6	7.0	7.3	6.9	6.4	6.7	6.2	5.4	5.8
18	7.6	7.4	7.5	7.6	7.0	7.2	6.4	5.4	6.0	7.0	6.2	6.6
19	7.6	7.3	7.5	7.4	7.0	7.2	6.6	5.6	6.2	7.3	6.7	7.0
20	7.5	7.2	7.3	7.3	7.0	7.2	6.8	6.2	6.6	7.2	6.8	7.0
21	7.6	7.3	7.4	7.3	6.8	7.1	7.0	6.6	6.8	7.2	6.9	7.0
22	7.6	7.2	7.4	7.1	6.7	6.9	6.6	6.0	6.3	7.2	6.9	7.1
23	7.6	7.2	7.4	7.5	6.7	7.2	6.8	5.8	6.4	7.3	6.9	7.1
24	7.2	6.8	7.1	7.2	6.7	6.9	7.1	6.6	6.7	7.1	6.8	6.9
25	7.1	6.8	7.0	6.9	6.5	6.7	7.1	6.6	6.9	7.1	6.2	6.8
26	7.7	7.0	7.4	7.0	6.4	6.7	7.3	6.8	7.1	6.9	6.4	6.7
27	7.7	7.3	7.5	6.9	6.5	6.7	7.4	7.1	7.2	7.0	6.5	6.8
28	7.7	7.0	7.4	7.0	6.3	6.7	7.7	7.1	7.3	7.1	6.8	7.0
29	7.5	6.8	7.1	6.9	6.4	6.6	7.2	7.0	7.1	7.3	6.8	7.0
30	6.8	6.5	6.6	6.8	5.7	6.2	7.3	7.0	7.2	7.2	6.9	7.0
31	6.6	6.3	6.5	---	---	---	7.2	7.0	7.1	7.0	6.4	6.7
MONTH	7.7	6.3	7.2	7.6	5.7	6.8	7.7	5.4	6.5	7.5	5.2	6.8
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.3	6.5	6.8	---	---	---	---	---	---	6.6	6.0	6.2
2	6.8	6.1	6.6	---	---	---	---	---	---	6.4	6.1	6.2
3	6.5	5.1	5.7	---	---	---	---	---	---	6.6	6.2	---
4	5.5	5.2	5.4	---	---	---	---	---	---	6.6	6.1	---
5	6.1	5.0	5.5	---	---	---	---	---	---	6.7	5.9	6.3
6	5.9	5.1	5.4	---	---	---	---	---	---	6.5	5.8	6.2
7	5.4	4.9	5.2	---	---	---	---	---	---	6.4	5.5	6.0
8	6.5	5.5	6.0	---	---	---	---	---	---	6.0	5.4	5.7
9	6.9	5.8	6.4	---	---	---	---	---	---	6.4	5.6	6.0
10	6.4	6.3	---	---	---	---	---	---	---	6.4	5.5	---
11	---	---	---	---	---	---	---	---	---	6.9	6.5	---
12	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
13	---	---	---	---	---	---	---	---	---	6.8	6.6	6.6
14	---	---	---	---	---	---	7.3	6.9	---	6.9	6.3	6.6
15	---	---	---	---	---	---	7.4	6.8	7.1	6.7	6.2	6.6
16	---	---	---	---	---	---	7.3	6.7	6.9	6.8	6.2	6.6
17	---	---	---	---	---	---	7.2	6.7	6.9	6.5	6.4	6.5
18	---	---	---	---	---	---	7.0	6.7	6.8	6.5	6.3	6.4
19	---	---	---	---	---	---	6.8	6.6	6.8	7.4	6.3	7.2
20	---	---	---	---	---	---	6.9	6.6	6.7	7.2	7.2	---
21	---	---	---	---	---	---	6.8	6.6	6.7	---	---	---
22	---	---	---	---	---	---	6.6	6.4	6.5	---	---	---
23	---	---	---	---	---	---	6.5	6.3	6.4	---	---	---
24	---	---	---	---	---	---	6.4	6.2	6.3	6.9	6.6	---
25	---	---	---	---	---	---	6.4	6.2	6.3	7.0	6.5	6.7
26	---	---	---	---	---	---	6.7	6.0	6.5	7.0	6.6	6.8
27	---	---	---	---	---	---	6.8	6.3	6.4	7.0	6.5	6.7
28	7.4	7.1	---	---	---	---	6.6	6.2	6.4	6.8	6.5	6.6
29	7.4	7.1	---	---	---	---	6.6	6.1	6.4	6.8	6.4	6.5
30	---	---	---	---	---	---	6.6	6.0	6.3	6.7	6.3	6.5
31	---	---	---	---	---	---	---	---	---	6.7	6.3	6.5
MONTH	---	---	---	---	---	---	---	---	---	7.4	5.4	---

45

pH (UNITS), WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

ST. JONES RIVER BASIN

01483700 ST. JONES RIVER AT DOVER, DEL.

LOCATION.--Lat 39°09'49", long 75°31'10", Kent County, at gaging station 150 ft upstream from Division Street Bridge in Dover, 1,950 feet downstream from Silver Lake, and 12.5 miles upstream from mouth.

DRAINAGE AREA.--31.9 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 27...	371	10	--	--	7.2	2.0	5.0	3.8	16	12	7.7
DEC. 01...	164	12	--	--	6.6	2.3	6.4	3.2	11	16	13
30...	42	17	--	--	8.2	2.5	7.0	2.4	15	9.2	13
FEB. 02...	41	15	--	--	8.4	2.8	8.5	2.2	14	9.9	16
MAR. 02...	81	6.5	--	--	6.4	2.0	4.7	2.3	9	14	7.6
31...	33	10	--	--	7.6	2.7	8.6	2.8	14	15	12
MAY 01...	40	11	--	--	8.0	2.5	6.5	2.0	17	14	11
31...	19	15	2900	140	9.5	3.0	8.5	2.3	23	21	11
AUG. 01...	17	17	2900	160	13	2.7	8.8	2.9	32	19	10
31...	6.0	8.5	920	130	12	3.4	13	3.1	32	26	15

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	TOTAL ORTHO- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 27...	.5	1.6	.06	82	58	26	13	90	18.0	93	6.4
DEC. 01...	.4	2.1	.02	94	67	26	17	60	5.5	99	6.5
30...	.3	6.2	.03	107	73	31	19	70	6.5	119	6.7
FEB. 02...	.3	7.3	.02	103	77	33	21	50	3.5	125	6.8
MAR. 02...	.0	5.1	.01	69	53	24	17	40	8.5	82	6.8
31...	.2	4.3	.02	86	70	30	19	30	8.5	116	6.8
MAY 01...	.2	4.6	.00	82	68	30	16	50	18.0	108	7.1
31...	.1	5.3	--	--	88	36	17	--	21.0	122	7.4
AUG. 01...	.1	11	--	--	100	44	17	--	27.0	142	7.5
31...	.1	3.0	--	--	100	44	18	--	26.5	163	7.0

WICOMICO RIVER BASIN

47

01486500 BEAVERDAM CREEK NEAR SALISBURY, MD.

LOCATION.--Lat 38°21'05", long 75°34'11", Wicomico County, at gaging station, 0.6 mile upstream from Beaglin Branch, 2 miles southeast of Salisbury, and 0.8 mile upstream from mouth.

DRAINAGE AREA.--19.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 26...	464	3.0	--	--	2.8	1.0	2.5	2.5	5	5.0	2.5
JAN. 05...	33	18	--	--	4.0	1.3	7.4	1.7	14	2.6	9.4
FEB. 10...	31	11	--	--	4.2	1.5	5.6	2.3	8	7.4	7.9
MAR. 07...	37	9.7	--	--	4.2	1.4	5.8	2.3	10	6.3	8.3
APR. 05...	28	15	--	--	4.0	1.5	7.5	1.7	13	4.3	8.6
MAY 03...	14	10	390	20	4.2	1.7	6.9	1.7	16	7.5	10
JUNE 06...	21	12	520	10	4.3	1.8	7.3	1.6	19	7.5	8.0
JULY 18...	25	11	610	0	5.2	1.5	7.2	1.9	20	5.0	8.3
SEP. 13...	15	12	440	0	5.0	1.5	7.4	2.3	20	7.0	8.5

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 26...	.4	1.2	.04	--	23	11	7	90	19.0	43	5.7
JAN. 05...	.3	5.9	.00	68	57	16	4	25	7.0	76	6.9
FEB. 10...	.0	6.8	.00	69	51	17	10	30	4.5	73	6.7
MAR. 07...	.0	7.9	.00	67	51	17	9	30	7.5	72	6.6
APR. 05...	.1	7.1	.00	70	56	16	6	10	10.0	86	7.4
MAY 03...	.1	5.3	--	--	56	17	4	--	20.0	77	7.1
JUNE 06...	.1	4.8	--	--	57	18	3	--	18.0	78	7.1
JULY 18...	.0	4.8	--	--	55	19	3	--	26.0	80	7.2
SEP. 13...	.0	3.0	--	--	57	19	2	--	21.0	79	7.0

NANTICOKE RIVER BASIN

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DEL.

LOCATION.--Lat 38°43'45", long 75°33'41", Sussex County, at gaging station, 1,100 feet downstream from Gum Branch, 2.5 miles southeast of Bridgeville, and 50.5 miles upstream from mouth.

DRAINAGE AREA.--75.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.											
10...	85	19	--	--	4.3	1.8	12	3.0	21	6.0	8.7
DEC.											
10...	160	18	--	--	4.0	1.6	5.7	2.1	6	9.5	7.6
FEB.											
29...	233	13	--	--	4.5	1.5	5.3	2.0	4	8.3	6.8
MAR.											
16...	143	18	--	--	5.0	1.7	6.5	2.0	8	8.4	8.5
APR.											
12...	119	21	--	--	4.5	1.7	7.0	1.5	9	7.1	7.7
MAY											
15...	280	12	970	60	4.1	1.9	4.8	1.7	9	11	5.7
JUNE											
09...	112	18	1200	40	4.2	2.4	7.1	1.6	13	6.3	7.6
JULY											
19...	145	15	1100	60	4.8	1.5	5.1	2.0	11	9.4	6.5
AUG.											
22...	56	16	500	60	6.8	2.2	25	3.3	21	6.1	37
SEP.											
18...	47	16	860	30	5.1	1.8	8.0	2.2	17	5.3	10

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	TOTAL ORTHO PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH
NOV.										
10...	.3	12	.06	81	77	18	1	5	111	7.0
DEC.										
10...	.3	9.0	.01	73	61	17	12	20	76	6.6
FEB.										
29...	.0	10	.00	72	53	17	14	15	76	6.5
MAR.										
16...	.0	13	.01	80	67	20	13	15	86	6.6
APR.										
12...	.0	15	.01	79	70	18	11	7	88	7.1
MAY										
15...	.0	6.6	--	--	53	18	11	--	68	6.7
JUNE										
09...	.0	11	--	--	65	20	10	--	87	6.8
JULY										
19...	.0	8.4	--	--	58	18	9	--	72	6.6
AUG.										
22...	.0	11	--	--	121	26	9	--	205	7.3
SEP.										
18...	.5	10	--	--	67	20	6	--	94	7.0

NANTICOKE RIVER BASIN

45

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 downstream from Delaware-Maryland State line, and 2.4 miles upstream from Marshyhope Creek.

DRAINAGE AREA.--406 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: September 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 01...	--	300	45	--	--	--	--	23	8.4	31
SEP. 26...	.5	90	30	4.6	2.9	17	3.0	20	8.8	23

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	COLOR (PLATINUM-COBALT UNITS)	ODOR (THRESHOLD NUMBER)
OCT. 01...	.1	--	.10	107	--	26	7	30	1
SEP. 26...	.1	3.5	.09	86	73	23	7	35	--

DATE	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TURBIDITY (JTU)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)
OCT. 01...	200	0	5	6	8	70	8	32	1.5
SEP. 26...	0	0	0	0	2	0	10	23	3.1

DATE	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUSPENDED GROSS ALPHA AS U-NAT. (PC/L)	TOTAL ALPHA (PC/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	TOTAL BETA (PC/L)
OCT. 01...	.06	.00	3	.4	.4	.8	5.6	1.1	6.7
SEP. 26...	--	.00	1	--	--	--	--	--	--

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 01...	0900	20.5	--	7.4	6.7	200	110
22...	1230	16.5	--	8.2	6.5	140	94
NOV. 26...	1725	6.5	--	8.8	6.2	75	65
DEC. 23...	1455	6.0	--	10.5	6.2	85	120
JAN. 28...	0915	5.5	--	9.8	6.9	83	56
FEB. 25...	0810	3.2	--	10.7	6.1	79	27
APR. 03...	1400	9.5	11.0	9.2	7.2	97	9
30...	1330	15.5	22.0	7.3	6.8	85	38
MAY 26...	1020	18.0	16.5	7.5	6.5	78	140
JUNE 19...	1630	24.0	--	9.4	6.6	91	130
SEP. 26...	1330	20.0	--	6.6	6.6	160	52

CHOPTANK RIVER BASIN

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, at gaging station, 0.1 mile upstream from Gravelly Branch, 2.0 miles northeast of Greensboro, and 60 miles upstream from mouth.

DRAINAGE AREA.--113 sq mi.

PERIOD OF RECORD.--Chemical analyses: February 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT.											
01...	68	20	--	340	--	53	9.6	2.7	6.9	1.9	20
22...	98	20	1700	--	30	--	9.3	2.5	6.1	2.1	19
NOV.											
26...	1130	7.6	1300	--	80	--	4.8	1.7	2.7	2.9	7
DEC.											
23...	218	16	1600	--	50	--	7.3	2.4	5.0	2.1	10
JAN.											
12...	378	17	1300	--	80	--	7.8	2.4	5.4	1.8	12
24...	173	20	--	--	--	--	6.0	2.1	7.3	2.0	6
FEB.											
25...	352	11	--	--	--	--	6.2	2.0	3.6	1.7	10
APR.											
03...	115	16	--	--	--	--	8.0	2.4	6.8	1.5	13
30...	148	16	--	--	--	--	6.0	2.0	5.5	1.5	10
MAY											
26...	70	17	3400	--	220	--	9.0	2.9	5.6	1.6	19
JUNE											
19...	345	13	2900	--	150	--	8.0	2.5	6.1	2.7	12
JULY											
24...	65	17	3000	--	100	--	9.7	2.7	6.5	1.9	20
AUG.											
24...	32	14	2000	--	60	--	11	3.0	6.2	2.1	24
SEP.											
26...	32	17	--	250	--	50	12	3.1	6.3	2.5	26

DATE	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 ORTHO PHOS- PHORUS (P) (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)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.											
01...	17	11	.2	3.5	--	.13	95	83	38	19	30
22...	17	11	.2	3.4	--	--	--	81	34	18	40
NOV.											
26...	11	6.8	.2	1.8	--	--	--	43	19	14	60
DEC.											
23...	16	8.9	.2	3.6	--	--	--	66	28	20	50
JAN.											
12...	16	9.5	.1	4.9	--	--	--	71	30	20	30
24...	12	8.8	.3	14	.05	--	76	75	24	19	5
FEB.											
25...	14	7.1	.0	4.8	.00	--	69	55	23	16	25
APR.											
03...	15	11	.1	5.3	.00	--	110	72	30	19	17
30...	14	8.7	.1	5.1	.01	--	83	64	23	15	35
MAY											
26...	19	8.7	.1	5.3	--	--	--	79	34	19	--
JUNE											
19...	22	10	.1	4.9	--	--	--	75	30	20	--
JULY											
24...	16	11	.1	6.2	--	--	--	81	35	19	--
AUG.											
24...	16	11	.1	6.6	--	--	--	82	40	20	--
SEP.											
26...	17	12	.1	6.6	--	.05	97	90	43	21	30

CHOPTANK RIVER BASIN

51

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	RIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.											
01...	1	200	0	0	6	0	110	10	6	1.0	.06
22...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
26...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
23...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
12...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB.											
25...	--	--	--	--	--	--	--	--	--	--	--
APR.											
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
19...	--	--	--	--	--	--	--	--	--	--	--
JULY											
24...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
26...	--	0	1	0	0	2	10	10	3	1.9	--

DATE	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (PC/L)	TOTAL ALPHA (PC/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	TOTAL BETA (PC/L)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.											
01...	.00	6	<.4	<.1	.2	4.9	<.6	5.2	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
26...	--	--	--	--	--	--	--	--	--	--	--
DEC.											
23...	--	--	--	--	--	--	--	--	--	--	--
JAN.											
12...	--	--	--	--	--	--	--	--	2.0	106	6.4
24...	--	--	--	--	--	--	--	--	12.0	90	6.6
FEB.											
25...	--	--	--	--	--	--	--	--	--	--	--
APR.											
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
19...	--	--	--	--	--	--	--	--	--	--	--
JULY											
24...	--	--	--	--	--	--	--	--	27.0	114	7.2
AUG.											
24...	--	--	--	--	--	--	--	--	22.0	124	7.3
SEP.											
26...	.01	2	<.3	<.1	--	4.0	<.6	--	--	--	--

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	FECAL COLI- FORM (COL. PER 100 ML)
OCT.								
01...	1016	68	18.0	--	8.1	6.8	120	110
22...	1100	98	14.5	--	8.1	6.6	118	50
NOV.								
26...	1540	1130	5.5	--	9.3	6.3	64	600
DEC.								
23...	1250	218	3.0	--	11.8	6.3	100	110
JAN.								
28...	1045	145	2.0	--	10.8	7.1	108	20
FEB.								
28...	1045	352	3.5	12.5	12.1	6.5	86	46
APR.								
03...	1100	115	8.0	8.5	10.8	6.8	114	39
30...	1535	148	15.0	21.0	7.8	--	106	54
MAY								
26...	1300	70	15.5	20.0	7.1	6.4	116	89
JUNE								
19...	1440	345	20.0	--	6.6	6.3	117	810000
SEP.								
26...	1120	32	17.5	--	8.0	6.9	130	60

SUSQUEHANNA RIVER BASIN

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 upstream from highway bridge on Cherry Hill Road, 0.8 mile southeast of Rocks, 1.2 miles upstream from Stirrup Run, and 23.5 miles upstream from mouth.

DRAINAGE AREA.--94.4 sq mi.

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

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/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 (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
SEP. 27...	97	7.5	90	60	7.0	3.0	4.2	1.4	23	3.4
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (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)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
SEP. 27...	7.0	.1	11	.24	60	56	30	11	5	0
DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 27...	0	0	10	2	10	4	3	.3	.01	11

ON-SITE DATA, JULY TO SEPTEMBER 1972

DATE	TIME	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)
JULY 25...	1046	195	20.5	9.3	7.1	90	390
AUG. 30...	1018	100	18.0	9.6	7.5	88	81200
SEP. 27...	1300	97	18.0	9.6	7.5	93	520

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

BUSH RIVER BASIN

53

01581500 BYNUM RUN AT BEL AIR, MD.

LOCATION.--Lat 39°32'30", long 76°19'50", Harford County, at gaging station, 30 ft downstream from bridge on State Highway 22, 1.0 mile east of Bel Air, and 8.5 miles upstream from mouth.

DRAINAGE AREA.--8.52 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972 (discontinued).

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 15...	0927	7.7	14.0	9.8	7.3	175	880
JAN. 05...	1022	45	6.0	11.6	6.7	145	2100
APR. 10...	1305	8.0	10.0	12.7	8.4	200	4
JUNE 08...	0945	6.0	16.0	10.2	7.3	180	520

GUNPOWDER RIVER BASIN

01585100 WHITEMARSH RUN AT WHITE MARSH, MD.

LOCATION.--Lat 39°22'15", long 76°26'46", Baltimore County, at gaging station on State Highway 7, 1 mile south-west of White Marsh, and 3 miles upstream from mouth.

DRAINAGE AREA.--7.61 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972 (discontinued).

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 15...	1048	3.1	16.0	8.8	7.2	235	3500
JAN. 05...	1226	47	6.0	11.0	6.8	170	390
APR. 10...	1155	7.0	10.0	11.2	6.6	345	180
JUNE 08...	1100	3.5	22.0	9.4	7.5	235	250

PATAPSCO RIVER BASIN

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 upstream from Piney Run, 2.3 miles upstream from confluence with North Branch, and 3.2 miles south-east of Sykesville.

DRAINAGE AREA.--64.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 19...	75	9.1	--	--	9.6	2.7	4.6	1.9	30	7.2
DEC. 03...	136	7.7	200	40	8.3	2.9	4.6	1.8	22	9.4
JAN. 20...	95	7.8	150	40	7.5	2.8	4.3	1.5	19	8.0
APR. 11...	109	6.4	80	60	7.7	2.9	6.0	1.7	19	7.4
MAY 22...	145	8.2	210	70	8.8	3.0	5.6	1.5	26	7.7

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 19...	7.6	.1	6.8	65	35	11	2	10.5	108	7.2
DEC. 03...	7.0	.1	8.0	61	33	15	0	--	103	7.0
JAN. 20...	7.3	.1	9.4	58	30	15	2	3.0	98	6.7
APR. 11...	9.6	.1	8.1	59	31	16	0	9.0	90	6.4
MAY 22...	8.8	.1	8.4	65	34	13	--	15.0	108	7.3

PATAPSCO RIVER BASIN

55

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 downstream from Dogwood Run, 3.0 miles north of Ellicott City, and 28 miles upstream from mouth.

DRAINAGE AREA.--285 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/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)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
SEP. 27...	75	10	60	20	15	3.6	5.7	2.1	48	7.6	9.0	.1
DATE	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)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	
SEP. 27...	7.1	.06	91	84	52	13	5	200	0	0	0	
DATE	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUS- PENDE GROSS ALPHA AS U-NAT. (PC/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDE GROSS BETA AS CS-137 (PC/L)	
SEP. 27...	1	20	4	6	1.0	.01	1	<.3	<.1	3.3	<.4	

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 15...	1316	242	16.0	9.6	7.5	135	2300
JAN. 06...	1117	285	4.0	10.8	6.9	130	1400
APR. 06...	1400	288	10.5	--	8.0	120	86
JUNE 08...	1300	237	19.0	10.0	7.4	130	1700
JULY 24...	1435	320	26.0	8.2	7.5	125	150
AUG. 30...	0900	110	19.5	8.4	7.6	145	81200
SEP. 27...	1000	75	18.5	9.2	7.5	145	210

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

PATAPSCO RIVER BASIN

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD.

LOCATION.--Lat 39°14'24", long 76°41'33", Baltimore County, at gaging station on highway bridge on Tom Day Boulevard at U. S. Route 1 in Arbutus, 0.5 mile upstream from mouth, and 2 miles south of Baltimore city limits.

DRAINAGE AREA.--2.47 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972 (discontinued).

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 15...	1429	2.1	20.0	9.1	8.4	350	2500
JAN. 06...	1305	2.4	6.0	10.4	8.1	335	1400
APR. 10...	1455	2.3	14.0	11.4	8.3	465	700
JUNE 08...	1345	1.8	21.0	9.8	9.1	334	410

PATAPSCO RIVER BASIN

01589300 GWYNNS FALLS AT VILLA NOVA, MD.

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, at gaging station 300 ft downstream from bridge on Essex Road, 300 ft north of state Highway 26 (Liberty Road), in Villa Nova, 1.1 miles west of Baltimore city limits, and 11.5 miles upstream from mouth.

DRAINAGE AREA.--32.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972 (discontinued).

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 15...	1232	33	15.0	9.6	7.6	230	310
JAN. 06...	1020	46	3.0	11.2	6.7	200	200
APR. 10...	1425	47	10.0	12.5	8.2	215	<5
JUNE 08...	1222	31	17.5	9.9	7.5	190	620

POTOMAC RIVER BASIN

57

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 downstream from bridge on State Highway 38 in Kitzmiller, 1.5 miles downstream from Wolfden Run, and at mile 68.9.

DRAINAGE AREA.--225 sq mi.

PERIOD OF RECORD.--Water temperatures: August 1961 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 28.5°C July 22, 24; minimum, freezing point on many days during winter months.

Period of Record:

Water temperatures: Maximum, 32.0°C Aug. 15, 16, 18, 1965; minimum, freezing point on many days during winter months.

REMARKS.--Records fair, probably because of friction in recorder. No temperature record Nov. 5 to Apr. 11, and June 16 to July 1.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(CONTINUOUS ETHYL ALCOHOL ACTUATED THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	16.0	15.5	15.5	---	---	---	---	---	---	---	---
2	16.0	16.0	16.0	15.5	---	---	---	---	---	---	---	---
3	18.0	16.0	15.5	14.0	---	---	---	---	---	---	---	---
4	17.5	16.5	14.0	13.0	---	---	---	---	---	---	---	---
5	17.5	16.5	---	---	---	---	---	---	---	---	---	---
6	17.0	16.0	---	---	---	---	---	---	---	---	---	---
7	16.0	15.0	---	---	---	---	---	---	---	---	---	---
8	15.5	14.0	---	---	---	---	---	---	---	---	---	---
9	15.5	14.5	---	---	---	---	---	---	---	---	---	---
10	15.5	14.5	---	---	---	---	---	---	---	---	---	---
11	15.5	14.5	---	---	---	---	---	---	---	---	---	---
12	15.5	14.0	---	---	---	---	---	---	---	---	---	---
13	15.5	14.0	---	---	---	---	---	---	---	---	---	---
14	16.0	15.0	---	---	---	---	---	---	---	---	---	---
15	16.0	14.5	---	---	---	---	---	---	---	---	---	---
16	15.5	15.0	---	---	---	---	---	---	---	---	---	---
17	16.0	15.5	---	---	---	---	---	---	---	---	---	---
18	15.5	14.5	---	---	---	---	---	---	---	---	---	---
19	15.0	13.5	---	---	---	---	---	---	---	---	---	---
20	15.0	14.0	---	---	---	---	---	---	---	---	---	---
21	15.5	14.5	---	---	---	---	---	---	---	---	---	---
22	15.0	14.5	---	---	---	---	---	---	---	---	---	---
23	15.0	14.5	---	---	---	---	---	---	---	---	---	---
24	15.0	14.5	---	---	---	---	---	---	---	---	---	---
25	15.0	15.0	---	---	---	---	---	---	---	---	---	---
26	15.0	15.0	---	---	---	---	---	---	---	---	---	---
27	16.0	15.0	---	---	---	---	---	---	---	---	---	---
28	15.5	15.0	---	---	---	---	---	---	---	---	---	---
29	15.5	15.0	---	---	---	---	---	---	---	---	---	---
30	15.5	15.0	---	---	---	---	---	---	---	---	---	---
31	15.5	15.0	---	---	---	---	---	---	---	---	---	---
MONTH	18.0	13.5	---	---	---	---	---	---	---	---	---	---

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

POTOMAC RIVER BASIN

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 upstream from Polly Run, and 4 miles southwest of Piedmont, W. Va.

DRAINAGE AREA.--206 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1967 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	TOTAL ACIDITY AS CACO ₃ (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED SILICA (SiO ₂) (MG/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)
OCT.											
28...	927	32	3300	1200	1000	86	--	--	--	--	--
NOV.											
23...	212	70	4400	2400	1200	160	--	--	--	--	--
DEC.											
16...	636	36	3500	1000	1000	94	--	--	--	--	--
JAN.											
12...	1250	26	2500	1600	610	78	--	--	--	--	--
FEB.											
08...	202	43	4200	3000	1000	120	--	--	--	--	--
MAR.											
14...	2170	26	2300	2000	550	61	--	--	--	--	--
APR.											
04...	602	38	3400	1400	880	91	--	--	--	--	--
MAY											
02...	514	34	3100	690	850	110	--	--	--	--	--
JUNE											
06...	185	50	4300	570	1600	200	8.6	50	9.3	2.5	1.2
JULY											
19...	215	66	7200	940	2000	170	7.3	30	10	2.2	1.1
AUG.											
28...	219	32	2500	520	1800	180	6.4	47	11	2.5	1.6
SEP.											
28...	86	79	9200	960	2800	380	8.6	107	20	3.3	2.0

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
OCT.												
28...	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
12...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
08...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
14...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
04...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
06...	3.4	.3	1.3	--	--	277	163	163	--	--	--	--
JULY												
19...	2.8	.3	.88	--	--	225	120	120	--	--	--	--
AUG.												
28...	3.5	.3	1.3	--	--	259	160	160	--	--	--	--
SEP.												
28...	3.0	.5	1.3	.03	617	526	350	350	1	0	30	10

POTOMAC RIVER BASIN

59

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	COLOR (PLAT- INUM- COBALY UNITS)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUS- PENDE GROSS ALPHA AS U-NAT. (PC/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDE GROSS BETA AS CS-137 (PC/L)
OCT.												
28...	--	--	--	--	--	--	--	--	--	--	--	--
NOV.												
23...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN.												
12...	--	--	--	--	--	--	--	--	--	--	--	--
FEB.												
08...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
14...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
04...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
06...	--	--	--	--	--	--	--	--	--	--	--	--
JULY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG.												
28...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
28...	420	15	3	680	42	.2	.01	130	<3.1	.3	7.4	.7

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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.							
28...	0930	927	13.0	9.6	3.8	270	3
NOV.							
23...	0955	212	.0	13.6	3.8	420	2
DEC.							
16...	1005	636	9.0	10.8	3.8	295	2
JAN.							
12...	0942	1250	5.0	10.8	3.9	235	17
FEB.							
08...	1045	202	.0	12.6	3.6	310	0
MAR.							
14...	0940	2170	6.0	13.2	4.3	250	3
APR.							
04...	0940	602	5.5	11.4	3.4	290	27
MAY							
02...	1040	514	13.0	9.8	3.6	320	1
JUNE							
06...	0950	185	18.0	9.0	3.8	480	0
JULY							
19...	1405	215	27.0	7.7	3.4	475	0
AUG.							
28...	1753	219	19.5	8.5	3.6	460	1
SEP.							
28...	0835	86	18.0	8.8	3.3	800	18

POTOMAC RIVER BASIN

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD.

LOCATION.--Lat 39°28'45", long 79°03'55", Mineral County, W. Va., temperature recorder at gaging station on right bank, 0.2 mile downstream from Savage River, 0.5 mile northwest of Luke, and at mile 53.3.

DRAINAGE AREA.--404 sq mi.

PERIOD OF RECORD.--Water temperatures: December 1961 to December 1962, July to September 1963, December 1963 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 30.0°C July 22; minimum, freezing point on many days during winter months.

Period of record:

Water temperatures: Maximum, 33.0°C July 3, 1966; minimum, freezing point on many days during winter months.

REMARKS.--Records fair, probably because of friction in recorder.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(CONTINUOUS ETHYL ALCOHOL ACTUATED THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.5	18.5	16.0	16.0	4.0	3.0	3.5	2.5	0.0	0.0	7.0	5.0
2	18.5	18.5	17.0	16.0	3.0	2.0	2.5	2.5	0.0	0.0	7.0	6.0
3	19.0	18.5	17.0	13.5	2.0	2.0	2.5	2.5	0.0	0.0	7.0	5.0
4	19.5	18.5	13.5	9.5	2.0	2.0	2.5	2.0	0.0	0.0	5.0	4.0
5	19.5	18.5	9.5	8.5	2.0	2.0	2.5	2.5	0.0	0.0	4.5	3.0
6	18.5	17.0	8.5	8.0	3.5	2.0	2.5	1.5	0.0	0.0	3.0	1.5
7	17.0	14.5	9.0	7.0	6.0	4.0	1.5	0.5	0.0	0.0	6.0	2.0
8	14.5	12.5	7.0	5.5	7.0	6.0	0.5	0.5	0.0	0.0	6.0	4.0
9	13.5	13.5	5.5	4.5	8.0	7.0	0.5	0.5	0.0	0.0	4.0	2.0
10	13.5	13.5	5.5	4.5	8.5	8.0	4.0	0.5	0.0	0.0	3.0	2.0
11	14.5	12.5	5.5	5.5	8.5	8.0	4.5	4.0	0.0	0.0	3.0	1.5
12	14.5	12.5	6.5	5.0	8.0	6.0	4.5	4.0	0.0	0.0	7.0	3.0
13	13.5	11.5	8.5	6.5	7.0	6.0	4.5	3.5	0.0	0.0	7.0	7.0
14	15.0	13.0	8.5	7.5	6.0	5.0	4.5	2.5	0.0	0.0	7.0	5.0
15	16.0	13.5	9.5	8.0	8.0	5.0	2.5	0.0	0.0	0.0	5.0	4.5
16	15.5	14.5	10.0	9.5	8.5	8.0	0.0	0.0	0.0	0.0	6.0	4.5
17	15.0	14.5	9.5	8.5	8.5	6.0	0.0	0.0	0.0	0.0	6.0	6.0
18	16.5	14.5	9.0	7.5	6.0	2.0	0.0	0.0	0.0	0.0	5.5	4.5
19	16.0	13.5	9.0	8.0	2.0	1.5	0.5	0.0	0.0	0.0	6.0	4.0
20	15.0	14.0	8.0	7.0	4.0	2.0	1.0	0.5	0.0	0.0	5.5	4.0
21	17.0	14.0	7.0	5.0	5.5	4.5	3.0	0.5	0.0	0.0	5.5	4.0
22	15.5	15.0	5.0	4.0	5.0	3.0	3.0	3.0	0.0	0.0	6.5	5.5
23	15.0	15.0	4.0	2.0	3.0	1.5	4.5	3.0	0.0	0.0	6.5	3.5
24	15.0	15.0	2.0	2.0	3.5	1.5	5.0	4.5	1.0	0.0	3.5	2.0
25	15.0	15.0	2.0	2.0	3.5	3.5	5.0	2.5	3.0	1.0	3.0	1.5
26	15.0	15.0	2.0	2.0	6.5	3.5	2.5	0.5	3.0	2.5	4.5	2.0
27	15.5	15.0	2.0	2.0	7.5	6.5	0.5	0.0	2.5	2.0	4.5	3.5
28	15.5	15.0	3.0	2.0	8.5	7.5	0.0	0.0	4.5	3.5	6.0	3.0
29	15.5	15.0	3.5	3.0	7.5	4.5	0.0	0.0	7.0	5.5	6.0	4.5
30	16.0	15.0	4.0	3.5	5.5	4.5	0.5	0.0	---	---	5.5	5.5
31	16.0	15.5	---	---	5.5	3.5	0.5	0.0	---	---	6.0	4.5
MONTH	19.5	11.5	17.0	2.0	8.5	1.5	5.0	0.0	7.0	0.0	7.0	1.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	4.5	15.0	13.0	17.5	14.5	19.5	15.5	22.0	18.5	23.0	19.0
2	6.5	5.5	15.0	14.5	17.5	14.0	19.5	17.5	23.5	20.5	24.0	16.0
3	6.0	4.5	14.5	14.5	19.0	15.5	19.5	18.5	25.0	21.5	22.0	14.0
4	5.5	4.5	14.5	13.5	21.5	17.0	20.5	17.5	23.5	21.0	21.0	19.0
5	6.0	3.5	13.5	11.5	23.0	17.5	19.5	14.5	21.5	19.5	20.5	17.0
6	7.5	4.5	14.5	12.5	20.5	18.5	14.5	13.5	22.5	20.0	21.0	15.0
7	7.5	4.5	15.5	14.5	22.0	16.5	16.0	13.5	25.0	22.0	22.0	16.0
8	5.0	3.0	15.5	14.5	22.5	16.0	16.5	14.5	24.0	21.5	22.0	17.0
9	5.0	2.0	14.5	13.5	23.0	18.0	18.5	16.0	24.0	21.0	22.0	20.0
10	6.5	4.0	14.0	12.0	22.0	16.0	20.0	17.0	23.0	18.5	21.0	16.0
11	9.5	6.0	14.5	11.0	19.0	13.5	22.0	19.0	23.0	17.5	19.5	16.0
12	11.0	8.0	15.5	12.5	21.0	14.0	22.0	21.0	22.0	20.0	19.5	18.5
13	11.0	9.0	15.0	13.0	19.5	18.0	24.0	21.0	25.0	21.0	22.5	19.0
14	12.0	10.0	14.5	14.5	22.0	18.0	25.0	22.0	26.0	21.0	22.0	20.0
15	12.0	10.5	15.0	13.5	24.0	20.0	26.0	22.5	23.5	21.5	22.0	19.0
16	11.5	11.0	15.0	13.5	22.5	21.0	25.0	23.5	22.5	19.0	22.5	17.5
17	12.5	10.5	14.0	13.0	21.0	18.5	25.0	23.0	21.0	20.0	23.0	17.5
18	13.0	10.0	16.5	13.5	21.0	19.0	27.0	23.0	24.0	20.0	22.0	20.5
19	14.5	11.5	16.5	15.0	23.5	20.0	28.0	23.5	24.0	22.0	21.5	19.5
20	14.5	13.5	16.0	15.5	22.5	20.5	28.0	24.0	25.5	20.5	19.5	17.0
21	14.0	11.5	17.0	15.5	21.0	18.5	29.0	24.5	26.0	20.0	17.5	16.5
22	12.5	9.5	18.5	16.5	18.5	14.5	30.0	25.0	25.5	21.0	19.5	16.0
23	13.5	9.5	20.0	17.0	14.5	12.0	29.0	25.0	27.0	22.0	17.5	14.0
24	13.5	10.5	20.5	16.5	14.5	12.5	28.5	24.0	27.5	23.0	16.5	15.5
25	10.5	9.5	19.5	17.5	15.0	14.0	27.0	23.5	27.0	23.0	20.0	16.5
26	10.5	8.0	18.5	15.5	16.0	14.5	26.5	22.0	24.5	22.0	22.5	19.0
27	11.5	8.5	18.5	14.5	17.5	15.5	24.0	17.5	23.0	22.0	21.5	20.0
28	12.0	10.0	19.0	14.5	19.5	17.0	22.5	20.5	22.0	21.0	20.0	18.5
29	12.5	10.0	20.5	16.0	19.5	16.5	22.0	18.5	24.5	20.0	18.5	18.0
30	14.0	12.0	20.0	18.0	16.5	15.5	20.5	17.0	24.5	19.5	18.0	15.0
31	---	---	19.0	17.5	---	---	19.5	18.5	24.0	19.0	---	---
MONTH	14.5	2.0	20.5	11.0	24.0	12.0	30.0	13.5	27.5	17.5	24.0	14.0

POTOMAC RIVER BASIN

61

01599000 GEORGES CREEK AT FRANKLIN, MD.

LOCATION.--Lat 39°29'36", long 79°02'42", Allegany County, at gaging station at Franklin, and 1.2 miles upstream from Westport and mouth.

DRAINAGE AREA.--72.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS-CHARGE (CFS)	TOTAL ACIDITY AS CAC03 (MG/L)	ALKALINITY AS CAC03 (MG/L)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)
OCT. 28...	77	--	2	800	460	1800	190	--	--	--
NOV. 23...	21	27	0	1700	1300	2800	350	--	--	--
DEC. 16...	109	--	2	1000	460	1800	200	--	--	--
JAN. 12...	113	--	3	200	250	1600	190	--	--	--
FEB. 08...	45	--	1	3600	480	3200	410	--	--	--
MAR. 14...	670	--	3	100	280	950	120	--	--	--
APR. 04...	94	--	2	500	500	1900	260	--	--	--
MAY 02...	119	--	2	200	380	2000	290	--	--	--
JUNE 06...	45	33	0	3800	6600	3400	510	9.9	122	37

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HC03) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
OCT. 28...	--	--	2	--	--	--	--	--	--
NOV. 23...	--	--	0	--	--	--	--	--	--
DEC. 16...	--	--	2	--	--	--	--	--	--
JAN. 12...	--	--	4	--	--	--	--	--	--
FEB. 08...	--	--	1	--	--	--	--	--	--
MAR. 14...	--	--	4	--	--	--	--	--	--
APR. 04...	--	--	2	--	--	--	--	--	--
MAY 02...	--	--	3	--	--	--	--	--	--
JUNE 06...	5.4	2.1	0	5.0	.7	1.3	708	460	460

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 28...	1104	77	13.0	10.0	5.0	470	120
NOV. 23...	1120	21	1.0	11.8	5.4	760	1
DEC. 16...	1120	109	8.0	10.8	4.9	480	110
JAN. 12...	1105	113	5.0	11.2	5.4	430	85
FEB. 08...	1145	45	.0	12.4	4.7	800	29
MAR. 14...	1110	670	5.0	13.4	5.1	320	200
APR. 04...	1115	94	6.0	11.4	5.2	560	98
MAY 02...	1200	119	13.0	10.3	5.2	605	63
JUNE 06...	1124	45	15.0	9.6	4.7	920	2

POTOMAC RIVER BASIN

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 downstream from Mill Run, and at mile 32.6.

DRAINAGE AREA.--596 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/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 (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
SEP. 28...	204	7.3	340	1500	110	13	64	4.8	62	260
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (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)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
SEP. 28...	85	.2	.90	.12	640	579	330	280	200	400
DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 28...	1	0	10	3	110	45	28	3.6	.00	5

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 27...	1650	2020	17.0	9.6	5.5	225	0
NOV. 22...	1545	384	6.0	10.0	6.9	580	210
DEC. 15...	1505	1470	7.0	11.0	5.4	250	11
JAN. 11...	1524	1780	7.0	11.0	5.1	220	2
FEB. 07...	1455	648	2.0	12.6	6.1	385	0
MAR. 13...	1600	6240	8.0	9.8	6.3	265	720
APR. 03...	1600	729	9.0	10.2	6.7	420	88
MAY 01...	1530	946	17.0	9.2	6.3	400	83
JUNE 05...	1545	343	23.0	7.2	7.2	600	150
JULY 19...	1830	343	28.5	6.8	7.1	555	76
AUG. 28...	1918	355	22.0	7.4	6.9	515	660
SEP. 28...	1130	204	22.0	6.6	7.3	845	310

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

POTOMAC RIVER BASIN

63

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 miles south of Cumberland, 2.1 miles downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--875 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1972.

Water temperatures: October 1964 to September 1972.

Sediment records: October 1964 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum 30.0°C July 23; minimum, freezing point Dec. 28.

Sediment concentrations: Maximum daily, 529 mg/l Mar. 14; minimum daily, 5 mg/l Nov. 9.

Sediment discharge: Maximum daily, 13,900 tons Mar. 14; minimum daily, 6.5 tons Aug. 12.

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 period.

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 Mar. 6, 1967; minimum daily, 2.1 tons Aug. 27, 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)
OCT.										
27...	2840	6.0	2900	--	570	--	20	5.0	6.5	1.9
NOV.										
22...	506	5.8	1100	--	980	--	50	9.7	32	2.7
DEC.										
15...	1900	4.9	1600	--	560	--	22	5.7	7.2	1.5
JAN.										
11...	2210	3.8	2600	--	500	--	19	4.9	6.8	1.3
FEB.										
07...	851	5.8	1700	--	750	--	38	8.5	23	2.3
MAR.										
13...	8020	4.7	1280	--	480	--	19	5.0	6.8	2.2
APR.										
03...	968	5.3	940	--	730	--	38	9.9	17	2.1
MAY										
01...	1310	5.5	560	--	220	--	26	7.0	7.4	1.7
JUNE										
05...	520	5.6	800	--	890	--	53	12	17	2.1
23...	14400	5.5	--	--	--	--	12	3.2	2.8	1.6
JULY										
19...	478	6.0	590	--	1000	--	57	12	22	2.6
AUG.										
28...	513	6.4	720	--	1600	--	67	13	14	2.3
SEP.										
28...	284	6.8	--	350	--	970	91	14	60	4.6

DATE	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 ORTHO- PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)
OCT.										
27...	3	67	12	.2	1.4	--	--	--	121	71
NOV.										
22...	23	140	49	.2	.60	--	--	--	301	165
DEC.										
15...	4	70	12	.1	1.9	--	--	--	127	79
JAN.										
11...	4	62	8.6	.1	1.7	--	--	--	110	68
FEB.										
07...	17	120	33	.2	1.8	--	--	--	241	130
MAR.										
13...	11	55	11	.1	3.0	--	--	--	112	68
APR.										
03...	16	120	23	.2	2.2	--	--	--	226	136
MAY										
01...	16	74	12	.1	1.6	--	--	--	143	94
JUNE										
05...	30	150	28	.2	2.6	--	--	--	285	182
23...	8	34	4.9	.2	3.4	.00	--	86	71	43
JULY										
19...	36	150	34	.2	1.3	--	--	--	304	190
AUG.										
28...	19	190	24	.2	2.2	--	--	--	328	220
SEP.										
28...	70	230	82	.2	2.2	--	.20	560	527	290

POTOMAC RIVER BASIN

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TURBIDITY (JTU)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
OCT. 27...	68	0	--	--	--	--	--	--	--	--
NOV. 22...	146	40	--	--	--	--	--	--	--	--
DEC. 15...	75	1	--	--	--	--	--	--	--	--
JAN. 11...	64	1	--	--	--	--	--	--	--	--
FEB. 07...	116	5	--	--	--	--	--	--	--	--
MAR. 13...	59	2	--	--	--	--	--	--	--	--
APR. 03...	123	0	--	--	--	--	--	--	--	--
MAY 01...	81	0	--	--	--	--	--	--	--	--
JUNE 05...	157	--	--	--	--	--	--	--	--	--
23...	36	3	--	--	--	--	--	--	--	--
JULY 19...	160	--	--	--	--	--	--	--	--	--
AUG. 28...	210	--	--	--	--	--	--	--	--	--
SEP. 28...	230	120	200	0	0	0	2	50	40	28

DATE	RIO-CHEMICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (PC/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT. 27...	--	--	--	--	--	--	--	--	--	--
NOV. 22...	--	--	--	--	--	--	--	--	--	--
DEC. 15...	--	--	--	--	--	--	--	--	--	--
JAN. 11...	--	--	--	--	--	--	--	--	--	--
FEB. 07...	--	--	--	--	--	--	--	--	--	--
MAR. 13...	--	--	--	--	--	--	--	--	--	--
APR. 03...	--	--	--	--	--	--	--	--	--	--
MAY 01...	--	--	--	--	--	--	--	--	--	--
JUNE 05...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	14.5	120	6.6
JULY 19...	--	--	--	--	--	--	--	--	--	--
AUG. 28...	--	--	--	--	--	--	--	--	--	--
SEP. 28...	2.6	.01	1	<2.0	<.3	8.6	<1.9	--	--	--

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS-CHARGE (CFS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 27...	1546	2840	15.0	10.2	6.2	220	25
NOV. 22...	1500	506	6.0	10.2	6.9	510	8 2200
DEC. 15...	1415	1900	6.0	11.6	6.6	250	3
JAN. 11...	1447	2210	7.0	11.2	6.6	210	82
FEB. 07...	1400	851	1.0	13.6	7.2	410	1100
MAR. 13...	1515	8020	7.0	10.0	6.9	215	1400
APR. 03...	1515	968	10.0	10.5	7.1	375	560
MAY 01...	1445	1310	16.0	10.0	6.7	245	230
JUNE 05...	1500	520	22.0	9.5	7.5	463	1700
JULY 19...	1735	478	29.0	8.5	7.3	470	1500
AUG. 28...	1450	513	22.5	8.3	7.4	560	2400
SEP. 28...	1330	284	21.0	6.5	7.4	790	3200

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 1971 TO SEPTEMBER 1972
(ONCE-DAILY MEASUREMENT AT 2300)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.5	---	6.0	6.5	5.5	13.5	9.0	16.5	19.0	21.0	22.0	24.0
2	22.0	26.0	6.0	---	5.5	13.5	9.0	16.5	20.0	21.0	22.0	24.5
3	25.0	18.0	4.0	6.5	6.5	13.5	9.0	22.0	21.0	23.5	23.0	23.5
4	23.5	8.0	6.0	8.0	---	10.0	9.0	16.5	22.0	23.5	---	---
5	22.0	8.0	---	---	7.0	10.0	9.0	16.5	22.0	21.0	22.0	22.0
6	22.0	8.0	---	---	4.5	8.0	13.0	16.5	21.0	18.0	23.0	24.5
7	20.0	10.0	10.0	---	2.0	10.0	10.0	16.5	22.0	---	25.5	22.0
8	19.5	10.0	11.0	---	3.0	3.5	8.0	16.5	21.0	20.0	24.5	24.5
9	18.0	9.0	11.0	6.5	4.5	5.5	---	14.5	21.0	21.0	25.5	23.5
10	17.0	9.0	11.0	6.0	---	5.5	10.0	14.5	20.0	22.0	23.0	23.5
11	15.5	10.0	11.0	5.5	---	---	13.5	15.5	19.0	25.5	22.0	23.5
12	16.5	11.0	12.0	6.5	4.5	---	14.5	16.5	20.5	24.5	22.0	23.5
13	18.0	---	---	8.0	6.5	9.0	15.5	16.5	22.0	24.5	23.5	25.5
14	---	12.0	9.0	6.5	5.5	10.0	15.5	16.5	---	25.5	24.0	24.5
15	17.0	13.0	14.0	3.5	---	---	15.5	---	23.0	26.5	24.0	23.5
16	16.0	---	13.0	2.0	5.5	10.0	18.5	16.5	24.5	26.5	24.0	23.5
17	---	---	9.0	---	5.5	10.0	15.5	16.5	24.5	26.5	23.5	25.5
18	16.0	9.0	7.0	4.5	4.5	10.5	14.5	16.5	23.0	26.5	25.5	23.5
19	---	8.0	4.5	5.5	4.5	10.0	15.5	16.5	20.0	27.0	25.5	22.0
20	17.0	7.0	9.0	8.0	3.5	10.0	15.5	18.0	20.0	26.5	---	22.0
21	14.0	7.0	9.0	9.0	2.0	10.0	15.0	18.0	20.0	29.0	25.5	22.0
22	---	7.0	---	9.0	3.5	11.0	14.5	18.0	15.5	29.5	26.5	21.0
23	10.0	---	8.0	10.0	4.5	7.0	14.5	20.0	13.5	30.0	26.5	22.0
24	19.0	8.0	9.0	11.0	5.5	8.0	14.5	20.0	15.5	---	26.5	23.5
25	19.0	---	---	10.0	---	9.0	13.5	---	16.5	29.0	26.5	21.0
26	19.0	---	12.0	---	5.5	8.0	14.5	20.0	21.0	29.5	24.5	23.5
27	18.0	---	---	5.5	5.5	9.0	14.5	20.0	22.0	29.0	25.5	23.5
28	17.0	10.0	0.0	3.5	7.0	10.0	14.5	21.0	22.0	---	23.5	21.0
29	18.0	12.0	5.0	2.0	9.0	9.0	---	21.0	15.5	18.0	24.5	21.0
30	18.0	7.0	9.0	3.5	---	9.0	15.5	21.0	19.0	22.0	24.5	18.0
31	20.0	---	8.0	3.5	---	10.0	---	21.0	---	23.0	23.5	---
MONTH	18.5	---	8.5	---	5.0	9.5	13.5	18.0	20.0	24.5	24.0	23.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)	SUS- SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	
						% FINER THAN .002 MM	% FINER THAN .004 MM	% FINER THAN .008 MM	
NOV., 1971									
30...	1825	5030	6.5	120	1630	31	45	59	
FEB., 1972									
26...	1830	10400	5.5	336	9440	--	38	50	
MAR.									
02...	2350	13300	9.0	356	12800	--	39	53	
13...	2300	10500	9.0	400	11300	--	39	51	
APR.									
15...	2245	9850	15.5	384	10200	--	49	62	
JUNE									
22...	1700	5380	15.5	125	1820	--	48	59	
29...	2330	11400	15.5	392	12100	--	47	60	
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	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
NOV., 1971									
30...	73	83	87	90	91	98	100	--	
FEB., 1972									
26...	62	69	72	82	85	92	96	100	
MAR.									
02...	60	68	72	79	84	90	96	100	
13...	61	70	76	80	83	89	100	--	
APR.									
15...	71	80	84	88	91	94	98	100	
JUNE									
22...	68	77	81	85	88	94	99	100	
29...	65	74	79	84	89	94	98	100	

POTOMAC RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	522	11	16	919	10	24	3680	94	963
2	532	12	17	1110	18	54	2570	46	319
3	756	19	39	1280	19	66	2040	40	220
4	761	19	39	1570	33	140	1770	40	191
5	656	14	25	1370	22	81	1570	39	170
6	600	16	26	914	32	89	1700	49	220
7	536	16	23	984	18	49	5350	168	2790
8	506	16	22	824	18	46	10500	320	9070
9	478	15	19	662	5	8.9	9430	239	6090
10	600	39	69	627	8	14	7000	108	2090
11	389	25	26	599	8	13	3540	32	306
12	370	27	27	564	9	14	2560	30	207
13	340	21	19	533	15	22	2090	25	140
14	316	19	16	503	14	19	2130	29	167
15	311	28	24	474	12	15	1870	23	116
16	300	30	24	458	14	17	1360	13	48
17	289	30	24	437	15	18	1200	14	45
18	278	30	24	414	16	18	1070	16	46
19	267	31	22	402	15	16	885	17	41
20	257	35	24	404	15	16	896	15	36
21	248	38	25	447	17	21	1130	20	61
22	238	37	24	490	21	28	1040	16	44
23	243	43	28	454	21	26	976	19	50
24	995	214	623	417	21	24	794	12	26
25	2460	160	1060	426	21	24	781	12	26
26	3770	182	1860	477	29	38	743	13	26
27	2840	83	636	519	45	65	727	13	26
28	2190	40	237	689	73	136	700	14	26
29	1740	36	169	1470	103	413	677	14	26
30	1140	18	55	4930	177	2370	660	20	36
31	994	7	19	--	--	--	658	28	50
TOTAL	25922	--	5260	25367	--	3884.9	72097	--	23672

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	634	24	41	840	18	41	11800	256	8160
2	757	37	75	876	14	33	13300	310	11100
3	1270	55	189	840	17	39	12600	270	9190
4	1160	20	63	906	13	32	9140	128	3160
5	1670	74	340	680	12	22	7260	115	2250
6	2070	100	550	680	16	29	5210	82	1150
7	1400	54	204	859	16	37	2860	47	363
8	1200	35	113	650	15	26	2680	49	355
9	1100	31	92	610	16	26	2250	41	249
10	1620	78	341	578	16	24	1840	30	149
11	2290	59	365	576	15	24	1670	40	180
12	2460	71	472	581	16	25	2140	129	750
13	1830	41	203	1220	126	476	6830	340	6960
14	1640	48	213	1990	85	457	9810	529	13900
15	1400	51	193	1460	31	120	6950	184	3320
16	979	28	74	1640	30	133	5290	241	3440
17	880	14	34	1490	20	80	4970	125	1680
18	1550	28	117	1270	29	99	3790	96	982
19	1490	44	177	1230	51	169	2890	74	577
20	1110	30	90	1070	63	182	2330	28	176
21	1140	45	139	850	55	126	2010	29	157
22	1170	38	120	1410	42	160	1980	32	171
23	1100	38	113	2200	37	220	2030	29	159
24	1180	39	124	2650	78	558	1800	27	131
25	1640	15	66	5540	312	4700	1610	27	117
26	1270	15	50	9090	374	9180	1470	23	91
27	1120	21	64	8150	319	7020	1370	18	67
28	1180	49	156	6380	336	5790	1260	16	54
29	1130	40	122	7570	450	9200	1160	17	53
30	1130	26	79	--	--	--	1150	18	56
31	917	15	37	--	--	--	1160	30	94
TOTAL	41487	--	5016	63886	--	39028	132610	--	69241

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1010	30	82	1470	21	83	923	25	62
2	1000	21	57	1270	29	99	744	15	30
3	978	12	32	2270	95	582	658	10	18
4	1030	17	47	3890	104	1090	588	12	19
5	1840	38	189	4730	55	702	530	18	26
6	1600	27	117	3820	36	371	487	18	24
7	1490	33	133	3040	39	320	462	15	19
8	2300	61	379	2520	54	367	424	19	22
9	2210	32	190	3300	60	535	382	18	19
10	2060	34	189	4500	72	875	374	15	15
11	2040	35	193	3870	39	408	391	18	19
12	1910	31	160	2610	25	176	358	32	31
13	4560	423	7280	2250	22	134	350	49	46
14	7140	310	5980	2080	20	112	371	42	42
15	7700	360	7480	2130	17	100	405	31	34
16	8860	415	9930	2270	14	86	447	28	34
17	10400	310	8700	2140	13	75	444	21	25
18	6870	64	1190	1950	15	79	491	59	78
19	4590	57	706	1730	16	75	445	181	217
20	3610	49	478	1650	20	89	459	215	266
21	2540	58	398	1700	17	78	1240	257	906
22	3070	70	606	1460	14	55	5010	178	2360
23	4240	67	767	1290	12	42	12900	372	12900
24	3920	55	582	1180	13	41	9850	200	5570
25	4160	24	270	1040	11	30	5220	74	1040
26	2640	23	164	921	11	27	3370	41	373
27	2150	23	134	807	11	24	2230	31	187
28	1770	25	119	731	10	20	1560	23	97
29	1790	45	220	683	14	26	6880	256	6520
30	1800	31	151	680	24	44	8840	312	7750
31	--	--	--	1000	38	103	--	--	--
TOTAL	101278	--	46923	64982	--	6848	66833	--	38749

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4830	74	965	442	16	19	253	16	11
2	3000	24	194	411	10	11	233	17	11
3	2050	24	133	375	9	9.1	423	48	55
4	1640	19	84	450	19	24	485	72	95
5	2180	26	153	596	31	50	224	36	22
6	3610	75	731	590	13	21	214	23	13
7	2340	45	280	476	13	17	201	15	8.1
8	1770	29	139	440	12	14	191	13	6.7
9	1450	22	86	364	13	13	191	15	7.7
10	1230	16	53	316	13	11	201	26	14
11	1040	10	28	289	10	7.8	196	30	16
12	903	10	24	267	9	6.5	201	34	18
13	833	12	27	257	12	8.3	196	34	18
14	745	12	24	248	16	11	214	39	23
15	656	16	28	238	16	10	214	29	17
16	588	18	29	219	22	13	229	25	15
17	591	21	34	219	27	16	224	25	15
18	550	15	22	278	25	19	300	37	30
19	486	14	18	316	25	21	267	31	22
20	469	15	19	262	15	11	229	26	16
21	442	11	13	294	14	11	201	25	14
22	395	10	11	243	16	10	196	26	14
23	356	11	11	219	21	12	191	29	15
24	326	12	11	214	29	17	205	30	17
25	305	12	9.9	262	32	23	210	28	16
26	328	12	11	560	47	71	210	27	15
27	407	20	22	616	39	65	238	28	18
28	545	45	65	552	35	52	253	26	18
29	565	50	76	389	20	21	328	36	32
30	569	50	77	322	19	17	364	28	28
31	568	40	61	278	16	12	--	--	--
TOTAL	35767	--	3438.9	11002	--	623.7	7282	--	620.5

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

648513
243305.0

POTOMAC RIVER BASIN

01613000 POTOMAC RIVER AT HANCOCK, MD.

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, at U. S. Highway 522 at Hancock, 0.5 mile upstream from gaging station, 0.3 mile upstream from Little Tonoloway Creek, 1.6 miles upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239.

DRAINAGE AREA.--4,073 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to June 1972.

Water temperatures: July 1952 to February 1964, July 1966 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 30.5°C July 23; minimum, freezing point on several days in February.

Period of record:

Water temperatures: Maximum, 34.0°C July 22, 1952; minimum, freezing point on many days during winter period.

REMARKS.--Records fair, probably because of friction in recorder. Temperature recorder at gaging station 0.5 mile downstream from sampling site. No temperature record April 24 to May 16 and Sept. 17-30.

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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.							
27...	1307	14400	16.0	9.4	7.0	165	4800
NOV.							
22...	1258	1170	5.0	10.4	7.1	290	6
DEC.							
15...	1215	5180	7.0	11.4	7.0	195	69
JAN.							
11...	1233	4090	5.0	11.2	7.2	195	13
FEB.							
07...	1155	3790	.0	12.6	7.3	205	27
MAR.							
13...	1315	7090	6.5	10.4	6.7	205	63
APR.							
03...	1310	3300	8.0	10.2	6.9	230	1
MAY							
01...	1240	5540	17.0	9.7	7.2	210	37
JUNE							
05...	1305	2580	23.5	10.2	7.9	245	12

POTOMAC RIVER BASIN

69

01613000 POTOMAC RIVER AT HANCOCK, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.5	20.0	16.0	16.0	4.5	4.5	6.5	5.5	1.5	1.0	6.5	5.5
2	20.0	19.5	17.0	16.0	4.5	4.0	5.5	4.5	1.5	1.5	7.5	6.5
3	21.0	19.5	16.5	15.5	4.0	3.0	5.0	4.0	1.5	1.5	7.5	7.5
4	20.5	20.5	15.5	13.0	3.0	2.5	4.5	4.5	1.5	0.5	7.5	6.0
5	20.5	20.5	13.0	11.5	2.5	1.5	5.0	4.5	0.5	0.0	6.0	5.0
6	20.5	20.0	11.5	10.5	2.0	2.0	5.0	4.0	0.0	0.0	5.5	5.0
7	20.0	18.5	10.5	9.0	4.0	2.0	4.5	3.5	0.5	0.0	6.0	5.0
8	18.5	16.5	9.0	7.5	5.5	4.0	3.5	3.5	0.0	0.0	7.0	6.0
9	17.0	16.5	7.5	6.5	7.0	5.5	4.0	3.5	0.0	0.0	6.5	6.0
10	16.5	15.5	7.0	7.0	7.5	7.0	4.5	3.5	0.0	0.0	6.5	6.0
11	15.5	14.0	7.0	6.5	8.5	7.5	5.0	4.5	0.5	0.0	6.5	5.5
12	16.0	14.5	7.0	6.0	8.5	8.5	5.5	4.5	0.5	0.0	6.0	5.5
13	15.5	14.5	8.0	7.0	8.5	8.0	6.0	5.0	1.5	0.5	6.5	6.0
14	16.5	15.0	8.0	7.5	8.0	7.0	6.0	5.5	2.0	1.5	7.0	6.5
15	17.0	15.0	8.0	7.5	7.0	7.0	5.5	3.0	2.5	2.0	7.0	6.0
16	16.5	16.0	8.5	8.0	7.5	7.0	3.0	1.0	3.0	2.5	6.0	6.0
17	16.0	16.0	9.5	8.5	7.5	7.0	1.0	0.5	3.0	2.5	6.5	6.0
18	17.0	15.0	9.0	9.0	7.0	5.0	1.0	0.5	2.5	2.5	6.5	6.5
19	17.0	15.0	9.0	9.0	5.0	4.0	2.0	1.0	2.5	1.0	7.0	6.0
20	16.0	15.0	9.0	8.0	4.5	4.0	2.0	2.0	1.0	0.5	6.5	6.0
21	17.0	15.0	8.0	7.0	5.0	4.5	2.5	2.0	0.5	0.0	7.0	6.0
22	16.5	16.0	7.0	5.0	5.0	4.0	3.0	2.5	1.0	0.0	7.0	6.5
23	17.0	16.0	5.0	4.0	4.0	3.0	4.0	3.0	1.0	0.5	6.5	6.0
24	16.5	15.5	4.5	1.5	4.0	3.5	5.0	4.0	1.0	0.5	6.0	5.0
25	16.0	15.5	2.0	1.5	4.0	4.0	5.5	5.0	2.5	1.0	5.0	4.0
26	16.0	16.0	3.0	2.0	5.5	4.0	5.0	4.5	3.5	2.5	4.5	3.5
27	16.0	16.0	3.0	3.0	7.0	5.5	4.5	3.5	3.5	3.5	5.0	4.0
28	16.5	15.5	4.0	3.0	8.5	7.0	3.5	2.5	3.5	3.5	6.5	5.0
29	16.0	15.5	4.0	3.5	8.5	7.0	2.5	2.0	5.5	3.5	6.5	6.0
30	15.5	15.0	4.5	4.0	7.0	7.0	2.0	2.0	---	---	7.0	6.5
31	16.0	15.5	---	---	7.0	6.5	2.0	1.0	---	---	7.0	7.0
MONTH	21.0	14.0	17.0	1.5	8.5	1.5	6.5	0.5	5.5	0.0	7.5	3.5
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	7.0	---	---	22.5	21.5	18.0	17.5	23.5	22.0	25.0	24.0
2	8.0	7.5	---	---	22.0	20.5	19.5	18.0	23.5	23.0	24.5	23.5
3	8.0	7.0	---	---	23.5	22.0	20.5	19.5	24.0	23.0	24.0	22.5
4	7.5	7.0	---	---	24.5	23.5	21.5	21.0	24.0	23.5	24.5	23.0
5	8.0	7.0	---	---	25.0	23.0	21.5	20.5	24.0	22.5	23.5	21.5
6	9.0	8.0	---	---	25.0	24.0	20.5	19.5	24.0	23.0	24.0	21.0
7	9.0	7.5	---	---	24.0	23.0	19.5	18.5	24.5	23.5	24.5	21.0
8	7.5	6.5	---	---	24.5	22.5	19.0	18.0	25.0	24.0	25.0	21.5
9	7.0	6.0	---	---	25.0	24.0	20.0	19.0	25.0	24.0	25.5	23.5
10	6.5	6.0	---	---	25.0	23.0	21.0	20.5	24.5	23.0	24.5	21.5
11	8.5	6.5	---	---	23.0	21.0	23.0	21.0	24.0	22.0	22.5	20.5
12	10.5	8.5	---	---	23.5	21.0	23.5	23.0	23.5	22.5	22.0	21.0
13	11.5	10.5	---	---	23.5	22.5	24.5	23.5	25.5	23.5	24.0	21.0
14	12.0	11.0	---	---	23.0	22.0	25.5	24.5	26.5	24.5	24.0	22.0
15	12.0	12.0	---	---	25.5	22.5	26.0	25.0	26.5	25.0	24.0	21.0
16	12.0	11.5	---	---	25.0	24.5	27.0	26.0	25.5	23.0	24.5	21.0
17	12.0	11.5	15.5	15.0	24.5	23.0	27.5	27.0	24.0	22.0	---	---
18	12.5	11.5	16.0	15.5	23.0	22.5	28.0	27.0	24.5	21.5	---	---
19	13.5	12.5	16.5	16.0	23.5	22.5	28.5	27.5	25.5	23.5	---	---
20	14.0	13.5	16.5	16.5	23.5	23.5	29.0	28.0	26.0	23.5	---	---
21	14.0	14.0	17.0	16.5	23.5	18.5	29.5	28.0	26.0	24.0	---	---
22	14.0	12.5	17.0	17.0	18.5	16.0	29.5	28.5	26.0	24.0	---	---
23	12.5	12.0	18.0	17.0	16.0	13.0	30.5	29.0	27.0	23.5	---	---
24	---	---	19.5	18.0	13.0	13.0	30.0	28.5	27.0	24.0	---	---
25	---	---	20.0	19.0	14.0	13.0	30.0	28.5	28.0	25.5	---	---
26	---	---	20.5	19.0	15.0	14.0	29.5	27.5	27.5	26.0	---	---
27	---	---	20.0	19.5	17.0	15.0	28.0	26.0	27.0	25.5	---	---
28	---	---	21.0	19.5	18.5	17.0	26.0	25.0	26.5	25.5	---	---
29	---	---	22.0	20.5	18.5	18.5	25.0	24.0	26.0	24.0	---	---
30	---	---	23.0	21.5	18.5	18.0	24.5	23.5	26.0	24.5	---	---
31	---	---	23.0	22.5	---	---	23.5	22.5	25.5	24.0	---	---
MONTH	---	---	---	---	25.5	13.0	30.5	17.5	28.0	21.5	---	---

POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD.

LOCATION.--Lat 39°42'57", long 77°49'28", Washington County, at highway bridge at Fairview, 0.7 mile downstream from gaging station, 1.3 miles upstream from Rockdale Run, 6 miles northwest of Hagerstown, and 18 miles upstream from mouth.

DRAINAGE AREA.--495 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1972.

Water temperatures: November 1968 to September 1972.

Sediment records: October 1966 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 23°C June 18; minimum, 1.0°C Jan. 16, 17.

Sediment concentrations: Maximum daily, 1,050 mg/l Oct. 25; minimum daily, 1 mg/l Apr. 5, 6, 7, Sept. 22, 23, 24.

Sediment discharge: Maximum daily, 73,000 tons June 23; minimum daily, 0.42 ton Sept. 23, 24.

Period of record:

Water temperatures: Maximum, 30°C July 17, 1969; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 940 mg/l Mar. 25, 1969; minimum daily, 1 mg/l, on many days during 1967, 1970, 1971.

Sediment discharge: Maximum daily, 73,000 tons June 23, 1972; minimum daily, 0.17 ton Nov. 24, 26, 27, 1966.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED TAS- SIUM (K) (MG/L)	RICAK- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
19...	123	1.9	70	0	56	12	12	2.9	194	25	18	.2
27...	1860	9.2	640	80	30	6.6	5.4	3.2	88	25	8.9	.2
NOV.												
22...	215	3.3	120	10	51	11	9.0	2.3	175	24	15	.1
DEC.												
15...	1090	7.6	200	10	37	7.9	4.5	1.9	116	20	7.6	.2
JAN.												
11...	781	5.7	200	10	38	8.1	5.7	2.2	120	23	8.2	.1
FEB.												
07...	720	6.7	130	30	39	8.6	7.9	2.0	122	22	14	.1
MAR.												
13...	924	6.1	0	0	42	8.5	4.3	1.7	132	20	8.3	.1
22...	1220	5.9	10	0	37	7.7	4.9	2.0	115	20	9.0	.1
APR.												
03...	703	3.3	10	0	40	8.3	4.6	1.6	116	19	7.8	.1
MAY												
01...	848	5.2	90	20	42	8.5	4.5	1.8	132	19	8.0	.1
JUNE												
05...	746	5.8	150	0	44	9.8	4.3	1.6	140	17	7.5	.1
22...	13400	11	--	--	21	3.7	2.7	3.4	58	15	5.6	.9
JULY												
21...	806	7.0	500	50	50	9.1	4.8	2.5	152	21	11	.1
AUG.												
28...	464	4.9	280	30	59	12	6.7	2.8	189	23	11	.1
SEP.												
27...	155	2.5	50	0	65	14	7.3	2.4	210	23	12	.2

DATE	DIS- SOLVED NITRATE (NO ₃) (MG/L)	TOTAL ORTHOPHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	CAR- BONATE (CO ₃) (MG/L)
OCT.											
19...	8.3	--	--	233	189	27	1	15.0	420	8.4	2
27...	12	--	--	144	102	30	18	15.0	251	7.5	0
NOV.											
22...	11	--	--	213	172	29	2	6.0	390	8.2	0
DEC.											
15...	11	--	--	155	125	30	3	6.0	276	7.9	0
JAN.											
11...	11	--	--	161	129	30	3	7.0	290	7.7	0
FEB.											
07...	12	--	--	172	133	33	3	1.0	319	7.8	0
MAR.											
13...	10	--	--	166	140	32	5	9.0	292	7.8	0
22...	9.0	--	--	153	124	30	5	8.5	268	7.5	0
APR.											
03...	7.8	--	--	156	134	29	5	10.0	279	8.4	6
MAY											
01...	9.7	--	--	164	140	32	0	15.0	259	7.8	0
JUNE											
05...	9.7	--	--	169	150	35	--	19.0	296	8.0	0
22...	10	.09	118	102	68	20	5	16.0	167	7.2	0
JULY											
21...	12	--	--	193	160	38	--	22.5	327	8.1	0
AUG.											
28...	13	--	--	226	200	42	--	--	296	8.2	0
SEP.											
27...	15	--	--	247	220	43	--	--	414	8.5	3

POTOMAC RIVER BASIN

71

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(ONCE-DAILY MEASUREMENT AT 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	16.0	8.0	7.0	4.0	4.0	9.0	13.0	20.0	19.0	22.0	21.0
2	19.0	17.0	8.0	6.0	5.0	5.0	10.0	12.0	20.0	19.0	22.0	21.0
3	21.0	17.0	---	6.0	4.0	5.0	10.0	12.0	20.0	19.0	21.0	22.0
4	20.0	14.0	---	6.0	4.0	4.0	8.0	---	20.0	19.0	21.0	22.0
5	20.0	10.0	---	6.0	3.0	4.0	9.0	13.0	20.0	19.0	22.0	22.0
6	20.0	9.0	8.0	6.0	3.0	4.0	10.0	19.0	20.0	20.0	22.0	21.0
7	17.0	7.0	7.0	6.0	2.0	4.0	9.0	13.0	20.0	20.0	22.0	19.0
8	15.0	6.0	7.0	7.0	3.0	4.0	9.0	14.0	20.0	20.0	22.0	19.0
9	16.0	6.0	8.0	7.0	2.0	5.0	10.0	14.0	20.0	20.0	22.0	19.0
10	15.0	7.0	9.0	7.0	2.0	5.0	8.0	14.0	20.0	20.0	22.0	20.0
11	14.0	6.0	9.0	7.0	3.0	5.0	10.0	13.0	20.0	21.0	22.0	19.0
12	16.0	7.0	8.0	7.0	3.0	5.0	10.0	14.0	20.0	21.0	21.0	21.0
13	16.0	8.0	8.0	7.0	4.0	6.0	9.0	14.0	20.0	21.0	21.0	21.0
14	17.0	8.0	8.0	5.0	4.0	7.0	14.0	14.0	20.0	21.0	21.0	22.0
15	14.0	8.0	8.0	4.0	4.0	6.0	14.0	14.0	21.0	21.0	21.0	20.0
16	14.0	8.0	9.0	1.0	4.0	6.0	14.0	14.0	21.0	21.0	20.0	21.0
17	15.0	8.0	8.0	1.0	4.0	6.0	12.0	15.0	19.0	21.0	20.0	21.0
18	13.0	12.0	8.0	3.0	4.0	7.0	12.0	16.0	23.0	21.0	20.0	22.0
19	12.0	8.0	8.0	5.0	4.0	6.0	13.0	17.0	21.0	21.0	20.0	21.0
20	13.0	9.0	7.0	5.0	4.0	7.0	13.0	17.0	22.0	22.0	20.0	19.0
21	19.0	9.0	7.0	4.0	4.0	8.0	13.0	18.0	22.0	21.0	20.0	19.0
22	18.0	10.0	6.0	5.0	3.0	9.0	12.0	17.0	19.0	22.0	21.0	18.0
23	18.0	11.0	6.0	6.0	4.0	8.0	12.0	18.0	20.0	22.0	21.0	18.0
24	19.0	11.0	6.0	5.0	4.0	6.0	13.0	18.0	---	22.0	22.0	18.0
25	17.0	9.0	7.0	4.0	4.0	7.0	13.0	18.0	20.0	22.0	21.0	18.0
26	17.0	9.0	7.0	---	5.0	8.0	14.0	18.0	20.0	22.0	21.0	18.0
27	16.0	9.0	7.0	6.0	4.0	9.0	13.0	20.0	20.0	22.0	22.0	18.0
28	15.0	9.0	7.0	6.0	5.0	10.0	13.0	20.0	19.0	22.0	21.0	19.0
29	17.0	8.0	7.0	5.0	5.0	10.0	13.0	20.0	19.0	22.0	22.0	18.0
30	15.0	9.0	7.0	5.0	---	10.0	12.0	21.0	19.0	22.0	21.0	17.0
31	15.0	---	7.0	4.0	---	10.0	---	20.0	---	22.0	21.0	---
MONTH	16.5	9.5	7.5	5.5	3.5	6.5	11.5	16.0	20.0	21.0	21.0	20.0

POTOMAC RIVER BASIN

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	165	9	4.0	529	16	23	1760	200	950
2	156	7	2.9	787	48	102	1170	108	341
3	157	5	2.1	882	38	90	873	77	181
4	158	5	2.1	701	26	49	718	59	114
5	151	6	2.4	570	18	28	624	45	76
6	144	5	1.9	488	7	9.2	727	49	96
7	135	4	1.5	442	15	18	2990	160	1290
8	128	4	1.4	394	9	9.6	3820	115	1190
9	120	5	1.6	364	3	2.9	2750	60	446
10	149	10	4.0	341	3	2.8	2200	97	576
11	252	15	10	321	3	2.6	1890	73	373
12	213	4	2.3	302	4	3.3	1590	38	163
13	164	2	.89	281	2	1.5	1380	20	75
14	147	3	1.2	270	2	1.5	1190	18	58
15	140	5	1.9	254	2	1.4	1090	12	35
16	132	5	1.8	248	3	2.0	1000	9	24
17	128	3	1.0	236	2	1.3	890	11	26
18	124	6	2.0	225	2	1.2	798	7	15
19	123	4	1.3	220	2	1.2	719	2	3.9
20	121	9	2.9	215	2	1.2	683	3	5.5
21	115	74	23	212	3	1.7	648	3	5.2
22	111	65	19	215	3	1.7	582	5	7.9
23	108	205	60	204	5	2.8	505	4	5.5
24	121	540	176	195	8	4.2	457	3	3.7
25	1260	1050	3950	198	4	2.1	446	3	3.6
26	4700	328	4360	248	5	3.3	427	2	2.3
27	1860	65	340	250	6	4.1	416	2	2.2
28	1140	29	89	275	29	22	400	4	4.3
29	832	33	74	758	120	282	372	5	5.0
30	664	20	36	2280	140	862	358	6	5.8
31	559	13	20	--	--	--	349	9	8.5
TOTAL	14477	--	9196.19	12905	--	1537.6	33822	--	6092.4

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	329	10	8.9	310	3	2.5	3870	71	742
2	740	76	234	370	3	3.0	3970	86	922
3	1370	68	252	419	2	2.3	3840	105	1090
4	950	12	31	1410	2	7.6	3140	164	1390
5	894	5	12	960	2	5.2	2450	70	463
6	792	3	6.4	760	11	23	1930	37	193
7	685	4	7.4	720	11	21	1660	31	139
8	620	5	8.4	540	9	13	1490	20	80
9	591	8	13	520	8	11	1270	22	75
10	778	19	40	460	15	19	1130	15	46
11	781	8	17	430	74	86	1010	22	60
12	854	9	21	410	40	44	943	85	216
13	840	2	4.5	1300	151	797	924	91	227
14	798	3	6.5	3370	179	1630	1030	59	164
15	713	4	7.7	2530	39	266	1240	23	77
16	480	11	14	2040	25	138	1350	13	47
17	430	6	7.0	1670	35	158	1670	32	144
18	600	4	6.5	1430	28	108	1500	36	146
19	580	4	6.3	1380	15	56	1260	10	34
20	549	4	5.9	1000	14	38	1090	13	38
21	538	4	5.8	1020	17	47	993	24	64
22	515	3	4.2	1000	19	51	1220	55	181
23	509	3	4.1	900	10	24	1600	59	255
24	542	3	4.4	840	9	20	1300	21	74
25	519	3	4.2	825	9	20	1130	15	46
26	458	3	3.7	1580	27	128	1030	8	22
27	420	3	3.4	2110	49	279	944	7	18
28	420	3	3.4	1880	39	198	874	6	14
29	410	4	4.4	2690	60	277	815	6	13
30	400	3	3.2	--	--	--	770	6	12
31	340	3	2.8	--	--	--	724	3	5.9
TOTAL	19445	--	753.1	34874	--	4472.6	48167	--	6997.9

01614500 CONOCOCHIEGUE CREEK AT FAIRVIEW, MD.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	678	2	3.7	843	14	32	1630	143	632
2	759	2	4.1	819	16	35	1050	64	181
3	703	3	5.7	1990	186	1150	907	30	73
4	640	2	3.5	3750	334	3340	847	20	46
5	621	1	1.7	3760	160	1680	741	20	40
6	569	1	1.5	2410	116	755	651	9	16
7	569	1	1.5	1900	90	462	594	5	8.0
8	607	2	3.3	1620	57	249	533	8	12
9	584	2	3.2	2370	91	582	489	8	11
10	543	2	2.9	2960	58	464	465	8	10
11	519	2	2.8	2150	26	151	437	9	11
12	504	3	4.1	1730	19	89	410	11	12
13	1280	75	365	1500	25	101	405	12	13
14	2020	84	458	1460	41	162	452	18	22
15	2300	98	760	1470	35	139	432	8	9.3
16	3250	171	1500	1480	34	136	439	80	95
17	3790	148	1510	1290	20	70	631	300	511
18	2730	69	509	1200	24	78	468	70	88
19	2070	35	196	1110	14	42	636	90	155
20	1740	21	99	2150	24	139	596	50	80
21	1500	13	53	2460	12	80	1590	45	297
22	1650	130	595	1830	12	59	11100	286	8980
23	1940	119	623	1510	12	49	26700	962	73000
24	1670	81	365	1290	12	42	22100	724	44800
25	1480	40	160	1120	12	36	9970	237	6560
26	1300	32	112	974	10	26	4590	59	731
27	1150	26	81	863	10	23	3060	24	198
28	1040	28	79	786	9	19	2330	40	252
29	951	15	39	729	9	18	2050	43	238
30	883	15	36	683	9	17	2050	58	321
31	--	--	--	1270	81	372	--	--	--
TOTAL	40040	--	7578.0	51477	--	10597	98353	--	137402.3

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1670	25	113	375	6	6.1	201	9	4.9
2	1400	35	132	358	6	5.8	196	9	4.8
3	1270	38	130	406	6	6.6	193	9	4.7
4	1290	25	87	444	14	17	191	9	4.6
5	1510	42	171	396	9	9.6	187	9	4.5
6	1600	49	212	335	8	7.2	184	6	3.0
7	1300	36	126	360	8	7.8	178	5	2.4
8	1110	24	72	481	9	12	177	5	2.4
9	1000	20	54	360	5	4.9	172	5	2.3
10	906	20	49	314	5	4.2	167	5	2.3
11	864	18	42	292	5	3.9	164	5	2.2
12	785	11	23	295	5	4.0	169	5	2.3
13	723	12	23	297	4	3.2	169	5	2.3
14	684	12	22	304	3	2.5	173	5	2.3
15	676	12	22	278	3	2.3	162	5	2.2
16	853	75	173	258	3	2.1	159	16	6.9
17	1250	86	290	257	3	2.1	156	19	8.0
18	998	103	278	321	2	1.7	158	19	8.1
19	768	55	114	303	2	1.6	250	28	19
20	667	31	56	260	2	1.4	174	16	7.5
21	600	21	34	247	2	1.3	165	5	2.2
22	543	11	16	234	3	1.9	163	1	.44
23	506	12	16	228	9	5.5	156	1	.42
24	472	14	18	250	12	8.1	154	1	.42
25	450	9	11	231	8	5.0	154	2	.83
26	419	8	9.1	216	8	4.7	158	3	1.3
27	400	12	13	244	30	20	155	2	.84
28	398	9	9.7	386	54	56	169	5	2.3
29	391	6	6.3	277	45	34	202	6	3.3
30	373	5	5.0	233	18	11	206	12	6.7
31	372	5	5.0	210	10	5.7	--	--	--
TOTAL	26248	--	2332.1	9450	--	259.2	5262	--	115.45

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

394520

187333.84

POTOMAC RIVER BASIN

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 downstream from gaging station, 0.4 mile downstream from Pennsylvania-Maryland State line, 0.7 mile downstream from confluence of west and east branches, 1.9 miles northeast of Leitersburg, Md., 2.5 miles southwest of Waynesboro, Pa., and 36.6 miles upstream from mouth.

DRAINAGE AREA.--93.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	DIS- SOLVED CALCIUM (CA) (MG/L)	DIS- SOLVED MAGNESIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
SEP. 19...	48	7.8	40	20	62	17	4.0	2.4	217	23
DATE	DIS- SOLVED CHLORIDE (CL) (MG/L)	DIS- SOLVED FLUORIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS- SOLVED (RESIDUE AT 180 C) (MG/L)	DIS- SOLVED (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CARBONATE HARD- NESS (MG/L)	COLOR (PLATINUM- COBALT UNITS)	DIS- SOLVED ALUMINUM (AL) (UG/L)
SEP. 19...	8.1	.3	17	.24	257	248	230	47	4	0
DATE	DIS- SOLVED CADMIUM (CD) (UG/L)	DIS- SOLVED CHROMIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TURBIDITY (JTU)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 19...	0	0	10	1	30	8	18	1.0	.00	7

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	SPE- CIFIC CONDUCT- ANCE (MICRO- MHOS)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 29...	1038	59	12.0	9.4	7.7	330	1300
NOV. 18...	1138	50	8.0	13.6	7.9	330	210
DEC. 13...	1056	170	7.0	11.0	7.5	260	270
JAN. 07...	1112	102	4.0	11.4	7.6	290	190
FEB. 14...	1115	379	5.0	11.2	7.0	180	8210
MAR. 20...	1149	166	7.0	11.4	7.7	275	40
APR. 06...	1200	122	10.0	15.6	8.8	298	34
MAY 08...	1245	221	15.0	9.6	7.8	270	560
JUNE 07...	1415	110	17.0	11.8	8.5	310	340
JULY 19...	0845	140	16.0	8.8	7.8	370	1500
AUG. 28...	1041	72	16.0	8.9	8.0	355	4100
SEP. 19...	1020	48	15.0	9.2	8.0	420	2300

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 downstream from Burnside Bridge, 1 mile southeast of Sharpsburg, and 4.0 miles upstream from mouth.

DRAINAGE AREA.--281 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1972.

Water temperatures: October 1962 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 20.5°C on several days in July; minimum, 1.0°C on several days in February.

Period of record:

Water temperatures: Maximum, 28°C June 28, July 1-3, 1963, Aug. 21, 23, 24, 1968, June 28, 1969; freezing point on many days during winter period.

REMARKS.--Temperature records poor, probably because of friction in recorder. Chemical samples collected from Burnside Bridge. No temperature record May 1-14.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT.											
29...	299	10	270	--	30	--	67	14	8.7	3.9	215
NOV.											
17...	187	7.7	140	--	20	--	72	14	98	--	234
DEC.											
14...	500	8.3	260	--	30	--	58	12	6.8	3.1	182
JAN.											
10...	376	7.3	300	--	20	--	62	13	6.9	4.0	200
FEB.											
10...	304	7.8	160	--	40	--	66	14	7.9	3.1	213
MAR.											
15...	670	7.6	150	--	40	--	43	10	5.7	2.5	136
APR.											
05...	425	5.3	110	--	60	--	61	13	6.7	2.9	197
MAY											
09...	835	7.8	190	--	70	--	54	11	6.7	3.6	175
JUNE											
12...	350	7.5	550	--	90	--	70	14	5.7	2.6	218
JULY											
20...	450	7.4	270	--	40	--	73	14	6.0	3.0	222
AUG.											
29...	232	7.4	190	--	0	--	76	15	6.8	3.6	236
SEP.											
19...	179	7.6	--	20	--	10	78	16	8.0	3.2	239

DATE	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)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
OCT.											
29...	33	16	.3	15	--	--	274	225	49	0	--
NOV.											
17...	29	18	.3	18	--	--	287	237	45	0	--
DEC.											
14...	26	14	.2	15	--	--	232	194	45	1	--
JAN.											
10...	26	14	.2	15	--	--	247	208	44	2	--
FEB.											
10...	29	15	.2	17	--	--	265	222	48	0	--
MAR.											
15...	23	11	.2	12	--	--	182	149	37	1	--
APR.											
05...	29	12	.2	15	--	--	242	206	44	0	--
MAY											
09...	26	12	.2	13	--	--	220	180	36	3	--
JUNE											
12...	28	11	.2	15	--	--	262	232	54	--	--
JULY											
20...	29	12	.3	17	--	--	272	240	58	--	--
AUG.											
29...	31	13	.2	16	--	--	287	250	56	--	--
SEP.											
19...	32	14	.3	19	.46	318	295	260	65	3	100

POTOMAC RIVER BASIN

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CUPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT.										
29...	--	--	--	--	--	--	--	--	--	--
NOV.										
17...	--	--	--	--	--	--	--	--	--	--
DEC.										
14...	--	--	--	--	--	--	--	--	--	--
JAN.										
10...	--	--	--	--	--	--	--	--	--	--
FEB.										
10...	--	--	--	--	--	--	--	--	--	--
MAR.										
15...	--	--	--	--	--	--	--	--	--	--
APR.										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
JUNE										
12...	--	--	--	--	--	--	--	--	--	--
JULY										
20...	--	--	--	--	--	--	--	--	--	--
AUG.										
29...	--	--	--	--	--	--	--	--	--	--
SEP.										
19...	0	0	0	1	30	2	16	1.8	.00	1

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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.							
29...	0922	299	13.5	9.1	7.8	470	700
NOV.							
17...	1245	187	9.0	10.8	6.8	510	150
DEC.							
14...	1045	500	7.0	11.4	7.4	400	190
JAN.							
10...	1049	376	7.0	11.0	7.7	425	826
FEB.							
10...	1028	304	1.0	12.2	7.2	460	83
MAR.							
15...	1123	670	7.0	10.2	7.2	400	68
APR.							
05...	1113	425	9.0	12.5	7.6	425	821
MAY							
09...	1125	835	14.0	9.1	7.3	376	12000
JUNE							
12...	1213	350	16.0	9.9	7.8	450	480
JULY							
20...	1030	450	19.0	7.7	7.9	490	540
AUG.							
29...	1318	232	18.0	9.2	7.8	490	1400
SEP.							
19...	1325	179	17.0	9.0	8.1	450	400

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

POTOMAC RIVER BASIN

77

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

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

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 downstream from Catoctin Creek (Virginia), 6 miles upstream from Monocacy River and at mile 159.5.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1972.
Water temperatures: October 1960 to September 1972.
Sediment records: October 1960 to September 1972.

Water temperatures: Maximum recorded, 31.0°C July 21, 23, 24; minimum recorded, 1.0°C on several days during February.

Sediment concentrations: Maximum daily, 878 mg/l June 23; minimum daily, 2 mg/l Dec. 25, Jan. 2, 22.

Sediment discharge: Maximum daily, 689,000 tons June 23; minimum daily, 29 tons Jan. 2.

Water temperatures: Maximum, 33.5°C Aug. 24, 1964; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 2,350 mg/l Apr. 3, 1970; minimum daily, 1 mg/l on many days.
Sediment discharge: Maximum daily, 689,000 tons June 23, 1972; minimum daily, 2 tons on several days during September 1964, July to September 1966, November 1967, January and December 1968, and January 1969.

CHEMICAL ANALYSES. WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

[illegible]

POTOMAC RIVER BASIN

79

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(ONCE-DAILY MEASUREMENT AT 1700)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	17.0	---	6.0	3.0	8.0	10.0	18.0	20.0	---	26.0	24.0
2	20.0	19.0	---	6.0	2.0	10.0	9.0	---	22.0	---	24.0	---
3	23.0	16.0	3.0	6.0	2.0	8.0	11.0	---	22.0	---	25.0	---
4	20.0	14.0	4.0	6.0	7.0	---	10.0	16.0	23.0	---	23.0	---
5	20.0	13.0	3.0	5.0	1.0	6.0	10.0	14.0	22.0	---	24.0	---
6	---	14.0	4.0	---	1.0	5.0	13.0	15.0	21.0	---	---	---
7	19.0	11.0	4.0	4.0	1.0	7.0	8.0	15.0	22.0	---	25.0	---
8	18.0	9.0	5.0	3.0	---	6.0	7.0	15.0	24.0	---	25.0	---
9	17.0	9.0	6.0	3.0	1.0	6.0	8.0	15.0	---	---	25.0	---
10	17.0	9.0	7.0	4.0	1.0	6.0	9.0	15.0	---	---	---	---
11	17.0	---	8.0	5.0	---	6.0	10.0	16.0	20.0	---	---	---
12	17.0	9.0	8.0	6.0	2.0	8.0	12.0	15.0	22.0	---	25.0	---
13	17.0	10.0	---	---	3.0	8.0	12.0	17.0	22.0	---	26.0	---
14	17.0	9.0	8.0	5.0	1.0	7.0	13.0	16.0	22.0	---	27.0	---
15	17.0	10.0	9.0	---	1.0	7.0	13.0	17.0	23.0	---	25.0	---
16	17.0	10.0	7.0	---	4.0	8.0	13.0	17.0	23.0	---	23.0	---
17	17.0	10.0	7.0	2.0	3.0	8.0	12.0	18.0	22.0	---	22.0	---
18	16.0	10.0	---	3.0	3.0	8.0	15.0	---	---	27.0	26.0	---
19	---	---	5.0	3.0	---	9.0	16.0	---	---	---	26.0	---
20	---	9.0	---	3.0	---	8.0	---	---	---	30.0	26.0	---
21	17.0	8.0	6.0	3.0	---	9.0	15.0	---	---	31.0	26.0	---
22	17.0	6.0	4.0	3.0	2.0	9.0	13.0	---	---	30.0	26.0	---
23	17.0	5.0	4.0	4.0	2.0	8.0	---	19.0	---	31.0	26.0	---
24	17.0	4.0	5.0	5.0	2.0	6.0	12.0	19.0	---	31.0	28.0	---
25	16.0	3.0	6.0	6.0	3.0	7.0	13.0	20.0	---	30.0	28.0	---
26	16.0	4.0	6.0	5.0	4.0	6.0	13.0	20.0	---	---	27.0	---
27	15.0	4.0	8.0	4.0	3.0	8.0	14.0	20.0	---	26.0	26.0	---
28	16.0	6.0	7.0	3.0	5.0	9.0	14.0	21.0	---	26.0	26.0	---
29	16.0	---	7.0	3.0	7.0	9.0	15.0	---	---	25.0	27.0	---
30	17.0	---	7.0	3.0	---	10.0	15.0	22.0	---	25.0	26.0	---
31	17.0	---	6.0	2.0	---	9.0	---	21.0	---	24.0	25.0	---
MONTH	17.5	9.5	6.0	4.0	2.5	7.5	12.0	---	---	---	25.5	---
YEAR	MAX	31.0	MIN	1.0	MEAN	13.0						

POTOMAC RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4410	19	226	11900	37	1190	27600	330	24600
2	4270	15	173	10900	34	1000	25700	200	13900
3	5280	31	593	10700	34	982	19300	75	3910
4	9980	70	1890	10500	24	680	14900	32	1290
5	10800	56	1630	9780	19	502	12600	15	510
6	10700	44	1270	9330	17	428	11100	10	300
7	8680	31	727	8600	16	372	12700	12	411
8	7250	22	431	7580	12	246	21000	37	2100
9	6170	17	283	7040	24	456	31600	117	10100
10	6730	17	309	6520	19	334	33200	190	17000
11	6290	14	238	6060	7	115	28900	115	8970
12	6090	15	247	5470	36	532	22600	60	3660
13	5800	13	204	5520	32	477	17300	38	1770
14	5110	11	152	5200	36	505	14600	29	1140
15	4420	11	131	5020	38	515	12900	21	731
16	3920	36	381	4860	7	92	12000	14	454
17	3700	25	250	4590	7	87	11000	11	327
18	3490	18	170	4340	7	82	9780	11	290
19	3230	13	113	4300	7	81	8850	11	263
20	3100	10	84	4070	7	77	8240	11	245
21	3310	8	71	3970	12	129	7740	10	209
22	2990	10	81	3880	11	115	7260	6	118
23	2890	9	70	3710	17	170	7040	5	95
24	3540	10	96	3780	14	143	7030	3	57
25	19200	150	12200	4390	8	95	6700	2	36
26	41900	380	43600	4290	20	232	6170	3	50
27	48700	266	35000	4250	23	264	5990	4	65
28	33800	250	22800	4470	10	121	5870	4	63
29	23400	180	10700	6550	100	2730	5720	4	62
30	17300	65	3040	14500	247	10100	5490	5	74
31	14100	50	1900	--	--	--	5280	4	57
TOTAL	330550	--	139060	196070	--	22852	426160	--	92857

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4990	3	40	7520	6	122	48900	95	12500
2	5350	2	29	7030	5	95	52000	125	17600
3	6940	18	337	7330	5	99	52500	145	20600
4	9480	16	410	9480	23	589	49200	130	17300
5	9790	8	211	12500	22	743	41500	105	11800
6	9400	7	178	11700	24	758	33000	75	6680
7	9510	5	128	10900	16	471	26600	55	3950
8	9530	4	103	9960	10	269	21500	32	1860
9	8770	3	71	8760	7	166	17800	24	1150
10	8680	5	117	7820	9	190	16100	19	826
11	9030	6	146	7250	10	196	14600	16	631
12	9550	11	284	7140	9	174	13400	14	507
13	11000	18	535	12000	32	1300	13100	15	531
14	11500	11	342	38900	478	56600	18400	35	1700
15	10600	6	172	50000	445	62800	30400	130	10700
16	9500	5	128	32500	175	15700	28700	125	9690
17	8000	4	86	26000	75	5270	25700	53	3680
18	6830	3	55	23500	42	2660	24900	40	2690
19	7020	4	76	21700	32	1870	21900	48	2840
20	8180	16	353	18800	30	1520	18500	28	1400
21	8210	6	133	16100	20	869	16000	17	734
22	7650	2	41	14900	13	523	15200	21	862
23	7270	3	59	14700	10	397	15600	26	1100
24	7440	4	80	17700	10	478	15700	29	1230
25	7410	13	260	19500	12	632	15100	17	693
26	7220	18	351	33500	42	3320	14200	13	498
27	7940	9	193	70200	220	43200	13300	12	431
28	8010	11	238	73100	260	51800	12500	12	405
29	7480	13	263	53500	120	17600	11700	11	347
30	7410	7	140	--	--	--	11100	10	300
31	7480	8	162	--	--	--	10400	9	253
TOTAL	257170	--	5721	643990	--	270411	719500	--	135488

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	47600	275	35700	8370	44	994	3520	16	152
2	34700	150	14100	10600	51	1460	3150	18	153
3	25700	85	5900	10300	39	1080	2960	18	144
4	22000	65	3860	9040	29	708	2990	18	145
5	18900	52	2650	8500	24	551	2930	17	134
6	19500	46	2420	7400	26	519	2820	23	175
7	27400	66	4880	7090	27	517	3100	24	201
8	28000	64	4840	7700	23	478	3000	19	154
9	21700	45	2640	6990	24	453	2700	18	131
10	17900	30	1450	6250	22	371	2500	17	115
11	15700	28	1190	5400	23	335	2470	16	107
12	15100	28	1140	5010	25	338	2430	15	98
13	12700	27	926	4780	34	439	2460	15	100
14	11300	25	763	4650	20	251	2410	14	91
15	12100	28	915	4400	20	238	2540	14	96
16	11400	18	554	4130	20	223	2410	14	91
17	11500	16	497	4140	17	190	2390	14	90
18	10900	15	441	4060	18	197	2390	13	84
19	11800	18	573	4190	24	272	2370	13	83
20	10300	21	584	4060	22	241	2410	12	78
21	9090	12	295	3970	20	214	2540	12	82
22	7970	12	258	3970	19	204	2410	12	78
23	7410	14	280	4030	24	261	2340	12	76
24	6880	19	353	3720	32	321	2320	11	69
25	6500	33	579	3610	32	312	2270	11	67
26	6090	36	592	3650	35	345	2160	11	64
27	5680	33	506	3640	35	344	2250	10	61
28	5390	26	378	4380	28	331	2160	10	58
29	5170	21	293	4830	32	417	2250	10	61
30	5140	19	264	4200	26	295	2340	10	63
31	5470	30	443	3910	21	222	--	--	--
TOTAL	456990	--	90264	170970	--	13121	76990	--	3101

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	5798330
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	2435621

POTOMAC RIVER BASIN

01639000 MONOCACY RIVER AT BRIDGEPORT, MD.

LOCATION.--Lat 39°40'43", long 77°14'06", Frederick County, at bridge on Maryland State Highway 97, 60 feet upstream from gaging station at Bridgeport, 0.9 mile upstream from Cattail Branch, 3.4 miles northwest of Taneytown, 4.8 miles downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 49 miles upstream from mouth.

DRAINAGE AREA.--173 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1948 to June 1951, July 1969 to September 1972.

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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.							
29...	1148	170	15.0	9.4	7.5	255	580
NOV.							
18...	1015	49	6.0	11.6	6.8	255	80
DEC.							
13...	0945	260	6.0	11.4	7.1	185	760
JAN.							
07...	1000	170	1.0	11.7	7.2	220	820
FEB.							
14...	1058	1350	2.0	12.2	7.1	120	2500
MAR.							
20...	1030	210	6.5	9.8	6.5	185	96
APR.							
06...	1015	99	8.0	15.1	7.8	200	4
MAY							
08...	1107	192	18.0	7.5	6.7	190	460
JUNE							
07...	1245	88	19.0	8.3	6.9	220	660

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 downstream from U. S. Highway 40, 1.2 miles downstream from gaging station, 2 miles southeast of Frederick, and 16.6 miles upstream from mouth.

DRAINAGE AREA.--817 sq mi, upstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: December 1964 to September 1972.

Water temperatures: October 1960 to September 1972.

Sediment records: October 1960 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 29.5°C July 21, 22; minimum, freezing point Feb. 6, 8, and probably several other days during period of missing record.

Sediment concentrations: Maximum daily, 942 mg/l June 22; minimum daily, 1 mg/l Feb. 1.

Sediment discharge: Maximum daily, 134,000 tons June 22; minimum daily, 1.4 tons Feb. 1.

Period of record:

Water temperatures: Maximum, 30.5°C July 2, 12-13, 26, Aug. 27, 1966; minimum, freezing point on many days during winter period.

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 June 22, 1972; minimum daily, less than 0.50 ton 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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)
OCT.										
26...	7590	8.4	2400	--	530	--	18	4.5	4.3	4.8
NOV.										
18...	440	5.5	160	--	0	--	29	6.5	6.4	2.0
DEC.										
14...	1340	9.1	160	--	10	--	22	5.4	5.0	2.0
JAN.										
10...	2050	6.5	380	--	50	--	21	5.2	5.0	2.5
FEB.										
10...	750	9.2	130	--	10	--	23	5.6	5.7	1.8
MAR.										
15...	2330	7.6	180	--	90	--	20	5.0	5.1	2.1
APR.										
05...	861	4.4	130	--	60	--	23	5.2	5.6	1.8
MAY										
09...	1930	6.5	260	--	130	--	20	5.0	5.0	2.2
JUNE										
12...	620	8.3	430	--	70	--	28	5.6	5.4	1.8
23...	72600	4.2	--	--	--	--	8.6	2.2	1.8	2.6
JULY										
20...	878	6.9	440	--	70	--	27	5.3	7.4	3.0
AUG.										
29...	310	2.9	130	--	50	--	35	5.8	6.9	2.7
SEP.										
19...	181	5.3	--	30	--	40	42	6.4	7.6	2.6

DATE	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 ORTHO PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)
OCT.										
26...	48	22	8.7	.2	8.0	--	--	--	103	64
NOV.										
18...	89	20	6.6	.1	11	--	--	--	131	99
DEC.										
14...	59	20	7.4	.1	11	--	--	--	111	77
JAN.										
10...	55	21	8.0	.1	10	--	--	--	106	74
FEB.										
10...	63	21	10	.1	13	--	--	--	120	81
MAR.										
15...	51	21	8.5	.1	8.8	--	--	--	85	71
APR.										
05...	65	17	9.6	.1	8.5	--	--	--	107	79
MAY										
09...	60	17	7.6	.1	7.5	--	--	--	101	71
JUNE										
12...	79	15	9.5	.1	12	--	--	--	124	93
23...	19	9.7	4.0	.5	7.1	.09	--	70	50	30
JULY										
20...	81	15	9.5	.1	10	--	--	--	124	89
AUG.										
29...	104	15	12	.1	9.2	--	--	--	141	110
SEP.										
19...	123	16	13	.1	13	--	.33	167	167	130

POTOMAC RIVER BASIN

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	NON-CARBONATE HARDNESS (MG/L)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED ALUMINUM (AL) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TURBIDITY (JTU)	TOTAL NON-FILTERABLE RESIDUE (MG/L)
OCT. 26...	24	35	--	--	--	--	--	--	--	--
NOV. 18...	26	0	--	--	--	--	--	--	--	--
DEC. 14...	29	3	--	--	--	--	--	--	--	--
JAN. 10...	29	5	--	--	--	--	--	--	--	--
FEB. 10...	29	3	--	--	--	--	--	--	--	--
MAR. 15...	29	3	--	--	--	--	--	--	--	--
APR. 05...	26	0	--	--	--	--	--	--	--	--
MAY 09...	22	2	--	--	--	--	--	--	--	--
JUNE 12...	28	--	--	--	--	--	--	--	--	--
23...	15	15	--	--	--	--	--	--	--	--
JULY 20...	23	--	--	--	--	--	--	--	--	--
AUG. 29...	26	--	--	--	--	--	--	--	--	--
SEP. 19...	30	4	100	1	0	0	1	30	3	10

DATE	RIO-CHEMICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (PC/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (PC/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)
OCT. 26...	--	--	--	--	--	--	--	--	--
NOV. 18...	--	--	--	--	--	--	--	--	--
DEC. 14...	--	--	--	--	--	--	--	--	--
JAN. 10...	--	--	--	--	--	--	--	--	--
FEB. 10...	--	--	--	--	--	--	--	--	--
MAR. 15...	--	--	--	--	--	--	--	--	--
APR. 05...	--	--	--	--	--	--	--	--	--
MAY 09...	--	--	--	--	--	--	--	--	--
JUNE 12...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	87	6.8
JULY 20...	--	--	--	--	--	--	--	--	--
AUG. 29...	--	--	--	--	--	--	--	--	--
SEP. 19...	1.8	.01	1	<.6	<.1	3.6	<.4	--	--

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	DISCHARGE (CFS)	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 26...	1436	7590	15.0	8.1	6.9	175	833000
NOV. 18...	1443	440	8.5	11.8	8.1	245	32
DEC. 14...	1320	1340	5.5	11.6	6.9	210	73
JAN. 10...	1330	2050	4.0	12.0	7.2	190	940
FEB. 10...	1300	750	1.5	13.2	7.0	200	<5
MAR. 15...	1355	2330	6.0	11.0	7.2	185	780
APR. 05...	1345	861	8.0	13.0	7.6	205	<2
MAY 09...	1430	1930	14.0	8.9	7.1	185	880000
JUNE 12...	1505	620	19.0	9.2	7.5	220	150
JULY 20...	1330	878	25.0	6.7	7.6	225	940
AUG. 29...	1520	310	22.5	11.2	8.1	245	851000
SEP. 19...	1511	181	20.5	5.2	7.5	295	1200

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

POTOMAC RIVER BASIN

85

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

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(ONCE-DAILY MEASUREMENT AT 1800)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	18.0	4.0	5.0	3.0	7.0	10.0	---	---	---	24.5	23.0
2	19.0	19.0	4.0	---	---	10.0	10.0	---	19.0	---	24.0	---
3	20.0	17.0	3.0	4.0	3.0	9.0	10.0	17.0	21.5	---	---	23.0
4	20.0	---	5.0	4.0	---	9.0	9.0	16.0	21.0	22.0	23.0	---
5	21.0	12.0	3.0	---	1.0	6.0	11.0	16.0	21.0	18.0	23.0	21.5
6	20.0	11.0	4.0	3.0	0.0	7.0	13.0	16.0	19.0	18.0	24.0	22.0
7	18.0	8.0	4.0	3.0	3.0	8.0	9.0	18.0	21.0	19.0	---	21.5
8	17.0	8.0	6.0	3.0	0.0	8.0	9.0	17.0	22.0	20.0	23.0	---
9	15.0	7.0	6.0	3.0	1.0	6.0	---	14.0	23.0	22.0	24.5	23.0
10	15.0	8.0	8.0	3.0	2.0	6.0	11.0	15.0	---	---	25.0	20.5
11	---	7.0	10.0	6.0	2.0	6.0	13.0	14.0	---	22.0	23.5	20.5
12	15.0	9.0	9.0	6.0	4.0	9.0	14.0	17.0	19.0	24.0	23.0	21.0
13	15.0	10.0	8.0	---	3.0	9.0	13.0	18.0	---	26.0	24.0	24.0
14	17.0	9.0	7.0	7.0	4.0	---	14.0	17.0	---	---	24.0	---
15	17.0	10.0	6.0	4.0	4.0	9.0	13.0	17.0	---	---	---	23.0
16	17.0	---	6.0	---	5.0	9.0	12.0	18.0	---	---	22.5	23.0
17	16.0	10.0	9.0	1.0	4.0	9.0	12.0	19.0	24.0	---	20.0	23.5
18	15.0	10.0	4.0	4.0	3.0	9.0	15.0	19.0	---	---	23.0	23.5
19	15.0	10.0	4.0	5.0	---	9.0	---	18.0	24.0	---	23.5	22.5
20	15.0	9.0	5.0	5.0	---	9.0	17.0	16.0	23.0	27.5	24.0	19.5
21	17.0	7.0	5.0	4.0	3.0	9.0	15.0	16.0	21.0	29.5	---	---
22	16.0	7.0	---	4.0	3.0	10.0	11.0	19.0	---	29.5	24.0	21.5
23	16.0	---	4.0	6.0	---	---	12.0	19.0	14.5	28.5	24.5	18.5
24	---	---	5.0	6.0	4.0	5.0	13.0	20.0	---	27.5	25.5	19.5
25	16.0	---	6.0	6.0	---	6.0	12.0	18.0	---	---	---	---
26	15.0	3.0	---	4.0	5.0	7.0	12.0	18.0	---	26.5	26.5	---
27	17.0	4.0	---	4.0	2.0	8.0	12.0	18.0	18.0	23.5	26.0	20.0
28	17.0	4.0	10.0	3.0	3.0	10.0	13.0	19.0	19.0	24.0	24.5	21.0
29	17.0	---	8.0	2.0	7.0	9.0	14.0	20.0	18.0	22.0	25.5	19.5
30	17.0	---	8.0	3.0	---	10.0	---	20.0	---	---	25.0	17.5
31	18.0	---	7.0	1.0	---	9.0	---	---	---	22.0	24.5	---
MONTH	17.0	---	6.0	4.0	3.0	8.0	12.0	17.5	---	---	24.0	---

POTOMAC RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	311	26	22	1910	125	687	4700	101	1380
2	341	31	29	1970	84	447	2410	30	195
3	431	48	56	1950	55	290	1760	20	95
4	385	44	46	1440	35	136	1480	14	56
5	335	28	25	999	21	57	1320	13	46
6	319	27	23	841	15	34	1280	12	41
7	296	28	22	777	14	29	5190	132	1730
8	269	16	12	720	7	14	6200	102	1710
9	254	11	2130	654	7	12	3410	46	424
10	1700	398	2100	620	8	13	2650	37	265
11	2560	285	241	601	6	9.7	2280	26	160
12	980	89	235	570	6	9.2	1850	19	95
13	683	32	59	544	6	8.8	1560	12	51
14	573	27	42	516	3	4.2	1350	11	40
15	506	21	29	487	2	2.6	1240	15	50
16	449	15	18	476	2	2.6	1190	11	35
17	417	14	16	463	3	3.8	1080	10	29
18	392	12	13	443	9	11	977	10	26
19	367	8	7.9	435	18	21	879	8	19
20	343	9	8.3	438	10	12	864	9	21
21	327	6	5.3	436	7	8.2	872	37	87
22	317	10	8.6	425	8	9.2	804	24	52
23	315	22	60	403	9	9.8	718	7	14
24	412	51	6250	390	14	15	699	8	15
25	4210	399	11100	1910	109	858	707	10	19
26	7840	496	922	4220	150	1710	683	10	18
27	2340	136	859	2540	35	240	667	11	20
28	1470	42	167	2520	55	374	652	13	23
29	1110	48	144	4610	371	6910	619	9	15
30	925	30	75	12500	610	21100	595	8	13
31	847	38	87	--	--	--	598	9	15
TOTAL	32024	--	24812.1	46808	--	33038.1	51284	--	6759

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	570	12	18	516	1	1.4	6590	339	6270
2	1050	59	216	605	10	16	5980	224	3720
3	2540	105	761	863	52	198	5660	272	4160
4	1210	23	75	6060	557	8840	3740	160	1620
5	1370	13	48	2230	102	614	2580	45	313
6	1520	12	49	1350	22	80	2060	26	145
7	1010	18	49	1200	17	55	1760	26	124
8	878	7	17	900	17	41	1640	29	128
9	860	11	26	800	17	37	1400	16	60
10	1930	40	208	750	17	34	1260	9	31
11	1780	28	135	700	11	21	1160	9	28
12	1440	11	43	650	11	19	1100	9	27
13	1260	15	51	2880	535	4930	1090	9	26
14	1200	20	65	7050	307	6290	1290	50	174
15	1200	18	58	2980	90	724	2100	100	567
16	745	15	30	2400	43	279	1630	27	119
17	603	15	24	1940	24	126	3590	206	4070
18	777	15	31	1640	10	44	2490	85	571
19	826	15	33	2130	38	219	1690	25	114
20	801	15	32	1670	39	176	1420	14	54
21	785	5	11	1600	28	121	1280	8	28
22	774	5	10	1760	22	105	2060	150	1420
23	791	5	11	1480	16	64	4140	415	4890
24	912	5	12	1420	11	42	1960	95	503
25	918	6	15	1380	15	56	1590	15	64
26	785	6	13	3180	191	1720	1410	8	30
27	649	6	11	4360	90	1060	1270	10	34
28	631	6	10	3400	45	413	1160	14	44
29	616	6	10	4420	105	1250	1060	10	29
30	636	4	6.9	--	--	--	1010	10	27
31	596	4	6.4	--	--	--	961	10	26
TOTAL	31663	--	2085.3	62314	--	27575.4	68131	--	29416

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	671094
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	455552.6

POTOMAC RIVER BASIN

01643500 BENNETT CREEK AT PARK MILLS, MD.

LOCATION.--Lat 39°17'40", long 77°24'30", Frederick County, at gaging station, 75 feet downstream from highway bridge, 0.2 mile south of Park Mills, 1.8 miles upstream from mouth and 3.7 miles southwest of Urbana.

DRAINAGE AREA.--62.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: March to September 1968, July 1969 to September 1972.

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 26...	1322	312	15.5	8.8	6.8	110	8600
NOV. 17...	1417	58	9.0	11.2	8.6	115	89
DEC. 14...	1210	98	5.0	12.0	6.0	120	110
JAN. 10...	1217	136	6.0	11.4	7.9	125	2400
FEB. 10...	1155	85	1.0	13.4	7.7	110	17
MAR. 15...	1250	117	6.0	11.4	7.8	115	210
APR. 05...	1255	81	8.0	12.8	7.9	105	2
MAY 09...	1325	200	13.0	9.4	7.4	120	29000
JUNE 12...	1420	60	16.5	10.0	6.6	110	200

POTOMAC RIVER BASIN

89

01645000 SENECA CREEK AT DAWSONVILLE, MD.

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, at gaging station 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, 0.5 mile east of Dawsonville, and 5.8 miles upstream from mouth.

DRAINAGE AREA.--101 sq mi.

PERIOD OF RECORD.--Chemical analyses: November 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
26...	557	8.5	960	140	10	3.3	3.3	4.0	29	14
NOV.										
24...	109	9.2	220	60	8.1	3.1	4.2	1.4	27	6.7
DEC.										
27...	144	9.0	330	80	8.0	3.0	4.2	1.5	24	7.0
JAN.										
24...	178	8.4	380	60	8.6	3.2	4.4	1.9	25	9.4
FEB.										
24...	202	9.2	90	60	7.8	2.5	6.3	1.4	19	9.6
MAR.										
25...	218	8.9	80	60	8.0	3.0	4.3	1.3	20	10
APR.										
24...	345	8.6	120	60	9.0	3.1	4.4	1.6	24	11
MAY										
23...	184	9.2	200	60	8.4	3.1	4.4	1.6	27	8.2
AUG.										
01...	120	9.0	190	10	9.1	3.0	4.8	1.3	29	4.5

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.										
26...	6.1	.1	5.4	69	39	15	25	--	112	6.9
NOV.										
24...	6.1	.1	7.4	60	33	11	0	--	98	7.4
DEC.										
27...	6.4	.1	8.1	59	33	13	20	--	100	6.9
JAN.										
24...	7.6	.1	7.0	63	35	14	5	--	107	6.7
FEB.										
24...	10	.1	5.0	61	30	15	0	1.0	99	6.7
MAR.										
25...	6.6	.1	7.6	60	33	16	0	6.0	99	6.6
APR.										
24...	6.4	.1	5.6	62	36	16	3	12.0	101	6.6
MAY										
23...	6.8	.1	5.6	60	34	12	0	17.0	99	7.1
AUG.										
01...	7.5	.1	7.9	62	35	11	--	20.0	100	7.2

POTOMAC RIVER BASIN

01647685 WILLIAMSBURG RUN NEAR OLNEY, MD.

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

DRAINAGE AREA.--2.25 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1968, October 1968 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT.			
10...	33	509	108
NOV.			
24...	5.8	161	17
25...	61	104	39
29...	17	120	14
30...	4.4	22	.28
DEC.			
07...	16	232	19
FEB.			
03...	25	483	77
04...	5.7	123	4.0
13...	36	886	140
14...	5.5	83	1.5
18...	5.7	131	14
19...	31	396	80
MAR.			
16...	9.1	233	22
17...	30	253	45
APR.			
13...	22	992	85
16...	37	726	326
17...	17	331	37
MAY			
03...	11	308	15
04...	30	452	100
19...	5.0	59	2.9
20...	11	195	14
22...	6.6	124	6.0
23...	3.4	29	.30
JUNE			
04...	9.2	405	59
05...	3.8	77	1.4
29...	49	371	140
30...	11	78	3.6
JULY			
02...	72	310	287
03...	15	250	20

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
FEB., 1972							
04...	0010	34	3.0	521	48	41	55
		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., 1972							
04...		72	86	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 downstream from bridge on Muncaster Mill Road (State Highway 115), 0.7 mile upstream from Manor Run, 1.5 miles northwest of Norbeck, and 2 miles upstream from mouth.

DRAINAGE AREA.--9.73 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)
NOV.			
24...	19	109	28
25...	244	415	407
26...	23	195	12
29...	61	196	72
30...	24	39	3.4
DEC.			
07...	55	244	46
08...	20	26	1.6
FEB.			
03...	70	758	395
04...	40	197	46
MAR.			
16...	20	134	31
17...	118	451	284
22...	30	281	30
APR.			
13...	71	687	195
16...	55	667	674
17...	120	648	746
MAY			
03...	36	172	24
04...	125	630	524
19...	13	61	7.5
20...	45	204	41
30...	98	1600	1990
31...	115	250	253
JUNE			
04...	20	606	101
05...	18	332	36

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
FEB., 1972												
03...	2350	244	3.0	1220	804	51	65	77	86	95	99	100

POTOMAC RIVER BASIN

01647725 MANOR RUN NEAR NORBECK, MD.

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

DRAINAGE AREA.--1.01 sq mi.

PERIOD OF RECORD.--Sediment records: November 1966 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
NOV.			
24...	12	333	57
25...	27	310	73
FEB.			
03...	15	596	78
04...	2.1	58	.45
13...	17	549	58
MAR.			
16...	6.4	325	34
17...	12	165	18
APR.			
13...	8.3	264	15
MAY			
04...	12	390	63
JUNE			
29...	29	482	154
30...	6.8	130	3.5
AUG.			
27...	8.8	173	42
28...	2.1	51	1.4

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	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., 1972									
03...	2330	8.2	3.5	189	42	87	94	98	100

01847740. NORTH BRANCH ROCK CREEK NEAR ROCKVILLE, MD.

LOCATION.--Lat 39°06'09", long 77°07'12", Montgomery County, at gaging station 170 ft downstream from outlet of Bernard Frank Lake, 370 ft upstream from mouth, and 2.4 miles northeast of Rockville.

DRAINAGE AREA.--12.5 sq mi.

PERIOD OF RECORD.--Sediment records: September 1967 to September 1972.

EXTREMES.--1971-72:

Sediment concentrations: Maximum daily, 375 mg/l May 31; minimum daily, 3 mg/l Jan. 24.

Sediment discharge: Maximum daily, 358 tons June 22; minimum daily, 0.14 tons Jan. 24, Sept. 22-24, 27-29.

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 June 22, 1972; minimum daily, 0 tons 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 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.2	8	.18	26	13	.91	54	35	5.1
2	11	10	.30	19	11	.56	46	31	3.9
3	14	15	.57	19	11	.56	39	26	2.7
4	11	18	.53	19	10	.51	30	163	13
5	9.8	17	.45	16	10	.43	24	91	6.4
6	10	16	.43	14	10	.38	21	18	1.0
7	9.8	15	.40	13	12	.42	32	16	1.4
8	8.6	13	.30	14	13	.49	43	17	2.0
9	7.9	11	.23	13	12	.42	38	24	2.5
10	47	12	1.5	13	12	.42	32	22	1.9
11	57	19	2.9	12	13	.42	27	15	1.1
12	47	19	2.4	12	10	.32	21	10	.57
13	32	17	1.5	12	10	.32	19	14	.72
14	21	16	.91	12	11	.36	17	16	.73
15	15	15	.61	12	11	.36	16	15	.65
16	11	14	.42	11	8	.24	15	14	.57
17	10	12	.32	11	10	.30	15	13	.53
18	9.4	12	.30	11	10	.30	13	16	.56
19	9.4	12	.30	11	9	.27	12	12	.39
20	9.0	12	.29	11	8	.24	14	15	.57
21	9.0	12	.29	11	8	.24	14	11	.42
22	9.0	12	.29	9.8	15	.40	14	16	.60
23	9.0	12	.29	9.4	14	.36	14	11	.42
24	11	14	.42	12	13	.42	14	15	.57
25	39	13	1.4	80	49	11	14	9	.34
26	81	27	5.9	76	64	13	14	8	.30
27	76	28	5.7	70	61	12	13	8	.28
28	67	21	3.8	62	45	7.5	13	8	.28
29	57	17	2.6	58	26	4.1	13	8	.28
30	47	16	2.0	61	64	11	12	8	.26
31	36	14	1.4	--	--	--	12	8	.26
TOTAL	799.1	--	38.93	730.2	--	68.25	675	--	50.30

POTOMAC RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	8	.26	16	8	.35	45	24	2.9
2	15	11	.45	15	7	.28	39	22	2.3
3	19	14	.72	17	8	.41	44	24	2.9
4	19	12	.62	32	87	7.5	43	27	3.1
5	23	10	.62	32	75	6.5	36	20	1.9
6	23	12	.75	31	48	4.0	29	19	1.5
7	23	13	.81	29	37	2.9	24	18	1.2
8	22	12	.71	28	32	2.4	23	25	1.6
9	21	11	.62	26	27	1.9	21	30	1.7
10	26	20	1.4	25	25	1.7	20	21	1.1
11	25	29	2.0	23	23	1.4	18	18	.87
12	24	25	1.6	22	22	1.3	18	20	.97
13	23	24	1.5	42	22	2.5	18	19	.92
14	22	56	3.3	80	76	16	20	17	.92
15	21	48	2.7	71	34	6.5	22	17	1.0
16	20	18	.97	58	27	4.2	22	14	.83
17	18	11	.53	47	25	3.2	70	40	7.4
18	17	11	.50	37	22	2.2	65	39	6.8
19	16	11	.48	67	41	7.4	52	37	5.2
20	16	11	.48	67	54	9.8	43	35	4.1
21	16	10	.43	56	50	7.6	35	35	3.3
22	16	7	.30	49	45	6.0	32	34	2.9
23	16	5	.22	45	40	4.9	35	32	3.0
24	17	3	.14	37	34	3.4	29	30	2.3
25	17	8	.37	40	29	3.1	26	26	1.8
26	18	12	.58	66	36	6.4	23	22	1.4
27	17	10	.46	68	40	7.3	21	18	1.0
28	16	10	.43	58	33	5.2	19	15	.77
29	16	10	.43	51	27	3.7	17	13	.60
30	16	10	.43	--	--	--	16	12	.52
31	16	9	.39	--	--	--	16	11	.48
TOTAL	586	--	25.20	1235	--	130.04	941	--	67.28
DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	16	10	.43	28	14	1.1	44	205	24
2	18	9	.44	24	10	.65	42	150	17
3	18	7	.34	26	10	.70	39	125	13
4	18	7	.34	40	58	6.9	38	57	5.8
5	17	8	.37	43	66	7.7	37	43	4.3
6	16	8	.35	42	45	5.1	35	28	2.6
7	17	8	.37	39	32	3.4	30	23	1.9
8	22	11	.65	37	20	2.0	26	26	1.8
9	22	12	.71	37	21	2.1	24	22	1.4
10	20	7	.38	38	23	2.4	22	23	1.4
11	19	6	.31	37	17	1.7	19	25	1.3
12	17	5	.23	35	18	1.7	16	25	1.1
13	31	18	1.5	34	18	1.7	15	23	.93
14	34	20	1.8	32	16	1.4	15	19	.77
15	33	24	2.1	31	11	.92	13	24	.84
16	34	19	1.7	28	11	.83	13	22	.77
17	52	38	5.3	27	11	.80	13	16	.56
18	54	64	9.3	24	9	.58	13	16	.56
19	50	47	6.3	24	10	.65	13	19	.67
20	46	42	5.2	28	17	1.3	13	21	.74
21	42	28	3.2	29	21	1.6	51	20	6.5
22	46	23	2.9	29	13	1.0	404	328	358
23	49	21	2.8	29	11	.86	384	220	228
24	48	24	3.1	26	16	1.1	370	122	122
25	47	28	3.6	25	13	.88	345	98	91
26	43	24	2.8	23	11	.68	331	82	73
27	41	15	1.7	21	13	.74	218	57	34
28	38	13	1.3	18	12	.58	108	42	12
29	36	14	1.4	16	11	.48	103	33	9.2
30	33	17	1.5	16	65	4.5	111	59	18
31	--	--	--	50	375	51	--	--	--
TOTAL	977	--	62.42	936	--	107.05	2905	--	1033.14

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	107	58	17	11	12	.36	9.0	23	.56
2	106	41	12	12	10	.32	8.1	22	.48
3	145	120	46	12	9	.29	7.7	21	.44
4	108	108	31	12	9	.29	6.9	21	.39
5	103	63	18	12	10	.32	6.9	20	.37
6	97	39	10	12	10	.32	6.8	17	.31
7	92	27	6.7	13	11	.39	6.6	16	.29
8	85	24	5.5	20	12	.65	6.5	21	.37
9	80	19	4.1	18	11	.53	6.2	21	.35
10	70	16	3.0	16	11	.48	6.0	20	.32
11	58	14	2.2	13	11	.39	5.6	19	.29
12	50	19	2.6	11	11	.33	5.5	17	.25
13	43	20	2.3	10	11	.30	5.5	15	.22
14	39	25	2.6	9.4	11	.28	5.8	13	.20
15	33	26	2.3	8.2	14	.31	6.9	11	.20
16	33	51	5.7	8.2	15	.33	6.8	12	.22
17	57	154	24	8.0	13	.28	5.8	13	.20
18	48	57	7.4	7.9	12	.26	5.5	12	.18
19	36	34	3.3	7.9	15	.32	5.5	12	.18
20	26	22	1.5	7.9	19	.41	5.2	11	.15
21	21	19	1.1	7.9	13	.28	5.2	11	.15
22	18	21	1.0	7.7	16	.33	5.2	10	.14
23	16	19	.82	6.5	17	.30	5.2	10	.14
24	14	17	.64	6.5	19	.33	4.6	11	.14
25	13	15	.53	6.4	17	.29	4.6	13	.16
26	13	14	.49	6.2	17	.28	4.6	13	.16
27	12	16	.52	6.6	16	.29	4.6	11	.14
28	12	12	.39	31	27	2.3	4.6	11	.14
29	12	16	.52	21	22	1.2	4.6	11	.14
30	12	14	.45	14	14	.53	5.1	11	.15
31	11	13	.39	11	16	.48	--	--	--
TOTAL	1570	--	214.05	354.3	--	13.77	177.1	--	7.43
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									11885.7
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1817.86

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.
						% FINER THAN .004 MM	% FINER THAN .008 MM	% FINER THAN .016 MM	% FINER THAN .031 MM	% FINER THAN .062 MM
JUNE, 1972										
01...	1400	44	18.5	213	25	93	96	98	99	100
22...	1255	404	--	415	453	83	92	96	99	100

POTOMAC RIVER BASIN

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD.

LOCATION.--Lat 38°57'37", long 76°55'34", Prince Georges County, at gaging station at downstream side of bridge on Riverdale Road, in Riverdale, 1.8 miles downstream from Indian Creek, and 1.8 miles upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/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)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
SEP. 20...	28	6.7	20	160	15	3.3	54	5.9	52	38

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (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)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
SEP. 20...	59	.3	4.4	.14	230	213	51	8	3	100

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 20...	1	0	0	2	50	30	34	1.2	.00	0

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 29...	1346	75	18.0	9.7	6.8	215	600
NOV. 24...	1256	51	4.0	13.2	6.6	245	200
DEC. 17...	1230	62	9.0	11.6	6.5	240	140
JAN. 13...	1324	143	10.0	11.0	6.6	215	620
FEB. 11...	1220	66	3.0	10.1	6.8	270	100
MAR. 17...	1253	570	8.0	9.7	6.7	165	3400
APR. 07...	1217	225	9.0	8.2	6.6	155	13000
MAY 10...	1237	162	15.0	8.4	6.5	165	1200
JUNE 09...	1104	49	20.0	9.4	6.9	235	500
JULY 21...	1145	64	25.5	7.7	7.2	255	4800
AUG. 25...	1212	33	24.0	8.6	7.8	300	680
SEP. 20...	1114	28	18.0	10.2	7.6	340	940

01650050 NORTHWEST BRANCH ANACOSTIA RIVER AT NORWOOD, MD.

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

DRAINAGE AREA.-- 2.45 sq mi.

PERIOD OF RECORD.--Sediment records: March 1967 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)
NOV.			
24...	12	121	29
25...	62	228	118
29...	18	92	14
30...	5.0	12	.18
DEC.			
07...	18	105	11
FEB.			
03...	30	588	153
04...	8.6	54	1.8
13...	42	612	114
18...	6.0	131	19
19...	51	490	182
MAR.			
16...	10	193	44
17...	40	247	73
APR.			
16...	19	222	57
17...	21	169	26
MAY			
03...	10	224	11
04...	45	542	211
JUNE			
29...	52	212	146
30...	14	52	2.6
JULY			
02...	44	193	122
03...	13	45	1.8
16...	70	197	179

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- MENT (MG/L)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY)	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., 1972								
04...	0040	24	3.0	181	12	93	98	100

POTOMAC RIVER BASIN

01650085 NURSERY RUN AT CLOVERLY, MD.

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

DRAINAGE AREA.--0.35 sq mi.

PERIOD OF RECORD.--Sediment records: December 1966 to September 1968, October 1968 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 29...	1.6	50	.56
DEC. 07...	1.8	81	.70
FEB. 03...	3.0	341	12
04...	1.0	42	.15
18...	.96	25	.09
19...	4.9	236	8.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE 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. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM
FEB., 1972 13...	1300	4.3	4.0	137	1.6	52	66	85	94	97	100

POTOMAC RIVER BASIN

99

01650450 BEL PRE CREEK AT LAYHILL, MD.

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

DRAINAGE AREA.--1.69 sq mi.

PERIOD OF RECORD.--Sediment records: November 1962 to September 1972 (partial-record station).

SUSPENDED-SEDIMENT DISCHARGE FOR SELECTED DAYS, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV.			
24...	17	393	89
25...	51	544	162
29...	14	400	39
30...	2.9	41	.46
DEC.			
07...	19	438	44
MAR.			
03...	11	443	27
16...	14	556	109
17...	36	549	162
APR.			
16...	18	728	139
17...	15	335	37
MAY			
03...	9.6	488	25
04...	25	984	225
JUNE			
21...	197	1540	2400
22...	184	828	1290
29...	34	1040	227
30...	15	99	6.8
JULY			
02...	35	714	298
03...	21	351	32

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
NOV., 1971								
29...	1615	59	6.0	1080	173	37	46	58
FEB., 1972								
03...	2310	38	3.5	976	100	32	42	50

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
NOV., 1971							
29...	67	77	85	94	100	--	--
FEB., 1972							
03...	59	68	80	92	98	99	100

POTOMAC RIVER BASIN

01650500 NORTHWEST BRANCH ANACOSTIA RIVER NEAR COLESVILLE, MD.

LOCATION.--Lat 39°03'55", long 77°01'48", Montgomery County, at gaging station 400 ft upstream from bridge on State Highway 183, 1.5 miles southwest of Colesville, 3 miles upstream from Burnt Mills, 10 miles upstream from Sligo Branch, and 12.5 miles upstream from confluence with Northeast Branch.

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--Sediment records: October 1962 to September 1972.

EXTREMES.--1971-72:

Sediment concentrations: Maximum daily, 1,090 mg/l June 21; minimum daily, 1 mg/l Nov. 23, Sept. 6-10, 24-27.
Sediment discharge: Maximum daily, 12,800 tons June 21; minimum daily, 0.02 ton Sept. 9-10, 24-27.

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 June 21, 1972; minimum daily, no flow on several days during August and September 1966.

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	16	40	1.7	19	4	.21	27	7	.51
2	32	60	5.2	18	3	.15	23	5	.31
3	17	10	.46	34	36	4.1	21	4	.23
4	13	6	.21	21	8	.45	21	4	.23
5	13	5	.18	18	6	.29	20	3	.16
6	22	35	2.1	18	4	.19	20	3	.16
7	13	10	.35	26	4	.28	130	321	180
8	11	6	.18	19	4	.21	43	30	3.5
9	11	4	.12	18	3	.15	29	10	.78
10	212	896	904	17	3	.14	26	7	.49
11	31	40	3.3	17	3	.14	24	5	.32
12	19	22	1.1	16	2	.09	22	4	.24
13	16	10	.43	16	2	.09	21	3	.17
14	15	8	.32	16	2	.09	20	3	.16
15	14	6	.23	16	2	.09	21	3	.17
16	13	5	.18	16	5	.22	21	3	.17
17	13	5	.18	15	4	.16	21	6	.34
18	13	4	.14	15	3	.12	19	5	.26
19	12	4	.13	15	3	.12	18	4	.19
20	12	4	.13	15	2	.08	31	22	1.8
21	12	3	.10	15	2	.08	23	8	.50
22	12	3	.10	14	2	.08	19	3	.15
23	13	5	.18	13	1	.04	18	3	.15
24	23	20	1.2	42	91	73	20	3	.16
25	246	1010	1060	456	499	974	19	3	.15
26	187	308	224	41	20	2.2	19	2	.10
27	36	15	1.5	29	15	1.2	19	2	.10
28	25	10	.68	25	5	.34	19	2	.10
29	21	8	.45	101	133	117	18	2	.10
30	20	6	.32	48	27	4.6	19	2	.10
31	19	4	.21	--	--	--	18	2	.10
TOTAL	1132	--	2209.38	1149	--	1179.91	789	--	191.90

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	17	2	.09	18	3	.15	38	4	.41
2	54	60	11	21	3	.17	35	4	.38
3	26	6	.42	169	937	1330	88	359	111
4	33	37	4.5	114	292	236	41	20	2.2
5	89	104	28	28	15	1.1	34	9	.83
6	31	14	1.2	24	10	.65	29	6	.47
7	24	10	.65	21	7	.40	28	4	.30
8	22	8	.48	20	10	.54	27	2	.15
9	41	62	18	19	10	.51	25	2	.14
10	59	62	14	18	10	.49	25	2	.14
11	31	8	.67	18	8	.39	24	2	.13
12	26	6	.42	19	6	.31	25	2	.14
13	25	5	.34	295	1080	1340	27	2	.15
14	27	8	.58	65	96	20	36	28	3.0
15	22	7	.42	37	20	2.0	30	10	.81
16	18	6	.29	30	10	.81	46	177	94
17	17	25	1.1	28	6	.45	308	719	1060
18	19	8	.41	40	131	36	46	20	2.5
19	21	6	.34	353	550	788	35	15	1.4
20	21	4	.23	59	20	3.2	31	9	.75
21	22	6	.36	42	15	1.7	29	7	.55
22	22	4	.24	45	73	8.9	72	291	87
23	25	6	.41	37	20	2.0	43	40	4.6
24	36	79	9.2	46	45	7.7	32	30	2.6
25	26	10	.70	114	202	77	29	25	2.0
26	21	7	.40	203	482	464	28	20	1.5
27	19	4	.21	56	10	1.5	27	15	1.1
28	25	6	.41	46	7	.87	26	11	.77
29	23	4	.25	42	5	.57	26	9	.63
30	22	4	.24	--	--	--	25	8	.54
31	20	3	.16	--	--	--	25	7	.47
TOTAL	684	--	95.72	2027	--	4325.41	1340	--	1380.66

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	25	10	.68	26	6	.42	32	54	5.3
2	36	40	3.9	27	36	3.0	21	10	.57
3	26	9	.63	82	171	41	19	5	.26
4	31	17	1.4	301	988	1290	47	421	333
5	27	10	.73	51	121	16	75	618	391
6	26	15	1.1	35	20	1.9	24	30	1.9
7	43	60	9.1	31	10	.84	22	17	1.0
8	47	31	3.7	30	7	.57	19	10	.51
9	33	16	1.4	94	105	30	17	9	.41
10	28	10	.76	46	10	1.2	16	8	.35
11	27	7	.51	32	2	.17	16	7	.30
12	25	5	.34	28	2	.15	15	6	.24
13	161	660	367	26	2	.14	17	15	.69
14	49	36	4.8	31	15	1.3	21	10	.57
15	68	193	50	30	8	.65	17	10	.46
16	104	433	404	28	7	.53	16	9	.39
17	175	505	528	25	6	.41	20	96	7.0
18	42	30	3.4	23	5	.31	24	107	11
19	34	20	1.8	34	33	7.9	20	35	1.9
20	32	13	1.1	95	449	107	19	40	2.1
21	29	10	.78	39	60	6.7	625	1090	12800
22	194	676	531	39	43	6.7	2370	476	7340
23	60	40	6.5	33	18	1.7	200	272	169
24	52	70	9.8	25	6	.41	66	50	8.9
25	38	15	1.5	23	5	.31	56	30	4.5
26	32	10	.86	21	5	.28	37	17	1.7
27	30	8	.65	21	5	.28	31	15	1.3
28	28	7	.53	21	5	.28	30	14	1.1
29	27	7	.51	20	5	.27	159	340	364
30	27	6	.44	22	12	1.2	193	287	400
31	--	--	--	43	119	17	--	--	--
TOTAL	1556	--	1936.92	1382	--	1538.62	4244	--	21849.45

POTOMAC RIVER BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	45	25	3.0	17	3	.14	10	10	.27
2	194	563	1250	16	3	.13	11	7	.21
3	239	604	641	16	2	.09	11	4	.12
4	56	60	9.1	20	8	.43	11	3	.09
5	41	25	2.8	19	10	.51	11	2	.06
6	35	15	1.4	15	2	.08	10	1	.03
7	29	10	.78	17	5	.23	9.7	1	.03
8	47	100	25	22	10	.59	9.3	1	.03
9	31	15	1.3	15	5	.20	9.2	1	.02
10	25	10	.68	14	3	.11	8.5	1	.02
11	23	10	.62	14	2	.08	9.4	2	.05
12	22	10	.59	13	2	.07	10	5	.14
13	48	123	28	15	6	.24	9.2	3	.07
14	27	20	1.5	15	8	.32	14	20	.76
15	23	10	.62	13	5	.18	11	14	.42
16	160	551	903	12	2	.06	9.0	8	.19
17	85	160	82	17	3	.14	8.5	4	.09
18	31	15	1.3	15	2	.08	15	60	5.9
19	26	10	.70	14	2	.08	10	26	.70
20	22	7	.42	13	2	.07	8.3	5	.11
21	21	5	.28	11	2	.06	8.7	4	.09
22	20	3	.16	9.9	2	.05	9.3	3	.08
23	19	3	.15	9.9	2	.05	8.3	2	.04
24	17	2	.09	9.5	2	.05	8.2	1	.02
25	17	2	.09	9.4	2	.05	8.5	1	.02
26	15	2	.08	9.9	2	.05	8.2	1	.02
27	15	2	.08	23	172	117	9.9	1	.02
28	17	3	.14	98	582	513	9.9	5	.13
29	17	3	.14	15	15	.61	9.0	5	.07
30	18	4	.19	12	10	.32	13	10	.35
31	18	4	.19	11	23	.68	--	--	--
TOTAL	1403	--	2955.40	530.6	--	635.75	296.3	--	10.15
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									16732.9
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									38309.27

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, FOR SELECTED DAYS, WATER YEAR 1972

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	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
NOV., 1971							
29...	1640	213	6.0	736	423	32	46
FEB., 1972							
03...	2235	626	3.5	2360	4000	29	41
DATE		SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
NOV., 1971							
29...		55	67	76	84	95	100
FEB., 1972							
03...		56	67	79	90	98	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 downstream from Sligo Branch, 1 mile west of Hyattsville, and 1.6 miles upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/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 (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
SEP. 20...	16	10	40	330	18	4.3	8.5	3.6	58	16
DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (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)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
SEP. 20...	12	.2	4.9	.17	119	106	63	15	4	0
DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TUR- BID- ITY (JTU)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (CN) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 20...	0	0	10	1	20	10	16	3.4	.01	2

ON-SITE DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	TIME	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. 29...	1419	33	18.0	10.2	6.9	175	740
NOV. 24...	1416	26	3.0	13.2	6.9	190	840
DEC. 17...	1315	33	9.0	11.6	6.9	175	620
JAN. 13...	1400	57	10.0	10.9	6.9	150	6000
FEB. 11...	1305	30	2.0	10.8	7.0	180	94
MAR. 17...	1345	305	9.0	10.6	6.5	105	4000
APR. 07...	1340	277	9.0	8.5	6.6	135	9400
MAY 10...	1320	78	16.0	8.7	6.7	150	1900
JUNE 09...	1150	30	20.5	9.4	7.8	180	260
JULY 21...	1230	36	25.0	3.0	7.0	265	8300000
AUG. 25...	1245	16	24.0	1.3	7.0	265	170000
SEP. 20...	1340	16	18.0	9.3	7.5	185	867000

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

POTOMAC RIVER BASIN

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 downstream from gaging station, and 3.4 miles upstream from mouth.

DRAINAGE AREA.--61 sq mi, approximately.

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

CHEMICAL ANALYSES, JULY TO SEPTEMBER 1972

DATE	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
SEP. 29...	8.1	210	80	17	4.0	15	3.8	44	23	20

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED ALUMINUM (AL) (UG/L)
SEP. 29...	.3	4.9	.64	133	118	59	23	5	400

DATE	DIS-SOLVED CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TURBIDITY (JTU)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
SEP. 29...	1	0	0	2	20	10	2.2	.00	1

ON-SITE DATA, JULY TO SEPTEMBER 1972

DATE	TIME	TEMPERATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	FECAL COLIFORM (COL. PER 100 ML)
JULY 21...	1030	22.0	7.5	6.7	135	1100
AUG. 25...	1030	20.5	7.0	7.1	205	95

01661000 CHAPTICO CREEK AT CHAPTICO, MD.

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

DRAINAGE AREA.--10.7 sq mi.

PERIOD OF RECORD.--Chemical analyses: December 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT. 28...	15	12	1000	13	8.2	2.7	3.3	2.2	22	12
JAN. 05...	39	8.8	2100	310	6.7	2.0	2.8	2.4	14	10
MAR. 01...	22	8.0	290	60	6.2	2.3	3.0	1.8	11	13
MAY 01...	12	8.1	670	100	6.4	2.1	2.9	1.4	15	9.6
AUG. 04...	20	10	1100	80	8.0	2.4	3.0	1.6	21	9.0

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT. 28...	6.5	.2	1.9	60	32	14	10	--	92	6.9
JAN. 05...	5.8	.1	3.7	49	25	13	30	--	78	6.2
MAR. 01...	5.0	.1	3.6	48	25	16	5	8.5	78	6.2
MAY 01...	5.0	.1	1.7	44	25	12	5	18.5	69	6.5
AUG. 04...	5.4	.1	3.5	53	30	13	--	21.5	81	7.1

OHIO RIVER BASIN
MONONGAHELA RIVER BASIN

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD.

LOCATION.--Lat 39°39'13", long 79°24'31", Garrett County, temperature recorder at gaging station on left bank 0.7 mile upstream from bridge on State Highway 42 at Friendsville, and 1.5 miles upstream from Bear Creek.

DRAINAGE AREA.--295 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1962 to September 1972.

EXTREMES.--1971-72:

Water temperatures: Maximum, 27.0°C July 24; minimum, freezing point on many days during winter months.

Period of record:

Water temperatures: Maximum, 29.5°C June 27, 28, 1969; minimum, freezing point on many days during winter months.

REMARKS.--Records fair, probably because of friction in recorder. No temperature record Sept. 12-19.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
(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	16.0	14.0	13.5	3.5	3.0	4.0	3.0	0.5	0.0	4.0	3.0
2	16.5	16.5	15.0	14.0	3.0	2.5	3.5	3.0	0.5	0.5	4.0	4.0
3	17.0	16.5	14.5	13.0	2.5	1.5	3.5	3.0	0.5	0.0	4.0	2.5
4	17.0	16.5	13.0	10.0	2.0	1.0	3.5	3.0	0.0	0.0	2.5	2.0
5	17.0	16.0	10.5	8.5	1.5	1.0	3.5	3.5	0.0	0.0	2.5	2.5
6	16.5	15.0	10.0	8.5	3.5	1.5	3.5	2.0	0.0	0.0	2.5	1.0
7	15.5	13.5	9.0	6.0	5.5	3.5	2.0	1.5	0.0	0.0	4.5	2.0
8	14.0	11.5	6.0	4.5	6.5	5.5	1.5	1.0	0.0	0.0	4.5	3.0
9	14.0	13.0	7.0	5.0	7.0	6.5	2.5	1.0	0.0	0.0	3.0	1.5
10	13.5	12.0	7.0	6.0	8.0	7.0	4.0	2.5	0.0	0.0	2.0	1.5
11	14.0	11.0	7.0	6.0	8.0	7.0	5.5	4.0	0.0	0.0	2.5	1.5
12	14.0	11.5	8.5	6.5	7.0	6.0	5.5	4.5	0.0	0.0	4.5	2.5
13	14.0	11.5	9.5	8.0	6.5	5.5	5.5	4.5	0.0	0.0	6.0	4.5
14	15.0	13.0	8.5	7.0	5.5	4.5	4.5	4.0	0.0	0.0	6.0	5.0
15	15.0	12.5	9.5	7.5	7.0	4.5	4.0	0.5	0.0	0.0	5.0	4.0
16	15.0	13.5	9.5	8.5	7.0	6.5	0.5	0.5	0.0	0.0	4.5	4.0
17	15.0	13.5	9.5	8.0	7.0	4.5	0.5	0.0	0.0	0.0	5.0	4.5
18	14.5	13.5	9.5	7.5	4.5	1.5	1.5	0.0	0.0	0.0	5.0	4.0
19	14.5	12.0	9.5	9.0	1.5	0.0	2.0	1.0	0.0	0.0	5.0	4.0
20	14.5	13.0	8.5	6.5	4.0	1.5	2.5	1.0	0.0	0.0	5.0	4.0
21	15.0	12.5	6.5	3.0	4.5	4.0	3.0	2.5	0.0	0.0	5.5	4.0
22	15.0	13.5	3.5	1.5	4.5	3.0	4.5	3.0	0.0	0.0	5.5	5.5
23	14.5	14.5	3.5	2.0	3.0	2.0	5.5	4.5	0.0	0.0	5.5	3.0
24	14.5	14.0	3.5	0.5	3.5	2.5	6.0	5.5	0.0	0.0	3.0	2.5
25	14.0	13.5	2.5	1.0	3.5	3.5	5.5	3.0	1.0	0.0	2.5	1.5
26	14.0	13.5	3.5	1.0	6.5	3.5	3.0	1.5	1.0	1.0	3.5	2.5
27	15.0	13.0	3.5	3.0	7.0	6.5	1.5	0.5	1.5	1.0	3.5	3.0
28	15.0	13.0	3.0	3.0	7.5	5.5	0.5	0.0	3.0	1.5	5.0	3.0
29	15.0	12.5	3.5	2.5	5.5	4.0	0.5	0.0	4.0	3.0	4.0	3.0
30	14.5	13.0	3.5	3.5	5.5	4.5	0.5	0.5	---	---	4.0	3.0
31	14.0	13.5	---	---	5.5	4.0	0.5	0.0	---	---	5.0	3.0
MONTH	17.0	11.0	15.0	0.5	8.0	0.0	6.0	0.0	4.0	0.0	6.0	1.0

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

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD.

LOCATION.--Lat 39°42'08", long 79°08'12", Garrett County, at gaging station on left bank at downstream side of highway bridge, 0.3 mile upstream from Slaubough Run, 0.7 mile downstream from U. S. Highway 40, and 1.0 mile northeast of Grantsville.

DRAINAGE AREA.--62.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1965 to September 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.										
07...	47	4.9	410	50	11	2.9	3.4	1.3	18	24
DEC.										
14...	166	3.1	200	130	7.8	2.3	3.0	1.0	8	20
FEB.										
03...	70	3.9	120	150	9.3	2.7	4.5	1.1	10	21
MAR.										
03...	1320	2.4	250	280	5.7	1.4	2.1	1.1	2	16
23...	233	3.2	110	160	7.7	2.1	5.2	1.1	7	19
MAY										
18...	163	3.7	280	160	7.8	2.2	2.7	.7	9	18
JULY										
18...	47	4.1	490	150	12	2.9	3.3	1.0	17	22
SEP.										
18...	24	2.7	570	260	18	4.2	7.0	2.1	34	31

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	COLOR (PLAT- INUM- COBALT UNITS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.										
07...	7.0	.1	.80	64	40	25	5	--	112	7.0
DEC.										
14...	5.3	.1	1.9	48	29	23	--	2.0	91	6.7
FEB.										
03...	9.2	.1	2.0	59	34	26	0	.0	108	6.4
MAR.										
03...	4.2	.1	2.7	37	20	19	0	1.0	67	6.2
23...	9.7	.1	2.3	53	28	22	0	.0	97	6.2
MAY										
18...	5.2	.1	3.5	48	29	21	--	12.5	87	6.5
JULY										
18...	6.5	.1	.44	61	42	28	--	19.0	109	6.7
SEP.										
18...	12	.1	4.0	98	62	34	--	--	167	7.2

INDEX

	Page		Page
Anacostia River, Northeast Branch at Riverdale, Md.	96	Nanticoke River basin	48-49
Northwest Branch, at Norwood, Md.	97	North Atlantic slope basins	15-105
near Colesville, Md.	100-102	North Branch Rock Creek near Norbeck, Md.	91
near Hyattsville, Md.	103	near Rockville, Md.	93-95
Antietam Creek near Sharpsburg, Md.	75-77	North Branch Potomac River at Barnum, W. Va.	58-59
near Waynesboro, Pa.	74	at Kitzmiller, Md.	57
Beaverdam Creek near Salisbury, Md.	47	at Luke, Md.	60
Bel Pre Creek at Layhill, Md.	99	at Pinto, Md.	62
Bennett Creek at Park Mills, Md.	88	near Cumberland, Md.	63-67
Brandywine Creek at Chadds Ford, Pa.	19-27	Northeast Br. Anacostia River at Riverdale, Md.	96
at Wilmington, Del.	28-31	Northwest Branch Anacostia River at Norwood, Md.	97
Bush River basin	53	near Colesville, Md.	100-102
Bynum Run at Bel Air, Md.	53	near Hyattsville, Md.	103
Casselman River at Grantsville, Md.	107	Nursery Run at Cloverly, Md.	98
Cfs-day, definition of	2	Ohio River basin	106-107
Chaptico Creek at Chaptico, Md.	105	Partial-record station, definition of	4
Choptank River basin	50-51	Particle size, definition of	4
Choptank River near Greensboro, Md.	50-51	Particle-size classification, definition of	4
Coliform organisms, definition of	2	Patapsco River at Hollofield, Md.	55
Collection and examination of data	8-11	South Branch at Henryton, Md.	54
Conococheague Creek at Fairview, Md.	70-73	Patapsco River basin	54-56
Cooperation, record of	3	Picocurie, definition of	4
Cubic foot per second, definition of	2	Piscataway Creek near South Piscataway, Md.	104
Deer Creek at Rocks, Md.	52	Potomac River at Hancock, Md.	68-69
Definition of terms	2-7	at Point of Rocks, Md.	78-81
Delaware Bay at Ship John Shoal Lighthouse, N.J.	15-17	North Branch, at Barnum, W. Va.	58-59
Delaware River, at Delaware Memorial Bridge, Wilmington, Del.	32-38	at Kitzmiller, Md.	57
at Reedy Island Jetty, Del.	39-45	at Luke, Md.	60
Delaware River basin	18-45	at Pinto, Md.	62
Discharge, definition of	3	near Cumberland, Md.	63-67
Downstream order and station number	7-8	Potomac River basin	57-105
Drainage area, definition of	3	Publications	11
Drainage basin, definition of	3	Red Clay Creek at Wooddale, Del.	18
East Branch Herbert Run at Arbutus, Md.	56	Rock Creek, North Branch near Norbeck, Md.	91
Factors for converting English units to International System (SI) units	14	near Rockville, Md.	93-95
Gaging station, definition of	3	St. Jones River at Dover, Del.	46
Georges Creek at Franklin, Md.	61	St. Jones River basin	46
Gunpowder River basin	53	Sediment, definition of	6
Gwynns Falls at Villa Nova, Md.	56	Sediment, explanation of	10-11
Hardness, definition of	3	Selected references	11-13
Herbert Run, East Branch at Arbutus, Md.	56	Seneca Creek at Dawsonville, Md.	89
Instantaneous discharge, definition of	3	Solute, definition of	6
Introduction	1	Solutes, explanation of	9-10
Manor Run near Norbeck, Md.	92	South Branch Patapsco River at Henryton, Md.	54
Mean concentration, definition of	6	Specific conductance, definition of	6
Mean discharge, definition of	3	Station number, explanation of	7-8
Methylene blue active substance, definition of	3	Streamflow, definition of	7
Micrograms per liter, definition of	3	Suspended sediment, definition of	6
Milligrams per liter, definition of	4	Suspended-sediment concentration, definition of	6
Monocacy River at Bridgeport, Md.	82	Suspended-sediment discharge, definition of	6
at Reich's Ford Bridge near Frederick, Md.	83-87	Susquehanna River basin	52
Monongahela River basin	106-107	Temperature, explanation of	10
Nanticoke River at Sharptown, Md.	49	Thermograph, definition of	7
Nanticoke River near Bridgeville, Del.	48	Total sediment discharge, definition of	6
		Water Quality records	15-107
		Whitemarsh Run at White Marsh, Md.	53
		Wicomico River basin	47
		Williamsburg Run near Olney, Md.	90
		Youghiogheny River at Friendsville, Md.	106

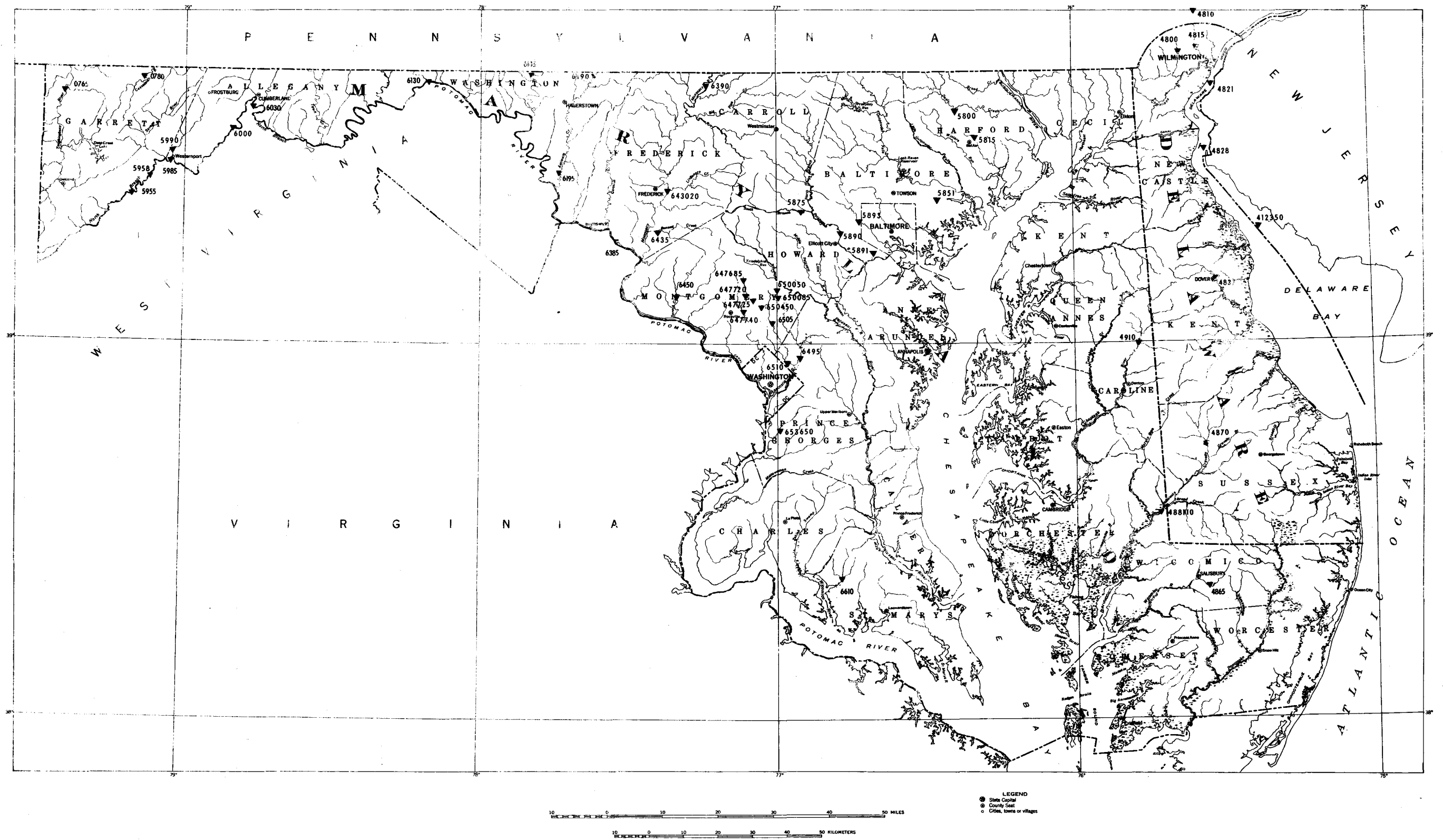


Figure 1.—Map of Maryland and Delaware showing locations of water-quality stations

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